

ART. XXXIII.—*Critical List of the Crustacea Malacostraca of New Zealand.* By GEO. M. THOMSON, F.L.S., and CHAS. CHILTON, M.A.*

PART I.

[Read before the Otago Institute, 10th November, 1885.]

WITHIN the last few years considerable additions have been made to our knowledge of New Zealand *Crustacea*, especially in the *Amphipoda* and *Isopoda*, and as the literature of the subject has become already somewhat scattered, we have thought it advisable to draw up the following concise list, which we think will prove serviceable to students of Carcinology. The synonymy of most of the species is not given in detail, as such a course would unnecessarily swell out the list, but it is as complete as is needed. The distribution in the colony of each species is given as far as it is known.

It is probable that, as a result of renewed and more detailed examination, some of the species here enumerated will have to be struck out, particularly when more attention has been given to the development and metamorphoses of the individuals, and to the sexual differences. At the same time the number of species yet to be described must be very large. One can hardly make a collection, particularly of *Amphipoda*, in any part of New Zealand, without coming across new and distinct forms; and when more systematic dredging is carried out than has hitherto been attempted, the number of such undescribed forms will be materially increased.

NOTE.—Following Professor von Martens' suggestion, the specific name *neo-zelandicus* has been adopted in place of all the various forms of the word meaning "of" or "from New Zealand."

Crustacea Malacostraca.

Order I.—ARTHROSTACA.

Sub-order I. Amphipoda.

Tribe I. Læmodipoda.

1. CAPRELLINA LONGICOLLIS.

Caprella longicollis. Bate (Cat. Brit. Mus. Amph., p. 362, pl. 57, fig. 4).

Caprellina novæ-zealandiæ, Thomson (Trans. N.Z. Inst., vol. xi., p. 247).

Caprellina longicollis, Mayer (Caprelliden d. Golfes Neapel, p. 27).

Hab. Stewart Island, Dunedin, Oamaru, G.M.T.; Timaru, Lyttelton, C.C. (Chili.)

* While quite prepared to take my full share of responsibility for this paper, I wish to state that the whole work of preparing it has been done by Mr. Thomson. I have simply gone over his manuscript, adding fresh localities, and making a few suggestions and additions here and there.—C. C.

2. CAPRELLA AEQUILIBRA.

Caprella aequilibra, Say (Journ. Acad. Philad. i.). Bate (Cat. Brit. Mus. Amph., p. 362, pl. 57, fig. 5). Mayer (Capr. d. G. Neapel, p. 45).

Caprella caudata, Thomson (Trans. N.Z. Inst., vol. xi., p. 246).

Caprella novæ-zealandiæ, Kirk (Trans. N.Z. Inst., vol. xi., p. 392).

Caprella obesa, Haswell (Cat. Austral. Crust., p. 314).

Hab. Dunedin, Oamaru, G.M.T.; Lyttelton, C.C.; Cook Strait, T. W. Kirk. (N. S. Wales, Japan, China, Brazil, South Carolina, Europe.)

3. CAPRELLA LINEARIS.

Caprella linearis, Bate (Brit. Mus., Cat. Amph., p. 353, pl. 55, fig. 17). Mayer (Capr. d. G. Neapel, p. 58).

Caprella lobata, Kirk (Trans. N.Z. Inst., vol. xi., p. 393).

Hab. Cook Strait, T. W. Kirk. (Europe, East Coast of North America.)

4. CYAMUS CETI.

Cyamus ceti, Martens (Voy. Spitzbergen, 1671), etc., etc. Chilton (Trans. N.Z. Inst., vol. xvi. p. 252).

Hab. Parasitic on whales (*Virgina breviceps*), C.C. It appears to be common on various whales (and sharks?). I have it from several localities in the New Zealand seas, G.M.T. On small hump-backed whale, Napier, A. Hamilton.

Tribe II. Crevettina.

Fam. I. Corophiidæ.

5. COROPHIUM CONTRACTUM.

Corophium contractum, Stimpson (Proc. Acad. Nat. Sc. Phil., 1855). Bate (Brit. Mus. Cat. Amph., p. 282). Thomson (Ann. and Mag. Nat. Hist., 5, vol. vi., p. 6; Trans. N.Z. Inst., vol. xiii., p. 220, pl. viii.).

Hab. Dunedin, G.M.T.; Lyttelton, C.C. (Japan.)

6. COROPHIUM CRASSICORNE.

Corophium crassicorne, Bruzelius (Skand. Amph. Gam., p. 15, pl. i., fig. 2). Bate (Brit. Mus. Cat. Amph., p. 282, pl. 47, fig. 6).

Hab. Lyttelton, C.C. (Norway, Britain.)

[This species is taken along with *C. contractum*, and it is probable that they are only male and female of the same species. *C. Bonnellii* (Milne-Edwards) is probably the same as *C. contractum*.—C.C.]

7. **COROPHIUM EXCAVATUM.**

Corophium excavatum, Thomson (Trans. N.Z. Inst., vol. xvi., p. 236, pl. 12, figs. 1-8).

Hab. Brighton, near Dunedin, G.M.T.

8. **COROPHIUM BARBIMANUM.**

Gammarus barbimanus, Thomson (Trans. N.Z. Inst., vol. xi., p. 241).

Corophium lendenfeldi, Chilton (Trans. N.Z. Inst., vol. xvi., p. 262, pl. 20, fig. 1).

Haplocheira typica, Haswell (Proc. Linn. Soc. N.S.W., vol. x., p. 273, p. xi.).

Hab. Dunedin? (specimen in the Otago Museum without locality,) G.M.T.; Lyttelton, C.C. (Sydney, Haswell.)

9. **CYRTOPHIUM CRISTATUM.**

Cyrtophium cristatum, Thomson (Ann. and Mag. Nat. Hist. 5, vol. iv., p. 831, pl. 16, figs. 9-15).

Hab. Dunedin, G.M.T.; Lyttelton, C.C.

10. **PODOCERUS FREQUENS.**

Podocerus frequens, Chilton (Trans. N.Z. Inst., xv., p. 85, pl. 3, fig. 2).

Hab. Lyttelton, C.C.

11. **PODOCERUS LONGIMANUS.**

Podocerus cylindricus, Kirk (Trans. N.Z. Inst., vol. xi., p. 402). Not of Say.

Wyvillea longimanus, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 336, pl. 22, fig. 7).

Podocerus longimanus, Chilton (Trans. N.Z. Inst., vol. xvi., p. 255, pl. 17, fig. 2).

Hab. Lyttelton, C.C.; Wellington, T. W. Kirk. (Port Jackson.)

12. **PODOCERUS LATIPES.**

Podocerus latipes, Chilton (Trans. N.Z. Inst., vol. xvi, p. 258, pl. 19, fig. 2).

Hab. Lyttelton, C.C.

13. **PODOCERUS VALIDUS.**

Cyrtophium validum, Dana (U.S. Explor. Exped., p. 841, pl. 56, fig. 2).

Podocerus validus, Bate (Brit. Mus. Cat. Amph., p. 253, pl. 43, fig. 9.) See also N.Z. Journal of Science, vol. i., p. 517.

Hab. Dunedin, G.M.T. Lyttelton, C.C. (Rio Janeiro.)

14. PARANÆNIA TYPICA.

Paranænia typica, Chilton (Trans. N.Z. Inst., vol. xvi., p. 259, pl. 19, fig. 1).

Hab. Lyttelton, C.C.

15. PARANÆNIA DENTIFERA.

Moera dentifera, Haswell (Proc. Linn. Soc., N.S.W., vol. iv., p. 332, pl. 20, fig. 4).

Paranænia dentifera, Chilton (Trans. N.Z. Inst., vol. xvi., p. 260, pl. 21, fig. 2).

Hab. Lyttelton, C.C. (Port Jackson.)

16. PARANÆNIA LONGIMANA.

Paranænia longimana, Chilton (Trans. N.Z. Inst., vol. xvi., p. 261, pl. 20, fig. 2).

Hab. Lyttelton, C.C.

17. IPHIGENIA TYPICA.

Iphigenia typica, Thomson (Trans. N.Z. Inst., vol. xiv., p. 237, pl. 18, fig. 4).

Hab. Dunedin, G.M.T.; Lyttelton, C.C.

Fam. II. Orchestiidæ.

18. NICEA NEO-ZELANICA.

Nicea novæ-zealandiæ, Thomson (Trans. N.Z. Inst., vol. xi., p. 285).

Hab. Along east coast of Otago, G.M.T.

19. NICEA FIMBRIATA.

Nicea fimbriata, Thomson (Trans. N.Z. Inst., vol. xi., p. 236).

Hab. Dunedin, G.M.T.

20. NICEA RUBRA.

Nicea rubra, Thomson (Trans. N.Z. Inst., vol xi., p. 236).

Hab. Dunedin, G.M.T.; Timaru, Lyttelton, Sumner, C.C.

21. NICEA EGREGIA.

Nicea egregia, Chilton (Trans. N.Z. Inst.).

22. ALLORCHESTES NEO-ZELANICA.

Allorcheses novi-zealandiæ, Dana (U.S. Explor. Exped., p. 894, pl. 61, fig. 1). Bate (Brit. Mus. Cat. Amph., p. 37, pl. 6, fig. 3). Miers (Cat. N.Z. Crust., p. 125).

Hab. Dunedin, Sumner, G.M.T.; Bay of Islands, Dana; Moeraki, T. J. Parker; Lyttelton, C.C.

23. ALLORCHESTES BREVICORNIS.

Allorcheses brevicornis, Dana (U.S. Explor. Exped., p. 893, pl. 60, fig. 8). Bate (Brit. Mus. Cat. Amph., p. 44, pl. 7, fig. 4). Miers (Cat. N.Z. Crust., p. 125).

Hab. Bay of Islands, Dana. [We have not seen this species, G.M.T., C.C.]

24. ALLORCHESTES RECENS.

Allorcheses recens, Thomson (Trans. N.Z. Inst., vol. xvi., p. 235, pl. 18, figs. 2-5).

Hab. Wellington, G.M.T.

25. ORCHESTIA AUCKLANDIÆ.

Orchestia aucklandiae, Bate (Brit. Mus. Cat. Amph., p. 17, pl. 1A, fig. 3). Miers (Cat. N.Z. Crust., p. 121).

Hab. Auckland Island, Stewart Island, G.M.T.; Auckland (Coll. Paris Mus.).

26. ORCHESTIA TELLURIS.

Orchestia telluris, Bate (Brit. Mus. Cat. Amph., p. 20, pl. 3, fig. 6; and pl. 4, fig. 4). Miers (Cat. N.Z. Crust., p. 122).

Hab. Common on sandy shores, from Bay of Islands to Stewart Island, G.M.T.

27. ORCHESTIA CHILENSIS.

Orchestia chilensis, M.-Edw. (Hist. des Crust., t. iii., p. 18).

Bate (Brit. Mus. Cat. Amph., p. 30, pl. 1A, fig. 8; and pl. 5, fig. 2). Miers (Cat. N.Z. Crust., p. 123).

Hab. Common on the sea-coast, G.M.T. (Chili.)

28. ORCHESTIA SERRULATA.

Orchestia serrulata, Dana (U.S. Explor. Exped., p. 871, pl. 58, fig. 7). Bate (Brit. Mus. Cat. Amph., p. 31, pl. 5, fig. 4). Miers (Cat. N.Z. Crust., p. 124).

Hab. Bay of Islands, Dana; Stewart Island, G.M.T.

29. ORCHESTIA SYLVICOLA.

Orchestia sylvicola, Dana (U.S. Explor. Exped., p. 874, pl. 59, figs. 2, 3). Bate (Brit. Mus. Cat. Amph., p. 21, pl. 3, fig. 7). Miers (Cat. N.Z. Crust., p. 122). Thomson (Trans. N.Z. Inst., vol. xiii., p. 208).

Orchestia tenuis, Dana (l.c., p. .) Bate, (l.c., p. 29, pl. 4, fig. 10).

Orchestia novæ-zealandiæ, Bate (l.c., p. 20, pl. 3, fig. 5).

Hab. Common throughout New Zealand, G.M.T., C.C.

30. TALORCHESTIA TUMIDA.

M.S. species, G. M. Thomson. (N.Z. Journal of Science, vol. ii., p. 577.)

Hab. Purakanui, near Dunedin, G.M.T.

31. TALORCHESTIA QUOYANA.

- ♂ *Talorchestia quoynana*, Dana (U.S. Expl. Exped., p. 846).
 Bate (Brit. Mus. Cat. Amph., p. 16, pl. 2, fig. 7).
 Miers (Cat. N.Z. Crust., p. 120).
 ♀ *Orchestia (Talitrus) novi-zealandiae*, Dana (U.S. Expl. Exped., pl. 56, fig. 5).
 ♀ *Orchestoidea (?) novae-zealandiae*, Bate (Brit. Mus. Cat. Amph., p. 10, pl. 1, fig. 2).
 ♀ *Talitrus (?) novae-zealandiae*, Miers (Cat. N.Z. Crust., p. 119).

Hab. Common on all sandy shores in New Zealand, G.M.T., C.C.

32. TALITRUS BREVICORNIS.

- Talitrus brevicornis*, M.-Edw. (Hist. d. Crust., vol. iii., p. 15).
 Dana (U.S. Expl. Exped., pl. 56, fig. 6). Bate (Brit. Mus. Cat. Amph., p. 9, pl. 1A, fig. 6). Miers (Cat. N.Z. Crust., p. 119).

Hab. Bay of Islands, Dana and G.M.T.; Dunedin, G.M.T.

Fam. III. Gammaridæ.

33. GAMMARUS FRAGILIS.

- Gammarus fragilis*, Chilton (Trans. N.Z. Inst., vol. xiv., p. 179, pl. 9, figs. 11–18).

Hab. Eyeoton and Winchester (in wells), C.C.

34. MEGAMÆRA FASCICULATA.

- Megamæra fasciculata*, Thomson (Ann. and Mag. Nat. Hist. 5, vol. vi., p. 5, pl. 1, fig. 5).

Hab. Dunedin and Sumner, G.M.T.; Timaru and Lyttelton, C.C.

35. MÆRA SUB-CARINATA.

- Megamæra sub-carinata*, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 335, pl. 21, fig. 4).

- Mæra petriei*, Thomson (Trans. N.Z. Inst., vol. xiv., p. 236, pl. 18, fig. 3).

Hab. Stewart Island, G.M.T.; Lyttelton, C.C. (Sydney.)

36. MÆRA QUADRIMANA.

- Gammarus quadrimanus*, Dana (U.S. Expl. Exped., p. 955, pl. 65, fig. 9).

- Mæra quadrimana*, Bate (Brit. Mus. Cat. Amph., p. 194, pl. 35, fig. 5). Thomson (Trans. N.Z. Inst., vol. xiv., p. 235, pl. 17, fig. 4).

Hab. Stewart Island, G.M.T. (Fiji.)

37. MÆRA INCERTA.

Mæra incerta, Chilton (Trans. N.Z. Inst., vol. xv., p. 83, pl. 3, fig. 3).

Hab. Lyttelton, C.C.

38. MÆRA SPINOSA.

Mæra spinosa, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 268, pl. 10, fig. 5). Chilton (Trans. N.Z. Inst., vol. xv., p. 81).

Hab. Auckland, C.C. (Tasmania.)

39. MELITA TENUICORNIS.

Melita tenuicornis, Dana (U.S. Expl. Exped., p. 968). Thomson (Trans. N.Z. Inst., vol. xi., p. 241).

Mæra tenuicornis, Bate (Brit. Mus. Cat. Amph., p. 195, pl. 35, fig. 6).

Paramæra tenuicornis, Miers (Cat. N.Z. Crust., p. 127).

Hab. East Coast of Otago, G.M.T.; Timaru, Lyttelton, C.C.; Bay of Islands, Dana.

40. POLYCHERIA OBTUSA.

Polycheria obtusa, Thomson (Trans. N.Z. Inst., vol. xiv., p. 233, pl. 17, fig. 3).

Hab. Stewart Island, G.M.T.; Lyttelton, C.C.

41. HARMONIA CRASSIPES.

Harmonia crassipes, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 330, pl. 19, fig. 3). Chilton (Trans. N.Z. Inst., vol. xv., p. 82).

Hab. Lyttelton, Timaru, C.C. (Sydney.)

42. CRANGONYX COMPACTUS.

Crangonyx compactus, Chilton (Trans. N.Z. Inst., vol. xiv., p. 177, pl. 10, figs. 18–19).

Hab. Eyehton (in wells), C.C.

43. AORA TYPICA.

♂ *Aora typica*, Kroyer (Tidskr., ser. 2, vol. i., p. 328). Bate (Brit. Mus. Cat. Amph., p. 161, pl. 29, fig. 8).

♀ *Microdeutopus maculatus*, Thomson (Ann. and Mag. Nat. Hist. 5, vol. iv., p. 331, pl. 16, figs 5–8).

♂ *Microdeutopus mortoni*, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 339, pl. 22, fig. 2).

♀ *Microdeutopus tenuipes*, Haswell (l.c., p. 339, pl. 22, fig. 1).

♂ *Microdeutopus maculatus*, Chilton (Trans. N.Z. Inst., vol. xiv., p. 73).

Hab. Dunedin, Stewart Island, G.M.T.; Lyttelton, Sumner, Timaru, Auckland, C.C. (Sydney, Valparaiso.)

44. LEUCOTHOË TRAILII.

Leucothoë trailii, Thomson (Trans. N.Z. Inst., vol. xiv., p. 234, pl. 18, fig. 1).

Hab. Stewart Island, G.M.T.; Lyttelton, C.C.

45. SEBA TYPICA.

Teraticum typicum, Chilton (Trans. N.Z. Inst., vol. xvi., p. 257, pl. 18, fig. 1).

Seba typica, Chilton (N.Z. Journ. Sc., vol. ii, p. 320).

Hab. Lyttelton, C.C.

46. EUSIRUS CUSPIDATUS, var. ANTARCTICUS.

Eusirus cuspidatus, Kröyer (Tidskr. 2, vol. i., p. 501, pl. 7, fig. 1). Bate (Brit. Mus. Cat. Amph., p. 154, pl. 28, figs. 6, 7). Var. *antarcticus*, Thomson (Ann. and Mag. Nat. Hist. 5, vol. vi, p. 4).

Hab. Dunedin, G.M.T. (Greenland.)

47. AMPHITHONOTUS LEVIS.

Amphithontus lœvis, Thomson (Ann. and Mag. Nat. Hist. 5, vol. iv., p. 330, pl. 16, figs 1 to 4).

Hab. Dunedin, G.M.T.; Timaru, Lyttelton, C.C.

48. CALLIOPIUS DIDACTYLUS.

Calliope didactyla, Thomson (Trans. N.Z. Inst., vol. xi., p. 240).

Hab. East Coast of Otago, G.M.T.

49. CALLIOPIUS FLUVIATILIS.

Calliope fluviatilis, Thomson (Trans. N.Z. Inst., vol. xi., p. 240).

Hab. Common in streams, ditches, etc., in Otago, G.M.T.; very common in streams, etc., North Canterbury, C.C.

50. CALLIOPIUS SUBTERRANEUS.

Calliopsis subterraneus, Chilton (Trans. N.Z. Inst., vol. xiv., p. 177, pl. 9, figs. 1-10).

Hab. Winchester and Eyreton (in wells), C.C.

51. PHERUSA NEO-ZELANICA.

Pherusa nova-zealandiae, Thomson (Trans. N.Z. Inst., vol. xi., p. 239).

Hab. Dunedin, G.M.T.

52. PHERUSA CERULEA.

Ms. species, G. M. Thomson (N.Z. Journ. of Science, vol. ii., p. 576).

Hab. Stream on the Old Man (Obelisk) Range, Otago, 3,000ft. elevation, G.M.T.

53. ATYLUS DANAI.

Atylus danai, Thomson (Trans. N.Z. Inst., vol. xi., p. 238).

Hab. East coast of Otago, common, G.M.T.; Timaru, Lyttelton, Sumner, C.C.

54. DEXAMINE PACIFICA.

Dexamine pacifica, Thomson (Trans. N.Z. Inst., vol. xi., p. 238).

Hab. Stewart Island, Dunedin, G.M.T.; Lyttelton, C.C.

55. AMPHILOCHUS SQUAMOSUS.

Amphilochus squamosus, Thomson (Ann. and Mag. Nat. Hist., 5, vol. vi., p. 4, pl. 1, fig. 4).

Hab. Dunedin, G.M.T.

56. EDICERUS NEO-ZELANICUS.

Edicerus novae-zealandiae, Dana (U.S. Expl. Exped., p. 934, pl. 63, fig. 7). Bate (Brit. Mus. Cat. Amph., p. 104, pl. 17, fig. 1). Miers (Cat. N.Z. Crust., p. 126).

Hab. Bay of Islands, Dana; I do not know this species, G.M.T.; Lyttelton (identification doubtful), C.C.

57. PHOXUS BATEI.

Phoxus batei, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 259, pl. 9, fig. 3). Thomson (Trans. N.Z. Inst., vol. xiv., p. 232, pl. 18, fig. 2).

Hab. Stewart Island, G.M.T. (Sydney.)

58. BIRCENNA FULVA.

Bircenna fulva, Chilton (Trans. N.Z. Inst., vol. xvi., p. 264, pl. 21, fig. 1).

Hab. Lyttelton, C.C.

59. ANONYX EXIGUUS.

Anonyx exiguus, Stimpson (Mar. Invert. Gr. Manan, p. 51).

Bate (Brit. Mus. Cat. Amph., p. 75, pl. 12, fig. 3).

Thomson (Trans. N.Z. Inst., vol. xiv., p. 232, pl. 18, fig. 2).

Hab. Stewart Island, G.M.T. (E. coast of N. America.)

60. ANONYX CORPULENTUS.

Anonyx corpulentus, Thomson (Trans. N.Z. Inst., vol. xiv., p. 231, pl. 17, fig. 1).

Hab. Stewart Island, G.M.T.

61–63. LYSIANASSA sp.

Lysianassa kroyeri, Bate (Brit. Mus. Cat. Amph., p. 65, pl. 10, fig. 4). Thomson (Trans. N.Z. Inst., vol. xi., p. 237).

The above identification is extremely doubtful; the species referred to it has been found at Dunedin Harbour and Stewart Island, G.M.T. I have at least three species of the genus from

Lyttelton and elsewhere, none of them referable to *L. kröyeri* without considerable doubt, C.C. [Descriptions of these are not published pending the publication of the *Challenger* report on the *Amphipoda*.]

[In the "Zool. Coll. of H.M.S. *Alert*," p. 312, Mr. Miers refers to this genus and species as *Ephippiphora kröyeri* (White), the original designation. Meanwhile the limits of the genus and the characters of the species require complete revision.]

64. PLEUSTES PANOPPLUS.

Pleustes panoplus, Kröyer (Grön. Amf., p. 42). Bate (Brit. Mus. Cat. Amph., p. 63, pl. 9, fig. 9). Kirk (Trans. N.Z. Inst., vol. xi., p. 402).

Hab. Wellington, T. W. Kirk. (Greenland, North Atlantic.)

65. PANOPLÆA SPINOSA.

Panoplaea spinosa, Thomson (Ann. and Mag. Nat. Hist., 5, vol. vi., p. 3, pl. 1, fig. 2).

Hab. Dunedin, G.M.T.; Lyttelton, C.C.

66. PANOPLÆA DEBILIS.

Panoplaea debilis, Thomson (Ann. and Mag. Nat. Hist., 5, vol. p. 3, pl. 1, fig. 3).

Hab. Dunedin, G.M.T.; Lyttelton, C.C.

67. PANOPLÆA TRANSLUCENS.

Panoplaea translucens, Chilton (Trans. N.Z. Inst., vol. xvi., p. 263, pl. 21, fig. 3).

Hab. Lyttelton, C.C.

68. CYPROIDIA (?) CRASSA.

Cypridia (?) crassa, Chilton (Trans. N.Z. Inst., vol. xv., p. 80, pl. 3, fig. 1).

Hab. Lyttelton, C.C. [This species is only placed here provisionally.]

69. PROBOLIUM MIERSII.

Montagua miersii, Haswell (Proc. Linn. Soc. N.S.W., vol. iv., p. 323, pl. 24, fig. 4).

Montaguana miersii, Chilton (Trans. N.Z. Inst., vol. xv., p. 79).

Hab. Timaru, Lyttelton, C.C. (Port Jackson.)

Tribe III. Hyperina.

Fam. I. Phronimidae.

70. PHRONIMA NEO-ZELANICA.

Phronima novæ-zealandiæ, Powell (Trans. N.Z. Inst., vol. vii., p. 294, pl. 21, fig. 1). Miers (Cat. N.Z. Crust., p. 129).

Hab. Common on East Coast of Otago, G.M.T.; Sumner, Powell; West Coast, Haast; Wellington, Kirk.

71. THEMISTO ANTARCTICA.

Themisto antarctica, Dana (U.S. Expl. Exped., p. 1005, pl. 69, fig. 1). Bate (Brit. Mus. Cat. Amph., p. 312, pl. 50, fig. 8). Thomson (Trans. N.Z. Inst., vol. xi., p. 243).

Hab. East Coast of Otago, G.M.T. (Antarctic Ocean.)

Fam. II. Platyscelidae.

72. PLATYSCELUS INTERMEDIUS.

Platyscelus intermedius, Thomson (Trans. N.Z. Inst., vol. xi., p. 244).

Hab. East Coast of Otago, G.M.T.

73. OXYCEPHALUS EDWARDSSI.

Oxycephalus edwardsii, Thomson (Trans. N.Z. Inst., vol. xvi., p. 288, pl. 12, figs. 14 to 21, and pl. 13, fig. 1).

Hab. East Coast of Otago, G.M.T.

74. PHREATOICUS TYPICUS.

Phreatoicus typicus, Chilton (Trans. N.Z. Inst., vol. xv., p. 89, pl. 4).

Hab. Winchester and Eyeoton (in wells), C.C.

[The systematic position of this singular crustacean is doubtful. In general appearance, I was inclined to place it among the *Amphipoda*, but from the fact of the first five pairs of *pleopoda* acting as branchial organs, and from the absence of any such organs attached to the *pereion*, Mr. Chilton places it among the *Isopoda*.—G.M.T.]

Sub-order II.—Isopoda.

Tribe I. Anisopoda.

Fam. I. Tanaidæ.

75. TANAIS NEO-ZELANICA.

Tanais novæ-zealandiæ, G. M. Thomson (Ann. and Mag. Nat. Hist., 5, vol. iv., p. 417, pl. 19; Trans. N.Z. Inst., vol. xiii., p. 207, pl. 7).

Hab. Dunedin Harbour, G.M.T.; Lyttelton, C.C.

76. PARATANAIS TENUIS.

Paratanais tenuis, G. M. Thomson (Ann. and Mag. Nat. Hist., 5, vol. vi., p. 2, pl. 1; Trans. N.Z. Inst., vol. xiii., p. 207).

Hab. Dunedin Harbour, G.M.T.; Lyttelton, C.C.

77. APSEUDES TIMARUVIA.

Apseudes timaruvia, Chilton (Trans. N.Z. Inst., vol. xv., p. 146, pl. 18).

Hab. Timaru, C.C.

78. APSEUDES LATUS.

Apseudes latus, Chilton (Trans. N.Z. Inst., vol. xvi., p. 249, pl. 17).

Hab. Lyttelton, C.C.

79. ANTHURA FLAGELLATA.

Anthura flagellata, Chilton (Trans. N.Z. Inst., vol. xiv., p. 172, pl. 8).

Hab. Lyttelton, C.C.

80. ANTHURA AFFINIS.

Anthura affinis, Chilton (Trans. N.Z. Inst., vol. xv., p. 72, pl. 1).

Hab. Lyttelton, C.C.

81. PARANTHURA COSTANA.

Anthura gracilis, Milne-Edwards (Hist. des Crust., vol. iii., p. 136, pl. 31).

Paranthura costana, Bate and Westwood (Brit. Sessile-eyed Crust., vol. ii., p. 165). Thomson (Trans. N.Z. Inst., vol. xiv., p. 230).

Hab. Mouth of the Taieri River, G.M.T. (English Channel, Mediterranean.)

82. CRUREGENS FONTANUS.

Cruregens fontanus, Chilton (Trans. N.Z. Inst., vol. xiv., p. 175, pl. 10).

Hab. Eyeoton and Winchester, Canterbury, in wells, C.C.

*Tribe II. Euispoda.**Fam. I. Cymothoidæ.*

83. DYNAMENA HUTTONI.

Dynamena huttoni, G. M. Thomson (Trans. N.Z. Inst., vol. xi., p. 234).

Hab. Dunedin, G.M.T.; Timaru, Lyttelton Harbour, C.C.

84. CYMOCEA CORDIFORAMINALIS.

Cymodocea cordiforaminalis, Chilton (Trans. N.Z. Inst., vol. xiv., p. 188, pl. 22).

Hab. Lyttelton, C.C.

85. CYMOCEA GRANULATA.

Cymodocea granulata, Miers (Ann. and Mag. Nat. Hist., 4, vol. 17, p. 229; Cat. N.Z. Crust., p. 114, pl. 3, fig. 5).

Hab. New Zealand, Miers; Flinders Island and Tasmania, [We do not know this.—G.M.T., C.C.]

86. CYMODOCEA CONVEXA.

Cymodocea convexa, Miers (Ann. and Mag. Nat. Hist. 4, vol. xvii, p. 229; Cat. N.Z. Crust., p. 114, pl. 3, fig. 6).

Hab. New Zealand, Miers. [We do not know this.—G.M.T., C.C.]

87. NESA CANALICULATA.

Nesea canaliculata, Thomson (Trans. N.Z. Inst., vol xi., p. 234).

Hab. Dunedin, G.M.T.; Lyttelton, C.C. [Mr. Miers ("Zool. Coll., H.M.S. Alert," p. 309) thinks this belongs to the genus *Cilicæa* of Leach. I cannot set this doubt at rest, as the type appears to have been lost.—G.M.T.]

88. AMPHOROIDEA FALCIFER.

Amphoroidea falcifer, Hutton, M.S. Cat. Thomson (Trans. N.Z. Inst., vol xi., p. 233).

Hab. Dunedin and Stewart Island, G.M.T.; Lyttelton, C.C. (Perhaps this is *A. typica*.—M.-Edwards.)

89. CERATOHOA IMBRICATA.

Ceratohoa banksii, Miers (Cat. N.Z. Crust., p. 105).

Ceratohoa trigonocephala, Heller (Reise der Novara, Crust., p. 148). Thomson (Trans. N.Z. Inst., vol. xi., p. 233).

Ceratohoa imbricata, Miers (Zool. Col. H.M.S. Alert, p. 300, where the full synonymy of the species is to be found).

Hab. New Zealand, Miers; Dunedin, G.M.T. (Australia, India, China.)

90. CERATOHOA LINEATA.

Ceratohoa lineata, Miers (Ann. and Mag. Nat. Hist. 4, vol. xvii., p. 227; Cat. N.Z. Crust., p. 105).

Hab. New Zealand, Miers. [We do not know this species, G.M.T., C.C.]

91. ÆGA NEO-ZEALANICA.

Æga novæ-zealandiæ, Dana (U.S. Explor. Exped., p. 767, pl. 51). Miers (Cat. N.Z. Crust., p. 108).

Hab. Bay of Islands, Dana; Dunedin and Stewart Island, G.M.T.; Lyttelton Harbour, C.C.; Moeraki, T. J. Parker.

92. PSEUDÆGA PUNCTATA.

Pseudæga punctata, G. M. Thomson (Trans. N.Z. Inst., vol. xvi., p. 234, pl. 12).

Hab. Dunedin, G.M.T.

93. LIRONECA NEO-ZELANICA.

Lironeca novæ-zealandiæ, Miers (Ann and Mag. of Nat. Hist. 4, vol. xvii., p. 227; Cat. N.Z. Crust., p. 106, pl. 3, fig. 2).

Hab. New Zealand, Miers; Dunedin, G.M.T.; Lyttelton Harbour, C.C.

94. NEROCILA MACLEAVII.

Cilonera macleayii, Leach [?] (White in Dieffenb. Voy. N.Z., vol. ii., p. 268).

Nerocila imbricata (List Crust. Brit. Mus., p. 108). Miers (Cat. N.Z. Crust., p. 107).

Hab. New Zealand, Fabr. [We do not know this species, G.M.T., C.C.]

95. CIROLANA ROSSI.

Cirolana rossii (List Crust. Brit. Mus., p. 106). Miers (Ann. and Mag. Nat. Hist. 4, vol. xvii., p. 228; Cat. N.Z. Crust., p. 109, pl. 3, fig. 3).

Hab. Auckland Islands, Miers; G.M.T.; Lyttelton Harbour, C.C.

96. SEROLIS PARADOXA.

Serolis paradoxa, And. and M.-Edw. (Archiv. Mus. Hist. Nat., vol. ii., p. 28). Miers (Cat. N.Z. Crust., p. 116, which see for synonymy). Beddard (N.Z. Journ. Sc., vol. ii., p. 390).

Hab. New Zealand? (Coll. Brit. Mus.). (Patagonia.)

97. SEROLIS SCHYTHEI.

Serolis schythei, Lüthen (Naturh. Foren. bidensk, p. 98). Beddard (N.Z. Journ. Sc., vol. ii., p. 390).

Hab. New Zealand? (Brit. Mus. Coll.) (Patagonia).

98. SEROLIS BROMLEYANA.

Serolis bromleyana, v. Willemoes-Suhm (Proc. Roy. Soc., vol. xxiv., p. 585). Beddard (N.Z. Journ. Sc., vol. ii., p. 390).

Hab. East of New Zealand; 900 and 1,100 fathoms, Beddard.

99. SEROLIS LATIFRONS.

Serolis latifrons (List Crust. Brit. Mus., p. 186). Miers (Ann. Mag. Nat. Hist., 4, vol. .., p. 74; Cat. N.Z. Crust., p. 117, pl. 3, fig. 7).

Hab. Auckland Islands (Coll. Brit. Mus.). [We do not know any of the above four species.—G.M.T., C.C.]

100. SCUTULOIDEA MACULATA.

Scutuloidea maculata, Chilton (Trans. N.Z. Inst., vol. xv., p. 70, pl. 1).

Hab. Lyttelton, Timaru, C.C.

Fam. II. Sphæromidæ.

101. SPHÆROMA GIGAS.

Sphæroma gigas, Leach (Dict. Sci. Nat., vol. xii., p. 346). M.-Edw. (Hist. Nat. Crust., vol. iii., p. 205). Miers (Cat. N.Z. Crust., p. 110).

Hab. Common round the coasts of New Zealand, and at the Auckland Islands, G.M.T., C.C. (Falkland Islands, and Cape Horn.)

102. SPHÆROMA VERRUCAUDA.

Sphæroma verrucauda (List Crust. Brit. Mus., p. 102). Dana (U.S. Explor. Exped., Crust., part ii., p. 779, pl. 53). Miers (Cat. N.Z. Crust., p. 111).

Hab. New Zealand (Coll. Brit. Mus.); Bay of Islands, Dana. (Australia.) [I do not know this species.—G.M.T.]

103. SPHÆROMA OBTUSA.

Sphæroma obtusa, Dana (U.S. Explor. Exped. Crust., part ii., p. 779, pl. 53). Miers (Cat. N.Z. Crust., p. 112).

Hab. Bay of Islands, Dana; G.M.T.; Lyttelton (?), C.C.; Campbell Island, G.M.T.

104. ISOCLADUS ARMATUS.

Sphæroma armata, M.-Edw. (Hist. Nat. Crust., vol. iii., p. 210). White (Dieffenb. New Zeal., vol. ii., p. 268). Dana (U.S. Explor. Exped., Crust., vol. ii., p. 780, pl. 52).

Isocladus armatus, Miers (Cat. N.Z. Crust., p. 112).

Hab. New Zealand (Coll. Mus. Paris); Bay of Islands, Dana; G.M.T.

105. ISOCLADUS SPINIGER.

Sphæroma spinigera, Dana (U.S. Explor. Exped., Crust., vol. ii., p. 780, pl. 52).

Isocladus spiniger, Miers (Cat. N.Z. Crust., p. 113, pl. 3).

Hab. New Zealand (Coll. Brit. Mus.); Bay of Islands, Dana; Lyttelton, C.C. [I do not think I know this form, G.M.T.]

Fam. III. Idoteidæ.

106. IDOTEA MARINA.

Oniscus marinus, Linn. (Fauna Suecica, p. 500), etc.

Idotea marina, Miers (Journ. Linn. Soc., vol. xvi., p. 25; which see for complete synonymy).

Hab. Coast of New Zealand (M. Petit, in Paris Mus. Coll.).

107. IDOTEA METALLICA.

Idotea metallica, Bosc. (Hist. Nat. Crust., vol. ii., p. 179, pl. 15). Miers (Journ. Linn. Soc., vol. xvi., p. 35).

Idotea argentea, Dana (U.S. Explor. Exped. Crust., vol. ii., p. 698, pl. 46). Miers (Cat. N.Z. Crust., p. 92).

Hab. New Zealand (?), Dana.

108. IDOTEA MARGARITACEA.

Idotea margaritacea, Dana (U.S. Explor. Exped. Crust., vol. ii., p. 700, pl. 46). Miers (Cat. N.Z. Crust., p. 92; Journ. Linn. Soc., vol. xvi., p. 38).

Hab. Between Australia and New Zealand, Dana.

[We do not know the preceding three species, G.M.T., C.C.]

109. IDOTEA LACUSTRIS.

Idotea lacustris, G. M. Thomson (Trans. N.Z. Inst., vol. xi., p. 250). Miers (Journ. Linn. Soc., vol. xvi., p. 39).

Hab. Tomahawk lagoon, near Dunedin, Hutton; G.M.T. (Port Henry, Straits of Magellan ?)

110. IDOTEA UNGULATA.

Idotea unguilata, Lam. (Hist. Anim. sans Vert., v., p. 160). Miers (Journ. Linn. Soc., vol. xvi., p. 52).

Idotea affinis, M.-Edw. (Hist. Nat. Crust., vol. iii., p. 133). Miers (Cat. N.Z. Crust., p. 93). Thomson (Trans. N.Z. Inst., vol. xi., p. 232).

Hab. Common round the coasts of New Zealand, G.M.T., C.C.

111. IDOTEA ELONGATA.

Idotea elongata (List Crust. Brit. Mus., p. 95). Miers (Ann. Mag. Nat. Hist., 4, vol. xvii., p. 225; Cat. N.Z. Crust., p. 93, pl. 2; Journ. Linn. Soc., vol. xvi., p. 54).

Hab. Auckland Islands (Coll. Brit. Mus.); Auckland (Coll. Paris Mus.); Lyttelton, C.C.; Akaroa, R. M. Laing.

112. IDOTEA FESTIVA.

Idotea festiva, Chilton (N.Z. Journ. of Science, vol. ii., p. 320; Ann. Mag. Nat. Hist., 5, vol. , p. 123, pl. 5A, figs. 1 to 3).

Hab. Sumner, near Christchurch, C.C.

113. EDOTIA DILATATA.

Edotia dilatata, G. M. Thomson (Trans. N.Z. Inst., vol. xvi., p. 235, pl. 12).

Hab. Auckland, T. F. Cheeseman.

114. CLEANTIS TUBICOLA.

Cleantis tubicola, Thomson (N.Z. Journ. of Science, vol. ii., p.).

Hab. Auckland, R. Gillies.

115. ARCTURUS TUBERCULATUS.

Arcturus tuberculatus, Thomson (Ann. Mag. Nat. Hist., 5, vol. iv., p. 416, pl. 19; Trans. N.Z. Inst., vol. xiii., p. 206, pl. 7).

Hab. Dunedin Harbour, G.M.T.; Lyttelton Harbour, C.C.

Fam. IV. Asellidæ.

116. JÆRA NEO-ZELANICA.

Jæra novæ-zealandiæ, Chilton (Trans. N.Z. Inst., vol. xv., p. 189).

Hab. Lyttelton, C.C.

117. LIMNORIA SEGNIS.

Limnoria segnis, Chilton (Trans. N.Z. Inst., vol. xv., p. 76, pl. 2).

Hab. Lyttelton, C.C.

118. JANIRA LONGICAUDA.

Janira longicauda, Chilton (Trans. N.Z. Inst., vol. xvi., p. 250, pl. 18).

Hab. Lyttelton, C.C.

119. STENETRIUM FRACTUM.

Stenetrium fractum, Chilton (Trans. N.Z. Inst., vol. xvi., p. 251, pl. 18).

Hab. Lyttelton, C.C.

Fam. V. Oniscidæ.

120. LIGIA NEO-ZELANICA.

Ligia novæ-zealandiæ, Dana (U.S.Explor. Exped., Crust., vol. ii., p. 739, pl. 49). Miers (Cat. N.Z. Crust., p. 103).

Hab. Bay of Islands, Dana. [I do not know this species, G.M.T.]

121. LIGIA QUADRATA.

Ligia quadrata, Hutton (M.S. Cat. N.Z. Crust.). Thomson (Trans. N.Z. Inst., vol. xi., p. 232).

Hab. Bay of Islands, Waiwera, Dunedin, Stewart Island, G.M.T.; Lyttelton, Sumner, C.C.

122. PHILYGRIA ROSEA.

Itea rosea, Koch (Contin. Panzer Deutsch. Ins., 162, 16; Deutsch. Crust., 22, 16).

Philougria rosea, Kinahan (Nat. Hist. Rev., vol. v., p. 197, pl. 23). Bate and Westwood (Brit. Sess.-eyed Crust., vol. ii., p. 460). Chilton (Trans. N.Z. Inst., vol. xv., p. 73).

Hab. Canterbury generally, and Lake Wakatipu, C.C.; Nelson (in a cave), J. C. Gully. (Britain, Germany.)

123. PHILYGRIA THOMSONII.

Philougria thomsoni, Chilton (N.Z. Jour. Sci., vol. ii., p.).

Hab. Spar Bush, Southland, C.C.

124. *ONISCUS PUNCTATUS.*

Oniscus punctatus, Thomson (Trans. N.Z. Inst., vol. xi., p. 232).

Hab. Common from Auckland to Stewart Island, G.M.T., C.C.

125. *ONISCUS PUBESCENS.*

Oniscus pubescens, Dana (U.S. Explor. Exped. Crust., vol. ii., p. 730, pl. 48). Miers (Cat. N.Z. Crust., p. 99).

Hab. Whaikare River, Dana. [I do not know this species.—G.M.T.]

126. *PORCELLIO GRANIGER.*

Porcellio graniger (List Crust. Brit. Mus., p. 99). Miers (Ann. Mag. Nat. Hist., 4, vol. xvii., p. 226; Cat. N.Z. Crust., p. 99).

Hab. Common everywhere in New Zealand, G.M.T., C.C.

127. *PORCELLIO NEO-ZELANICUS.*

Porcellio zealandicus (List Crust. Brit. Mus., p. 99). Miers (Ann. Mag. Nat. Hist., 4, vol. xvii., p. 225; Cat. N.Z. Crust., p. 100, pl. 2).

Hab. New Zealand (Coll. Brit. Mus.). [We do not know this species.—G.M.T., C.C.]

128. *SCYPHAX ORNATUS.*

Scyphax ornatus, Dana (U.S. Explor. Exped., Crust., vol. ii., p. 734, pl. 48). Miers (Cat. N.Z. Crust., p. 101).

Hab. Bay of Islands, Dana.

129. *SCYPHAX INTERMEDIUS.*

Scyphax intermedius, Miers (Ann. Mag. Nat. Hist., 4, vol. xvii., p. 227; Cat. N.Z. Crust., p. 102, pl. 2).

Hab. New Zealand (Coll. Brit. Mus.). [We do not know the two foregoing species.—G.M.T., C.C.]

130. *ACTÆCIA EUCHROA.*

Actæcia euchroa, Dana (U.S. Explor. Exped., Crust., vol. ii., p. 734 ?). Miers (Cat. N.Z. Crust., p. 102). Thomson (Trans. N.Z. Inst., vol. xi., p. 249).

Hab. Bay of Islands, Dana, G.M.T.; Dunedin, G.M.T.

131. *ACTÆCIA AUCKLANDIÆ.*

Actæcia aucklandiae, Thomson (Trans. N.Z. Inst., vol. xi., p. 249).

Hab. Auckland Islands, Jennings.

132. *CUBARIS RUGULOSUS.*

Cubaris rugulosus, Miers (Ann. and Mag. Nat. Hist., 4, vol. xvii., p. 225; Cat. N.Z. Crust., p. 96, pl. 2). Chilton (Trans. N.Z. Inst., vol. xv., p. 73).

Hab. New Zealand (Coll. Brit. Mus.); Dunedin, G.M.T.; Canterbury and Southland, C.C.

133. SPHERILLO MONOLINUS.

Spherillo monolinus, Dana (U.S. Explor. Exped., Crust., vol. ii., p. 719, pl. 47). Miers (Cat. N.Z. Crust., p. 97).

Hab. Auckland, Heller; Waikare River (Coll. Dr. C. Pickering, Dana). [I do not know this species.—G.M.T.]

134. SPHERILLO SPINOSUS.

Spherillo spinosus, Dana (U.S. Explor. Exped. Crust., vol. ii., p. 723, pl. 47). Miers (Cat. N.Z. Crust., p. 97).

Hab. Near Bay of Islands (Coll. Dr. C. Pickering, Dana); Dunedin (?), G.M.T.

135. SPHERILLO DANÆ.

Spherillo danae, Heller (Voy. *Novara*, Crust., p. 134, pl. 12). Miers (Cat. N.Z. Crust., p. 97).

Hab. Auckland, Heller. [I do not know this species.—G.M.T.]

136. ARMADILLO SPECIOSUS.

Armadillo speciosus, Dana (U.S. Explor. Exped., Crust., vol. ii., p. 718, pl. 47). Miers (Cat. N.Z. Crust., p. 95).

Hab. Bay of Islands, Dana; Wellington, Hutton; Nelson, J. C. Gully.

137. ARMADILLO INCONSPICUUS.

Armadillo inconspicuus, Miers (Ann. and Mag. Nat. Hist., 4, vol. xvii., p. 225; Cat. N.Z. Crust., p. 95, pl. 2).

Hab. New Zealand (Coll. Brit. Mus). [I do not know this species.—G.M.T.]

Gen. et sp. incertæ sedis.

138. PLAKARTHRIUM TYPICUM.

Plakarthrium typicum, Chilton (Trans. N.Z. Inst., vol. xv., p. 74, pl. 1).

Hab. Lyttelton, C.C.

ART. XXXIV.—*A New Species of Philygria.**

By CHAS. CHILTON, M.A.

[Read before the Philosophical Society of Canterbury, 26th November, 1885.]

Plate V.

PHILYGRIA THOMSONI, sp. nov. Plate V., figs. 1 to 6.

BODY, fairly convex; length, about twice the greatest breadth; first segment of thorax produced anteriorly on each side into rounded lobes, so as to enclose about half of the head, which is

* From a remark in the "Zoological Record" for 1877, Crust., p. 24, it appears that *Philygria* is a more correct spelling of the word than *Philougria*.