# NOTES ON A COLLECTION OF AQUATIC RHYNCHOTA FROM THE BUITENZORG MUSEUM.

By

CEDRIC DOVER

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Through the courtesy of the authorities of the Buitenzorg Museum I have received a small but interesting collection of aquatic Rhynchota from West Java for study, on which I offer the following notes. The localities in which this material was taken are as follows:

Buitenzorg.

Botanical Gardens, 250 M., Buitenzorg.

Tjiomas, Buitenzorg (A. G. VORSTMAN, 10. II. 1927).

Sindanglaia 1000 M., Buitenzorg (A. G. VORSTMAN, 19. IX. 1926).

Tjibodas, Preanger Reg., West Java (W. M. DOCTERS VAN LEEUWEN, I. 1927).

Fish-ponds at Sadang, Garoet, Preanger Reg. (A. G. VORSTMAN, 28. II. 1927).

Bagendit, Garoet, Preanger Reg. (A. G. VORSTMAN, 27. II. 1927).

Verlaten Island, Krakatau Group, Sunda Straits (A. L. SUNIER, 24. IV. 1919).

Lake at Leles, 700 M., Garoet (A. G. VORSTMAN, 26. II. 1927).

Lembang, 1400 M., Bandoeng, W. Java (A. G. VORSTMAN, 22. II. 1927).

## Family **Hebridae.**

### **Hyrcanus capitatus** DISTANT.

1910. *Hyrcanus capitatus* DISTANT, Faun. Brit. Ind. Rhyn. V, Appendix, p. 134, fig. 72.

Tjiomas.

I am particularly pleased at being able to record this species, as the specimen before me is the only Malayan Hebrid I have seen, though some twenty thousand specimens of Malayan aquatic and subaquatic Rhynchota have passed through my hands. The family has not yet been recorded from the Malay Peninsula, and I think this is the first record of its occurrence

in Java. *Hyrcanus capitatus* was previously known only from Sikkim. The Javanese example agrees exactly with DISTANT's description and figure, but is a little smaller (3 mm.) than the Indian one (4 mm.).

### Family **Mesoveliadae.**

### **Mesovelia vittigera** HORVATH.

1895. *Mesovelia vittigera* HORVATH, Rev. d'Ent.. XIV, p. 160.
1915. *Mesovelia vittigera* HORVATH, Ann. Mus. Nat. Hung., XIII, p. 550.
1918. *Mesovelia vittigera* HORVATH, BERGROTH, Philipp. J. Sci., D, XII, p. 121.
1900. *Mesovelia orientalis* KIRKALDY, Ann. Mus. Civ. Gen. XL, p. 808.
1905. *Mesovelia orientalis* KIRK., BREDDIN, Mitt. Nat. Mus. Hamburg, XXII, p. 129.
1904. *Mesovelia mulsanti* BUCH.-WHITE, DISTANT (*nec* BUCH.-WHITE), Faun. Brit. Ind. Rhyn. II, p. 109, fig. 122.
Lembang.

A common and widely distributed species known to most Oriental workers as "*M. mulsanti* BUCH.-WHITE".

### Family **Hydrometridae.**

### **Hydrometra lineatus** ESCH.

1822. *Hydrometra lineatus* ESCH., Entomogr., I, p. 110.
1915. *Hydrometra lineatus* ESCH., BERGROTH, Zool. Med., I, p. 118.
1870. *Hydrometra vittata* STÅL, Öfv. Vet.-Ak. Förh., p. 705.
1904. *Hydrometra vittata* STÅL, DISTANT, (*ex parte*) Faun. Brit. Ind. Rhyn., II, p. 170, fig 123.
Verlaten Island.

BERGROTH shows *H. vittata* STÅL to be the same as *H. lineatus* ESCH., *H. greeni* KIRKALDY from Ceylon (included by DISTANT in *H. vittata*) is quite distinct. Dr. DAMMERMAN does not mention any species of *Hydrometra* in his account of the Krakatau Islands (Treubia, III, 1922), though he records the occurrence of Naucorids and Corixids, which have not been submitted to me. The occurrence of a feeble insect like *H. lineatus* on Verlaten Island is distinctly interesting.

### Family **Veliadae.**

### **Rhagovelia femorata** sp. nov.

An entirely black species, except for the anterior and posterior coxae, trochanters and bases of the femora, the intermediate trochanters, bases of first

antennal joints, and a short transverse fascia on the pronotum anteriorly (not reaching the lateral margins) which are yellowish. Hemelytra (when present) uniformly fuscous brown, the veins darker, slightly passing the apex of the abdomen. Antennae more than half the length of the body, first joint longest, curved, nearly twice as long as second; second shortest; first and second with a few long setiferous hairs; third and fourth almost equal in length, but the fourth a trifle longer, broader than the third and apically acuminate. Head about twice as broad as long, anteriorly and posteriorly transverse; eyes very slightly rounded, inner orbicular margins markedly convergent anteriorly. Intermediate tarsi considerably longer than the posterior tarsi, apically bifurcate, posterior femora thickened, conspicuously spinose along the inner margin, the spines longest in the middle.

Length: 2.5 – 3 mm.

Holotype from the Klang River near Klang Gates, Kuala Lumpur, Selangor, F.M.S. (C. DOVER, 24. VIII. 1926), in the collection of the F.M.S. Museums. A common Malayan species, represented in the Buitenzorg collection from Buitenzorg and Sadang.

This species is closely related to *Rhagovelia nigricans* BURM. (of which I have seen an Indian example determined by PAIVA), but is considerably smaller, the coloration is different, and the second and fourth antennal joints are not subequal, and the latter is shorter than the third. The femoral spines in the present species are very characteristic.

### **Microvelia singalensis** KIRKALDY.

1903. *Microvelia singalensis* KIRKALDY, Entom., XXXVI, p. 180.
1904. *Microvelia singalensis* KIRK., DISTANT, Faun. Brit. Ind. Rhyn. II p. 174.
1905. *Microvelia singalensis* KIRK., BREDDIN, Mitt. Nat. Mus. Hamburg, XXII, p. 129.

Lembang.

With a single specimen before me and no Indian material for comparison, I experience some difficulty (as BREDDIN did) in identifying this insect with certainty. It runs in DE LA TORRE BUENO's synopsis of Indian *Microveliae* (Spolia Zeylanica, XIII, p. 229, 1925) to *M. singalensis* and agrees in most particulars with DISTANT's description, especially in the relative proportions of the antennal joints which, according to DE LA TORRE BUENO, are of fundamental importance. Under the silvery grey pubescence on the anterior margin of the pronotum it possesses, however, a reddish-ochraceous stripe, as mentioned by BREDDIN, and a marking on the head of the same color (characters not mentioned by DISTANT). Moreover the apices of the femora as well as most of the tibiae and tarsi are infuscated, not only the apices of the tibiae and tarsi, as stated by DISTANT. With a long series of specimens I would

have been tempted to differentiate this insect, but we must wait for further material to establish its occurrence or otherwise in Java.

### Perittopus vicarians BREDDIN.

1905. *Perittopus vicarians* BREDDIN, Mitt. Nat. Mus. Hamburg, XXII, p. 129.
Tjibodas.

The specimens before me are from the type-locality, and agree exactly with BREDDIN's original description, the pronotal structure being particularly characteristic. I am still a little uncertain of the status of *P. rufus* DISTANT (Faun. Brit. Ind. Rhyn., II, p. 175, fig. 128, 1904) and *P. breddini* KIRKALDY (Entom., 1901, p. 286) and their relationship to *P. vicarians*, though there can be no doubt that *P. breddini* and *P. vicarians* are distinct. PAIVA (Rec. Ind. Mus., XIV, p. 22, 1918) gives *P. rufus* as a synonym of *P. breddini*, but I would not care to subscribe to this synonymy at present. I have a single macropterous example of *P. breddini* = *P. rufus* (as determined by PAIVA) from Fort Stedman, 3500 feet, Yawnghwe State, Burma, in which the thorax is entirely black, a condition not to be expected in *P. rufus*. The position of *P. rufus* and *P. breddini* does not, however, affect the status of the Javanese species, and I hope to discuss them in greater detai in a forthcoming paper on the aquatic Rhynchota of the Malay Peninsula.

## Family **Gerridae**.

### Gerris nitida MAYR.

1904. *Gerris nitida* MAYR, DISTANT, Faun. Brit. Ind. Rhyn., II, p. 178.I
Botanical Gardens, Buitenzorg.

A common species in India, Burma and Ceylon, but apparently not previously recorded from Java, or from the Malay Peninsula, where it is abundant.

### Gerris fossarum FABR.

1904. *Gerris fossarum* FABR., DISTANT, Faun. Brit. Ind. Rhyn., II, p. 178
Tjibodas; Tjiomas; Lembang; Verlaten Island.

A common Indo-Malayan species. This is the *Gerris* species from a brackish lake (S 22·5%) on Verlaten Island mentioned by DAMMERMAN (Treubia, III, p. 93, 1922). *Gerris fossarum* is one of the few Gerrids which can adapt itself to almost any kind of environment, including brackish water and even the overflow of hot-springs.

### Gerris tristan KIRKALDY.

1904. *Gerris tristan* KIRK., DISTANT, Faun. Brit. Ind. Rhyn., II, p. 179.
1915. *Gerris tristan* KIRK., BERGROTH, Zool. Med., I, p. 120.

1905. *Gerris ysolt* BREDDIN, Mitt. Nat. Mus. Hamburg, XXII, p. 130.
Tjiomas; Lembang; Sadang.

Another widely distributed Indo-Malayan insect. BERGROTH correctly shows that *G. ysolt* BREDDIN is synonymous.

### Ptilomera dromas BREDDIN.

1905. *Ptilomera dromas* BREDDIN, Mitt. Nat. Mus. Hamburg, XXII, p. 131.
Tjiomas; Lembang; Sadang.

This species was originally described from Celebes, and has been recorded by BREDDIN from various localities in Java. In spite of their large size, or probably because of it, the species of *Ptilomera* are very confused, and DISTANT's description of *P. laticaudata* HARDW., which applies to almost any species of *Ptilomera*, has not helped matters. The Indo-Malayan material, therefore, is urgently in need of revision, a good description of the true *P. laticaudata* being particularly required to settle the status of the other described species.

### Ventidius aquarius DISTANT.

1910. *Ventidius aquarius* DISTANT, Ann. Mag. Nat. Hist., (8), V, p. 150.
1910. *Ventidius aquarius* DISTANT, Faun. Brit. Ind. Rhyn., V, Appendix, p. 157, fig. 84.
1918. *Ventidius distanti* PAIVA, Rec. Ind. Mus., XIV, p. 25, pl. VIII, fig. 4.
Botanical Gardens, Buitenzorg.

This is a common species in quiet pools in Malayan hill-streams, though the genus has not previously been recorded from this region. PAIVA's *V. distanti* is based on apterous males, which are very different in coloration from the females. I have taken specimens in Kuala Lumpur, which agree exactly with PAIVA's description and figure, in copulation with specimens as described by DISTANT.

BERGROTH (Ann. Soc. Ent. Belgique, 55, p. 186, 1911) regards *Ventidius* as a synonym of *Metrocoris,* but his opinions are not convincing. From my experience of Indo-Malayan material only I regard it as distinct, but a broader knowledge might cause *Ventidius* to be sunk as a very characteristic sub-genus of *Metrocoris.*

### Rhagadotarsus kraepelini BREDDIN.

1905. *Rhagadotarsus kraepelini* BREDDIN, Mitt. Nat. Mus. Hamburg; XXII p. 137, figs. 12-14.
1918. *Rhagadotarsus kraepelini* BREDD., BERGROTH, Philipp. J. Sci., D. XIII, p. 122.

1925. *Rhagadotarsus kraepelini* BREDD., ESAKI, Philipp. J. Sci., XXVI, p. 60, pl. I, figs. 13-17.
1910. *Nacebus dux* DISTANT, Ann. Mag. Nat. Hist., (8), V, p. 153.
1910. *Nacebus dux* DISTANT, Faun. Brit. Ind. Rhyn. V, Appendix, p. 166.
Botanical Gardens, Buitenzorg; Lembang.

This species is now known to be very widely distributed, being found in most localities in the Oriental Region. Indian workers have hitherto known it as *Nacebus dux* DISTANT.

Family **Nepidae.**

**Ranatra varipes** STÅL.

1910. *Ranatra varipes* STÅL, DISTANT, Faun. Brit. Ind. Rhyn., V; Appendix, p. 316, fig. 177 (of var.).
1905. *Ranatra varipes* STÅL, BREDDIN, Mitt. Nat. Mus. Hamburg, XXII; p. 152.
Botanical Gardens, Buitenzorg; Bagendit; Lake at Leles.

**Ranatra longipes** STÅL.

1910. *Ranatra longipes* STÅL, DISTANT, Faun. Brit. Ind. Rhyn., V; Appendix. p. 315.
1905. *Ranatra longipes* STÅL, BREDDIN, Mitt. Nat. Mus. Hamburg XXII, p. 152.
1924. *Ranatra longipes* STÅL, HALE, Rec. S. Australian Mus., II, p. 578, text-fig. 386, and pl. XXXIV, fig. 8.
Botanical Gardens, Buitenzorg; Lembang.

Both these species are common in Malaya, sometimes occurring in the same ponds. They are readily differentiated from each other by the structure of the forelegs and abdominal appendages (c.f. BREDDIN).

Family **Belostomatidae.**

**Sphaerodema rusticum** FABR.

1906. *Sphaerodema rusticum* FABR., DISTANT, Faun. Brit. Ind. Rhyn., III, p. 36, fig. 23.
Botanical Gardens, Buitenzorg; Bagendit; Sindanglaia; Lake at Leles.
A very abundant insect everywhere in Malaya.

Family **Notonectidae.**

**Enithares indica** FABR.

1906. *Enithares indica* FABR., DISTANT, Faun. Brit. Ind. Rhyn., III, p. 42, fig. 26.
Buitenzorg.

Family **Corixidae.**

**Micronecta quadristrigata** BREDDIN.

1905. *Micronecta quadristrigata* BREDDIN, Mitt. Nat. Mus. Hamburg, XXII. p. 156, fig. 19.

1918. *Micronecta quadristrigata* BREDDIN, BERGROTH, Philipp. J. Sci.; D. XIII, p. 126.

Lembang.

I have identified this common Javanese insect from BREDDIN's description. Like many other aquatic Rhynchota it will eventually be found to be very widely distributed, BERGROTH recording it from the Philippines, while I have taken it in the Malay Peninsula.