# THE GENERA ASYMBIUS AND CORYPHUS WITH DESCRIPTIONS OF FOUR NEW SPECIES

(COLEOPTERA: ENDOMYCHIDAE)1

#### By H. F. Strohecker<sup>2</sup>

Abstract: The described species of the endomychid genera Asymbius and Coryphus are reviewed. New species are Asymbius gigas from Sabah, Coryphus clavatus from New Britain, and C. niger and C. irianus from New Guinea.

Among asiatic Mycetaeinae, specimens of Asymbius are readily recognized by the anteriorly divergent parasutural striae, which curve widely around the scutellum to end near the base and about midway between the scutellum and umbo. The antenna is elongate, the stalk slender and 8-jointed, the club 3-jointed, about as long as to longer than the stalk, its first 2 articles obconic, the last oval to elongate-oval. The pronotum is transverse, its sides sometimes angulately widened, the transverse sulcus of the base is deep, the lateral sulci usually triangular and rather long. The elytra are short-oval, strongly convex, those of males usually have an apical hook of agglutinated hairs. The legs are slender, the tarsi linear and unlobed; the front and middle tarsi are 3-jointed, the hind tarsus 4-jointed. Arrow (1925: 398) has given a detailed diagnosis of the genus.

Coryphus biroi Csiki, type-species and heretofore the only included species in Coryphus, is similar in appearance to Asymbius spp. Though I previously suggested synonymy of the 2 genera (1956: 69), I now feel that the generic name Coryphus has usefulness. The parasutural striae are less widely curved in front and become evanescent in the scutellar area. All tarsi are 3-jointed. In the small amount of material now available, no external sexual features have been found.

Material was received for study from Museo Civico di Storia Naturale, Genoa (Genoa); the British Museum (Natural History), London (BMNH); Magyar Nemzeti Museum, Budapest (MNM); Zoologisches Museum Humboldt-Universitaet, Berlin (ZMH); and the Bishop Museum, Honolulu (BISHOP). Holotypes and allotypes are deposited in BISHOP; paratypes are deposited in BISHOP and my own collection (author).

All lectotypes are by present designation, unless otherwise indicated.

#### Asymbius crinipes Gorham

Asymbius crinipes Gorham, 1896: 299. — Arrow, 1925: 399, fig. 75.

The specimen referred to as the "type" by Arrow (1925) is in Genoa. This specimen should be regarded as a lectotype, since Gorham, in the original description, did not

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designate a type. The cotypes cited by Arrow as in the Oberthur collection cannot be found (Descarpentries, in litt.). All type material came from Karenni Hills, Burma. The following description is extracted from Arrow (1925).

Pale straw-yellow, with the extreme margins of the pronotum and elytra, a vague median area on pronotum, club of antenna and lower surface brown. Form short and broad, highly convex, with rather sparse erect white pubescence. Antennomere 1 long, 2-8 together shorter than club, 9-11 very long and loosely jointed, of equal length. In ♂ elytral apex produced in a compressed lobe, appearing in dorsal view as a sharp spine. As in the following 4 species, the pronotum is angulately widened near mid-length. Length 1.5 mm, width 1 mm.

### Asymbius marginatus Arrow FIG. 11

Asymbius marginatus Arrow, 1926a: 251. Holotype (probably ♀) from W Sumatra: G. [Mt] Singgalang, 1800 m, E. Jacobson (BMNH).

Testaceous, legs and antennal stalk paler, antennal club black. Oblong-oval, shining, with sparse erect pubescence. Legs and antenna very slender, the 3 club joints cylindric, 2 × as long as thick. Pronotum angulately widened at middle, side margin narrow at base, much widened and strongly deflexed in front, disc finely and sparsely punctate, lateral sulci broad, triangular, incurved in front. Elytra highly convex, outer margin strongly rounded and rather broadly flattened. Length 1.75 mm, width 1 mm.

#### Asymbius hamulatus Arrow FIG. 10, 18

Asymbius hamulatus Arrow, 1926b: 355. Lectotype of from INDIA: Haldwani Distr, Kumaon, H. G. Champion (British Museum). Of 5 other syntypes cited by Arrow, 3 paralectotypes are in BMNH.

Yellow, antennal club black, its tip reddish. Upper surface with sparse erect hairs. Legs and antenna slender, antennal club of  $\odot$  somewhat longer than stalk, that of  $\bigcirc$  shorter. Pronotum angularly widened at sides, disc finely and sparsely punctate, lateral sulci wide, triangular, incurved in front, side margin widened and deflexed in front. Elytra subrotund, highly convex, those of  $\bigcirc$  with an apical tubercle which bears a laterally directed compound bristle. Length 1.75 mm, width 1 mm.

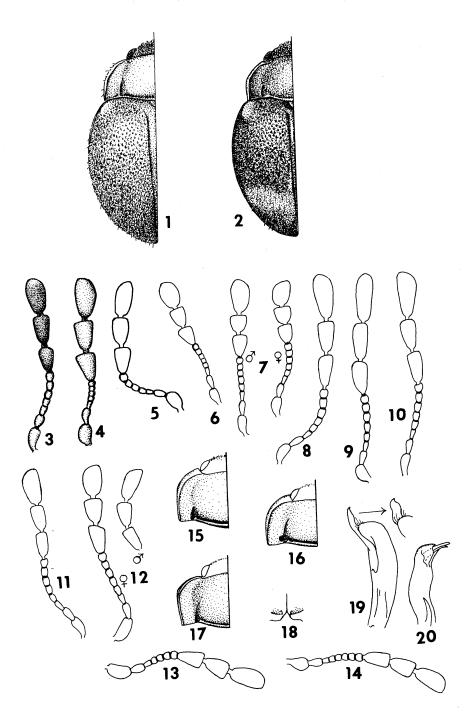
## Asymbius formosanus Ciski FIG. 12, 17

Asymbius formosanus Csiki, 1937: 173. Lectotype & from FORMOSA: Kosempo (MNM). There are 3 paralectotypes from Kosempo (MNM, author).

Brownish yellow, antennal club brown, its tip yellowish. Antenna about 1/2 as long as body, club longer than stalk in  $\mathcal{O}$ , slightly shorter than stalk in  $\mathcal{O}$ , last article oval in  $\mathcal{O}$ , elongate in  $\mathcal{O}$ . Pronotum angulately widened, more so in  $\mathcal{O}$ , its features much like those of preceding species. Elytra short-oval, convex, those of  $\mathcal{O}$  with sutural edge raised into a ridge near apex, the tip with outwardly directed hook of hairs. Length 1.5 mm, width 1 mm.

I received for study from ZMH a series of topotypes.

FIG. 1-20. 1-2, habitus: (1) Coryphus biroi, topotype; (2) C. niger, holotype. 3-14, antenna: (3) C. biroi, topotype; (4) C. clavatus, Wum; (5) C. niger, holotype; (6) Asymbius minutus, paralectotype; (7) A. rufus, topotypes; (8) A. claviger, lectotype; (9) A. gigas, holotype; (10) A. hamulatus, lectotype; (11) A. marginatus, holotype; (12) A. formosanus, topotypes; (13) Coryphus clavatus, holotype; (14) C. irianus, holotype. 15-17, pronotum: (15) Asymbius gigas, holotype; (16) A. minutus, paralectotype; (17) A. formosanus, topotype. 18, tip of elytra: A. hamulatus, lectotype. 19-20, aedeagi: (19) A. gigas, holotype; (20) Coryphus niger, holotype.



## Asymbius foveicollis Chûjô

Asymbius foveicollis Chûjô, 1974: 1, fig. 1-4. Type series from Tokara I, Naka-no-shima.

I have seen no authentic material but it is evident from the description and figures that this species is very similar to A. formosanus. The oval pit in the pronotal side margin which the author illustrates is also shown by 2 topotypes of A. formosanus now at hand. The angulation of the sides of pronotum appears, from Chûjô's figure, to be more decided than in Csiki's species.

#### Asymbius minutus Arrow FIG. 6, 16

Asymbius minutus Arrow, 1926a: 250. Lectotype O? from W Sumatra: Fort de Kock, 920 m, E. Jacobson (BMNH). Paralectotypes: O? and 36 specimens of unstudied sex with same data as lectotype (BMNH, author).

Reddish brown, legs and base of antenna yellow. Broadly oval, sparsely setose. Antennal club about as long as stalk, articles 4-8 very short, 9-10 but little longer than wide, 11 oval, hardly  $1.5 \times$  as long as wide. Pronotum with sides strongly rounded in front, raised margins there wider and weakly deflexed; lateral sulci long and deep, slightly curved. Length  $1.5 \,\mathrm{mm}$ , width  $1 \,\mathrm{mm}$ .

Arrow cites no external sexual difference. Specimens which I take to be males have parasutural stria deepened on apical slope of elytra.

## Asymbius claviger Arrow FIG. 8

Asymbius claviger Arrow, 1925: 400. Lectotype O? and 1 paralectotype from Tenasserim Tavoy, W. Doherty (BMNH).

Pale yellow, antennal club black. Broadly oval, highly convex, very smooth and shining, with sparse erect hairs, antenna and legs very long and slender. Antennomeres 3-8 short, progressively increasing in width; club longer than stalk, its articles elongate. Pronotum more than 2 × as wide as long, sides narrowly margined, uniformly rounded, lateral sulci strong and deep, transverse sulcus deep. Elytra subhemispherical, margins slightly flattened in front, shoulders rounded, not tumid. In  $\circlearrowleft$  elytral apex is slightly produced. Length 1.75 mm, width 1 mm.

### Asymbius rufus Arrow FIG. 7

Asymbius rufus Arrow, 1925: 401. Lectotype ♂, Darjeeling, E Himalaya, 7000 ft (2134 m), 8.VIII.1909, C. Paiva (BMNH). Paralectotypes: 3 ♂♂, 2 ♀♀ with same data as lectotype; 1 ♀ with same data except 10.VIII.1909; 1 ♀, Gopaldhara, 4720 ft (1440 m), 13.VIII.1914, H. Stevens; 1 ♂, Gopaldhara, 4720-6100 ft (1440-1860 m), 21.V.1918, H. Stevens, all in BMNH.

Chestnut-red, legs and antennal stalk slightly paler. Oval, highly convex, smooth and shining, punctures hardly perceptible, pubescence pale, erect, sparse. Antennal club of  $\mathcal O$  about equal in length to stalk with last article oval, that of  $\mathcal O$  slightly shorter than stalk with last article oblique at tip; also in  $\mathcal O$  stalk articles progressively wider distad. Pronotum transverse, sides narrowly margined, evenly rounded, lateral sulci large and deep, transverse sulcus deep. Elytra with parasutural stria deeply impressed, those of  $\mathcal O$  with minute hook at tip. Length 1.5 mm, width 1 mm.

Through the kindness of Dr Kaszab, I received for study a fine series of this species, collected near Ghum, Darjeeling Distr, by Dr Gy. Topál.

#### Asymbius gigas Strohecker, new species

FIG. 9, 15, 19

Reddish brown, pubescence rather long, yellow. Antenna elongate, stalk red-brown, its articles secularly wider distad, club black, much longer than stalk, its 3 articles narrow, slightly compressed, the last article 3 × as long as wide. Pronotum less than 2 × as wide at base as long, sides evenly rounded to front angles, feebly convergent to base, lateral sulci short and shallow, transverse sulcus deep. Elytra short-oval, slightly more than 1.5 × as wide as pronotum and 3 × as long; parasutural stria evident but not deep. In  $\circlearrowleft$  elytral apex has a small hook of agglutinated hairs. Length 2.1-2.2 mm, width 1.5 mm.

Holotype ♂ (BISHOP 11,118), BORNEO I: Sabah: Tenompok, 1480 m, 17-21.XI.1958, L. W. Quate; allotype ♀ (BISHOP), Tenompok, 15.II.1959, T. C. Maa; paratypes: 11 ♂♂, 5 ♀♀, 17-21.X.1958, 10.I-19.II.1959, Tenompok, Quate, Maa (BISHOP, author).

## Coryphus biroi Csiki

FIG. 1, 3

Coryphus biroi Csiki, 1902: 352. Holotype (sex?) from PNG: New Guinea (NE): Sattelberg (Sattelburg), Huon-Gulf, 1899, Biró in MNM. Topotype (author).

Reddish brown, shining, antennal club blackish brown with tip rufescent. Antennal stalk with 7 articles, 3-6 short-cylindric; club a little longer than stalk, its first 2 articles obconic, the last oval and not much longer than the preceding one. Pronotum more than 2 × as wide as long, sides evenly rounded, margin widened and much deflexed in front, lateral sulci deep and long, triangular, disc rather strongly convex, very finely punctate. Elytra evenly short-oval, strongly convex, disc rather coarsely and densely punctate, parasutural stria rather deep, evanescent basad, deepened on apical slope by elevation of sutural margin; this may be a  $\circlearrowleft$  feature. Length 1.5 mm, width 1 mm.

## Coryphus clavatus Strohecker, new species

FIG. 4, 13

Yellow-brown, antennal club darker brown. Short-oval in form, strongly convex. Antenna about 1/2 as long as body, stalk 7-jointed, articles 4-7 bead-like; club much longer than stalk, its first 2 articles equal, obconic, the last article narrowly oval, somewhat longer than the preceding one. Pronotum slightly more than 2 × as wide as long, sides evenly rounded, margin of equal width throughout as seen from above but widened and deflexed in front; disc very finely punctate; lateral sulci triangular, long. Scutellum triangular, a little transverse. Elytra about 3 × as long as pronotum, slightly longer than wide, sides evenly rounded, narrow side margin hardly visible from above; parasutural stria distinct but not deep; surface rather finely punctate. Length 1.5 mm, width 1 mm.

I have considered the possibility of this being the "other" sex of *C. biroi* but it differs from that species in antennal structure, less deep parasutural stria and finer elytral punctation. Although I have found no external sexual features in the series, it is improbable that all are of one sex.

Holotype (sex?) (BISHOP 11,119), PNG: New Britain: Gazelle Pen., Bainings, St. Paul's, 350 m, 7.IX.1955, J. L. Gressitt; paratypes: Bainings, St. Paul's, 7.IX.1955, Gressitt (1); Keravat, 5 m, jungle, 9.X.1957, Gressitt (1); 135 m, 20-25.XI.1959, T. C. Maa (5); 60 m, 11.IX.1955, Gressitt (1); Jacquinot Bay, Wunung Pl'n., 30.IV.1956, Gressitt (1) (BISHOP, author).

Excluded from the paratype series are singles as follows: PNG: New Guinea (NE): Wum, upper Jimmi Val., 640 m, 17.VIII.1955, Gressitt; Bubia, Markham Val., 50 m, 10.IX.1955, Gressitt; Wanuma, Adelbert Mts, 800-1000 m, 25.X.1958, Gressitt; IRIAN: New Guinea (NW): Biak I, Mokmer, 5-10 m, 26.V.1959, Gressitt.

FIG. 14

## Coryphus irianus Strohecker, new species

Reddish brown, shining, antennal articles 9-10 black, 11 black at base with reddish tip. Pronotum 2 × as wide at base as long, its sides subparallel toward base, broadly rounded to front angles, hind angles rectangular; disc convex, very finely punctate; lateral sulci triangular, reaching middle of disc. Elytra short-oval, about 2.7 × as long as pronotum, about as wide as long, parasutural stria distinct but fine and evanescent near scutellum; surface finely and rather sparsely punctate with correspondingly sparse whitish pubescence. Length 1.5 mm, width 1 mm.

C. irianus is very similar in appearance to C. clavatus, but antenna is 11-jointed with club very little longer than stalk. In both preceding Coryphus the deflexed pronotal side margin is sulcate, i.e., with bounding ridge above and below; in C. irianus this part of the margin is flat and punctate.

Holotype (sex?) (BISHOP 11,120), IRIAN: New Guinea (NW): W Sentani, 90+ m, 26.VI.1959, T. C. Maa.

#### Coryphus niger Strohecker, new species FIG. 2, 5, 20

Undersurface black, legs and abdominal sternites reddish. Antennal stalk reddish yellow, club black with tip of last joint reddish. Upper surface black, elytra with umbo and a broad transverse bar on apical slope yellow; bar extends forward as a ray along suture. Pubescence sparse, erect, gray. Pronotum about  $1.5 \times$  as wide at base as long (somewhat foreshortened in figure), its sides feebly convergent basad, broadly rounded to front, narrowly margined, the margin not at all deflexed; disc strongly convex, very finely punctate; lateral sulci rather short, triangular. Elytra regularly oval, a little longer than wide, punctures relatively coarse and dense; parasutural stria rather deep but not traceable basad beyond apex of scutellum. Length  $1.8 \, \mathrm{mm}$ , width  $1.3 \, \mathrm{mm}$ .

This insect, due in part to its coloration, presents a habitus different from that of other species referred to *Coryphus*, but, excepting its narrow pronotal margins, I see no feature which requires introduction of another generic name.

Holotype ♂ (Bishop 11,121), PNG: New Guinea (NE): Mt Wilhelm, 3000 m, 4.VII.1955, J. L. Gressitt.

#### LITERATURE CITED

- Arrow, G. J. 1925. Fauna British India, Erotylidae, Languriidae and Endomychidae. xv + 416 p., 1 pl., map. London.
  - 1926a. Fauna sumatrensis, Beitrag Nr. 16. Entomol. Mitt. 15: 248-62.
  - 1926b. Notes on oriental Endomychidae and Erotylidae. Entomol. Mitt. 15: 354-58.
- Chûjô, M. 1974. Descriptions of three new species of Endomychid-beetles from the Loo-Choo Archipelago. Bull. Ipn. Entomol. Acad. 8: 1-7.
- Csiki, E. 1902. Endomychidae novae. Természetrajzi. Füzetek 25: 352.
  - 1937. Neue Endomychiden. Entomol. Nachr. 11: 173-74.
- Gorham, H. S. 1896. Viaggio di Leonardo Fea in Birmania e regione vicine, LXIX. Ann. Mus. Civ. Stor. Nat. Genova 36: 257-302.
- Strohecker, H. F. 1956. Notes on Papuan Endomychidae with description of a new genus and species. *Ann. Hist. Nat. Mus. Natl. Hung.* ser. nova 7: 69-70.