3. **Uroptychus australis**, Henderson.

Rep. Anom. Chall. Exped., p. 179, pl. xxi., fig. 4.

Taken at both the preceding stations. Also met with off Port Jackson, and off the Island of Banda.

EXPLANATION OF PLATES XX., XXI.

PLATE XX.

Fig. 1. *Cryptodromia lateralis*, dorsal aspect; × 2.
Fig. 2. " ventral aspect; × 2.
Fig. 3. *Eupagurus novæ-zealandiæ*, front; × 2.
Fig. 4. " right chelipede of a large specimen seen from above; nat. size.
Fig. 5. " right chelipede, upper surface of hand; nat. size.
Fig. 6. *Eupagurus edwardsi*, front; × 2.
Fig. 7. " hand of right chelipede; × 2.
Fig. 8. *Eupagurus kirkii*, front; × 2.
Fig. 9. " right chelipede from above; × 2.
Fig. 10. " " upper surface of hand; × 2.
Fig. 11. *Eupagurus cookii*, front; × 3.
Fig. 12. " right chelipede seen from below; × 3.
Fig. 13. " " upper surface of hand; × 3.

PLATE XXI.

Fig. 1. *Eupagurus traversi*, front; × 3.
Fig. 2. " right chelipede from inside; × 3.
Fig. 3. " " from outside; × 3.
Fig. 4. *Stratiotes setosus*, front; × 2.
Fig. 5. " left chelipede from inside; × 2.
Fig. 6. " " carpos and propodos from above; × 2.
Fig. 7. *Galathea pusilla*; × 2.
Fig. 8. *Petrolisthes elongatus*; nat. size.
Fig. 9. *Petrolisthes novæ-zelandiæ*; nat. size.

ART. XXII.—*Synonymy of the New Zealand* Orchestidæ.

By GEORGE M. THOMSON, F.L.S.

[*Read before the Otago Institute, 15th November, 1898.*]

I HAVE been engaged for a long time past in endeavouring to clear up the confusion which exists as to the various forms of Amphipodous Crustacea belonging to the *Orchestidæ* (the shore-hoppers and their allies) found in New Zealand. Owing to the differences of structure in the males and females, and even among the males themselves at different periods of their development, and to the wide distribution of some of the species,

the same forms have been described by several different authors under a great many names. By the publication of his monograph on the *Gammarini* of the Gulf of Naples in 1893 Della Valle has done excellent service in bringing together in the systematic part of his work the scattered references to these species. I have myself erred not only in the creation of unnecessary new species, but also in wrongly referring my specimens to already existing species, although in the latter case the error was chiefly due to inadequate diagnosis in the first instance. While agreeing with most of Della Valle's work, I find that he has himself fallen into some errors in the opposite directions—errors which, perhaps, were not easily to be avoided by him. Thus two species may be morphologically so alike that it may seem desirable to the systematist—working only from laboratory specimens—to unite them, while the habitat and mode of life of the two forms may be so distinct that we have reason to believe that they are good physiological species. As a case in point, this has been done by Della Valle in uniting *Orchestia tumida* to *O. gammarellus*. There are considerable morphological differences between the two forms, but it is in their habitat and mode of life that they show the most marked dissimilarity.

It is a difficult matter to select any features sufficiently distinctive upon which to found specific diagnosis; hence it becomes a matter both useless and rather misleading to base questions of geographical distribution on such species. After a superficial examination of some thousands, and the dissection and drawing of some hundreds of specimens, I have reduced the number of New Zealand species of *Orchestia* to seven, exclusive of the doubtful *O. serrulata* of Dana. The specimens I formerly referred to this species prove to belong to *O. gammarellus*, and I am doubtful now whether Dana's is a valid species. Among all my large collections, made from many parts of these Islands, I cannot find any which will answer to it. On the other hand, Dana's description will suit either *O. gammarellus* or *O. telluris*, while his figures are not sufficiently detailed to be of much value in classification.

The following are the forms which are represented in New Zealand: *Orchestia*, 7 species; *Hyale*, 4 species; *Hyalella*, 1 species; and *Ceina*, 1 species:—

Genus 1. Orchestia, Leach.

1. **Orchestia gammarellus**, Pallas.

(The full synonymy of this ubiquitous species is given by Della Valle, pp. 499–501, but the New Zealand and Australian references, which have been personally verified, are given herewith.)

1880. *Orchestia macleayana.*
1880. Haswell, Proc. Linn. Soc. N. S. Wales, vol. 4, p. 250, pl. 7, fig. 2.
1882. Haswell, Cat. Aust. Crust., p. 220.

1880. *Talorchestia diemenensis.*
1880. Haswell, *l.c.*, vol. 4, p. 248, pl. 7, fig. 6.
1882. Haswell, *l.c.*, p. 215.

1881. *Orchestia chilensis* (not M.-Edw.).
1881. G. M. Thomson, Trans. N.Z. Inst., vol. 13, p. 209.
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.

1884. *Allorchestes recens.*
1884. G. M. Thomson, Trans. N.Z. Inst., vol. 16, p. 235, pl. 13, figs. 2–5.
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.

1888. *Orchestia selkirkii.*
1888. Stebbing, Rep. Chall. Amph., p. 603, pl. 1 and 2.

Body narrow, rarely dilated, reaching to 20 mm. in length. Limbs with few spines. Second antennæ projecting straight forward from the head, peduncle and flagellum subequal. Coxal plates of 2nd gnathopoda and 1st pereiopoda produced on the posterior margin into an acute apophysis. In the males the 1st gnathopoda have rugose processes on the inferior side of the meros, carpos, and propodos; the 2nd gnathopoda have the basos greatly dilated, and the propodos very broadly oval, with a very oblique palm. The 5th pereiopoda in old males have the meros and carpos much dilated. Pleopoda normal.

Hab.—Usually found under wet stones, sea-weed, &c., between tide-marks, occasionally swimming in rock-pools. Does not appear to burrow in sand.

Locality.—Common round the coasts.

2. **Orchestia chiliensis,** Edwards.

1840. *Orchestia chiliensis.*
1840. M.-Edwards, Hist. Nat. Crust., vol. 3, p. 18.
1852. Dana, U.S. Exped., p. 867, pl. 58, fig. 4.
1862. Sp. Bate, Cat. Brit. Mus. Amph., p. 30, pl. 1*a*, fig. 8, and pl. 5, fig. 2.
1876. Miers, Cat. N.Z. Crust., p. 123.
1893. Della Valle, Gamm. d. G. d. Napoli, p. 498, pl. 2, fig. 8, and pl. 15, figs. 31–38.

1852. *Orchestia spinipalma.*
1852. Dana, Proc. Amer. Ac. Arts Sc., vol. 2, p. 203.
1852. Dana, *l.c.*, p. 875, pl. 59, fig. 4.
1862. Bate, *l.c.*, p. 28, pl. 4, fig. 9.

1853. *Orchestia mediterranea.*
1853. Costa, Rendic. Acc. Sc. Napoli, p. 171.
(For full synonymy see Della Valle, *l.c.*, p. 498.)

1880. *Talorchestia terræ-reginæ.*
1880. Haswell, Proc. Linn. Soc. N. S. Wales, vol. 5, p. 98, pl. 5, fig. 4.
1882. Haswell, Cat. Aust. Crust., p. 217.

Body rather slender, reaching as much as 20 mm. in length, but usually about 12 mm. Limbs with few spines. Second antennæ usually more than half as long as the body, projecting nearly straight forward from the head. Coxal plates of 2nd gnathopoda and 1st pereiopoda produced on the posterior margin into an acute apophysis. In the males the 1st gnathopoda are spinose, and have a small rugose process on the carpos and propodos; the 2nd gnathopoda have the basos narrow, the propodos narrow-oval, and the very oblique palm usually bears a rounded tooth near the hinge of the dactylos. The 5th pereipoda in old males often have the meros and carpos dilated. Pleopoda normal.

Hab.—Under stones, sea-weed, &c., at or below high-water mark.

Locality.—Dunedin, Moeraki, and Wellington. Probably common.

3. **Orchestia telluris**, Sp. Bate.

1862. *Orchestia telluris.*
1862. Sp. Bate, Brit. Mus. Cat., p. 20, pl. 3, fig. 6, and pl. 4, fig. 4.
1876. Miers, Cat. N.Z. Crust., p. 122.
1881. G. M. Thomson, Trans. N.Z. Inst., vol. 13, p. 209.
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.

1893. *Orchestia gammarellus.*
1893. A. Della Valle, Gamm. d. G. d. Napoli, p. 500.

Body compressed, narrow-oval, about 12 mm. in length. Limbs all rather spinose. Second antennæ projecting straight forward from the head, only about one-fourth as long as the body. Coxal plates of 2nd gnathopoda and 1st pereiopoda produced on the posterior margin into an apophysis. In the males the 1st gnathopoda have rugose processes on the

carpos and propodos; the 2nd gnathopoda have a broadly ovate propodos, palm very oblique and with a large triangular tooth near the hinge. The 5th pereiopoda in old males have the meros dilated, and the carpos produced posteriorly into a large rounded plate. Pleopoda diminishing posteriorly; 3rd pair very small

Hab.—On sandy beaches, usually just above high-water mark.

Locality.—Waiwera (north of Auckland) and Otago Harbour. Not common.

Probably Filhol's species, *O. dentata*, should be assigned to this form, but it is impossible to identify it either by his description or figure.

4. **Orchestia aucklandiæ**, Sp. Bate.

1862. *Orchestia aucklandiæ.*
- 1862. Sp. Bate, Brit. Mus. Cat., p. 17, pl. 1*a*, fig. 3.
- 1876. Miers, Cat. N.Z. Crust., p. 121.
- 1881. G. M. Thomson, Trans. N.Z. Inst., vol. 13, p. 208.
- 1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.
- 1893. Della Valle, Gamm. d. G. d. Napoli, p. 505, pl. 57, fig. 65.

1885. *Orchestia ornata* (?).
- 1885. Filhol, Miss. de l'ile Campbell, p. 463, pl. 53, fig. 2.

1885. *Talorchestia armata* (?).
- 1885. Filhol, *l.c.*, p. 460, pl. 53, fig. 3.

Body robust in large specimens, and in old males with transverse ridges at each segment, giving a corrugated appearance; length as much as 28 mm. Limbs with few spines. Second antennæ projecting nearly straight from the head, about half as long as body, very strong. Coxal plate of 2nd gnathopoda and 1st pereiopoda produced on the posterior margin into an acute apophysis. In the males the 1st gnathopoda have rugose processes on the carpos and propodos, the 2nd gnathopoda are broad and dilated distally, palm nearly transverse, defined by a prominent tooth, and often produced into a flattish tooth about the middle. Pleopoda normal.

Hab.—At or below high-water mark, under stones, kelp, &c.; a powerful species, hopping vigorously.

Locality.—Kenepuru (*J. McMahon*), Sumner (*C. Chilton*), Timaru, Dunedin, Stewart Island. Probably common.

5. **Orchestia quoyana**, Edwards.

1840. *Orchestia quoyana.*
- 1840. M.-Edwards, Hist. Nat. Crust., vol. 3, p. 19.
- 1843. White, Dieffenb. N.Z., vol. 2, p. 268.
- 1852. Dana, U.S. Exped., pl. 58, fig. 1.
- 1893. Della Valle, Gamm. d. G. d. Napoli, p. 506, pl. 57, fig. 68.

1840. *Talitrus brevicornis.*
- 1840. Edwards, *l.c.*, vol. 3, p. 15.
- 1843. White, *l.c.*, vol. 2, p. 268.
- 1852. Dana, *l.c.*, p. 854, pl. 56, fig. 6.
- 1862. Bate, Brit. Mus. Cat., p. 9, pl. 1*a*, fig. 6.
- 1876. Miers, Cat. N.Z. Crust., p. 119.
- 1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 146.

1852. *Orchestia (Talitrus) novi-zealandiæ.*
- 1852. Dana, Proc. Amer. Ac. Arts Sc., vol. 2, p. 235.
- 1852. Dana, *l.c.*, p. 852, pl. 56, fig. 5.

1852. *Talorchestia quoyana.*
- 1852. Dana, *l.c.*, p. 846.
- 1862. Bate, *l.c.*, p. 16, pl. 2, fig. 7.
- 1876. Miers, *l.c.*, p. 120.
- 1886. Thomson and Chilton, *l.c.*, vol. 18, p. 146.

1862. *Orchestoidea (?) novi-zealandiæ.*
- 1862. Bate, *l.c.*, p. 10, pl. 1, fig. 2.
- 1878. G. M. Thomson, Trans. N.Z. Inst., vol. 11, p. 235.

1876. *Talitrus (?) novæ-zealandiæ.*
- 1876. Miers, *l.c.*, p. 119.

Body stout and strong, reaching in old males to 29 mm. in length, and in females to 15 mm. Limbs rather thickly furnished with spines. Second antennæ from one-third to two-thirds as long as the body, spreading outwards from the head. Coxal plate of 2nd gnathopoda and 1st pereiopoda produced on the posterior margin into a short apophysis. In the males the 1st gnathopoda have no rugose processes; the 2nd gnathopoda greatly dilated, the inferior margin produced into a large tooth; palm oblique, with a large triangular projection near the joint. Pleopoda very much reduced.

Hab.—On sandy beaches, above high water, usually under masses of old sea-weed, below which it digs its burrows.

Locality.—This is the commonest sand-hopper in New Zealand, and probably occurs on every sandy beach.

6. **Orchestia tumida**, G. M. Thomson.

1885. *Talorchestia tumida.*

1885. G. M Thomson, N.Z. Journ. Sc., vol. 2, p. 577.
1886. G. M. Thomson, MS. (Stebbing), Proc. Zool. Soc. Lond., p. 5.
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.
1887. Stebbing, Trans. Zool. Soc. Lond., vol. 12, p. 202, pl. 39, fig. A.
1889. G. M. Thomson, Trans. N.Z. Inst., vol. 21, p. 260, pl. 13, figs. 4–8.
1892. Chilton, Trans. N.Z. Inst., vol. 24, p. 259.

1885. *Talorchestia cookii.*

1885. Filhol, Miss. de l'ile Campbell, p. 459, pl. 53, fig. 4.

1893. *Orchestia gammarellus.*

1893. A. Della Valle, Gam. d. G. d. Napoli, p. 501.

Body more or less tumid, sometimes in old males nearly globular; reaching to 14 mm. in length. Limbs rather thickly furnished with spines. Second antennæ spreading away from one another, very short, not one-fourth as long as the body. Coxal plates of 2nd gnathopoda and first pereiopoda with the posterior margin straight. In the males the rugose processes on the 1st gnathopoda are scarcely visible; the 2nd gnathopoda have a very tumid propodos, palm very oblique, occupying two-thirds of the lower margin and with a rounded protuberance near the hinge. The 4th pereiopoda (not the 5th) in old males have the meros and carpos dilated. Pleopoda normal.

Hab.—On sandy beaches and sandhills, usually at some distance from the sea.

Locality.—At numerous points on the coast, from Waiwera to Stewart Island.

7. **Orchestia sylvicola**, Dana.

1852. *Orchestia sylvicola.*

1852. Dana, Proc. Amer. Ac. Arts Sc., vol. 2, p. 202.
1852. Dana, U.S. Exped., p. 873, pl. 59, figs. 2, 3.
1862. Bate, Cat. Brit. Mus., p. 21, pl. 3, fig. 7.
1876. Miers, Cat. N.Z. Crust., p. 122.
1881. G. M. Thomson, Trans. N.Z. Inst., vol. 13, p. 209, pl. 7, fig. 4.
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 145.

1852. *Orchestia tenuis.*
1852. Dana, Proc. Amer. Ac. Arts Sc., vol. 2, p. 202.
1852. Dana, U.S. Exped., p. 872.
1862. Bate, *l.c.*, p. 29, pl. 4, fig. 10.
1876. Miers, *l.c.*, p. 123.
1881. G. M. Thomson, *l.c.*, p. 209.

1862. *Orchestia novæ-zealandiæ.*
1862. Bate, *l.c.*, p. 20, pl. 3, fig. 5.
1876. Miers, *l.c.*, p. 121.
1881. G. M. Thomson, *l.c.*, p. 208.

1880. *Talitrus sylvaticus.*
1880. Haswell, Pro. Linn. Soc. N. S. Wales, vol. 4, p. 246, pl. 7, fig. 1.
1882. Haswell, Cat. Aust. Crust., p. 214.
1886. Haswell, Proc. L. S. N.S.W., vol. 10, p. 1, pl. 10, fig. 1.

1880. *Talitrus assimilis.*
1880. Haswell, *l.c.*, vol. 5, p. 97, pl. 5, fig. 1.

1882. *Talitrus affinis.*
1882. Haswell, Cat. Aust. Crust., p. 214.
1886. Haswell, *l.c.*, vol. 10, p. 1, pl. 10, fig. 1.

Body much compressed, reaching to 25 mm. in length, usually only half as long. Spines on the limbs rather few and slender. Second antennæ about a third as long as the body, directed straight forward from the body. Coxal plates of 2nd gnathopoda and 1st pereiopoda produced into an acute apophysis on the posterior margin. Males very seldom met with, showing dimorphism, some resembling the females and a few having rugose processes on the 1st gnathopoda and a large broadly ovoid propodos in the 2nd gnathopoda. Posterior pair of pereiopoda very long. Pleopoda very much reduced in size.

Hab.—Among dead leaves, decayed wood, roots of grass, &c., in the bush, often many miles from the sea.

Locality.—In all parts of the colony.

Genus 2. Hyale, Rathke.

1. **Hyale prevostii**, Edwards.

(I only give here the synonymy as it refers to New Zealand forms of the species; for full synonymy, see Della Valle, Gam. d. G. d. Napoli, p. 519.)

1852. *Allorchestes novi-zealandiæ.*
1852. Dana, U.S. Exp., p. 894, pl. 61, fig. 1.
1862. Bate, Brit. Mus. Cat., p. 37, pl. 6, fig. 3.
1876. Miers, Cat. N.Z. Crust., p. 125.

1879. *Nicea novæ-zealandiæ.*
1879. G. M. Thomson, Trans. N.Z. Inst., vol. 11, p. 235, pl. 10, fig. B1.

1879. *Nicea fimbriata.*
1879. G. M. Thomson, *l.c.*, p. 236, pl. 10, fig. B2.

1886. *Allorchestes neo-zealanicus.*
1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 144.
1889. G. M. Thomson, *l.c.*, vol. 21, p. 260, pl. 13, fig. 3.

1886. *Nicea neo-zealanica.*
1886. Thomson and Chilton, *l.c.*, p. 144.

1888. *Allorchestes georgianus.*
1888. Pfeffer, Krebse v. Süd-Georg., 2 theil, p. 77, pl. 1, fig. 1.

1888. *Hyale prevostii.*
1888. Stebbing, Rep. Chall. Amph., p. 144.

1895. *Hyale novæ-zealandiæ.*
1895. G. M. Thomson, *l.c.*, vol. 27, p. 211.

1895. *Hyale fimbriata.*
1895. G. M. Thomson, *l.c.*, vol. 27, p. 211.

Body stout, reaching to a length of 21 mm. First antennæ reaching slightly beyond the peduncle of the 2nd pair; 2nd antennæ scarcely half as long as body. Coxal plate of 1st gnathopoda having an acute apophysis on the posterior margin; propodos oblong, palm transverse. Second gnathopoda in the female somewhat similar to the 1st pair; in the male the carpos is very short and scoop-like; the propodos is very variable in form, more or less ovoid, with the palm very oblique, usually defined by two spines, and often densely fringed with hairs. Pereiopoda with small setose spines; claws with a fine sensory (?) seta.

Hab.—In rock-pools between tide-marks, and throughout the littoral zone on all parts of the New Zealand coast and the islands lying to the south and south-east as far as Macquarie Island.

This is a widespread species in both hemispheres. I have on several occasions got it from the stomachs of coast-haunting fishes (moki, &c.).

2. **Hyale pontica**, Rathke.

(For full synonymy, see Della Valle, *l.c.*, p. 523, where, however, there is considerable confusion as to some of the forms. Our species is by him mixed up with *H. prevostii*, from which it is quite distinct.)

1879. *Nicea rubra.*

1879. G. M. Thomson, Trans. N.Z. Inst., vol. 11, p. 236, pl. 10, fig. B 3.

1886. Thomson and Chilton, Trans. N.Z. Inst., vol. 18, p. 144.

Body as in *H. prevostii*, but rather more slender, and only from 10–12 mm. in length. First antennæ reaching considerably beyond the peduncle of the 2nd pair; flagellum many-jointed. Second antennæ from half to two-thirds as long as the body; flagellum very many jointed. The coxal plate of the 1st gnathopoda has the posterior margin nearly straight; the propodos is oblong and the palm slightly oblique in both sexes. The 2nd gnathopoda in the males have a large evenly ovate propodos, the palm very oblique, and occupying two-thirds of its lower margin.

Hab.—This species occurs in similar localities to the last—indeed, all the species of *Hyale* live in the littoral zone, and most commonly between tide-marks.

I have it from Dunedin and various points on the east coast of the South Island.

3. **Hyale lubbockiana**, Sp. Bate.

Della Valle has included the species described by Sars (Crust. of Norway, p. 27) as *H. lubbockiana* under *H. pontica*. In this I am convinced he is quite wrong. Sars's figures are very excellent and convincing; unfortunately, Della Valle's are misleading.

The synonymy of the species is to be found in Della Valle (*l.c.*, p. 526).

The form of the body is very similar to that of the last species. The antennæ resemble those of *H. prevostii*. The 1st gnathopoda have the posterior margin of the coxal plate almost entire, with only the trace of an apophysis. In the females the propodos is rectangular in form, and is as long as the two preceding joints; in the males the carpos is transversely greatly developed into a deeply projecting ciliated plate. The 2nd gnathopoda in the males have the basos rather dilated; the propodos is very large and subquadrate, the palm being nearly transverse. The propoda of the pereiopoda have one or two large rugose spines near the extremity; the dactyla are strong, without any sensory seta.

Hab.—One specimen, which I include with hesitation in this species, was taken in a rock-pool on the Ocean Beach, near Dunedin.

4. **Hyale chiltoni**, n. sp.

Body rather slender, 9–11 mm. long; coxal plates rather deep. The 1st antennæ are slightly longer than the peduncle

of the succeeding pair. The 2nd antennæ are about or rather more than half as long as the body; the peduncle and the flagellum are subequal. The 1st gnathopoda have the coxal plate quadrangular, with the posterior margin entire. In the male the carpos sheathes the base of the propodos; the latter is nearly chelate, the lower margin being produced into a rounded lobe, and the dactylos being more than twice as long as the palm. In the female the propodos is quadrangular, about twice as long as broad, the palm transverse and the dactylos short. The 2nd gnathopoda in the male have the carpos reduced to a narrow concave sheath; the propodos is very large and ovoid, and the palm oblique. In the female the carpos is also produced into a large fringed sheath, while the propodos resembles that of the 1st pair, except that it is larger and more square in form. The pereiopoda are nearly unarmed, all the spines being very small.

Hab.—I have taken this very distinct species in rock-pools near Dunedin, and also have it from Lyttelton (*Suter*). A number were sent me from Waipapapa by F. J. Erecson; they were taken from the stomach of a moki.

Genus 3. HYALELLA, S. J. Smith.

Hyalella mihiwaha, Chilton.

1898. Ann. and Mag. Nat. Hist., ser. 7, vol. 1, p. 423, pl. 18, figs. 1–12.

Body stout, with deep side-plates; length, 5 mm. The antennæ are subequal in length. The 1st gnathopoda have a row of long setæ on the carpos. The 2nd gnathopoda in the male have a large rectangular propodos. The 3rd uropoda are very much reduced in size.

Hab.—In fresh-water streams. Probably common on the east coast of Otago at elevations of from near sea-level to 2,000 ft.

Genus 4. CEINA, Della Valle.

Ceina egregia, Chilton.

1883. *Nicea egregia.*
1883. Chilton, Trans. N.Z. Inst., vol. 15, p. 77, pl. 2, fig. 2.

1893. *Ceina egregia.*
1893. Della Valle, Gamm. d. G. d. Napoli, p. 530.

Body compressed, almost carinated, especially in the front. Length, 6–7 mm. Integument harder than in most members of the family. First antennæ about two-thirds as long as 2nd pair; latter about half as long as the body. Second gnathopoda in male chelate. Third uropoda rudimentary and destitute of a ramus.

Hab.—Lyttelton Harbour (*Chilton*) in roots of sea-weeds.