

TALORCHESTIA RECTIMANA (DANA) FROM TAHITI
AND MOOREA *

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Though the specimens of the terrestrial amphipod *Talorchestia rectimana* (Dana) taken by the Pacific Entomological Survey on Tahiti and Moorea in the Society Islands agree in their more important essentials fairly closely with Chevreux's description,¹ there are so many small discrepancies that a new description with detailed figures seems advisable.

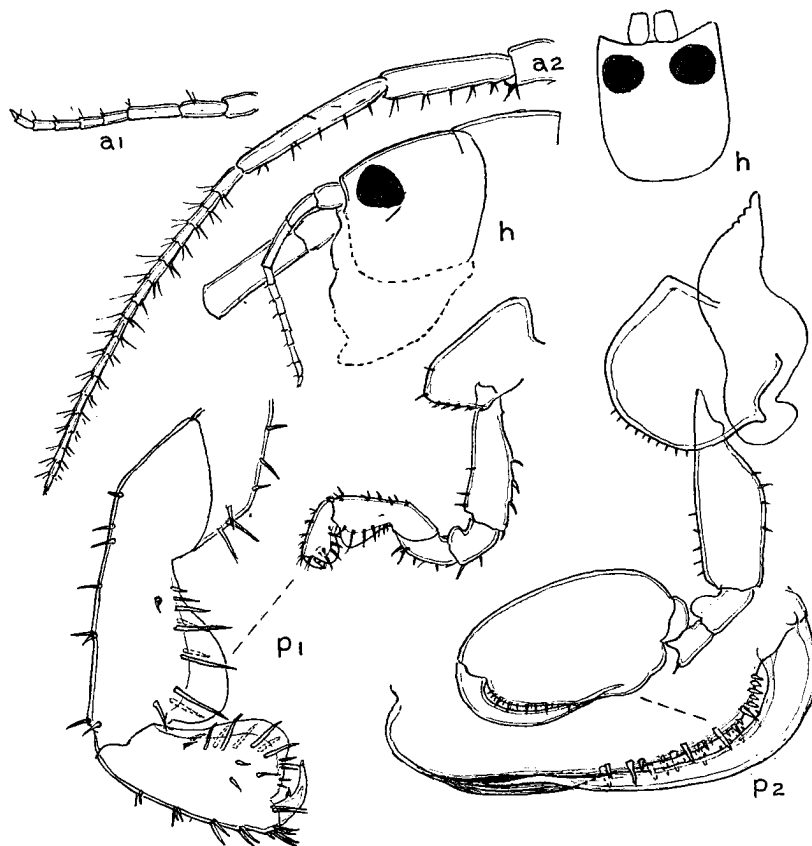


FIGURE 1.—*Talorchestia rectimana* (Dana), male (Vaipuarii Valley, Tahiti): *a1*, *a2*, antennae 1-2; *h*, head; *p1*, *p2*, pereopods 1-2.

¹ Chevreux, Edouard, Amphipodes recueillis dans les possessions Francaises de l'Océanie par M. le Dr. Seurat: Soc. Zool. France, Mem., vol. 20, pp. 470-527, 1907 (1908).

* Pacific Entomological Survey Publication 6, article 30. Issued January 10, 1935.

Genus **TALORCHESTIA** Dana

Talorchestia, Stebbing, Amphipoda I. Gammaridea, Das Tierreich, Lief. 21, p. 543, 1906; Tattersall, Asiatic Soc. Bengal, Calcutta, Mem., vol. 6, p. 454, key to the species, 1922.

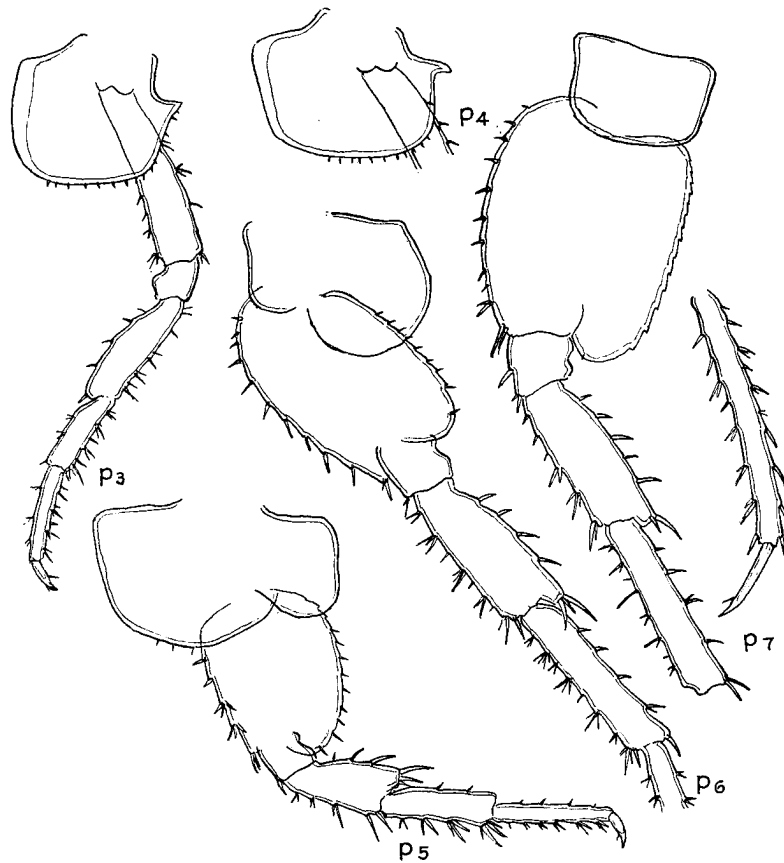


FIGURE 2.—*Talorchestia rectimana* (Dana), male: p3-p7, pereopods 3-7.

Talorchestia rectimana (Dana) (figs. 1-4).

Orchestia rectimana Dana: Am. Acad., Proc., vol. 2, p. 203, 1852. Stebbing: Amphipoda I. Gammaridea, Das Tierreich, Lief. 21, p. 543, 1906. *Orchestia tahitensis*, Dana: U. S. Expl. Exped., vol. 13, p. 877, figs., 1855. *Talorchestia rectimana*, Chevreux: Soc. Zool. France, Mem., vol. 20, p. 495 (literature and synonymy), figs. 1-3, 1907 (1908).

Male

Length 14 mm.

The head is shorter than 1st mesosome segment. The eyes are black, large, pear-shaped, their greatest diameter not fully $\frac{1}{3}$ of the length of the head; separated dorsally by a distance about half as long as the greatest diameter.

Antenna 1 reaches somewhat beyond the penultimate joint of the peduncle of antenna 2 or to about the middle of the ultimate joint; the 2 first joints of the peduncle are equal in length, the 3d joint longer than each of the two first. The flagellum as long as the peduncle, with 6 (smaller specimens 10 mm)—8 joints (larger specimens about 14 mm) (Chevreux, "8 joints").

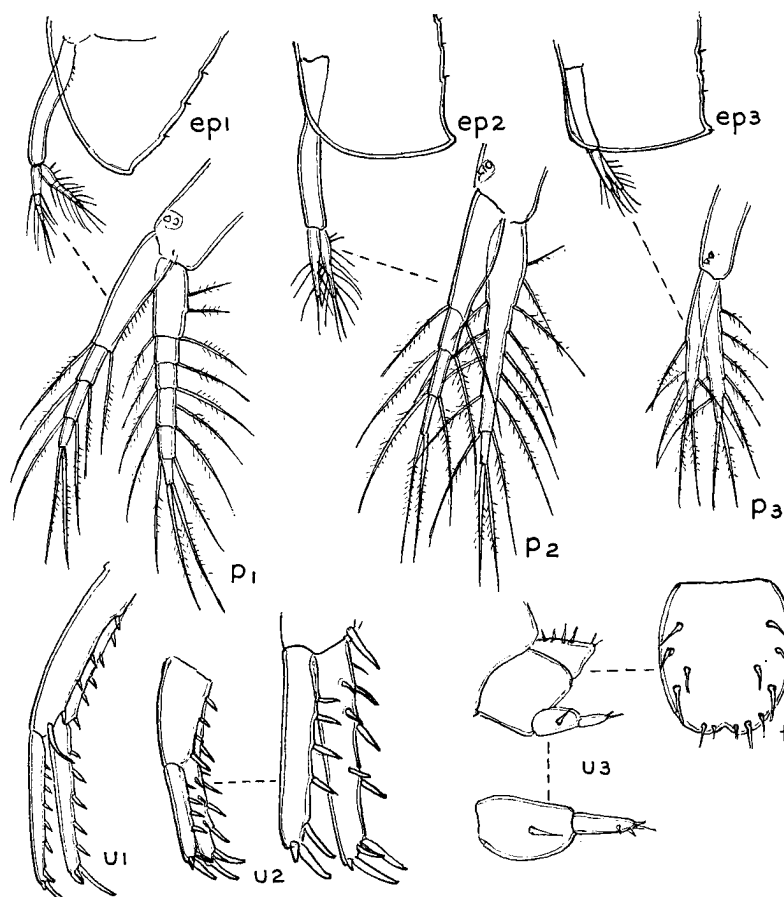


FIGURE 3.—*Talorchestia rectimana* (Dana), male: ep1-ep3, epimeral parts of meta-some segments 1-3; p1-p3, pleopods 1-3; u1-u3, uropods 1-3; t, telson.

Antenna 2 about as long as the head plus the 4 first mesosome segments. The ultimate joint of the peduncle is much longer than the penultimate. The flagellum is somewhat longer than the 3 distal joints of the peduncle, with about 18 joints (in the smaller specimens; in the large males the flagellum is lost; Chevreux, "some more joints than in the female" which has 24 joints).

On the oral parts there is nothing specially to remark; the maxillipeds have a small 4th joint in the palps, quite like that for *Orchestia floresiana*.²

Pereiopod 1 has the side plate small, with spines on the under margin; the limb agrees well with Chevreux. The finger has a spine a little proximally of the center.

Pereiopod 2 has the side plate rather deep, like the two next side plates with a tooth on the hind margin and spines on the under margin. Joint 4 has a process on the under margin. Joints 6 and 7 (the finger) are very characteristic, in good accordance with Chevreux (fig. 2). Pereiopods 3-7 agree well with Chevreux.

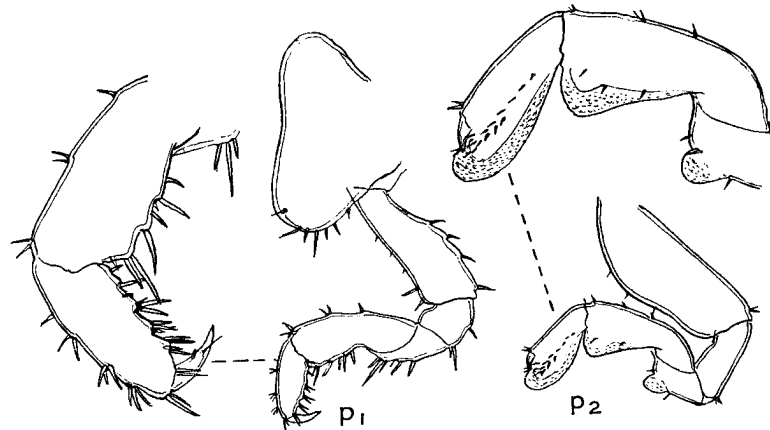


FIGURE 4.—*Talorchestia rectimana* (Dana), female: *p1*, *p2*, pereiopods 1-2.

Metasome segments 1-3 have the lower hind corners somewhat acute, but not sharp-pointed as described by Chevreux; there are traces of very broad serrations on the hind margins. The pleopoda are somewhat degraded, but each has two rami and a pair of minute coupling-spines; the articulation is most distinct in pleopod 1, quite invisible in pleopod 3, and the inner rami are shorter than the outer rami. Pleopod 1 has the rami not much shorter than the peduncle; the inner ramus has 4 pairs, the outer ramus about 6-7 pairs of feathered setae and a couple of unpaired setae. Pleopod 2 is longer than pleopod 1, with the rami not half as long as the peduncle, but with a similar number of setae. Pleopod 3 is not quite as long as the peduncle of pleopod 2, with the rami not much shorter than the peduncle; the inner ramus has only about 3 pairs of setae, but the outer ramus has about 4 pairs. According to Chevreux, pleopoda 2-3 are still more reduced (especially pleopod 3 which has the rami only $\frac{1}{4}$ as long as the peduncle).

Uropods 1-2 agree well with Chevreux, but inner ramus of uropod 2 has spines not only along the margin and at the apex, but also on the lateral side, near the dorsal margin. This character is present also in *Talorchestia japonica* Tattersall.³ Uropod 3 has on the peduncle probably only one spine (Chevreux, 1 long and 1 short spine) and near the apex of the ramus 4 spines.

The telson has almost parallel sides and is somewhat longer than broad (Chevreux, "a trifle broader than long"), distally with a small notch. Dorsally there are about 4 (Chevreux, "5") pairs of spines, and apically 2-3 pairs (Chevreux, "no spines"). The female agrees with Chevreux's description and figures (fig. 4).

² Stephensen, K., Terrestrial Amphipoda (Fam. Talitridae) from the Marquesas: B. P. Bishop Mus., Bull. 142, art. 3, fig. 6.

³ Tattersall, W. M., Asiatic Soc. Bengal, Calcutta, Mem., vol. 6, pp. 435-459, pl. 21, fig. 8, 1922. Not mentioned in the text.

Tahiti: Vaipuarii Valley, altitude 1800 feet, August 18, 1928, 3 males; Papenoo Valley, altitude 350 feet, 7 miles from sea, October 25, 1928, 1 male, 3 females; Hitiaa, altitude 1500 feet, November 20, 1928, about 10 specimens, including 1 male; Adamson.

Moorea: Opunohu Valley, altitude 500 feet, September 29, 1928, about 15 specimens (male, female); Adamson.

This species, which has not been recorded outside the Society Islands, was in 1855 called *Orchestia tahitensis* by Dana. The previously recorded localities are Tahiti, in damp places at 457 meters above sea level, Dana, type locality; Tahiti, under stones in Papenoo Valley, from 100-150 meters; and Tahiti, altitude 2-60 meters (Chevreux). Though a truly terrestrial species, it seems to occur from near sea level (2 meters) up to 600 meters (1800 feet).