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A new Philippine species and taxonomic notes on *Bocchus* Ashmead (Hym., Dryinidae).

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In the Bethyloid material collected by the Noona Dan Expedition (Petersen, 1966) and deposited in the Zoological Museum of Copenhagen, Denmark, I have recognized a considerable number of new species. The two species described below, one as a new species, belong to the genus *Bocchus* Ashmead, 1893, of the subfamily *Bocchinae* C. Nagy, 1967.

This small distinct subfamily of the Dryinidae contains some genera (*Bocchus* Ashmead, *Mystrophorus* Foerster, *Bocchoides* Benoit, and others; see also Richards, 1939, p. 189), the species of which are predators of Homoptera, especially *Bruchomorpha* spp. The *Bocchinae* are predominantly Nearctic and European, with only one species known from the Indo-Australian area and one from Madagascar. The second record of the subfamily from the Indo-Australian region is presented below.

***Bocchus* Ashmead**

Bocchus Ashmead, 1893. Bul. U.S. Natl. Mus., vol. 45, p. 91.

Type-species: *Bocchus flavicollis* Ashmead, 1893, by monotypy and original designation.

Phorbas Ashmead, 1893. Bul. U.S. Natl. Mus., vol. 45, p. 90, preocc.

Type-species: *Phorbas laticeps* Ashmead, 1893, by monotypy.

Eukoebeleia Perkins, 1905. Hawaii. Sugar. Plant. Assoc. Bul., vol. 1, p. 59.

Type-species: *Eukoebeleia mirabilis* Perkins, 1905, by monotypy.

Phorbasia Kieffer, 1914. Das Tierreich, Lief. 41, p. 58.

Proposed as a new name for *Phorbas* Ashmead.

Type-species: *Phorbas laticeps* Ashmead, 1893, automatically.

Neoanteon Fouts, 1922. Philipp. Journ. Sci., vol. 20, p. 633. **New syn.**

Type-species: *Neoanteon rubrica* Fouts, 1922, by monotypy and original designation.

The main characters of the genus are as follows: Eyes long haired, or only with a microscopical pubescence; inner margins carinate, or separated from front with an impression. Front with a longitudinal carina in the middle. Maxillary palpi 6-, labial palpi 3-segmented. Flagellum long and filiform; scapus dentate, or not. Occipital margin complete. Mandibles tridentate, or quadridentate with one of the teeth very small. Abdomen more or less petiolated. Fore tarsi in the female chelate, with only a few spines on the mobile part and without a row of lamellae. Females winged or brachypterous; males always macropterous. Particularly in the pronotum, legs and antennae the coloration is very different in females and males of the known species.

Richards (1939) mentions that these wasps have only three apical teeth in the mandibles. *Neoanteon rubrica* Fouts, 1922, and the new species mentioned below represent an unusual state of this character as they have quadridentate mandibles. However, I do not consider these species generically different.

Provisional key to the species of Bocchus Ashmead

- | | |
|---|---------------------------------------|
| 1. Front tarsi chelate, females | 2 |
| — Front tarsi simple, males | 7 |
| 2. Brachypterous species, abdomen very short petiolate (North America, Ohio) | <i>mirabilis</i> Perkins, 1905 |
| — Winged species, abdomen relatively long petiolate | 3 |
| 3. Body black, eyes with distinct pubescence | 4 |
| — Body partially yellow, testaceous or castaneous; eyes with very short, microscopical pubescence | 5 |
| 4. Scutellum shining, very moderately alutaceous (North America, Arizona) | <i>arizonica</i> Perkins, 1907 |
| — Scutellum not shining, very weakly alutaceous (Europe, Czechoslovakia) | <i>slovacus</i> Strejček, 1964 |
| — Scutellum with long, pale pubescence (Central America, Panama) | ? <i>melanocephalus</i> Cameron, 1888 |
| 5. Scapus dentate (Europe, France) | <i>europaeus</i> Bernard, 1939 |
| — Scapus simple | 6 |
| 6. Body rufo-castaneous all over (Asia, Philippines) | <i>rubricus</i> Fouts, 1922 |
| — Black, pronotum testaceous (Europe, Rumania) | <i>scobiolae</i> C. Nagy, 1968 |
| — Black, pronotum yellow (North America, Michigan) | <i>flavicollis</i> Ashmead, 1893 |
| 7. Abdomen very long petiolate (Asia, Philippines) | <i>pedunculatus</i> sp. n. |
| — Abdomen short petiolate | 8 |

8. Pterostigma of forewing white (North America, Florida)
 *laticeps* Ashmead, 1893
 —. Pterostigma of forewing dark brown (Europe, Rumania)
 *scobiolae* C. Nagy, 1968

The generic position of *melanocephalus* Cameron is not definitively established at present (see also Kieffer, 1914, p. 46).

***Bocchus pedunculatus* sp. n.**

H o l o t y p e. ♂. The Philippines, PALAWAN: Mantalingajan, Pinigisan, 600 m, 4 Sept. 1961, caught in a Malaise insect trap (Noona Dan Exped.). In the Zoological Museum, Copenhagen, Denmark.

D e s c r i p t i o n. Male. Length about 2,8 mm. Body (Fig. 1) black; clypeus, antennae, tegulae, legs and veins yellow; abdomen basally dark castaneous, at apex black. Body covered with long, pale pubescence, especially on the flagellum. Head as long as wide, its sides strongly arched, much wider near the middle than at vertex or behind. Vertex straight in anterior view; occipital carina not very strong, visible in lateral view at slope of vertex. Eyes relatively large, broadly elliptical, with moderately long pubescen-

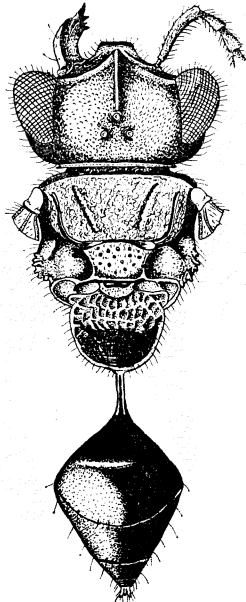


Fig. 1 — *Bocchus pedunculatus* n. sp., male holotype, body dorsal view.

ce; larger diameter of an eye as long as the distance between eyes across front. Mandibles with four apical teeth. Clypeus broad, with prominent, broadly rounded apical margin; median area finely shagreened. Posterior orbital carina of eyes reaches the base of mandibles. Front strongly polished, with irregular reticulate punctures; median carina prominent and shining. Ocellar triangle equilateral; posterior ocelli removed from crest of vertex by a distance slightly longer than width of ocellar triangle. Vertex broadly, weakly rounded off at only a short distance above eye tops. Antennae with a ratio of about 1,5:1:1:1,2 between the first four segments. Flagellar pubescence erect, bristle-like, setae about half as long as width of flagellum.

Pronotum short; propleuron with only a few punctures and four longitudinal carinae. Mesoscutum alutaceous, parapsidal furrows obscurely marked; basal groove of scutellum strongly constricted in the middle. Scutellum shining, with a few moderately large punctures. Propodeum rounded, strongly margined laterally and behind, covered with coarse reticulations. Mesopleuron reticulated; sides of propropodeum shining. Wings hyaline; pterostigma lanceolate, very long; basal vein is distinctly curved. (Distal half of forewing, parts of the veins and hind wing wanting). Claws simple. Petiolus as long as the hind coxae, laterally with two shining, longitudinal carinae forming a longitudinal concavity. Abdomen shining, broad and short, without punctures, only the posterior margins of the tergites with relatively long, erect hairs. Genitalia not studied.

Female unknown.

R e m a r k s. The very long abdominal petiolus does not occur in other known male specimens. The species is of great interest because its mandibles have four apical teeth, exactly as in the following species. It is not likely that it is the male of *rubricus* because the later has the clypeus trilobed, the posterior orbital carina absent, and some other characters clearly different.

***Bocchus rubricus* (Fouts), comb.n.**

Neoanteon rubrica Fouts, 1922. Philipp. Journ. Sci., vol. 20, pp. 634—635, ♀.

Philippines, PALAWAN: Tagembung, 1150 m, 1 ♀, 17 Sept. 1961.

R e d e s c r i p t i o n. Female. Length about 4 mm. Body red-

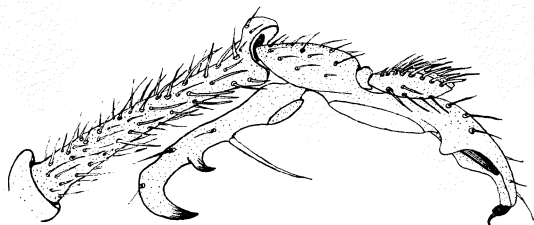


Fig. 2 — *Bocchus rubricus* (Fouts) female, chela of left fore tarsi.

castaneous, yellow are mandibles, antennal segments 1, 2, 7, 8, and legs. Wing venation brown. Mandibles with four strong apical teeth; clypeus trilobed, the median lobe broadly rounded, with prominent apical margin, the clypeal disc finely alutaceous. Ratio between first four antennal segments is about 2,5:1:1,2:1,3; flagellum with short, semi-erect pubescence. Eyes covered with short hairs. Front shining although uniformly alutaceous, punctures small and rather widely spaced; median carina prominent; inner orbits of eyes impressed; antennal scrobes margined. Head with its sides strongly converging and much wider near the front than behind. Ocelli in a long triangle; posterior ocelli as far from occipital carina as a distance two times as long as width of ocellar triangle. Occipital carina complete.

Pronotum short, posteriorly of the constriction shining, anteriorly weakly striate. Mesoscutum polished and densely finely wrinkled in anterior half, alutaceous and covered with small punctures in posterior half. Parapsidal furrows ill-defined, anteriorly represented by two minute grooves. Scutellum and postscutellum shining, finely punctate. Propodeum trapezoidal, distinctly margined behind, disc otherwise covered with rather strong reticulations. The notum sutures marked by a line of punctures. Wings hyaline, with three transversal dark bands; pterostigma elongate, but shorter than the radial vein; basalis curved, subcostalis very long and complete. Fore coxae twice as long as broad; fore trochanters a little thickened distally; fore femora as long as the fore tibiae; fore tarsi with segments 1—3 together as long as tibiae, segments 1 and 4 very long, segment 1 one and half times as long as 4; chelae as in Fig. 2, enlarged claw with a subapical tooth and a median seta. Middle and hind tibiae with a line of setae on the sides; claws simple. Petiolus as long as the hind coxae, circular in section; abdomen shining, only near apex with a few hairs.

Male unknown.

Remarks. Only two specimens of this species are known. The development of the clypeus is unique and immediately separates *rubricus* from other known species. The modifications of the chelae are also unusual. They are partly similar to those of some Anteoninae, but not of generic value. The mandibles are very similar to those of *pedunculatus*, in most other features, however, the two species are very different.

Summary

Bocchus pedunculatus n. sp. is described, and *Neoanteon rubricus* Fouts redescribed. *Neoanteon* Fouts is shown to be the same as *Bocchus* Ashmead, a new synonymy. The genus *Bocchus* is redefined and a key to the species included is presented.

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