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A Revision of the Subfamily Coelidiinae (Homoptera: Cicadellidae)

II. Tribe Thagriini

By M. W. Nielson

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A REVISION OF THE SUBFAMILY COELIDIINAE (HOMOPTERA: CICADELLIDAE)

II. Tribe Thagriini¹

By

M. W. Nielson²

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Abstract: This paper is the 2nd part of a world-wide revision of the 6 tribes of the subfamily Coelidiinae; the 1st dealt with the tribes Tinobregmini, Sandersellini, and Tharrini. Members of the tribe Thagriini occur almost exclusively in the Oriental and Australian regions. The tribe is fully revised and redefined primarily on the basis of the male genitalia. A key is given to the genera and species, with descriptions and illustrations of their diagnostic features. Two valid genera are recognized, 1 new genus and *Thagria* Melichar. Two species are described as new in *Tahara*, n. gen. In the genus *Thagria* 135 species are treated of which 101 are described as new. Seven generic and 14 specific names are suppressed. A separate checklist, with synonyms, is given for the genera and species of the tribe.

INTRODUCTION

A modern taxonomic reconstruction of the subfamily Coelidiinae began when the first revisional study of the tribes Tinobregmini, Sandersellini, and Tharrini was published (Nielson 1975).

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As a continuation of this study I have prepared this paper covering exclusively the tribe Thagriini, a large and unique group of leafhoppers of the Oriental and Australian regions. Leafhoppers of the tribe Thagriini are not taxonomically exclusive of other major taxa of the subfamily; they appear to have affinities common to Tharrini but are phylogenetically removed from Teruliini⁸ and Coelidiini. The tribes Thagriini (thagriids) and Tharrini (tharrids) may possibly have evolved separately from a remote common ancestor. The biology of all the species is unknown.

The basic concepts of the tribe have changed from the earlier definitions of Distant (1908) and Baker (1915) to those proposed herein. Gross morphological characters of the head have been supplanted by characters of the male genitalia as the basis for classifying not only the tribe, but also the genera and species. Thus, several genera have been suppressed whereas others have been relegated to other groups.

The tribe is extremely rich in species, but it includes only 2 valid genera, *Tahara*, a new genus, and *Thagria*. The remaining 7 generic names found referable to the tribe are suppressed. Among 151 specific names treated, 137 are valid species, 103 are described as new, 31 are new combinations, only 3 are original combinations, and 14 are suppressed.

Material for study has been provided by many institutions and 1 private collection. Abbreviations for these collections, as indicated, are used throughout this work:

AMNH	American Museum of Natural History, New York	
AMS	Australian Museum, Sydney, Australia	
Bishop	Bishop Museum, Honolulu, Hawaii	
CAS	California Academy of Sciences, San Francisco	
BMNH	British Museum (Natural History), London, England	
EIHU	Entomological Institute, Hokaido University, Sapporo, Japan	
EUM	Ehime University, Matsuyama, Japan	
ISA	Iowa State University, Ames	
KUFJ	Kyushu University, Fukuoka, Japan	
LTF	Collection of Rauno Linnavouri, Turku, Finland	
MAK	Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn, West	
	Germany	
MMB	Moravian Museum, Brno, Czechoslovakia	
MNHU	Museum für Naturkunde der Humboldt-Universität zu Berlin	
NCSR	North Carolina State University, Raleigh	
NR	Naturhistoriska Riksmuseum, Stockholm, Sweden	
OSUC	Ohio State University, Columbus	
\mathbf{SMTD}	Staatlische Museum für Tierkunde, Dresden, East Germany	
\mathbf{TM}	Termeszettudomanyi Muzeum, Budapest, Hungary	
$\rm UKL$	University of Kansas, Lawrence	
USNM	U. S. National Museum, Washington, D.C.	
UZM	Universitetets Zoologiske Museum, Copenhagen, Denmark	
ZMU	Zoological Museum of the University, Helsinki, Finland	

SYSTEMATICS

Distant (1908) first proposed the division Thagriaria (Thagriini) in his study of the cicadellid fauna of India, Sri Lanka (Ceylon) and Burma. In this work he grouped 5 genera, *Thagria* Melichar, *Mukwana* Distant, *Pugla* Distant, *Soortana* Distant, and *Varta* Distant on the similarity of head characters.

3. Designated as new tribe in a key to the tribes of Coelidiinae in a previous work (Nielson 1975).

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Baker's (1915) treatment of the Philippine fauna combined the divisions of Jassusaria (Coelidiinae in part) and Thagriaria (Coelidiinae in part) into 1 division, the Jassaria, all on the basis of similar gross head and body characters. Twenty-five genera were included but only 12 were referable to Coelidiinae (Nielson 1975). Six of the 12 genera belong to the tribe Thagrini.

Schumacher (1915) described Sabimamorpha from Taiwan as a close relative of Sabima Distant and placed the genus in Thagriini. I have not seen the type-species, but based on the original description, illustration of the ventral aspect of the head, and determined material, I have concluded that the genus neither belongs in the tribe, nor in the subfamily Coelidiinae, as presently defined.

The taxonomic relationship between Thagriaria and Coelidiinae was reviewed briefly by Evans (1947). Several genera treated by Distant were included in Coelidiinae by Evans, but he did not assign them to tribes. Metcalf (1964) listed only 4 genera in Thagriini: *Thagria, Mukwana, Soortana*, and *Dardania* Stål.

Among the many genera thus treated, only 6, *Thagria, Sabima, Dharmma* Distant, *Soortana, Guliga* Distant, and *Mukwana* are applicable to the tribe Thagriini. The last 5 genera have been suppressed in this paper as junior synonyms of *Thagria*. Two additional genera, *Orthojassus* Jacobi and *Sabimoides* Evans, assigned to the tribe Coelidiini by Evans (1947) and Metcalf (1964), and now transferred herein to Thagriini, are also junior synonyms of *Thagria*.

The tribe Thagriini as presently constituted now contains only 2 valid genera, *Thagria* and 1 new genus, *Tahara*. The change in the taxonomy of the group from an artificial arrangement in Distant's and Baker's time to a more natural classification presented herein was a culmination of 60 years of contributions by several leafhopper taxonomists and by my own study of 137 species of the group. The species concept has likewise changed from one based on external morphology of the head to the present one based on the male genital characters. The unique combination of the simple, tubular aedeagus and large ventral paraphysis clearly defines the generic limits of *Thagria*.

All of the species studied and found referable to Thagriini are treated herein with the possible exceptions of *Jassus egregius* Schumacher and *Jassus mindanaoensis* Merino. I have not seen the types of either species. The former may no longer be extant, and the latter was destroyed during World War II. The original descriptions are inadequate to properly place the species generically or to associate them with other described species of the genus *Thagria*.

MORPHOLOGY

The general morphology of the subfamily Coelidiinae was treated in an earlier paper by Nielson (1975), which dealt primarily with the tribes Tinobregmini, Sandersellini and Tharrini. In this paper the general morphology is confined to the tribe Thagriini.

Leafhoppers of the tribe Thagriini resemble robust issid or orgerine fulgoroids in general habitus and vary in size from 4 to 10 mm. Many species are brightly colored, but the majority are ochraceous or fuscous with small irregular shaped markings on the elytra. Sexual dimorphism is apparent among several species.

Their heads are always narrower than the pronotum. The anterior margin of the crown is always produced beyond the anterior margin of the eyes, but generally the crown is short and broad. A few species representing primitive forms have very long, narrow heads, a useful diagnostic character for the group. Laterally, the crown may be prominently carinate, particularly in forms from Sri Lanka and southern India. Numerous striations are prominently displayed on the disk, radiating basally from the middle of the anterior margin of the crown. The ocelli are small but prominent, and are situated near or on the anterior margin of the crown. The position of the occelli in relation to the distance from the lateral margins of the crown is useful for separating several species. The eyes are large, semiglobular or elongate-ovoid, and occupy from 1/2 to about 2/3 of the entire dorsal area of the head.

The pronotum is large, often longer medially than the median length of the crown. In a few species there is a median longitudinal carina arising anteriorly which may or may not be complete to the posterior margin. In species where the carina is present, it is often absent in the females. Numerous bullae or knobs are present on the surface in most species. The triangulate scutellum is large, nearly always longer than the median length of the pronotum.

The elytra are elongate, but not narrow. The venation is usually prominent. The appendix is well developed in most species. Five apical cells are present and the outer anteapical cell is closed in all species. The inner anteapical cell is closed in 4 species of *Thagria* (connorensis, simulata, pulchella, and fryeri), a rare condition that does not occur in any other group of the subfamily.

On the face, the clypeus occupies the greater part and is always longer than broad. In general, however, the clypeus is comparatively broader in the Thagriini than in Tharrini. The lateral margins are either parallel or convex, usually excised medially near the base of the antennal fossa and rarely carinate. The surface is flat or slightly tumid, finely granulose basally, and rugulose along anterior margin. A median longitudinal carina is present in *Tahara* and absent in all species of *Thagria*. The clypellus is short and broad, but longer than wide. Basally, the clypellus is swollen transversely and wider than the base of the clypeus, a diagnostic character in the males only of about 1/3 of the species of *Thagria*.

The male genitalia of the tribe Thagriini are unique. Separation of the tribe, genera, and species can be done without recourse to gross head characters or general habitus. The male pygofer is distinctive by virtue of its large, prominent caudoventral lobe, and presence of 1 to 3 pairs of prominent processes on the caudodorsal margin. Each pair of processes varies in length and shape, from simple to ornate, with or without secondary processes, which are useful characters for species differentiation. In *Tahara* the lobe is lacking and 1 or 2 pairs of processes are present on the caudal margin.

The valve is fused ventrally to the pygofer and is concealed by the 8th sternum in all species. Distad of the valve are the plates, which function as the floor of the 9th segment to which the styles are attached. These structures are very long and narrow in *Thagria*, long and broad in *Tahara*, and are covered with long microsetae or with uniseriate macrosetae on outer lateral margin. The plates are also segmented subbasally, a feature unique among the tribes Thagriini and Tharrini.

The 10th segment is also unique in *Thagria*. It is a collar-like structure behind the anal tube that usually has paired lateral extensions or processes which, when present, vary in length and shape. In some species the processes are very ornate with secondary processes. Tenth segment processes are lacking in *Tahara*.

Ventrad of the 10th segment lies the dorsal apodeme, a heavily sclerotized, broadly Y-shaped structure with long, narrow arms attached distally to the lateral angles of the 10th segment and with a short stem attached basally by membrane to the base of the aedeagus. In *Tahara* the dorsal apodeme is a long, narrow, heavily sclerotized plate with very short, broad, distal arms.

The aedeagus in *Thagria* is a simple, symmetrical, tube-like structure with a broad base. It is slightly asymmetrical in a few species and varies greatly in length. Dorsally it lies on or deeply in a large, triangulate or narrow, elongate ventral plate, the paraphysis, and is attached basally to and articulates freely with the base of this structure by means of a membrane. The gonoduct com-

pletely traverses the aedeagal shaft and always exits apically through the gonopore. In *Tahara*, the aedeagus is a long structure which is slightly compressed laterally and has a pair of long, very slender basal processes arising laterally or ventrally. The gonoduct traverses the shaft and exits apically.

Among the various internal structures, the paraphysis is perhaps the most diagnostic character. It is attached basally to the apex of the connective. In association with the aedeagus, this structure readily separates *Thagria* from all other known genera of the subfamily. At the species level, it is extremely diagnostic and may be symmetrical or asymmetrical, with or without paired basal or lateral processes on the dorsal margin, and/or with or without a ventral keeled process.

The connective is a broad plate with a short posterior stem and short anterior arms. In *Thagria* it is attached distally to and articulates freely with the base of the ventral paraphysis, whereas in *Tahara* it is similarly attached to the aedeagus. *Tahara* lacks paraphyses.

The style is a prominent, diagnostic structure for separating many species of Thagrini. It lies on the same plane as the connective and aedeagal paraphysis (*Thagria*) or connective and aedeagus (*Tahara*). In dorsal view the style extends distally to the base or considerably beyond the apex of the aedeagal paraphysis. In several species the apex is strongly hooked, and in others it is bifurcate or with secondary processes.

The female 7th sternum is a poor character for separating species of *Thagria* and *Tahara*. In general the structure is large, about three times as long as the penultimate segment. The caudal margin is usually produced medially, rarely truncate, and rarely with lateral, caudal projections.

ZOOGEOGRAPHY

Treatment of the zoogeography of the subfamily Coelidiinae is restricted herein to the Tribe Thagriini. A general view of the distribution of the subfamily as a whole may be found in an earlier paper by Nielson (1975).

The tribe Thagriini is a large group that occurs almost entirely in the Oriental and Australian regions. Most of the species are rare. Members of the genus *Tahara* are known only from New Guinea. Among the 135 known species of *Thagria*, nearly 100 occupy the eastern 1/2 of the Oriental region from West Malaysia east to Borneo, north to the Philippines and southern Japan, and the west central area of the Australian region from Sulawesi east to Fiji. The remaining species occur in Indo-China west to India and Sri Lanka. The tribe is not represented in Australia, Micronesia, or Polynesia.

The range of Thagriini is similar to that of Tharrini, except the former has a greater western distribution whereas the latter has a more extensive eastern distribution. Generic development has been retarded in both tribes; whereas the species have proliferated freely. Fully 2/3 of the species of *Thagria* are endemic to the South Pacific islands and adjacent large land masses, the remainder having their origin on the continent in the Oriental region.

The lack of representatives in Australia proper, species diversity, and island endemism clearly suggest that Thagriini is of Indo-Malayan origin. My earlier work on the Tharrini and Linnavuori's (1960a, 1960b) study of the cicadellid fauna of Fiji and Micronesia appears to substantiate the Indo-Malayan origin of these tribes. Moreover, there appears to be a relationship between these fauna (Thagriini, Tharrini) of Melanesia, Indonesia, Malaysia, the Philippine Islands, and southern Japan and the fauna (Tharrini) of Micronesia, as suggested by Linnavuori (1960b) for other cicadellid groups.

TECHNIQUES

The details of preparation of genital structures of leafhoppers for dissection and study are given by Oman (1949). I have followed his method with some modifications. The bodies of most thagriid leafhoppers are heavily sclerotized and require a long time for KOH to clear the internal viscera. A system was devised in which the abdomens of 40–50 coded leafhoppers were cleared simultaneously by allowing the structures to soak overnight at room temperature in a saturated solution of KOH. The following day individual abdomens were washed in distilled H_2O , transferred to 10% acidulated H_2O , then washed in distilled H_2O before examination and storage in glycerated microvials.

All illustrations were prepared freehand with the aid of an ocular grid. The internal male structures were drawn at ocular magnifications of $90 \times$ to $120 \times$ and the external structures at lesser magnification, depending upon the size of the species. The characters illustrated are not always shown in detail, particularly setae which were too numerous on the male pygofer and plate. The female 7th sternum and head were included whenever they were diagnostic.

Key to the tribes of Coelidinae

1.	Base of elytra exposed
	Base of elytra concealedTinobregmini Oman
2(1).	Pronotum unicarinate laterally
	Pronotum bicarinate laterally
3(2).	Male plate segmented subbasally, often appressed laterally4
	Male plate entire, usually ventrally appressed to pygofer5
4(3).	Aedeagus bipendulate (unipendulate in Neotharra), without paraphysis; style clawed or hooked
	apically; plate elliptical, subglobular, or subquadrate
	Aedeagus not bipendulate, with large ventral paraphysis articulated basally with connective
	or with paired, long slender processes arising from base of aedeagus; style usually
	lanceolate; plate long and very narrow Thagriini Distant
5(3).	Clypeus with complete median longitudinal carinaTeruliini Nielson ³
	$Clypeus \ without \ median \ longitudinal \ carina \ or \ with \ partially \ complete \ carina \dots Coelidiini \ Oshanin$

TRIBE THAGRIINI Distant

Thagriaria Distant, 1908: 314.

Type-genus: Thagria Melichar.

Small to medium size leafhoppers. Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, lateral margins sometimes carinate; ocelli on or near anterior margin of crown; eyes large, occupying the greater part of the dorsal area of head; pronotum large, surface usually knobbed; scutellum large; elytra well developed, veins distinct, outer anteapical cell closed; inner anteapical cell closed in a few species of *Thagria*, appendix well developed; clypeus elongate, rarely with median longitudinal carina, lateral margin often parallel or convex; clypellus short, often very broad and swollen basally; setal arrangement on hind femur 2:2:1. \Im genitalia symmetrical or asymmetrical; aedeagus well developed in *Tahara* with ventral paired appendages; simple, tube-like in *Thagria* with large, well-developed ventral paraphysis; plate segmented subbasally.

The tribe occurs primarily in the Oriental region with its range extending as far north as Japan in the Palearctic region and as far east as New Guinea in the Australian region. Two genera are recognized, *Tahara*, n. gen. and *Thagria* Melichar. The tribe Thagriini is related to Tharrini but distinct from Teruliini and Coelidiini by the combination of characters of the segmented plates and paraphyses or basal appendages of the aedeagus.

Key to genera of Thagriini

GENUS **Tahara**, new genus Fig. 1–10.

Type-species: Tahara quadrispiculata Nielson, n. sp.

Medium size leafhoppers. Similar in general habitus to *Thagria* but with some \mathcal{J} genitalia characteristics of *Tharra*. Color dark ochre with pale ivory or golden markings on elytra.

Head distinctly narrower than pronotum; crown produced beyond proximal margin of eyes, lateral margins parallel and carinate, disk elevated above eyes; ocelli small, situated on anterior margin of crown; eyes large, globular; pronotum short, broad, with microsetae on surface; scutellum large, length exceeding length of pronotum; elytra long, broad subapically with well developed appendix, veins distinct, 3 anteapical cells, outer 1 closed, 5 apical cells; hind wings well developed; clypeus long, with prominent median longitudinal carina, lateral margins indented below antennal sockets, surface finely granulose; clypellus short, lateral margins concave.

 δ genitalia symmetrical; pygofer large, caudal margin very broad with processes on margin; aedeagus long, articulated basally with connective, somewhat tube-like with long slender paired processes arising basally, sometimes with short processes on dorsal margin, traversed by a gonoduct; gonopore apical; style short, simple, apex pointed; plate segmented subbasally as in *Thagria*, narrow and elongate.

Only 2 species of *Tahara* are presently known and these are described as new from New Guinea. The genus has characters that are common to *Tharra* and *Thagria*, suggesting that *Tahara* is a phylogenetic link between these genera. In *Tahara*, the plate is segmented subbasally and the pygofer has caudal processes; both characters are present in *Tharra* and *Thagria*.

From *Thagria*, *Tahara* can be distinguished by the aedeagus with a pair of very long slender processes attached basally and lying ventrad or laterad of aedeagal shaft. *Tahara* can be further separated from *Thagria* by the presence of a median longitudinal carina on the clypeus.

Key to species of Tahara 33

Descriptions of the species of Tahara

Tahara quadrispiculata Nielson, new species F.

Fig. 1–5.

Length: 37.40-7.60 mm, 2 unknown.

General color deep ochre with yellow or ivory transverse band anteriorly on pronotum and a narrow, yellow or ivory transverse band on elytra across middle of clavus.

Head distinctly narrower than pronotum; crown produced beyond anterior margin of eyes, distal length about 1/4 entire median length, surface striate radially, carinate laterally, lateral margins parallel,



Fig. 1-5. Tahara quadrispiculata, n. sp.: 1, 3 pygofer, lateral view; 2, plate, ventral view; 3, style, dorsal view; 4, aedeagus, dorsal view; 5, aedeagus, lateral view.

disk elevated above eyes, slightly depressed medially; ocelli small, situated on anterior margin of crown; eyes large, globular, occupying nearly 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface sparsely covered with microsetae; scutellum large, median length greater than median length of pronotum; elytra elongate, broad subapically, veins distinct, appendix large, well developed, venation as in description of genus; clypeus long, lateral margins indented below antennal sockets, with distinct longitudinal carina medially, surface granulose, rugulose along anterior margin; clypellus short, lateral margins concave.

3. Pygofer in lateral aspect very broad at apical 1/2, with 2 processes arising from about middle of caudal margin, 1 process very short, the other very long, caudoventral submargin with numerous tiny spicules; aedeagus in lateral aspect long with a pair of long, closely appressed, slender, ventral processes arising basally, 2 pairs of short projections on dorsal margin, 1 pair medially, 1 pair subapically, ventral margin with 2 very short, blunt projections medially; gonopore apical; style short, with narrowed attenuated apex; plate segmented subbasally, distal segment long and slender.

Holotype & (BISHOP 10,542), IRIAN: New Guinea (NW): Waris, S of Hollandia, 450–500 m, 1–17.VIII.1959, sweeping, T. C. Maa; paratypes: Bodem, 11 km SE of Oeberfaren, 100 m, 2 & 3, 7–17.VII.1959 (BISHOP, author's collection).

REMARKS. This species is related to *bigladia* from which it can be separated by the presence of 2 processes on the caudal margin of the male pygofer and by 2 pairs of short, dorsal processes and paired, long ventral processes on the aedeagus.

Tahara bigladia Nielson, new species Fig. 6-10.

Length: 37.00-7.70 mm, 9 unknown.

General color deep ochre with several pale, ivory translucent spots in cells of elytra.

Head distinctly narrower than pronotum; crown produced slightly beyond anterior margin of head, distal length about 1/4 entire median length, surface striate radially, carinate laterally, lateral margins parallel, disk elevated above level of eyes, slightly depressed medially; ocelli on anterior margin of crown; eyes large, globular, occupying about 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface sparsely covered with microsetae; scutellum large, median length greater than median length of pronotum; elytra elongate, broad subapically, veins distinct, appendix large, well developed, venation as in description of genus; clypeus elongate, excised near antennal sockets, with a distinct median longitudinal carina, surface finely granulose, rugulose along anterior margin; clypellus short, lateral margins concave.

3. Pygofer in lateral aspect broad at apical 1/2, with a single long lanceolate process arising from caudoventral margin; aedeagus long, tube-like, with a pair of long basal processes arising laterally, processes lanceolate, about 2/3 as long as aedeagal shaft, serrate along apical 1/3 in lateral view; gonopore apical; style short, apex clawed; plate segmented subbasally, distal segment long and slender.

Holotype & (BISHOP 10,543), PNG: New Guinea (NE): Torricelli Mts, Sugoitei Vill., 900 m, 24.I-5.II.1959, W. W. Brandt. Paratypes: IRIAN: New Guinea (NW): Vogelkop, Kebar Valley, W of Manokwari, 550 m, 1 Å, 4-31.I.1962, L. W. Quate (BISHOP); Waigeu, Camp Nok, 2500 ft [7.6 m], 1 Å, 1.IV.1938, L. E. Cheesman (BMNH); PNG: New Guinea (SE): Kiunga, Fly River, 1 Å, 9.IX.1957, W. W. Brandt (author's collection).

REMARKS. This species can be distinguished from *quadrispiculata* by the paired aedeagal processes which arise laterally from the base of the aedeagus and by the lack of dorsal processes on the aedeagus.

GENUS Thagria Melichar

Fig. 11–808.

- Thagria Melichar, 1903: 176. Type-species: Thagria fasciata Melichar, by original designation and monotypy.
- Mukwana Distant, 1908: 317. Type-species: Mukwana introducta Distant, by original designation and monotypy. New synonymy.
- Soortana Distant, 1908: 319. Type-species: Soortana simulata Distant, by original designation and monotypy. New synonymy.
- Dharma Distant, 1908: 323. Type-species: Dharmma projecta Distant [= Thagria prima (Distant) and Thagria ereba (Distant)], by original designation and monotypy. New synonymy.

Sabima Distant, 1908: 324. Type-species: Sabima prima Distant [= Thagria projecta (Distant) and Thagria ereba (Distant)], by original designation. New synonymy.

Guliga Distant, 1908: 326. Type-species: Guliga erebus Distant [= Thagria projecta (Distant) and Thagria prima (Distant)], by original designation and monotypy. New synonymy.

Orthojassus Jacobi, 1914: 382. Type-species: Orthojassus philagroides Jacobi, by original designation and monotypy. New synonymy.

1977



Fig. 6-10. Tahara bigladia, n. sp.: 6, 3 pygofer, lateral view; 7, plate, ventral view; 8, aedeagus, dorsal view; 9, aedeagus, lateral view; 10, style, dorsal view.

Sabimoides Evans, 1947: 254. Type-species: Sabimoides cardamomi Evans, by original designation and monotypy. New synonymy.

Small to medium size, rather robust leafhoppers. Similar in general habitus to species in Coelidiini. Color ochraceous to piceous with or without light ochraceous to dark fuscous markings on elytra. Crown and face generally light ochraceous, usually without markings.

Head narrower than pronotum; crown varied from narrow and elongate to short and broad, always produced beyond anterior margin of eyes, lateral margins rarely carinate, disk usually slightly elevated above level of eyes, sometimes foveate medially or on each side of middle, nearly always with radial striations below ocelli; ocelli on or near anterior margin of crown, sometimes closer to lateral margins of crown than median line; eyes large, semiglobular to elongate-ovoid, occupying from 1/2 to 2/3 of entire dorsal area of head; pronotum large, surface knobbed, sometimes with a complete or incomplete median

longitudinal carina; scutellum large, median length nearly always longer than median length of pronotum; elytra elongate, well developed, veins nearly always distinct, appendix well developed, outer anteapical cell closed, inner anteapical cell rarely closed; clypeus elongate, usually narrow, sometimes broad with lateral margin convex and usually excised along middle next to antennal sockets; clypellus short, with lateral margins parallel, often broad and swollen basally, with apical 1/2 constricted.

♂ genitalia symmetrical or asymmetrical; pygofer with large, elongate caudoventral lobe, caudodorsal margin with 1 to 3 pairs of distinct processes; 10th segment usually with 1 pair of simple or ornate processes; aedeagus nearly always symmetrical, length short to long and always tube-like, with gonopore always apical, always articulated basally to a large, Y-shaped, sclerotized dorsal apodeme, attached basally to and lying on or in a very large, triangulate ventral plate or paraphysis; paraphysis symmetrical or asymmetrical, attached basally to but articulated freely with apex of connective, often with a pair of basal processes on dorsal margin, and with or without keel ventrally; connective broadly Y-shaped with short stem; style short to extremely long, slender to robust, sometimes with secondary projections apically; plate always segmented subbasally with distal segment long and narrow, and covered with macrosetae or long fine setae.

 \bigcirc . 7th sternum large, usually about $3\times$ as long as penultimate segment, caudal margin usually produced medially, rarely truncate and rarely with projections caudally.

Thagria and Tahara have similar characters in general habitus, head, and male plates. Thagria can be distinguished from Tahara by the simple, tube-like aedeagus which is attached basally to a large ventral paraphysis and by the presence of distinct processes on the caudodorsal margin of the pygofer.

Generic synonymy is extensive, based on the similarity of male genitalia and sex association among the type specimens of the type-species of *Thagria*, *Mukwana*, *Soortana*, *Dharmma*, *Sabima*, *Guliga*, *Orthojassus*, and *Sabimoides*. The type specimen of the type-species *Dharmma projecta* is the opposite sex (\mathcal{Q}) of the type specimen (\mathcal{J}) of the type-species *Guliga erebus*.

Key to species of Thagria 33^4

1.		Head strongly produced anteriorly beyond proximal margin of eyes; crown long and
		narrow, median length nearly 1-1/2 $ imes$ to over 2 $ imes$ basal width, apex sharply angulate
		or sharply conical (Fig. 25, 68 & 156)2
		Head slightly produced anteriorly beyond proximal margin of eyes; crown short, median
		length always less than $1-1/2 \times$ basal width, apex bluntly angulate or rounded
		(Fig. 228)
2	(1).	Crown with lateral margins moderately to strongly carinate, disk slightly to deeply
		foveate; clypellus narrow, flat, basal width narrower than base of clypeus, lateral
		margins nearly parallel (Fig. 38 & 39); paraphysis nearly straight or curved
		dorsally in lateral view (Fig. 35 & 42)
		Crown with lateral margins not carinate, disk flat; clypellus broad, swollen basally, basal
		width equal to or greater than basal width of clypeus; lateral margin strongly
		convergent at apical 1/2 (Fig. 155 & 229); paraphysis curved ventrally in lateral
		view (Fig. 59, 65 & 75)
3	(2).	Crown with lateral carina nearly parallel and extending distally beyond proximal
	. ,	margin of eyes; ocelli situated laterad of carina4
		Crown with lateral carina not parallel, diverging apically near proximal margin of
		eyes; ocelli mesad of carina
4	(3).	Style long, reaching to apex of paraphysis (Fig. 15)introducta (Distant)
		Style short, not reaching apex of paraphysis (Fig. 18 & 28)5
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4. The following species which are known only from ♀♀ are not keyed: *T. distanti*, n. sp., *T. signata* Distant, *T. rutata* (Distant), *T. subnotata* (Walker), and *T. sulphurea* (Walker).

5	(4).	Tenth segment processes triangulate in dorsal view (Fig. 17)
6	(3).	Paraphysis with a basal pair of dorsolateral spines (Fig. 34); 10th segment with a pair of broad, ornate processes (Fig. 32)lautereri, n. sp.
		Paraphysis without such spines (Fig. 41 & 47); 10th segment with a simple, elongate
7	(6).	Paraphysis keeled ventrally in lateral view (Fig. 42), dorsal margin with a pair of small, for goal like a chart widdle of sheft (Fig. 41)
0	(7)	Paraphysis not keeled, dorsal margin without such lobes (Fig. 49)
8	(7).	excised apically (Fig. 48)
		Pygofer and 10th segment combined with 2 pairs of processes; style long and slender,
9	(2).	Tenth segment complex, with more than 1 pair of secondary processes; style long and
		slender
10	(0)	processes
10	(9).	subhasal lobes (Fig. 56)
11	(0)	Tenth segment in dorsal view with a pair of subbasal lobes (Fig. 62) cardamomi (Evans) Style bifurgete at apical 1/2, lateral margin of meral lobe servated (Fig. 69, 8, 74)
	(3).	
		Style multilobed apically, lateral margins smooth (Fig. 78 & 79)philagroides (Jacobi)
12	(1).	Clypellus broad, swollen basally, basal width equal to or greater than base of clypeus, lateral margins constricted at apical 1/2 (Fig. 155 & 229)
		Clypellus narrow, flat or nearly so, basal width narrower than base of clypeus, lateral
		margins parallel or nearly so throughout length (Fig. 538)49
13	(12).	Aedeagus and paraphysis symmetrical (Fig. 84 & 90)
14	(13)	Acceleration and/or paraphysis asymmetrical (Fig. 1// \propto 202)
11	(15).	Paraphysis without paired processes (Fig. 118 & 123)
15	(14).	Paraphysis with paired basal processes on dorsal margin; style simple, long, slender
	× /	Paraphysis with paired medial processes on dorsal margin; style complex, with
16	(15).	Style broad throughout in dorsal view; paraphysis narrow and attenuated in lateral
		view (Fig. 84 & 86)hamata, n. sp.
		Style narrow and sharply attenuated in dorsal view; paraphysis expanded apically in
17	(10)	lateral view (Fig. 90 & 91)17
17	(16).	Paraphysis with I pair of basal processes, processes simple, arising from dorsolateral
		Paraphysis with 2 pairs of basal processes let pair simple arising from dorsolateral
		lobes, 2nd pair complex, arising subbasally (Fig. 96)quintata, n. sp.
18	(15).	Style in dorsal view very long, extending distally beyond apex of paraphysis (Fig.
		102); paraphysis in lateral view curved ventrally at apical 1/2 (Fig. 103)eminentia, n. sp.
		Style in dorsal view of moderate length, reaching to but not extending beyond apex
		of paraphysis (Fig. 107); paraphysis in lateral view curved dorsally at apex (Fig. 108)
19	(18).	Style in dorsal view broad apically, with 3 short apical projections; pygofer in dorsal
		view with a pair of long serrate processes; 10th segment with paired processes bifur-
		cate apically (Fig. 10b)tridentia, n. sp.
		Style in dorsal view very narrow, asymmetrically bifurcated apically (Fig. 113);

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		pygofer in dorsal view with a pair of long processes, processes with a lateral,
		medial secondary process; 10th segment with paired simple processes (Fig.
20	(14).	Style short, not reaching apex of paraphysis in dorsal view (Fig. 118 & 123)
	(),	Style long, extending to or beyond apex of paraphysis in dorsal view (Fig. 150 & 160)
21	(20).	Style extremely short, apex reaching base of paraphysis (Fig. 118) perspicuata. n. sp.
		Style long, extending beyond base but not reaching apex of paraphysis (Fig. 123 & 130)22
22	(21).	Aedeagus in dorsal and lateral aspects very short, not reaching middle of paraphysis
	. ,	(Fig. 123 & 124); paraphysis deeply bifurcate apically in dorsal view (Fig.
		123)vectigalia, n. sp.
		Aedeagus in dorsal and lateral aspects long, reaching or nearly reaching middle
		of paraphysis (Fig. 130 & 136); paraphysis slightly or not bifurcate apically23
23	(22).	Tenth segment in dorsal view with short paired processes not extending beyond paired
		pygofer processes (Fig. 128)infula, n. sp.
		Tenth segment in dorsal view with long paired processes extending beyond paired
		pygofer processes (Fig. 134 & 140)24
24	(23).	Tenth segment with paired, deeply bifurcate processesbryani, n. sp.
0.5	(00)	Tenth segment with paired simple processeselongata, n. sp.
25	(20).	Style long and siender
96	(95)	Tenth comment in dereal view with poined process
20	(23).	Tenth segment in dorsal view with paired processes (Fig. 157) vietnamensis n sp.
97	(25)	Paranhysis in lateral aspect curved ventrally at aney (Fig. 168): style with lateral pro-
41	(40).	cesses arising at about midlength of shaft (Fig. 164): 10th segment in dorsal aspect
		with subbasal lateral projection on paired processes (Fig. 163)
		Paraphysis in lateral aspect curved dorsally at apex (Fig. 170); style with lateral
		projection arising subbasally (Fig. 172); 10th segment in dorsal aspect without
		lateral projection on paired processes (Fig. 171)serrata, n. sp.
28	(13).	Aedeagus symmetrical and paraphysis asymmetrical29
		Aedeagus asymmetrical and paraphysis asymmetrical or symmetrical
29	(28).	Paraphysis with basal, medial, or apical projections (Fig. 177 & 184)30
_		Aedeagus and paraphysis without such projections (Fig. 250 & 255)40
30	(29).	Paraphysis with a single basal projection
0.1	(80)	Paraphysis with 2 or more basal, medial or apical projections
31	(30).	Style short, apex terminating basad of midlength of paraphysis in dorsal view (Fig.
		1//)
32	(31)	Purgofer processes with secondary process (Fig. 183)
52	(01).	Pygofer processes with secondary process (11g. 100)
33	(32).	Tenth segment with a pair of very long processes, processes extending 1/2 their length
	(beyond apex of pygofer processes (Fig. 189)ornata, n. sp.
		Tenth segment with a pair of short processes, processes extending about 1/4 their
		length beyond apex of pygofer process (Fig. 194)sandakanensis, n. sp.
34	(30).	Paraphysis with basal projections
		Paraphysis with medial or apical projections
35	(34).	Pygofer with 2 pairs of caudodorsal processes (Fig. 199); paraphysis with 2 long,
		slender basal processes (Fig. 202)sarawakensis, n. sp.
		rygoler with 1 pair of caudodorsal processes (Fig. 205 & 211); paraphysis with 3 to
36	(35)	Paraphysis with 1 single and 1 bifurcate basal processes (Fig. 200)
50	(33).	Paraphysis with 1 bifurcate and 1 trifurcate basal processes (Fig. 200)

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37	(34).	Paraphysis in lateral view with a pair of asymmetrical medial projections on dorsal margin (Fig. 219)
		Paraphysis in lateral view with 3 apical projections, 1 dorsal and 2 ventral (Fig. 224) tenasserimensis (Distant)
38	(28)	Paraphysis not excavated anically in dorsal view (Fig. 234) dirigens (Walker)
00	(20).	Paraphysis deeply excavated on lateral subapical margin in dorsal view (Fig. 238 & 243)
39	(38).	Pygofer processes in dorsal view with secondary finger-like basal process; 10th segment in dorsal view with a pair of long, slender processes (Fig. 236)grandis, n. sp. Pygofer processes in dorsal view without secondary basal process; 10th segment in
		dorsal view with a pair of broad processes, processes with subapical, subquadrate secondary process (Fig. 242).
40	(29).	Tenth segment in dorsal view with paired processes
10	(10).	Tenth segment in dorsal view without paired processes
41	(40).	Pygofer in lateral view with caudoventral lobe truncate distally, lobe with short process (Fig. 247)
		Pygofer in lateral view with caudoventral lobe rounded apically, without apical process (Fig. 253)
49	(41)	Aedeagus in dorsal view very long extending beyond midlength of paraphysis (Fig
14	(11).	255); paraphysis in lateral view with 3 distinct projections apically (Fig. 256)
		Addaptions in dorsal view short not reaching midlength of paraphysis (Fig. 261):
		neurophysis in loteral view with a single apical projection (Fig. 263)
43	(42).	Paraphysis in dorsal view tapered apically with small lateral projection medially (Fig. 261)
		Paraphysis in dorsal view deeply excavated apically on lateral margin (Fig. 268)
44	(43).	Paraphysis with large lateroapical excavation, occupying about 1/2 length of para- physis; 10th segment in dorsal view with long processes, extending beyond
		pygofer processes (Fig. 266)fossa, n. sp.
		Paraphysis with small lateroapical excavation, occupying about 1/4 length of paraphysis
		(Fig. 273); 10th segment in dorsal view with short processes, reaching to apex of pygofer processes (Fig. 272)soosi, n. sp.
45	(40).	Style very long, extending beyond midlength of paraphysis (Fig. 280)
46	(45).	Pygofer processes clawed apically in dorsal view (Fig. 278); paraphysis curved ventrally
		at apex in lateral view (Fig. 281)ungulata, n. sp.
		Pygofer processes not clawed apically in dorsal view (Fig. 284); paraphysis curved dorsally at apex in lateral view (Fig. 288)
47	(46).	Paraphysis with a long lateral process at about middle of shaft (Fig. 286 & 288)
		Paraphysis without lateral process but with 2 short apical processes (Fig. 291 & 292)
48	(45).	Paraphysis with apex corkscrewed in dorsal view (Fig. 297)luzonensis (Baker)
	```	Paraphysis with apex curved dorsally in lateral view (Fig. 306)
49	(12).	Paraphysis symmetrical
	()	Paraphysis asymmetrical
50	(49).	Paraphysis in lateral view strongly keeled on ventral margin (Fig. 312 & 318)
20		Paraphysis in lateral view not keeled on ventral margin (Fig. 444 & 451)
51	(50).	Paraphysis without projections or finger-like processes
	(00).	Paraphysis with 1 or more pairs of processes on dorsal margin 53
52	(51).	Paraphysis short and broad in dorsal view (Fig. 311), keel serrate in lateral view

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		(Fig. 312) <b>lebes.</b> n. sp.
		Paraphysis long, basal 1/3 broad, apical 2/3 very slender in dorsal view (Fig. 319),
		keel not serrate in lateral view (Fig. 318)minuta, n. sp.
53	(51).	Paraphysis with 1 pair of basal processes only
		Paraphysis with 1 pair of basal processes and/or with 1 or more pairs of processes
		arising medially or subapically on dorsal margin
54	(53).	Style very long, exceeding midlength of paraphysis in dorsal view
	()-	Style very short, reaching to or slightly exceeding base of paraphysis
55	(54).	Pygofer with 2 pairs of caudodorsal processes (Fig. 321 & 322); paraphysis keeled
	. ,	subapically in lateral view (Fig. 325)loae, n. sp.
		Pygofer with 1 pair of caudodorsal processes (Fig. 327 & 333); paraphysis keeled
		medially in lateral view (Fig. 331 & 337)
56	(55).	Pygofer process serrate apically on mesal margin in dorsal view (Fig. 328)bihasta, n. sp.
	• •	Pygofer process with small subapical finger-like projection on mesal margin in dorsal
		view (Fig. 334)dellamayae, n. sp.
57	(54).	Aedeagus long, reaching to or nearly to apex of paraphysis in lateral and dorsal views
	. ,	Aedeagus short, reaching to middle or slightly beyond middle of paraphysis in lateral
		and dorsal views
58	(57).	Pygofer with 3 pairs of caudal processes (Fig. 339)brevis, n. sp.
	. ,	Pygofer with 2 pairs of caudal processes (Fig. 345)williami, n. sp.
59	(57).	Paraphysis long, about $2 \times$ as long as wide in lateral aspect, apical 1/2 very narrow
		in dorsal view (Fig. 353 & 354)ventrorecta, n. sp.
		Paraphysis short, about 1/2 as long as wide in lateral aspect, apical 1/3 narrowed in
		dorsal aspect (Fig. 359 & 360)60
60	(59).	Pygofer with dorsal pair of processes entire (Fig. 357)wallacei, n. sp.
		Pygofer with dorsal pair of processes with secondary subapical process (Fig. 363)aculeata, n. sp.
61	(53).	Paraphysis with 1 pair of dorsal processes arising distad of base
		Paraphysis with 1 pair of dorsal processes at base and/or with 1 or more pairs of dorsal
		processes distad of base
62	(61).	Style very long, extending considerably beyond base of paraphysis in dorsal view
		Style short, not reaching to or extending slightly beyond base of paraphysis in dorsal
		view64
63	(62).	Aedeagus long, extending beyond dorsal processes of paraphysis in lateral view (Fig.
		373); pygofer with ventral pair of processes bifurcate (Fig. 369)argutata, n. sp.
		Aedeagus short, just reaching to dorsal processes of paraphysis in lateral view (Fig.
		379); pygofer with ventral pair of processes single (Fig. 375)fijiana (Osborn)
64	(62).	Style very short, not reaching base of paraphysis in dorsal view (Fig. 383)65
		Style long, extending beyond base of paraphysis in dorsal view (Fig. 396)66
65	(64).	Aedeagus long, extending distad of midlength of paraphysis (Fig. 383); pygofer
		process elongate, curved mesally and pointed apically in dorsal view (Fig. 382)
		<b>aratra,</b> n. sp.
		Aedeagus short, not reaching midlength of paraphysis (Fig. 389); pygofer process bifid
		apically in dorsal view (Fig. 388)sp.
66	(64).	Paraphysis with very long subapical processes, processes extending laterally in dorsal
		view (Fig. 396)bilata, n. sp.
		Paraphysis with short subapical processes, extending dorsally in dorsal view (Fig. 402)67
67	(66).	Pygofer with dorsal paired processes slender and pointed apically in dorsal view
		(Fig. 400)inscripta (Walker)
		rygoter with dorsal paired processes broadly bifid apically in dorsal view (Fig.
60	(61)	400)
υø	(01).	ranaphysis subquadrate, about as long as while (Fig. 415); acceagus long, extending

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	to an dishtly have a comparise in densel size (Fig. 410)
	Paraphysis longer than wide (Fig. 426); addeagus short, not reaching aney of para
	national view (Fig. 429) 70
60 (68)	Purster with could dereal process bilload, could wanted process slander in dereal expect
03 (00).	(Fig. 412)
	(FIG. 412)
	(Eig. 410)
70 (69)	(Fig. 410)
70 (00).	raraphysis with 2 pairs of subapical lateral processes in dorsal view (Fig. 420)
	Paraphysis with 1 pair of subapical lateral processes in dorsal view 71
71(70)	Paraphysis with 1 pair of subapical fateral processes in dorsal view
/1 (70).	laterally (Fig. 432)
	Devenburg in devel view with a nair of very long slender processes extending distally
	(Fig. 437)
79 (50)	(Fig. 457)
72 (30).	tions on descal mornin
	Paraphysis without such processes
78 (79)	Paraphysis with paired basal and paired lateral processes distad of basal pair
75 (72).	Paraphysis with paired basal processes only or with paired distal processes only 77
74 (73)	Aedeagus and style in dorsal view very long aneves distad of anev of naranhysis
/+ (/5).	(Fig. 443)
	Aedeagus and style in dorsal view short apeves based of apev of paraphysis
75 (74)	Style in dorsal view long apex distad of midlength of paraphysis subapical process
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	nresent (Fig. 449)
	Style in dorsal view short, apex basad of midlength of paraphysis, subapical process
	absent
76 (75).	Aedeagus in dorsal and lateral views short, apex basad of paired lateromedial processes
	of paraphysis (Fig. 455 & 456); style with sharply pointed, hooked apical process
	(Fig. 457)acuta, n. sp.
	Aedeagus in dorsal and lateral views long, apex distad of lateromedia processes of
	paraphysis (Fig. 461 & 462); style broadly angled apically (Fig. 463)walkeri, n. sp.
77 (73).	Paraphysis with paired basal processes only
. ,	Paraphysis with paired distal processes only
78 (77).	Paraphysis with basal processes very broad in dorsal view (Fig. 467)mamma, n. sp.
	Paraphysis with basal processes narrow, finger-like in dorsal view
79 (78).	Paraphysis in dorsal and lateral views with paired basal processes long, apex of processes
	distad of apex of aedeagus (Fig. 473 & 474)marilynae, n. sp.
	Paraphysis in dorsal and lateral views with paired basal processes short, apex of
	processes basad of apex of aedeagus80
80 (79).	Style in dorsal and lateral views very long, extending considerably beyond apex of
	paraphysis
	Style in dorsal and lateral views short, apex usually basad but sometimes slightly distad
	of apex of paraphysis
81 (80).	Tenth segment in dorsal view with paired processes
	Tenth segment in dorsal view without paired processes
82 (81).	Paraphysis in dorsal view constricted subapically, apex broadly triangulate (Fig.
	479) <b>tintinnabula,</b> n. sp.
	Paraphysis in dorsal view tapered apically (Fig. 485)virginiae, n. sp.
83 (81).	Paraphysis with paired basal processes short, apex of processes basad of midlength of
	paraphysis in lateral view (Fig. 492 & 497)84
	Paraphysis with paired basal processes long, apex of processes distad of midlength of

84	(83).	paraphysis in lateral view (Fig. 504 & 509)
		Style in dorsal view about $1-1/2 \times$ as long as connective and paraphysis combined
		(Fig. 496); paraphysis in lateral view narrowed throughoutelongistyla, n. sp.
85	(83).	Paraphysis with slender, needle-like, paired basal processes, width of processes narrower
		than width of aedeagal shaft (Fig. 503)bidens, n. sp.
		Paraphysis with robust paired basal processes, width of processes about equal to width
96	(05)	of acdeagal shaft
00	(65).	rygoter process in dorsal view strongly recurved apically (Fig. 507); paraphysis
		Proofer process in dorsal view extended distally (Fig. 513): paraphysis rounded
		apically in lateral view (Fig. 517)ochripes (Spångberg)
87	(80).	Paraphysis with paired basal processes long, apex of processes extending beyond apex of
		aedeagus
		Paraphysis with paired basal processes short, apex of processes basad of apex of
		aedeagus90
88	(87).	Paraphysis with paired basal processes distad of midlength of paraphysis; aedeagus
		long, apex distad of midlength of paraphysis; style short, apex extending just beyond
		base of paraphysis (Fig. 520)bivalla, n. sp.
		Paraphysis with paired basal processes basad of midlength of paraphysis; aedeagus
		short, shalt basad of midlength of paraphysis; style long, apex near apex of
80	(88)	Purgofer process with 2 slender terminal secondary processes (Fig. 525)
05	(00).	Pygofer process without secondary processes (Fig. 521)
90	(87).	Style strongly recurved or hooked apically
	(07)	Style straight or curved apically, but not hooked
91	(90).	Pygofer with 2 pairs of caudodorsal processes (Fig. 541)unca, n. sp.
	. ,	Pygofer with 1 pair of caudodorsal processes (Fig. 546)exilis, n. sp.
92	(90).	Style long, extending to or beyond midlength of paraphysis in dorsal aspect93
		Style short, not reaching midlength of paraphysis in dorsal aspect96
93	(92).	Style very long, extending slightly beyond apex of paraphysis in dorsal view (Fig.
		554); pygofer with 1 pair of processes, processes very long, slender and curved
		medially in dorsal view (Fig. 552)
		Style short, not reaching to apex but extended to or slightly beyond midlength of
		paraphysis in dorsal view (Fig. 500 & 500); pygoler with 1 of 2 pairs of processes,
94	(93)	Style very slender (Fig. 560): pygofer with 1 pair of processes processes broad with a
51	(33).	long narrow lateral, secondary process in dorsal view (Fig. 558)trulla. n. sp.
		Style robust (Fig. 566 & 572); pygofer with 1 or 2 pairs of processes
95	(94).	Pygofer with 1 pair of processes, processes with small basal secondary process in dorsal
		view (Fig. 564)referta, n. sp.
		Pygofer with 2 pairs of processes, dorsal pair very short, ventral pair long, serrated
		apically (Fig. 570)bakeri, n. sp.
96	(92).	Pygofer with 1 pair of caudodorsal processes (Fig. 575); 10th segment without pro-
		cesseslurida (Melichar)
07	(00)	Pygoter with 2 pairs of caudodorsal processes; 10th segment with processes
9/	(96).	1 entri segment with a pair of very long processes, processes exceeding apex of pygofer
		Tenth segment with a pair of very short processes processes based of aper of processes
		processes; paraphysis not bifid apically

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98 (97).	Aedeagus long, extending beyond midlength of paraphysis in lateral view (Fig. 591) Aedeagus short, not reaching or barely reaching midlength of paraphysis (Fig. 603)	99 .100
99 (98).	Pygoter in dorsal aspect with dorsal pair of processes nearly as long as ventral pair (Fig. 588); style long and tapered apically, extending beyond apex of basal process of	
	Pygofer in dorsal aspect with dorsal pair of processes much shorter than ventral pair (Fig. 594): style short and blunt apically, not extending beyond basal processes	. sp.
	of paraphysis (Fig. 596) <b>fucosa</b> , n	. sp.
100 (98).	Paraphysis crinkled on lateral margins in lateral view (Fig. 603); pygofer with dorsal	
	pair of processes long, ventral pair broadly cleft apically (Fig. 600) <b>rugosa</b> , n. Paraphysis smooth on lateral margin in lateral view (Fig. 608); pygofer with dorsal	sp.
	606) <b>peayi</b> , n.	. sp.
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102(101).	Style short, apex not reaching lateral processes of paraphysis in dorsal view (Fig. 622)	.103
	(Fig. 633)	.104
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	Acdeagus with apex of shaft basad of lateral processes of paraphysis in dorsal and lateral views (Fig. 628 & 629)	en
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	Paraphysis with long lateral processes on dorsal margin, processes arising basad of midlength of paraphysis (Fig. 639)	ira)
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~ /	lateral view (Fig. 648)ficta, n.	sp.
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(/-	Style with apical lateral margins equidistant (Fig. 688)sagittata, n.	sp.
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	view broader subapically than apical 1/2 of style
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Descriptions of the species of Thagria

**Thagria introducta** (Distant), new combination Fig. 11–15.

Mukwana introducta Distant, 1908: 317 [holotype 3, Sri Lanka (BMNH) (examined)].—Metcalf, 1964: 89.

The description of the general habitus of *introducta* was based on superficial notes taken during examination of the type and on the original description.

Length: 36.00 mm, 9 unknown.

General color fuscous with a broad piceous band subapically on elytra and a yellowish triangulate line subapically on costa.

Head narrower than pronotum; crown very long and narrow, produced considerably beyond anterior margin of eyes, distal length nearly 1/2 entire median length, apex pointed, lateral margins carinate, broadly convex, disk foveate medially, elevated above level of eyes; ocelli situated laterally outside of



Fig. 11-15. Thagria introducta (Distant): 11, 3 pygofer and 10th segment, lateral view; 12, 3 pygofer processes and 10th segment, dorsal view; 13, plate, ventral view; 14, aedeagus and paraphysis, lateral view; 15, connective, aedeagus, paraphysis and style, dorsal view.

carina; eyes semiglobular, occupying less than 1/2 of entire dorsal area of head; pronotum short, median length less than median length of crown, median longitudinal carina present; scutellum short, about equal in length to pronotum; elytra elongate, veins very distinct, appendix well developed, venation as in description of genus; clypeus long, constricted near antennal sockets, surface granulose; clypellus short, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral view with a broad caudoventral lobe, caudodorsal margin with a pair of long processes; 10th segment with a pair of processes equal in length to pygofer processes, processes without secondary processes; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, elongate, triangulate in dorsal view without paired dorsal processes; connective broadly Y-shaped with short stem; style long, curved medially in dorsal view, apex pointed, reaching apex of paraphysis; plate segmented subbasally, distal segment long and narrow, with uniserate microsetae on outer margin.

SPECIMENS EXAMINED. Mukwana introducta Distant, holotype 3, "Kurungalu", XII.1905, Green (BMNH).

DISTRIBUTION. Sri Lanka.

**REMARKS.** This species is known only from the holotype  $\Im$  and is similar in general habitus and male genitalia to *capitata* but can be separated from that species by the lanceolate processes of the 10th segment and the long style which reaches the apex of the paraphysis.

#### **Thagria capitata** Distant Fig. 16–21.

Thagria capitata Distant, 1918: 44 [lectotype  $\mathcal{Q}$ , India (BMNH), here designated (examined)].— Metcalf, 1964: 88.

Length: 35.30-5.60 mm, 96.00-6.20 mm.

General color light ochre with fuscous markings on crown, pronotum, and along veins of elytra; clypeus with transverse fuscous markings.

Head narrower than pronotum; crown very long and narrow, produced considerably beyond anterior margin of eyes, distal length nearly 1/2 entire median length, lateral margin convex, carinate, disk elevated above eyes, depressed medially; ocelli situated laterally outside of carina; eyes large, elongate-ovoid, compressed laterally; pronotum short, median length less than median length of crown; scutellum short, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margin indented near antennal sockets, with median longitudinal rugulose striation along anterior 1/2, granulose on remainder of surface; clypellus short, base narrower than base of clypeus, lateral margins parallel at basal 2/3, expanded at apical 1/3.

3. Pygofer in lateral aspect with a long, narrow caudodorsal lobe, caudodorsal margin with a pair of long curved processes, processes lanceolate in dorsal view; 10th segment with a pair of long processes, processes triangulate at apical 1/2 in dorsal view; aedeagus symmetrical, long, tube-like, about 3/4 as long as paraphysis; gonopore apical; paraphysis symmetrical, elongate-triangulate in dorsal view, without dorsal paired processes; connective narrowly Y-shaped with short arms; style long, reaching to about middle of paraphysis, slightly curved at apical 1/2; plate segmented subbasally, distal segment long and narrow. macrosetae on outer submargin.

 $\varphi$ . 7th segment large, about  $3 \times$  as long as penultimate segment, posterior margin produced medially.

SPECIMENS EXAMINED. Thagria capitata Distant, lectotype  $\mathcal{Q}$ , Coonoor, Nilgiri Hills, S India, 5000 ft [1525 m], T. V. Campbell (BMNH), here designated; paralectotype: Thagria capitata Distant,  $\mathcal{Q}$ , same data as lectotype (BMNH). INDIA: Burligar, Coonoor Ghaut., 3000 ft [914 m], 2  $\mathcal{Q}\mathcal{Q}$ , 17.IV. 1937, BMCM 1937 Expdn. (BMNH); 7  $\mathcal{Q}\mathcal{Q}$ , 1 Å, (no data) (BMNH); 1 Å, (no data) (author's collection).

DISTRIBUTION. India.



Fig. 16-21. Thagria capitata Distant: 16, 3 pygofer and 10th segment, lateral view; 17, 3 pygofer processes and 10th segment, dorsal view; 18, connective, aedeagus, paraphysis and style, dorsal view; 19, aedeagus and paraphysis, lateral view; 20, style, lateral view; 21, plate, ventral view.

**REMARKS.** This species, similar to other long-headed species from Sri Lanka and India, is related to *Thagria fasciata* Melichar. From *fasciata*, *capitata* can be separated by the 10th segment processes which are broad basally and with a small subapical flange, by color patterns of the elytra, and by distribution.

#### Thagria fasciata Melichar Fig. 22–30.

- Thagria fasciata Melichar, 1903: 176 [lectotype 3, Sri Lanka (MNHU), here designated (examined)].-Metcalf, 1964: 88.
- Thagria pedestris Distant, 1908: 316 [holotype ♀, Sri Lanka (BMNH) (examined)].—Metcalf, 1964: 88. New synonymy.
- Thagria difformis Distant, 1918: 44 [holotype Q, Sri Lanka (BMNH) (examined)].—Metcalf, 1964: 88. New synonymy.



Fig. 22-30. Thagria fasciata Melichar: 22,  $\sigma$  pygofer and 10th segment, lateral view; 23, plate, ventral view; 24, style, lateral view; 25, head, pronotum and scutellum, dorsal view; 26, same, lateral view; 27, face; 28, connective, aedeagus, paraphysis and style, dorsal view; 29, aedeagus and paraphysis, lateral view; 30,  $\sigma$  pygofer processes and 10th segment, dorsal view.

Length: 35.00-5.30 mm, 9, no data.

General color testaceous with a broad orange transverse band on middle of elytra.

Head narrower than pronotum; crown long and narrow, produced considerably beyond anterior margin of eyes, distal length about 1/3 entire median length, lateral margin convex, strongly carinate, disk depressed medially, elevated above eyes; ocelli lateral on outside of carina; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum short, median length less than median length of crown, with median longitudinal carina; scutellum short, median length about equal to median length of pronotum; elytra long and narrow, veins distinct, appendix well developed, venation as in description of

genus; clypeus long and narrow, lateral margins nearly parallel, median rugulose striations on anterior 1/2, finely granulose on posterior 1/2; clypellus long and narrow, base narrower than base of clypeus, lateral margin parallel at basal 2/3, expanded at apical 1/3.

 $\delta$ . Pyogfer in lateral aspect with long caudodorsal lobe, caudodorsal margin with a pair of long, curved lanceolate processes; 10th segment with a pair of long processes, processes flanged subapically; aedeagus symmetrical, long, tube-like, about 2/3 as long as paraphysis; gonopore apical; paraphysis symmetrical, without paired dorsal processes, broad basally, gradually narrowed apically; connective broadly Y-shaped, with short stem; style moderately long, apex reaching to about midlength of paraphysis in dorsal view, curved at apical 1/2; plate segmented subbasally, distal segment long and narrow, constricted subbasally.

SPECIMENS EXAMINED. Thagria fasciata Melichar, lectotype 3, Ceylon, Cat. No. 6433, Gietner (MNHU), here designated; paralectotypes: Thagria fasciata Melichar, syntype 3, same data as lectotype (MNHU); Thagria fasciata Melichar, syntype  $(\varphi, \varphi)$ , same data as lectotype (MNHU); Thagria fasciata Melichar, syntype  $\varphi$ , same data as lectotype (MMH). Thagria fasciata Melichar, syntype  $\varphi$ , same data as lectotype (MMB). Thagria pedestris Distant, holotype  $\varphi$ , Hakgala, Ceylon, IV.1907, Green (BMNH); Thagria difformis Distant, holotype  $\varphi$ , Hakgala, Ceylon, V.1911, Green (BMNH).

DISTRIBUTION. Sri Lanka.

**REMARKS.** This species, the type of the genus *Thagria*, is related to *capitata* but can be distinguished by the 10th segment with the subapical flange on the processes and by the orange transverse band on the forewings.

Thagria lautereri Nielson, new species Fig. 31-35.

Length: 35.60 mm, 9 unknown.

General color fuscous with numerous markings on body and elytra; elytra with translucent ivory transverse bands.

Head narrower than pronotum; crown elongate, produced beyond anterior margin of eyes, distal length about 1/3 entire median length, lateral margins converging basally, slightly carinate, disk shallowly foveate, elevated above eyes; ocelli depressed on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum short, median length less than median length of crown, with median longitudinal carina; scutellum short, median length about equal to median length of pronotum; elytra elongate, veins distinct, well marked, appendix narrow, venation as in description of genus; clypeus long and narrow, lateral margins parallel, surface striate radially at apical 1/3, granulose at basal 2/3; clypellus short, slightly swollen basally, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with large, elongate, caudodorsal lobe, caudodorsal margin with a pair of long, attenuated processes; 10th segment with a pair of large processes, processes semiglobular in lateral aspect, toothed medially and hooked subapically in dorsal aspect; aedeagus symmetrical, long, tube-like, about 1/2 as long as paraphysis; gonopore apical; paraphysis symmetrical, with a pair of long dorsal processes arising basally, broad basally, gradually converging at apical 1/3, notched apically in dorsal view; connective Y-shaped, stem short; style long and narrow, curved at apical 1/2 in dorsal view, sharply attenuated apically; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,544), PHILIPPINE IS: Luzon: Mt Montalban, Rizal, Wa-Wa Dam, 150–200 m, 17.III.1965, H. M. Torrevillas.

REMARKS. Diagnostic characters are intermediate between the species group that has a long, carinate crown and that which has a shorter but strongly carinate crown. *Thagria lautereri* can be distinguished from *signata* and *pulchella* by the large ornate processes of the 10th segment. The species is named for Dr Pavel Lauterer of the Moravian Museum, Brno, Czechoslovakia.



Fig. 31-35. Thagria lautereri, n. sp.: 31,  $\sigma$  pygofer and 10th segment, lateral view; 32,  $\sigma$  pygofer processes and 10th segment, dorsal view; 33, plate, ventral view; 34, connective, aedeagus, paraphysis and style, dorsal view; 35, aedeagus and paraphysis, lateral view.

**Thagria pulchella** (Kirby), new combination Fig. 36–44.

Tettigonia pulchella Kirby, 1891: 170 [holotype 9, Sri Lanka (BMNH) (examined)].

Jassus pulchellus (Kirby): Melichar, 1903: 178.

Jassus sinhalanus Kirkaldy, 1910: 63 [invalid replacement name for Jassus pulchellus Kirby 1891 nec Iassus pulchellus Curtis 1837]. Nomen nudum.

Coelidia sinhalana (Kirkaldy): Metcalf, 1964: 75.

Length: 37.00 mm, 98.15 mm.

General color light to deep ochraceous with numerous orange to red spots on elytra. Apex of elytra with a large flavous translucent spot bordered by a narrow orange or red band and with an ochraceous spot in center.

Head narrower than pronotum; crown short, very narrow, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, lateral margins converging basally, carinate, disk foveate



Fig. 36-44. Thagria pulchella (Kirby): 36,  $\sigma$  pygofer and 10th segment, lateral view; 37, head pronotum and scutellum, lateral view; 38, face; 39, head, pronotum and scutellum, dorsal view; 40, male pygofer processes and 10th segment, dorsal view; 41, connective, aedeagus, paraphysis and style, dorsal view; 42, aedeagus and paraphysis, lateral view; 43, style, lateral view; 44, plate, ventral view.

medially; ocelli on anterior margin of crown; eyes very large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, with a very faint incomplete median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation atypical, inner anteapical cell closed; clypeus elongate, lateral margins nearly parallel, surface granulose, anterior margin finely rugulose; clypellus short, base narrower than base of clypeus, lateral margins nearly parallel, apex expanded.

3. Pygofer in lateral aspect with long caudoventral lobe, caudodorsal margin with a pair of long, slender processes; 10th segment with a pair of short, subtruncate processes; aedeagus short, symmetrical, tube-like, length about 1/4 entire length of paraphysis; gonopore apical; paraphysis symmetrical, elongate, slender, somewhat sinuate and keeled subapically on ventral margin in lateral aspect, broad basally and tapered at apical 1/2 in dorsal view with a pair of short, dorsal processes medially; connective Y-shaped with long stem, arms short; style very long, apex extending beyond midlength of paraphysis in dorsal view, swollen subapically in dorsal view; plate segmented subbasally, distal segment very long and slender.

 $\varphi$ . 7th sternum about  $3 \times$  as long as penultimate segment, strongly produced medially on posterior margin.

Tettigonia pulchella Kirby, holotype Q, "Udagama," Green (BMNH). Specimens examined. SRI LANKA (Ceylon): Kiruwita, 1000 ft (305 m), 1 3, 1 9, 24.II.1953, J. W. S. Pringle (BMNH).

DISTRIBUTION. Sri Lanka.

REMARKS. This species represents a member of a small species group having atypical venation, i.e., inner anteapical cell is closed. From coonoorensis, to which it is most closely related, pulchella can be distinguished by the long, ventrally keeled, sinuate paraphysis with a pair of short, dorsal processes.

Thagria coonoorensis (Distant), new combination Fig. 45-49.

Jassus coonoorensis Distant, 1918: 48 [holotype J, India (BMNH) (examined)].

Coelidia coonoorensis: Metcalf, 1964: 45.

Length: ♂ 6.00 mm, ♀ 7.00–7.15 mm.

General color deep ochraceous, numerous wavy markings and spots on elytra, apex of each elytron with 3 semicircular translucent flavous markings, small dark fuscous spots near center of each marking.

Head narrower than pronotum; crown short and narrow, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, lateral margins converging basally, carinate, disk foveate medially; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum short, median length less than median length of crown, with short, incomplete median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation atypical, inner anteapical cell closed; clypeus elongate, slightly tumid, lateral margins nearly parallel, excised near antennal sockets; clypellus short, base narrower than base of clypeus, lateral margins slightly concave.

J. Pygofer in lateral aspect with a long caudoventral lobe, caudodorsal margin with a pair of long slender processes; 10th segment without processes; aedeagus symmetrical, short, tube-like, length about 1/4 entire length of paraphysis; gonopore apical; paraphysis symmetrical, without processes, broad basally, slender and spear-shaped at apical 1/2 in lateral and dorsal views; connective Y-shaped, stem short; style long, apex reaching to about middle of paraphysis, narrowed throughout, apex clefted with a small subapical process on inner lateral margin in dorsal view; plate segmented subbasally, distal segment long and narrow.

 $\mathfrak{Q}$ . 7th sternum about 3  $\times$  as long as penultimate, posterior margin produced medially.

SPECIMENS EXAMINED. Jassus cooncorensis Distant, holotype 3, S India, Cooncor, Nilgiri Hills, 6000 ft [1829 m], T. V. Campbell (BMNH). INDIA: Coonoor, 6000 ft [1829 m], 1 3, 1 9, 22-23.IV.1937, (no collector) (BMNH); 1 3, same data (author's collection).

DISTRIBUTION. India.

**REMARKS.** This species is related to *simulata* and can be distinguished by the unique shape of the style, which is clefted apically.



Fig. 45-49. Thagria cooncorensis (Distant): 45, 3 pygofer, lateral view; 46, 3 pygofer processes, dorsal view; 47, plate, ventral view; 48, connective, aedeagus, paraphysis and style, dorsal view; 49, aedeagus and paraphysis, lateral view.

Thagria simulata (Distant), new combination Fig. 50–54.

Soortana simulata Distant, 1908: 319 [holotype 2, Sri Lanka (BMNH) (examined)].—Metcalf, 1964: 89.

Length: 35.50 mm, 97.00 mm.

General color light ochraceous with light markings and spots on elytra, apex of each elytron with 4 translucent ocellated spots.

Head narrower than pronotum; crown long and very narrow, produced beyond anterior margin of eyes, distal length nearly 1/3 entire median length, lateral margins carinate, converging basally, disk deeply foveate medially; ocelli on anterior margin of crown, depressed; eyes large, semiglobular, compressed laterally, occupying over 2/3 entire dorsal area of head; pronotum short, median length less than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate,



Fig. 50-54. Thagria simulata (Distant): 50, 3 pygofer and 10th segment, lateral view; 51, 3 pygofer processes and 10th segment, dorsal view; 52, plate, ventral view; 53, connective, aedeagus, paraphysis and style, dorsal view; 54, aedeagus and paraphysis, lateral view.

veins distinct, appendix well developed, venation atypical, inner anteapical cell closed; clypeus elongate, lateral margins nearly parallel, excised near antennal sockets, entire surface finely granulose; clypellus short, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect elongate, caudoventral margin produced distally to a large lobe, caudodorsal margin with a pair of long, broad, curved processes; 10th segment with a pair of short, slender, lanceolate processes; aedeagus symmetrical, short, tube-like, apex basad of midlength of paraphysis; gonopore apical; paraphysis symmetrical, without processes, broad at basal 1/2, becoming narrowly attenuated at apical 1/2 in dorsal aspect, laterodorsal margin with a short, blunt projection medially in lateral view; connective Y-shaped, stem short; style long, slender, apex nearly reaching apex of paraphysis; plate segmented subbasally, distal segment long and narrow.

SPECIMENS EXAMINED. Soortana simulata Distant, holotype  $\mathcal{P}$ , Kandy, Ceylon, VII.1907, Green (BMNH). SRI LANKA: 2  $\mathcal{P}\mathcal{P}$ , 1  $\mathcal{J}$ , same data as holotype (BMNH); 1  $\mathcal{J}$ , (data label

undecipherable) (author's collection).

DISTRIBUTION. Sri Lanka.

REMARKS. Thagria simulata has atypical venation, i.e., inner anteapical cell closed, as in *coonoorensis* and *pulchella*. The species can be distinguished by the short, blunt projection on the laterodorsal margin of the paraphysis.

Thagria krameri Nielson, new species Fig. 55-60.

Length: 37.30-8.00 mm, 9.40 mm.

General color fuscous to testaceous with numerous small, flavous spots on body and elytra. Elytra with a flavous, irregular chevron marking.

Head narrower than pronotum; crown extremely long and sharply angulate anteriorly, longer in  $\phi$ 



Fig. 55-60. Thagria krameri, n. sp.: 55, 3 pygofer and 10th segment, lateral view; 56, 3 pygofer processes and 10th segment, dorsal view; 57, connective, aedeagus, paraphysis and style, dorsal view; 58, plate, ventral view; 59, aedeagus and paraphysis, lateral view; 60, style, lateral view.

than in  $\mathcal{J}$ , distal length over 1/2 entire median length, broad basally, transocular width greater than width of eyes, lateral margin between eyes concave, disk nearly even with level of eyes, surface nearly flat, longitudinally striate; ocelli on lateral margin of crown, above eyes; eyes small, compressed laterally, occupying less than 1/2 entire dorsal surface of head; pronotum short, median length considerably less than median length of crown; scutellum short, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, interocular width broader than basal width, concave in lateral view, striate at apical 1/3, granulose at basal 2/3; clypellus short, basal width greater than base of clypeus, swollen basally, lateral margin contricted at apical 1/2.

3. Pygofer in lateral view with large broad caudoventral lobe, caudodorsal margin with a pair of long, broad, curved processes; 10th segment with a pair of ornate processes, processes in dorsal view with a pair of long, secondary, subbasal lateral processes and a pair of short, medial, lateral processes; aedeagus symmetrical, long, tube-like, about 3/4 as long as paraphysis, curved dorsally in lateral view; gonopore apical; paraphysis symmetrical, without processes, broad at basal 1/2, gradually tapered at apical 1/2 in dorsal view, distinctly curved ventrally at apical 1/3 in lateral view; connective Y-shaped, stem short; style very long, slender, apex reaching apex of paraphysis in dorsal view; plate segmented subbasally, distal length long and narrow.

 $\heartsuit$  . 7th sternum large, about  $2\times$  as long as penultimate, posterior margin produced slightly medially.

Holotype 3 (USNM), BORNEO: Mowong, IX.1907, F. Muir; allotype 9 (USNM), INDONESIA: Sumatra: Bandar Baroe, 850 m, 2.XII.1921, J. B. Corporaal; paratypes: Malacca: Perak, 1 3, 1 9, (no other data) (NR); Selangor: Uin Langat, 350–390 m, 1 3, 14.VI.1958, T. C. Maa (author's collection); BORNEO: Sarawak: Sadong, Kampong Tapuh, 300–450 m, 2 33, 10.VII.1958, Maa (BISHOP).

REMARKS. Thagria krameri is among several species that belong in a species group characterized by having an extremely long head and a ventrally curved paraphysis. The species is closely related to *cardamomi* but can be separated from it by the longer head in the female and the presence of a short, lateromedial secondary process on the 10th segment processes of the male. I name this species for my colleague and worldwide authority on leafhoppers, Dr James P. Kramer of the U. S. National Museum, Washington.

**Thagria cardamomi** (Evans), new combination Fig. 61–66.

Sabimoides cardamomi Evans, 1947: 254 [holotype  $\mathcal{Q}$ , Malaysia (BMNH) (examined)].—Metcalf, 1964: 94.

Length:  $3^{\circ} 6.80-7.40 \text{ mm}, 9 8.00 \text{ mm}.$ 

General color deep fuscous to testaceous with small, flavous dots and markings on body and elytra.

Head narrower than pronotum; crown very long, longer in  $\mathcal{Q}$  than in  $\mathcal{S}$ , produced beyond anterior margin of eyes, distal length nearly 1/2 to over 1/2 as long as entire median length, broad basally, transocular width greater than width of eyes, lateral margin between eyes concave, disk nearly even with level of eyes, surface flat, longitudinally striate; ocelli on lateral margin of crown above eyes; eyes small, elongate ovoid, compressed laterally, occupying about 1/3 of entire dorsal area of head; pronotum short, median length less than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margins broader distally than basally, concave in lateral aspect, striate at apical 1/3, granulose at basal 2/3; clypellus short, basal width greater than base of clypeus, swollen basally, lateral margins constricted at apical 1/2.

J. Pygofer in lateral aspect with large, elongate caudoventral lobe, caudodorsal margin with a pair of long processes; 10th segment with a pair of long, ornate processes, processes with a subbasal



Fig. 61-66. Thagria cardamomi (Evans): 61, 3 pygofer and 10th segment, lateral view; 62, 3 pygofer processes and 10th segment, dorsal view; 63, connective, aedeagus, paraphysis and style, dorsal view; 64, plate, ventral view; 65, aedeagus and paraphysis, lateral view; 66, style, lateral view.

secondary process; aedeagus symmetrical, long, tube-like, slightly curved, length about 2/3 as long as paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered at apical 1/2 in dorsal view, curved ventrally at apical 1/3 in lateral view, without paired dorsal processes; connective Y-shaped, stem short; style long and slender, apex reaching apex of paraphysis in dorsal view; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about  $2\times$  as long as penultimate, posterior margin produced medially.

SPECIMENS EXAMINED. Sabimoides cardamomi Evans, holotype  $\mathcal{Q}$ , Malaya [Pahang], Cameron Highlands, 25.IX.1937, on *Elettara cardamomum*, N. C. E. Miller (BMNH). MALAYSIA (W): Fraser's Hill, 4200 ft [1280 m], 1 Å, 17.VI.1962, E. S. Ross & D. Q. Cavagnaro (CAS); Pahang, Cameron Highlands, 4800 ft [1463 m], 3 ÅÅ, 1  $\mathcal{Q}$ , 7.VI.1935, H. M. Pendlebury (BMNH).

THAILAND: Bulsit Besar, 1 3, 1903 (author's collection).

DISTRIBUTION. Malaysia; new record: Thailand.

BIOLOGY. This species was collected on *Elettara cardamonum*, which may be the host.

REMARKS. Thagria cardamomi belongs to a species group whose members possess a long head. It can be separated from its closest relative, *projecta*, by the long, slender style and short, simple processes of the male 10th segment.

**Thagria projecta** (Distant), new combination Fig. 67–75.

Dharmma projecta Distant, 1908: 324 [holotype ♀, Burma (BMNH) (examined)].—Metcalf, 1964: 23. Sabima prima Distant, 1908: 325 [holotype ♀, India (BMNH) (examined)].—Metcalf, 1964: 20.

#### New synonymy.

- Sabima stellifera Distant, 1908: 325 [holotype ♂, Burma (BMNH) (examined)].—Metcalf, 1964: 21. New synonymy.
- Guliga erebus Distant, 1908: 326 [holotype 3, Burma (BMNH) (examined)].—Metcalf, 1964: 28. New synonymy.
- Sabima aryana Distant, 1918: 46 [holotype ♀, India (BMNH) (examined)].—Metcalf, 1964: 20. New synonymy.

Length:  $3^{\circ} 6.30-7.40 \text{ mm}, \text{ } \text{ } 7.80-9.00 \text{ mm}.$ 

General color deep fuscous to piceous. Forewings speckled or finely reticulated. Clypeus piceous with a fine, lateral, flavous line from apex to antennal sockets.

Head narrower than pronotum; crown long, longer in  $\mathcal{G}$  than in  $\mathcal{J}$ , sharply angled in  $\mathcal{G}$ , bluntly angled in  $\mathcal{J}$ , produced beyond anterior margin of eyes, distal length nearly 1/2 to over 1/2 entire median length, broad basally, interocular width greater than ocular width, lateral margins slightly convergent basally, disk nearly flat, nearly even with level of eyes, striate longitudinally; ocelli situated laterally just above eyes; eyes small, elongate-ovoid, depressed laterally, occupying 1/3 ( $\mathcal{G}$ ) to 1/2 ( $\mathcal{J}$ ) of entire dorsal area of head; pronotum short in  $\mathcal{G}$ , median length less than median length of crown, long in  $\mathcal{J}$ , median length greater than median length of crown; scutellum long, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, broader apically than basally, concave in lateral view, surface finely granulose at basal half, finely rugulose at apical half; clypellus short, broad and swollen basally, broader basally than base of clypeus, lateral margin constricted at apical half.

3. Pygofer in lateral aspect with large caudoventral lobe, caudodorsal margin with a pair of long, slender processes; 10th segment with a pair of short, subtruncate processes; aedeagus symmetrical, long, tube-like, extended beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, without processes, very broad basally and gradually tapered apically in dorsal view, curved ventrally at apical 1/2 in lateral view; connective Y-shaped, stem short; style unique, very long, apex extending beyond apex of paraphysis, distal 1/2 bifurcate, serrate on inner lateral margin in dorsal view.

 $\mathfrak{Q}$ . 7th sternum long, about  $2 \times$  as long as penultimate, posterior margin produced medially.

SPECIMENS EXAMINED. Dharmma projecta Distant, holotype  $\mathcal{Q}$ , Tenasserim, (no date), Doherty (BMNH); Sabima prima Distant, holotype  $\mathcal{Q}$ , Assam, (no date), Atkinson (BMNH); Sabima stellifera Distant, holotype  $\mathcal{J}$ , Myitta, (no date), Doherty (BMNH); Sabima aryana Distant, holotype  $\mathcal{Q}$ , Darjeeling, (no date, no collector), (BMNH); Guliga erebus Distant, holotype  $\mathcal{J}$ , Burma, (no date), Doherty (BMNH). CHINA: Che Kiang Prov., Mokan San, 1  $\mathcal{J}$ , 2  $\mathcal{Q}\mathcal{Q}$ , 24.IX.1927, Dora E. Wright, Suisapa, Lichuan Distr., W Hupeh, 1000 ft [305 m], 1  $\mathcal{Q}$ , 20.VIII.1948, Gressitt & Djou (CAS); Fukien, Shao Wu, Tachulan, 1000 m, 1  $\mathcal{Q}$ , 30.VIII.1945, T. Maa (BISHOP). INDIA: Assam, Chabua, 1  $\mathcal{J}$ , 1  $\mathcal{Q}$ , 10.X.1948, D. E. Hardy (USNM); Margherita, 1  $\mathcal{Q}$ , (no date), Doherty (BMNH). LAOS: Vientiane Prov., Phou Kou Khouei, 800 m, 2  $\mathcal{Q}\mathcal{Q}$ , 12–13.IV.1965, J. L. Gressitt (BISHOP). THAILAND: Khorat Prov., Khao Yai N.P., 38 road km from Pakchong, 350 m,



Fig. 67-75. Thagria projecta (Distant): 67, 3 pygofer and 10th segment, lateral view; 68, head, pronotum and scutellum, dorsal view; 69, connective, aedeagus, paraphysis and style, dorsal view; 70, head, pronotum and scutellum, lateral view; 71, face; 72, male pygofer processes and 10th segment, dorsal view; 73, plate, ventral view; 74, style, lateral view; 75, aedeagus and paraphysis, lateral view.

1 &, 28.IX.1965, at leaf-littered, stagnant, shaded, streamside pool, D. L. Deonier (ISA); Chiangmai Prov., Doi Suthep, 1 &, 1 ¢, 1–5.IV.1958, Maa (author's collection); Doi Suthep, 1278 m, 1 Å, 1 ¢, 29.III–4.IV.1958, Maa; Chiangdao, 450 m, 1 ¢, 5–11.IV.1958, Gressitt; Chiangmai, 420 m, 1 ¢, 28.III.1958, Maa; Chiengmai, 1200 m, 1 Å, 11.IV.1966, J. Sedlacek (BISHOP); VIETNAM: Tonkin, 1 ¢, 1917, R. V. deSalvaza (BMNH); Tonkin, Hoa Binh, 7 ÅÅ, 8 ¢¢, 1928, De Cooman (MNHU).
DISTRIBUTION. Burma, Assam; new records: China, Vietnam, Thailand, Laos.

**REMARKS.** Thagria projecta is the most common species and has widest distribution among the group of long-headed species of Thagria. The synonymy is extensive, based on the similarity of the male genitalia among the species given above; projecta is the valid name by priority. The head length varies, particularly between sexes; more so than between specimens of the same sex at the extremes of its range. From *philagroides* to which it is similar in general habitus, projecta can be separated by the unique style, which is bifurcate apically.

**Thagria philagroides** (Jacobi), new combination Fig. 76–81.

Orthojassus philagroides Jacobi, 1914: 382 [holotype ♀, Taiwan (SMTD) (examined)].—Metcalf, 1964: 30.

Sabima rostrata Kato, 1933: 457 [Taiwan].-Metcalf, 1964: 20. New synonymy.

Nisitra breviceps Jacobi, 1944: 51 [holotype 3, China (MAK) (examined)].—Metcalf, 1964: 85. New synonymy.

#### New synonymy.

Length: 37.30-8.10 mm, 9.10-10.40 mm.

General color deep fuscous with numerous, small ochraceous spots and markings on body and elytra.

Head narrower than pronotum; crown long in  $\mathcal{J}$ , very long in  $\mathcal{G}$ , produced beyond anterior margin of eyes, distal length about 1/2 ( $\mathcal{J}$ ) to 3/4 ( $\mathcal{Q}$ ) of entire median length, anterior margin acutely angled in  $\mathcal{J}$ , sharply pointed and attenuated in  $\mathcal{Q}$ , concave in lateral view, lateral margins slightly convergent basally, disk flat, nearly level with eyes, interocular width greater than width of eyes; ocelli on lateral margin above eyes; eyes moderately large, elongate-ovoid, compressed laterally, occupying 1/2 ( $\mathcal{J}$ ) to 1/6 ( $\mathcal{Q}$ ) of entire dorsal area of head; pronotum short, median length less than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broader apically between eyes than basally, granulose basally, rugulose apically; clypellus short, broad and swollen basally, broader basally than base of clypeus, lateral margins constricted at apical 1/2.

3. Pygofer in lateral aspect with a large caudoventral lobe, caudodorsal margin with a pair of long, slender processes; 10th segment with a pair of long, slender processes, processes longer than pygofer processes, apex dentate; aedeagus symmetrical, long, tube-like, about 1/2 as long as paraphysis, curved in lateral view; gonopore apical; paraphysis symmetrical, without paired dorsal processes, distinctly curved ventrally in lateral view; connective Y-shaped, with short stem; style very long, exceeding apex of paraphysis, apex with 4 secondary processes; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum long, about  $3\times$  as long as penultimate, posterior margin produced medially.

SPECIMENS EXAMINED. Orthojassus philagroides Jacobi, holotype  $\Im$ , Taiwan, Fukosho, 1909, H. Sauter (SMTD); Nisitra breviceps Jacobi, holotype  $\Im$ , China, Kwangtsan-Fukien, 13.VIII.1937, J. Klapperich (MAK). CHINA: Fukien, Shaowu, Tachulan, 1000 ft [305 m], 2  $\Im$ , 1  $\Im$ , 12–20. VIII.1945, T. C. Maa (BISHOP); Chungan, Kuatun, 1  $\Im$ , 1  $\Im$ , 22.VIII.1945, Maa (author's collection).

### DISTRIBUTION. Taiwan, China.

**REMARKS.** This species has the longest head  $(\mathcal{Q})$  of all presently described forms of the longheaded group. The suppression of *rostrata* was based on the original description and illustration. Kato's type specimen of *rostrata* was not available and may no longer be extant. Examination of the genitalia of the holotype male of *breviceps* showed complete similarity of characters with male specimens associated with the holotype  $\mathcal{Q}$  of *philagroides*; the latter is the oldest available name and thus is the valid name of the species. *Thagria philagroides* is related to *projecta* and can be distinguished by the style having 4 apical secondary processes.

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Fig. 76-81. Thagria philagroides (Jacobi): 76, 3 pygofer and 10th segment, lateral view; 77, 3 pygofer processes and 10th segment, dorsal view; 78, connective, aedeagus, paraphysis and style, dorsal view; 79, style, lateral view; 80, aedeagus and paraphysis, lateral view; 81, plate, ventral view.

## Thagria hamata Nielson, new species

Fig. 82–87.

Length: ♂ 7.10 mm, ♀ 8.30 mm.

General color deep ochraceous, elytra with 2 deep, testaceous bands subapically on costal margin.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins somewhat convex, constricted basally, disk slightly foveate, elevated slightly above level of eyes; ocelli situated on anterior margin; eyes large, somewhat globular, occupying about 1/2 entire dorsal area of head; pronotum large, median length greater than median length of crown, with short, faint carina medially, extending from anterior margin to about middle; scutellum large, median length greater than median length of greater than median length of pronotum; elytra elongate, veins distinct, venation as in description of genus, appendix well



Fig. 82-87. Thagria hamata, n. sp.: 82, 3 pygofer and 10th segment, lateral view; 83, 3 pygofer processes and 10th segment, dorsal view; 84, connective, aedeagus, paraphysis and style, dorsal view; 85, plate, ventral view; 86, aedeagus and paraphysis, lateral view; 87, style, lateral view.

developed; clypeus elongate, somewhat broad, lateral margins constricted near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad basally, broader than base of clypeus, lateral margins constricted at subapical 1/2.

3. Pygofer in lateral aspect with a very long, caudoventral lobe, caudodorsal margin with a long, curved process; process broad basally, attenuated apically in dorsal and lateral views; 10th segment with a pair of long, ornate processes, processes extending beyond apex of pygofer processes, claw-shaped, in dorsal view; aedeagus symmetrical, short, tube-like, length about 1/3 length of paraphysis; gonopore apical; paraphysis symmetrical, broad, becoming narrowly attenuated at apical 2/3 in dorsal view, with a pair of long, basal processes on dorsal margin, processes curved at apical 1/2, apex not reaching apex of aedeagus; connective Y-shaped with short stem; style long, narrow, somewhat spatulate, apex extended beyond

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midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment very long and narrow.

♀. 7th sternum large, about 3× as long as penultimate segment, posterior margin nearly truncate. Holotype ♂, (BISHOP 10,545), LAOS: Vientiane Prov., Ban Van Heue, 20 km E of Phou-Kow-Khouei, 1-15.V.1965, J. A. Rondon; allotype ♀ (BISHOP), Vientiane Prov., Phou-Kow-Khouei, 800 m, 17.IV.1965, J. L. Gressitt; 1 ♂ paratype, same data as allotype (author's collection).

**REMARKS.** Thagria hamata belongs to a species group having a clypellus which is broad and swollen subbasally. This species is closely related to *elencha* but can be separated from that species by the clawed 10th segment processes and by the paraphysis which is narrow and attenuated at basal 2/3 in lateral view.

## Thagria elencha Nielson, new species Fig. 88–92.

Length: ♂ 6.00–6.20 mm, ♀ 6.60–6.90 mm.

General color testaceous with irregular-shaped, light ochraceous areas on elytra.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes; distal length about 1/4 entire median length, broad, interocular width greater than width of eyes; disk nearly flat, elevated slightly above level of eyes, lateral margins slightly convergent basally, surface finely striate radially; ocelli situated on anterior margin; eyes large, semiglobular; pronotum large, median length greater than median length of crown, with median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins excised near antennal sockets, surface finely granulose, anterior margin rugulose; clypellus short, base broader than base of clypeus, constricted subapically.

3. Pygofer in lateral aspect with a large, very long caudoventral lobe, caudodorsal margin with a pair of long processes, processes broad basally, curved, attenuated apically; 10th segment with a pair of very long processes, processes lanceolate, slightly curved in lateral view, serrate on the apical margin; aedeagus symmetrical, very long, narrow, tube-like, apex exceeding midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming attenuated at apical 5/6 in dorsal view, semibulbous at apex in lateral view, with a pair of short, sharply pointed basal processes on dorsal margin; connective Y-shaped, stem short; style long, narrow, apex extending beyond midlength of paraphysis, narrowly attenuated at apical 1/3 in lateral view; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about  $3\times$  as long as penultimate segment, posterior margin produced slightly at middle.

Holotype 3 (BISHOP 10,546), LAOS: Vientiane Prov., Ban Van Heue, malaise trap, 15. III.1966, J. L. Gressitt; allotype  $\Im$  (BISHOP), Ban Van Heue, 800 m, 11.IV.1965, Gressitt; paratypes: Ban Van Heue, 750–800 m, 1 3, 10–11.IV.1965, forest stream bed, malaise trap, Gressitt; Borikhane Prov., Pak Kading, 100 m, 1  $\Im$ , 22.IV.1965, Gressitt & J. A. Rondon (author's collection).

REMARKS. This species belongs to a species group that possesses a very broad clypellus. From *hamata*, to which it is closely related, *elencha* can be distinguished by the aedeagus with a semibulbous apex and the 10th segment with a pair of long, curved, lanceolate processes.

Thagria quintata Nielson, new species Fig. 93–98.

Length: 36.20 mm, 9 unknown.

General color deep testaceous with irregular-shaped, translucent, light ochraceous areas on forewing. Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins



Fig. 88-92. Thagria elencha, n. sp.: 88, 3 pygofer and 10th segment, lateral view; 89, 3 pygofer processes and 10th segment, dorsal view; 90, connective, aedeagus, paraphysis and style, dorsal view; 91, aedeagus and paraphysis, lateral view; 92, plate, ventral view.

slightly convergent basally, disk nearly flat, striate radially, slightly elevated above level of eyes; ocelli situated on anterior margin of crown; eyes large, semiglobular; pronotum short, median length only slightly longer than median length of crown, with median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins constricted near antennal sockets, surface finely granulose, anterior margin rugulose; clypellus short, very broad basally, broader basally than base of clypeus, apical 1/2 constricted.

3. Pygofer in lateral aspect with large, very long, caudoventral lobe, caudodorsal margin with a pair of very long, sharp processes, processes with a short, subbasal secondary process; 10th segment with a pair of short processes, processes acutely pointed apically; aedeagus symmetrical, long, narrow, apex reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming narrowly attenuated at apical 5/6, slightly swollen subapically in lateral aspect, with a pair of long, curved, sharp processes basally on dorsal margin, and with a group of 5 short processes distad of paired basal processes;



Fig. 93-98. Thagria quintata, n. sp.: 93, 3 pygofer and 10th segment, lateral view; 94, 3 pygofer processes and 10th segment, dorsal view; 95, plate, ventral view; 96, connective, aedeagus, paraphysis and style, dorsal view; 97, aedeagus and paraphysis, lateral view; 98, style, lateral view.

connective Y-shaped, stem short; style long, apex reaching midlength of paraphysis in dorsal view, narrowly attenuated at apical 1/3; plate segmented subbasally, distal segment very long and narrow.

Holotype & (ISA), THAILAND: Khorat Prov., Khao Yai N.P., 38 road km from Pakchong, ca 14° 30' N, 101° 30' E, 350 m, 28.IV.1965, at leaf-littered, stagnant, shaded, streamside pool, D. L. Deonier.

REMARKS. This species is similar in general habitus and aedeagal characteristics to *elencha*. Thagria quintata belongs to a species group possessing very broad clypellus. It can be separated from *elencha* by the processes of the 10th segment, which are very short, and by the group of small processes subbasally on the dorsal margin of the paraphysis.

## **Thagria eminentia** Nielson, new species Length: ♂ 6.30 mm, ♀ 7.10 mm.

Fig. 99-104.

General color deep testaceous with numerous fine ochraceous dots or markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/3 entire median length, broad, interocular width greater than width of eyes, lateral margins slightly convergent basally, disk nearly flat, about even with level of eyes, surface striate longitudinally, ocelli on anterior margin of head; eyes moderate size, elongate-ovoid, occupying a little over 1/2 entire dorsal area of head; pronotum short, median length about equal to median length of crown; surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, rather broad throughout,



Fig. 99-104. Thagria eminentia, n. sp.: 99, 3 pygofer and 10th segment, lateral view; 100, 3 pygofer processes and 10th segment, dorsal view; 101, plate, ventral view; 102, connective, aedeagus, paraphysis and style, dorsal view; 103, aedeagus and paraphysis, lateral view; 104, style, lateral view.

lateral margins slightly constricted near antennal sockets, surface finely granulose, anterior margin rugulose; clypellus short, very broad basally, broader than base of clypeus, apical 1/2 constricted.

3. Pygofer in lateral aspect with long, broad, caudoventral lobe, caudodorsal margin with a pair of moderately long processes, processes lanceolate in lateral view; 10th segment with a pair of short processes, processes curved at right angles subapically; aedeagus symmetrical, long, tube-like, apex reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming attenuated at apical 2/3, strongly curved ventrad in lateral view, with a pair of processes medially on the dorsal margin, processes directed laterad in dorsal view; connective broadly Y-shaped, stem very short; style extremely long, extending beyond apex of paraphysis, with a small, subapical secondary process; plate segmented subbasally, distal segment very long and narrow.

Q. 7th sternum undescribed because abdomen missing on allotype specimen.

Holotype & (BISHOP 10,547), VIETNAM: 17 km S of Dilinh, 1300 m, 6–13.X.1960, C. M. Yoshimoto; allotype & (BISHOP), Mt Lang Bian, 1500–2000 m, 19.V–8.VI.1961, N. R. Spencer; 1 & paratype, 6 km S of Dalat, 1400–1500 m, 9.VI–7.VII.1961, Spencer (author's collection).

**REMARKS.** Thagria eminentia, related to tridentia, can be distinguished by the style with a single, subapical secondary process and by the paraphysis which is strongly curved ventrad in lateral view. The species is a member of a species group in which the clypellus is very broad and swollen basally.

Thagria tridentia Nielson, new species Fig. 105–110.

Length: 37.00 mm, 27.30-7.40 mm.

General color deep fuscous with irregular orange transverse bands on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 1/2 entire dorsal area of head; pronotum short, median length nearly equal to median length of crown, with short, faint, median longitudinal carina on anterior margin; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margin slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad and swollen basally, base broader than base of clypeus, lateral margins convergent apically.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of long processes, processes swollen subbasally, curved and attenuated apically in lateral view; 10th segment with a pair of long processes, processes bifid apically; aedeagus symmetrical, long, apex extended beyond midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, broad basally and gradually tapering apically in dorsal view, narrow and slightly sinuate in lateral view, with a pair of short, finger-like lobes medially on dorsal margin; connective short, Y-shaped, with short stem; style very long, apex nearly reaching apex of paraphysis in dorsal view, slender, with 3 short projections, 2 subapically and 1 apically; plate segmented subbasally, distal segment long and slender.

 $\heartsuit$  . 7th sternum long, about  $3\times$  as long as penultimate segment, posterior margin produced slightly medially.

Holotype  $\mathcal{J}$  (BMNH), BORNEO: Sarawak: foot of Mt Dulit, junction of rivers Tinjar & Lejok, 2.IX.1932, at light in house, 8:00–9:30 PM, rainy & cold, B. M. Hobby & A. W. Moore; allotype  $\mathcal{Q}$  (BMNH), same location as holotype, 16–24.VIII.1932, Hobby & Moore; 3  $\mathcal{Q}\mathcal{Q}$  paratypes, same data as allotype (BMNH, author's collection).

**REMARKS.** This species is closely related to *marcida* and can be distinguished from that species by the presence of 3 short apical projections on the style.



Fig. 105–110. Thagria tridentia, n. sp.: 105, 3 pygofer and 10th segment, lateral view; 106, 3 pygofer processes and 10th segment, dorsal view; 107, connective, aedeagus, paraphysis and style, dorsal view; 108, aedeagus and paraphysis, lateral view; 109, style, lateral view; 110, plate, ventral view.

Thagria marcida Nielson, new species Fig

Fig. 111–115.

Length:  $3^{\circ}$  6.30 mm,  $9^{\circ}$  unknown.

General color fuscous with numerous, irregular orange spots on elytra.

Head narrower than pronotum; crown short, produced slightly distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins converging basally, disk nearly flat, slightly elevated above level of eyes, surface striate; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 1/2 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, with distinct median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout,



Fig. 111–115. Thagria marcida, n. sp.: 111,  $\Im$  pygofer and 10th segment, lateral view; 112,  $\Im$  pygofer processes and 10th segment, dorsal view; 113, connective, aedeagus, paraphysis and style, dorsal view; 114, aedeagus and paraphysis, lateral view; 115, style, lateral view.

lateral margin slightly excavated near antennal sockets, surface granulose, rugulose along anterior margin; clypellus short, broad and swollen basally, base equal to base of clypeus, lateral margins convergent at apical 1/2.

 $\Im$ . Pygofer in lateral aspect with large, long, caudoventral lobe, caudodorsal margin with a pair of very long processes, processes each with a short, lateral, secondary projection medially in dorsal view; 10th segment with a pair of long, very stender processes; aedeagus symmetrical, long, tube-like, apex extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, slender and narrowed nearly throughout in dorsal aspect, slightly sinuate in lateral aspect, apex curved dorsally, with a pair of dorsal projections medially; connective Y-shaped with short stem; style long, apex reaching apex of paraphysis, slender, constricted at apical 1/3 with a subapical lateral projection; plate segmented subbasally, distal segment long and slender.

Holotype & (BMNH), BORNEO: Sarawak: Mt Dulit, 4500 ft [1372 m], 14.X.1932, moss forest, B. M. Hobby & A. W. Moore.

REMARKS. This species is closely related to *tridentia* and can be separated from that species by the presence of a secondary medial projection on the pygofer process and the single subapical projection on the style.

## Thagria perspicuata Nielson, new species Fig. 116-120.

Length: 36.00 mm, 9 unknown.

General color testaceous, with numerous fuscous and yellow markings on veins and in cells of elytra.

Head narrower than pronotum; crown long, slightly narrowed, produced beyond anterior margin of eyes, distal length about 1/3 entire median length, narrow, interocular width slightly wider than width of eyes, lateral margins converging basally, disk nearly flat, surface slightly elevated above level of eyes, striate longitudinally; ocelli on anterior margin of crown; eyes large, elongate-ovoid, occupying nearly 2/3 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, with a prominent median longitudinal carina; scutellum short, median length slightly longer than median length of pronotum; elytra elongate, veins very distinct, appendix well developed, venation as in description of



Fig. 116-120. Thagria perspicuata, n. sp.: 116, 3 pygofer and 10th segment, lateral view; 117, 3 pygofer processes and 10th segment, dorsal view; 118, connective, aedeagus, paraphysis and style, dorsal view; 119, aedeagus and paraphysis, lateral view; 120, style, lateral view.

genus; clypeus elongate, very broad throughout, lateral margins slightly constricted at antennal sockets, surface finely granulose at basal 2/3, longitudinally rugulose along apical 1/3; clypellus short, broad, and slightly swollen basally, base nearly equal to base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with caudoventral lobe broken off, caudodorsal margin with a pair of rather long processes, processes broad at basal 1/2, gradually tapered at apical 1/2 in lateral aspect; 10th segment with a pair of broad processes, processes bulbous at basal 2/3, narrowly attenuated at apical 1/3 to a distinct narrow, finger-like lobe; aedeagus symmetrical, short, tube-like, apex reaching about midlength of paraphysis; gonopore apical; paraphysis symmetrical, without secondary processes, very broad basally, tapered at apical 1/3, apex excavated; connective Y-shaped, stem short; style very short, apex barely reaching base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (USNM), MALAYSIA (W): Island of Penang, (no date), Baker.

REMARKS. This species is similar to *vectigalia*. T. perspicuata can be distinguished from other species of *Thagria* by the presence of the very short style and the enlarged processes of the 10th segment.

Thagria vectigalia Nielson, new species Fig. 121-126.

Length: 36.20-6.50 mm, 9 unknown.

General color deep testaceous with a distinct yellow or ivory band on ventral margin of clavus extending from base to more than 1/2 of its length, then crossing obliquely to costa.

Head narrower than pronotum; crown elongate, produced beyond anterior margin of eyes, distal length about 1/3 entire median length, narrowed, interocular width less than width of eyes, lateral margins converging basally, disk nearly flat, surface slightly depressed; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown; scutellum short, median length slightly longer than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins constricted near antennal sockets, surface finely granulose throughout; clypellus short, swollen and broad basally, base slightly wider than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with long caudoventral lobe, caudodorsal margin with a pair of long, broad processes, processes narrowed apically in dorsal view; 10th segment with a pair of long, broad processes, narrowed apically in lateral view; aedeagus symmetrical, extremely short, apex not reaching midlength of paraphysis in dorsal view; gonopore apical; paraphysis symmetrical, very broad basally, constricted medially, slightly expanded subapically with a deep, narrow cleft apically in dorsal aspect, with a short projection on dorsal surface medially in ventral view; connective short, broad, Y-shaped, with short stem; style long, apex extending beyond midlength of paraphysis, apical 1/2 sickle-shaped, curved, narrowly attenuated apically in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BMNH), BURMA: Kambalti, 7000 ft [2134 m], 20.V.1934, R. Malaise; 2 33 paratypes, same data as holotype (BMNH, author's collection).

**REMARKS.** This is a rather unique species and is most closely related to *perspicuata* in general habitus and certain genital characteristics. From *perspicuata* to which it is similar, *vectigalia* can be distinguished by the sickle-shaped apex of the style and the short, medial projection on the dorsal margin of the paraphysis.

Thagria infula Nielson, new species Fig. 127–132.

Length: 36.00 mm, 9 unknown.

General color testaceous with a yellow or ivory transverse band on middle of elytra and a yellow or ivory transverse band apically.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margin slightly convergent basally, disk nearly flat, slightly elevated above level of eyes, prominently striate; ocelli on



Fig. 121-126. Thagria vectigalia, n. sp.: 121, 3 pygofer and 10th segment, lateral view; 122, 3 pygofer processes and 10th segment, dorsal view; 123, connective, aedeagus, paraphysis and style, dorsal view; 124, aedeagus and paraphysis, lateral view; 125, style, lateral view; 126, plate, ventral view.

anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad and slightly swollen basally, base nearly as broad as base of clypeus, converging distally at apical 1/2.

3. Pygofer in lateral aspect with large, broad, elongate caudoventral lobe, caudodorsal margin with very distinct, long, paired processes; processes with secondary projection medially; 10th segment with a pair of very broad processes in lateral aspect; aedeagus symmetrical, short, apex barely reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically, apex notched, slightly sinuate in lateral aspect, without secondary processes; connective Y-shaped with short stem; style very long, apex extending beyond midlength of paraphysis, slender, sharply pointed apically; plate segmented subbasally, distal segment long and slender.

Holotype & (BISHOP 10,548), MALAYSIA (W): Pahang, King Geo. V Nat'l. Park, Gua Che Yatim, on palm, 16.XII.1958, J. L. Gressitt.

REMARKS. This species is similar in general characteristics to bryani. Thagria infula can be distinguished by the large, broad 10th segment and the very slender style.

Thagria bryani Nielson, new species Fig. 133–138.

Length: 37.40 mm, 9 unknown.



Fig. 127–132. Thagria infula, n. sp.: 127, 3 pygofer and 10th segment, lateral view; 128, 3 pygofer processes and 10th segment, dorsal view; 129, plate, ventral view; 130, connective, aedeagus, paraphysis and style, dorsal view; 131, aedeagus and paraphysis, lateral view; 132, style, lateral view.

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Fig. 133–138. Thagria bryani, n. sp.: 133, 3 pygofer and 10th segment, lateral view; 134, 3 pygofer processes and 10th segment, dorsal view; 135, plate, ventral view; 136, connective, aedeagus, paraphysis and style, dorsal view; 137, aedeagus and paraphysis, lateral view; 138, style, lateral view.

General color deep fuscous with large, irregular yellow or orange spots on elytra and a narrow, yellow transverse band anteriorly on pronotum.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins converging basally, disk nearly flat, slightly elevated above level of eyes, prominently striate; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of crown; scutellum large, median length as in description of genus; clypeus elongate, rather broad throughout, lateral margins nearly parallel, slightly converging basally, surface finely granulose along basal 2/3, distinctly rugulose along apical 1/3;

clypellus short, broad, and swollen basally, base slightly wider than base of clypeus, constricted at apical 2/3.

3. Pygofer in lateral aspect with a large, very long, caudoventral lobe, caudodorsal margin with a pair of long, sinuate processes; 10th segment with a pair of very long processes, each process deeply bifurcate apically; aedeagus symmetrical, long, tube-like, apex nearly reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, abruptly attenuated medially to apex in dorsal view, slender, slightly tapered apically in lateral view, without secondary projections; connective Y-shaped, stem short; style long, slender, extending beyond midlength of paraphysis in dorsal aspect, slightly sinuate in lateral and dorsal aspects; plate segmented subbasally, distal segment very long and narrow.

Holotype J (CAS), MALAYSIA (W): [Pahang], Cameron Highlands, 4 mi. (6 km) NE of Jor Camp, 800 m, 20.VI.1962, Ross & Cavagnaro.

REMARKS. This is a uniquely colored species. It is similar in general characteristics to *elongata*, but can be separated from that species by the general habitus and lack of projections on the paraphysis.

**Thagria elongata** Nielson, new species Fig. 139–146.

Length: ♂ 8.30-8.70 mm, ♀ 9.60-10.00 mm.

General color testaceous throughout, veins deep fuscous.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed, prominently striate; ocelli on anterior margin of crown; eyes large, elongate-ovoid, occupying a little over 1/2 of entire dorsal area of head; pronotum short, median length about equal to median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins very distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins nearly parallel, surface finely granulose, rugulose along anterior margin; clypellus short, broad, and swollen basally, base equal to or slightly greater than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with very large, elongate caudoventral lobe, caudodorsal margin with a pair of long processes, processes slightly sinuate and narrowed apically in lateral aspect; 10th segment with a pair of extremely long processes, processes slender throughout, extending beyond pygofer processes in dorsal aspect; aedeagus symmetrical, long, tube-like, apex reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, and becoming abruptly narrowed at about middle, slender in lateral aspect, without secondary processes; connective Y-shaped, stem short; style long, extending beyond midlength of paraphysis, very slender, attenuated apically, slightly sinuate in dorsal aspect; 3 plate segmented subbasally, distal segment very slender and long.

 $\mathfrak{Q}$ . 7th sternum very large, about  $3 \times$  as long as penultimate segment, posterior margin truncate.

Holotype 3 (BISHOP 10,549), THAILAND: Chiangmai Prov., Doi Suthep, 1278 m, 29.III– 4.V.1958, T. C. Maa; allotype  $\Im$  (BISHOP), same data as holotype; paratypes: 2  $\Im$ , same data as holotype; LAOS: Vientiane Prov., Ban Van Heue, 2  $\Im$ , 3  $\Im$ , 13.IV.1965, J. L. Gressitt (BISHOP); Vientiane Prov., Phou Kou Khouei, 800 m, 1  $\Im$ , 1  $\Im$ , 1  $\Im$ , 12–13.IV.1965, Gressitt (author's collection).

REMARKS. This is a large species with no close relatives. Diagnostic characters are the extremely long processes of the 10th segment.

### Thagria gracilis Nielson, new species Fig. 147–152.

Length: 36.10 mm, 96.08-6.90 mm.

General color deep fuscous with broad bands or transverse ochraceous areas on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, longitudinally striate; ocelli on



Fig. 139–146. Thagria elongata, n. sp.: 139, 3 pygofer and 10th segment, lateral view; 140, 3 pygofer processes and 10th segment, dorsal view; 141, Q 7th sternum, ventral view; 142, connective, aedeagus, paraphysis and style, dorsal view; 143, plate, ventral view; 144, style, lateral view; 145, aedeagus and paraphysis, lateral view; 146, aedeagus and paraphysis (specimen from Laos), lateral view.

anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, with median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins slightly constricted near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad and swollen basally, base as wide as base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with large, elongate, broad caudoventral lobe, caudodorsal margin with a pair of long, broad, slightly sinuate processes; 10th segment with a pair of short processes, processes swollen subapically, attenuated apically; aedeagus symmetrical, very long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, without projections, broad basally, becoming narrowly and evenly attenuated apically, slightly sinuate and very narrow in lateral aspect; connective Y-shaped, broad, stem short; style very long, nearly reaching apex of paraphysis, extremely slender and sharply attenuated apically; plate segmented subbasally, distal segment very long and slender.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, posterior margin slightly produced at middle.



Fig. 147–152. Thagria gracilis, n. sp.: 147, J pygofer and 10th segment, lateral view; 148, J pygofer processes and 10th segment, dorsal view; 149, plate, ventral view; 150, connective, aedeagus, paraphysis and style, dorsal view; 151, aedeagus and paraphysis, lateral view; 152, style, lateral view.

Holotype 3 (USNM), MALAYSIA (W): Island of Penang, (no date), Baker; allotype  $\varphi$  (USNM), same data as holotype; paratypes: 1  $\varphi$ , same data as holotype (author's collection); BORNEO: Sabah: Forest Camp, 19 km N of Kalabakan, 1 3, 17.X.1962, K. J. Kuncheria (BISHOP).

REMARKS. Thagria gracilis is very similar in general habitus to tridentia and in genital characteristics. From this species gracilis can be distinguished by the presence of a very slender paraphysis and a very slender style.

Thagria vietnamensis Nielson, new species Fig. 153–161.

Length:  $3^{\circ} 6.00-6.90 \text{ mm}, \text{ } \text{ } 7.10-7.40 \text{ mm}.$ 

General color fuscous with numerous yellow or ivory spots on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, somewhat or slightly depressed medially, about even with level of eyes; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, somewhat excavated near antennal sockets, surface finely granulose at basal 2/3, rugulose at apical 1/3; clypellus short, broad and slightly swollen basally, base equal to or slightly wider than base of clypeus, constricted at apical 1/2.

5. Pygofer in lateral aspect with large, broad, caudoventral lobe, pointed apically, caudodorsal margin with a pair of long, curved processes; 10th segment without processes; aedeagus symmetrical, very long, exceeding midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, without projections, broad basally, gradually tapering apically; connective Y-shaped, stem short; style long and slender, length varying from nearly reaching to apex to extending beyond apex of paraphysis in dorsal aspect; slender, lateral margin somewhat sinuate in dorsai aspect; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, nearly  $3\times$  as long as penultimate segment, posterior margin produced slightly at middle.

Holotype 3 (BISHOP 10,550), VIETNAM: Fyan, 900–1000 m, 11.VII–9.VIII.1961, N. R. Spencer; allotype  $\Im$  (BISHOP), same data as holotype; paratypes: 28 33, 19  $\Im$ , same data as holotype; Blao (Balao), 500 m, 3 33, 1  $\Im$ , 14–21.X.1960, C. M. Yoshimoto; 6 km S of Dalat, 1400–1500 m, 4 33, 3  $\Im$ , 9.VI–7.VII.1961, Spencer; Mt Lang Bian, 1500–2000 m, 1 3, 2  $\Im$ , 19. V–8.VI.1961, Spencer; Kontum, N of Pleiku, 550 m, 1  $\Im$ , 13.V.1960, L. W. Quate; 20 km N of Pleiku, 650 m, 1  $\Im$ , 9.V.1960, S. Quate; Karyu, Danar, 200 m, 1 3, 13–28.II.1961, Spencer (BISHOP); MALAYSIA (W): Perak, Maxwell Hill, 1350 m, 1 3, 17–20.III.1958, T. C. Maa (author's collection).

REMARKS. *Thagria vietnamensis* is similar in general habitus to *obrienae* but can be distinguished from that species by the lack of the processes on the 10th segment and by the straight paraphysis in the lateral view. This species is the most common member of *Thagria* in Vietnam.

**Thagria obrienae** Nielson, new species Fig. 162–168.

Length:  $3^{\circ}$  6.10 mm,  $9^{\circ}$  unknown.

General color ochraceous, numerous light fuscous reticulations on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed medially, slightly elevated above level of eyes; ocelli on anterior margin of crown; eyes large, elongate-ovoid, occupying a little over 1/2 of entire dorsal



Fig. 153–161. Thagria vietnamensis, n. sp.: 153, 3 pygofer, lateral view; 154, head, pronotum and scutellum, lateral view; 155, face; 156, head, pronotum and scutellum, dorsal view; 157, 3 pygofer processes, dorsal view; 158, aedeagus and paraphysis, lateral view; 159, style, lateral view; 160, connective, aedeagus, paraphysis and style, dorsal view; 161, plate, ventral view.

area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a broad, elongate caudoventral lobe, caudodorsal margin with a pair of long, curved processes; 10th segment with a pair of very long processes, processes extending beyond pygofer processes in dorsal view, with a small subapical projection; aedeagus symmetrical, long tube-like, exceeding midlength of paraphysis; gonopore apical; paraphysis symmetrical, without projections, broad basally, abruptly attenuated at about middle, strongly curved ventrad at apex in lateral view; connective



Fig. 162–168. Thagria obrienae, n. sp.: 162,  $\Im$  pygofer and 10th segment, lateral view; 163,  $\Im$  pygofer processes and 10th segment, dorsal view; 164, connective, aedeagus, paraphysis and style, dorsal view; 165, plate, ventral view; 166, style, lateral view; 167,  $\Im$  7th sternum, ventral view; 168, aedeagus and paraphysis, lateral view.

Y-shaped, stem short; style long, exceeding apex of paraphysis, slender, with a lateral projection at about middle; plate segmented subbasally, distal segment extremely long and narrow.

Holotype & (BISHOP 10,551), THAILAND: Chiangmai Prov., Doi Suthep, 28–31.III.1958, T. C. Maa.

**REMARKS.** Thagria obtience is similar to serrata in genital characteristics, but can be easily distinguished from that species by the paraphysis, which is curved dorsad apically, and by the lack of a subbasal projection on the 10th segment processes. This species was named for Dr Lois B. O'Brien, an authority on the Fulgoroidea.

Fig. 169-174.

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Length:  $3^{\circ}$  6.00–6.10 mm,  $2^{\circ}$  unknown.

General color fuscous with many large ochraceous areas on forewing, ochraceous areas irregularly shaped and range from small to large patches.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, strongly striate, elevated above level of eyes; ocelli on anterior margin of head; eyes large, globular, occupying a little over 1/2 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, with distinct median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, rather broad throughout, lateral margins nearly parallel, slightly excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad, and slightly swollen basally, base nearly as wide as base of clypeus, constricted at apical 1/2.

5. Pygofer in lateral aspect with a large, broad, elongate caudoventral lobe, caudodorsal margin with a pair of long, curved processes; 10th segment with a pair of very long processes exceeding apex of pygofer processes in dorsal aspect; aedeagus symmetrical, extremely long, nearly reaching apex of paraphysis in lateral aspect, tube-like; gonopore apical; paraphysis symmetrical, without projections, broad basally, gradually narrowed apically in dorsal aspect, strongly curved apically in lateral aspect, slightly bulbous subapically; connective Y-shaped, stem short; style very long, nearly reaching apex of paraphysis in dorsal aspect, with a very distinct subapical lateral process; plate segmented subbasally, distal segment very long and slender and slightly curved.

Holotype & (BISHOP 10,552), BORNEO: Sarawak: Gunong Natang, 120 m, 15.IX.1958, J. L. Gressitt; 1 & paratype, MALAYSIA (W): Penang Hill, 100 m, 26.VI.1962, E. S. Ross & D. Q. Cavagnaro (CAS).

REMARKS. *Thagria serrata* is similar in general habitus to *tridentia* and *gracilis*, but can be distinguished from these species by the presence of a distinctive subapical process on the style.

**Thagria multispars** (Walker), new combination Fig. 175–181.

Tettigonia multispars Walker, 1858: 220 [holotype  $\mathcal{D}$ , China (BMNH) (examined)]. Coelidia multispars: Metcalf, 1964: 46.

Jassus multifasciatus Jacobi, 1944: 49 [holotype  $\mathcal{Q}$ , China (MAK) (examined)]. New synonymy. Coelidia multifasciata (Jacobi): Metcalf, 1964: 61.

Length: ♂ 8.30–9.00 mm, ♀ 9.60–10.10 mm.

General color deep testaceous to piceous with numerous large, irregular yellow or ivory markings on elytra; crown with interocular narrow yellow band; pronotum with narrow transverse band on anterior margin. A beautifully colored species.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, sometimes slightly depressed along middle, irregularly striate; ocelli on anterior margin of crown; eyes large, semibulbous, occupying nearly 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix very well developed, venation as in description of genus; clypeus rectangular, quite broad throughout, lateral margins excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, extremely broad and swollen basally, base as wide or wider than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin with a pair of very long processes; 10th segment with a pair of long, curved processes; aedeagus symmetrical, short, tubelike, not reaching midlength of paraphysis; paraphysis asymmetrical, broad basally, becoming gradually



Fig. 169–174. Thagria serrata, n. sp.: 169, 3 pygofer and 10th segment, lateral view; 170, aedeagus and paraphysis, lateral view; 171, 3 pygofer processes and 10th segment, dorsal view; 172, connective, aedeagus, paraphysis and style, dorsal view; 173, style, lateral view; 174, plate, ventral view.

tapered apically and unevenly curved apically, with a single, long, curved subbasal process on dorsal margin; connective Y-shaped, stem short; style short, narrow, sharply attenuated apically, extending slightly beyond base of paraphysis; plate segmented subbasally, distal segment extremely long and narrow.  $\mathcal{Q}$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin broadly concave.

SPECIMENS EXAMINED. Tettigonia multispars Walker, holotype  $\varphi$ , Hong Kong (BMNH); Jassus multifasciatus Jacobi, holotype  $\varphi$ , Shao-wu, Fukien, 500 m, 19.VIII.1937, J. Klapperich (MAK). CHINA: SW Fukien Prov., Liung-chon San, 1  $\mathcal{J}$ , 2  $\varphi\varphi$ , 21.VII.1936, J. L. Gressitt; Kiangsi Prov., Hong San, 2  $\mathcal{J}\mathcal{J}$ , 1  $\varphi$ , 17.VII.1936, Gressitt; Tai-au-hong, 2  $\mathcal{J}\mathcal{J}$ , 2  $\varphi\varphi$ , 6.VII.1936, Gressitt (NCSR); 1  $\varphi$ , same data except 5.VII.1936 (author's collection); Wong-sa-shue, 2  $\mathcal{J}\mathcal{J}$ , 2  $\varphi\varphi$ ,



Fig. 175–181. Thagria multispars (Walker): 175, 3 pygofer and 10th segment, lateral view; 176, 3 pygofer processes and 10th segment, dorsal view; 177, connective, aedeagus, paraphysis and style, dorsal view; 178, plate, ventral view; 179, aedeagus and paraphysis, lateral view; 180,  $\bigcirc$  7th sternum, ventral view; 181, style, lateral view.

6.VII.1936, Gressitt; Kwangtung Prov., Yim-na San, 4 33, 13.VI.1936, Gressitt (NCSR); 1 3, same except 15.VI.1936 (author's collection); Chekiang Prov., Mokan San, 1 3, 1  $\bigcirc$ , 14.IX.1927, Dora E. Wright (CAS); Yen-ping, 2  $\bigcirc$ , 22.X.1917, (no collector) Ac. #5148 (AMNH); Szchuen, Mt Omei, 11,000 ft [3353 m], 1  $\bigcirc$ , VII.1936, D. C. Graham (USNM); LAOS: Vientiane Prov., Phou-kow-khouei, 800 m, 1  $\bigcirc$ , 16.IV.1965, Gressitt (Bishop).

DISTRIBUTION. China; new record: Laos.

REMARKS. Thagria multispars belongs to a species group with extremely broad clypeus and having beautifully colored patterns on the wings. In general habitus multispars is similar to

dirigens and fossa. It can be separated from those species by the presence of a very long single process on the base of the paraphysis.

Thagria alaeva Nielson, new species Fig. 182–186.

Length: 37.10-7.40 mm, 9 unknown.

General color rufo-fuscous throughout with a small, narrow subapical flavous band and 2 small cylindrical spots about middle of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins converging basally at basal 1/4, disk nearly flat, slightly depressed medially, slightly elevated above level of eyes, striate radially; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3



Fig. 182–186. Thagria alaeva, n. sp.: 182, 3 pygofer and 10th segment, lateral view; 183, 3 pygofer processes and 10th segment, dorsal view; 184, connective, aedeagus, paraphysis and style, dorsal view; 185, aedeagus and paraphysis, lateral view; 186, style, lateral view.

entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum

large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins slightly excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad and swollen basally, base about equal to base of clypeus, constricted at apical 1/2.

 $\sigma$ . Pygofer in lateral aspect with a very long, slender caudoventral lobe, caudodorsal margin with a pair of very long processes, each process unequally bifurcate in lateral and caudal views; 10th segment with a pair of very long processes, processes broad at basal 3/4, narrowly attenuated at apical 1/4 in lateral view; aedeagus slightly asymmetrical, short, not reaching midlength of paraphysis in lateral aspect, tubelike; gonopore apical; paraphysis asymmetrical, broad basally, becoming narrowly attenuated at apical 2/3, with a very large basal process arising from dorsal margin, curved in lateral aspect; connective Y-shaped, stem short; style long, exceeding midlength of paraphysis in dorsal aspect, slender, lateral margins nearly parallel throughout; plate segmented subbasally, distal segment narrow and very long.

Holotype & (BMNH), BORNEO: Sarawak: Mt Kalulong, Tebani R, 30.XI.1932, undergrowth near river, B. M. Hobby & A. W. Moore; 1 &, paratype, foot of Mt Dulit, junction of rivers Tinjar & Lejok, 12.VII.1932, old secondary forest, atypical, Hobby & Moore (author's collection).

REMARKS. This species is similar in male genital characteristics to *ornata* but can be distinguished from that species by the bifurcate pygofer processes.

## Thagria ornata Nielson, new species Fig. 187–192.

Length: ♂ 7.20–7.40 mm, ♀ 8.30–8.60 mm.

General color rufo-testaceous throughout, with a light flavous marking subapically on costa and a broad flavous band apically on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, disk nearly flat, slightly depressed medially, lateral margins convergent basally; ocelli on anterior margin; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, with a faint median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, slightly constricted near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base nearly equal or slightly greater than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a very long, slender caudoventral lobe, caudodorsal margin with a pair of long processes, processes broad basally, curved or sinuate in lateral aspect, sharply attenuated apically, serrate on inner lateral margin in dorsal view; 10th segment with very long processes, exceeding apex of pygofer processes in dorsal aspect, processes extremely narrow and slender; aedeagus slightly asymmetrical, short, not quite reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis asymmetrical, broad basally, becoming narrowly attenuated apically in dorsal aspect, narrow, slightly sinuate in lateral aspect, with a long, curved basal process on dorsal margin; connective Y-shaped, stem short; style very long, extending beyond midlength of paraphysis in dorsal aspect, narrow throughout, sharply attenuated apically; plate segmented subbasally, distal segment long and narrow.

 $\varphi$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, posterior margin nearly truncate.

Holotype 3 (BISHOP 10,553), THAILAND: Chiangmai Prov., Doi Suthep, 1278 m, 29.III– 4.V.1958, T. C. Maa; allotype  $\Im$  (BISHOP), same locality as holotype, 1–5.IV.1958, Maa; 2 33, 4  $\Im$  paratypes, same data as holotype (BISHOP, author's collection).

**REMARKS.** Thagria ornata is similar in general habitus and male genital characteristics to sandakanensis, but can be separated from that species by the extremely long processes of the 10th segment and the recurved basal process of the paraphysis.



Fig. 187–192. Thagria ornata, n. sp.: 187, 3 pygofer and 10th segment, lateral view; 188, aedeagus and paraphysis, lateral view; 189, 3 pygofer processes and 10th segment, dorsal view; 190, connective, aedeagus, paraphysis and style, dorsal view; 191, style, lateral view; 192, plate, ventral view.

## Thagria sandakanensis Nielson, new species Fig. 193-198.

Length: 3 6.80–7.10 mm, 2 unknown.

General color rufo-testaceous with 2 small, medial ochraceous spots and an ochraceous band apically on forewing.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent at basal 1/4, disk nearly flat, slightly depressed medially, slightly elevated above level of eyes, striate radially; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, with faint longitudinal median carina; scutellum large, median length about equal to median length of pronotum;



Fig. 193–198. Thagria sandakanensis, n. sp.: 193, 3 pygofer and 10th segment, lateral view; 194, 3 pygofer processes and 10th segment, dorsal view; 195, connective, aedeagus, paraphysis and style, dorsal view; 196, aedeagus and paraphysis, lateral view; 197, style, lateral view; 198, plate, ventral view.

elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margins slightly convergent basally, slightly excised near antennal sockets, surface finely granulose throughout, anterior margin rugulose; clypellus short, somewhat swollen, broad basally, base about equal to base of clypeus, slightly constricted or convergent apically.

3. Pygofer in lateral aspect with long, narrow caudoventral lobe, caudodorsal margin with a pair of long processes, processes serrate on inner apical margin; 10th segment with a pair of processes, processes long, slightly exceeding apex of pygofer process in dorsal view; aedeagus slightly asymmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, becoming narrowly attenuated apically with a single long, curved basal process on dorsal margin; connective Y-shaped,

stem short; style long, exceeding midlength of aedeagal paraphysis in dorsal aspect, lateral margins nearly parallel, abruptly attenuated apically; plate segmented subbasally, distal segment very long and narrow.

Holotype 3 (USNM), BORNEO: Sabah: Sandakan, (no date), Baker; 2 33 paratypes, same data as holotype (USNM, author's collection).

REMARKS. This species is closely related to *ornata* in general habitus and male genital characteristics. From *ornata*, *sandakanensis* can be distinguished by the short processes of the 10th segment and by the shape of the basal process on the paraphysis.

Thagria sarawakensisNielson, new speciesFig. 199–204.Length: ♂ 7.40 mm, ♀ 8.00–8.10 mm.



Fig. 199–204. Thagria sarawakensis, n. sp.: 199, 3 pygofer and 10th segment, lateral view; 200, 3 pygofer processes and 10th segment, dorsal view; 201, plate, ventral view; 202, connective, aedeagus, paraphysis and style, dorsal view; 203, aedeagus and paraphysis, lateral view; 204, style, lateral view.

General color testaceous throughout with 2 light, testaceous narrow bands subapically on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed on either side of middle, slightly elevated above level of eyes, striate along anterior margin below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown with a prominent, nearly complete, median longitudinal carina; scutellum large, median length greater than median length of greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad, lateral margins distinctly excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad, swollen basally, base as broad as base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a long, curved, narrow caudoventral lobe, caudodorsal margin with 2 pairs of long processes, dorsal pair elongate, ventral pair very broad at basal 2/3 in lateral aspect, with a slender, curved process at apical 1/3; 10th segment with 1 pair of long, slender processes, processes about as long as ventral pair of pygofer processes in dorsal view; aedeagus symmetrical, short, tube-like, not quite reaching midlength of paraphysis; paraphysis asymmetrical, broad at basal 1/3, becoming gradually attenuated at apical 2/3, with a pair of asymmetrical processes basally on dorsal margin, processes single and unevenly shaped; connective Y-shaped, stem short; style very long, extending beyond midlength of paraphysis in dorsal aspect, lateral margins nearly equidistant throughout; plate segmented subbasally, distal segment very long and narrow.

Q. 7th sternum large, nearly  $3 \times$  as long as penultimate segment, posterior margin produced medially.

Holotype 3 (BISHOP 10,554), BORNEO: Mowong, (no date), F. Muir; allotype  $\mathcal{G}$  (BMNH), BORNEO: Sarawak: Mt Dulit, 4000 ft [1220 m], 19.X.1932, moss forest, B. M. Hobby & A. W. Moore; 1  $\mathcal{Q}$  paratype, foot of Mt Dulit, junction of rivers Tinjar & Lejok, 24.VIII.1932, cultivated land now waste, Hobby & Moore (BMNH).

**REMARKS.** This species belongs to a species group with a very broad clypellus and has an asymmetrical paraphysis. *Thagria sarawakensis* is closely related to *lewisi* but can be separated from that species by 2 pairs of pygofer processes and a single pair of basal processes on the paraphysis.

Thagria lewisi Nielson, new species Fig. 205–210.

Length:  $3^{\circ}$  6.80–7.00 mm,  $9^{\circ}$  7.60–8.10 mm.

General color deep fuscous throughout with large light fuscous areas on the apical 1/2 of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed medially, slightly elevated above level of eyes, striate anteriorly below ocelli; ocelli on anterior margin of crown; eyes large, elongate ovoid, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length slightly greater than median length of crown, with a short, faint median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins constricted slightly near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad and swollen basally, base equal to base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin with a pair of long, slender processes, processes broad at basal 1/2, acutely attenuated at apical 1/2; 10th segment with a pair of long processes, processes narrow, length not reaching apex of pygofer processes in dorsal view; aedeagus symmetrical, short, apex not quite reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis asymmetrical, very broad at basal 1/3, becoming attenuated at apical 2/3, with basal processes on dorsal margin, processes paired, right process deeply bifurcate and appearing as 2 short processes; connective Y-shaped with short stem; style long, apex extending beyond midlength of aedeagal paraphysis in dorsal aspect, broad in dorsal aspect, narrow and sharply attenuated in lateral aspect; plate segmented subbasally, distal segment long and very narrow.

 $\varphi$ . 7th segment large, about  $3 \times$  as long as penultimate segment, posterior margin nearly truncate.

Holotype 3 (BISHOP 10,555), VIETNAM: Fyan, 900–1000 m, 11.VII–9.VIII.1961, N. R. Spencer; allotype  $\mathcal{Q}$  (BISHOP), same data as holotype; paratypes: Fyan, 900–1200 m, 66 33, 66  $\mathcal{Q}\mathcal{Q}$ , 11.VII–9.VIII.1961, Spencer (BISHOP, BMNH, author's collection); 6 km S of Dalat, 1400–1500 m, 7 33, 9  $\mathcal{Q}\mathcal{Q}$ , 9.VI–26–27.IX.1961, Spencer & J. L. Gressitt; Mt Lang Bian, 1500–2000 m, 2 33, 4  $\mathcal{Q}\mathcal{Q}$ , 10.V–8.VI.1961, Spencer; Blao (Balao), 500 m, 2 33, 14–21.X.1960, C. M. Yoshimoto; 17 km S of Dilinh, 1300 m, 1 3, 6–13.X.1960, Yoshimoto; Ap Hung-Lam, 21 km NW



Fig. 205-210. Thagria lewisi, n. sp.: 205, 3 pygofer and 10th segment, lateral view; 206, 3 pygofer processes and 10th segment, dorsal view; 207, plate, ventral view; 208, connective, aedeagus, paraphysis and style, dorsal view; 209, style, lateral view; 210, aedeagus and paraphysis, lateral view.

of Dilinh, 1100 m, 1  $\bigcirc$ , 29.IX-5.X.1960, Yoshimoto; LAOS: Ban Van Heue, 20 km E of Phou-Kow-Khouei, 1  $\bigcirc$ , 1–15.V.1965, J. A. Rondon (BISHOP).

REMARKS. This species belongs to a species group that has a very broad, swollen clypellus and an asymmetrical paraphysis with an asymmetrical process. It is a common species in Vietnam and is related to *bispiculata*, from which it can be separated by the very narrow style in lateral aspect and by having fewer basal processes on the paraphysis. This species is named for my brother Lewis.

Thagria multispiculata Nielson, new species Fig. 211-215.

Length: 37.10 mm, 9 unknown.

General color testaceous throughout with 2 light, broad fuscous bands alternated with 2 light, testaceous, broad bands on the apical 1/2 of forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins



Fig. 211-215. Thagria multispiculata, n. sp.: 211, J pygofer and 10th segment, lateral view; 212, J pygofer processes and 10th segment, dorsal view; 213, plate, ventral view; 214, connective, aedeagus, paraphysis and style, dorsal view; 215, aedeagus and paraphysis, lateral view.

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convergent basally, disk nearly flat, slightly depressed medially, slightly elevated above level of eyes, striate anteriorly below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 of entire dorsal area of head; pronotum large, median length greater than median length of crown, with a short, faint, median longitudinal carina; scutellum short, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins slightly excavated near antennal sockets, surface granulose throughout, rugulose along anterior margin; clypellus short, broad, swollen basally, base equal to base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with long, narrow caudoventral lobe, caudodorsal margin with a pair of long processes, processes attenuated apically in lateral aspect; 10th segment with a pair of very long, narrow processes, processes extending beyond apex of caudodorsal processes of pygofer in dorsal aspect; aedeagus symmetrical, short, apex basad of midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, gradually tapered apically, with basal processes on dorsal margin, processes paired, left process with 3 long, sharply pointed secondary processes, right process with 2 long, sharp secondary processes; connective Y-shaped, stem short; style long, apex nearly reaching apex of paraphysis in dorsal view, very broad and plate-like in lateral aspect; plate segmented subbasally, distal segment very long and narrow.

Holotype of (UKL), BURMA: Shingbwiyang, 29.III.1944, L. C. Kuitert.

REMARKS. This species belongs to a species group with a very broad clypellus and has an asymmetrical paraphysis with multi-processes basally on the dorsal margin. From *sarawakensis*, to which it is similar in genital characteristics, *multispiculata* can be distinguished by having 1 pair of caudodorsal pygofer processes and 5 secondary processes basally on the dorsal margin of the paraphysis.

**Thagria rorata** (Distant), new combination Fig. 216–220.

Jassus roratus Distant, 1908: 334 [lectotype 3, Tenasserim (BMNH), here designated (examined)]. Coelidia rorata: Metcalf, 1964: 72.

A description of the general habitus of the species was not made during the examination of the type, nor are specimens available at this time for a complete description. However, based on information from Distant's original description the following information is given.

Length:  $3^{\circ} 6.00-6.50 \text{ mm}, 9^{\circ} \text{ unknown}$ .

General color ochraceous with large, dark markings on elytra; clypellus short, broad, and swollen basally, constricted at apical 1/2.

3. Pygofer in lateral aspect with large caudoventral lobe, caudodorsal margin with a pair of long, slender processes; 10th segment without processes; aedeagus symmetrical, long, nearly reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis asymmetrical, broad basally, somewhat sinuate and narrowed apically in dorsal view, with 2 asymmetrically shaped processes medially on dorsal margin, left process triangulate, right process long and finger-like in lateral view; connective Y-shaped, stem short; style very long, apex nearly reaching apex of paraphysis in dorsal aspect, somewhat expanded subapically in dorsal aspect; plate segmented subbasally, distal segment long, narrow, with parallel margins.

SPECIMENS EXAMINED. Jassus roratus Distant, lectotype 3, Tenasserim, Doherty (BMNH), here designated; paralectotypes: Jassus roratus Distant, 2 J3 syntypes, Myitta, Doherty (BMNH). These specimens were described as females by Distant (1908) in his original description.

DISTRIBUTION. Tenasserim.

REMARKS. This species belongs to a species group that has a short, broad, swollen clypellus. *Thagria rorata* is a very distinctive species and can be separated from all other related species by the asymmetrical medial processes on the dorsal margin of the paraphysis.



Fig. 216-220. Thagria rorata (Distant): 216, 3 pygofer, lateral view; 217, 3 pygofer processes, dorsal view; 218, plate, ventral view; 219, aedeagus and paraphysis, lateral view; 220, connective, aedeagus, paraphysis and style, dorsal view.

# Thagria tenasserimensis (Distant), new combination Fig. 221–225.

Jassus tenasserimensis Distant, 1908: 330 [holotype ♂, Tenasserim (BMNH) (examined)]. Jassus cretatus Distant, 1908: 330 [holotype ♀, Tenasserim (BMNH) (examined)]. New synonymy. Coelidia tenasserimensis: Metcalf, 1964: 77. Coelidia cretata (Distant): Metcalf, 1964: 45.

A complete description of the general habitus of this species is not available because of the lack of specimens at hand and because a general description was not made of the type at the time it was examined. Some general information is available, however, based on Distant's original description.

Length: 36.00 mm, 9 no data.



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Fig. 221-225. Thagria tenasserimensis (Distant): 221, 3 pygofer and 10th segment, lateral view; 222, 3 pygofer processes and 10th segment, dorsal view; 223, plate, ventral view; 224, aedeagus and paraphysis, lateral view; 225, connective, aedeagus, paraphysis and style, dorsal view.

General color ochraceous with markings on elytra; clypellus short, broad, and swollen basally, constricted at apical 1/2.

3. Pygofer in lateral aspect with long, very narrow caudoventral lobe, caudodorsal margin with a pair of long, broad processes; 10th segment with a pair of very short, slender, finger-like processes, apex not reaching apex of pygofer processes in dorsal aspect; aedeagus symmetrical, moderately long, nearly reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis asymmetrical, narrowed nearly throughout, attenuated at apical 1/6 in dorsal aspect, with a short, blunt, lateral projection subbasally on dorsal margin and with 3 short, finger-like projections ventrally at apex; connective Y-shaped, stem short; style extremely short, barely extending beyond base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

SPECIMENS EXAMINED. Jassus tenasserimensis Distant, holotype  $\mathcal{J}$ , "Myitta," Doherty (BMNH); Jassus cretatus Distant, holotype  $\mathcal{Q}$ , "Myitta," Doherty (BMNH).

DISTRIBUTION. Tenasserim.

REMARKS. This species belongs to the group that has a very short, swollen, basal clypellus. The male genitalia are unique; short projections on the apex of the paraphysis can be used to separate it from all other species of *Thagria*. The type specimen is a male, not a female as stated by Distant (1908). The examination and comparison of the type 3 of *tenasserimensis* and type 9 of *cretatus* showed that they are the same species; the former is the valid name by page priority.

**Thagria dirigens** (Walker), new combination Fig. 226–234.

Coelidia dirigens Walker, 1857: 172 [holotype ♀, Borneo (BMNH) (examined)].—Metcalf, 1964: 46. Length: ♂ 8.40–8.70 mm, ♀ 9.60–10.40 mm.



Fig. 226–234. Thagria dirigens (Walker): 226, 3 pygofer and 10th segment, lateral view; 227, head, pronotum and scutellum, lateral view; 228, same, dorsal view; 229, face; 230, style, lateral view; 231, 3 pygofer processes and 10th segment, dorsal view; 232, aedeagus and paraphysis, lateral view; 233, plate, ventral view; 234, connective, aedeagus, paraphysis and style, dorsal view.
General color ochraceous with numerous small fuscous and ivory spots on elytra. Species is well marked and beautifully colored.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width much greater than width of eyes, lateral margin slightly convergent basally, disk foveate, slightly elevated above level of eyes, irregularly striate along anterior margin between ocelli and along lateral margins; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veris distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins distinctly excised near antennal sockets, surface finely granulose, narrowly rugulose along anterior margin; clypellus short, very broad and swollen basally, base about equal to or slightly wider than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a long, broad, caudoventral lobe, caudodorsal margin with a pair of broad, ornate processes, processes with a subbasal short, finger-like projection in lateral view, apex sagittate in dorsal view, with a very short, lateral projection subapically; 10th segment with a pair of extremely long, slender processes extending beyond apex of pygofer processes in dorsal view; aedeagus asymmetrical, long, apex nearly reaching midlength of paraphysis, with a distinct lateral process arising near middle of shaft; gonopore apical; paraphysis slightly asymmetrical, broad basally, becoming attenuated apically, somewhat narrowed at apical 2/3 in lateral aspect; connective Y-shaped, stem short; style short, apex basad of midlength of paraphysis, slender and narrowly attenuated in dorsal view; plate segmented subbasally, distal segment long and very narrow, truncate apically.

 $\bigcirc$ . 7th segment large, about  $3 \times$  as long as penultimate segment, posterior margin produced medially.

SPECIMENS EXAMINED. Coelidia dirigens Walker, holotype  $\mathcal{P}$ , BORNEO: Sarawak, (no date, no collector) (BMNH). BORNEO: Sabah: Sandakan, Nango Pelagus, nr Kapit, 180–585 m, 1 Å, 7–14.VIII.1958, T. C. Maa (BISHOP); Sandakan, 6 ÅÅ, 4  $\mathcal{P}\mathcal{P}$ , (no date), Baker (USNM, author's collection); Sarawak: Kuching, 1  $\mathcal{P}$ , 4.V.1900, Dyak coll., R. Shelford; foot of Mt Dulit, junction of rivers Tinjar & Lejok, 1  $\mathcal{P}$ , 4.VIII.1932, old secondary forest, beating undergrowth, B. M. Hobby & A. W. Moore (BMNH).

DISTRIBUTION. Sarawak, Sabah.

REMARKS. This species belongs to a species group that has very short, broad, swollen clypellus, and is similar in general habitus and genital characteristics to *multispars*, but it can be separated from that species by the asymmetrical aedeagus with its single process and the very long 10th segment processes.

## **Thagria grandis** Nielson, new species Fig. 235–240.

Length: ♂ 8.00-8.70 mm, ♀ 9.80-9.90 mm.

General color deep ochraceous with numerous fuscous and ivory spots on elytra. A beautifully colored species.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins converging slightly basally, disk slightly depressed below level of eyes, striate anteriorly below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of crown; scutellum large, median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, swollen and very broad basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a large, elongate, broad caudoventral lobe, caudodorsal margin with a pair of long, broad processes, processes with a small, finger-like subbasal secondary process in dorsal aspect; 10th segment with a pair of very long processes, processes extending beyond pygofer processes in dorsal

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Fig. 235–240. Thagria grandis, n. sp.: 235, 3 pygofer and 10th segment, lateral view; 236, 3 pygofer processes and 10th segment, dorsal view; 237, plate, ventral view; 238, connective, aedeagus, paraphysis and style, dorsal view; 239, aedeagus and paraphysis, lateral view; 240, style, lateral view.

view, slender and attenuated apically; aedeagus asymmetrical, tube-like, or nearly so, short, not quite reaching midlength of paraphysis in lateral view, with a single, long, lateral process basally, process about 1/2 as long as aedeagal shaft in dorsal view; gonopore apical; paraphysis asymmetrical, very broad throughout with a deep lateral excavation subapically in dorsal view; connective Y-shaped, stem short; style short, not reaching midlength of paraphysis in dorsal view, narrow, attenuated apically; plate segmented subbasally, distal segment very long and slender.

 $\Diamond.$  7th segment large, about  $2\times$  to  $3\times$  as long as penultimate segment, caudal margin produced distinctly medially.

Holotype & (BMNH), BORNEO: Sarawak: Kuching, 28.IX.1899, (10318), Dyak; allotype

 $\varphi$  (BMNH), same data as holotype (10315); paratypes: 2  $\Im \Im$ , 1  $\varphi$ , same data as holotype (BMNH); Sabah (W): Sandakan Bay (NW), Sepilok For. Res., 1–10 m, 1  $\Im$ , 30.X.1957, J. L. Gressitt (BISHOP); MALAYSIA (W): SE, Pahang, Rompin R, Taman, 5–20 m, 1  $\Im$ , 19.IX.1960, Gressitt (BISHOP); Pahang, King Geo. V Nat'l. Park, Gua Che Yatim, 1  $\Im$ , 16.XII.1958, L. W. Quate (author's collection).

**REMARKS.** This species belongs to a species group that has very broad, swollen clypellus and is closely related to *normani* in genital characteristics. From this species *grandis* can be distinguished by the presence of a small finger-like secondary process on the pygofer process and the very long, slender 10th segment processes.

# Thagria normani Nielson, new species Fig. 241–246.

Length: 3 8.40–9.00 mm, 2 unknown.

General color ochraceous with numerous fuscous and ivory markings on forewing. A beautifully colored species.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate, depressed below level of eyes, striate along anterior margin below ocelli; ocelli located on anterior margin of crown; eyes large, semiglobular, occupying over 1/2 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

5. Pygofer in lateral aspect with a large, elongate, broad caudoventral lobe, caudodorsal margin with a pair of long, broad processes; 10th segment with a pair of ornate, long processes, very broad basally, attenuated apically in lateral view with a subapical, subquadrate secondary process on lateral margin in dorsal view; aedeagus asymmetrical, tube-like but short, not reaching midlength of paraphysis in dorsal view, with a single, long, lateral process basally in dorsal view, process almost as long as aedeagal shaft; gonopore apical; paraphysis very broad, asymmetrical, with a lateral subapical emargination in dorsal view; connective Y-shaped, stem short; style moderately long, nearly reaching midlength of paraphysis in dorsal view, slender and attenuated apically; plate segmented subbasally, distal segment very long and narrow.

Holotype 3 (BMNH), BORNEO: Sarawak: foot of Mt Dulit, junction of rivers Tinjar & Lejok, 12.IX.1932, light trap, B. M. Hobby & A. W. Moore; paratypes: Bau Distr., Pangkalan Tebang, 300-450 m, 1 3, 6.IX.1958, secondary forest, T. C. Maa (BISHOP); Kuching, 1 3, 29.XI.1900, R. Shelford (author's collection).

**REMARKS.** This species belongs to a species group that possesses a short, broad, swollen clypellus. It is most closely related in general habitus and genital characteristics to *grandis*, from which it can be distinguished by the ornate 10th segment processes with secondary subquadrate lateral process, absence of a secondary finger-like process on the pygofer processes, and by the long, lateral, basal process of the aedeagus. This species is named for my brother Norman.

# Thagria tuxeni Nielson, new species Fig. 247–252.

Length:  $3^{\circ} 6.80-7.00 \text{ mm}$ ,  $2^{\circ} 7.30-7.60 \text{ mm}$ .

General color ochraceous with a broad, longitudinal, fuscous band on the elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/3 entire median length, narrow, interocular width less than width of eyes, lateral margins strongly convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially; ocelli located on



Fig. 241–246. Thagria normani, n. sp.: 241, 3 pygofer and 10th segment, lateral view; 242, 3 pygofer processes and 10th segment, dorsal view; 243, connective, aedeagus, paraphysis and style, dorsal view; 244, plate, ventral view; 245, aedeagus and paraphysis, lateral view; 246, style, lateral view.

anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins excavated near antennal sockets, surface finely granulose throughout, rugulose along anterior margin; clypellus short, slightly swollen and broad basally, base nearly equal to base of clypeus, lateral margins excavated or concave medially.

J. Pygofer in lateral aspect with a large, broad, truncate caudoventral lobe, margin of caudoventral



Fig. 247-252. Thagria tuxeni, n. sp.: 247, J pygofer and 10th segment, lateral view; 248, portion of J pygofer and 10th segment, dorsal view; 249, plate, ventral view; 250, connective, aedeagus, paraphysis and style, dorsal view; 251, aedeagus and paraphysis, lateral view; 252, style, lateral view.

lobe with a short process, caudodorsal margin of pygofer with a pair of long processes; 10th segment with a pair of ornate processes, processes with a long, apical process on ventral margin in lateral view; aedeagus symmetrical, tube-like, short, not quite reaching midlength of ventral aedeagal paraphysis, slightly expanded apically in dorsal view; gonopore apical; paraphysis asymmetrical, apex curved laterally in dorsal view, broad basally, narrowed at apical 3/4, broadly curved in lateral view; connective Y-shaped, stem short; style short, extending just beyond base of paraphysis in dorsal view, slender, attenuated apically; plate segmented subbasally, distal segment very long and narrow.

 $\mathfrak{Q}$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially. Holotype  $\mathfrak{Z}$  (BMNH), BORNEO: Sarawak: foot of Mt Dulit, junction of rivers Tinjar & Lejok, 4.VIII.1932, old secondary forest, beating undergrowth, B. M. Hobby & A. W. Moore; allotype  $\mathcal{Q}$  (USNM), Sabah: Sandakan, (no date), Baker; paratypes: Sarawak: Mt Dulit, R Koyan, 2500 ft [762 m], 1 Å, 21.XI.1932, primary forest, primitive forest, Hobby & Moore; Tinjar to Rumah Bulan Ding, 1 Å, 4–12.XI.1932, riverside, Hobby & Moore (BMNH); Merirai Valley, 1 Å, 1–6.XII.1958 (BISHOP); Sabah: Tawau Residency, Kalabakan R, 30 mi [48 km] W of Tawau, 1  $\mathcal{Q}$ , 9–18.XI.1958, T. C. Maa; Gomantong Caves, 1 Å, 22–26.XI.1958, Maa; Sandakan Bay (SW), Sapagaya Lumber Camp, 2–20 m, 1 Å, 4.XI.1957, J. L. Gressitt (BISHOP); Sandakan, 1 Å, 1  $\mathcal{Q}$ , (no date), Baker (USNM); MALAYSIA (W): 16 mi [26 km] NE of Kuala Lumpur, 1000 ft [305 m], 2  $\mathcal{Q}\mathcal{Q}$ , 8.VI.1962, E. S. Ross & D. Q. Cavagnaro; Fraser's Hill, 4200 ft [1280 m], 17.VI.1962, Ross & Cavagnaro (CAS); Pahang, Kuala Tahan, 200 m, 1 Å, 1  $\mathcal{Q}$ , 12–14.XII.1958, Maa; Selangor, Ulu, Gombak, 300 m, 1  $\mathcal{Q}$ , 15.VI.1961, Gressitt (author's collection); Island of Penang, 1  $\mathcal{Q}$ , (no date), Baker (USNM).

REMARKS. This is a unique species having no close relatives. It can be distinguished from other species by the ornate 10th segment process and short process on the caudoventral lobe of the pygofer. This species is named for Dr S. L. Tuxen, Copenhagen, Denmark.

Thagria triementia Nielson, new species Fig. 253–258.

Length: ♂ 6.50 mm, ♀ 7.00–7.15 mm.

General color fuscous with a large flavous spot subapically on costa and many minute flavous spots on veins.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly elevated above level of eyes with a series of striations radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a large, elongate, broad caudoventral lobe, slightly concave on caudal margin, caudodorsal margin of pygofer with a pair of very long, broad processes, processes in lateral view broad basally, attenuated apically; 10th segment with a pair of very slender, long processes, apex of processes not reaching apex of pygofer process in dorsal aspect; aedeagus symmetrical, long, tube-like, extending slightly beyond midlength of paraphysis in lateral aspect; gonopore apical; paraphysis asymmetrical, broad basally, constricted medially, slightly expanded subapically with 3 short, curved processes apically, the larger dorsal and 2 smaller ventral; connective Y-shaped, stem short; style very short, barely extending beyond base of paraphysis in dorsal view; plate segmented subbasally, distal segment very long and narrow.

 $\bigcirc$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype & (BISHOP 10,556), THAILAND: Pangmakampon (Pankampawng) nr Fang, 450 m, 15–16.XI.1957, J. L. Gressitt; allotype  $\Im$  (BISHOP), same data as holotype; paratypes: 1  $\Im$ , same data as holotype; Chiengmai, Ban-tin-doi, 350 m, 1  $\Im$ , 13.XI.1957, Gressitt (BISHOP).

REMARKS. Thagria triementia belongs to a species group that possesses a very broad swollen clypellus. It is similar in male genital characteristics to *kronestedti* and can be separated from that species by the very short aedeagus and the very broad paraphysis with a lateral process.

Thagria kronestedti Nielson, new species Fig. 259–264.

Length: 3 7.60 mm, 2 unknown.

General color ochraceous throughout with interrupted fuscous markings on veins of elytra.



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Fig. 253-258. Thagria triementia, n. sp.: 253, 3 pygofer and 10th segment, lateral view; 254, 3 pygofer processes and 10th segment, dorsal view; 255, connective, aedeagus, paraphysis and style, dorsal view; 256, aedeagus and paraphysis, lateral view; 257, style, lateral view; 258, plate, ventral view.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk fovcate, slightly depressed below level of eyes; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 of entire dorsal area of head; pronotum long, median length greater than median length of crown, surface nearly smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, slightly constricted near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

J. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair



Fig. 259–264. Thagria kronestedti, n. sp.: 259,  $\Im$  pygofer and 10th segment, lateral view; 260,  $\Im$  pygofer processes and 10th segment, dorsal view; 261, connective, aedeagus, paraphysis and style, dorsal view; 262, plate, ventral view; 263, aedeagus and paraphysis, lateral view; 264, style, lateral view.

of curved processes; 10th segment with a pair of very long, slender processes extending beyond caudal margin of caudoventral lobe in lateral aspect; aedeagus symmetrical, very short, not reaching midlength of paraphysis in dorsal and lateral views, tube-like; gonopore apical; paraphysis asymmetrical, very broad at basal 1/2 with a short, lateral projection medially on dorsal margin; connective Y-shaped, stem short; style short, slender, attenuated apically, apex not reaching midlength of paraphysis; plate segmented subbasally, distal segment very slender and very long.

Holotype 3 (USNM), THAILAND: [Chiangmai], Doi Suthep, 3000 ft [914 m], 4-10.V. 1952, D. & E. Thurman.

REMARKS. Thagria kronestedti belongs to a species group possessing a very broad, swollen

clypellus. It is related in male genital characteristics to *fossa* but can be separated from that species by the shape of the paraphysis and general habitus characteristics. The species is named for Dr Torbjorn Kronestedt of the Swedish Museum of Natural History in Stockholm.

Thagria fossa Nielson, new species Fig. 265–270.

Length: ♂ 7.60 mm, ♀ 8.90–9.10 mm.

General color ochraceous with numerous large, irregular fuscous spots and with a few small ivory spots on elytra. A beautifully colored species.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 265–270. Thagria fossa, n. sp.: 265, J pygofer and 10th segment, lateral view; 266, J pygofer processes and 10th segment, dorsal view; 267, plate, ventral view; 268, connective, aedeagus, paraphysis and style, dorsal view; 269, aedeagus and paraphysis, lateral view; 270, style, lateral view.

about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk prominently foveate with numerous striations laterally and below ocelli; ocelli on anterior margin of head; eyes large, clongate ovoid, occupying about 1/2 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix very well developed, venation as in description of genus; clypeus elongate, very broad throughout, distinctly excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, very broad and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of long, slender processes; 10th segment with a pair of long, slender processes extending beyond apex of pygofer processes in dorsal view and extending beyond margin of caudoventral lobe of pygofer in lateral aspect; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis asymmetrical, very broad basally, deeply excavated laterally at apical 1/2 in dorsal aspect with a short lateral projection medially on dorsal margin, apex curved dorsally in lateral view; connective Y-shaped, stem short; style moderately long, very slender, attenuated apically, nearly reaching midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment very long and slender.

 $\varsigma.~$  7th sternum very large, about 3 imes as long as penultimate segment, caudal margin truncate.

Holotype  $\mathcal{J}$  (BISHOP 10,557), CHINA: Fukien, Shaowu, Tachulan, 1000 m, 12.VIII.1945, T. Maa; allotype  $\mathcal{Q}$  (BISHOP), same data as holotype; paratypes: Hong San, SE Kiangsi, 3  $\mathcal{J}\mathcal{J}$ , 4  $\mathcal{Q}\mathcal{Q}$ , 27.VI-17.VII.1936, J. L. Gressitt (NCSR, author's collection); BURMA: Tingkawk, 1  $\mathcal{Q}$ , 25.V.1944, L. C. Kuitert (UKL).

REMARKS. This species belongs to a species group having very broad, swollen clypellus and is related in general habitus and male genital characteristics to *soosi*. From *soosi*, *fossa* can be distinguished by the presence of long 10th segment processes which extend beyond the apex of the pygofer processes, by the very large, lateral excavation at the apical 1/2 of the paraphysis, and by the short, medial projection on the dorsal margin of the paraphysis.

## Thagria soosi Nielson, new species Fig. 271–276.

Length:  $3^{\circ} 6.90-7.00 \text{ mm}, 9^{\circ} \text{ unknown}.$ 

General color ochraceous with numerous fuscous markings on elytra and with a few ivory spots at apical 1/2 of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk foveate, depressed below level of eyes, striate laterally and below ocelli; ocelli on anterior margin of head; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum short, median length nearly equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, very broad throughout, lateral margins slightly constricted near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad, and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of long processes, processes with a very small, finger-like subbasal secondary projection; 10th segment with a pair of slender processes, length of processes about equal to length of pygofer processes in dorsal view; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad at basal 3/4, deeply excavated laterally at apical 1/4 in dorsal view; connective Y-shaped, stem short; style moderately long, very slender, attenuated apically, not reaching midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment very long and slender.

Holotype 3 (NCSR), CHINA: Dwa Bi (=Taipin), Hainan Id., 20.VII.1935, J. L. Gressitt; 1 3 paratype, same data as holotype except 21.VII.1935 (author's collection).



Fig. 271-276. Thagria soosi, n. sp.: 271, 3 pygofer and 10th segment, lateral view; 272, 3 pygofer processes and 10th segment, dorsal view; 273, connective, aedeagus, paraphysis and style, dorsal view; 274, plate, ventral view; 275, aedeagus and paraphysis, lateral view; 276, style, lateral view.

REMARKS. This species belongs to a species group possessing a very broad, swollen clypellus. *Thagria soosi* is related in general habitus to *fossa*, and in certain male genital characteristics to *ungulata*, but can be separated from these species by the presence of a deep excavation laterally on the apical 1/4 of the paraphysis. This species is named for Dr Arpad Soos, Termeszettudomanyi Museum, Budapest, Hungary.

Thagria ungulata Nielson, new species

Fig. 277-282.

Length: 36.20 mm, 9 unknown.

General color ochraceous, with a large, irregularly shaped ivory spot on clavus and several, small,



Fig. 277-282. Thagria ungulata, n. sp.: 277, 3 pygofer, lateral view; 278, 3 pygofer processes, dorsal view; 279, plate, ventral view; 280, connective, aedeagus, paraphysis and style, dorsal view; 281, aedeagus and paraphysis, lateral view; 282, style, lateral view.

fuscous ivory spots on remainder of forewing.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly foveate, slightly elevated above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad, and swollen basally, base broader than base of clypeus, constricted at apical 1/2.

3. Pygofer in lateral aspect with very broad caudoventral lobe, caudodorsal margin of pygofer with a pair of long, claw-shaped processes, processes typically clawed apically in dorsal view; 10th segment without processes; aedeagus symmetrical, extremely long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, very broad at basal 1/2, becoming narrowly attenuated at apical 1/2 and strongly curved laterally apically with a short projection medially on dorsal margin in dorsal view, apex strongly curved ventrad in lateral view; connective Y-shaped, stem short; style long, narrow throughout, extending beyond midlength of paraphysis in dorsal view.

Holotype 3 (USNM), THAILAND: Pat Meeung Mts, 18.I.1928, J. P. Cockerell.

REMARKS. This species is similar in male genital characteristics to *soosi* but can be separated from that species by the absence of 10th segment processes, by the presence of claw-shaped pygofer processes and by the paraphysis with the apex curved ventral in lateral view.

Thagria unidigitata Nielson, new species Fig. 283–288.

Length: 35.50-5.80 mm, 9 unknown. General color deep fuscous with numerous small ivory or yellow markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to or greater than width of eyes, lateral margins convergent basally, disk slightly foveate, elevated slightly above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length slightly greater than median length of crown, surface smooth; scutellum short, median length slightly greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, with lateral margins slightly convergent basally, slightly excavated near antennal sockets, surface finely granulose at basal 3/4, rugulose at apical 1/4; clypellus short, slightly swollen basally, base nearly as wide as base of clypeus, convergent apically.

3. Pygofer in lateral aspect with large, broad caudoventral lobe, caudodorsal margin of pygofer with 1 pair of processes, processes long with finger-like lobes; 10th segment without processes; aedeagus symmetrical, long, narrow, tube-like, extending slightly beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, becoming gradually attenuated apically with a long, lateral, fingerlike process medially on dorsal margin; connective Y-shaped, stem short; style very long, slender, attenuated apically, nearly reaching apex of paraphysis in dorsal view; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,558), MALAYSIA: Pahang, King Geo. V Nat'l. Park, Kuala Tranggan, 15–17.XII.1958, T. C. Maa; 1 & paratype, THAILAND: Trang Prov., Khaophapha Khaochang, 200–400 m, 3.I.1964, G. A. Samuelson (author's collection).

**REMARKS.** This species belongs to a species group possessing a very broad, swollen clypellus. It is similar in general habitus to *ungulata* but can be separated from that species by the simple finger-like processes of the pygofer and by the long, narrow, finger-like process on the dorsal margin of the paraphysis.

**Thagria circumcincta** (Jacobi), new combination Fig. 289–294.

Jassus circumcinctus Jacobi, 1944: 50 [holotype Q, China (MAK) (examined)].

Coelidia circumcincta: Metcalf, 1964: 45.

Length: ♂ 6.50–6.90 mm, ♀ 7.70–8.10 mm.

General color light ochraceous throughout.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 of entire dorsal area of head; pronotum



Fig. 283–288. Thagria unidigitata, n. sp.: 283, 3 pygofer, lateral view; 284, 3 pygofer processes, dorsal view; 285, plate, ventral view; 286, connective, aedeagus, paraphysis and style, dorsal view; 287, style, lateral view; 288, aedeagus and paraphysis, lateral view.

short, median length equal to median length of crown, surface nearly smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, distinctly swollen and broad basally, base broader than base of clypeus, constricted at apical 1/2.

5. Pygofer in lateral aspect with large, broad caudoventral lobe, caudodorsal margin of pygofer with a pair of long, finger-like processes, processes broad basally, slightly attenuated, curved apically in dorsal view; 10th segment without processes; aedeagus symmetrical, very long, tube-like, extending to midlength of paraphysis, broadly sinuate in lateral aspect; gonopore apical; paraphysis asymmetrical, broad basally, gradually tapered apically, with 2 short, irregularly shaped processes apically, processes curved dorsally in



Fig. 289–294. Thagria circumcincta (Jacobi): 289, 3 pygofer, lateral view; 290, 3 pygofer processes, dorsal view; 291, connective, aedeagus, paraphysis and style, dorsal view; 292, aedeagus and paraphysis, lateral view; 293, plate, ventral view; 294, style, lateral view.

lateral view; connective Y-shaped, stem short; style long, very narrow and sharply attenuated apically, extending to about midlength of paraphysis; plate segmented subbasally, distal segment long and narrow.

 $\mathcal{Q}$ . 7th sternum large, about 3 to  $4 \times$  longer than penultimate segment, caudal margin truncate with a very small, spine-like process on either side of middle.

SPECIMENS EXAMINED. Jassus circumcinctus Jacobi, holotype  $\bigcirc$ , China: Fukien, Kuatun, 2300 m, 20.V.1938, J. Klapperich (MAK). CHINA (S): Fukien, Shaowu, Tachulan, 1000 m, 2 33, 2  $\bigcirc$ , 26.IV-26.V.1942, T. C. Maa (BISHOP); Kwangtung, Kau-lin San, Lien-p'ing Distr., 700-900 m, 2 33, 22-23.IV.1940, J. L. Gressitt & F. K. To; Kwangtung, Koon-yam-kok, on river between Wai-chow & Ho-yun, 1 3, 6.IV.1940, Gressitt & To (NCSR); Fukien, Shaowu, Tachulan, 1000 m, 1 3, 1  $\bigcirc$ , 14-16.IV.1942, Maa (author's collection).

DISTRIBUTION. China.

**REMARKS.** Thagria circumcincta is similar in male genital characteristics to luzonensis. The species belongs to a species group possessing a broad, swollen clypellus. From luzonensis, circumcincta can be distinguished by the long, narrow, slender style and by the 2 processes on the apex of the paraphysis.

Thagria luzonensis (Baker), new combination Fig. 295–301.

Jassus luzonensis Baker, 1915: 56 [lectotype 3, Philippines (USNM), here designated (examined)]. Coelidia luzonensis: Metcalf, 1964: 58.

Length: ♂ 6.10–6.60 mm, ♀ 7.40–7.70 mm.

General color deep fuscous, finely speckled with yellow or ivory markings throughout.



Fig. 295–301. Thagria luzonensis (Baker): 295, 3 pygofer, lateral view; 296, 3 pygofer processes, dorsal view; 297, connective, aedeagus, paraphysis and style, dorsal view; 298, aedeagus and paraphysis, lateral view; 299, style, lateral view; 300,  $\varphi$  7th sternum, ventral view; 301, plate, ventral view.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes with 2 small, depressed areas on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, with a short median longitudinal carina on anterior margin, surface coarsely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, slightly swollen basally, base slightly narrower than base of clypeus, slightly concave medially.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin of pygofer with a pair of finger-like processes; 10th segment without processes; aedeagus symmetrical, long, reaching to or extending slightly beyond midlength of paraphysis, tube-like; gonopore apical; paraphysis asymmetrical, lateral margins sinuate throughout with apex corkscrewed in dorsal aspect; connective Y-shaped, stem short; style very short, barely extending beyond base of paraphysis in dorsal aspect, curved and sharply attenuated at apex.

 $\bigcirc$ . 7th sternum large, about 2 to  $3 \times$  longer than penultimate segment, caudal margin produced medially with a short, spine-like projection on either side of middle.

SPECIMENS EXAMINED. Jassus luzonensis Baker, lectotype 3, Philippines, Luzon, Mt Makiling, (no date), Baker (USNM), here designated; paralectotypes: Jassus luzonensis, cotype  $\mathcal{Q}$ , same data as lectotype 3; Los Banos, cotype  $\mathcal{Q}$ , (no date), Baker (USNM). PHILIPPINE IS: Luzon: Mt Montalban, Rizal, Wa-wa Dam, 150–200 m, 2 33, 6–10.III.1965, H. M. Torrevillas (BISHOP); Los Banos, 2 33, 1  $\mathcal{Q}$ , (no date), F. Muir; Mt Makiling, 1  $\mathcal{Q}$ , (no date), Baker. VIETNAM: Ban Me Thuot, 500 m, 1 3, 20–24.XII.1960, C. M. Yoshimoto; 22 km S of Nha Trang, 1  $\mathcal{Q}$ , 20–26. XI.1960, Yoshimoto; Fyan, 900–1000 m, 1 3, 11.VII–9.VIII.1961, N. R. Spencer; Blao (Balao), 500 m, 1 3, 14–21.X.1960, Yoshimoto; Kontum, N of Pleiku, 550 m, 1 3, 3.V.1960, S. Quate (BISHOP); DeLinn (Djiring), 1  $\mathcal{Q}$ , 21.IX.1970, Yoshimoto. INDONESIA: Timor (E) (= Portuguese Timor): 20 km S of Dili, 300 m, 1 3, 30.XII.1963, J. Sedlacek (BISHOP); Java: Doro, 1 3, (no date), F. Muir (author's collection). MALAYSIA (W): Kelantan, 1 3, (no date), Herbert Osborn (OSUC).

DISTRIBUTION. Philippines; new records: Vietnam, Malaysia, Timor.

REMARKS. This species is fairly common in the Philippines. *Thagria luzonensis* is similar in male genital characteristics to *janssoni* but can be separated from that species by the corkscrewed apex of the paraphysis.

Thagria janssoni Nielson, new species Fig. 302–308.

Length: ♂ 6.10 mm, ♀ 7.40 mm.

General color fuscous with light ochraceous clavus and 2 large ochraceous spots on costa of forewing. Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly below level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface nearly smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose on anterior 1/5; clypellus short, swollen and broad basally, base broader than base of clypeus, constricted at apical 1/2.

 $\mathcal{S}$ . Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin of pygofer with a pair of very broad elongate processes; 10th segment without processes; aedeagus symmetrical, very long,



Fig. 302–308. Thagria janssoni, n. sp.: 302, 3 pygofer, lateral view; 303, 3 pygofer processes, dorsal view; 304, plate, ventral view; 305, connective, aedeagus, paraphysis and style, dorsal view; 306, aedeagus and paraphysis, lateral view; 307,  $\Im$  7th sternum, ventral view; 308, style, lateral view.

tube-like, extending beyond midlength of paraphysis in lateral aspect; gonopore apical; paraphysis asymmetrical, very broad basally, becoming narrowly attenuated at apical 1/3, apex strongly recurved dorsally in lateral aspect, with a short, subapical process laterally; connective Y-shaped, stem short; style short, extending basad of midlength of paraphysis, slender, abruptly attenuated apically; plate segmented subbasally, distal segment very long and narrow.

 $\bigcirc$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin with a very distinct, broad, spine-like process on either side of middle.

Holotype 3 (BISHOP 10,559), THAILAND: Chiangmai Prov., Doi Suthep, 1-5.IV.1958, T. C. Maa; allotype Q (BISHOP), same data as holotype except 1278 m, 29.III-4.V.1958.

**REMARKS.** This species is similar in male genital characteristics to *luzonensis* and belongs to a species group with a very broad, swollen clypellus. From *luzonensis*, *janssoni* can be distinguished by the very long aedeagus and by the recurved apex of the paraphysis with its lateral, basal projection. This species is named for Dr Antti Jansson of the Zoological Museum of the University of Helsinki.

Thagria lebes Nielson, new species Fig. 309–314.

Length: 37.10-7.40 mm, 98.30 mm.

General color deep testaceous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length nearly 1/3 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly depressed on either side of middle, slightly elevated with level of eyes, striate



Fig. 309–314. Thagria lebes, n. sp.: 309, 3 pygofer and 10th segment, lateral view; 310, 3 pygofer processes and 10th segment, dorsal view; 311, connective, aedeagus, paraphysis and style, dorsal view; 312, aedeagus and paraphysis, lateral view; 313, plate, ventral view; 314, style, lateral view.

radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excised medially near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a very large, broad caudoventral lobe, lobe with a very short projection apically, caudodorsal margin of pygofer with a pair of very long, slender, attenuated, curved processes; 10th segment with a pair of very long, ornate processes; processes broad apically with lateral projection ventrally and a lateral apical projection dorsally in lateral view; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad, becoming narrowed abruptly apically in dorsal aspect with a short lateral projection on either side of middle in dorsal view, strongly keeled ventrally in lateral aspect, keel serrate on ventral margin in lateral view; connective Y-shaped, stem short; style extremely short, broad, rounded apically, not reaching base of paraphysis; plate segmented subbasally, distal segment quite broad and elongate.

 $\bigcirc$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin produced broadly at middle and slightly excavated medially.

Holotype & (BISHOP 10,560), PHILIPPINE IS: Mindanao: Misamis Or., Minalwang, 1050 m, 24.III-4.IV.1961, H. Torrevillas; allotype Q (BISHOP), Negros: Negros Or., L. Balinsasayao, 1-7.X.1959, L. W. Quate; 1 & paratype, Mindanao: Surigao, (no date), (no collector) (OSUC).

REMARKS. This species belongs to a species group possessing very narrow, elongate clypellus and a symmetrical paraphysis with a keel on the ventral margin. It is most closely related to *minuta* and from that species can be separated by the short, bell-shaped paraphysis in dorsal view, the very long aedeagus, and extremely short style.

#### Thagria minuta Nielson, new species Fig. 315–320.

Length: 3 8.30 mm, 9 unknown.

General color testaceous with fuscous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins slightly convergent basally, disk slightly depressed medially, slightly elevated above level of eyes, striate radially below ocelli; ocelli large, situated on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excavated near antennal sockets, broader at anterior 1/2 than basal 1/2, nearly flat, surface finely granulose, rugulose along anterior margin; clypellus long, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

3. Pygofer in lateral aspect with a narrow, curved, caudoventral lobe, lobe with a broad, dorsal projection apically, caudodorsal margin of pygofer with pair of short, curved processes; 10th segment with a pair of extremely long processes extending beyond apex of pygofer processes in dorsal view; aedeagus symmetrical, very short, tube-like, apex basad of midlength of paraphysis; gonopore apical; paraphysis symmetrical, extremely broad basally, becoming narrowly attenuated at basal 1/3 and narrowed throughout to its apex in dorsal view, ventral margin with a short, blunt keel medially in lateral view; connective Y-shaped, stem short; style short, curved, extending just beyond base of paraphysis in dorsal view, narrowed and curved laterally in dorsal aspect; plate segmented subbasally, distal segment narrow and very long.

Holotype 3 (AMNH), PNG: New Guinea (SE): Mt Riu, Sudest I, 250–350 m, No. 10, 5.IX.1956, L. J. Brass; 1 3 paratype, Normanby I, Wakaiuna, Sewa Bay, 1–8.II.1957, W. W. Brandt (BISHOP).

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Fig. 315–320. Thagria minuta, n. sp.: 315,  $\Im$  pygofer and 10th segment, lateral view; 316,  $\Im$  pygofer processes and 10th segment, dorsal view; 317, plate, ventral view; 318, aedeagus and paraphysis, lateral view; 319, connective, aedeagus, paraphysis and style, dorsal view; 320, style, lateral view.

REMARKS. This species belongs to a species group with a very narrow, elongate clypellus and a keeled paraphysis. It is similar to *lebes* but can be separated from that species by the very short aedeagus, by the very narrow paraphysis at the apical 2/3 and by the curved style.

Thagria loaeNielson, new speciesFig. 321-326.Length:♂ 6.10-6.90 mm, ♀ unknown.

General color fuscous with dark fuscous veins on elytra.



Fig. 321–326. Thagria loae, n. sp.: 321, 3 pygofer and 10th segment, lateral view; 322, 3 pygofer processes and 10th segment, dorsal view; 323, plate, ventral view; 324, connective, aedeagus, paraphysis and style, dorsal view; 325, aedeagus and paraphysis, lateral view; 326, style, lateral view.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly elevated above level of eyes, shallowly foveate on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum short, median length less than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margins slightly excavated near antennal sockets, broad at anterior 1/2, narrowed at posterior 1/2, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus,

lateral margins nearly parallel.

 $\sigma$ . Pygofer in lateral aspect with a very broad, rather short caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of long processes, dorsal pair short, curved, finger-like, ventral pair very long, about  $2 \times$  as long as dorsal pair, apex strongly curved laterally, serrate on inner lateral margin; 10th segment in dorsal aspect with a pair of long, slender processes, processes curved laterally apically, nearly as long as ventral pair of caudodorsal processes of pygofer; aedeagus symmetrical, tube-like, long, nearly reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming attenuated at apical 1/2 in dorsal aspect, with a pair of short, finger-like processes subbasally on dorsal margin and with a distinct, short keel subapically on ventral margin, curved apically; connective Y-shaped, stem short; style extremely long, narrow, slender, attenuated apically and extending beyond apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment very long and narrow.

Holotype & (BISHOP 10,561), PNG: New Guinea (NE): Maprik, 150 m, 29.XII.1959–17.I. 1960, T. C. Maa; paratypes: Morobe Distr., 10 km W of Bulolo, 780 m, 2 & , 5–25.VIII.1967, malaise tr over stream, R. Straatman (BISHOP); Wau, 1260 m, 1 & , 14.VIII.1961, 1 & , 15.VI.1965, 2 & , 6.I–16.IX.1966, malaise trap, J. & M. Sedlacek (BMNH); Morobe Distr., Wau, Nami Ck, 1670 m, 1 & , 26.VIII.1963, malaise trap, J. Sedlacek; Wau, Edie Ck, 1700 m, 1 & , 2.IV.1966, J. L. Gressitt; Lae, 1 &, VIII.1944, F. E. Skinner; New Britain: Gazelle Pen., Bainings, St. Paul's, 350 m, 1 & , 8.IX.1955, Gressitt (BISHOP); Amok, 165 m, 1 & , 6.I.1960, Maa (author's collection).

REMARKS. This species is fairly common, although females are unknown. It belongs to the species group that possesses a narrow clypellus and keeled paraphysis. From *bihasta*, to which it is similar in male genital characteristics, *loae* can be distinguished by the 2 pairs of caudodorsal processes of the pygofer and extremely long style which extends beyond the apex of the paraphysis. This species is named for my sister Loa.

**Thagria bihasta** Nielson, new species Fig. 327–332.

Length: 35.60 mm, 9 unknown.

General color deep fuscous with light ochraceous markings within cells of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins converging basally, disk nearly flat, depressed below level of eyes, striate radially below ocelli; ocelli located on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins gradually concave at middle.

3. Pygofer in lateral aspect with a very large, broad, long caudoventral lobe, caudodorsal margin of pygofer with 1 pair of extremely long, lanceolate, nearly straight processes, processes serrate on inner lateral margin in dorsal view; 10th segment with a pair of equally long, lanceolate, narrow processes, apexes reaching apex of caudodorsal processes in dorsal view, and slightly toothed on outer lateral margin; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming gradually attenuated apically in dorsal aspect, with a pair of long, finger-like processes basally on dorsal margin, ventral margin broadly keeled at about middle, apex narrowed; connective Y-shaped, stem short; style very long, extending beyond midlength of paraphysis, slender, curved laterally near apex in dorsal view; plate segmented subbasally, distal segment very long and narrow.

Holotype 3 (BISHOP 10,562), PNG: New Guinea (SE): W Distr., Oriomo Govt Sta, 10-15 m, 26-28.X.1960, J. L. Gressitt; 1 3 paratype, same data as holotype (author's collection).

REMARKS. This species belongs to the species group with a very narrow, slender clypellus,



Fig. 327–332. Thagria bihasta, n. sp.: 327, 3 pygofer and 10th segment, lateral view; 328, 3 pygofer processes and 10th segment, dorsal view; 329, connective, aedeagus, paraphysis and style, dorsal view; 330, style, lateral view; 331, aedeagus and paraphysis, lateral view; 332, plate, ventral view.

and a ventrally keeled paraphysis. *Thagria bihasta* is very similar in male genital characteristics to *dellamayae*, but can be separated from that species by the narrow, slender, lanceolate caudodorsal processes of the pygofer which are serrate on the inner lateral margin and by the very broad keel of the paraphysis.

Thagria dellamayae Nielson, new species Fig. 333-338.

Length: ♂ 6.90 mm, ♀ 7.30 mm.

General color fuscous with deep ochraceous or deep fuscous markings on elytra.



Fig. 333-338. Thagria dellamayae, n. sp.: 333, 3 pygofer and 10th segment, lateral view; 334, 3 pygofer processes and 10th segment, dorsal view; 335, plate, ventral view; 336, connective, aedeagus, paraphysis and style, dorsal view; 337, aedeagus and paraphysis, lateral view; 338, style, lateral view.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins slightly convergent basally, disk nearly flat, about even with level of eyes, striate radially below ocelli; ocelli on anterior margin of head; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins somewhat convex, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin;



Fig. 339–344. Thagria brevis, n. sp.: 339,  $\eth$  pygofer and 10th segment, lateral view; 340,  $\eth$  pygofer processes and 10th segment, dorsal view; 341, connective, aedeagus, paraphysis and style, dorsal view; 342, aedeagus and paraphysis, lateral view; 343, style, lateral view; 344, plate, ventral view.

clypellus elongate, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very broad caudoventral lobe, caudodorsal margin with a pair of very long, slender processes, processes expanded subapically, with a small, short, finger-like lateral lobe subapically; 10th segment with a pair of very long, slender processes of equal length with the caudodorsal processes of pygofer, apex curved in dorsal aspect; aedeagus symmetrical, short, tube-like, apex not reaching midlength of paraphysis; gonopore apical; paraphysis in dorsal view with a pair of distinct finger-like processes basally on dorsal margin, broad basally, narrowed subbasally, becoming narrowed throughout to the apex in lateral view, with a distinct, short keel medially on ventral margin; connective Y-shaped,

stem short; style very long, extending beyond midlength of paraphysis, slender, narrowly attenuated and curved near apex in dorsal view; plate segmented subbasally, distal segment long and narrow.

 $\varphi$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype & (BISHOP 10,563), PNG: New Guinea (SE): Daradae Pl'n, 500 m, 80 km N of Port Moresby, 6.IX.1959, T. C. Maa; allotype  $\mathcal{Q}$  (BISHOP), same data as holotype except 4.IX.1959.

**REMARKS.** This species belongs to a species group possessing a very narrow clypellus and a keeled paraphysis. It is most closely related in general habitus and male genital characteristics to *bihasta*, and from that species can be distinguished by the caudodorsal processes of the pygofer with narrow, finger-like subapical process and by the short keel on the ventral paraphysis. This species is named for my mother, Della May.

#### Thagria brevis Nielson, new species Fig. 339–344.

Length: ♂ 6.00–6.50 mm, ♀ 7.30–7.40 mm.

General color deep ochraceous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, rather broad, lateral margin slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a broad, elongate caudoventral lobe, caudodorsal margin of pygofer with 3 pairs of processes, extreme ventral pair arising basally from caudoventral lobe, medial pair long, arising from caudodorsal margin and dorsal pair long, curved, longer than preceding pairs of processes; 10th segment with a pair of very ornate processes, processes with a secondary subapical, short process; aedeagus symmetrical, extremely long, tube-like, apex reaching apex of paraphysis; gonopore apical; paraphysis symmetrical, short, very broad basally with a pair of finger-like projections subbasally on dorsal margin in dorsal aspect, ventral margin with a distinct keel medially in lateral aspect; connective Y-shaped, stem short; style very short, apex not quite reaching base of paraphysis.

 $\mathcal{Q}$ . 7th sternum very large, about  $3 \times$  as long as penultimate segment, caudal margin produced slightly medially, slightly notched medially.

Holotype 3 (USNM), BORNEO: Sabah: Sandakan, (no date), Baker; allotype  $\varphi$  (USNM), same data as holotype; paratypes: 19 33, 9  $\varphi\varphi$ , same data as holotype (USNM, BMNH, author's collection).

**REMARKS.** Thagria brevis is a rather common species and belongs to a species group possessing a narrow clypellus and a keeled paraphysis. From *williami*, to which it is similar in male genital characteristics, *brevis* can be distinguished by the 3 pairs of caudodorsal pygofer processes and the very short style.

## Thagria williami Nielson, new species Fig. 345–350.

Length:  $3^{\circ} 6.20-6.30 \text{ mm}, 9^{\circ} \text{ unknown}$ .

General color fuscous throughout with a very narrow, transverse ochraceous band medially on elytra. Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely



Fig. 345–350. Thagria williami, n. sp.: 345,  $\Im$  pygofer and 10th segment, lateral view; 346,  $\Im$  pygofer processes and 10th segment, dorsal view; 347, aedeagus and paraphysis, lateral view; 348, connective, aedeagus, paraphysis and style, dorsal view; 349, style, lateral view; 350, plate, ventral view.

knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins distinctly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, elongate, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a large, broad, elongate caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of processes, ventral pair very long, curved, narrow, and extending beyond apex of caudoventral lobe, dorsal pair short, broad, with a small, lateral secondary process about middle of each process; 10th segment with a pair of large, ornate processes, processes deeply and narrowly bifid, about as long as dorsal pair of pygofer processes; aedeagus symmetrical, very long, tube-like, apex reaching or nearly reaching apex of paraphysis; gonopore apical; paraphysis very broad basally, gradually narrowing apically in dorsal view, symmetrical, with a pair of distinct, finger-like processes basally on dorsal margin, and with a very distinct keel on ventral margin about middle in lateral view; connective Y-shaped, stem short; style short, reaching base of paraphysis, somewhat curved, narrowed in dorsal view; plate segmented subbasally, distal segment rather long but somewhat broad.

Holotype 3 (BISHOP 10,564), PHILIPPINE IS: Mindanao: Bukidnon, 1480 m, Mt Katanglad, 27–31.X.1959, C. M. Yoshimoto; paratypes: 1 3, same data as holotype except L. W. Quate; Lanao, Lake Lanao, Gurain Mts, 1380 m, 1 3, 16.VI.1958, H. E. Milliron (BISHOP); Lanao, Butig Mts, 24 km NE of Butig, 1080 m, 1 3, 20.VI.1958, in rain forest, H. E. Milliron (author's collection).

**REMARKS.** This species belongs to the same species group that has narrow clypeus and keeled paraphysis. From *ventrorecta* to which it is similar in male genital characteristics and general habitus, *williami* can be distinguished by the apical 1/2 of the paraphysis which is shortened and by the length of the style which reaches the base of the paraphysis. This species is named for my late father, William Maurice.

# Thagria ventrorecta Nielson, new species Fig. 351-356.

Length: ♂ 6.30–7.10 mm, ♀ 7.70–8.40 mm.

General color deep fuscous with light ochraceous transverse markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width about equal to width of eyes, disk slightly foveate on either side of middle, elevated above level of eyes, lateral margins converging basally, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, finely knobbed on surface; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

5. Pygofer in lateral aspect with a large, elongate, caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of processes, ventral pair very long and curved, arising from inside the base of the caudoventral lobe, dorsal pair short, curved, constricted subapically; 10th segment with a pair of very long, ornate processes, processes with a secondary, lateral short lobe; aedeagus symmetrical, very long, extending beyond midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, broad at basal 1/2, narrowed at apical 1/2 in dorsal view, apex curved dorsally in lateral view, with a pair of very long, distinct, narrow, finger-like processes basally on dorsal margin, and with a distinct keel ventrally near base in lateral view; connective Y-shaped, stem short; style very short, curved, narrow, not reaching base of paraphysis; plate segmented subbasally, distal segment long and rather broad.

 $\bigcirc$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype 3 (USNM), PHILIPPINE IS: Mindanao: Iligan, (no date), Baker; allotype  $\varphi$  (USNM), same data as holotype; paratypes: BORNEO: Sabah: Liawan, 3 33, 2  $\varphi\varphi$ , 14–17.I.1959, T. C. Maa; Sandakan, Gomantong Caves, 1 3, 1  $\varphi$ , 22–26.XI.1958, Maa; Sandakan Residency, Gomantong Caves, 20 mi [32 km] S of Sandakan, 1  $\varphi$ , 22–26.XI.1958, Maa; Keningau, 4 33, 3  $\varphi\varphi$ , 12–17.I.1959, Maa; W Coast Residency, Ranau, 8 mi [12.8 km] N of Paring Hot Springs, 500 m, 1 3, 8–11.X.1958, Maa; Bundu Tukan, [Tunan], 1  $\varphi$ , 18.II.1959, Maa (BISHOP); Sandakan, 5  $\varphi\varphi$ , (no date), Baker (USNM); Sarawak: Bau Distr., lake area, nr town margin of primary forest, 1  $\varphi$ , 30.VIII.1958, thickly shaded, humid, Maa; Bau Distr., Bidi, 90–240 m, 1  $\varphi$ , 2.IX.1958, humid, secondary forest, Maa (BISHOP); PHILIPPINE IS: Sibuyan: 3  $\varphi\varphi$ , (no date), Baker; Basilan, 9 33, 16  $\varphi\varphi$ , (no date), Baker; Biliran, 1  $\varphi$ , (no date), Baker; Siquidor, 1 3,



Fig. 351-356. Thagria ventrorecta, n. sp.: 351, 3 pygofer and 10th segment, lateral view; 352, 3 pygofer processes and 10th segment, dorsal view; 353, connective, aedeagus, paraphysis and style, dorsal view; 354, aedeagus and paraphysis, lateral view; 355, style, lateral view; 356, plate, ventral view.

VIII.1925, R. C. McGregor; Mindanao: Iligan, 6 33, 25 99, (no date), Baker; Kolambugan, 1 3, 2 99, (no date), Baker; Butuan, 3 33, 3 99, (no date), Baker; Zamboanga, 3 33, 2 99, (no date), Baker (USNM, 1 3, 1 9 from Basilan in author's collection); Surigao, 1 9, (no date), Baker; Mati, Davao, 1 9, III.1927, McGregor; Pt. Bango, 1 3, (no date, no collector) (OSUC); Luzon: Mt Bana Lao, 1 9, (no date, no collector); Samar: Catbalogan, 1 9, (no date, no collector); INDONESIA: Java, Buitenzorg (=Bogor), 1 9, (no date), F. Muir; Ceram: Piroe, 1 9, I.1909, Muir (USNM).

REMARKS. This is a common species and belongs to the species group possessing a narrow clypellus and keeled paraphysis. *Thagria ventrorecta* is very similar in general habitus and male genital characteristics to *wallacei*, but can be distinguished from that species by the short, subbasally constricted, dorsal pair of pygofer processes, by the very short, curved style, and by the elongate paraphysis.

Fig. 357-362.

Thagria wallacei Nielson, new species Length: ♂ 6.20–6.60 mm, ♀ unknown. General color deep fuscous throughout.



Fig. 357–362. Thagria wallacei, n. sp.: 357, 3 pygofer and 10th segment, lateral view; 358, 3 pygofer processes and 10th segment, dorsal view; 359, connective, aedeagus, paraphysis and style, dorsal view; 360, aedeagus and paraphysis, lateral view; 361, style, lateral view; 362, plate, ventral view.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, somewhat broadened, base narrower than base of clypeus, lateral margins slightly concave.

3. Pygofer in lateral aspect with a large, elongate, broad caudoventral lobe, caudodorsal margin with 2 pairs of very long, slender processes, ventral pair extremely narrow, curved, and extending up to the apex of caudoventral lobe, dorsal pair broader, curved and about as long as ventral pair; 10th segment with a pair of ornate processes, processes with a secondary small, lateral projection; aedeagus symmetrical, long, tube-like, extending slightly beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically in dorsal view, with a pair of short, finger-like projections basally on dorsal margin and with a distinct keel on ventral margin at about middle in lateral view; connective Y-shaped, stem short; style long, extending beyond base of paraphysis, narrow and curved in dorsal aspect; plate segmented subbasally, distal segment long and somewhat broad.

Holotype & (BISHOP 10,565), PHILIPPINE IS: Mindanao: Misamis Or., Balason, 4–5.IV. 1960, H. Torrevillas; 1 & paratype, Misamis Or., Mt Empagatao, 1050–1200 m, 19–30.IV.1961, Torrevillas (author's collection).

**REMARKS.** This species belongs to the species group with a narrow clypellus and keeled paraphysis. It is closely related to *aculeata* in male genital characteristics, but can be distinguished from that species by the dorsal pair of caudoventral pygofer processes which are long and narrow. This species was named for the late Alfred R. Wallace, world-renowned scientist who collected much leafhopper material in the South Pacific and other areas of the world.

#### Thagria aculeata Nielson, new species Fig. 363–368.

Length: 36.20 mm, 9 unknown.

General color deep fuscous throughout with small ochraceous markings on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, sides converging basally, disk slightly foveate on either side of middle, elevated slightly above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excavated near antennal sockets; surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a very broad caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of very long processes, ventral pair curved, narrow, extending to apex of caudoventral lobe, dorsal pair long, narrow, about equal in length to ventral pair with a distinct subapical secondary process on lateral margin; 10th segment with a pair of ornate processes, very long, extending beyond apex of pygofer processes in dorsal view, with a very small, finger-like, secondary lateral appendage subapically; aedeagus symmetrical, moderately long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad at basal 1/2, becoming narrowed at apical 1/2 in dorsal aspect, with a pair of very short, stubby processes basally on dorsal margin, and with a very distinct keel on ventral margin at about middle in lateral aspect; connective Y-shaped, stem short; style very short, curved, slender, apex



Fig. 363-368. Thagria aculeata, n. sp.: 363, J pygofer and 10th segment, lateral view; 364, J pygofer processes and 10th segment, dorsal view; 365, connective, aedeagus, paraphysis and style, dorsal view; 366, plate, ventral view; 367, aedeagus and paraphysis, lateral view; 368, style, lateral view.

just reaching base of paraphysis in dorsal view; plate segmented subbasally, distal segment long and somewhat broadened throughout.

Holotype 3 (Візнор 10,566), PHILIPPINE IS: Mindanao: Bukidnon, Mt Katanglad, 1250 m, 4–9.XII.1959, L. W. Quate.

REMARKS. This species belongs to a species group possessing a narrow clypellus and keeled paraphysis. From *wallacei*, to which it is similar in general habitus and male genital characteristics, *aculeata* can be distinguished by the dorsal pair of the caudodorsal pygofer processes with its distinct lateral, subapical, finger-like secondary process and by the very short paired processes on the dorsal margin of the paraphysis.

Thagria argutata Nielson, new species Fig. 369–374.

Length:  $3^{\circ} 6.20 \text{ mm}, 9^{\circ} 6.60 \text{ mm}.$ 

General color fuscous with ochraceous markings on veins and cells of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly foveate at middle, slightly elevated above level of eyes, striate radially below



Fig. 369-374. Thagria argutata, n. sp.: 369, 3 pygofer and 10th segment, lateral view; 370, 3 pygofer processes and 10th segment, dorsal view; 371, style, lateral view; 372, connective, aedeagus, paraphysis and style, dorsal view; 373, aedeagus and paraphysis, lateral view; 374, plate, ventral view.

ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very large, somewhat elliptical-shaped caudoventral lobe with 2 pairs of slender processes arising mesally at the base of the lobe, caudodorsal margin of pygofer with 1 pair of long, slender processes; 10th segment without processes; aedeagus symmetrical, moderately long, tube-like, reaching to about middle of paraphysis, very broad basally in dorsal aspect; paraphysis symmetrical, broad basally, narrowly attenuated apically in dorsal aspect with a pair of short projections laterally on dorsal margin near middle, and a prominent ventral keel about middle in lateral view; connective Y-shaped, stem short; style very long, slender, filamentous and recurved at apical 1/3; plate segmented subbasally, distal segment narrow, elongate and curved.

Q. 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype  $\mathcal{J}$  (BMNH), NEW HEBRIDES: Aneityum: Red Crest, 1200 ft [366 m], 3 mi [4.8 km] NE of Anelgauhat, VI.1955, L. E. Cheesman; allotype  $\mathcal{Q}$  (BMNH), same data as holotype; paratypes, 1  $\mathcal{J}$ , 1  $\mathcal{Q}$ , same data as holotype (author's collection).

REMARKS. This species belongs to the species group having a very narrow clypellus and a keeled paraphysis. *Thagria argutata* is closely related to *fijiana* in male genital characteristics and general habitus but can be separated from that species by the 3 pairs of caudodorsal processes on the pygofer, the ventral pair appearing as 2 separate processes by means of its deep bifurcation.

**Thagria fijiana** (Osborn), new combination Fig. 375–380.

Jassus fijianus Osborn, 1934: 182 [holotype Q, Fiji Is (BISHOP) (examined)].

Coelidia fijiana: Linnavuori, 1960b: 24.-Metcalf, 1964: 49.

Length:  $3^{\circ} 6.00-6.30 \text{ mm}, 9 6.60-6.90 \text{ mm}.$ 

General color deep testaceous throughout with ivory or yellow markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly foveate at middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins broadly convex, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

5. Pygofer in lateral aspect with a short, broad caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of long, slender, curved processes, processes about equal in length in dorsal aspect; 10th segment with a pair of broad processes, attenuated apically, length about equal to length of pygofer processes; aedeagus symmetrical, very short, not reaching midlength of paraphysis, tube-like, apical 1/2 broad, very broad at basal 1/2 in dorsal and lateral aspects; paraphysis symmetrical, very broad basally, becoming narrowly attenuated at apical 2/3 in dorsal aspect, bifurcate apically, with a pair of short, fingerlike processes on dorsal margin, processes projecting basally, keeled on ventral margin near middle of shaft; connective Y-shaped, stem short; style long, narrow, filamentous apically, reaching midlength of paraphysis; plate segmented subbasally, long, somewhat broad and curved.

Q. 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

SPECIMENS EXAMINED. Jassus fijianus Osborn, holotype 9, Fiji Is, Lau, Kambara, 23.VIII.1924,



Fig. 375–380. Thagria fijiana (Osborn): 375, 3 pygofer and 10th segment, lateral view; 376, 3 pygofer processes and 10th segment, dorsal view; 377, connective, aedeagus, paraphysis and style, dorsal view; 378, plate, ventral view; 379, aedeagus and paraphysis, lateral view; 380, style, lateral view.

Bryan (BISHOP, No. 449). FIJI IS: Kadavu [Kandavu]: Solo Tavine, 1 3, 23.IV.1941, N. L. H. Krauss; Viti Levu: Nadarivatu, 850 m, 1 3, 1  $\bigcirc$ , V.1951, Krauss; 1 3, 2  $\heartsuit$ , 8–13.III.1963, 1–23. XII.1963, C. M. Yoshimoto & J. L. Gressitt; Lami, 7 33, 2  $\heartsuit$ , 3.XI.1951, Krauss; Lami, 1 3, IV.1951, Krauss; Mt Korombamba, 1700 ft [518 m], 1  $\heartsuit$ , 1.VIII.1938, beating shrubs, E. C. Zimmerman; Tholo-i-Suva, 1  $\heartsuit$ , III.1951, Krauss; Tholo-i-Suva, 1  $\eth$ , 3–6.III.1963, malaise trap, C. M. Yoshimoto; Lau [Is]: Tuvutha, 2 33, 3  $\heartsuit$ , 10–11.IX.1924, E. H. Bryan, Jr.; Naiau [Nayau], 1  $\circlearrowright$ , 1  $\heartsuit$ , 12.IX.1924, Bryan; Kambara, 2  $\circlearrowright$ , 25.VIII.1924, Bryan; Moala, 1  $\heartsuit$ , 8.IV. 1927, R. W. Paine; Ovalau: nr Vuma, 1  $\circlearrowright$ , 14.VII.1938, Zimmerman; Thawathi, 300 ft [91 m], 1  $\circlearrowright$ , 12.VII.1938, Y. Kondo; Wainiloka, 100–200 ft [30–60 m], 1  $\heartsuit$ , 11.VII.1938, C. M. Cooke
(BISHOP, LTF); Loloti, 1 &, 1 Q, 19.XII.1920, W. Greenwood (author's collection). DISTRIBUTION. Fiji Islands.

REMARKS. This is a common species of the Fiji Islands and belongs to the species group that possesses a narrow clypellus together with a keeled paraphysis. It is very closely related to *argutata*, from which it can be separated by the 2 pairs of caudodorsal processes of the pygofer and the much shorter aedeagus. Linnavuori (1960b: 24a) illustrated the paraphysis and not the aedeagus, as stated in his treatment of the species.

Thagria aratra Nielson, new species Fig. 381–386.

Length: 37.40 mm, 9 unknown.

General color deep testaceous, unicolorous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, elevated slightly above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum large, median length slightly longer than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very broad caudoventral lobe, apex constricted, caudodorsal margin of pygofer with a pair of long, broad processes, processes strongly curved apically in dorsal aspect; 10th segment with a pair of very ornate, extremely long processes, extending beyond pygofer processes in dorsal view, processes with 2 lateral secondary processes, the basal one larger and projecting nearly basad, the distal secondary processes very small, finger-like, and projecting apically; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, with a pair of short, lateral projections on dorsal margin situated about middle of shaft, keeled on ventral margin at about middle; connective Y-shaped, stem short; style very short, rounded apically, not reaching base of paraphysis; plate segmented subbasally, distal segment long and somewhat broad.

Holotype & (USNM), PHILIPPINE IS: Mindanao: Butuan, (no date), Baker.

**REMARKS.** This species belongs to a species group possessing a very narrow clypellus and a strongly keeled ventral paraphysis. It is similar in general habitus and male genital characteristics to *cincticula*, but can be distinguished from that species by the single pair of caudodorsal pygofer processes, and by the very large ventral keel situated near the middle of the ventral margin of the paraphysis.

# Thagria cincticula Nielson, new species Fig. 387–392.

Length: 37.30 mm, 9 unknown.

General color deep testaceous with narrow, transverse, ivory band subapically on elytra, and with a few small light ochraceous spots in cells of forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum large, median length greater than length of crown, with a small, faint, short medial carina starting from the anterior margin and ending about middle, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broadened,



Fig. 381–386. Thagria aratra, n. sp.: 381,  $\mathcal{J}$  pygofer and 10th segment, lateral view; 382,  $\mathcal{J}$  pygofer processes and 10th segment, dorsal view; 383, connective, aedeagus, paraphysis and style, dorsal view; 384, aedeagus and paraphysis, lateral view; 385, style, lateral view; 386, plate, ventral view.

lateral margin slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

J. Pygofer in lateral aspect with a large, caudoventral lobe, lobe very broad basally, becoming gradually attenuated apically, caudodorsal margin of pygofer with 2 pairs of processes, processes long, appearing to be broadly bifurcate with the dorsal process with a very small, subapical, finger-like secondary process; 10th segment with a pair of very long processes extending considerably beyond apex of pygofer processes in dorsal view, processes with a secondary subapical, lateral process; aedeagus symmetrical, short,





Fig. 387-392. Thagria cincticula, n. sp.: 387, 3 pygofer and 10th segment, lateral view; 388, 3 pygofer processes and 10th segment, dorsal view; 389, connective, aedeagus, paraphysis and style, dorsal view; 390, plate, ventral view; 391, aedeagus and paraphysis, lateral view; 392, style, lateral view.

tube-like, not reaching middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad, with a pair of long lateral processes extending just beyond midlength of shaft on the dorsal margin, distinctly keeled on ventral margin just basad of midlength of paraphysis; connective Y-shaped, stem short; style very short, not reaching base of paraphysis; plate segmented subbasally, distal segment long and somewhat broad.

Holotype  $\circ$  (USNM), INDONESIA: Ceram: Piroe, I.1909, F. Muir; 1  $\circ$  paratype, same data as holotype (author's collection).

REMARKS. This species belongs to a species group having a narrow clypellus and a ventrally

keeled paraphysis. It is similar in male genital characteristics to *bilata* but can be distinguished from that species by the shape of the caudodorsal pygofer processes and the 10th segment processes, and by the finger-like subapical processes on the dorsal margin of the paraphysis which project dorsally.

### Thagria bilata Nielson, new species

Length:  $3^{\circ}$  6.50–6.70 mm,  $9^{\circ}$  unknown.

General color deep ochraceous with a broad apical light ochraceous band and large ochraceous areas on forewings.

Fig. 393-398.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal ength about 1/4 median length, broad, interocular width greater than width of eyes, lateral margins



Fig. 393–398. Thagria bilata, n. sp.: 393, 3 pygofer and 10th segment, lateral view; 394, 3 pygofer processes and 10th segment, dorsal view; 395, plate, ventral view; 396, connective, aedeagus, paraphysis and style, dorsal view; 397, aedeagus and paraphysis, lateral view; 398, style, lateral view.

convergent basally, disk slightly foveate on either side of middle, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broadened, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a large caudoventral lobe, lobe abruptly pointed apically, caudodorsal margin of pygofer with a pair of long processes, processes with a distinct, secondary subbasal process in dorsal aspect; 10th segment with a pair of ornate, long processes extending beyond pygofer processes in dorsal view, processes with a lateral, secondary, finger-like process subapically; aedeagus symmetrical, short, not reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, broad at basal 2/3, constricted subapically with a pair of very long, sharp processes subapically and extending laterally in dorsal view, distinctly keeled basad of midlength of shaft; connective Y-shaped, stem short; style short, curved, and extending just beyond base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and somewhat broadened.

Holotype 3 (BISHOP 10,567), PHILIPPINE IS: Palawan: 8–13 km SE of Tarumpitao Pt, 21.V.1958, in jungle, H. E. Milliron; 1 3 paratype, same data as holotype (author's collection).

REMARKS. This species belongs to a species group having a narrow clypellus and keeled paraphysis. From *inscripta*, to which it is similar in male genital characteristics, *bilata* can be distinguished by the very long, paired, subapical, lateral, finger-like processes on the dorsal margin of the paraphysis.

Thagria inscripta (Walker), new combination Fig. 399–404.

Coelidia inscripta Walker, 1870: 311 [holotype 9, Molucca Is: Aru I (BMNH) (examined)].— Metcalf, 1964: 55.

Length:  $3^{\circ} 6.30-6.70 \text{ mm}$ ,  $9^{\circ} 7.30-7.70 \text{ mm}$ .

General color deep fuscous with a broad, apical, light ochraceous band and very small light ochraceous spots on the forewing.

Head narrower than pronotum; crown short, produced distally beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk foveate at middle, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat narrowed, lateral margins broadly convex with slight excavation at middle near antennal sockets, surface finely granulose at basal 2/3, rugulose at apical 1/3; clypellus elongate, narrow, narrower basally than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

3. Pygofer in lateral aspect with large caudoventral lobe, caudodorsal margin of pygofer with 2 long processes of about equal length; 10th segment with a pair of ornate, very long processes extending distally beyond apex of pygofer process in dorsal view, processes with 2 short, lateral, finger-like secondary processes at about middle; aedeagus symmetrical, short, not reaching midlength of paraphysis, somewhat tube-like; gonopore apical; paraphysis symmetrical, very broad at basal 1/2, narrowed at apical 1/2, with a pair of short projections laterally on dorsal margin at about middle, distinctly keeled on ventral margin just basad of middle in lateral view; connective Y-shaped, stem short; style short, slender, extending just beyond base of paraphysis in dorsal view; plate segmented subbasally, long and somewhat broad throughout.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, caudal margin produced at middle.



Fig. 399-404. Thagria inscripta (Walker): 399, 3 pygofer and 10th segment, lateral view; 400, 3 pygofer processes and 10th segment, dorsal view; 401, plate, ventral view; 402, connective, aedeagus, paraphysis and style, dorsal view; 403, aedeagus and paraphysis, lateral view; 404, style, lateral view.

SPECIMENS EXAMINED. Coelidia inscripta Walker, holotype  $\bigcirc$ , Aru Island, Wallace (BMNH). BORNEO: Sabah: Sandakan, 13  $\eth \eth$ , 6  $\circlearrowright \heartsuit$ , (no date), Baker (USNM, author's collection); 3  $\circlearrowright \heartsuit$ , Liawan, 14–19.I.1959, T. C. Maa; Sandakan Bay (SW), Sapagaya Lumber Camp, 2–20 m, 1  $\circlearrowright$ , 4.XI.1957, J. L. Gressitt; Sandakan Bay (NW), Sepilok For Res 1–10 m, 1  $\circlearrowright$ , 30.X.1957, Gressitt; Sandakan Residency, Gomantong, Caves, 20 mi [32 km] S of Sandakan, 1  $\circlearrowright$ , 22–26.XI. 1958, Maa (BISHOP). PHILIPPINE IS: Mindanao: Iligan, 1  $\circlearrowright$ , (no date), Baker (USNM).

DISTRIBUTION. Molucca Islands; new records: Borneo, Philippine Islands.

REMARKS. Thagria inscripta belongs to a species group possessing a narrow clypellus and

keeled paraphysis. From *multicalcara*, to which it is similar in male genital characteristics, *inscripta* can be distinguished by the shape of the caudodorsal processes of the pygofer and the 10th segment processes, which are not nearly as ornate as those processes of *multicalcara*.

Thagria multicalcara Nielson, new species Fig. 405-410.

Length: 36.30-6.90 mm, 9 unknown.

General color deep fuscous with broad, apical, light ochraceous band and with small light ochraceous



Fig. 405-410. Thagria multicalcara, n. sp.: 405,  $\Im$  pygofer and 10th segment, lateral view; 406,  $\Im$  pygofer processes and 10th segment, dorsal view; 407, connective, aedeagus, paraphysis and style, dorsal view; 408, plate, ventral view; 409, aedeagus and paraphysis, lateral view; 410, style, lateral view.

spots on forewing. Similar to inscripta in general habitus.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrower at base than base of clypeus, lateral margins nearly parallel, slightly.

3. Pygofer in lateral aspect with a broad caudoventral lobe, caudodorsal margin with 2 pairs of long processes, ventral pair very slender, almost needle-like, dorsal pair large, broad, and bifurcated apically; 10th segment with a pair of very long processes, almost  $2 \times as$  long as pygofer processes in dorsal view, processes ornate, with 2 lateral, finger-like, short projections at about middle in dorsal view; aedeagus symmetrical, short, not reaching midlength of paraphysis in lateral aspect, tube-like; gonopore apical; paraphysis symmetrical, broad at basal 1/2, becoming gradually narrowed at apical 1/2, with a pair of short, finger-like processes laterally on dorsal margin just distad of midlength of shaft, apex bifid, distinctly keeled at about middle in lateral view; connective Y-shaped, stem short; style moderately long, narrow, slender, apex basad of midlength of paraphysis; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,568), BORNEO: Sabah: Keningau, 12–17.I.1959, T. C. Maa; 3 33 paratypes, same data as holotype (BISHOP, author's collection).

REMARKS. This species belongs to a species group possessing a narrow clypellus and a keeled paraphysis. From *inscripta*, to which it is very similar in general habitus and male genital characteristics, *multicalcara* can be distinguished by the shape of the pygofer processes, of which there are 2 pairs, the dorsal pair being bifurcated apically.

Thagria morosa Nielson, new species Fig. 411–416.

Length: ♂ 6.80–6.90 mm, ♀ 7.40–7.60 mm.

General color fuscous with fuscous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, level about equal to level of eyes, striate radially below ocelli; ocelli on anterior margin in crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat narrowed, prominently excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large caudoventral lobe, caudodorsal margin with 2 pairs of processes, 2nd pair extremely long, curved, and extending to apex of caudoventral lobe, dorsal pair short, broad, with a ventral, finger-like, subapical projection; 10th segment with a pair of ornate, long processes extending beyond pygofer processes in dorsal view, processes with a single, lateral, short, finger-like, secondary process subapically; aedeagus symmetrical, very long, tube-like, extending beyond apex of paraphysis in dorsal aspect and broadly curved in ventral aspect, tube-like; gonopore apical; paraphysis short, very broad, broader apically than basally in dorsal aspect, with a pair of long, finger-like processes basally on dorsal margin in dorsal aspect, and with 2 pairs of lateral projections on either side of middle on the apical margin in dorsal aspect, strongly keeled ventrally and with a long medial shaft extending dorsally in lateral aspect; connective Y-shaped, stem short; style very short, not reaching base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and somewhat broadened.



Fig. 411–416. Thagria morosa, n. sp.: 411, 3 pygofer and 10th segment, lateral view; 412, 3 pygofer processes and 10th segment, dorsal view; 413, connective, aedeagus, paraphysis and style, dorsal view; 414, aedeagus and paraphysis, lateral view; 415, style, lateral view; 416, plate, ventral view.

 $\bigcirc$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin nearly truncate.

Holotype  $\mathcal{J}$  (USNM), PHILIPPINE IS: Mindanao: Surigao, (no date), Baker; paratypes: 6  $\mathcal{J}\mathcal{J}$ , 9  $\mathcal{Q}\mathcal{Q}$ , same data as holotype; Mindanao: Butuan, 1  $\mathcal{J}$ , 3  $\mathcal{Q}\mathcal{Q}$ , (no date), Baker (USNM); 2  $\mathcal{J}\mathcal{J}$ , 2  $\mathcal{Q}\mathcal{Q}$ , same data as holotype (BMNH, author's collection).

REMARKS. This is a fairly common species belonging to a species group possessing a narrow clypellus and a strongly keeled paraphysis. From *biungulata*, which is very similar in male genital characteristics, *morosa* can be distinguished by the shape and ornamentation of the pygofer processes and the 10th segment processes, and by the distinctive shape of the paraphysis. 116

Fig. 417–422.

Length: 36.50-7.00 mm, unknown.

General color fuscous, deep fuscous veins on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate,



Fig. 417-422. Thagria biungulata, n. sp.: 417, 3 pygofer and 10th segment, lateral view; 418, 3 pygofer processes and 10th segment, dorsal view; 419, connective, aedeagus, paraphysis and style, dorsal view; 420, aedeagus and paraphysis, lateral view; 421, style, lateral view; 422, plate, ventral view.

veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broadened, lateral margins concave near middle near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, elongate, curved caudoventral lobe, lobe with a long, curved process originating mesally at base, caudodorsal margin of pygofer with 1 pair of long, truncate processes; 10th segment with a pair of long processes extending beyond pygofer processes, processes with a secondary, subapical, small, finger-like process; aedeagus symmetrical, very long, slender, reaching apex of paraphysis; gonopore apical; paraphysis symmetrical, short, very broad throughout with a pair of distinct, long, finger-like processes basally on dorsal margin, and with a pair of apical processes on either side giving a claw-shaped appearance in dorsal aspect, distinctly keeled ventrally at about middle in lateral view; connective Y-shaped, stem short; style extremely short, broad, curved, not reaching base of paraphysis; plate segmented subbasally, distal segment long, slightly broadened and slightly curved apically.

Holotype & (BISHOP 10,569), PHILIPPINE IS: Mindanao: Agusan, 10 km SE of San Francisco, 12.XI.1959, C. M. Yoshimoto; paratypes: Agusan, Los Arcos, 1 &, 1 &, 19–23.XI.1959, L. W. Quate (BISHOP); 1 &, same data as holotype except 14.XI.1959, Quate (author's collection).

REMARKS. This species belongs to a species group having a narrow clypellus and a keeled paraphysis. It is similar to *quadrilancea* in certain male genital characteristics, but can be separated from that species by the presence of 2 pairs of apical processes on the paraphysis, by the extremely short style, and by the very long processes originating mesally at the base of the caudoventral lobe of the pygofer.

### Thagria quadrilancea Nielson, new species

Fig. 423–428.

Length: ♂ 6.20–6.60 mm, ♀ 7.40–7.60 mm.

General color fuscous to deep fuscous with a light, narrow, transverse subapical ochraceous band and light ochraceous markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface very finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, broader anteriorly than posteriorly, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

5. Pygofer in lateral aspect with a large, broad caudoventral lobe, lobe with a very small process mesally originating along ventral margin, caudodorsal margin of pygofer with 2 pairs of long, slender, processes of about equal width and length; 10th segment with a pair of long processes extending beyond apex of pygofer process in dorsal view, processes with a subapical secondary process laterally; aedeagus symmetrical, short, not reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, large, broad throughout, somewhat tapered apically with 3 pairs of distinct processes subapically, 2 pairs of processes extending laterally in dorsal view, distinctly keeled ventrally near middle in lateral view; connective Y-shaped, stem short; style short, curved apically, reaching base of paraphysis; plate segmented subbasally, distal segment long and narrow.

Q. 7th sternum large, about 3× as long as penultimate segment, caudal margin produced medially. Holotype ♂ (USNM) (cotype specimen of Jassus luzonensis Baker), PHILIPPINE IS: Luzon: Mt Makiling, (no date), Baker; allotype ♀ (USNM), same data as holotype; paratypes: Luzon: Los Banos, 1 ♂, 29.IX.1915, F. Muir (BISHOP); Los Banos, 1 ♂, (no date), Baker (OSUC);



Fig. 423-428. Thagria quadrilancea, n. sp.: 423, 3 pygofer and 10th segment, lateral view; 424, portion of 3 pygofer and 10th segment, dorsal view; 425, style, lateral view; 426, connective, aedeagus, paraphysis and style, dorsal view; 427, aedeagus and paraphysis, lateral view; 428, plate, ventral view.

Banahao, 2 33, (no date, no collector) (BISHOP); Mt Banahao, 6 33, 4 99, (no date), Baker (USNM); Mt Makiling, 24 33, 20 99, (no date), Baker (USNM, OSUC, author's collection); Mt Makiling, 1 9, 3.III.1931, F. C. Hadden (CAS); Leyte: Tigbao, 1 9, 24.VIII.1957, W. C. G.; Mindanao: Butuan, 1 9, (no date), Baker (USNM); Momungan, 1 9, (no date, no collector) (NCSR); Basilan I, 4 99, (no further data) (USNM, OSUC, NCSR); Palawan: 1 9, Puerto Princesa, (no date), Baker (USNM).

REMARKS. Thagria quadrilancea is a common species in the Philippines. It belongs to a species group having a very narrow clypellus and keeled paraphysis. From *pala*, to which it is similar in male genital characteristics, quadrilancea can be distinguished by the 3 pairs of apical

processes on the paraphysis, by the presence of the small process on the ventral margin of the caudoventral lobe of the pygofer, and by the short aedeagus.

Thagria pala Nielson, new species Fig. 429-433.

Length: 37.00 mm, 90.00 mm.

General color light fuscous to deep fuscous throughout, veins piceous.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate on either side of middle, elevated above level of eyes, striate radially below



Fig. 429-433. Thagria pala, n. sp.: 429, 3 pygofer and 10th segment, lateral view; 430, 3 pygofer processes and 10th segment, dorsal view; 431, style, lateral view; 432, connective, aedeagus, paraphysis and style, dorsal view; 433, aedeagus and paraphysis, lateral view.

ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

3. Pygofer in lateral aspect with very large, broad, caudoventral lobe, caudodorsal margin of pygofer with 2 long, narrow processes, ventral pair very narrow at basal 1/2 in lateral view and longer than dorsal pair, dorsal pair with a short, secondary process at about middle; 10th segment with a pair of long processes equal in length to the dorsal pair of pygofer processes, apex truncate with a small, lateral, secondary process; aedeagus symmetrical, very long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis broad throughout with a pair of short, lateral projections subapically on dorsal margin in dorsal aspect, and with another pair of small, finger-like processes basally on dorsal margin, distinctly keeled ventrally in lateral view; connective Y-shaped, stem short; style very short, broad, reaching base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\mathcal{Q}$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin slightly concave.

Holotype & (BISHOP 10,570), BORNEO: Sabah: Kalabakan, primary forest, 15.XI.1958, T. C. Maa; allotype & (BISHOP), Forest camp, 19 km N of Kalabakan, 60 m, 21.XI.1962, malaise trap, Y. Hirashima (BISHOP).

REMARKS. This species belongs to a species group having a very narrow clypellus and a ventrally keeled paraphysis. It is similar in certain male genital characteristics to *davaoensis* but can be separated from that species by the pair of very short subapical projections on the paraphysis, by the truncate 10th segment processes, and by the very long aedeagus.

### **Thagria davaoensis** Nielson, new species Fig. 434–439.

Length: 37.00 mm, 97.60-7.70 mm.

General color light to deep ochraceous with very light, small spots or markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins converging basally, disk slightly foveate medially, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat parallel, margin slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus narrow, elongate, base narrower than base of clypeus, lateral margins nearly parallel, expanded apically.

5. Pygofer in lateral aspect with a large, elongate caudoventral lobe, caudodorsal margin of pygofer with 3 pairs of processes, 2 pairs ornate and 1 pair simple, ventral pair very small, finger-like and bifurcate, middle pair very long with a secondary, long, finger-like lateral process, dorsal pair short, broad basally, and finger-like; 10th segment with a pair of extremely long processes extending beyond the longest pair of pygofer processes in dorsal view, processes with a secondary, finger-like, lateral process near middle; aedeagus symmetrical, short, reaching about midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, very broad at basal 1/2, becoming extremely narrowed at distal 1/2 in dorsal aspect with a pair of basal, finger-like processes on dorsal margin, and with another pair of very long processes at about middle on dorsal margin, extending dorsad and then curved distad at a right angle in lateral view, apex bifid, distinctly keeled on ventral margin near middle; connective Y-shaped, stem short; style very short, slender, reaching base of paraphysis in dorsal view; plate segmented subbasally, distal segment long and somewhat broadened.

 $\mathfrak{Q}$ . 7th sternum large, about  $3\times$  as long as penultimate segment, caudal margin produced at middle.



Fig. 434–439. Thagria davaoensis, n. sp.: 434, 3 pygofer and 10th segment, lateral view; 435, 3 pygofer processes and 10th segment, dorsal view; 436, aedeagus and paraphysis, lateral view; 437, connective, aedeagus, paraphysis and style, dorsal view; 438, plate, ventral view; 439, style, lateral view.

Holotype 3 (USNM), PHILIPPINES: Mindanao: Davao, (no date), Baker; allotype  $\Im$  (USNM), same data as holotype; 1  $\Im$  paratype, same data as holotype (USNM).

REMARKS. This species belongs to the species group having a very narrow clypellus and keeled paraphysis. From *louisae*, to which it is similar in male genital characteristics, *davaoensis* can be separated by its very distinctive paraphysis, having a pair of very long, curved, processes arising from middle of dorsal margin, and by the presence of ornate caudodorsal processes of the pygofer.

Fig. 440-445.

Length: 35.60-6.00 mm, 96.30-6.50 mm.

General color deep fuscous to piceous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width slightly wider than width of eyes, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, elongate ovoid, occupying 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins obscured, appendix well developed, venation as in description of genus; clypeus elongate, somewhat narrowed, lateral margins convex near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

J. Pygofer in lateral aspect with a unique large, narrow lobe arising from middle of caudal margin,



Fig. 440–445. *Thagria louisae*, n. sp.: 440, J pygofer, lateral view; 441, J pygofer processes, dorsal view; 442, plate, ventral view; 443, connective, aedeagus, paraphysis and style, dorsal view; 444, aedeagus and paraphysis, lateral view; 445, style, lateral view.

caudodorsal margin with a pair of very ornate processes, processes long, with 2 pairs of lateral, secondary appendages, basal pair very short, slender, distal pair very long, finger-like; 10th segment without processes; aedeagus symmetrical, very long, extending beyond apex of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, short, broad basally, with 2 pairs of processes, 1st pair basal on dorsal margin, 2nd pair subapical on dorsal margin, with a short ventral projection apically in lateral view; connective Yshaped, stem short; style extremely long, narrow, slender, curved apically and extending considerably beyond apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\Im$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype 3 (BISHOP 10,571), IRIAN: New Guinea (NW): Bodem, 11 km SE of Oerberfaren, 100 m, 7–17.VIII.1959, T. C. Maa; allotype  $\Im$  (BISHOP), same data as holotype; paratypes: 1 3, 3  $\Im$ , and data as holotype; Waris, S of Hollandia, 450–500 m, 1 3, 2  $\Im$ , 1–31.VIII.1959, Maa (BISHOP); 1 3, 1  $\Im$ , same data as preceding except 8–23.VIII.1959 (author's collection); 1 3, Cyclops Mts, Sabron, 930 ft [283 m], IV.1936, L. E. Cheesman (BMNH); New Guinea (SW): Vogelkop, Fak Fak, S coast of Bomberai, 10–100 m, 3–12.VI.1959, Maa (BISHOP).

REMARKS. This species belongs to a species group possessing a narrow clypellus and a paraphysis that is not keeled ventrally. It is related to *verticalis* and can be separated from that species by the very long aedeagus and extremely long style. This species is named for my daughter Louise.

**Thagria verticalis** (Walker), new combination Fig. 446–451.

Coelidia verticalis Walker, 1870: 310 [holotype ♀, New Guinea (BMNH) (examined)].—Metcalf, 1964: 80.

Length:  $3^{\circ} 6.30-6.90 \text{ mm}, 9 7.30-7.40 \text{ mm}.$ 

General color fuscous with numerous ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of head; eyes large, semiglobular, occupying 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad, lateral margins slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very long, broad caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of long, slender processes; 10th segment with a pair of long processes, processes broad basally, serrate on inner lateral margin apically; aedeagus symmetrical, long, reaching about middle of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, long, broad basally, attenuated apically with 2 pairs of processes, 1 pair basal on dorsal margin, 1 pair lateral subbasally on dorsal margin; connective Y-shaped, stem short; style extremely long, extending beyond midlength of paraphysis, slender at apical 1/2 with a short subapical, retrorse process; plate segmented subbasally, distal segment long and slender.

 $\heartsuit$  . 7th sternum large, about  $3\times$  as long as penultimate segment, caudal margin truncate.

SPECIMENS EXAMINED. Coelidia verticalis Walker, holotype  $\mathcal{Q}$ , New Guinea [Dorey=Manokwari], Wallace (BMNH). PNG: New Britain: Vudal, SW of Keravat, 19  $\mathcal{J}\mathcal{J}$ , 18  $\mathcal{Q}\mathcal{Q}$ , 13.XII.1959, T. C. Maa (BISHOP, BMNH, author's collection); Keravat, 135 m, 9  $\mathcal{J}\mathcal{J}$ , 20–25.XI.1959, Maa; Vunabakan, 180 m, 10 km E of Keravat, 4  $\mathcal{J}\mathcal{J}$ , 16–20.XI.1959, Maa; Rabaul, 1  $\mathcal{J}$ , 4.VII.1959, ginger, J. L. Gressitt; Keravat, 5 m, 1  $\mathcal{Q}$ , 9.X.1957, jungle, Gressitt; Gazelle Pen., Upper Warangoi, 1250 m, 1  $\mathcal{J}$ , 1–4.XII.1962, J. Sedlacek; Gazelle Pen., Warangoi Val., 100 m, 1  $\mathcal{J}$ , 24.V.1956, Gressitt; Gazelle Pen., Gaulim, 140 m, 1  $\mathcal{J}$ , 21–26.X.1962, Sedlacek; Silanga, Nakanai



Fig. 446–451. Thagria verticalis (Walker): 446, 3 pygofer and 10th segment, lateral view; 447, 3 pygofer processes and 10th segment, dorsal view; 448, plate, ventral view; 449, connective, aedeagus, paraphysis and style, dorsal view; 450, style, lateral view; 451, aedeagus and paraphysis, lateral view.

Mts, 150 m, 1 3, 30.VII.1956, E. J. Ford, Jr.; New Ireland (SW): ridge above "Camp Bishop," 15 km up Kait R, 250–750 m, 2 33, 12–14.VII.1956, Gressitt; "Camp Bishop," 12 km up Kait R, 240 m, 1 3, 13.VII.1956, Ford; Gilingil Pl'n, 2 m, 1 3, 16.VII.1956, Gressitt; New Guinea (NE): Finisterre Range, Saidor, Gabumi Vill., 1 3, 24–30.VI.1958, W. W. Brandt (Візнор).

DISTRIBUTION. New Guinea; new records: New Britain, New Ireland.

REMARKS. This is a common species belonging to a species group having a narrow clypellus

and processes on the paraphysis. It is related to *acuta* and can be distinguished from that species by the very long style and the paired basal and subbasal processes of the paraphysis.

Thagria acuta Nielson, new species Fig. 452–457.

Length: 37.40 mm, 97.70-8.70 mm.

General color deep fuscous with numerous ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum



Fig. 452-457. Thagria acuta, n. sp.: 452, 3 pygofer and 10th segment, lateral view; 453, 3 pygofer processes and 10th segment, dorsal view; 454, plate, ventral view; 455, connective, aedeagus, paraphysis and style, dorsal view; 456, aedeagus and paraphysis, lateral view; 457, style, lateral view.

3. Pygofer in lateral aspect with a large, elongate caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of long processes, processes slender; 10th segment with a pair of long processes; aedeagus symmetrical, short, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, constricted subbasally, expanded where lateral processes arise, tapered apically, with 2 pairs of lateral processes on dorsal margin, the 1st pair subbasal, 2nd pair medial; connective Y-shaped, stem short; style short, broad basally, becoming sharply attenuated apically, apex not reaching midlength of paraphysis in dorsal aspect, with a sharp subapical process; plate segmented subbasally, distal segment long and slender.

 $\heartsuit$  . 7th sternum large, about  $3\times$  as long as penultimate segment, caudal margin produced slightly at middle.

Holotype & (BISHOP 10,572), IRIAN: New Guinea (NW): Vogelkop, Kebar Val., W of Manokwari, 550 m, light trap, 4–31.I.1962, S. & L. Quate; allotype  $\Im$  (BISHOP), Vogelkop, Trail Sucumito to Ransiki, 300 m 7.VIII.1957, D. Elmo Hardy; paratypes: Central Mts, Archbold Lake, 760 m, 2  $\Im$ , 26.XI–3.XII.1961, S. & L. Quate; Sentani, 90+ m, 2  $\Im$ , 16.VI.1959, T. C. Maa; Ifar, 300–600 m, 1  $\Im$ , 22.VI.1959, Maa; above Ifar, 500–750 m, 1  $\Im$ , 23.VI.1959, palms, J. L. Gressitt; Bokondini, 40 km N of Baliem Val., ca 1300 m, 1  $\Im$ , 16–23.XI.1961, L. W. Quate; Hollandia, 1  $\Im$ , 13.III.1960, Maa; Hollandia area, W Sentani, Cyclops Mts, 150–250 m, 1  $\Im$ , 18.VI.1959, Gressitt; PNG: New Guinea (NE): Adelbert Mts, Wanuma, 800–1000 m, 1  $\Im$ , 25.X.1958, palms, Gressitt; Bainyik, nr Maprik, 225 m, 1  $\Im$ , 21.VI.1961, *Korthalsia*, J. L. & M. Gressitt; Karimui, S of Goroka, 1000 m, 1  $\Im$ , 8.VI.1961, J. L. & M. Gressitt; New Britain: Gazelle Pen., Upper Warangoi, 250–600 m, 1  $\Im$ , 28–30.XI.1962, J. Sedlacek (BISHOP).

REMARKS. Thagria acuta is a rather common species and belongs to the species group possessing a narrow clypellus with processes on the dorsal margin of the paraphysis. It is closely related to *walkeri* in general habitus and male genital characteristics, but can be distinguished from that species by the distinctive shape of the paraphysis in dorsal aspect with long paired processes which arise medially from the dorsal margin.

#### Thagria walkeri Nielson, new species Fig. 458-463.

Length: ♂ 6.90-7.40 mm, ♀ 8.30-8.70 mm.

General color deep fuscous with ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly convex, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel, slightly expanded apically.

3. Pygofer in lateral aspect with a long, broad caudoventral lobe, caudodorsal margin of pygofer with 2 pairs of long processes, ventral pair bifid apically, dorsal pair slender, attenuated apically, longer than ventral pair; 10th segment with a pair of processes, processes long and curved laterally in dorsal aspect; aedeagus symmetrical, long, tube-like, extending slightly beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, narrowed at apical 3/4 in dorsal aspect, with 2 pairs of dorsolateral processes, 1st pair long, situated basally, 2nd pair short, situated basad of midlength of paraphysis; con-



Fig. 458–463. Thagria walkeri, n. sp.: 458, 3 pygofer and 10th segment, lateral view; 459, 3 pygofer processes and 10th segment, dorsal view; 460, plate, ventral view; 461, connective, aedeagus, paraphysis and style, dorsal view; 462, aedeagus and paraphysis, lateral view; 463, style, lateral view.

nective Y-shaped, stem short; style long, slender, and hooked apically, extending beyond midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,573), IRIAN: New Guinea (NW): Ifar, 300-600 m, 22.VI.1959, T. C. Maa; allotype  $\varphi$  (BISHOP), same data as holotype; paratypes: 5 33, 4  $\varphi\varphi$ , same data as holotype except 20-23.VI.1959; Genjam, 40 km W of Hollandia, 100-200 m, 1 3, 1  $\varphi$ , 1-10. III.1959, Maa; 20 33, 14  $\varphi\varphi$ , same data except 1-10.III.1960; above Ifar, 500-750 m, 2 33, 23.VI.1959, J. L. Gressitt; Waris, S of Hollandia, 450-500 m, 23 33, 6  $\varphi\varphi$ , 24.VII-31.VIII.1959, Maa; Bodem, 100 m, 11 km SE of Oerberfaren, 7 33, 5  $\varphi\varphi$ , 7-17.VII.1959, Maa; Vogelkop, Kebar Val., W of Manokwari, 550 m, 7 33, 4-31.I.1962, S. & L. W. Quate; Nabire, S Geelvink Bay, 0-30 m, 2 33, 2-9.VII.1962, Gressitt; Cyclops Mts, Ifar, 300 m, 1 9, 24.XI.1958, Zingiberaceae, Gressitt; Bodem, Sarmi area, 1 º, 10.VII.1959, Maa; Hollandia area, W Sentani, Cyclops Mts, 200-1000 m, 1 J, 16-18.VI.1959, on gingers, Gressitt; Central Mts, Archbold Lake, 760 m, 1 3, 26.XI-3.XII.1961, sweeping, S. Quate; Bokondini, 40 km, N of Baliem Val., ca 1300 m, 1 5, 16-23.XI.1961, L. W. Quate; Ifar, Cyclops Mts, 300-500 m, 1 9, 23-25.VI.1962, Gressitt; Swart Val., Karubaka, 1300–1500 m, 3 33, 1 9, 7–20.XI.1958, Gressitt (Візнор); Humboldt Bay, Hollandia, 1 3, IV.1936, L. E. Cheesman (BMNH); Hollandia, 250 ft (76 m), 1 3, 2 99, 24.XI. 1944, rain forest, H. Hoogstraal (NCSR); PNG: New Guinea (NE): Sepik, Maprik area, 160 m, 2 33, 28.VIII.1957, D. Elmo Hardy; Maprik, 150-160 m, 6 33, 1 9, 29.XII.1959-17.I. 1960, Maa; Sepik Distr., Dreikikir, 350 m, 3 33, 25.VI.1961, J. L. & M. Gressitt; Amok, 165 m, 7 33, 6 99, 6.I.1960, Maa; Sepik, Angoram, 1 3, 14-16.VIII.1969, Gressitt; Sepik Distr., Wewak, 30 m, 1 9, 26.VI.1961, J. L. & M. Gressitt; Karimui, S of Goroka, 1000 m, 1 9, 2.VI.1961, J. L. & M. Gressitt (Візнор); Bainyik, S of Maprik, 150 m, 6 33, 3 99, 12.І.1960, Maa (Візнор, USNM, author's collection); New Guinea (SE): Kiunga, Fly R, 2 33, 1-24.X.1957, W. W. Brandt (BISHOP).

REMARKS. This is a very common species and belongs to a species group possessing a narrow clypellus and with processes on the paraphysis. It is similar in general habitus to *mamma*, but can be distinguished from that species by several unique characteristics of the male genitalia, including the broadly hooked apical portion of the style, and by the pair of long, finger-like processes basally on the dorsal margin of the paraphysis. This species is named for the late Francis Walker, famed British homopterist.

Thagria mamma Nielson, new species Fig. 464–469.

Length: 36.30 mm, 97.40-8.10 mm.

General color fuscous with ochraceous markings and a broad ochraceous band apically on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly foveate medially, about even with level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus narrow, long, base narrower than base of clypeus; lateral margins nearly parallel, slightly expanded apically.

♂. Pygofer in lateral aspect with large, broad elongate caudoventral lobe, caudodorsal margin of pygofer with 1 pair of long, slender processes; 10th segment with 1 pair of very slender, long processes; aedeagus symmetrical, long, tube-like, not quite reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, narrowed at apical 3/4 in dorsal aspect, with a pair of large, elongate, globular processes laterally arising basally in dorsal view; connective Y-shaped, stem short; style long, extending beyond base of paraphysis, but not reaching midlength of paraphysis, strongly hooked apically; plate segmented subbasally, distal segment long and narrow.

 $\bigcirc$ . 7th sternum large, about 3 imes as long as penultimate segment, caudal margin nearly truncate.

Holotype ♂ (BISHOP 10,574), PNG: New Ireland: Kandan, 1.I.1960, W. W. Brandt; allotype ♀ (BISHOP), ridge above "Camp Bishop," 15 km up Kait R, 250–750 m, 14.VII.1956, J. L. Gressitt; paratypes: 1 ♀, same data as allotype; Gilingil Pl'n, 2 m, 3 ♀♀, 4–16.VII.1956, Gressitt (BISHOP).

REMARKS. This species belongs to a species group possessing a narrowed clypellus and paired



Fig. 464–469. Thagria mamma, n. sp.: 464, 3 pygofer and 10th segment, lateral view; 465, 3 pygofer processes and 10th segment, dorsal view; 466, plate, ventral view; 467, connective, aedeagus, paraphysis and style, dorsal view; 468, aedeagus and paraphysis, lateral view; 469, style, lateral view.

processes on the paraphysis. It is related to *marilynae* but can be distinguished from that species by the distinctive, broadly elongate processes arising basally from the dorsal margin of the paraphysis and by the very sharp, spine-like, hooked process on the apex of the style.

# Thagria marilynae Nielson, new species Fig. 470-475.

Length: 3 6.80 mm, 2 unknown.

General color testaceous throughout with light testaceous markings or bands on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins converging basally, disk slightly foveate along middle, about even with level of eyes; ocelli large, situated on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head;



Fig. 470-475. Thagria marilynae, n. sp.: 470, 3 pygofer and 10th segment, lateral view; 471, 3 pygofer processes and 10th segment, dorsal view; 472, plate, ventral view; 473, connective, aedeagus, paraphysis and style, dorsal view; 474, aedeagus and paraphysis, lateral view; 475, style, lateral view.

pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly convex, slightly excised near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly concave about middle.

3. Pygofer in lateral aspect with large, elongate caudoventral lobe, caudodorsal margin with a pair of long processes, processes somewhat saggitate apically in dorsal view with a small, short, projection basally; 10th segment with a pair of very long processes, processes extending beyond pygofer processes in dorsal view, very narrow and curved; aedeagus symmetrical, short, not reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, very broad basally, narrowed at apical 2/3 in dorsal aspect, with a pair of very long processes arising subbasally on dorsal margin; connective Y-shaped, stem short; style extremely long and curved, extending beyond apex of paraphysis, abruptly curved at apical 1/3; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,575), PNG: New Guinea (NE): Moife, 2100 m, 15 km NW of Okapa, 7-14.X.1959, T. C. Maa; 1 & paratype, same data as holotype except 11-13.X.1959 (author's collection).

**REMARKS.** This species belongs to a species group with a very narrow clypellus. From *tintinnabula*, to which it is similar in male genital characteristics, *marilynae* can be separated by the extremely long basal processes of the paraphysis, by the long paraphysis, and by the very long processes of the 10th segment. This species is named for my daughter Marilyn.

## Thagria tintinnabula Nielson, new species Fig. 476-481.

Length: 37.40 mm, 97.40-7.70 mm. General color light fuscous with deep, broad fuscous bands along apex of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side, level equals level of eyes; ocelli large, distinct on anterior margin of crown; eyes large, globular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus large, elongate, lateral margins nearly parallel, excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with a large caudoventral lobe, lobe very narrowed at apical 1/3, caudodorsal margin with a pair of long, broad processes, curved and sharply pointed apically in dorsal view; 10th segment with a pair of long, broad processes, processes equal in length to pygofer processes in dorsal view; aedeagus symmetrical, very long, tube-like, extending beyond midlength of paraphysis; paraphysis symmetrical, short, very broad basally, becoming narrowed apically and constricted subapically, expanded apically with a pair of short processes basally on dorsal margin, flanged subapically on either side in dorsal view; connective Y-shaped, stem short; style extremely long, extending considerably beyond apex of paraphysis in dorsal aspect, narrow and nearly straight except slightly curved near apex; plate segmented subasally, distal segment long and narrow.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, caudal margin slightly produced at middle.

Holotype  $\mathcal{J}$  (BISHOP 10,576), IRIAN: New Guinea (NW): Vogelkop, Kebar Val., W of Manokwari, 550 m, 4-31.I.1962, L. W. Quate; allotype  $\mathcal{Q}$  (BISHOP), same data as holotype; paratypes: 2  $\mathcal{Q}\mathcal{Q}$ , same data as holotype; Bokondini, 40 km N of Baliem Val., ca 1300 m, 1  $\mathcal{Q}$ , 16-23.XI.1961, Quate (BISHOP).

**REMARKS.** Thagria tintinnabula belongs to a species group having a narrow clypellus. It is similar in general habitus and male genital characteristics to *virginiae*, but can be separated from that species by the paraphysis which is constricted subapically and flanged apically.

## Thagria virginiae Nielson, new species Fig. 482-487.

Length: 36.30 mm, 9 unknown.

General color deep testaceous with deep fuscous markings on veins of forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, even with level of eyes; ocelli large, distinct, on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median





length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with large, long, broad caudoventral lobe, caudodorsal margin with a pair of long, broad processes; 10th segment with a pair of long, narrow processes, slightly extended beyond apex of pygofer processes in dorsal view; aedeagus symmetrical, long, extending beyond midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, very broad basally, becoming narrowed at apical 2/3, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style very long,



Fig. 482–487. Thagria virginiae, n. sp.: 482, 3 pygofer and 10th segment, lateral view; 483, 3 pygofer processes and 10th segment, dorsal view; 484, plate, ventral view; 485, connective, aedeagus, paraphysis and style, dorsal view; 486, style, lateral view; 487, aedeagus and paraphysis, lateral view.

somewhat broad, extending beyond apex of paraphysis in dorsal view, slightly curved apically; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,577), PNG: New Guinea (NE): Karimui, 1080 m, 14.VII.1963, M. Sedlacek.

**REMARKS.** This species belongs to a species group possessing a very narrow clypellus. Thagria virginiae is related to *picea* in male genital characteristics but can be distinguished from that species by the presence of a simple process on the caudodorsal margin of pygofer and by the presence of a 10th segment process. The species is named for my daughter Virginia.

### **Thagria picea** (Walker), new combination Fig. 488–493.

Coelidia picea Walker, 1870: 309 [holotype Q, Mysool (BMNH) (examined)].-Metcalf, 1964: 70.

Coelidia albipes Walker, 1870: 312 [holotype ♂, New Guinea (BMNH) (examined)].—Metcalf, 1964: 39. New synonymy.

Length: ♂ 6.50 mm, ♀ 6.60 mm.

General color deep fuscous to nearly piceous throughout except for crown and clavus which are light testaceous.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins con-



Fig. 488–493. Thagria picea (Walker): 488, 3 pygofer, lateral view; 489, 3 pygofer processes, dorsal view; 490, connective, aedeagus, paraphysis and style, dorsal view; 491, style, lateral view; 492, aedeagus and paraphysis, lateral view; 493, plate, ventral view.

vergent basally, disk nearly flat, slightly foveate on either side of middle, about equal to level of eyes; ocelli distinct on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, broad, somewhat narrower anteriorly with lateral margin slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with large caudoventral lobe, lobe broad basally, narrowed apically, caudodorsal margin of pygofer with a pair of ornate processes, processes very broad with 3 short, slender, finger-like secondary processes, each arising from the margins equidistant to each other; 10th segment without processes; aedeagus symmetrical, very long, tube-like, nearly reaching to apex of paraphysis; gono-pore apical; paraphysis short, broad basally, becoming gradually tapered apically in dorsal view, very broad at basal 1/2, gradually narrowed at apical 1/2, truncate apically in lateral view, with a pair of long basal processes arising from dorsal margin; connective Y-shaped, stem short; style extremely long, narrow, produced considerably beyond apex of paraphysis; plate segmented subbasally, distal segment very narrow and long.

SPECIMENS EXAMINED. Coelidia picea Walker, holotype  $\mathcal{Q}$ , Mysol [=Mysool], Wallace (BMNH); Coelidia albipes Walker, holotype  $\mathcal{J}$ , New Guinea [Dorey=Manokwari], Wallace (BMNH). IRIAN: New Guinea (SW): Vogelkop, Fak Fak, S coast of Bomberai, 10–100 m, 1  $\mathcal{J}$ , 11.VI.1959, on ginger, J. L. Gressitt (BISHOP).

DISTRIBUTION. Mysool, NW New Guinea; new records: SW New Guinea.

**REMARKS.** Examination of the types of *picea* and *albipes* showed the former is the female and the latter is the male of the same species. *Thagria picea* is the valid name having priority by pagination. From *elongistyla*, to which it is similar in general habitus and male genital characteristics, *picea* may be distinguished by the presence of 3 narrow, finger-like secondary processes on the process of the pygofer and by the truncate apex of the paraphysis.

Thagria elongistyla Nielson, new species Fig. 494–499.

Length: 3 6.00 mm, 9 unknown.

General color piceous throughout except for crown which is testaceous.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins somewhat indistinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excavated near antennal sockets giving the entire clypeal surface a constricted appearance medially, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with an extremely long caudoventral lobe, lobe gradually tapered apically, caudodorsal margin of pygofer with a pair of very ornate processes, processes very broad basally with 2 finger-like narrow processes, the mesal pair very long and arising at about middle of margin, the ectal pair very short, narrow, arising subbasally, and the distal pair very broad, short; aedeagus symmetrical, very long, narrow, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually becoming tapered apically, with a deep notch apically in dorsal view, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style extremely long and narrow, extending beyond apex of paraphysis in dorsal view; plate segmented subbasally, distal segment very long and narrow.



Fig. 494–499. Thagria elongistyla, n. sp.: 494, of pygofer, lateral view; 495, of pygofer processes, dorsal view; 496, connective, aedeagus, paraphysis and style, dorsal view; 497, aedeagus and paraphysis, lateral view; 498, style, lateral view; 499, plate, ventral view.

Holotype & (BISHOP 10,578), IRIAN: New Guinea (NW): Bodem, 100 m, 11 km SE of Oerberfaren, 7-17.VII.1959, T. C. Maa.

REMARKS. This species belongs to a species group possessing a narrow clypellus. It is similar in general habitus and male genital characteristics to *picea*, but can be separated from that species by the very ornate pygofer processes with extremely long mesal pair of secondary processes and by the apex of the paraphysis, which is narrowed apically and clefted in dorsal view.

#### Thagria bidens Nielson, new species

Fig. 500–505.

Length: 36.00 mm, 9 unknown.

General color piceous to deep fuscous with a light testaceous band at apex of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins con-



Fig. 500-505. Thagria bidens, n. sp.: 500, & pygofer, lateral view; 501, & pygofer processes, dorsal view; 502, plate, ventral view; 503, connective, aedeagus, paraphysis and style, dorsal view; 504, aedeagus and paraphysis, lateral view; 505, style, lateral view.

vergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of large, ornate processes, processes with a pair of long, curved secondary processes, 1 attached basally, and 1 attached apically; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically with a pair of long, curved basal processes on dorsal margin; connective Y-shaped, stem short; style extremely long, narrow,

extending considerably beyond apex of paraphysis; plate segmented subbasally, distal segment long and narrow, constricted at about middle.

Holotype 3 (BISHOP 10,579), IRIAN: New Guinea (NW): Vogelkop, Kebar Val., W of Manokwari, 550 m, 4–31.I.1962, L. W. Quate.

REMARKS. This species belongs to a species group possessing a narrow clypellus. *Thagria* bidens is related to patriciae but can be distinguished from that species by the shape of the processes on the caudodorsal margin of the pygofer and the very long, slender, needle-like paired processes on the dorsal margin of the paraphysis.

Thagria patriciae Nielson, new species Fig. 506–511.

Length: 3 6.20 mm, 9 7.40 mm.

General color piceous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, occupying over 2/3 of entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins convex, excavated slightly near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins expanded apically.

3. Pygofer in lateral aspect with a large, elongate caudoventral lobe, caudodorsal margin with a pair of ornate processes, processes with a pair of short, narrow, finger-like secondary processes subbasally, recurved at apical 1/2 in dorsal aspect; 10th segment without processes; aedeagus symmetrical, very long, tube-like, almost reaching apex of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally and gradually tapered at apical 3/4, with a pair of robust and very long processes basally on dorsal margin; connective Y-shaped, stem short; style extremely long and narrow, extending considerably beyond apex of paraphysis; plate segmented subbasally, distal segment long and narrow.

 $\mathbb{Q}$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype ♂ (Візнор 10,580), PNG: New Guinea (SE): Kiunga, Fly River, 21–24.X.1957, W. W. Brandt; 2 ♀♀ paratypes, same data as holotype except 4.VII–25.IX.1957 (Візнор).

**REMARKS.** Thagria patriciae belongs to a species group possessing a very narrow clypellus. It is closely related to *ochripes* but can be distinguished from that species by the shape of the pygofer processes and by the extremely robust and long paired processes on the dorsal margin of the paraphysis. This species is named for my wife, Patricia.

**Thagria ochripes** (Spångberg), new combination Fig. 512–517.

Jassus ochripes Spångberg, 1878: 37 [lectotype 3, New Guinea (NR), here designated (examined)]. Coelidia ochripes: Metcalf, 1964: 64.

The description of the general habitus of the species is based on Spångberg's original description and my observations of the type specimen.

Length: ♂ 6.00 mm, ♀ 7.50 mm.

General color fuscous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, disk slightly concave medially, slightly elevated above level of eyes, lateral margins convergent basally; ocelli on anterior margin of crown; pronotum with surface granulated.

 $\delta$ . Pygofer in lateral aspect with a large, elongate caudoventral lobe, caudodorsal margin with a pair of large, ornate processes, processes with 3 secondary processes, 1 long, curved process basally, 1 long,



Fig. 506-511. Thagria patriciae, n. sp.: 506, 3 pygofer, lateral view; 507, 3 pygofer processes, dorsal view; 508, connective, aedeagus, paraphysis and style, dorsal view; 509, aedeagus and paraphysis, lateral view; 510, plate, ventral view; 511, style, lateral view.

slender, straight process apically, and 1 broad, triangulate lobe ventrally; 10th segment without processes; aedeagus symmetrical, long, tube-like, reaching midlength of paraphysis; paraphysis symmetrical, broad basally at apical 1/4, abruptly tapered at apical 3/4, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style very long and slender, extending beyond apex of paraphysis, apex curved; plate segmented subbasally, distal segment long and narrow.

SPECIMENS EXAMINED. Jassus ochripes Spångberg, lectotype 3, New Guinea (NR), here designated; paralectotype: cotype  $\mathcal{Q}$ , New Guinea (NR).

DISTRIBUTION. New Guinea.



Fig. 512-517. Thagria ochripes (Spångberg): 512, 3 pygofer, lateral view; 513, 3 pygofer processes, dorsal view; 514, plate, ventral view; 515, connective, aedeagus, paraphysis and style, dorsal view; 516, style, lateral view; 517, aedeagus and paraphysis, lateral view.

REMARKS. This species is known only from the lectotype and cotype specimens. *Thagria* ochripes is closely related to *patriciae* but can be distinguished from that species by the shape of the pygofer processes and by the short, paired processes on the dorsal margin of the paraphysis.

**Thagria bivalla** Nielson, new species Fig. 518–523.

Length: 37.30-7.40 mm, 9 unknown.

General color deep testaceous with fuscous veins on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side, striate radially below ocelli; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near antennal sockets,



Fig. 518–523. Thagria bivalla, n. sp.: 518,  $\Im$  pygofer and 10th segment, lateral view; 519,  $\Im$  pygofer processes and 10th segment, dorsal view; 520, connective, aedeagus, paraphysis and style, dorsal view; 521, aedeagus and paraphysis, lateral view; 522, style, lateral view; 523, plate, ventral view.

surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, semiglobular caudoventral lobe, caudodorsal margin with 2 pairs of large, long processes, dorsal pair slender, curved and toothed apically, ventral pair long, large basally, narrowly attenuated apically and extending beyond apex of dorsal pair in dorsal aspect; 10th segment with a pair of long processes, processes expanded apically in dorsal view; aedeagus symmetrical, very long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming narrowly attenuated at apical 1/3, with a pair of very large, long, basal processes on the

dorsal margin, processes extending to apex of aedeagus in lateral aspect; connective Y-shaped, stem short; style very short, broad, extending just beyond base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,581), PNG: New Guinea (NE): Western Highlands, Baiyer R, 1150 m, 18.X.1958, J. L. Gressitt; 1 3 paratype, same data as holotype (author's collection).

REMARKS. Thagria bivalla belongs to the species group possessing a narrow clypellus. From *cheesmanae*, to which it is similar in male genital characteristics, *bivalla* can be distinguished by the extremely large, long dorsal processes of the paraphysis.

Thagria cheesmanae Nielson, new speciesFig. 524–529.Length: ♂ 5.30 mm, ♀ 6.20 mm.



Fig. 524-529. Thagria cheesmanae, n. sp.: 524, 3 pygofer and 10th segment, lateral view; 525, 3 pygofer processes and 10th segment, dorsal view; 526, plate, ventral view; 527, connective, aedeagus, paraphysis and style, dorsal view; 528, aedeagus and paraphysis, lateral view; 529, style, lateral view.
General color deep fuscous with numerous yellow markings and a yellow apical band subapically on the elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins indistinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very broad, elongate caudoventral lobe, caudodorsal margin with a pair of ornate processes, processes with 2 very slender secondary processes apically, mesal pair very long, ectal pair very short; 10th segment with a pair of extremely long processes extending beyond apex of pygofer processes in dorsal aspect, processes very slender in dorsal view; aedeagus symmetrical, extremely short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming gradually tapered at apical 3/4 with a pair of distinct basal processes on dorsal margin, processes extending beyond apex of aedeagus; connective Y-shaped, stem short; style long, very slender, not quite reaching apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\mathfrak{Q}$ . 7th segment large, nearly  $3 \times$  as long as penultimate segment, caudal margin produced medially.

Holotype  $\mathcal{J}$  (BMNH), PNG: New Guinea (SE): Kokoda, 1200 ft [366 m], IV.1933, L. E. Cheesman; allotype  $\mathcal{Q}$  (BMNH), same data as holotype.

REMARKS. This species belongs to a species group possessing a narrow clypellus. From *tragulae*, to which it is similar in male genital characteristics, *cheesmanae* can be distinguished by the extremely short aedeagus and by the ornate pygofer processes. This species is named for L. E. Cheesman, who was an avid collector of insects in the South Pacific islands.

# Thagria tragulae Nielson, new species Fig. 530–535.

Length: 37.30-7.40 mm, 98.30 mm.

General color light to deep fuscous with numerous light ochraceous markings on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk flat, level about even with level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margin slightly expanded apically.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin with a long, broad process, process simple and somewhat attenuated apically; 10th segment with a pair of long, slender processes extending beyond pygofer processes in dorsal aspect, processes simple; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming narrowly attenuated apically, with a pair of long basal processes on dorsal margin, processes extending beyond apex of aedeagus; connective Y-shaped, stem short; style very long, slender, and curved at apical 1/4, nearly reaching apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\Im$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin slightly produced medially.



Fig. 530-535. Thagria tragulae, n. sp.: 530, J pygofer and 10th segment, lateral view; 531, J pygofer processes and 10th segment, dorsal view; 532, plate, ventral view; 533, connective, aedeagus, paraphysis and style, dorsal view; 534, aedeagus and paraphysis, lateral view; 535, style, lateral view.

Holotype  $3^{\circ}$  (BISHOP 10,582), PNG: New Guinea (NE): Sinofi, 1590 m, 30 km S of Kainantu, 30.IX.1959, T. C. Maa; allotype  $2^{\circ}$  (BISHOP), same data as holotype; paratypes: 1  $3^{\circ}$ , 1  $2^{\circ}$ , same data as holotype except 4.X.1959 (author's collection); Bulldog Rd, 14 km S of Edie Ck, 2400 m, 1  $3^{\circ}$ , 4–10.VII.1966, G. A. Samuelson; Mt Otto, 2600 m, 1  $3^{\circ}$ , 21.VI.1955, J. L. Gressitt (BISHOP).

**REMARKS.** This species belongs to a species group possessing a narrow clypellus. *Thagria* tragulae is related to unca in certain male genital characteristics, but can be separated from that species by the style with the apical 1/3 curved and by the single pair of pygofer processes.

#### Thagria unca Nielson, new species Fig. 536–544.

Length: ♂ 6.80–7.00 mm, ♀ 8.15–8.40 mm.

General color fuscous with light ochraceous and deep fuscous markings on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum short, median length about equal to median length of crown,



Fig. 536-544. Thagria unca, n. sp.: 536, 3 pygofer and 10th segment, lateral view; 537, head, pronotum and scutellum, lateral view; 538, face; 539, plate, ventral view; 540, head, pronotum and scutellum, dorsal view; 541, 3 pygofer processes and 10th segment, dorsal view; 542, style, lateral view; 543, connective, aedeagus, paraphysis and style, dorsal view; 544, aedeagus and paraphysis, lateral view.

surface greatly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near middle near base of antennal sockets; surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, elongate, caudoventral lobe, caudodorsal margin with 2 pairs of processes, dorsal pair short, slender at apical 1/2, curved, ventral pair large, long, extending beyond apex of dorsal pair in dorsal aspect, curved and attenuated apically; 10th segment with a pair of long processes about equal to length of ventral pair of pygofer processes; aedeagus symmetrical, long, tube-like, nearly reaching the middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming abruptly attenuated at apical 3/4 and abruptly pointed in dorsal aspect, with a pair of broad, long, curved basal processes on dorsal margin; connective Y-shaped, stem short; style long, narrow and sinuate at apical 1/2, with the apex strongly hooked; plate segmented subbasally, distal segment long and narrow.  $\varphi$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin nearly truncate.

Holotype & (BISHOP 10,583), PNG: New Guinea (NE): Wampit Val. nr Gurakor Vill., nr Wau, 950 m, 7.VII.1957, D. Elmo Hardy; allotype  $\mathcal{Q}$  (BISHOP), IRIAN: New Guinea (NW): Genjam, 40 km W of Hollandia, 100-200 m, 1-10.III.1960, T. C. Maa; paratypes: PNG: New Guinea (NE): Morobe Distr., Wau, 1000-1200 m, 1 Q, 14.VI.1961, J. L. Gressitt; same location, 3 33, 14.VI-22.X.1961, 2 33, 1 ♀, 17.V-22.IX.1965, J. Sedlacek; Bainyik, 150 m S of Maprik, 5 33, 1 9, 12.I.1960, Maa; nr Maprik, 225 m, 1 9, 20–21.VI.1961, J. L. & M. Gressitt (Візнор); Morobe Distr., Masba Ck Camp, 1 3, 7-12.V.1964, H. M. Van Deusen (AMNH); Morobe Distr., 10 km W of Bulolo, 780 m, 1 &, 25.VIII.1967, malaise tr over stream, R. Straatman; Sepik Distr., Dreikikir, 350 m, 1 º, 24.VI.1961, grasses, J. L. & M. Gressitt; Finisterre Range, Saidor, Sibog Vill., 1 3, 6-16.VI.1958, W. W. Brandt (BMNH); Bulolo, 880 m, 1 3, 22.VIII.1956, light trap, E. J. Ford Jr.; IRIAN: New Guinea (NW): Waris, S of Hollandia, 450–500 m, 1  $\varphi$ , 1-7.VIII.1959, T. C. Maa (BMNH); Bodem, 11 km SE of Oerberfaren, 1 9, 7-17.VII.1959, 100 m, Maa; Hollandia area, W Sentani, Cyclops Mts, 150-250 m, 1 9, 18.VI.1959, Maa (USNM); New Ireland: 5-50 km from Kavieng, 1-2 m, 1  $\mathcal{Z}$ , 1  $\mathcal{Q}$ , 2.VII.1959, Gressitt; New Britain: Sio, N coast, 600 m, 1 3, 24.VII.1956, Ford; Gazelle Pen., Upper Warangoi, 350-600 m, 1 3, 28-29.XI.1962, J. Sedlacek (author's collection).

REMARKS. This is a rather common species belonging to the species group possessing a narrow clypellus. It is similar in general habitus and male genital characteristics to *exilis* but can be separated from that species by the 2 pairs of pygofer processes.

#### Thagria exilis Nielson, new species Fig. 545–550.

Length: 36.50-7.40 mm, 9 unknown.

General color deep testaceous with small ivory spots on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk foveate on either side of middle, elevated slightly above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface grossly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excised near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with a large, elongate, caudoventral lobe, caudodorsal margin with a pair of long processes, processes toothed on inner apical margin; 10th segment with a pair of long processes, length



Fig. 545-550. Thagria exilis, n. sp.: 545, 3 pygofer and 10th segment, lateral view; 546, 3 pygofer processes and 10th segment, dorsal view; 547, plate, ventral view; 548, connective, aedeagus, paraphysis and style, dorsal view; 549, aedeagus and paraphysis, lateral view; 550, style, lateral view.

about equal to length of pygofer processes, strongly curved at apical 1/2; aedeagus symmetrical, long, tube-like, reaching to about midlength of paraphysis; gonopore apical; paraphysis symmetrical, very long, broad basally, gradually tapered apically, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style long, narrow, broadly hooked or curved at apex in lateral aspect, apex reaching to about middle of paraphysis; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,584), SOLOMON IS: Guadalcanal: Honiara, 22.IV.1964, R. Straatman; paratypes: Guadalcanal: Roroni, 35 km E of Honiara, 10 m, 1 &, 11.V.1964, R. Straatman (BISHOP); Suta (Suta-Gold Ridge) Jonapau Mt, 1000 m, 1 &, 29.VI.1956, J. L. Gressitt (BMNH); Malaita: Tangtalau, 200 m, 1 &, 26.IX.1957, Gressitt (author's collection); PNG: New Guinea (SE): Brown R, 1 &, 23.X.1960, Gressitt (BISHOP).

REMARKS. This species is closely related to *canifascia* and belongs to a species group possessing a narrow clypellus. From *canifascia*, *exilis* can be distinguished by the long, narrow paraphysis and by the hooked apex of the style.

**Thagria canifascia** (Walker), new combination Fig. 551–556.

Coelidia canifascia Walker, 1870: 311 [holotype Q, N Moluccas (BMNH) (examined)].—Metcalf, 1964: 44.

Length: 35.80 mm, 96.60 mm.

General color piceous throughout in  $\eth$  piceous in  $\updownarrow$  with numerous ivory spots on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 551-556. Thagria canifascia (Walker): 551, 3 pygofer and 10th segment, lateral view; 552, 3 pygofer processes and 10th segment, dorsal view; 553, plate, ventral view; 554, connective, aedeagus, paraphysis and style, dorsal view; 555, aedeagus and paraphysis, lateral view; 556, style, lateral view.

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about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, slightly elevated above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins slightly obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins nearly parallel, slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of very long processes, processes curved laterally at about apical 1/2 in dorsal aspect; 10th segment with a pair of very long processes, processes slender in dorsal aspect, broad in lateral aspect, about equal to width of base of pygofer processes; aedeagus symmetrical, long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, abruptly attenuated at about middle with a pair of long processes basally on the dorsal margin; connective Y-shaped, stem short; style very long, extending beyond apex of paraphysis, narrowed and acutely pointed apically; plate segmented subbasally, distal segment long and somewhat expanded apically.

Q. 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

SPECIMENS EXAMINED. Coelidia canifascia Walker, holotype  $\mathcal{D}$ , "Morty" [=Morotai], Wallace (BMNH). IRIAN: New Guinea (SW): Vogelkop, Bomberi, 700–900 m, 2  $\mathcal{J}\mathcal{J}$ , 1  $\mathcal{D}$ , 6.VI.1959, J. L. Gressitt (BISHOP); 1  $\mathcal{J}$ , 1  $\mathcal{D}$ , same data except 6–7.VI.1959, J. L. Gressitt & T. C. Maa (author's collection).

DISTRIBUTION: Morotai; new records: New Guinea.

**REMARKS.** Thagria canifascia belongs to a species group possessing a narrow clypellus. It is similar in certain male genital characteristics to *trulla*, but can be distinguished from that species by the very long, simple, slender, paired pygofer processes and by the long aedeagus which extends to about midlength of the paraphysis.

## **Thagria trulla** Nielson, new species Fig. 557–562.

Length: ♂ 6.30 mm, ♀ 7.40 mm.

General color deep testaceous with broad, fuscous transverse bands subapically on forewing and with small, light ochraceous spots basad of fuscous bands.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, disk nearly flat, slightly foveate on either side, slightly elevated above level of eyes, striate radially below ocelli, lateral margins convergent basally; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix very well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of ornate processes, processes deeply bifurcate apically, outer bifurcation very long and slender, inner bifurcation very broad; 10th segment with a pair of long, slender processes; aedeagus symmetrical, short, not reaching midlength of paraphysis in dorsal aspect, tube-like; gonopore apical; paraphysis symmetrical, very broad basally, becoming narrowed at about basal 1/3, and narrowed throughout apical 2/3, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style long, very slender at apical 1/2, extending beyond midlength of the paraphysis but not reaching apex; plate segmented subbasally, distal segment long and narrow, somewhat expanded apically.



Fig. 557-562. Thagria trulla, n. sp.: 557,  $\sigma$  pygofer and 10th segment, lateral view; 558,  $\sigma$  pygofer processes and 10th segment, dorsal view; 559, plate, ventral view; 560, connective, aedeagus, paraphysis and style, dorsal view; 561, aedeagus and paraphysis, lateral view; 562, style, lateral view.

 $\varphi$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin slightly produced medially with a notch at the middle.

Holotype 3 (BMNH), PNG: New Guinea (SE): Kokoda, 1200 ft [366 m], IX.1933, L. E. Cheesman; allotype 9 (BMNH), BORNEO: Sarawak: R. Kapah trib. of R. Tinjar, X.1932, primitive forest, beneath undergrowth, B. M. Hobby & A. W. Moore; 1 3 paratype: PNG: New Guinea (NE): Garaina, 550-750 m, 16.I.1968, J. & M. Sedlacek.

REMARKS. This species belongs to a species group possessing a narrow clypellus. It is

closely related to *referta* but can be distinguished from that species by the style with its very narrow apical 1/2 and by the paired pygofer processes which are deeply bifurcated apically.

Thagria referta Nielson, new species Fig. 563–568.

Length:  $3^{\circ}$  6.60 mm,  $2^{\circ}$  unknown.

General color fuscous with numerous light ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk flat, level equal to level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median



Fig. 563-568. Thagria referta, n. sp.: 563, J pygofer and 10th segment, lateral view; 564, J pygofer processes and 10th segment, dorsal view; 565, plate, ventral view; 566, connective, aedeagus, paraphysis and style, dorsal view; 567, aedeagus and paraphysis, lateral view; 568, style, lateral view.

length greater than median length of crown, coarsely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins broadly convex, slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of long processes, processes with a small, secondary process basally; 10th segment with a pair of short processes, processes strongly curved apically; aedeagus symmetrical, short, tube-like, not quite reaching middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically, with a pair of short subbasal finger-like processes on dorsal margin; connective Y-shaped, stem short; style long, somewhat broad and abruptly curved at apex and extending just beyond midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,585), IRIAN: New Guinea (NW): Waris, S of Hollandia, 450– 500 m, 8–15.VIII.1959, T. C. Maa.

REMARKS. Thagria referta belongs to a species group possessing a narrowed clypellus. From *bakeri*, to which it is similar in male genital characteristics, *referta* can be distinguished by the position of the paired processes subbasally on the dorsal margin of the paraphysis and by the paired pygofer processes which are about  $2 \times$  as long as the 10th segment processes in dorsal aspect.

# Thagria bakeri Nielson, new species Fig. 569–574.

Length: ♂ 7.10-7.40 mm, ♀ 7.40-8.40 mm.

General color deep fuscous with ochraceous markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface coarsely knobbed, scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

 $\beta$ . Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with 2 pairs of processes, the dorsal pair short, curved, the ventral pair  $3 \times$  as long as dorsal pair, curved, and toothed on inner lateral margin at the apex; 10th segment with a pair of long processes, about as long as pygofer processes, processes slender and simple; aedeagus symmetrical, long, not quite reaching midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, long, very broad basally and gradually tapered at apical 2/3, with a pair of long basal processes on the dorsal margin; connective Y-shaped, stem short; style long, somewhat robust, irregularly curved at apical 1/2, reaching midlength of paraphysis in dorsal aspect; apex slightly curved in lateral aspect; plate segmented subbasally, distal segment long and narrow.

 $\ensuremath{\mathbb{Q}}.$  7th segment large, about 2 $\times$  as long as penultimate segment, caudal margin nearly truncate.

Holotype 3 (BISHOP 10,586), PNG: New Britain: Gazelle Pen., Mt Sinewit, 900 m, light trap, 5–14.XI.1962, J. Sedlacek; allotype  $\varphi$  (BISHOP), Gazelle Pen., Upper Warangoi, Illugi, 230 m, 12–15.XII.1962, J. Sedlacek; paratypes: 1  $\varphi$ , same data as allotype except 8–15.XII.1962; 1  $\varphi$ , same data as allotype except 1250 m, 1–4.XII.1962; Gazelle Pen., Gaulim, 130 m, 1  $\varphi$ , 23–28.X.1962, Sedlacek; Gazelle Pen., Warangoi Val., 100 m, 1  $\varphi$ , 24.V.1956, J. L. Gressitt; Vunabakan, 180 m, 10 km E of Keravat, 1  $\varphi$ , 16–20.XI.1959, T. C. Maa (BISHOP);



Fig. 569–574. Thagria bakeri, n. sp.: 569, 3 pygofer and 10th segment, lateral view; 570, 3 pygofer processes and 10th segment, dorsal view; 571, plate, ventral view; 572, connective, aedeagus, paraphysis and style, dorsal view; 573, aedeagus and paraphysis, lateral view; 574, style, lateral view.

New Guinea (NE): Morobe Distr., Wau, 1050–1100 m, 1 3, 15.XII.1961, J. H. & M. Sedlacek (author's collection).

REMARKS. This species belongs to a species group possessing a narrow clypellus. From *lurida*, to which it is similar in certain male genital characteristics, *bakeri* can be distinguished by the 2 pairs of processes on the pygofer, the presence of 10th segment processes, and by the fairly long, robust style. This species is named in honor of C. F. Baker, renowned American homopterist.

Thagria lurida (Melichar), new combination Fig. 575–580.

Jassus luridus Melichar, 1903: 179 [holotype J, Sri Lanka (MNHU) (examined)].

575





Fig. 575–580. Thagria lurida (Melichar): 575, 3 pygofer, lateral view; 576, 3 pygofer processes, dorsal view; 577, plate, ventral view; 578, connective, aedeagus, paraphysis and style, dorsal view; 579, aedeagus and paraphysis, lateral view; 580, style, lateral view.

Jassus silvestris Distant, 1908: 331 [holotype Q, Sri Lanka (BMNH) (examined)]. New synonymy. Coelidia lurida: Metcalf, 1964: 58.

Coelidia silvestris: Metcalf, 1964: 75.

Length: 36.00 mm, 96.20 mm.

General color light ochraceous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate medially, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus long, broad at anterior 1/2, narrowed at posterior 1/2, lateral margins excised near middle at base of antennal sockets, surface finely granulose at basal 1/2,

rugulose along apical 1/2; clypellus long, narrow, base narrower than base of clypeus, lateral margins parallel.

 $\beta$ . Pygofer in lateral aspect with a large, cylindrical-shaped caudoventral lobe, caudodorsal margin with a pair of long processes, processes curved at apical 1/2, constricted subapically; 10th segment without processes; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming gradually tapered at apical 2/3, with a pair of short, stubby processes basally and a small apical projection on dorsal margin; connective Y-shaped, stem short; style fairly long, not quite reaching midlength of paraphysis in dorsal aspect, very slender and needle-like; plate segmented subbasally, distal segment very long and narrow.

SPECIMENS EXAMINED. Jassus luridus Melichar, holotype  $\mathcal{J}$ , Ceylon, No. 6239, Gietner (MNHU); Jassus silvestris Distant, holotype  $\mathcal{Q}$ , Ceylon, II.1900, Green (BMNH).

DISTRIBUTION. Sri Lanka.

**REMARKS.** This species is known only from type material. Thagria lurida belongs to a species group having a narrow clypellus and is related to *rima* in male genital characteristics, but can be distinguished from that species by the lack of 10th segment processes and by the presence of 1 pair of pygofer processes.

Thagria rima Nielson, new species Fig. 581–586.

Length: 37.40 mm, 9 unknown.

General color ochraceous with fuscous veins and dark markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly depressed below level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excavated near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with large, long, cylindrical-like caudoventral lobe, caudodorsal margin with 2 pairs of processes, ventral pair very large, long, and dorsal pair very short, curved; 10th segment with extremely long process extending beyond apex of caudoventral lobe in lateral aspect; aedeagus symmetrical, short, tube-like, not quite reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, long, broad basally, gradually tapered apically and bifurcate apically with a pair of long processes basally on dorsal margin; connective Y-shaped, stem short; style short, just barely reaching base of paraphysis in dorsal aspect, slender and sharply pointed; plate segmented subbasally, distal segment long and narrow, apex somewhat expanded.

Holotype 3 (BISHOP 10,587), PNG: New Guinea (NE): Morobe Distr., Wau, Mt Missim, 1600 m, 17.III.1966, on ginger, J. L. Gressitt.

REMARKS. This belongs to a species group with narrow clypellus. It is closely related to *zauggi*, but can be distinguished from that species by the very short style, short aedeagus and by the short processes of the 10th segment.

**Thagria zauggi** Nielson, new species Fig. 587–592.

Length: ♂ 6.90 mm, ♀ 8.70 mm.

General color deep ochraceous with ivory and fuscous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed below level of eyes, striate radially below ocelli;



Fig. 581-586. Thagria rima, n. sp.: 581, 3 pygofer and 10th segment, lateral view; 582, 3 pygofer processes and 10th segment, dorsal view; 583, plate, ventral view; 584, connective, aedeagus, paraphysis and style, dorsal view; 585, aedeagus and paraphysis, lateral view; 586, style, lateral view.

occlli on anterior margin of crown; eyes large, elongate-ovoid, occupying over 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypellus elongate, narrow, lateral margins nearly parallel, slightly excavated near antennal sockets, surface finely granulose throughout; clypellus long and somewhat broadened, base narrower than base of clypeus, lateral margin expanded apically.

3. Pygofer in lateral aspect with a large caudoventral lobe, ventral margin of lobe sinuate, caudodorsal margin with 2 pairs of long processes, ventral pair large, long, toothed on inner apical margin, dorsal pair very slender, finger-like, short; 10th segment with a pair of long processes, nearly as long as ventral pair of pygofer processes; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, long, broad basally, and gradually tapered apically, with a pair



Fig. 587-592. Thagria zauggi, n. sp.: 587, 3 pygofer and 10th segment, lateral view; 588, 3 pygofer processes and 10th segment, dorsal view; 589, plate, ventral view; 590, connective, aedeagus, paraphysis and style, dorsal view; 591, aedeagus and paraphysis, lateral view; 592, style, lateral view.

of long, finger-like processes basally on dorsal margin; connective Y-shaped, stem short; style long, extending beyond base but not reaching midlength of paraphysis in dorsal aspect, rather broad at basal 3/4 and narrowly attenuated and pointed at apical 1/4; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th segment large, about  $2\times$  as long as penultimate segment, caudal margin slightly produced medially.

Holotype & (BISHOP 10,588), PNG: New Guinea (NE): Finisterre Range, Saidor, Kiambari Vill., 22–29.VII.1958, W. W. Brandt; allotype  $\mathcal{Q}$  (BISHOP), same data as holotype; 1  $\mathcal{Q}$  paratype, Finisterre Range, Saidor, Matoko Vill., 29.VIII–5.IX.1958, Brandt (BISHOP).

REMARKS. Thagria zauggi belongs to a species group possessing a narrow clypellus. It is closely related in general habitus to *fucosa*, but can be separated from that species by the long, slender paraphysis, the long style, which is sharply pointed apically, and by the sinuate ventral margin of the caudoventral lobe of the pygofer. This species is named for my colleague Dr Jerry Zaugg.

# Thagria fucosa Nielson, new species

Fig. 593-598.

Length: 36.60 mm, 9 unknown.

General color fuscous with numerous ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly depressed on either side of middle, level just below level of eyes, striate radially below ocelli; ocelli on anterior margin of head; eyes large, semiglobular, occupying over 2/3 of



Fig. 593-598. Thagria fucosa, n. sp.: 593, 3 pygofer and 10th segment, lateral view; 594, 3 pygofer processes and 10th segment, dorsal view; 595, plate, ventral view; 596, connective, aedeagus, paraphysis and style, dorsal view; 597, aedeagus and paraphysis, lateral view; 598, style, lateral view.

entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, excised at middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margin slightly expanded apically.

3. Pygofer in lateral aspect with large, broad caudoventral lobe, caudodorsal margin with 2 pairs of processes of equal length, ventral pair broad and curved in dorsal aspect, dorsal pair narrow and nearly straight in dorsal aspect; 10th segment with a pair of long processes, not nearly as long as pygofer processes and abruptly curved at apex in dorsal aspect; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, abruptly attenuated at basal 1/4 and narrowed at apical 3/4 in dorsal aspect, with 2 pairs of long processes basally on the dorsal margin; connective Y-shaped, stem short; style short, extending just beyond base of paraphysis, rather robust and irregularly shaped along lateral margins; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,589), PNG: New Guinea (NE): Gewak, Salawaket Range, 1530 m, 6.IX.1956, E. J. Ford, Jr.

REMARKS. This species belongs to the species group having a narrow clypellus. From *rugosa*, to which it is similar in male genital characteristics, *fucosa* can be distinguished by the shape of the pygofer and 10th segment processes and by the paraphysis which is constricted subapically and abruptly curved dorsally at apex.

Thagria rugosa Nielson, new species Fig. 599–604.

Length:  $3^{\circ}$  6.90–7.30 mm,  $9^{\circ}$  7.40 mm.

General color deep ochraceous with fuscous veins on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly depressed along middle, level below level of eyes, radially striate below ocelli; ocelli on anterior margin of head; eyes large, semiglobular, occupying over 2/3 of entire dorsal area of head; pronotum large, median length greater than median length of crown, surface grossly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly convex, slightly depressed near middle at base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with large, broad, elongate caudoventral lobe, caudodorsal margin with 2 pairs of long, broad processes, processes of about equal length in dorsal aspect, dorsal pair rather slender, ventral pair with a large, curved lobe about middle; 10th segment with a pair of short processes, processes basad apically, abruptly curved laterally in dorsal view; aedeagus symmetrical, long, tube-like, nearly reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, constricted medially and slightly expanded at apical 1/2 in dorsal aspect, with 2 pairs of long **b**asal processes on dorsal margin; connective Y-shaped, stem short; style moderately long, slender, pointed apically, extending beyond but not reaching to midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, caudal margin produced medially.

Holotype  $\mathcal{J}$  (BMNH), PNG: New Guinea (SE): Mondo, 5,000 ft [1524 m], I.1934, L. E. Cheesman; allotype  $\mathcal{Q}$  (BMNH), same data as holotype; 1  $\mathcal{J}$  paratype, Mafulu, 4000 ft [1219 m], I.1934, Cheesman (author's collection).

**REMARKS.** This species belongs to a species group with a narrow clypellus. Thagria rugosa is related to *fucosa*, but can be distinguished from that species by the shape of the ventral pygofer processes and by the medially constricted paraphysis.



Fig. 599-604. Thagria rugosa, n. sp.: 599, 3 pygofer and 10th segment, lateral view; 600, 3 pygofer processes and 10th segment, dorsal view; 601, plate, ventral view; 602, connective, aedeagus, paraphysis and style, dorsal view; 603, aedeagus and paraphysis, lateral view; 604, style, lateral view.

604

## Thagria peayi Nielson, new species Fig. 605-611.

602

Length: ♂ 6.90–7.10 mm, ♀ 7.10–8.00 mm.

General color fuscous with light ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk foveate medially, about even with level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, elongate ovoid, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well



Fig. 605-611. Thagria peayi, n. sp.: 605, 3 pygofer and 10th segment, lateral view; 606, 3 pygofer processes and 10th segment, dorsal view; 607, connective, aedeagus, paraphysis and style, dorsal view; 608, aedeagus and paraphysis, lateral view; 609,  $\Im$  7th sternum, ventral view; 610, style, lateral view; 611, plate, ventral view.

developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins slightly convex, excised at middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with 2 pairs of processes, dorsal pair very short, broad, curved, ventral pair very long, tapered and toothed on inner apical margin in dorsal aspect; 10th segment with a pair of long processes, processes enlarged apically; aedeagus symmetrical, long, tube-like, apex reaching midlength of paraphysis; paraphysis symmetrical, very long, broad basally and narrowed at basal 1/4 to apex, with a pair of long basal processes on dorsal margin; connective Y-shaped, stem short; style short, apex extending a little beyond base of paraphysis in dorsal aspect, abruptly pointed apically; plate segmented subbasally, distal segment long and narrow.

 $\bigcirc$ . 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin slightly produced and notched at middle.

Holotype 3 (Bishop 10,590), PNG: New Guinea (NE): Morobe Distr., Wau, 1250 m, 15.II.1965, malaise trap, J. Sedlacek; allotype  $\Im$  (Bishop), same data as holotype except 1200 m, 7.VII. 1961; paratypes: Morobe Distr., Wau, Kunai Ck, 1230–1500 m, 2 33, 6–22. VIII. 1963, 4 33, 29.V.1965, Sedlacek & R. Straatman; Wau, 1000–1700 m, 11 33, 1  $\Im$ , 7.VII–20. XII.1961, 1  $\Im$ , 1  $\Im$ , 2.I–13.II.1963, 1  $\Im$ , 27–31.III.1964, 23  $\Im$ , 29.I–6.XII.1965, 1  $\Im$ , 2.IV.1966, J., J. H. & M. Sedlacek, R. Straatman & J. L. Gressitt; Morobe Distr., Wau, Nami Ck, 1670 m, 3  $\Im$ , 26.VIII.1963, J. Sedlacek; Sinofi, 1590 m, 30 km S of Kainantu, 1  $\Im$ , 30.IX.1959, T. C. Maa; Morobe Distr., Arabuka, 1500–2000 m, 1  $\Im$ , 1968, J. & M. Sedlacek; 6 km W of Wau, Nami Creek, 1700 m, 1  $\Im$ , 10.VI.1962, Sedlacek; Kassam, 1350 m, 48 km E of Kainantu, 1  $\Im$ , 7.XI.1959, Maa; Sinofi, 1590 m, 30 km S of Kainantu, 1  $\Im$ , 30.IX.1959, Maa; Sinofi, 1590 m, 30 km S of Kainantu, 1  $\Im$ , 30.IX.1959, Maa; Sinofi, 1590 m, 30 km S of Kainantu, 1  $\Im$ , 30.IX.1959, Maa; Vau, 1100–1800 m, 1  $\Im$ , 12–31.VII.1963, 1  $\Im$ , 2  $\Im$ , 13.VII–25.X.1965, 1  $\Im$ , V.1968, H. Clissold, P. J. Shanahan, J. & M. Sedlacek & N. L. H. Krauss; Wau, Big Wau Ck, 1200–1300 m, 3  $\Im$ , XI–XII.1965, J. & M. Sedlacek (BISHOP); Wau, Hospital Ck, 1200–1230 m, 3  $\Im$ , II–26.VI.1965, J. & M. Sedlacek (BMNH); Wau, Nami Ck, 1750 m, 1  $\Im$ , 17.VIII.1965, malaise trap, Sedlacek; Wau, Little Wau Ck, 1200–1300 m, 1  $\Im$ , 3.XII.1965, Sedlacek (author's collection).

REMARKS. This is a rather common species belonging to the species group possessing a narrow clypellus. *Thagria peayi* is related to *tingeyi* in certain male genital characteristics, but may be separated from that species by the presence of the paraphysis processes arising from the base, the short pointed style, and by the pygofer with 2 pairs of processes on the caudodorsal margin. This species is named for Walter E. Peay, my late uncle, who inspired me to take up the field of Entomology.

## Thagria tingeyi Nielson, new species Fig. 612–617.

Length:  $3^{\circ} 6.30-6.80 \text{ mm}, 9 7.10 \text{ mm}.$ 

General color deep fuscous with light ochraceous markings and a broad ochraceous band apically on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate medially, radially struate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins somewhat indistinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins slightly convex, excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins swollen apically.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin with 1 pair of long processes, processes with a short, secondary subbasal process on ventral margin in lateral aspect; 10th segment with a pair of long, very narrow, slender processes, processes curved abruptly apically in dorsal aspect; aedeagus symmetrical, long, tube-like, nearly reaching midlength of paraphysis; paraphysis symmetrical, very long, slender, base broad, becoming attenuated apically with a pair of subbasal lateral processes on the dorsal margin; connective Y-shaped, stem short; style long, somewhat narrow, reaching to about midlength of paraphysis and strongly hooked apically; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about 2-1/2  $\times$  as long as penultimate segment, caudal margin produced slightly at middle.



Fig. 612-617. Thagria tingeyi, n. sp.: 612, 3 pygofer and 10th segment, lateral view; 613, 3 pygofer processes and 10th segment, dorsal view; 614, plate, ventral view; 615, connective, aedeagus, paraphysis and style, dorsal view; 616, aedeagus and paraphysis, lateral view; 617, style, lateral view.

Holotype 3 (BISHOP 10,591), PNG: New Britain: Keravat, 135 m, 20–25.XI.1959, T. C. Maa; allotype 9 (BISHOP), Vudal, SW of Keravat, 13.XII.1959, Maa; paratypes: 2 33, same data as holotype; 8 33, same data as allotype; Gisiluve, Nakanai Mts, 1050 m, 1 3, 26.VII.1956, E. J. Ford, Jr.; Gazelle Pen., Upper Warangoi, Illugi, 230 m, 1 3, 12–15.XII.1962, J. Sedlacek; Gazelle Pen, Gaulim, 140 m, 1 3, 19–20.XI.1962, Sedlacek (BISHOP); Keravat, 135 m, 1 3, 20–25.XI.1959, Maa (author's collection); New Ireland (SW): Ridge above "Camp Bishop" 15 km up Kait R, 250–750 m, 1 3, 10.VII.1956, J. L. Gressitt (BISHOP); IRIAN: New Guinea (NW): Bodem, Sarmi area, 1 3, 10.VII.1959, Maa (BMNH).

REMARKS. This is a rather uncommon species and belongs to a species group possessing a very narrow clypellus. *Thagria tingeyi* is closely related to *peravis* but can be distinguished from that species by the presence of 1 pair of processes on the caudodorsal margin of the pygofer and by the apical hooked style. This species is named for my colleague Dr Ward M. Tingey.

Thagria peravis Nielson, new species Fig. 618–624.

Length:  $3^{\circ}$  6.60 mm,  $9^{\circ}$  7.70–8.00 mm.

General color deep testaceous with fuscous veins on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, slightly elevated above level



Fig. 618–624. Thagria peravis, n. sp.: 618,  $\Im$  pygofer and 10th segment, lateral view; 619,  $\Im$  pygofer processes and 10th segment, dorsal view; 620,  $\Im$  7th sternum, ventral view; 621, style, lateral view; 622, connective, aedeagus, paraphysis and style, dorsal view; 623, aedeagus and paraphysis, lateral view; 624, plate, ventral view.

of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface grossly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins slightly convex, slightly excavated near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

 $\delta$ . Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with 2 pairs of long, slender processes of about equal length; 10th segment with a pair of processes, processes long but not as long as pygofer processes in dorsal aspect, apex expanded with a lateral projection subapically; aedeagus symmetrical, long, tube-like, reaching to about midlength of paraphysis; gonopore apical; paraphysis symmetrical, very long, broad basally, constricted medially and narrowed toward apex, with a pair of distinct, long, lateral processes subbasally on dorsal margin; connective Y-shaped, stem short; style short, curved, pointed apically, reaching just beyond base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Q. 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin sinuate.

Holotype 3 (BISHOP 10,592), IRIAN: New Guinea (NW): Baliem Val., Wamena, 1700 m, 10–25.II.1960, T. C. Maa; allotype  $\Im$  (BISHOP), same data as holotype; paratypes: 2 33, 1  $\Im$ , same data as holotype (BISHOP, author's collection).

**REMARKS.** This species belongs to a species group with a narrow clypellus. From *sarcula*, to which it is similar in certain male genital characteristics, *peravis* can be distinguished by the very short ventral pair of processes on the caudodorsal margin of the pygofer, by the long aedeagus which reaches the midlength of the paraphysis, and by the shape of the style.

Fig. 625-630.

# Thagria sarcula Nielson, new species

Length: 37.00-7.15 mm, 9 unknown.

General color light testaceous throughout with light fuscous bands subapically on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broad throughout, lateral margins slightly convex, slightly excised near middle near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with long, ovoid caudoventral lobe, caudodorsal margin with 2 pairs of processes, ventral pair short, curved, dorsal pair very long, broad, extending beyond apex of 10th segment processes in dorsal aspect; 10th segment with a pair of long, curved, narrowly pointed processes; aedeagus symmetrical, short, not reaching midlength of paraphysis, basal 3/4 broad, apical 1/4 tube-like; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically with a pair of lateral processes on dorsal margin, processes directed basad; connective Y-shaped, stem short; style short, apex extending just beyond base of paraphysis in dorsal aspect, broad and slightly constricted subapically; plate segmented subbasally, distal segment long and narrow and slightly expanded at about apical 1/4.

Holotype & (BISHOP 10,593), PNG: New Guinea (NE): Bainyik, 150 m, S of Maprik, 12.I.1960, T. C. Maa. Paratypes: IRIAN: New Guinea (NW): Hollandia area, W Sentani, Cyclops Mts, 50–100 m, 1 &, 22–24.VI.1959, J. L. Gressitt (BISHOP); Hollandia, 1 &, 13.III. 1960, Maa (author's collection).



Fig. 625–630. Thagria sarcula, n. sp.: 625, 3 pygofer and 10th segment, lateral view; 626, 3 pygofer processes and 10th segment, dorsal view; 627, plate, ventral view; 628, connective, aedeagus, paraphysis and style, dorsal view; 629, aedeagus and paraphysis, lateral view; 630, style, lateral view.

REMARKS. This species belongs to a species group possessing a narrow clypellus. It is closely related to *brunnea* in general habitus and certain male genital characteristics, but can be easily distinguished from that species by the short style, the 2 pairs of processes on the caudodorsal margin of the pygofer, and by the presence of 10th segment processes.

Thagria brunnea Nielson, new species Fig. 631-636.

Length: 36.50 mm, 9 unknown.

General color testaceous throughout with light fuscous band subapically on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 631-636. Thagria brunnea, n. sp.: 631, 3 pygofer, lateral view; 632, 3 pygofer processes, dorsal view; 633, connective, aedeagus, paraphysis and style, dorsal view; 634, aedeagus and paraphysis, lateral view; 635, style, lateral view; 636, plate, ventral view.

about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate medially, lateral margins slightly carinate, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little less than 2/3 entire dorsal area of head; pronotum large, median length slightly greater than median length of crown, surface smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, slightly tapered posteriorly, surface finely granulose, rugulose along anterior margin; clypellus narrow, long, base narrower than base of clypeus, lateral margins expanded apically.

3. Pygofer in lateral aspect with a large distinctive caudoventral lobe, caudodorsal margin with 1 pair of long processes, processes rather robust and curved apically in dorsal aspect; 10th segment without processes; aedeagus symmetrical, long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, broad at about basal 1/2 and becoming narrowed at apical 1/2 with a pair of short lateral projections about middle of dorsal margin; connective Y-shaped, stem short; style long, extending beyond midlength of paraphysis in dorsal aspect, very slender and needle-like at apical 3/4; plate segmented subbasally, distal segment long and narrow.

Holotype & (KUFJ), JAPAN: (Kyushu) Inunakiyama (Chikuzen), 31.VII.1935, Esaki, Hori, Ho, Yasumatsu, Fujino, Hashimoto & Kawahara.

**REMARKS.** This species belongs to a species group having a narrow clypellus. It is similar in certain male genital characteristics to *fuscovenosa* but can be separated from that species by the presence of the distinctive secondary process near base of the pygofer processes, by the position of the short lateral processes on the dorsal margin of the paraphysis and by the ventrally curved paraphysis.

**Thagria fuscovenosa** (Matsumura), new combination Fig. 637–642.

Coelidia fuscovenosa Matsumura, 1914: 85 [holotype 3, Bonin Is (EIHU) (examined)].—Linnavuori, 1960b: 285; 1964: 82.

Coelidia satsumensis Matsumura, 1914: 87 [holotype Q, Japan, (EIHU) (examined)].—Metcalf, 1964: 74. New synonymy.

Length:  $3^{\circ} 6.50 \text{ mm}$ ,  $9^{\circ} 7.40-7.70 \text{ mm}$ .

General color deep testaceous with numerous, irregular, broad and narrow fuscous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little less than 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, becoming slightly constricted near base of antennal sockets and narrowed basally; surface finely granulose, rugulose along anterior 1/3; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with large, elongate caudoventral lobe, caudodorsal margin with a pair of large, broadly based elongate processes, process with a subbasal, secondary process, process claw-like in dorsal aspect; 10th segment without processes; aedeagus symmetrical, long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually becoming narrowed apically with a pair of subbasal, lateral processes on dorsal margin; connective Y-shaped, stem short; style very long, reaching almost to apex of paraphysis in dorsal aspect, slender and pointed apically; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about  $2\times$  as long as penultimate segment, caudal margin produced slightly at middle.

SPECIMENS EXAMINED. Coelidia fuscovenosa Matsumura, holotype 3, Ogasawara, [=Bonin Is], 20.VIII.1905, Matsumura (EIHU); Coelidia satsumensis Matsumura, holotype  $\mathcal{P}$ , Japan, Matsumura (EIHU). JAPAN: (Shikoku), Muroto-Misaki, 1  $\mathcal{P}$ , 12.VII.1961, M. Miyatake (KUFJ). RYUKYU IS: Amami Group, Tokunoshima, Mikyo, 130 m, 1  $\mathcal{P}$ , 24.VII.1963, C. M. Yoshimoto; Iriomote I: Mt Ushiku, 350 m, 2  $\mathcal{P}\mathcal{P}$ , 3–10.XI.1963, G. A. Samuelson; Ishigaki I: Mt Banna, 100 m, 1  $\mathcal{P}$ , 28.X.1963, Samuelson (BISHOP); Amami Oshima I: (Mt) Yuwan-dake, 300–600 m, 29.VII.1963, J. L. Gressitt (author's collection). TAIWAN: Hassenzan, 1  $\mathcal{P}$ , 22.VI.1934, Gressitt (NCSR).

DISTRIBUTION: Japan, Bonin Islands; new records: Ryukyu Islands, Taiwan.



Fig. 637–642. Thagria fuscovenosa (Matsumura): 637, 3 pygofer, lateral view; 638, 3 pygofer processes, dorsal view; 639, connective, aedeagus, paraphysis and style, dorsal view; 640, aedeagus and paraphysis, lateral view; 641, style, lateral view; 642, plate, ventral view.

REMARKS. This species is similar in male genital characteristics to *brunnea* but can be distinguished from that species by the very long style which reaches the apex of the paraphysis and by the position of the processes on the lateral margin near the base of the dorsal margin of the paraphysis. The male holotype of *fuscovenosa* is the opposite sex of the female holotype of *satsumensis*. The former species is the valid name by page priority.

Thagria ficta Nielson, new species Fig. 643–648.

Length: 35.60-6.20 mm, 96.60-6.80 mm.

General color piceous with deep ochraceous spots on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins



Fig. 643–648. Thagria ficta, n. sp.: 643, 3 pygofer and 10th segment, lateral view; 644, 3 pygofer processes and 10th segment, dorsal view; 645, plate, ventral view; 646, connective, aedeagus, paraphysis and style, dorsal view; 647, aedeagus and paraphysis, lateral view; 648, style, lateral view.

convergent basally, disk slightly foveate on either side of middle, elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat broadened throughout, lateral margins slightly excavated near antennal sockets; surface finely granulose, rugulose along anterior margin; clypellus narrow, long, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with very long caudoventral lobe, caudodorsal margin with a pair of very long slender processes, processes toothed on inner apical margin in dorsal aspect; 10th segment with a pair of long processes not quite reaching the apex of pygofer processes in dorsal aspect; aedeagus symmetrical,

long, tube-like, apex barely reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, very long, slightly tapered apically, with a pair of short, broad processes laterally about middle on dorsal margin; connective Y-shaped, stem short, style long, reaching to about middle of paraphysis, and broadly curved apically; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about  $3\times$  as long as penultimate segment, caudal margin slightly produced at middle.

Holotype 3 (BISHOP 10,594), IRIAN: New Guinea (NW): Hollandia area, W Sentani, Cyclops Mts, 150–250 m, sweeping, 22.VI.1959, T. C. Maa; allotype 9 (BISHOP), Genjam, 40 km, W of Hollandia, 100–200 m, 1–10.III.1960, Maa; paratypes: Genjam, 40 km W of Hollandia, 100–200 m, 2 33, 1 9, 1–10.III.1960, Maa; Kulima, 1400 m, 4 33, 19–22.II.1960, Maa (BISHOP); Hollandia area, W Sentani, Cyclops Mts, 150–250 m, 1 3, 19.VI.1959, Maa (BMNH); 1 3, 1 9, same data as allotype (author's collection).

REMARKS. This species belongs to a species group having a narrow clypellus. *Thagria ficta* is similar in male genital characteristics to *fryeri*, but can be distinguished from that species by the shape of the processes on the caudodorsal margin of the pygofer, by the short, lateral projections on the middle of the dorsal margin of the paraphysis, and by the curved apical style.

**Thagria fryeri** (Distant), new combination Fig. 649–654.

Jassus fryeri Distant, 1918: 47 [holotype 9, Sri Lanka (BMNH) (examined)].

Coelidia fryeri: Metcalf, 1964: 50.

Length: 3 5.00–5.10 mm, 6.00 mm.

General color deep fuscous throughout in  $\mathcal{J}$ , deep fuscous with markings on forewings in  $\mathcal{Q}$ .

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, very narrow, interocular width much less than width of eyes, lateral margins convergent basally, disk slightly foveate along middle, lateral margins slightly carinate, slightly elevated above level of eyes, striate radially just below ocelli; ocelli on anterior margin of crown; eyes very large, semiglobular, occupying about 5/6 of entire dorsal area of head; pronotum short, median length less than median length of crown, finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation atypical of genus, inner anteapical cell closed; clypeus elongate, somewhat broadened throughout, lateral margins slightly convex, slightly excised near base of antennal sockets, surface finely granulose, rugulose along anterior 1/4; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a large elongate-ovoid caudoventral lobe, lobe with an apical projection, caudodorsal margin with a pair of long sinuate processes, processes sagittate apically; 10th segment with a pair of long, slender sinuate processes, nearly equal in length to pygofer processes in dorsal view; aedeagus symmetrical, short, not quite reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad at basal 1/3, abruptly constricted and narrowed at apical 2/3 in dorsal view, with a pair of lateral processes on middle of dorsal margin; connective Y-shaped, stem short; style long, reaching beyond midlength of paraphysis, very slender at apical 1/2, sharply pointed apically; plate segmented subbasally, distal segment long and slender.

SPECIMENS EXAMINED. Jassus fryeri Distant, holotype ♀, Nuwara, Elyia, Ceylon, IV.1912, J. C. Fryer (BMNH). SRI LANKA (Ceylon): Namunukuli, 1 ♂, II.1910, (no collector); Hakgala, 1 ♂, V.1911, (no collector) (BMNH); Namunukuli, 1 ♂, II.1910, (no collector) (author's collection). DISTRIBUTION. Sri Lanka.

REMARKS. This unusual species has an atypical venation of the elytra with the inner anteapical cell closed, and a very narrow crown. It is similar in certain male genital characteristics to *ficta* but can be separated from it by the pair of long, lateral processes arising at the middle of the dorsal margin of the paraphysis and by the long, slender straight style.



Fig. 649-654. Thagria fryeri (Distant): 649,  $\mathcal{J}$  pygofer and 10th segment, lateral view; 650,  $\mathcal{J}$  pygofer processes and 10th segment, dorsal view; 651, connective, aedeagus, paraphysis and style, dorsal view; 652, aedeagus and paraphysis, lateral view; 653, style, lateral view; 654, plate, ventral view.

Thagria marlenae Nielson, new species Fig. 655–660.

Length:  $3^{\circ}$  6.30 mm,  $2^{\circ}$  unknown.

General color deep fuscous with light ochraceous markings on forewing and a light, narrow ochraceous band apically.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly compressed below level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct,



Fig. 655-660. Thagria marlenae, n. sp.: 655,  $\Im$  pygofer and 10th segment, lateral view; 656,  $\Im$  pygofer processes and 10th segment, dorsal view; 657, connective, aedeagus, paraphysis and style, dorsal view; 658, aedeagus and paraphysis, lateral view; 659, style, lateral view; 660, plate, ventral view.

appendix well developed, venation as in description of genus; clypeus elongate, broad throughout, lateral margins nearly parallel, slightly excavated near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins expanded apically.

3. Pygofer in lateral aspect with a long, narrow caudoventral lobe, caudodorsal margin with a pair of long processes; 10th segment with a pair of long processes about equal in length to pygofer processes, processes broad basally in lateral view and narrowed at apical 1/2 in lateral view and expanded subapically in dorsal view; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered toward apex, without paired basal processes; connective Y-shaped, stem short; style long, nearly reaching midlength of paraphysis in dorsal aspect and strongly curved or hooked apically; plate segmented subbasally, distal segment long and narrow. Holotype 3 (Візнор 10,595), PNG: Solomon Is: Bougainville (S): Kokure, nr Crown Prince Ra, 900 m, 9.VI.1956, J. L. Gressitt.

**REMARKS.** This species belongs to a species group possessing a narrow clypellus. It is closely related in several male genital characteristics to *cornicula* but can be distinguished from that species by the simple pygofer processes and the short aedeagus, which is rather broad basally in lateral view. This species is named for my youngest sister, Marlene.

Thagria cornicula Nielson, new species Fig. 661–666.

Length: 37.10-7.40 mm, 9 unknown.

General color testaceous with fuscous irregular markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width slightly less than width of eyes, lateral margins convergent basally, disk foveate at middle, lateral margins slightly carinate, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with a large, broad caudoventral lobe, caudodorsal margin with a pair of very ornate processes, processes with a short projection basally, a 2nd short, narrow projection medially and toothed along the apex on each lateral side; 10th segment with a pair of long, slender processes, processes about equal in length to pygofer processes; aedeagus symmetrical, long, tube-like, reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally and gradually tapering apically and notched at apex, without paired basal processes; connective Y-shaped, stem short; style long, reaching nearly to the middle of paraphysis, apex strongly curved or hooked; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,596), SOLOMON IS: Guadalcanal: Gold Ridge, 500 m, 24.VI. 1956, J. L. Gressitt; paratypes: New Georgia Group, N Georgia I: Munda, 1-30 m, 1 Å, 21.VII.1959, Gressitt; Malaita: Auki-Tangtalau, 25-200 m, palm; 1 Å, 23.IX.1957, Gressitt (BISHOP); PNG (NW Solomon Is): Bougainville (S): Borioke, 300 m, 1 Å, 6.VI.1956, Gressitt (author's collection).

**REMARKS.** This species belongs to a species group possessing a narrow clypellus. It is similar in general habitus and male genital characteristics to *beverlyae*, but can be distinguished from that species by the very ornate pygofer processes which have 2 pairs of secondary short lateral processes and the serrate apex.

# Thagria beverlyae Nielson, new species Fig. 667–672.

Length: 37.10 mm, 97.40 mm.

General color deep ochraceous with numerous irregular fuscous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk foveate on either side of middle, slightly depressed below level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins excised near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.



Fig. 661–666. Thagria cornicula, n. sp.: 661,  $\Im$  pygofer and 10th segment, lateral view; 662,  $\Im$  pygofer processes and 10th segment, dorsal view; 663, connective, aedeagus, paraphysis and style, dorsal view; 664, aedeagus and paraphysis, lateral view; 665, style, lateral view; 666, plate, ventral view.

3. Pygofer in lateral aspect with a large, curved caudoventral lobe, caudodorsal margin with 2 pairs of processes, dorsal pair long, simple, ventral pair short, simple; 10th segment with a pair of long, simple processes; aedeagus symmetrical, long, tube-like, reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally and gradually tapered apically, very long, without basal paired processes; connective Y-shaped, stem short; style long, reaching nearly to midlength of paraphysis in dorsal aspect, apex strongly curved or hooked; plate segmented subbasally, distal segment long and narrow.

Q. 7th sternum large, about  $3 \times$  as long as penultimate segment, caudal margin nearly truncate.



Fig. 667–672. Thagria beverlyae, n. sp.: 667,  $\mathcal{J}$  pygofer and 10th segment, lateral view; 668,  $\mathcal{J}$  pygofer processes and 10th segment, dorsal view; 669, connective, aedeagus, paraphysis and style, dorsal view; 670, aedeagus and paraphysis, lateral view; 671, style, lateral view; 672, plate, ventral view.

Holotype  $\mathcal{J}$  (BMNH), SOLOMON IS: Guadalcanal, 26.VIII.1928, R. W. Paine; allotype  $\mathcal{J}$  (BMNH), Russell Is: Lingatu, 9.II.1936, R. A. Lever; 1  $\mathcal{J}$  paratype, Guadalcanal, XII.1934, Lever (author's collection).

**REMARKS.** This species belongs to a species group possessing a narrow clypellus. It is similar in genital characteristics to *dorothyae* but can be distinguished by the shape of the processes on the caudodorsal margin of the pygofer and by the length and the shape of the 10th segment processes. This species is named for my sister Beverly.

Fig. 673-678.

Thagria dorothyae Nielson, new species

Length: 36.50-6.60 mm, 9 unknown.

General color testaceous with irregular fuscous markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width slightly greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side of middle, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus, lateral margins slightly constricted medially.



Fig. 673–678. Thagria dorothyae, n. sp.: 673, 3 pygofer and 10th segment, lateral view; 674, 3 pygofer processes and 10th segment, dorsal view; 675, plate, ventral view; 676, connective, aedeagus, paraphysis and style, dorsal view; 677, aedeagus and paraphysis, lateral view; 678, style, lateral view.

Pacif. Ins. Monogr.

3. Pygofer in lateral aspect with an elongate, large caudoventral lobe, caudodorsal margin with a pair of long, curved processes, processes with a short, stubby secondary process basally; 10th segment with a pair of long, slender processes about equal in length to the pygofer processes; aedeagus symmetrical, long, tube-like, extending to just a little over midlength of paraphysis; gonopore apical; paraphysis broad basally, becoming abruptly narrowed at basal 1/4, slightly expanded medially, becoming narrowed at apical 1/3, without basal processes; connective Y-shaped, stem short; style long, nearly reaching to midlength of paraphysis in dorsal aspect, apex strongly curved or hooked; plate segmented subbasally, distal segment long and narrow.

Holotype 3 (BISHOP 10,597), PNG: Manus I: Rossum, 6 km SE of Lorengau, 180 m, 13. XII.1959, T. C. Maa; 1 3 paratype, same data as holotype except 23.XII.1959 (author's collection).



Fig. 679-684. Thagria deltoides, n. sp.: 679, ♂ pygofer and 10th segment, lateral view; 680, ♂ pygofer processes and 10th segment, dorsal view; 681, plate, ventral view; 682, connective, aedeagus, paraphysis and style, dorsal view; 683, aedeagus and paraphysis, lateral view; 684, style, lateral view.
**REMARKS.** This species belongs to a species group possessing a narrow clypellus. From *beverlyae*, to which it is similar in several male genital characteristics, *dorothyae* can be distinguished by the shape of the pygofer and 10th segment processes and by the paraphysis which is bifid apically. This species in named for my sister Dorothy.

Thagria deltoides Nielson, new species Fig. 679–684.

Length: 37.10 mm, 97.70-8.30 mm.

General color deep fuscous with irregular ochraceous to ivory markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly foveate along middle, margins slightly carinate, slightly elevated above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, elongate-ovoid, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface coarsely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins slightly excised near middle and nearly parallel, flat, surface finely granulose, rugulose along anterior margin; clypellus narrow, long, base narrower than base of clypeus, lateral margins broadly and slightly concave along middle.

3. Pygofer in lateral aspect with a large, broad, elongate caudoventral lobe, caudodorsal margin with a pair of very long, lanceolate processes; 10th segment with a pair of short lanceolate processes; aedeagus symmetrical, long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming abruptly narrowed at about basal 1/4, gradually tapered subapically, apex broadly flanged laterally, without basal paired processes; connective Y-shaped, stem short; style short, extending just beyond base of paraphysis in dorsal aspect, constricted subapically and globular apically with a small, lateral projection; plate segmented subbasally, distal segment long and narrow.

 $\varphi$ . 7th sternum large, about 2-1/2× as long as penultimate segment, caudal margin nearly truncate.

Holotype 3 (BISHOP 10,598), SOLOMON IS: San Cristobal: Kira-Kira, 0-50 m, 10.XI. 1964, swept, R. Straatman; allotype 2 (BISHOP), same data as holotype; paratypes: Guadalcanal: Paripao, 2 22, 22.V.1960, C. W. O'Brien; Tenaru Creek, 10-50 m, 1 2, 14.V.1964, R. Straatman; Kukum, 10 m, 1 2, 19.VI.1956, J. L. Gressitt; Betikama R, 1 2, VIII.1960, W. W. Brandt; Honiara, 1 2, 22.IV.1964, Straatman; Santa Ysabel: SE Tatamba, 0-50 m, 1 2, 31.VIII.1964, sweeping, Straatman; San Cristobal: Bweinaniawarikiapu, 1 2, 11.VIII.1960, light trap, O'Brien; Wairahu R, 100-400 m, 1 2, 9-15.V.1964, J. Sedlacek; Malaita: Tangtalau, 200 m, 1 2, 26.IX. 1957, Gressitt; New Georgia Group, New Georgia I: Munda, 1-30 m, 1 2, 20.VII.1959, Gressitt (BISHOP).

**REMARKS.** Thagria deltoides is not an uncommon species, but belongs to a species group possessing a narrow clypellus. From sagittata, to which it is similar in male genital characteristics, deltoides can be distinguished by the unusual shape of the style, which is globular apically and possesses a lateral projection subapically.

Thagria sagittata Nielson, new species Fig. 685-690.

Length: ♂ 6.00–6.30 mm, ♀ 8.00–8.60 mm.

General color deep fuscous with numerous small, ochraceous spots and a narrow ochraceous band apically on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface knobbed; scutellum





Fig. 685-690. Thagria sagittata, n. sp.: 685, 3 pygofer and 10th segment, lateral view; 686, 3 pygofer processes and 10th segment, dorsal view; 687, plate, ventral view; 688, connective, aedeagus, paraphysis and style, dorsal view; 689, aedeagus and paraphysis, lateral view; 690, style, lateral view.

large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed. venation as in description of genus; clypeus elongate, somewhat broad, lateral margins nearly parallel and slightly convex, flat, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a large, broad, elongate caudoventral lobe, caudodorsal margin with a pair of long, slender, curved, lanceolate processes; 10th segment with a pair of very short, simple processes; aedeagus symmetrical, long, narrow, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming gradually tapered subapically with apex broadly flanged laterally, without basal paired processes; connective Y-shaped, stem short; style short, extending just below base of paraphysis in dorsal aspect, somewhat robust, apex rounded; plate segmented subbasally, distal segment long and narrow.  $\Im$ . 7th sternum large, about 3imes as long as penultimate segment, caudal margin produced at middle.

Holotype 3 (BISHOP 10,599), IRIAN: New Guinea (NW): Hollandia area, W Sentani, Cyclops Mts, 150–250 m, 19.VI.1959, T. C. Maa; allotype  $\Im$  (BISHOP), Waris, S of Hollandia, 450–500 m, 16–23.VIII.1959, Maa; paratypes: 433, 939, same data as allotype except 1–31. VIII.1959; Genjam, 40 km W of Hollandia, 100–200 m, 233, 1–10.III.1960, Maa (BISHOP); Ifar, 400–550 m, 13, 23.VI.1959, Maa (BMNH); 13, 19, same data as allotype (author's collection).

**REMARKS.** This is a rather common species belonging to a species group possessing a narrow clypellus. It is similar in male genital characteristics to *deltoides* but can be distinguished from that species by the extremely long aedeagus which extends beyond the midlength of the paraphysis, the very short 10th segment processes, and the rounded apex of the style.

## Thagria kammi Nielson, new species Fig. 691–696.

Length: 35.60-6.00 mm, 96.20-6.50 mm.

General color testaceous throughout with numerous small, light ochraceous spots on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk elevated above level of eyes with small, foveate areas on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus clongate, narrow, lateral margins excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus narrow, long, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a long, broad, caudoventral lobe, caudodorsal margin with a pair of long, lanceolate, curved processes; 10th segment with a pair of short, lanceolate processes, processes curved laterally at apex in dorsal aspect; aedeagus symmetrical, very long, slender, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally and gradually tapered apically, notched apically, without basal paired processes; connective Y-shaped, stem short; style short and narrow, pointed apically, extended beyond base but not reaching midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and very narrow.

♀. 7th sternum large, about 3× as long as penultimate segment, caudal margin produced at middle. Holotype ♂ (BISHOP 10,600), IRIAN: New Guinea (NW): Waris, S of Hollandia, 450–500 m, 16–23.VIII.1959, T. C. Maa; allotype ♀ (BISHOP), same data as holotype; paratypes: 10 ♂♂, 4 ♀♀, same data as holotype except 1–31.VIII.1959 (BISHOP, BMNH); Ifar, Cyclops Mts, 300–500 m, 1 ♀, 23–25.VI.1962, J. L. Gressitt (BISHOP); 1 ♂, 1 ♀, same data as holotype (author's collection); PNG: New Guinea (NE): Finisterre Range, Saidor, Gabumi Vill., 1 ♀, 24–30.VI. 1958, W. W. Brandt; Adelbert Mts, Wanuma, 800–1000 m, 1 ♀, 25.X.1958, Gressitt; Finisterre Range, Saidor, Sibog Vill., 1 ♀, 27.V–5.VI.1958, Brandt (BISHOP).

REMARKS. This is a common species belonging to a species group with a narrow clypellus. *Thagria kammi* is similar in male genital characteristics to *diversa* but can be separated from that species by the long, lanceolate pygofer processes and by the very long aedeagus which extends beyond the midlength of the paraphysis. This species is named for my colleague Dr James A. Kamm.

**Thagria diversa** (Walker), new combination Fig. 697–702.

Coelidia diversa Walker, 1870: 309 [holotype ♀, Mysool (BMNH) (examined)].—Metcalf, 1964: 47. Length: ♂ 6.20 mm, ♀ 6.50-7.40 mm.



Fig. 691–696. Thagria kammi, n. sp.: 691, 3 pygofer and 10th segment, lateral view; 692, 3 pygofer processes and 10th segment, dorsal view; 693, plate, ventral view; 694, connective, aedeagus, paraphysis and style, dorsal view; 695, aedeagus and paraphysis, lateral view; 696, style, lateral view.

General color ochraceous with a broad, fuscous band subapically and with narrow disconnected bands across clavus of forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width much less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed on either side of middle, level about even with level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface very finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins broadly convex, excavated near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than clypeus, lateral margins nearly parallel.



Fig. 697-702. Thagria diversa (Walker): 697, 3 pygofer and 10th segment, lateral view; 698, 3 pygofer processes and 10th segment, dorsal view; 699, plate, ventral view; 700, connective, aedeagus, paraphysis and style, dorsal view; 701, aedeagus and paraphysis, lateral view; 702, style, lateral view.

3. Pygofer in lateral aspect with a large, broad elongate caudoventral lobe, caudodorsal margin with a pair of very broad, short processes, processes with a narrow, short, stubby projection in dorsal view; 10th segment with a pair of very slender, long processes extending beyond apex of pygofer processes in dorsal aspect; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming narrowly attenuated at apical 1/2, without basal paired processes; connective Y-shaped, stem short; style long, not quite reaching midlength of paraphysis in dorsal aspect, slender at apical 1/3; plate segmented subbasally, distal segment long and narrow, slightly expanded at apical 1/3.

♀. 7th sternum large, about 3× as long as penultimate segment, caudal margin produced at middle. SPECIMENS EXAMINED. Coelidia diversa Walker, holotype ♀, Mysol [=Mysool], Wallace (BMNH).
IRIAN: New Guinea (NW): Ifar, 1 ♂, 300-600 m, 22.VI.1959, T. C. Maa; Ifar, Cyclops Mts, 300-500 m, 1 ♂, 29.VI.1962, J. L. Gressitt; Ifar, 400-500 m, 1 ♂, 23.VI.1959, Maa (BISHOP); Hollandia (Kota Baru), 1 ♂, 25-28.VI.1962, Gressitt; Hollandia, 1 ♀, 13.III.1960, Maa (author's collection); Cyclops Mts, Sabron, 930 ft [283 m], 1 ♂, IV.1936, L. E. Cheesman (BMNH).

DISTRIBUTION. Mysool; new record: NW New Guinea.

REMARKS. This species belongs to the species group possessing a narrow clypellus. The species is rather unique, possessing very broad, short processes on the caudodorsal margin of pygofer and a very short aedeagus, which separate *diversa* from *kammi* and *glabra*.

**Thagria glabra** (Walker), new combination Fig. 703–708.

Tettigonia glabra Walker, 1857: 168 [holotype 3, Sarawak (BMNH) (examined)].

Coelidia glabra: Metcalf, 1964: 52.

Length: 37.10 mm, 98.60 mm.

General color fuscous throughout.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, very broad, interocular width much greater than width of eyes, lateral margins nearly parallel, disk elevated above level of eyes, nearly flat, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, globular, occupying less than 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, with a faint, anterior, median, short carina, surface smooth; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins nearly parallel, slightly excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long but broad, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with a very long, narrow caudoventral lobe, caudodorsal margin with a pair of long, lanceolate processes, processes serrate on inner mesal margin; 10th segment with a pair of very long processes, processes extending beyond apex of pygofer processes, with a small, lateral projection about middle; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, narrow, long, slightly expanded basally, constricted subbasally, and expanded again medially, restricted below expansion and gradually tapered to a sharp point apically, without basal paired processes; connective Y-shaped, stem short; style long, extending to about middle of paraphysis in dorsal aspect, narrow and sharply pointed apically; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum large, about 2-1/2  $\times$  as long as penultimate segment, caudal margin produced at middle.

SPECIMENS EXAMINED. Tettigonia glabra Walker, holotype 3, Sarawak, Wallace (BMNH). BORNEO: Sarawak: Sarikei Distr., Rejang Delta, 1 3, 15–25.VII.1958, T. C. Maa; Sabah: Tawau, Quoin Hill, Forest Camp 1, 3–5 km WSW of Cocoa Res. Sta., 1  $\bigcirc$ , 9–20.VII.1962, Y. Hirashima (BISHOP).

DISTRIBUTION. Sarawak; new record: Sabah.

REMARKS. This is an unusual species belonging to the species group possessing a narrow clypellus. *Thagria glabra* has distinctive genitalia with a very long, narrow pygofer process, long, slender processes of the 10th segment, and a distinctive shape of the paraphysis. All of these characters separate this species from *diversa* and *singularis*.

#### **Thagria singularis** Nielson, new species Fig. 709–713.

Length: ♂ 6.10 mm, ♀ 7.30 mm.

General color ochraceous with deep fuscous band subapically on forewing of  $\mathcal{J}$ , nearly fuscous throughout on  $\mathcal{Q}$ .

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about



Fig. 703-708. Thagria glabra (Walker): 703, 3 pygofer and 10th segment, lateral view; 704, 3 pygofer processes and 10th segment, dorsal view; 705, plate, ventral view; 706, connective, aedeagus, paraphysis and style, dorsal view; 707, aedeagus and paraphysis, lateral view; 708, style, lateral view.

1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk depressed medially, slightly carinate laterally, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, with a faint longitudinal carina on middle, surface nearly smooth; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, somewhat narrow, lateral margins constricted near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and broad, base narrower than base of clypeus, lateral margins slightly concave near middle.

 $rac{3}$ . Pygofer in lateral aspect with a very large caudoventral lobe, apex slightly bifid, caudodorsal margin with a pair of long, ornate processes, processes with a large, slender, curved secondary process



Fig. 709-713. Thagria singularis, n. sp.: 709, 3 pygofer, lateral view; 710, 3 pygofer processes, dorsal view; 711, plate, ventral view; 712, connective, aedeagus, paraphysis and style, dorsal view; 713, aedeagus and paraphysis, lateral view.

ventrally at base, and with a very short, stubby projection medially; 10th segment without processes; aedeagus symmetrical, extremely short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically, apex subquadrate with a short dorsal projection, without paired basal processes; connective Y-shaped, stem short; style very long, extending beyond apex of paraphysis in dorsal aspect, rather robust, constricted medially, sharply pointed apically with a very short lateral projection subapically; plate segmented subbasally, distal segment long and narrow.

 $\car{Q}$ . 7th sternum about 3 imes as long as penultimate segment, caudal margin nearly truncate.

Holotype  $\mathcal{J}$  (BMNH), INDIA: Tenmalai, Travancore, 500–800', [150–245 m], 11–17.X. 1938, (no collector); allotype  $\mathcal{Q}$  (BMNH), same data as holotype; paratypes: 1  $\mathcal{Q}$ , same data as holotype; Thekkadi, Periyar Dam, Travancore, 2  $\mathcal{Q}\mathcal{Q}$ , 6–10.V.1937, (no collector); Coimbatore Distr., Bolampatti Val., 2  $\mathcal{Q}\mathcal{Q}$ , 20.IV.1937, (no collector) (BMNH).

REMARKS. This species belongs to a species group possessing a very narrow clypellus. Thagria

singularis has very unique genitalia. It can be separated from its nearest relatives, glabra and similis, by the subquadrate paraphysis in lateral aspect and by the very broad, robust long style.

Thagria similis Nielson, new species Fig. 714–719.

Length: 37.30 mm, 9 unknown.

General color deep fuscous with a large ochraceous spot on middle of costa and a narrow ochraceous band apically on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli



Fig. 714–719. Thagria similis, n. sp.: 714, J pygofer and 10th segment, lateral view; 715, J pygofer processes and 10th segment, dorsal view; 716, connective, aedeagus, paraphysis and style, dorsal view; 717, aedeagus and paraphysis, lateral view; 718, style, lateral view; 719, plate, ventral view.

on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins indistinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long and broad, base narrower than base of clypeus, lateral margins converging apically.

3. Pygofer in lateral aspect with a very long, slender, elongate caudodorsal lobe, caudodorsal margin with a very large, broad lobe, lobe broadly bifurcate apically; 10th segment with a pair of broad, long processes; aedeagus symmetrical, short, tube-like, not reaching midlength of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, becoming abruptly narrowed at middle and tapered apically, without basal processes; connective Y-shaped, stem short; style long, narrow, reaching nearly to apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

Holotype & (BISHOP 10,601), BORNEO: Sabah: Tenompok, 30 mi [48 km] E of Jesselton, 1460 m, 10–19.II.1959, T. C. Maa; 1 & paratype, same data as holotype except 10–19.II.1959, Maa (author's collection).

**REMARKS.** Thagria similis belongs to a species group with a narrow clypellus. It is similar in certain genital characteristics to *fabricii* but can be distinguished from that species by a very unique pygofer with a very long, narrow caudoventral lobe and by a long, broad caudodorsal lobe which is bifurcate apically.

Thagria fabricii Nielson, new species Fig. 720–725.

Length: 37.30 mm, 9 unknown.

General color piceous throughout except for ochraceous crown.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, nearly level with level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins indistinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, lateral margins excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin, slightly tumid; clypellus narrow, long, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a narrow, elongate, caudoventral lobe, caudodorsal margin with a pair of long, deeply bifurcate processes, appearing as 2 separate pairs of processes; 10th segment with a pair of long, slender processes reaching to apex of caudodorsal processes of pygofer; aedeagus symmetrical, very long, tube-like, extending beyond apex of paraphysis; gonopore terminal; paraphysis symmetrical, broad basally and gradually tapered to truncate apex in dorsal aspect, without basal processes; connective Y-shaped, stem short; style extremely long, extending considerably beyond apex of paraphysis, slender, and slightly curved at apical 1/3; plate segmented subbasally, distal segment very long and narrow.

Holotype & (Візнор 10,602), PNG: New Guinea (NE): Tsenga, Upper Jimmi V, 1200 m, 13.VII.1955, J. L. Gressitt.

REMARKS. Thagria fabricii belongs to a species group with a narrow clypellus. It can be distinguished from its nearest relative, *patruelis*, by the unique shape of the processes on the caudodorsal margin of the pygofer, which are deeply bifurcate apically, and by the very long aedeagus which extends beyond the apex of the paraphysis. This species is named in honor of the late Johann Fabricius, renowned Danish homopterist.

**Thagria patruelis** Nielson, new species Fig. 726-731. Length:  $3^{\circ}$  6.00-6.60 mm,  $9^{\circ}$  unknown.



Fig. 720-725. Thagria fabricii, n. sp.: 720, & pygofer and 10th segment, lateral view; 721, & pygofer processes and 10th segment, dorsal view; 722, plate, ventral view; 723, connective, aedeagus, paraphysis and style, dorsal view; 724, style, lateral view; 725, aedeagus and paraphysis, lateral view.

General color deep ochraceous to deep fuscous; color patterns variable on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly depressed medially, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little less than 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, lateral margins broad anteriorly, tapered posteriorly, slight excision at middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin;



Fig. 726-731. Thagria patruelis, n. sp.: 726, 3 pygofer, lateral view; 727, 3 pygofer processes, dorsal view; 728, connective, aedeagus, paraphysis and style, dorsal view; 729, style, lateral view; 730, aedeagus and paraphysis, lateral view; 731, plate, ventral view.

clypellus long and broad, base narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with large, broad caudoventral lobe, caudodorsal margin with a pair of long, sinuate processes; 10th segment without processes; aedeagus symmetrical, very long, extending beyond midlength of paraphysis, tube-like; gonopore apical; paraphysis symmetrical, broad at the basal 1/2 and narrowed at apical 1/2, without basal processes; connective Y-shaped, stem short; style extremely long, extending considerably beyond apex of paraphysis in dorsal aspect, narrow, pointed apically; plate segmented subbasally, distal segment long and narrow.

Holotype & (Візнор 10,603), TAIWAN: Tsaoshan, 15.V.1958, К. S. Lin; paratypes: Arisan, 2130 m, 3 & , 23.VIII.1947, J. L. & M. Gressitt; Feniku, Chiayi Hsien, 1 &, 17.VI.1965, T. Maa & K. S. Lin (Візнор, author's collection); Hassenzan, 3 & , 22–25.VI.1934, J. L. Gressitt (NCSR). REMARKS. Thagria patruelis belongs to the species group possessing a narrow clypellus. It is similar to *fabricii* in many male genital characteristics but can be distinguished from that species by the presence of the simple, sinuate, long, curved processes on the caudodorsal margin of the pygofer and by the lack of processes on the 10th segment.

Thagria imputata Nielson, new species Fig. 732-737.

Length: ♂ 6.80 mm, ♀ 6.90 mm.

General color deep ochraceous to deep fuscous throughout with small, light ochraceous spots or markings on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 732-737. Thagria imputata, n. sp.: 732, 5 pygofer, lateral view; 733, 5 pygofer processes, dorsal view; 734, plate, ventral view; 735, connective, aedeagus, paraphysis and style, dorsal view; 736, aedeagus and paraphysis, lateral view; 737, style, lateral view.

about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying over 2/3 entire dorsal area of head; pronotum short, median length about equal to median length of crown, surface smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins narrowed anteriorly, expanded posteriorly, excised medially near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins expanded apically.

3. Pygofer in lateral aspect with large caudoventral lobe, caudodorsal margin with a pair of long, curved, lanceolate processes; 10th segment without processes; aedeagus symmetrical, long, tube-like, reaching to about midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming narrowed at about middle and narrowed toward apex, apex bifid, without basal pair of processes; connective Y-shaped, stem short; style extremely long, extending considerably beyond apex of paraphysis in dorsal aspect, narrow, slender at apical 1/2, somewhat curved; plate segmented subbasally, distal segment long and narrow, slightly expanded apically.

 $\bigcirc$  . 7th sternum large, about 2-1/2  $\times$  as long as penultimate segment, caudal margin produced medially.

Holotype 3 (BISHOP 10,604), IRIAN: New Guinea (SW): Vogelkop, Fak Fak, S coast of Bomberai, 100–700 m, 4.VI.1959, T. C. Maa; allotype  $\mathcal{Q}$  (BISHOP), Vogelkop, Bomberai, 700–900 m, sweeping, 6.VI.1959, Maa.

**REMARKS.** This species belongs to a species group possessing a narrow clypellus. From *gibba*, to which it is similar in male genital characteristics, *imputata* can be distinguished by the presence of long, narrow, curved processes on the caudodorsal margin of the pygofer, by the notch on the apex of the paraphysis, and by the long, lanceolate, slender style.

Thagria gibba Nielson, new species Fig. 738–743.

Length: 3 8.30 mm, 9 unknown.

General color light fuscous with numerous light ochraceous or ivory reticulations or markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, very broad, interocular width much broader than width of eyes, lateral margins convergent basally, disk nearly flat, slightly foveate on either side of middle, slightly elevated above level of eyes, abruptly declivous just basad of ocelli, striate radially below ocelli; ocelli widely spaced on anterior margin of crown; eyes moderately large, elongate-ovoid, occupying a little over 1/2 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, very broad, appearing shortened longitudinally, lateral margins slightly convex, slightly excised medially near base of antennal sockets, surface finely granulose, rugulose along anterior 1/3; clypellus somewhat shortened, elongate, base narrower than base of clypeus, lateral margins expanded apically.

 $\beta$ . Pygofer in lateral aspect with a large, short caudoventral lobe, caudodorsal margin with a pair of moderately long, lobe-like processes; 10th segment without processes; aedeagus symmetrical, long, with a subbasal flange in lateral aspect, and curved in lateral aspect, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, gradually tapered at apical 1/2, without basal paired processes; connective Y-shaped, stem short; style long, reaching to about the apex of paraphysis in dorsal aspect, narrowed, with a subapical projection; plate segmented subbasally, distal segment long and narrow.

Holotype & (USNM), BORNEO: Sabah: Sandakan, (no date), Baker.



Fig. 738-743. Thagria gibba, n. sp.: 738, 3 pygofer, lateral view; 739, 3 pygofer processes, dorsal view; 740, connective, aedeagus, paraphysis and style, dorsal view; 741, style, lateral view; 742, aedeagus and paraphysis, lateral view; 743, plate, ventral view.

REMARKS. This species belongs to a species group with a narrow clypellus. Thagria gibba is a unique species having an unusual declivous crown and a prominent flange subbasally on the aedeagus in lateral aspect, and with a small projection subapically on the style. These characters readily separate gibba from all other species of Thagria.

Thagria luteifascia (Walker), new combination

Fig. 744-749.

Coelidia luteifascia Walker, 1870: 311 [holotype 3, Mysool (BMNH) (examined)].-Metcalf, 1964: 58.

Coelidia unifasciata Walker, 1870: 313.-Metcalf, 1964: 58.

Jassus luteifascia: Distant, 1908: 149.

Jassus unifasciata: Distant, 1908: 149 (Synonym of Coelidia luteifascia Walker).

Specimens of *luteifascia* are not available at present for descriptions of the general habitus of the species. The descriptions are limited here to the male genitalia. The reader is referred to the original descriptions of Walker for information on the general habitus of the species.

3. Pygofer in lateral aspect with a large, pointed, caudoventral lobe, caudodorsal margin with 2 pairs of processes, ventral pair large, lobe-like and curved, dorsal pair short, very slender, narrowed, and curved apically, not reaching the apex of ventral pair of processes; l0th segment with a pair of very slender, needle-like, curved processes about equal in length to dorsal pair of pygofer processes, processes with apex sharply pointed; aedeagus symmetrical, long, tube-like, reaching just beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, and deeply bifurcate apically to nearly middle of shaft of paraphysis, producing 2 apical, long slender processes in dorsal aspect, without paired basal processes; connective Y-shaped, stem short; style very long, apex reaching just beyond apex of



Fig. 744–749. Thagria luteifascia (Walker): 744. 3 pygofer and 10th segment, lateral view; 745, 3 pygofer processes and 10th segment, dorsal view; 746, plate, ventral view; 747, aedeagus and paraphysis, lateral view; 748, connective, aedeagus and paraphysis, dorsal view; 749, style, dorsal view.

paraphysis in dorsal aspect, slender and slightly sinuate at apical 1/2, plate segmented subbasally, distal segment long and narrow, apex expanded.

SPECIMENS EXAMINED. Coelidia luteifascia Walker, holotype 3, "Mysol" [=Mysool], Wallace (BMNH); Coelidia unifasciata Walker, holotype 3, "Mysol," Wallace (BMNH).

DISTRIBUTION. Mysool.

REMARKS. This is a very unique species belonging to a species group possessing a narrow clypellus. *Thagria luteifascia* can be distinguished from all other species of *Thagria* by the very deep apical bifurcation of the paraphysis in combination with 2 pairs of processes on the caudo-dorsal margin of the pygofer and the long, needle-like processes of the 10th segment. Examination of the male holotypes of *luteifascia* and *unifasciata* revealed that they were identical. *T. luteifascia* is the valid name of the species by page priority.

**Thagria pardalis** (Walker), new combination Fig. 750–755.

Coelidia pardalis Walker, 1857: 173.—Metcalf, 1964: 69.

Length: 35.80-6.20 mm, 96.50-7.40 mm.

General color light fuscous with numerous light ochraceous areas and small bands across forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins slightly convergent basally, disk nearly flat, slightly elevated above level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 1/2 of entire dorsal area of head; pronotum large, median length greater than median length of crown, with a distinct median longitudinal carina, surface finely knobbed; scutellum large, median length greater than median length greater than median length of gronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus long, narrow, lateral margins broad anteriorly, slightly excavated medially near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, broad, base narrower than base of clypeus, lateral margins parallel.

J. Pygofer in lateral aspect with a very large, elongate-ovoid caudoventral lobe, caudodorsal margin with a pair of very long, slender, lanceolate processes, processes serrate on inner subapical margin; 10th segment with a pair of extremely long, slender processes extending considerably beyond apex of pygofer processes in dorsal aspect, processes slender, lanceolate, and slightly curved apically; aedeagus symmetrical, very long, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis symmetrical, narrow, long, base broad, gradually attenuated apically, without paired basal processes; connective Yshaped, stem short; style long, reaching nearly to apex of paraphysis in dorsal aspect, very narrow and slender, equidistant throughout, abruptly pointed apically; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th sternum very large, about  $3\times$  as long as penultimate segment, caudal margin produced medially.

SPECIMENS EXAMINED. Coelidia pardalis Walker (sex unknown, abdomen missing), Borneo (BMNH). BORNEO: Sabah: Sandakan, 21 33, 22 99, (no date), Baker (USNM); Sarawak: Mt Kalulong, 1800–2000 ft [548–610 m], native collector, 3 99, 3–6.XI.1932, B. M. Hobby & A. W. Moore; Mt Kalulong, Tebani R, 2 99, 30.XI.1932, undergrowth near river, Hobby & Moore; Kuching, 3 99, 6.IX.1899–8.I.1900, Dyak coll., R. Shelford; Mt Dulit, Dulit trail, 1500 ft [457 m], 1 9, 6.X.1932, primitive forest, Hobby & Moore; Mt Dulit, 4000 ft [1219 m], 1 9, 18.X. 1932, moss forest, primitive forest, ravine side, undergrowth, Hobby & Moore; Mt Dulit, Koyan R, 2500 ft [762 m], 1 9, 19.X.1932, primary forest, primitive forest, Hobby & Moore (BMNH); Nanga Pelagus, nr Kapit, 180–585 m, 1 3, 1 9, 7–14.VIII.1958, T. C. Maa; Gunong Matang, 120 m, 1 3, 15.IX.1958, J. L. Gressitt; Sandakan Residency, Gomantong Caves, 20 mi [32 km] S of Sandakan, 1 3, 22–26.XI.1958, Maa; Tawau, Quoin Hill, Forest Camp 1, 3–5 km WSW of



Fig. 750–755. Thagria pardalis (Walker): 750,  $\Im$  pygofer and 10th segment, lateral view; 751,  $\Im$  pygofer processes and 10th segment, dorsal view; 752, connective, aedeagus, paraphysis and style, dorsal view; 753, plate, ventral view; 754, aedeagus and paraphysis, lateral view; 755, style, lateral view.

Cocoa Res. Sta., 1  $\varphi$ , 9–20.VII.1962, Y. Hirashima; Forest Camp, 19 km N of Kalabakan, 1  $\varphi$ , 15.X.1962, K. J. Kuncheria (BISHOP); Sandakan, 1 z, 1  $\varphi$ , (no date), Baker; Gomantong Caves, 1 z, 22–26.XI.1958, Maa (author's collection). MALAYSIA (W): Penang Hill, 100 m, 1  $\varphi$ , 26.VI.1962, E. S. Ross & D. Q. Cavagnaro (CAS).

DISTRIBUTION. Borneo; new records: Sarawak, Sabah, Malaysia.

**REMARKS.** This is one of the most common species of *Thagria* and can be distinguished from all other species by the extremely long process of the 10th segment, by the very narrow pygofer lobe, by the long, narrow aedeagus, and by the long, narrow paraphysis.

Fig. 756-761.

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Length: 36.00 mm, 96.20-6.80 mm.

General color piceous with faint, numerous, ochraceous markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width less than width of eyes, lateral margins convergent basally, disk slightly elevated above eyes, nearly flat, with slight foveate depressions on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying a little over 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface roughly rugulose; scutellum large, median length greater than or equal to median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, narrow, lateral margins somewhat convex, excised near middle near base of



Fig. 756-761. Thagria captiuncula, n. sp.: 756, 3 pygofer and 10th segment, lateral view; 757, 3 pygofer processes and 10th segment, dorsal view; 758, plate, ventral view; 759, connective, aedeagus, paraphysis and style, dorsal view; 760, aedeagus and paraphysis, lateral view; 761, style, lateral view.

antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a very large, broad caudoventral lobe, caudodorsal margin with a pair of ornate processes, processes very long, sharply pointed apically, with a single subapical retrorse secondary process; 10th segment with a pair of long processes, processes not quite reaching apex of pygofer processes, long, slender and pointed apically in dorsal aspect; aedeagus symmetrical, long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, broad basally, gradually tapered apically, without basal paired processes, with a lateral flange on either side of apex; connective Y-shaped, stem short; style long, broad, extending just slightly beyond apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, caudal margin slightly produced at middle.

Holotype 3 (BISHOP 10,605), New Guinea (SW): Vogelkop, Fak Fak, S coast of Bomberai, 9.VI.1959, T. C. Maa; allotype  $\Im$  (BISHOP), same data as holotype except 100–700 m, 8.VI.1959; paratypes: 1 3, same data as allotype except 5–8.VI.1959; 1  $\Im$ , same data as allotype except 700– 900 m, 6–7.VI.1959 (BISHOP); 1 3, 1  $\Im$ , same data as holotype (author's collection).

**REMARKS.** This species belongs to the species group possessing a narrow clypellus. From *vulgaris*, to which it is similar in certain male genital characteristics, *captiuncula* can be distinguished by the very broad paraphysis that gradually tapers apically, and by the pair of ornate pygofer processes with their retrorse, secondary subapical processes.

**Thagria vulgaris** Nielson, new species Fig. 762–767.

Length:  $3^{\circ} 6.30-6.80 \text{ mm}, \text{ } \text{ } 8.00 \text{ mm}.$ 

General color ochraceous with fuscous venation on forewings.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, slightly depressed medially below level of eyes, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, broad anteriorly, narrowed posteriorly, lateral margins excised near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins parallel.

3. Pygofer in lateral aspect with a very broad, large caudoventral lobe, lobe narrowed apically, caudodorsal margin with a pair of long processes, processes with lateral margins serrated; 10th segment with a pair of curved, long processes of about equal length to pygofer processes; aedeagus symmetrical, long, tube-like, reaching to about middle of paraphysis; gonopore apical; paraphysis symmetrical, very broad basally, becoming abruptly narrowed at basal 1/3, apical 2/3 narrow and slender with small lateral flange apically; connective Y-shaped, stem short; style long, nearly reaching apex of paraphysis, narrowed at apical 1/2 and slightly curved laterally apically; plate segmented subbasally, distal segment long and narrow, and curved at apical 1/4.

 $\heartsuit$  . 7th sternum large, about 2-1/2  $\times$  as long as penultimate segment, caudal margin slightly produced medially.

Holotype & (BISHOP 10,606), PNG: Solomon Is: Bougainville (S): Kieta, 26.XI.1959, T. C. Maa; allotype & (BISHOP), same data as holotype; paratypes: SOLOMON IS: Guadalcanal: Tambalia, 30 km W of Honiara, 2 & , 24–28.V.1964, R. Straatman (BISHOP); Tenaru R, 2 & , I.1945, G. E. Bohart (CAS); Bonegi R, 1 & , 14.XII.1934, R. A. Lever; 1 & , same data except 29.IV.1934 (BMNH); Poha R, 5 m, 1 & , 2.VII.1956, J. L. Gressitt (author's collection).

REMARKS. This species belongs to the species group possessing a narrow clypellus. It is most

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Fig. 762–767. Thagria vulgaris, n. sp.: 762, 3 pygofer and 10th segment, lateral view; 763, 3 pygofer processes and 10th segment, dorsal view; 764, plate, ventral view; 765, connective, aedeagus, paraphysis and style, dorsal view; 766, style, lateral view; 767, aedeagus and paraphysis, lateral view.

closely related to *captiuncula* and can be separated from that species by the simple, paired processes of the pygofer, on which the lateral margins are serrate, and by the abruptly constricted paraphysis at basal 1/3 in dorsal aspect.

**Thagria philippina** (Stål), new combination Fig. 768–773.

Jassus philippinus Stål, 1870: 736 [holotype 3, Philippine Is (NR) (examined)]. Coelidia philippina: Metcalf, 1964: 70.

Length: ♂ 6.20–7.00 mm, ♀ 8.10–8.30 mm.

General color deep fuscous throughout with several light ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 768-773. Thagria philippina (Stål): 768, 3 pygofer and 10th segment, lateral view; 769, 3 pygofer processes and 10th segment, dorsal view; 770, aedeagus and paraphysis, lateral view; 771, connective, aedeagus, paraphysis and style, dorsal view; 772, style, lateral view; 773, plate, ventral view.

about 1/4 entire median length, narrow, interocular width about equal to width of eyes, lateral margins convergent basally, disk elevated slightly above level of eyes, slightly foveate on either side of middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface smooth; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, narrowed posteriorly, lateral margins excised near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, base narrower than base of clypeus, lateral margins nearly parallel.

J. Pygofer in lateral aspect with a large, elongate-ovoid caudoventral lobe, lobe with a pair of very

long, slender processes arising mesally near base of lobe, caudodorsal margin of pygofer with a pair of long, ornate processes, processes semiglobular apically with a lateral secondary process; 10th segment with a pair of long, ornate processes, processes constricted medially and expanded apically with a short lateral process subapically; aedeagus symmetrical, very long, narrow, tube-like, extending beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, constricted at apical 1/4, narrowed apically, with a pair of long, basal processes on the dorsal margin, strongly keeled subbasally in lateral view; connective Y-shaped, stem short; style very short, not quite reaching base of paraphysis in dorsal aspect and curved at apical 1/2; plate segmented subbasally, distal segment long and rather broad throughout.

 $\mathfrak{Q}$ . 7th segment large, about  $3 \times$  as long as penultimate segment, caudal margin produced medially.

SPECIMENS EXAMINED. Jassus philippinus Stål, holotype 3, Philippine Islands (NR). PHIL-IPPINE IS: Mindanao: Iligan, 7 33, (no date), Baker; Butuan, 2 33, (no date), Baker (USNM); Surigao, 2 33, (no date), Baker (BMNH); Surigao, 1 3, (no date, no collector) (AMNH); Agusan, 10 km SE of San Francisco, 2 33, 2 99, 13-17.XI.1959, C. M. Yoshimoto & L. W. Quate (BISHOP); 1 3, 1 9, same data except Yoshimoto (author's collection); Agusan, Los Arcos, 1 9, 19-23.XI.1959, L. W. Quate; Z [Zamboanga ?] del Sur, 24 km NW of Milbuk, nr Lebak, 450-900 m, 1 9, 6-7.VIII.1958, H. E. Milliron; Misamis Or., Mt Empagatao, 1 9, 25.IV.1961, wild banana leaves, H. Torrevillas; [Luzon]: Camarines Sur, Mt Iriga, 500-600 m, 1 9, 10.IV. 1962, H. M. Torrevillas; Palawan: Eran Pt, 8 km SW of Tarumpitao Pt, 1 9, 31.XII.1959-4.I.1960, Quate (BISHOP).

DISTRIBUTION. Philippine Islands.

**REMARKS.** This species is rather common and belongs to a species group possessing a narrow clypellus and an asymmetrical paraphysis. It is very closely related to *stali* in certain male genital characteristics but can be distinguished from that species by the presence of processes on the 10th segment, by the very narrowed, constricted, subapical portion of the paraphysis in lateral aspect, and by the shape of the caudoventral lobe of the pygofer.

#### Thagria stali Nielson, new species Fig. 774-779.

Length: 36.20 mm, 9 unknown.

General color fuscous throughout with a few light ochraceous markings on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, narrow, interocular width about equal to width of eyes, lateral margins convergent basally, disk elevated above level of eyes, slightly depressed medially, strongly striate laterally below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length about equal to or slightly greater than median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, narrowed posteriorly, lateral margins excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, narrow, narrower than base of clypeus, lateral margins nearly parallel.

5. Pygofer in lateral aspect with large, caudoventral lobe, lobe with a long, curved process arising mesally, caudodorsal margin with a pair of long, somewhat ornate processes, processes slightly bulbous apically with a very short secondary lateral process; 10th segment without processes; aedeagus symmetrical, long, tube-like, exceeding midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally and gradually tapered apically, with short apical lateral processes and with paired basal processes on dorsal margin, strongly keeled ventrally in lateral view; connective Y-shaped, stem short; style short and robust, extending slightly beyond base of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and somewhat broad throughout.

Holotype & (BISHOP 10,607), PHILIPPINE IS: [Luzon]: Camarines Sur, Mt Iriga, 500-600 m, 10.IV.1962, H. M. Torrevillas.



Fig. 774–779. Thagria stali, n. sp.: 774, 3 pygofer, lateral view; 775, 3 pygofer processes, dorsal view; 776, connective, aedeagus, paraphysis and style, dorsal view; 777, aedeagus and paraphysis, lateral view; 778, style, lateral view; 779, plate, ventral view.

**REMARKS.** This belongs to a species group possessing a narrow clypellus and keeled paraphysis which is also asymmetrical. It is related to *philippina* in male genital characteristics but can be distinguished from that species by the lack of the 10th segment processes, by the shape of the caudoventral lobe of the pygofer, and by the shape of the paraphysis.

Thagria sola Nielson, new species Fig. 780–785.

Length: 37.70 mm, 9 unknown.

General color ochraceous with a broad, apical, ivory band on elytra and a few small, light ochraceous spots on forewing.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length



Fig. 780-785. Thagria sola, n. sp.: 780, 3 pygofer and 10th segment, lateral view; 781, 3 pygofer processes and 10th segment, dorsal view; 782, connective, aedeagus, paraphysis and style, dorsal view; 783, aedeagus and paraphysis, lateral view; 784, style, lateral view; 785, plate, ventral view.

about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk slightly foveate on either side, slightly elevated above level of eyes, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying nearly 2/3 entire dorsal area of head; pronotum large, median length greater than median length of crown, with prominent incomplete median longitudinal carina, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, narrowed posteriorly, lateral margins excised near antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus short, broad, base narrower than base of clypeus, lateral margins nearly parallel.

J. Pygofer in lateral aspect with a long, narrow, caudoventral lobe, caudodorsal margin with a pair of

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large, ornate processes, processes with a long, curved, basal, lateral finger-like secondary process, toothed laterally along middle of main shaft of process and toothed along the inner lateral apical margin of process; 10th segment with a pair of long, slender, curved processes, processes broad basally in lateral aspect; aedeagus symmetrical, long, narrow, tube-like, extending to just beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, very broad basally, gradually tapered to a narrowed apex, with a pair of basal processes on dorsal margin and with a single long, subapical process projecting basad; connective Y-shaped, stem short; style long, broad, not quite reaching apex of paraphysis in dorsal aspect; plate segmented subbasally, distal segment narrowed subbasally and broadened subapically, long and narrow.

Holotype & (BISHOP 10,608), RYUKYU IS: Amami Oshima I: (Mt) Yuwan-dake, 500 m, 31.VII.1963, J. L. Gressitt.

REMARKS. This species has characteristics of a species group possessing a narrowed clypellus and an asymmetrical paraphysis. It is similar in genital characteristics to *stali* but can be separated from that species by the single, short, subapical process on the paraphysis and by the very ornate, broad pygofer processes.

**Thagria fuga** Nielson, new species Fig. 786–791.

Length: ♂ 6.80–6.90 mm, ♀ 7.70–8.00 mm.

General color fuscous with piceous venation.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width about equal to width of eyes, lateral margins convergent basally, disk slightly elevated above level of eyes, foveate on either side of middle, radially striate below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying about 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad anteriorly, narrowed posteriorly, lateral margins slightly excised near middle near base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus long, somewhat broad, base narrower than base of clypeus, lateral margins nearly parallel.

3. Pygofer in lateral aspect with a short, broad caudoventral lobe, caudodorsal margin with a pair of long, slender, narrowed processes; 10th segment without paired processes; aedeagus symmetrical, long, tube-like, extending slightly beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, gradually tapered toward middle, slightly expanded apically, without paired basal processes but with a short, lateral, subapical process; connective Y-shaped, stem short; style very long, nearly reaching to apex of paraphysis in dorsal aspect, very slender at apical 1/3; plate segmented subbasally, distal segment long and narrow.

 $\heartsuit$  . 7th segment large, about  $3\times$  as long as penultimate segment, posterior margin narrowly produced at middle.

Holotype 3 (BISHOP 10,609), VIETNAM: Fyan, 900–1000 m, 11.VII–9.VIII.1961, N. R. Spencer; allotype  $\Diamond$  (BISHOP), same data as holotype; paratypes: 5 33, 7  $\Diamond \Diamond$ , 7  $\Diamond \Diamond$ , same data as holotype (BISHOP, author's collection); Blao (Balao), 500 m, 2 33, 1  $\Diamond$ , 14–21.X.1960, C. M. Yoshimoto (BISHOP).

REMARKS. Thagria fuga belongs to a species group possessing a narrowed clypellus and an asymmetrical paraphysis. It is similar in male genital characteristics to *albisigna* but can be distinguished from that species by the presence of a very long style and by the shape of the paraphysis.

**Thagria albisigna** (Walker), new combination Fig. 792–797.

Coelidia albisigna Walker, 1857: 173 [holotype 3, Sarawak (BMNH) (examined)].—Metcalf, 1964: 39.



Fig. 786–791. Thagria fuga, n. sp.: 786, 3 pygofer, lateral view; 787, 3 pygofer processes, dorsal view; 788, plate, ventral view; 789, connective, aedeagus, paraphysis and style, dorsal view; 790, aedeagus and paraphysis, lateral view; 791, style, lateral view.

Length: 36.10 mm, 9 unknown.

General color deep ochraceous with a large, yellow, semicircular spot on clavus and with a number of small, yellow markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate along middle, slightly elevated above level of eyes, striate radially below ocelli; eyes large, semiglobular, occupying less than 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length about equal to median length of pronotum; elytra elongate, veins somewhat obscured, appendix well developed, venation as in description of genus; clypeus elongate, broad, broader anteriorly, narrowed posteriorly,



Fig. 792–797. Thagria albisigna (Walker): 792, 3 pygofer, lateral view; 793, 3 pygofer processes, dorsal view; 794, connective, aedeagus, paraphysis and style, dorsal view; 795, aedeagus and paraphysis, lateral view; 796, style, lateral view; 797, plate, ventral view.

lateral margins rather deeply excised near middle at base of antennal sockets, surface finely granulose, rugulose along anterior margin; clypellus elongate, narrow, base narrower than base of clypeus, lateral margins slightly expanded apically.

3. Pygofer in lateral aspect with a large, elongate caudoventral lobe, lobe narrowed at apical 1/2, caudodorsal margin with a pair of long, finger-like processes; 10th segment without processes; aedeagus symmetrical, long, narrowed, tube-like, reaching or extending just beyond midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, constricted medially, expanded subapically with a large, lateral process, without paired basal processes on dorsal margin, broad basally and deeply excavated on lateral side and sharply pointed apically in lateral aspect; connective Y-shaped, stem short; style short, broad basally, narrowed and sharply pointed apically, apex barely reaching midlength of paraphysis in

dorsal aspect; plate segmented subbasally, distal segment long and narrow and somewhat expanded apically.

SPECIMENS EXAMINED. Coelidia albisigna Walker, holotype 3, Sarawak, Wallace (BMNH); BORNEO: Sarawak: Kuching, 1 3, 8.I.1900, R. Shelford (BMNH).

DISTRIBUTION. Sarawak.

**REMARKS.** This is known only from the holotype  $\mathcal{J}$  and another single  $\mathcal{J}$  specimen. It belongs to a species group possessing a narrow clypellus and an asymmetrical paraphysis. From *matsumurai*, to which it is similar in male genital characteristics, *albisigna* may be distinguished by the deep excavation along the lateral margin of the paraphysis, by the simple, paired finger-like processes on the caudodorsal margin of the pygofer, and by the distinct yellow spot on the clavus of the forewing.

# Thagria matsumurai Nielson, new species Fig. 798-804.

Length: ♂ 8.00–8.30 mm, ♀ 9.00–9.30 mm.

General color light testaceous with numerous light fuscous markings on forewings and veins deeply marked with fuscous.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk nearly flat, elevated above level of eyes, slightly foveate along middle, striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying less than 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface finely knobbed; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus; clypeus elongate, broad, slightly broader anteriorly than posteriorly, lateral margins widely excised near base of antennal sockets, surface somewhat tumid, finely granulose, rugulose along anterior margin; clypellus long and narrow, base narrower than base of clypeus, lateral margins nearly parallel.

 $\beta$ . Pygofer in lateral aspect with a very large, semiglobular caudoventral lobe, caudodorsal margin with a pair of very long, curved processes, processes somewhat constricted at apical 1/3 in dorsal aspect; 10th segment without processes; aedeagus slightly asymmetrical, long, narrow, tube-like, exceeding midlength of paraphysis; gonopore apical; paraphysis asymmetrical, broad basally, without paired basal processes, with a lateral projection subapically, narrowed apically; connective Y-shaped, stem short; style short, broad, extending beyond base but not reaching to midlength of paraphysis in dorsal aspect; plate segmented subbasally, distal segment long and narrow.

 $\Im$ . 7th sternum large, ornate, about  $3-4\times$  as long as penultimate segment, caudal margin with a long, sharp process on either side of middle, processes very distinctive.

Holotype 3 (NCSR), CHINA: Hong San, SE Kiangsi, 30.VI.1936, J. L. Gressitt; allotype  $\Im$  (NCSR), same data as holotype except 28.VI.1936; paratypes: 1 3, 2  $\Im$ , same data as holotype except 24–29.VI.1936 (NCSR); 1 3, same data as holotype (author's collection); VIETNAM: 6 km S of Dalat, 1400–1500 m, 2  $\Im$ , 9.VI–7.VII.1961, N. R. Spencer; Fyan, 900–1000 m, 1  $\Im$ , 11.VII–9.VIII.1961, Spencer (BISHOP).

REMARKS. This is a rather unique species. It belongs to a species group possessing a narrow clypellus in combination with an asymmetrical paraphysis. From *albisigna*, to which it is similar in many male genital characteristics, *matsumurai* can be separated by the unique shape of the paraphysis and the unique shape of the caudodorsal processes of the pygofer. This species is named for the late Japanese homopterist Dr S. Matsumura.

Thagria distanti Nielson, new species Fig. 805–808.

Length:  $\Im$  unknown,  $\Im$  8.40 mm.

General color deep testaceous with piceous and flavous markings on veins of elytra.

general habitus of the type specimen and the original description.

Length:  $\mathcal{J}$  unknown,  $\mathcal{Q}$  7.00 mm.

General color deep ochraceous with transverse, fuscous, irregular markings subapically on elytra.

Head narrower than pronotum; crown long and narrow, produced considerably beyond anterior margin of eyes, distal length about 1/3 entire median length, lateral margins convex, strongly carinate, disk foveate medially, elevated above eyes; ocelli lateral on anterior margin of crown; eyes large, semiglobular; pronotum short, median length less than median length of crown, with pronounced median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra long and narrow, veins prominent, appendix well developed, venation as in description of genus; clypeus long and narrow, lateral margins constricted near antennal sockets, surface granulose; clypellus short, base narrower than base of clypeus, lateral margins nearly parallel.

Specimens examined. Thagria signata Distant, holotype  $\mathcal{Q}$ , Ceylon, 1911 Green (BMNH). Distribution. Sri Lanka.

**REMARKS.** This species is one of the largest among those having a long, carinate crown. From *distanti*, to which it is similar in general habitus and size, *signata* can be separated by the markings on the elytra and distribution.

Thagria rutata (Distant), new combination

Jassus rutatus Distant, 1908: 335 [holotype  $\mathcal{Q}$ , Burma (BMNH) (examined)]. Coelidia rutata: Metcalf, 1964: 73.

This species known only from the holotype  $\mathcal{Q}$  is here provisionally assigned to the genus *Thagria* on the basis of head characters. I was unable to associate the type specimen with material on hand or with type material in the British Museum and, therefore, I believe that *rutata* is a valid species. The following description is based on my notes taken during the examination of the type and Distant's original description.

Length: 3 unknown, 2 7.00 mm, excluding tegmina.

General color ochraceous with large fuscous markings on elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes; ocelli on anterior margin of crown; eyes large, semiglobular, occupying less than 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, surface coarsely knobbed; scutellum large, median length greater than median length of pronotum; clypeus elongate, broad anteriorly, narrowed posteriorly, lateral margins convex, excised near middle near base of antennal sockets; clypellus long and broad, base narrower than base of clypeus, lateral margins parallel.

SPECIMENS EXAMINED. Jassus rutatus Distant, holotype 9, Burma, Doherty (BMNH).

DISTRIBUTION. Burma.

REMARKS. This species is similar in general habitus to *unidigitata* but can be separated from that species by the patterns of the fuscous markings on the elytra, larger size, and distribution.

# Thagria subnotata (Walker), new combination

Coelidia subnotata Walker, 1870: 309 [holotype ♀, Mysool, (BMNH) (examined)].—Metcalf, 1964: 77.

The holotype specimen is badly damaged; only the head, pronotum, scutellum, and 2 pairs of legs remain. I place the species in the genus *Thagria* with reservations, having only the head characters to rely upon. Moreover, the identity of the species may never be resolved, as Walker's description is poor and without diagnostic characterizations.

*Walker's description follows:* "Female. Tawny. Vertex pale testaceous, not as long as broad, slightly notched on each side next the hind border; front reddish, twice as long as broad. Scutum with testaceous speckles; scutellum piceous. Pectus piceous, pale luteous on each side. Abdomen piceous, pale luteous beneath towards base. Legs pale yellow; hind legs very large, with piceous femora, wings broken; veins black. Forewings aeneous-tinged, with a line of various whitish points, which is much nearer the tip on the costa than on hind border. Length of body 3-1/2 lines, of the wings 7 lines."

SPECIMEN EXAMINED. Coelidia subnotata Walker, holotype  $\mathcal{Q}$ , "Mysol" [=Mysool], Wallace (BMNH).

DISTRIBUTION. Mysool.

Thagria sulphurea (Distant), new combination

Jassus sulphureus Distant, 1908: 335 [holotype J, India (BMNH) (examined)]. Coelidia sulphurea: Metcalf, 1964: 77.

The holotype specimen is damaged; the right tegmina, right wing and abdomen are missing, but the head characters are typical of *Thagria*. However, I was not able to associate the specimen with material on hand and therefore presume that *sulphurea* is a valid species. The following descriptions are based on my examination of the type and Distant's meager description of the species.

Length: 35.50 mm, 2 unknown.

General color light ochraceous with 2 large fuscous spots along costa of elytra.

Head narrower than pronotum; crown short, produced beyond anterior margin of eyes, distal length about 1/4 entire median length, broad, interocular width greater than width of eyes, lateral margins convergent basally, disk foveate on either side of middle, slightly carinate laterally, strongly striate radially below ocelli; ocelli on anterior margin of crown; eyes large, semiglobular, occupying less than 2/3 entire dorsal area of head; pronotum large, median length about equal to median length of crown, with a distinct median longitudinal carina; scutellum large, median length greater than median length of pronotum; elytra elongate, veins distinct, appendix well developed, venation as in description of genus.

SPECIMENS EXAMINED. Jassus sulphureus Distant, holotype 3, "Khasi Hills, Assam" (BMNH). DISTRIBUTION. India.

REMARKS. This species is similar in general habitus to other *Thagria* species possessing a median longitudinal carina on the pronotum. From these species *sulphurea* can be separated by the 2 large fuscous spots on the costa of the elytra and the distribution.

# CHECKLIST OF THE GENERA AND SPECIES OF THE TRIBE THAGRIINI

# THAGRIINI Distant

Tahara, n. gen. quadrispiculata, n. sp. bigladia, n. sp. Thagria Melichar Mukwana Distant, n. syn. Soortana Distant, n. syn. Dharmma Distant, n. syn. Sabima Distant, n. syn. Guliga Distant, n. syn.

Orthojassus Jacobi, n. syn.

Sabimoides Evans, n. syn. introducta (Distant), n. comb. capitata Distant fasciata Melichar pedestris Distant, n. syn. difformis Distant, n. syn. lautereri, n. sp. pulchella (Kirby), n. comb. coonoorensis (Distant), n. comb. simulata (Distant), n. comb. krameri, n. sp. cardamomi (Evans), n. comb. projecta (Distant), n. comb. prima Distant, n. syn. stellifera Distant, n. syn. erebus Distant, n. syn. aryana Distant, n. syn. philagroides (Jacobi), n. comb. rostrata Kato, n. syn. breviceps Jacobi, n. syn. hamata, n. sp. elencha, n. sp. quintata, n. sp. eminentia, n. sp. tridentia, n. sp. marcida, n. sp. perspicuata, n. sp. vectigalia, n. sp. infula, n. sp. bryani, n. sp. elongata, n. sp. gracilis, n. sp. vietnamensis, n. sp. obrienae, n. sp. serrata, n. sp. multispars (Walker), n. comb. multifasciata Jacobi, n. syn. alaeva, n. sp. ornata, n. sp. sandakanensis, n. sp. sarawakensis, n. sp. lewisi, n. sp. multispiculata, n. sp. rorata (Distant), n. comb. tenasserimensis (Distant), n. comb. cretata (Distant), n. syn. dirigens (Walker), n. comb.

grandis, n. sp. normani, n. sp. tuxeni, n. sp. triementia, n. sp. kronestedti, n. sp. fossa, n. sp. soosi, n. sp. ungulata, n. sp. unidigitata, n. sp. circumcincta (Jacobi), n. comb. luzonensis (Baker), n. comb. janssoni, n. sp. lebes, n. sp. minuta, n. sp. loae, n. sp. bihasta, n. sp. dellamayae, n. sp. brevis, n. sp. williami, n. sp. ventrorecta, n. sp. wallacei, n. sp. aculeata, n. sp. argutata, n. sp. fijiana (Osborn), n. comb. aratra, n. sp. cincticula, n. sp. bilata, n. sp. inscripta (Walker), n. comb. multicalcara, n. sp. morosa, n. sp. biungulata, n. sp. quadrilancea, n. sp. pala, n. sp. davaoensis, n. sp. louisae, n. sp. verticalis (Walker), n. comb. acuta, n. sp. walkeri, n. sp. mamma, n. sp. marilynae, n. sp. tintinnabula, n. sp. virginiae, n. sp. picea (Walker), n. comb. albipes (Walker), n. syn. elongistyla, n. sp. bidens, n. sp. patriciae, n. sp.

ochripes (Spångberg), n. comb. bivalla, n. sp. cheesmanae, n. sp. tragulae, n. sp. unca, n. sp. exilis, n. sp. canifascia (Walker), n. comb. trulla, n. sp. referta, n. sp. bakeri, n. sp. lurida (Melichar), n. comb. silvestris (Distant), n. syn. rima, n. sp. zauggi, n. sp. fucosa, n. sp. rugosa, n. sp. peayi, n. sp. tingeyi, n. sp. peravis, n. sp. sarcula, n. sp. brunnea, n. sp. fuscovenosa (Matsumura), n. comb. satsumensis (Matsumura), n. syn. ficta, n. sp. fryeri (Distant), n. comb. marlenae, n. sp. cornicula, n. sp. beverlyae, n. sp. dorothyae, n. sp. deltoides, n. sp. sagittata, n. sp. kammi, n. sp. diversa (Walker), n. comb. glabra (Walker), n. comb. singularis, n. sp. similis, n. sp. fabricii, n. sp. patruelis, n. sp. imputata, n. sp. gibba, n. sp. luteifascia (Walker), n. comb. unifasciata (Walker), n. syn. pardalis (Walker), n. comb. captiuncula, n. sp. vulgaris, n. sp. philippina (Stål), n. comb. stali, n. sp.

sola, n. sp. fuga n. sp. albisigna (Walker), n. comb. matsumurai, n. sp. distanti, n. sp. signata Distant rutata (Distant), n. comb. subnotata (Walker), n. comb. sulphurea (Distant), n. comb.

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