

Two New Dorippid Crabs from Australia (Crustacea: Decapoda: Dorippidae)

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ABSTRACT. Two new species of *Dorippe* are named, *D. glabra* from Chambers Bay, Northern Territory and *D. trilobata* from the Admiralty Gulf, Western Australia. A key to Australian species of *Dorippe* is presented.

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The two species of *Dorippe* named here were found among the collection of Dorippinae in the Australian Museum, Sydney. Now seven species of *Dorippe* are known from the Indo-West Pacific region; five species were recognised by Holthuis & Manning (1990) in their revision of the Dorippinae from that region. Only one species of *Dorippe*, *D. quadridens* (Fabricius, 1793), previously had been recorded from Australia.

Both holotypes are in the collections of the Australian Museum, Sydney (AM).

Systematic Account

Dorippe glabra n.sp.

Fig.1

Material. HOLOTYPE, ovigerous female, AM P13363, Chambers Bay, NT, Australia, 12°13'S 131°35'E, Otter trawl, 38 m, A.A. Racek, 7 Nov. 1959.

Diagnosis. Anterolateral margins of carapace, anterior to epibranchial region, smooth, unarmed. Lower orbital margin with 3 spines arranged in row. Carpus of cheliped granular. Merus and carpus of second and third pereopods naked, flattened. Merus of third pereopod 5 times as long as high.

Description. Carapace distinctly sculptured, grooves well marked but shallow, larger tubercles distinct, surface of tubercles granular. Surface of carapace largely smooth and naked, with few scattered short hairs, especially laterally, not obscuring surface ornamentation. Protogastric tubercles each with 4 granules. Mesogastric tubercle bilobed, surface with granules. Urogastric tubercle small, granular. One tubercle on mesial end of ridge anterior to branchial groove. Branchial lobes not markedly swollen, smooth. Lateral branchial tubercle large but smaller than dorsal branchial tubercle, latter largest of all tubercles on carapace. Branchial region also with smaller tubercles posterolateral to dorsal branchial tubercle, connected to it by low carina. Median ridge of cardiac region Y-shaped; posterior tubercle of cardiac region conical,

lateral tubercles low, broad, dimpled. Anterolateral margin of carapace smooth, unarmed anterior to epibranchial region, there with low tubercles.

Frontal teeth low, bluntly triangular, apices broadly rounded, median incision U-shaped. Frontal teeth wider than inner orbital teeth, latter low, apices rounded, extending to base of median incision of front; 1 pair of low postfrontal prominences present. No spinules or granules present on anterior margin of front or on dorsal orbital margin.

Lower orbital margin with row of 3 blunt spines on outer margin of inner orbital tooth, margin with 1 low tubercle below posteriormost spine.

Chela of female (male unknown) with palm higher than long; outer surface of palm almost entirely naked and smooth, some granules visible basally under magnification. Carpus covered with granules, sparsely hairy.

Merus of second pereopod 4 times as long as high, merus of third pereopod 5 times as long as high. Segments of walking legs naked, largely smooth, dorsal ridge of carpus finely granular. Propodus of second pereopod about 3.5 times as long as high, of third pereopod 4 times as long as high. Dactylus slender, curved, longer than propodus on both legs.

Sternites of first and second legs with granular

transverse carinae, interrupted on midline.

Female abdomen with teeth of third and fourth somites rather sharp, median larger and blunter than remainder. Fifth somite lacking indication of median tooth on tuberculated transverse ridge. Gonopore as illustrated.

Size. Unique ovigerous female holotype, carapace length 24.3 mm, carapace width 26.7 mm.

Remarks. This new species can readily be distinguished from the five species of *Dorippe* recognised by Holthuis & Manning (1990). It differs from *D. frasco* (Herbst, 1785) in having granules on the carpus of the cheliped and in having the transverse ridge on the fourth abdominal somite much rougher.

From *D. irrorata* Manning & Holthuis, 1986 it can be distinguished by the smooth palm of the chela, the presence of only three teeth on the lower orbital margin, and in having the anterolateral margin of the carapace unarmed anterior to the epibranchial region. It can be distinguished from *D. quadridens* (Fabricius, 1793) by the naked meri of the second and third pereopods which in *D. quadridens* are setose, often densely so. It differs from *D. sinica* Chen, 1980 in having the meri of the second and third pereopods flattened rather than almost cylindrical and naked rather than hairy and in having

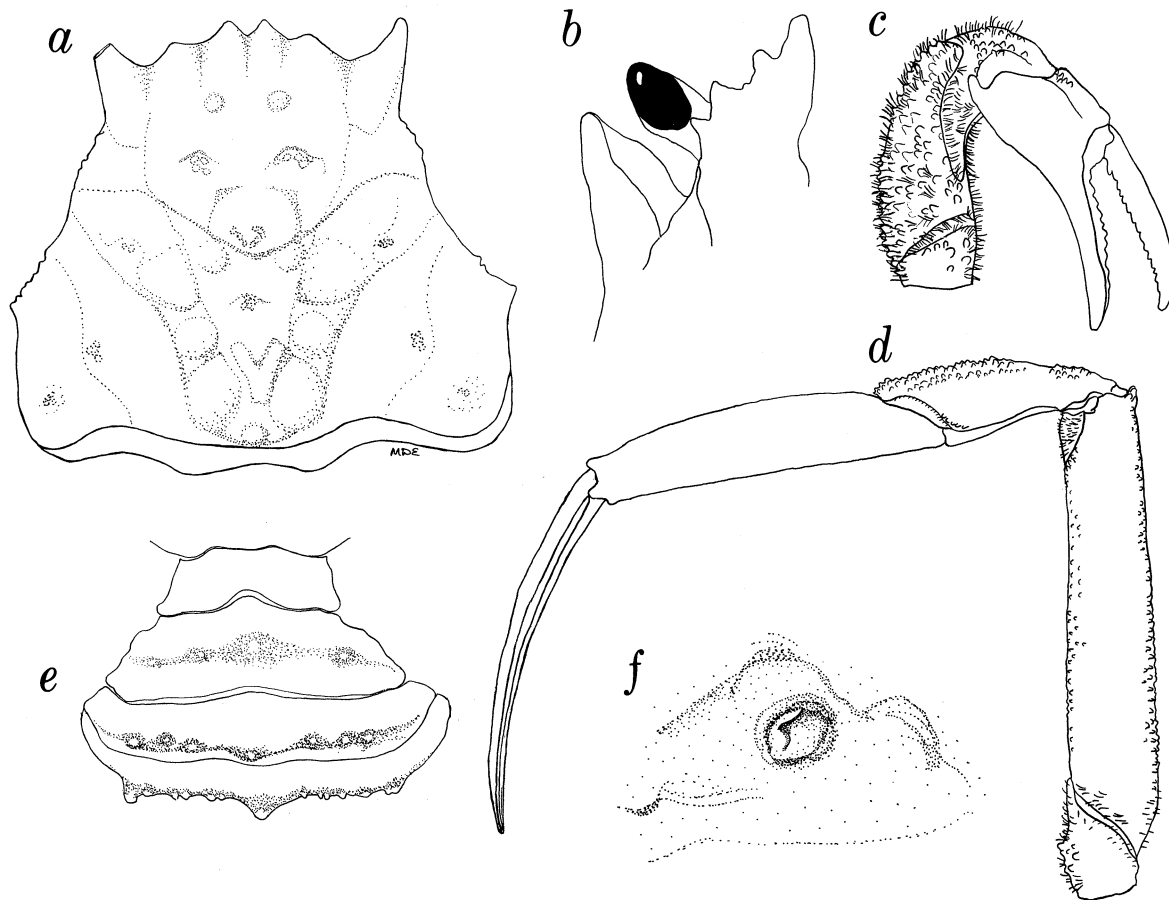


Fig.1. *Dorippe glabra* n.sp., ovigerous female holotype, carapace length 24.3 mm: a, carapace; b, orbit, ventral view; c, cheliped; d, third pereopod; e, abdomen, ventral view; f, gonopore.

the dorsal sculpture of the carapace much less pronounced, with the dorsal tubercles lower. Its short second and third pereopods distinguish it from both *D. tenuipes* Chen, 1980, and the long-legged species described below, *D. trilobata*.

The unique holotype of *D. glabra* was part of a large collection identified as *D. quadridens*. It could be distinguished on sight from all of the other specimens in that lot by the naked meri of its second and third pereopods.

Etymology. The specific name is from the Latin, *glabra*, bare.

***Dorippe trilobata* n.sp.**

Fig.2

Material. HOLOTYPE, male, AM P27124, off Mitchell River,

Admiralty Gulf, Western Australia, 13°52'S 126°45'E, Otter trawl over silty bottom, 18 m, C. O'Connor, 18 Apr. 1978.

Diagnosis. Anterolateral margins of carapace, anterior to epibranchial region, smooth, unarmed. Lower orbital margin with 3 teeth arranged in row. Carpus of cheliped granulate. Merus and carpus of second and third pereopods sparsely setose, flattened. Merus of third pereopod more than 6 times as long as high. Second somite of male abdomen with 3 sharp conical projections.

Description. Carapace appearing naked, grooves deep, larger tubercles low but distinct, latter with sparse setae under magnification. Protogastric, mesogastric and urogastric tubercles low, granular. Of tubercles on ridge anterior to cervical groove, innermost only distinct. Branchial lobes not markedly swollen. Cardiac region with distinct Y-shaped carina, submedian and posterior tubercles low. Lateral branchial tubercle distinct but small, from it line of low granules extending anteriorly;

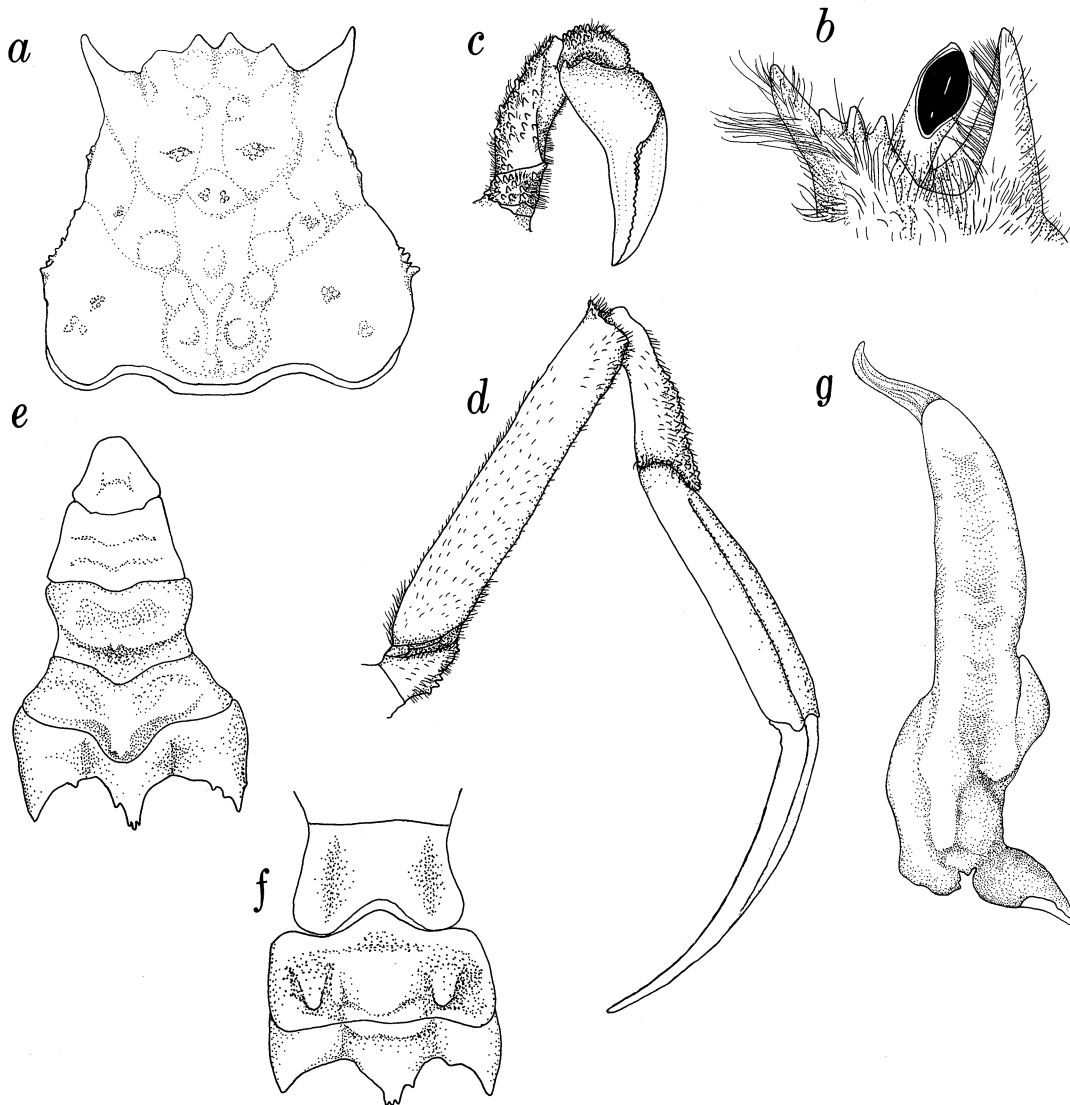


Fig.2. *Dorippe trilobata* n.sp., male holotype, carapace length 20.5 mm: a, carapace; b, orbit, ventral view; c, cheliped; d, third pereopod; e, abdomen, ventral view; f, abdomen, dorsal view; g, gonopod.

mesial dorsal branchial tubercle largest.

Frontal teeth triangular, rounded dorsally. Inner orbital angles wider and shorter than frontal teeth, extending to base of median incision of front. Anterior margin of front and posterior dorsal margin of orbit unarmed. Anterolateral margin of carapace unarmed anterior to epibranchial region, low tubercles present there.

Lower margin of orbit with 3 sharp spines on outer margin of inner suborbital tooth, margin otherwise unarmed.

Chela of male (female unknown) with palm higher than long, outer surface naked and largely smooth, some granules present basally. Carpus with outer surface granular.

Second and third pereopods long and slender. Merus of second pereopod 5.6 times as long as high, merus of third pereopod more than 6 times as long as high; merus of both legs sparsely setose, ornamented with at most few granules. Carpus setose, granular dorsally. Propodus of second pereopod 4 times as long as high, of third pereopod 4.5 times as long as high, naked on both legs. Dactylus longer than propodus on each leg.

Sternites of first 3 pereopods each with transverse carina, interrupted in midline. Second and third somites of male abdomen each with 3 sharp, conical projections,

median projection of second somite widest; fourth somite with distinct median spine; fifth somite with 2 low median elevations, anteriormost larger.

Gonopod as illustrated.

Size. Unique male holotype, carapace length 20.5 mm, carapace width 21.1 mm.

Remarks. This new species resembles *D. tenuipes* Chen, 1980 and with that species differs from all other species of *Dorippe* in having elongate second and third pereopods, with the merus of the third pereopod six or more times longer than high. *Dorippe trilobata* differs from *D. tenuipes* in lacking lateral spines on the carapace anterior to the epibranchial region, in having only three spines on the lower margin of the orbit, and having much stronger and sharper conical tubercles on the second and third somites of the male abdomen; *D. tenuipes* lacks the median spine on the fourth abdominal somite. In addition, the second and third pereopods are not as slender and elongate as in *D. tenuipes*.

Etymology. The specific name is from the Latin, *tri-*, three, and *lobatus*, lobed, referring to the three-lobed projection on the second abdominal somite in the male.

Key to Australian Species of *Dorippe*

- 1. Merus of third pereopod more than 6 times as long as high.....*D. trilobata* n.sp.
- Merus of third pereopod about 5 times as long as high2
- 2. Meri of second and third pereopods covered with pubescence. Lower orbital margin with 5-6 spines*D. quadridens* (Fabricius, 1793)
- Meri of second and third pereopods naked. Lower orbital margin with 3 spines*D. glabra* n.sp.

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