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A NEW SPECIES OF *REGATARMA* WOODWARD FROM TASMANIA

(HEMIPTERA: LYGAEIDAE: RHYPAROCHROMINAE)

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(WITH ONE PLATE)

ABSTRACT

The first Australian record of the genus *Regatarma* is noted and the new species *R. tasmaniensis* described and compared with the two New Zealand species. The affinities and distribution of these flightless bugs are discussed.

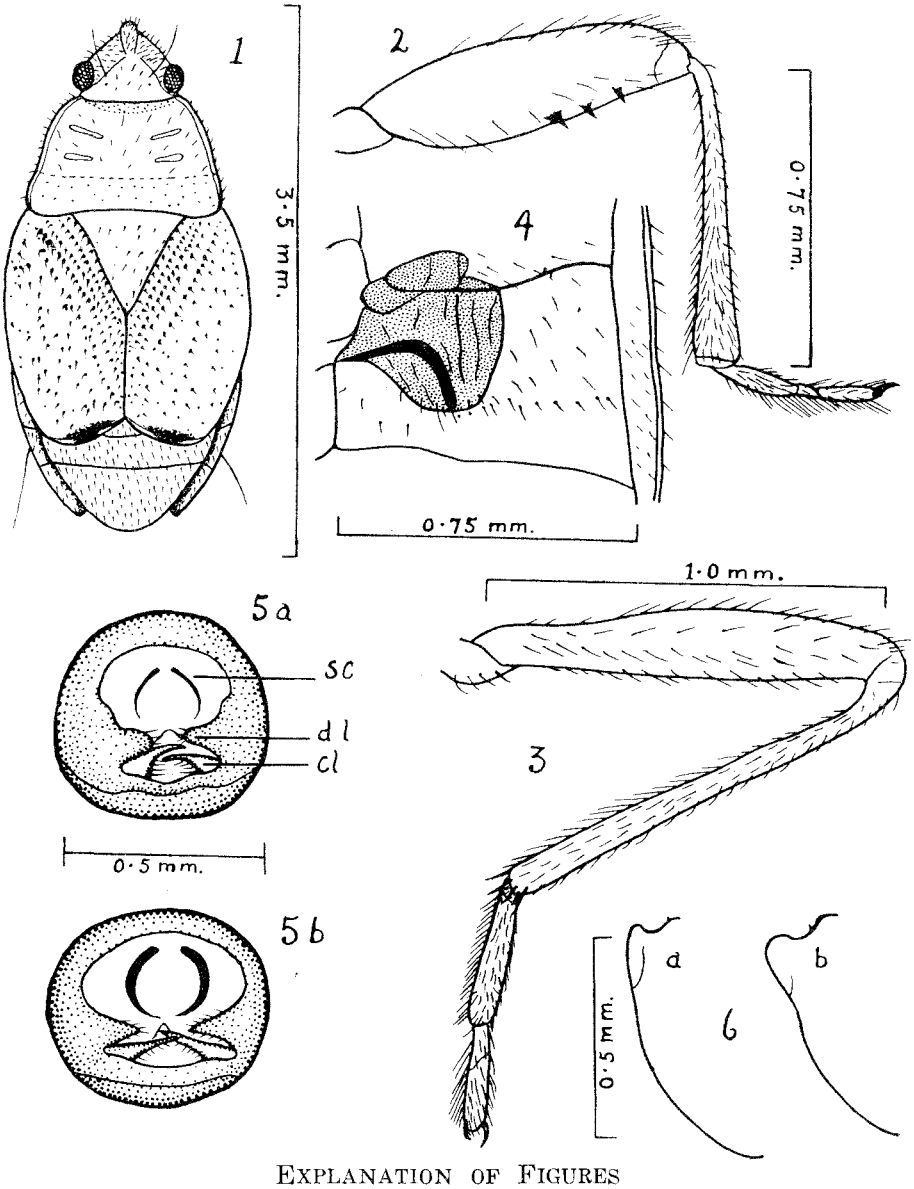
I am very much obliged to all those who gave me information and help on collecting areas in Tasmania and, with especial regard to the present work, in particular to Mr. and Mrs. L. E. Couchman, of Hobart.

The genus *Regatarma* was erected by the writer (1953: 196) to include two sub-brachypterous species occurring in leaf mould and in moss and lichens in New Zealand. The species are flightless, lacking hind wings, and are evidently specialised for life in the forest floor. One species, *R. salmoni,* is monotypic and has been found only near L. Wakatipu in the South Island. *R. forsteri,* on the other hand, extends through the southern and western parts of the South Island and the southern and central parts of the North Island; six subspecies have been distinguished. The three subspecies from the South Island are relatively archaic in having the membranes of the hemelytra better developed than in the northern subspecies and thus approaching more closely the ancestral macropterous condition.

A species of *Regatarma* is now recorded from Tasmania; no members of the genus have been found on the Australian mainland. This fact, together with the relative primitiveness of the more southerly New Zealand subspecies of *forsteri* and the absence of this species from North Auckland, is suggestive of a southern origin for the genus.

Tasmaniensis, moreover, resembles the South Island subspecies in having very broad membranes extending across the whole width of the hemelytra. Like the two subspecies occurring south of Westport, it is also larger than the four more northerly New Zealand forms. *R. salmoni,* though southern, is rather small and with very reduced membranes, but in other respects too this is a relatively highly specialised species.

Numerous other examples are known of groups of animals and plants common to Tasmania and New Zealand and apparently of a southern origin. But in view of the accepted absence of land connections since the Mesozoic and the limited powers of dispersal of these bugs, the occurrence of such closely related species in the two regions nevertheless seems remarkable.



Explanation of Figures

Fig. 1.—*Regatarma tasmaniensis* n. sp., ♂ dorsal.

Fig. 2.—*R. tasmaniensis*, ♂, fore leg, anterior aspect (the most basal femoral spine is often lacking).

Fig. 3.—*R. tasmaniensis*, ♂, hind leg, anterior aspect.

Fig. 4.—*R. tasmaniensis*, venter of left half of metathorax and of posterior part of mesothorax, to show evaporating areas (stippled) and spout of metathoracic orifice.

Fig. 5.—♂ pygophor, dorsal aspect. *cl* right clasper, *dl* dorso-lateral lobe, *sc* sclerotisation of dorsal membrane. *a R. tasmaniensis; b R. forsteri* Woodward.

Fig. 6.—*a* lateral view of posterior margin of pygophor of ♂, *R. tasmaniensis*. *b* the same of *R. forsteri*.

Regatarma can be placed in the tribe Lethaeini Stăl on the basis of its trichobothrial pattern. In the past some workers have merged the Lethaeini with the Rhyparochromini or other tribes and the status and limits of the former have yet to be determined accurately on a world basis.

The material described was collected and extracted by the author from moss and leaf mould by a portable funnel (design of Salmon, 1946).

In proportionate measurements, 75 units = 1 mm.

REGATARMA Woodward, 1953

As with most Rhyparochrominae, the posterior margin of the third abdominal sternum is strongly curved forward at the sides and does not reach the lateral margins; there are two long erect hairs on the crown between the eyes.

The character referred to above as placing the genus in the tribe Lethaeini is: fourth abdominal sternum with three trichobothria on each side, the second remote from the posterior margin of the sternum and closer to the anterior trichobothrium. In all three known species of *Regatarma* the third trichobothrium is much closer to the second than to the posterior margin; the grey, finely granular second and third trichobothrial areas, from which the long sensory setae arise, are contiguous or very nearly so. In this latter feature *Regatarma* resembles *Metagerra* Buch. White, to which it is closely related.

REGATARMA TASMANIENSIS n.sp.

Length.—3·4-3·8 mm. (♂); 4·0-4·25 mm. (♀). Greatest width across closed hemelytra.—1·5-1·6 mm. (♂); 1·8-1·9 mm. (♀). Ratio, length to width.—2·1-2·3. Ratio of basal width of pronotum to its median length.—1·7-1·9. Width of head across eyes.—0·73-0·81 mm. (♂); 0·81-0·83 mm. (♀).

Colour reddish brown. Hemelytra paler, more yellowish than body, with more or less distinct pale spots and streaks, including a longitudinal streak near base, an oblique streak at outer margin of claval area, and usually a subcostal patch before apex; apical margin of corium infuscated, the infuscation extending more or less on to the short membrane, which is otherwise pale. Pronotum with anterior margins and middle of basal margin narrowly infuscated; posterior lobe with a small yellowish streak in mid-line and on each lateral angle. Often a median dark line on anterior pronotal lobe and on scutellum. Antennae testaceous, II and sometimes I more or less infuscated, III and IV often fuscous. Rostrum and legs yellowish brown, the former and the coxae, trochanters, and femora except at apex, darkened. Meso- and metathoracic evaporating areas greyish; spout brown or brownish black. Venter of abdomen infuscated, shining.

Head.—Base of crown with a minutely granular triangular area, the apex directed forward to base of tylus; apex of tylus and sides of head, anterior to antennifers and including bucculae, shining, smooth; rest of head coarsely rugose-granular. Ocelli minute. Eye less than one-third as wide as interocular space (♂, 10: 35; ♀, 11: 40). Bucculae

reaching base of head, but posteriorly converging and becoming very low. Rostrum with segment I reaching base of head; II and III reaching about middle of fore and mid coxae respectively, IV reaching about posterior level of hind coxae; length, I: II: III: IV, as 36: 38: 28: 24 (♂), 41: 42: 33: 28 (♀). Length of antennal segments I: II: III: IV, as 28: 40: 31: 39 (♂), 33: 47: 37: 47 (♀).

Thorax.—Pronotum with anterior margin nearly straight, base broadly concave. Basal width: median length as 95 : 51 (♂), 112 : 60 (♀). Calli inconspicuous, foveae scarcely impressed. The transverse impression separating the anterior and posterior lobes very shallow, obsolescent; lateral margins only very shallowly sinuate between lobes. Punctures of posterior lobe minute, obsolete. *Scutellum* nearly flat, punctures fine and shallow; anterior width: median length :: 56 : 51 (♂), 65 : 65 (♀), 61: 65 (♀). Hairs of scutellum and hemelytra very short, inconspicuous, not obscuring the punctures. *Hemelytra* reaching but not (in specimens seen) completely covering the penultimate of the complete tergites (those with connexival paratergites), and leaving exposed also a triangular median sector of the next tergite in front. Punctures largest and deepest on claval region. Apical margins very broadly rounded, nearly straight, anteriorly converging in mid-line. Membranes extremely short but broad, extending across entire width of apex. Hind wings absent. *Thoracic venter.*—Metathoracic evaporating area nearly oblong, with two longitudinal grooves outside spout and several smaller, more or less oblique grooves and folds; orifice with spout narrowly crescentic; spout not broadened posteriorly, reaching or almost reaching posterior margin of evaporating area. *Legs.*—Front femora with a ventral row of two or three thorn-like spines on apical half (the number may differ on the opposite legs of the same bug). Ventral tubercles of front tibiae of male minute, none spine-like. Length of hind femur 0·9 basal width of pronotum. Hind leg with basitarsus $\frac{1}{2}$-$\frac{3}{4}$ as long again as last two subsegments together.

♂ *Terminalia.*—Dorso-lateral lobes of pygophor with apices broadly, not acutely rounded as seen in dorsal view and with anterior margins markedly concave. Sclerotisations of dorsal membrane of pygophor very narrow. (Fig. 5.) Posterior lip of pygophor (behind lobes), as seen in side view, narrower than in *forsteri* and posterior wall of pygophor beneath it scarcely concave (Fig. 6).

Types.—Holotype ♂, allotype ♀, paratype ♂, Mt. Wellington, Hobart (ex moss, rainforest, near O'Grady's Falls, 26. I. 1955); paratype ♂, same locality (29. I. 1955). Paratype ♂, 2 paratype ♀, near Russell Falls, Mt. Field Nat. Park (ex moss and leaf mould, rain forest, 29. I. 1955). Holotype and allotype deposited in Queensland Museum; paratypes in Australian Museum (Sydney), British Museum (N.H.), Entomology Department, University of Queensland, National Museum of Victoria and the South Australian Museum.

R. tasmaniensis shows very close affinities to the New Zealand species *forsteri*, especially to its southern subspecies. From *salmoni*, both the above species differ in the shape and grooving of the metathoracic evaporating area, the narrower and longer spout, the unridged claval

area, and the shallower foveae and transverse impression of the pronotum. In addition to the differences in male terminalia, noted above, the Tasmanian species may be distinguished from both *forsteri* and *salmoni* by the pronotum being less strongly sinuate at the sides, by the broader and less rounded apical margins of the hemelytra, and the obsolescent tubercles of the fore tibiae of the male. From *forsteri* it also differs in the wider pronotal base in proportion to median length. The ratio is similar in *tasmaniensis* and *salmoni,* but from different causes; in *salmoni* the pronotum is shortened whereas in *tasmaniensis* it is much more widened at the base relative to the anterior width than in either of the New Zealand species. From *salmoni, tasmaniensis* differs also in the much larger membrane, the larger size of the female, and the shorter hairs.

Since writing the above account I have received a further specimen which extends the known range of this species in Tasmania. It was extracted from leaf mould sent by Mr. F. E. Ellis, Director, Queen Victoria Museum, Launceston, and collected by Mr. N. Hoyle, of Perth, Tasmania. To both these gentlemen I wish to extend my thanks. Locality data and some measurements which slightly extend the previous size ranges: Waratah—Corinna (West Coast) (dense rain forest of " Myrtle " (*Nothofagus cunninghami*) and Sassafras, early December, 1955, 1 ♀); length, 3·87 mm.; width of head, 0·80 mm.; hemelytra entirely covering third complete tergite from end.

References

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