

**DESCRIPTION OF A NEW SPECIES, *AGASTUS HIRSUTUS*,  
WITH FIRST RECORD OF THE GENUS FROM NEW GUINEA  
(COLEOPTERA: CARABIDAE: ZUPHIINAE)**

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*Abstract.* *Agastus hirsutus*, n. sp., from southwestern Papua New Guinea is described and compared in a key with the Oriental species of the genus *Agastus*. The discovery of this new species in New Guinea extends the distribution of the Old World tropical genus *Agastus* into the Australian area.

The genus *Agastus* Schmidt-Göbel comprises 2 species from SE Asia and 6 species from tropical Africa. The African species have been hitherto arranged in the genus *Patrizia* Alluaud. As Mateu (1972) stated, *Patrizia* and *Agastus* are congeneric; thus, *Patrizia* is a junior synonym of *Agastus*. Specimens of *Agastus* are very rare in collections and have been mostly found at light. Nothing else is known about the habits and life history of the species. The systematic status of *Agastus* has been in doubt; some authors, e.g., Jedlicka (1964), have included it in the Lebiinae-Cymindina. Indeed, *Agastus* likely belongs to Zuphiinae. Because of its peculiarities, Basilewsky (1953) assigned the genus to its own tribe, Patriziini, in the subfamily Zuphiinae.

Originally, the tribe comprised only the genus *Patrizia* (= *Agastus*). Subsequently, Basilewsky (1962), Reichardt (1971, 1972), and Mateu (1982) included other genera in the tribe. I have elsewhere explained (Baehr 1985), why I do not follow the inclusion of these genera in Patriziini. According to section 40 of the International Code of Zoological Nomenclature, the name of the tribe remains Patriziini. For diagnosis of the tribe, see Basilewsky (1953, 1962).

**Genus *Agastus* Schmidt-Göbel**

*Agastus* can be characterized by the following (Basilewsky 1953, Baehr 1984): head long and square with a thin "neck" clearly separated from head; large eyes; short moniliform antennae with a quite short 1st segment; cordate pronotum with a laterally excised base, projecting hind angles, and slightly sloping fore angles; elytra parallel, ridgelike on 1st–7th intervals.

***Agastus hirsutus* Baehr, new species**

Fig. 1

*Color.* Dorsally rusty red, elytra apically and laterally, also at 1st interval, slightly darker, thus, elytra with an indistinct, oblong spot. Antennae, mouth parts, and legs yellowish red. Lower parts reddish brown, abdomen lighter. *Head.* Nearly as large as pronotum. Temples about 1.4× as long as eyes, very slightly rounded behind. Head coarsely and densely punctate. Pilosity long, erect. Clypeus smooth, labrum short, apically slightly excised, 6-setose, laterally

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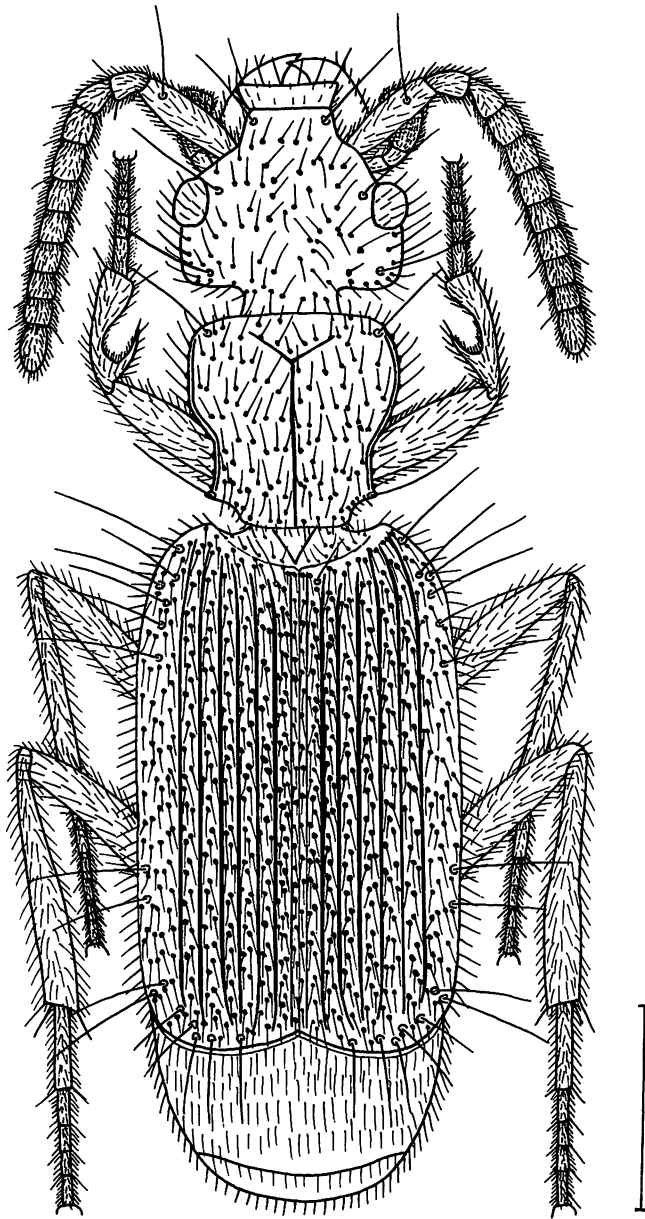


FIG. 1. *Agastus hirsutus* from New Guinea (scale 1 mm).

with some additional short hairs. Antennae short, just attaining base of pronotum, 8th–10th segments shorter than wide, ratio length/width: 0.8. Tooth of mentum rounded. Glossa long, apically square, bisetose. Paraglossae fused, membranous, short. Labial palpus short, 3rd segment multisetose, last segment acute at tip. Lacinia bristled medially, lateral side with a seta

before apex. Maxillary palpus densely pilose, last segment huge, apically square. *Pronotum*. Slightly longer than wide. Fore angles clearly rounded and sloping. Sides in basal  $\frac{1}{2}$  sinuate, sinuosity irregular. Hind angles acute, projecting anterolaterally. Pronotum densely and coarsely punctate, pilosity erect and very long. Anterior lateral seta short distance behind fore angles, posterior seta at hind angles. Sides densely hirsute, setae on small tubercles, sides conspicuously dentate, especially in sinuosity in front of hind angles. *Elytra*. Short and wide, ratio length/width: 1.6, sides parallel. Ridgeline intervals 1–7 conspicuous, intervals laterally somewhat notched by puncture of striae. Striae about  $2\times$  as wide as intervals, irregularly double-rowed, coarsely punctate, with long, erect golden hairs. At 3rd interval no erect setae visible. Apex rounded, strongly drawn in medially. *Legs*. Fore tarsus short, median and hind tarsi longer. Basal segment as long as segments 2–4 together. Modification of  $\delta$  tarsus unknown. *Lower side*. Head and thorax coarsely punctate, erectly hirsute. Abdomen finely punctate, densely pilose. Abdominal sternites unisetose each side, last segment ( $\varphi$ ) bisetose each side.  $\delta$  *genital organ*. Unknown.

Length 4.84 mm (labrum to apex of elytra); width 1.6 mm.

*Holotype*  $\varphi$ , PAPUA NEW GUINEA: Western Distr, 1 mi [0.6 km] S of Morehead, 8°44'S, 141°38'E, 29.VIII.1970 (Key & Balderson) (Australian National Insect Collection).

#### KEY TO THE ORIENTAL AND NEW GUINEAN SPECIES OF THE GENUS *AGASTUS*

1. Larger species, length (labrum to apex of elytra) 4.5 mm or more, wider; ratio length/width of pronotum 1.03–1.06, ratio length/width of elytra 1.61–1.68; pattern weaker, indistinct; pilosity longer, more erect, somewhat irregular; elytral hairs longer than width of 1 stria, puncture coarser ..... 2  
 Smaller species, less than 4.4 mm long, narrower, ratio length/width of pronotum 1.08–1.10, ratio length/width of elytra 1.82–1.84; dark pattern distinct, especially at apex of elytra; pilosity shorter, declined, quite regular; elytral hairs shorter than width of 1 stria; puncture finer ..... **ustulatus** Gestro
2. Elytra narrower, ratio length/width 1.65–1.68; eyes large, ratio length of temples/length of eyes 1.15–0.85; sinuosity of pronotum regular, hind angles acute, but not anterolaterally projecting; sides only slightly dentate; 8th–10th antennal segments as long as wide; pilosity of elytra shorter, somewhat declined ..... **lineatus** Schmidt-Göbel  
 Elytra wider, ratio length/width 1.6; eyes smaller, ratio length of temples/length of eyes 1.39; sinuosity of pronotum irregular, sides strongly dentate; hind angles acute, anterolaterally projecting; front angles strongly rounded; 8th–10th antennal segments wider than long, ratio length/width 0.8; pilosity very conspicuous, long, only slightly declined ..... **hirsutus, n. sp.**

#### DISCUSSION

For comparison with the Oriental *A. lineatus* Schmidt-Göbel and *A. ustulatus* Gestro, specimens from the British Museum were available, bearing a written note by Andrewes: "compared with type." Some additional specimens were mentioned by Andrewes (1923). All 3 species are very similar; most characteristic differences are mentioned in the key. Since all specimens at hand are females, characteristics of male genitalia could not be considered.

In some attributes, *A. hirsutus*, n. sp., is likely intermediate between *A. lineatus* and

*A. ustulatus*. In body length, proportions, weakly developed pattern, and long and more erect pilosity, *A. hirsutus* is quite similar to *A. lineatus*; with regard to relatively small eyes, short antennal segments, shape of pronotum, and dentate sides, it is nearer to *A. ustulatus*. Special attributes of *A. hirsutus*, n. sp., are the very long, erect, but fine pilosity, very strong dentation of sides, and distinctly rounded fore angles of pronotum.

Until now, *Agastus* in the Oriental area was known only from SE Asia: *A. lineatus* from India, Burma, Thailand, Cambodia, Vietnam, and the Philippines; *A. ustulatus* from Malaysia (Singapore), Borneo (Gestro 1875, Andrewes 1923, Cziki 1932, Mateu 1972), and Sumatra (a specimen from the Andrewes Collection). The discovery of *A. hirsutus*, n. sp., extends the known distribution of the genus considerably to the south. Since the collecting locality is in the southwestern part of Papua New Guinea, opposite the tip of the Cape York Peninsula of Australia, *A. hirsutus* or related species might be discovered in the future in other parts of New Guinea, and perhaps also in northern Australia. Thus, *Agastus* is another example of an Old World tropical genus that extends into the Australian area (Darlington 1968, 1971).

As is indicated by the relatively recent discovery of the genus in Africa (Alluaud 1931) and the description of additional species there (Mateu 1972), species of *Agastus* seem to be rare or they possess specialized or cryptic habits. This opinion is supported by the very short antenna and the huge and glandular terminal segment of the maxillary palpus of *Agastus*, which imply a commensal habit in ant or termite nests.

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#### LITERATURE CITED

- Alluaud, C. 1931. Etudes sur les Carabidae africains. II. 4. Description d'un genre nouveau et d'une espèce nouvelle de la tribu des Zuphiini. *Afra Cah. Entomol.* **3**: 9-11.
- Andrewes, H.E. 1923. On the types of Carabidae described by Schmidt-Göbel in his Faunula Coleopterorum Birmaniae. *Trans. Entomol. Soc. Lond.* **1923**: 1-63.
- Baehr, M. 1984. Revision der australischen Zuphiinae 1. Die Gattung *Acrogenys* Macleay (Insecta, Coleoptera, Carabidae). *Spixiana* **7**: 115-34.
1985. Revision of the Australian Zuphiinae. 3. The genus *Pseudaptinus* Castelnau (Insecta, Coleoptera, Carabidae). *Spixiana* (in press).
- Basilewsky, P. 1953. Révision des Leleupidiini (Col. Carabidae, Zuphiinae). *Rev. Zool. Bot. Afr.* **47**: 263-81.
1962. Carabidae (I) (Coleoptera, Adephega). *Explor. Parc Natl. Upemba* **29**: 1-152.
- Cziki, E. 1932. Carabidae. *Coleopt. Cat. Pars* **124**: 1279-1598. Junk.
- Darlington, P.J., Jr. 1968. The carabid beetles of New Guinea. III. Harpalinae continued. Perigonini to Pseudomorphini. *Bull. Mus. Comp. Zool. Harv. Univ.* **137**(1): 1-253.
1971. The carabid beetles of New Guinea. IV. General considerations; analysis and history of fauna; taxonomic supplement. *Bull. Mus. Comp. Zool. Harv. Univ.* **142**(2): 129-337.
- Gestro, R. 1875. Note sopra alcuni Carabici. *Ann. Mus. Civ. Stor. Nat. Genova* **7**: 850-94.
- Jedlicka, A. 1964. Monographie der Truncatipennen aus Ostasien. Lebiinae - Odacanthinae - Brachyninae (Coleoptera, Carabidae). *Entomol. Abh. Dres.* **28**: 269-579.

- Mateu, J.** 1972. Remarques sur trois genres de Troncatipennes Afro-asiatiques (Coléoptères Carabiques). *Nouv. Rev. Entomol.* **2**: 43–52.
1982. *Chaudoirella reichardti* nouveau genre et n. sp. de Patriziini de l'Amérique neotropicale (Coleoptera, Carabidae). *Nouv. Rev. Entomol.* **12**: 45–51.
- Reichardt, H.** 1971. Carabidae (Coleoptera) neotropicâes: espécies venezuelanos e formas relacionadas. *Pap. Avuls. Zool. Sao Paulo* **24**: 73–91.
1972. *Metaxidius* Chaudoir and the Neotropical Zuphiini (Coleoptera, Carabidae). *Pap. Avuls. Zool. Sao Paulo* **25**: 265–68.
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- Opinion no. 1264 (p. 8) *Oscinis plumigera* Loew, 1860 (Insecta, Diptera): suppression by use of the plenary powers.
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- Opinion no. 1274 (p. 32) *Notonecta striata* Linnaeus, 1758 (Insecta, Hemiptera): neotype designated under the plenary powers.
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