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Some Curculionidae from Rotuma Island (Coleoptera)

By ELWOOD C. ZIMMERMAN
ENTOMOLOGIST, B. P. BISHOP MUSEUM

In 1938, Professor Harold St. John, Botanist at Bernice P. Bishop Museum, made a botanical survey of the island of Rotuma. During his exploration he collected more than 700 insects, among which are the five species of weevils which form the basis for this paper. I have only one previous record of Curculionidae from Rotuma, the widespread coconut weevil *Diocalandra taitensis* (Gúerin-Méneville). The information provided by the St. John collection is all new.

Rotuma is about eight miles long by about two and one half miles wide, and its highest elevation is recorded as 840 feet. Professor St. John reports that only remnants of the native forest are now found, and these are in the more inaccessible places. The island, which is between 350 and 400 miles north of Suva, Fiji, is under the administration of the Fijian Colonial Government.

The types of the new species are in Bishop Museum.

SUBFAMILY TRACHODINAE (= ACICNEMIDINAE)

Genus **ACICNEMIS** Fairmaire, 1849

The two species of this genus collected by Professor St. John on Rotuma are abundant and widespread in Polynesia. I have seen both species breeding in the common tree *Hibiscus tiliaceus*.

Acicnemis crassiusculus Fairmaire, Petites Nouvelles Entomologiques, 286, 1878; Soc. Ent. France, Ann., 300, 1881.

One specimen was collected at Melisa, August 1938.

Recorded from the New Hebrides, Fiji, Tonga, and the Society Islands.

Acicnemis variegatus Fairmire, Revue et Magasin de Zoologie, 511 (p. 63 in reprint), 1849.

Acicnemis alboguttatus Chevrolat, Petites Nouvelles Entomologiques, 257, 1878. Fairmaire, Soc. Ent. France, Ann., 298, 1881, var. B.

Acicnemis foveicollis Heller, Denksch. K. Akad. Wiss., Wien **89**: 695, 1913.

One specimen from Kilinga, August 1938, at 200 feet.

Previously recorded from Uvea (Wallis Island), Fiji, Tonga, Samoa, and the Society Islands.

Subfamily ANTHONOMINAE

Genus **AMBLYCNEMIS** Marshall, 1931

This genus was described by Dr. Marshall to receive its genotype, *A. stevensoni* [Insects Samoa **4**(5) : 266, fig. 6, 1931], from Samoa. Since then I have described *A. dentifer* [Haw. Ent. Soc., Proc. **11**(1) : 95, 1940] from the Caroline Islands, and *A. dentipes* (B. P. Bishop Mus., Bull. **172**: 96-97, 1942) from Guam. In addition to these species and the one herein described, I collected many new species in Fiji which I plan to describe when time permits.

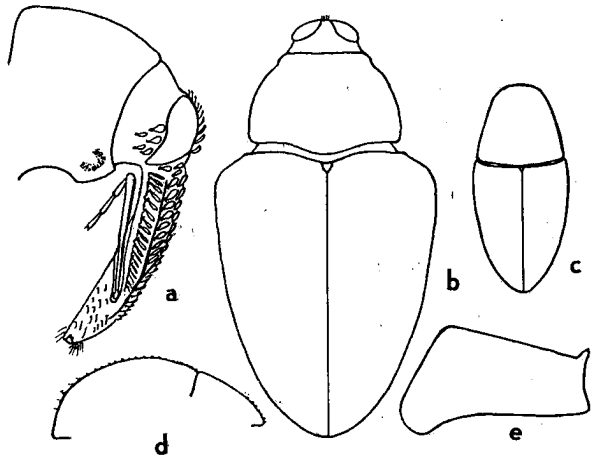

Figure 1.—Diagrams of features of new species: **a, b,** *Amblycnemis fulgidus,* male; **c, d, e,** *Ampagia nigra*: *d,* longitudinal dorsal contour, *e,* outline of hind femur.

Amblycnemus fulgidus, new species (fig. 1, *a, b*).

Derm black, excepting yellowish brown antennal scape and funiculus and fourth tarsal segment; shiny above, elytra with a faint steel-blue cast on sides in certain light; vestiture snow white; elytra without squamae.

Head with postocular areas reticulate, dull, closely punctate, punctures medium sized, each bearing a fine, inconspicuous seta, but with one or two rows of anteriorly directed, white squamae or squamiform setae on sides, those nearest eyes largest; eyes fronto-lateral, distinctly interrupting longitudinal dorsal cephalic contour in male, less conspicuously so in female, obviously interrupting lateral cephalic outlines when viewed from above; interocular area less than one half as broad as base of rostrum, in male closely set with dorsally inclined squamae which form a slight crest, with narrower, squamiform setae in female, setae finer in both sexes at dorsal end of interocular area. *Rostrum* in male, measured from lower anterior edge of an eye to apex, one seventh longer than pronotum, not markedly depressed distad, with two rows of conspicuous, large, broad, white squamae and an outer row of narrow setae on either side, squamae in longitudinal depressions between fine but distinct carinae, lateral and dorsal rows of squamae complete, the row between these rows terminating somewhat beyond one half the distance from base to antennae, squamae becoming narrower distad in the complete rows and hairlike beyond insertion of antennae; in female, one fourth longer than pronotum, depressed and expanded distad, without a median dorsal carina, with only fine setae and no squamae, bare and smooth along median line, but with a tuft of setae on either side of apex; mandibles tridentate. *Antennae* inserted within apical one fourth in male, at three eighths from apex in female; scape as long as funicle plus first segment of club; first funicular segment as long as 2 and nearly twice as thick, 2 slender, as long as 3 plus 4, 4 somewhat longer than 5, 5 somewhat longer than 6; club as long as segments 3-6 plus one third of 1. *Prothorax* one fourth broader than long; base rather strongly bisinuate; apex subtruncate on dorsum, about five eighths as broad as base; arcuately expanded on sides from base to middle, thence more rapidly narrowed to near apex to form a distinct subapical constriction; longitudinal dorsal outline continuously arcuate, not interrupted by subapical constriction; notum conspicuously punctate, punctures medium sized, individually distinct, mostly separated by about the diameter of a puncture, but denser toward middle in apical part, punctures bearing short, fine, curved, anteriorly directed setae, but with some white squamae in front of scutellum and at hind angles in some individuals. *Scutellum* bare, flattened. *Elytra* three fourths as broad as long, three times as long as prothorax, broadest between basal fourth and middle, nearly one third broader across humeri than breadth of prothorax; base conspicuously sinuous, broadly arcuate on sides, subapical constriction feeble, longitudinal dorsal contour almost evenly arcuate throughout; striae not impressed between punctures on disk, punctures well separated, medium sized, distinct, distance between them usually about as great as distance between rows on disk, each bearing a microscopical seta, punctures in stria 10 not continued beyond metacoxa; intervals broad and flat, about three times as broad as strial punctures, each with a row of minute punctures bearing minute setae. *Legs* with femora slender, with a minute tooth on lower outer edge of mid and hind pair or entirely unarmed, hind pair extending beyond apex of elytra for a distance about equal to breadth of a femur in male, not extending so far beyond apex in female, coarsely and densely punctured, punctures bearing prostrate, lanceolate setae, those on dorsal hind edge of hind pair enlarged to form conspicuous, white,

spatulate squamae; tibiae setose, finely multi-carinate, mid and hind pair minutely mucronate in male, all unarmed in female; tarsi with first two segments each with a whorl of long setae some of which are elongate-lanceolate and subsquamiform. *Sternum* with pectoral canal of prosternum well developed, set with yellowish plumose setae, side walls strongly developed in front of coxae, with prothorax deeply impressed at their bases, side walls tuberculiform behind fore coxae; mesosternum broad between mesocoxae, which are not quite so broadly separated as breadth of a coxa; metasternum dull, posterior margin concave, with three large punctures along posterior margin and others along anterior margin, anterior punctures bearing squamae, elsewhere rather indefinitely punctate and setose, but with most of the disk free from distinct punctures, vertical side piece below episternum punctate, with its posterior and lower punctures bearing dorsally directed squamae; shortest distance between mid and hind coxae as long as cephalic-caudal chord of a metacoxa; metepisternum with a single row of punctures. *Abdomen* dull, coarsely reticulate, with ventrite 1 flattened in female, broadly concave in male, with a row of large setiferous punctures along anterior margin, with smaller punctures elsewhere, intercoxal process broadly angulate or slightly convex, shortest length behind a coxa as long as side of ventrite 2; ventrite 2 with scattered, setiferous punctures; ventrites 3 and 4 each with a row of obscure setiferous punctures; ventrite 5 closely set with small, shallow, rather obscure, setiferous punctures. Length (excluding head and rostrum), 2.5-2.75 mm.; breadth, 1.4-1.5 mm.

Rotuma Island. Holotype male, allotype female and nine paratypes from Solkope (a small islet on the south coast), collected on August 24, 1938 between sea level and 420 feet alt.; one paratype taken at Soloroa, August 11 at 200 feet; two paratypes taken at Tuakoi, August 12, and two collected the same day at Saulei; and two paratypes taken August 6 at Salvaka.

This species is distinct in many ways from any of the previously described species and it is more closely allied to undescribed species from Fiji than to any of those heretofore described. The arrangement of the eyes differs considerably from that of the genotype, but their placement appears only to be a specific character, because other new species before me from Fiji show a considerable amount of interspecific variability in the size and placement of the eyes. The femora are longer than those of the genotype so that those of the male project distinctly beyond the apices of the elytra. They do not surpass the elytra in either sex in *A. stevensoni*. Neither of the two females has dentate femora. However, some of the males have a minute, easily overlooked denticle on the mid and hind femora, whereas other males have no tooth on any of the femora. The species appears to be in the evolutionary process of gaining or losing the femoral teeth.

Most of the specimens have been collected in alcohol, and the subsequent action of the fluid has caused the abdomens to pull down-

ward, exposing the pygidium in most examples.

The preponderance of males is unusual; there are only two females to 16 males in the collection.

Subfamily CRYPTORHYNCHINAE

Genus **AMPAGIA** Pascoe, 1870

Acallopais Pascoe, 1877.
Coptomerus[1] Chevrolat, 1881.

This genus has more than 40 described species which have been found from the Malay Peninsula to the Mangarevan Islands in southeastern Polynesia, and many new species now before me await description.

In my paper "The Ampagioid Weevils of Southeastern Polynesia" [B. P. Bishop Mus., Occ. Papers **12**(10): 1-38, figs. 1-4, 1936], I gave a list of the species together with a discussion of the genus. To that report may now be added the following corrections and additions: p. 4, add the generic synonymy given above; p. 5, line 17 from top, read *seeds,* not *weeds;* p. 6, *Ampagia tarsalis* (Lea) was described as an *Amydala*[2] and includes the variety *album* Lea, Ent. Soc. London, Trans. **77**: 190, 1929; p. 6, add *Ampagia hystricosa* Lea, Royal Soc. South Australia, Trans. **37**: 298, 1913, to the Australian list; p. 6, for *Ampagia leucomelia,* read *A. leucomela;* p. 32, the plant provisionally identified in the field as a species of Celastraceae has now been identified as *Xylosma suaveolens* variety by Professor St. John. It belongs to the Flacourtiaceae.

Ampagia nigra, new species (fig. 1, *c, d, e*).

Female. Derm black, shiny above, reticulate below, antennae and tarsi yellowish brown; densely clothed above with closely appressed, round or nearly round scales which conceal or almost conceal the derm, smaller, denser and imbricated on first and second or first and part of second intervals, elsewhere mostly narrowly separated or at least not conspicuously imbricated; scales flat, their surfaces reticulate; background scaling black with a bronzy luster, with the following pattern: crown of head black with white scales along median line and around dorsal ocular margins, interocular area entirely clothed with white squamae and setae; prothorax black except for a scattering of white squamae along median line, a small patch of white squamae consisting of four scales just behind middle on a line extending from elytral interval 5, with mostly white squamae along ventro-lateral margin and with a posterior upward extension of a

[1] Not *Contomerus* as in Coleopterorum Catalogus, pars 151, p. 262, 1936.

[2] Misspelled *Amygdala* in Coleopterorum Catalogus, pars 151, 1936, and p. 262, line 10 from top, p. 263, line 13 from top and line 11 from bottom.

scattering of white squamae and with white squamae on outer side of fore coxae; scutellum pale yellowish; elytra with black scales and following markings: first two intervals with mostly brownish scales from scutellum almost to middle, setae in strial punctures conspicuously white and forming distinct white lines; with scattered and irregular patches of white scales from interval 4 outward behind middle, and with a small white patch centering on stria 2 near a line from hind edge of brown scaling on interval 1 and a similar white patch in front of patch on stria 2 centering on stria 3; scaling on legs black flecked with white squamae and setae, with mostly white squamae along lower outer edge of mid and hind femora and with declivity of hind femora above tibia densely clothed with white scales; scaling below white.

Head with interocular area flattened or shallowly depressed, with one or two rows of erect squamiform setae along inner ocular margins. *Rostrum* beyond the coarsely sculptured, squamose base with scattered, distinct punctures containing mostly minute, inconspicuous setae. *Antennae* with scape as long as first two funicular segments; first funicular segment nearly as long as 2 plus 3 plus 4; second funicular segment as long as 3 plus 4; segments 3-7 each successively slightly broader; club about as long as preceding five segments. *Prothorax* slightly broader than long (measured from directly above), 25:22 on holotype, broadest at base; base almost truncate; sides narrowing in almost straight lines to fore margin; longitudinal dorsal contour gently convex, continuous with that of elytra; punctures small, distinct, not evident unless scaling removed; setae not conspicuous, short, stubby, curved, anteriorly inclined, most easily seen when viewed from side, and then common only beyond middle on dorsum. *Elytra* almost three fourths as broad as long, broadest a short distance behind humeri, almost twice as long as prothorax when measured from side from scutellum to lower apical margin; lateral outlines continuous with prothorax, and together with prothorax making an almost even oval; striae marked only by small, shallow punctures excepting lateral striae which are in part impressed, stria 10 continued only to a point above metacoxa; each strial puncture containing a conspicuous, prostrate, squamiform seta; intervals flat, each bearing a row of small, stubby, curved, short, inconspicuous setae. *Legs* with hind femora shaped as illustrated, greatest breadth divided into greatest length equals 2.1. *Sternum* with posterior median keel of mesosternal receptacle sharp, ventral margin of receptacle broad, flat or slightly concave, punctate, setose in middle, squamose on sides; metasternum coarsely reticulate, broadly concave, posterior margin thick, concave, with long squamiform setae behind coxae, pleural areas with large scales. *Abdomen* coarsely reticulate; with first ventrite convex in female, one fifth longer than remainder of abdomen measured along median line with specimen on a horizontal plane, median plate marked off by a strongly impressed arcuate line, coarsely reticulate, with numerous, rather evenly placed long, narrow, and subquamiform, decurved setae tending to be arranged in lines converging on apical point and borne from small round punctures, area beyond impressed line with only a few punctures bearing prostrate squamiform setae; second ventrite with large rounded squamae and elongate squamiform setae; ventrites 3 and 4 with squamiform setae only at lateral ends, ventrite 5 twice as broad as long, closely set with prostrate oval scales and slanting squamiform setae. Length, 3.0 mm.; breadth, 1.4 mm.

Rotuma Island. Holotype female collected in July or August and without additional data.

This species can be distinguished from all of the other described members of the genus by its distinctive color pattern. The white lines formed by the strial setae make it unlike any other species I have seen. The white scales tend to form a median vitta on the crown of the head and on the prothorax.

Subfamily RHYNCHOPHORINAE (= Calandrinae)

Genus **RHABDOCNEMIS** Faust, 1894

Rhabdocnemis obscura (Boisduval).

Calandra obscura Boisduval, in d'Urville's Voy. l'Astrolabe, Ent. **2**: 448, 1835. [See Zimmerman, Haw. Ent. Soc., Proc. **11**(1): 99, 1941 for synonymy.]

One specimen of this widespread pest of sugar cane, taken in July or August, 1938, is without additional information.

The author is responsible for all statements in this paper.