Quarter [Mac Murdo Sound], a very large number, down to 45 m).

- 3. N. werthei Van höffen, 1914, p. 471, figs. (Kerguelen).
- 4. N. magellanicus Monod, Bull. Mus. Paris 1925, p. 296.
  - Monod, 1926, p. 10, fig. (Magellan Strait).

## \* 71. Nototanais sp.

There is no  $\mathcal{O}$ , and I am not able to determine the species. The genus is new to the area.

### Fam. Apseudidæ.

A list of all genera (and species) up to 1913 is given by H. F. Nierstrasz: Die Isopoden der Siboga-Exped. I, Isopoda Chelifera (Siboga-Exped., vol. XXXII a, 1913), pp. 3-20.

Later on only the following genus is etablished:

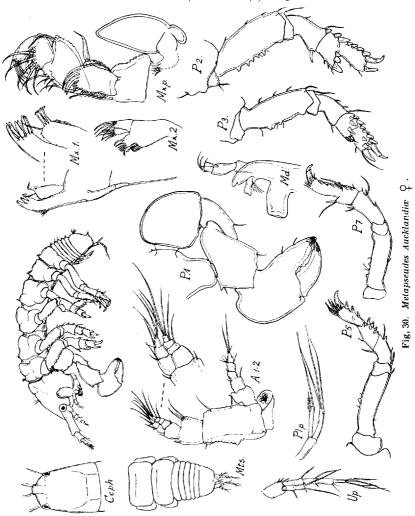
Trichapseudes (tridens) Barnard, Ann. South African Mus, vol. 17, 1920, p. 325, Pl. 15 figs. 3-8.

## \* Genus Metapseudes n. gen.

The body sausage-shaped (almost cylindrical), without spines or other processes, almost as thick as broad. Cephalosome not broader than mesosome, but posteriorly much deeper. Metasome very short, not much narrower than mesosome. Ocular lobes well defined. Antennæ short and heavy, ant. 1 with extremely short flagella. Oral parts not very different from those in Apseudes (Sars, Account of the Crust. of Norway, vol. 2, Isop. 1899, p. 6, Pl. 1). P. 1—2 without exopods, (all other genera of the fam. have exopods, except Typhlapseudes, and in Pagurapseudes they are only to be found in  $\mathcal{S}$  (not  $\mathcal{P}$ ), and only in p. 2). P. 1 extremely heavy, p. 2—p. 7 much shorter. Plp. short, with uni-articulate rami. Urop. short, the rami with a few joints.

The genus is well characterised by the sausage-shaped body, the very short flagella of ant. 1, the deep cephalosome, the lack of exopods of p. 1—p. 2, the short metasome and the short uropoda.

# \* 72. Metapseudes Aucklandiæ n. sp. (Figs. 30-31).



 $\mathcal{Q}$  ovig., 3 mm. Cephalosome as long as abt.  $2^{1/2}$  mesosome segments, very indistinctly areolated above; rostral plate truncate. Ocular lobes ovate, with distinct black eyes. Mesosome segments defined by not very deep constrictions, very slightly areolated; the

last two segments shorter than the others. The 5 free metasome segments combined only a trifle longer than the last mesosome segment; terminal segment as long as the free segments combined, posteriorly rounded and with a little apical bud a little above the under edge.

Ant. 1 very short and heavy, incl. the flagella shorter than cephalosome along the dorsal line. 1. joint of peduncle longer than the rest of the ant., broad, with granulate margins. Flagella not longer than 3. peduncular joint; inner flagellum with 3, outer fla-

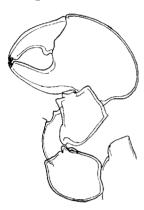


Fig. 31. Metapseudes Aucklandiæ, &, chela.

gellum with 4 joints. Ant. 2 very short, as long as 1. peduncular joint of ant. 1. Oral parts almost as those in *Apseudes*, and the anterior lip has an acute spine. P. 1 very robust, basal joint almost globulate; hand oblong ovate, with small teeth. P. 2 a little longer and heavier than the next pereiopoda. 2. joint of p. 2 broad, with denticles on the fore margin; 5.—6. joints broad, with the anterior corner protruded and with heavy denticles on the under and hind margin. P. 3—4 as p. 2, but narrower. P. 5—6 more slender than p. 3—4 and with shorter denticles; p. 5 (but not p. 6) has a tuft of serrate spines on the distal end of 6. joint. P. 7

rather slender, with very few denticles and a tuft of short spines on the distal end of 6. joint. Plp. have uni-articulate rami: inner ramus with 1 short and 1 long seta, outer ramus with 3 long setæ. Urop. have the two rami very short; outer ramus has 2, inner ramus 4—5 joints.—

 $\mathcal{J}$  ad., 2.5 mm (Fig. 31) differs from  $\mathcal{L}$  only in the following characters. Body somewhat more slender. Ant. 1 more slender; 1. peduncular joint 3 times as long as broad. P.1 much more robust than in  $\mathcal{L}$ , especially the hand; the non-articulate finger curvate and has no teeth; only the movable dactylus has 1 strong tooth close to the base.

#### Nebaliacea

#### Fam. Nebaliidæ.

#### Genus Nehalia Leach.

#### 73. Nebalia longicornis G. M. Thomson.

Nebalia longicornis	G.	M.	Thomson,	Ann.	Mag.	Nat.	Hist,	ser.	5, ,	vol.
	4.	187	9, p. 418, Pl.	19 fig	zs. 7 -	-9.				

- Sayce, Victorian Naturalist, vol. 18, 1902, p. 151
   Thiele, Report "Valdivia", vol. 8, 1904, Crust., p. 9, pl. 4 figs. 66—69.
  - Thiele, Deutsche Südpolar Exped. 1901—03, vol. 9 (Zool. 1). Leptostraca, 1905, p. 66, Pl. 2 figs. 14—17.
- Thiele, Nat. Antarct. ("Discovery") Exped. 1901—04.
   Nat. Hist. 3, 1907, Leptostraca, p. 1, textfigs.
- Chilton, 1909, p. 669.
- Calman, British Antarct. ("Terra Nova") Exped. 1910, Zool. vol. 3, no. 5, 1917, p. 156.

Occurrence. Auckland Isl.: Port Ross, 19 m., sand, algæ, 25.11.1914. 1 spec.

Chilton records the species from Musgrave Harbour (Auckland Isl.).

Distribution. The species is widely distributed in southern seas. The typical *N. longicornis* is known from New Zealand (probably rather common), Port Philip (Victoria), Friendly Islands and New Britain (Chilton 1909); a variety, *N. longicornis* var. *magellanica*, is known from Mc. Murdo Strait, Gaussberg and Magellan Strait (Chilton 1909).

The species is not found in South African waters where it is replaced by another species, *N. capensis* (K. H. Barnard, Ann. South African Mus., vol. 10, 1914, p. 444, figs.).

#### Entomostraca.

# Copepoda.

Fam. Cancerillidæ.

Genus Cancerilla Dalyell.

\* 74. Cancerilla neozelanica n. sp. (Fig. 32).

Occurrence. Auckland Isl.: Carnley Harbour, abt. 85 m, sandy clay. 6.12.1914. 1 spec. ( $\bigcirc$  ovig., length 0.70 mm; type) on Amphipholis squamata.

Description. The genus Cancerilla comprised hitherto only one species, P. tubulata Dalyell (on Amphipholis squamata D. Ch.), distributed from W. Norway (the Trondhjemfjord) to the Mediterranean. At the Auckland Isl. (and at New Zealand) Dr. Th. Mortensen has secured a second species, infesting the said cosmopolitan species of brittle-star.

At the first glance the new species can be distinguished from C. tubulata (G. O. Sars, Crust. of Norway, vol. 6, 1918, p. 139, PI. 80) in that the cephalic segment has the greatest breadth at

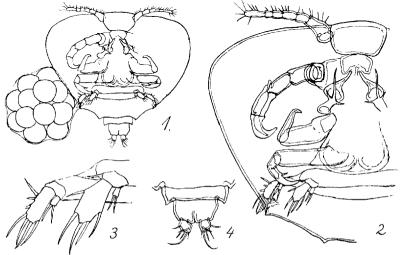


Fig. 32. Cancerilla neozelanica.

the fore end, not at abt. the middle; and in that the genital segment is extremely broad, almost half as broad as the cephalic segment and abt. 4 times as broad as it is long, somewhat oblong 6-angulate (in *C. tubulata* only abt. <sup>1</sup>/<sub>s</sub> as broad as the cephalic segment and with the lateral edges almost parallel).

The width of the cephalic segment greatly exceeds the length; the front very slightly produced. The next segment totally as in *C. tubulata*; the remaining trunk segments very imperfectly developed, and it is quite impossible to trace the limits between the segments. Tail (fig. 32, 4) very short.

Eyes could not be found.

Ant. 1, ant. 2, md., max. and mxp. 1-2 very nearly as in

C. tubulata, but ant. 1 and mxp. 2 have no spines (except one on mxp. 2), and I have not been able to trace the articulation between the two distal joints of mxp. 2. Also p. 1—p. 2 (fig. 32, 3) do not differ much from C. tubulata, but p. 3—p. 5 could not be found. The two ovisacs globular, each of them containing abt. 20 ova. —

The find of this species is very interesting; for it is specifically different from the European species, and yet it infests the same (cosmopolitan) host.

Distribution. Plimmerton, New Zealand, on the shore. 15.1. 1915, Dr. Th. Mortensen leg. 1 Q ovig., 0.80 mm.

## Fam. Notodelphyidæ.

\* 75. Doropygus trisetosus Schellenberg 1922. (Fig. 33).

Doropygus trisetosus Schellenberg, Mitt. Berliner Zool. Museum
1922, p. 249.

The determination, the description and the accompanying figures of this species were kindly worked out by Prof. Dr. A. Schellenberg of the Zool. Museum, Berlin; I beg Prof. Schellenberg to accept my most sincere thanks for this very valuable help.

Description: On account of the large mass of eggs in the oviduct and in the incubatory pouch the free thoracal segments in spec. a (fig. 33, 1) only indistinctly recognisable. Thorax together with incubatory pouch ovate. The incubatory pouch is rounded behind and has ventrally a little bend on account of the prominent margin. In spec. b the borders of the segments of the free thorax are distinct; in this specimen the incubatory pouch is more acute in the hind part. The lengths of the abdominal segments decrease steadily from the second to the fourth segment. The fifth segment is cleft into two bulbous half parts. Each of the two half parts has a somewhat curvate furcal ramus, the proportion of the length of this latter to the length of the fifth segment is as 3:2. The apex of the furca ends in a feeble spine, at the base of which there are some very small teeth.

The 9-articulate first antenna is somewhat compressed. The apical joints are almost rectangularly curvate toward the first joint. None of the setæ of the antenna much longer than the others; only the two largest setæ of the first joint are feebly feathered. The compressed, 3-articulate second antenna is unarmed, except a few setæ near the base of the heavy apical claw (fig. 33, 2).

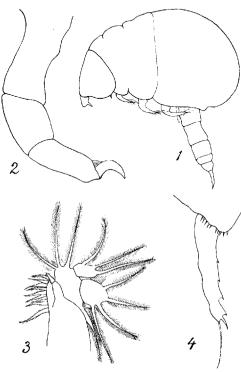


Fig. 33. Doropygus trisetosus. 1: Q; 2: second antenna; 3: first maxilla; 4: fifth leg.

On the mandible the second and third teeth are almost equal-sized. the third and fourth teeth coalesced with the masticatory part and free only at their apex. The distal seta of the first joint of the exopodite is much stronger and longer than the others. The second joint has 9 setæ. The four setæ on the somewhat slender exopodite are only very little different as to strength and length.

On the first maxilla (fig. 33, 3) there are three setæ on the inner margin of the second joint; these setæ have the same length as those of the exopodite. Only the first seta is somewhat shorter. The

oval endopodite tapers to a seta. On the inner side of its base and about at the centre of the inner margin of the endopodite is a seta; all the three setæ are almost equal in length. The exopodite is somewhat longer and almost twice as broad as the endopodite.

The second maxilla and the maxillipede are shaped as those of D. pulex.

First to fourth legs have the inner seta of the basal joint well developed: the rami strongly dentate on the joints; the endopodite

is bi-articulate. Of the spines with sharp edges of the exopodite of the first leg the first marginal spine is the largest and strongest; then come the apical spine, the fifth, the second or the fourth, and the third spine. The outer setæ of the exopodite of the second to the fourth legs are medium sized. The third outer seta is the shortest, and in all the three pairs it is distinctly shorter than the apical joint. Otherwise the natatory legs are of the same shape as in *D. pulex*.

The fifth spatula shaped leg (fig. 33,4) is slender, and becomes narrower toward the apex. Its base is abt.  $^{1}/_{4}$  as broad as its length. Apically is a seta abt. half as long as the ramus, and a somewhat curvate spine, as long as the breadth of the apex of the ramus. The inner margin has near the apex two incavations formed like steps. Near the base there are two small incavations, essentially formed by two small marginal teeth. —

The species is very nearly allied to *D. pulex*, from which it disagrees mainly as regards the apical spines of the furca, the slender fifth leg, and especially in the number of setæ (three) of the endopodite of the first maxilla.

Distribution. Stewart Isl., New Zealand (Schellenberg 1922).

# Zoogeographical remarks on the Malacostracan fauna of the subantarctic islands of New Zealand.

21 terrestrial species (including the sand-hoppers on the shores), 3 fresh water species, and 79 marine species from the littoral zone, totally 103 species, are known from the islands, and for no less than 27 species the islands are the type locality (see the tables pp. 382-85).

Fresh-water species. Only three are known from the islands, viz. Atyloides aucklandicus Walker (non Chilton), Chiltonia mihiwaka and Idotea lacustris. Of these the first species is endemic (only found on the Auckland Isl.), but somewhat doubtful; Chiltonia mihiwaka is known also from New Zealand and Australia, Idotea lacustris from New Zealand and possibly from Terra del Fuego.

Terrestrial species (including the sand-hoppers of the shores). Totally 21 species, viz. 13 Amphipoda (fam. *Talitridæ*) and 8 Isopoda (all being *Oniscoida*). 8 of these seem to be endemic, 5 (6?)

	Fresh-water and terrestrial species	Subar	itarci	Subantarctic Islands of New Zealand	spi	.IsI	busi	Bil		ł				
of	of Malacostraca (including the sand-hoppers found on the shores)	Bounty Isl Antipo- Isl sab	-upsekk .lsl sins	Camp- bell Isl. Auck-	land Isl. Snares	Stewart	көх мэй	Austra	ismssT	MageM oigeM	South At Circump	anbantare Antare	Kergue	Other localities
2)[ A	AMPHIPODA Atyloides aucklandicus Walker Orchestia serrulata Dana — aucklandiæ Sp. Bate			++		+	++			-				
)	Chiltonia mihiwaka (Chilton)  Parorchestia maynei Chilton  insularis Chilton	<del>.</del>		++++++	+		+	+						
<b></b>	— parva Chilton	+	+-	++	<u> </u>	+	+++-			+	+		+	Peru, Chili.
	- novæ-zealandiæ (Ihomson) - campbellica Filhol		<u> -</u>	++	+		+ +	+	+	n.	+		<u>F</u>	Valparaiso. ")
7	ISOPODA		_	+		_				0		_		
.* ~_	Trichoniscus otakensis Chilton — thomsoni Chilton — magellanicus Dana — Haplophthalmus australis Chilton			- a. <u>-</u> +a. a.			-+-	+++		. +			J	
,	Scyphoniscus magnus Chilton Deto aucklandiæ (Thomson) Phalloniscus punctatus (Thomson) Cubaris rugulosus (Miers)			+ + + + + + + + + + + + + + + + + + + +			++	o	٥.					
`#`	f(t, t) = f(t) by Dr. Th. Mortensen.	by Dr.	Гh.	Morte	nsen		= = =	spec	ies r	new t	$^3)^*=\mathrm{species}$ new to the islands.	islan	ıds.	

), i.e. — type togandy. The species not taken by Di. 1 ii. another sen. The species new to the fad \* H. grandicornis (= H. novæ-zealandiæ), teste Barnard, Ann. South Africa Museum, vol. 15, 1916, p. 230.

Other localities		Monte Video.	Very widely distri- buted.	Andamans Chili.		
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Aninoa .						
Marine species of Malacostraca (excluding the sand-hoppers on the shores)	DECAPODA  Leptomithrax australis (Jacq. et Luc.) Prionorhynchus edwardsii (Jacq. et Luc.) Cancer novæ-zelandiæ (Jacq. et Luc.) Nectocarcinus antarcticus Jacq. et Luc. Hemiplax hirtipes Heller Halicarcinus planatus (Fabr.) Hymenosoma depressum (Jacq et Luc.)	Marestia Mawsoni Kathbun Eupagurus Campbelli Filhol Porcellanopagurus Edwardsii Filhol Munida subrigosa (White) Nauticaris marionis Sp. Bate Tozeuma novæ-zealandiæ Borradaile Palæmon affinis (H. M. Edw.). Pontophilus pilosoides n. sp.	EUPHAUSIACEA Thysanoëssa gregaria G O. Sars	STOMATOPODA Lysiosquilla spinosa (Wood-Mason) Squilla armata H. MEdwards	AMPHIPODA  Parawaldeckia (Nannonyx) kidderi (S. J. Smith)  Parambasia Rossi n. sp.	Pseudambasia bipartita n. sp Tryphosa kergueleni (Miers) Tmetonyx stebbingi (Walker).
	Bounty Antipodes Isl. Macqueante Isl. Antipodes Isl. Anckele Isl. Anckele Isl. Snares Snares Tasman Magelis Region Circump South Al	Bounty   B	Bounty   B	South   Sout	Hounty   H	South   Sout

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Marine species of Malacostraca excluding the sand-hoppers on the shores)	Bounty	-dina des Isl.	Macqu- arie Isl.	Camp- bell 1sl. Auck-	land Isl.	Stewart	Kew Zeal	Austral	Tasmar	Маgelli Гедіо	JA dinos	qmuəriƏ rstasdus	Апіяте	Kerguel	Othe	Other localities	
Phoxocephalus kergueleni Stebbing Harpinia obtusifrons Stebbing Amphilochus squamosus Thomson Metopella ovata Stebbing				+	++-		++	+			o. +		+++	++			
Stenothoë aucklandicus n. sp. Iphinotus typicus Thomson Panoploea spinosus Thomson				ا انون	<u></u>		++-		-	-							
Lilljeborgia dubia (Haswell)				1 1 1	+ +++		++++	+ +	+-		+		<del>'''-</del> + ++	++	Seylon	Ceylon, Tuamotu Ar-	<u>با</u>
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Paramoera [capensis f.] austrina (Sp. Bate)  fasciculata (Thomson)			α. α.	<u> </u>			+	+	ი. ი.	+	+		+	+			
[austrina (Sp. Bate)var.] megaloph- thalma (Haswell) serraticauda Stebbing				+				++			-		+				
Atyloides Chevreuxi n. sp.				<u>ئونو</u> +	_ <del>_</del>								a. a.				
Farapherusa crassipes (Haswell)  Elasmopus viridis (Haswell)		+					++	++									
Melita inæquistylis (Dana)				انت	<u>-</u>		+		_	+	+			_	Seylon	Ceylon, India.	
Paradexamine pacifica (Thomson) Aora typica Krøyer			'	+	<del> -+</del>		++	+					<u>.</u>	+	Almost	Almost cosmopolit.	<u>:</u> :
Microdeutopus sp Lembos kergueleni (Stebbing)			<u>_</u>	+			+			* 0.				+	ndian	Indian Ocean.	
Haplocheira barbimana (Thomson) Eurysteus sp				<u> </u>			+	+						+			
*) if identic with L. fulgiensis (Stebbing, Proc. Zool. Soc. 1914, p. 369).	Zool.	Soc.	1914,	p. 36	(6)												

Wyvillea longimana Haswell   Caprella acquilibra Say   H	Almost cosmopolit. Almost cosmopolit. Chili.	Ceylon. St. Paul. The Crozets. Laccadive Archipelago.	Indian Ocean, Chili, Rio de Janeiro.			
Wyvillea longinana Hasvell Jassa pulchella Leach Jassa pulchella Leach Caprella equilibra Say Caprella equilibra Say ISOPPODA Janira neglecta Chilton Jais pubescens (Dana) Jais Dana Dana Jais pubescens (Dana) Jais Dana Dana Jais D						
Wyvilea longinana Haswell Jassa pulchella Leach Caprella acquilibra Say Caprella acquilibra Say IsoPODA Jais pubescens Chilton Jais pubescens (Dans) Antias neglecta Chilton Jais pubescens (Dans) Antias neglecta Chilton Paramuna serial and Residentia Circlana Rossi Miers Exospheroma gigas Leach Secolis Indigons (While) Miers Limnoria pfelferi Stebbing? Limnoria pfelferi Stebbing? Limnoria pfelferi Stebbing? Limnoria pfelferi Stebbing?  Limnoria pfelferi Stebbing?  Limnoria pfelferi Stebbing?  Linnoria pfelferi Stebbing.  Linnoria						
Wyvillea longimana Haswell   Lasa puckella Leach   Lasa puckella aquilibra Say   Lasa puckerens (Dana)   Las						-
Wyvillea longinana Haswell Jassa pulchella Leach Caprella aguilibra Say Caprella aguilibra Say Caprella aguilibra Say Caprella aguilibra Say  IsOPODA Janira neglecta Chilton Antias hispitas Vanicher Antias hispitas Vanicher Haliacris neozelanica (Chilton) Antias hispitas Vanicher Haliacris neozelanica (Chilton) Antias hispitas Vanicher Haliacris neozelanica Miers Chiltonora Rossi Miers Linoneca nowe-zealandire Negler Cymodocalus magellanensis Richardson Lymodocalus magellanensis Richardson Lymodocalus magellanensis Richardson Lymodocalus magellandire Negler Linca hamata n. sp. Cymodocalus magellandire Mitter Lymodocalus magellandire Mitter Lymodocalus magellandire Negler Lymodocalus magellandire Negler Lymodocalus magellandire Lymodocalus magel						
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Vidensk, Medd, fra Dansk naturh, Foren, Bd. 83.	• Wyvillea longimana Haswell Jassa pulchella Leach • Caprella æquilibra Say Caprellinopsis longicollis (Nicolet)	ISOPODA  Janira neglecta Chilton  Jais pubescens (Dana)  * Antias hispidus Vanhöffen  Haliacris neozelanica (Chilton)  * Paramunna serrata (Richardson)  [ Livoneca novæ-zealandiæ Miers  [ Serolis latifrons (White) Miers  * Limnoria pfefferi Stebbing?	* _ *	andiæ Thomson	MYSIDACEA  Tenagomysis tenuipes Tatt	1) if identic with L. Reynaudi MEdw. (Whitelegg E. B. gigas + E. lanceolatum.  8) N longicornis var. magellanica.

are known also from New Zealand (and Stewart Island), 3 (4?) from New Zealand and Australia (+ Tasmania), 1 from Australia, and only 2 (4?) have been found also in other regions (2, viz. Hyale hirtipalma and H. novæ-zealandiæ very widely distributed in the southern hemisphere, but none of the other species have with certainty ever been found in the Magellan region).

Marine species. Totally 79 species are known from the littoral zone of the islands.

- 13 (15?) species are endemic, at all events not yet found at New Zealand or anywhere else, viz. 3 Decapoda (Marestia Mawsoni, Eupagurus Campbelli, and Pontophilus pilosoides n. sp.), 6 (8?) Amphipoda (Parambasia Rossi n. sp., Pseudambasia bipartita n. sp., Metopella nasica n. sp., Stenothoë aucklandicus n. sp., Pontogeneia bidentata n. sp., Atyloides Chevreuxi n. sp., Paramoera magellanica (Walker), and Elasmopus Carnleyi n. sp.), 2 Isopoda (Pseudosphæroma campbellensis, Cilicæa hamata n. sp.), 1 Tanaid (Metapseudes Aucklandiæ n. sp.), and 1 Mysid (Tenagomysis tenuipes).
- 13 (14?) species are known from the islands and New Zealand, viz. 8 Decapoda (Leptomithrax australis, Prionorhynchus edwardsii, Cancer novæ-zelandiæ, Nectocarcinus antarcticus, Hemiplax hirtipes, Hymenosoma depressum, Porcellanopagurus Edwardsii, Tozeuma novæ-zealandiæ), 2 (3?) Amphipoda (Iphinotus typicus, Panoploea spinosa, ? Paramoera fasciculata), 2 Isopoda (Ianira neglecta, Haliacris neozelanica), and 1 Tanaid (Tanais novæ-zealandiæ).
- 5 (7?) species (only Amphipoda) are known from the islands, (New Zealand) and Australia (+ Tasmania) (Lilljeborgia dubia, ? Paramoera fasciculata, P. (austrina var.) megalophthalma, Parapherusa crassipes, Elasmopus viridis, ? Paradexamine pacifica, Wyvillea longimana).
- Only 2 (4??) species have been found at the islands (+ New Zealand or Australia) and in the Magellan region, viz. 1 Decapod (Munida subrugosa) and 1 (3?) Isopod (Idotea elongata, ? Livoneca novæ-zealandiæ, and ? Isocladus magellanicus). At least 1 species, Nebalia longicornis, is in the Magellan region represented by a special variety, var. magellanica.
- 1 (3?) species is known from South Africa, but not from S. America, viz. ? Phoxocephalus kergueleni (also Kerguelen), ? Melita inæquistylis (also Ceylon, India), and Dynamenella huttoni.

- 4 (8?) species are possibly circumpolar subantarctic (?), but not found in the antarctic seas proper (incl. Kerguelen) viz., 2 (3?) Decapoda (Halicarcinus planatus, Palæmon affinis, ? Nauticaris marionis), 1 Stomatopod? (? Squilla armata), 1 Amphipod (Caprellinopsis longicollis), and 1 (3?) Isopod (lais pubescens, ? Livoneca novæzealandiæ, ? Exosphæroma gigas).
- 5 are so widely distributed that they are almost cosmopolitan outside the arctic and antarctic seas, viz. 1 Euphausid (Thysanoëssa gregaria, 3 Amphipoda (Aora typica, Jassa pulchella, Caprella æquilibra) and 1 Isopod (Paridotea ungulata).

To thi group possibly belong 3 (4?) species, widely distributed in the southern hemisphere outside the antarctic area, viz. 1 Stomatopod (Lysiosquilla spinosa [Auckland Isl., New Zealand, Andamans]), 2 Amphipoda (Bovallia monoculoides (widely distributed, also antarctic, see the table p. 384) and Melita inæquistylis [Auckland Isl., New Zealand, Magellan region, South Africa, Ceylon, India]) and 1 Isopod (Limnoria pfefferi [Auckland Isl.?, Laccadive Archipelago]).

- 4 (6?) species are known from Kerguelen (but not found elsewhere in the antarctic seas) and are not cosmopolitic, viz 4 (5?) Amphipoda (Parawaldeckia kidderi, Phoxocephalus kergueleni, Carolobatea novæ-zealandiæ, Haplocheira barbimana, and ? Lembos kergueleni), and 1 ? Isopod: ? Antias hispidus from St. Paul, not from Kerguelen.
- 12 (13?) species from the islands are also known from the antarctic area (some of them also from Kerguelen), and have in most cases a much wider distribution, viz. 9 Amphipoda (Parawaldeckia kidderi, Tryphosa kergueleni, Tmetonyx stebbingi, Harpinia obtusifrons, Amphilochus squamosus, Metopella ovata, Pontogeneia antarctica, Paramoera capensis (incl. P. austrina) and P. serraticauda) and 3 (4?) Isopoda (? Paramunna serrata, Cirolana rossi, Serolis latifrons, and Cymodocella tubicauda).

Chilton (1909, p. 602—03) is of opinion that the "terrestrial species, like the fresh-water ones, . . . show connection with those of South America, Falkland Islands, and other subantarctic localities", and that "the marine forms very considerably strengthen the evidence as to the large antarctic element in the crustacean fauna of these islands and to the close similarity of their Crustacea to those of other subantarctic regions".—

The material collected by Dr. Th. Mortensen has not augmented the evidence of these theories, al all events not of the first of them.

As it appears from the accompanying lists 22 (24?) species are endemic (9 from fresh-water and terrestrial, 13 (15?) marine), 18 (20?) species are found also at New Zealand, and this figure will be increased with 10 (13?), if we take also Australia (+ Tasmania); thus no less than 50 (57?) species or the half part of the whole Malacostracan fauna are not known outside these islands + New Zealand + Australia.

Only two species (Munida subrugosa and Idotea elongata, both marine) are with certainty known both from the islands and from the Magellan region; they are not found in S. Africa or in the Antarctic (incl. Kerguelen) and are not cosmopolitan. It is clear that these two species do not prove a connection between the faunas of the two areas

Dr. Th. Mortensen has given a zoogeographical summary of the Echinoderm fauna of (New Zealand and) the Auckland—Campbell Islands (Vid. Medd., vol. 79, 1925, pp. 393—412), and it may possibly be elucidating to give a comparison of the figures relating to the Echinoderm fauna (of the Auckland—Campbell Isl.) and the Malacostracan fauna (of all the subantarctic islands of New Zealand).

		Total no. of spp.	Endemic species	New Zealand (and the islands)	(New Zealand +) Australia (and the islands)	Magellan region (not S. Africa)	S. Africa (not Magellan region)	Circumpolar sub- antarctic(?) (not antarctic)	Cosmopolitan in the southern hemisphere	Kerguelen (not antarctic, not cosmopolitan)	Antarctic and other scas (also Kerguelen)
	Echinoderma	19	8	9	_	1			1	_	
Malacostraca	Fresh-water and terrestrial species Marine species	24 79	9 13(15?)	'5( 6?) 13(14?)	5( 6?) 5( 7?)	1?(4?) 2 (4?)	_ 1(3?)	4(8?)	2 8( 9?)	<b>4</b> (6?)	12(13?)
Mal	Total no. of species	103	21(23?)	18(20?)	10(13?)	2 (8?)	1(3?)	4(8?)	10(11?)	4(6?)	12(13?)

From this table it may be seen that there is a fairly good accordance between the Echinoderms and the fresh-water and

terrestrial Malacostraca, if we take New Zealand and Australia together.

The most important difference between the two faunas is that while none of the Echinoderms are known from the Antarctic + Kerguelen, no less than 16 (19?) Crustacea (13 (14?) Amphipoda, 3 (5?) Isopoda) have been recorded from these areas; 4 (8?) species are possibly circumpolar subantarctic, and 1 (3?) species is known from S. Africa (but not in S. America). I am not able to give any satisfactory explanation of this fact; but it must be remembered that almost all the species are small and that they may possibly be transported by floating sea-weed.

At all events the Malacostracan fauna (like the Echinoderm fauna) does not prove any former connection between the sub-antarctic islands of New Zealand and the Magellanic region.

## Abbreviations of literature.

- Chevreux 1906 (1907): Amphipodes Expédition Antarctique Française (1903-1905), commandée par le Dr. Jean Charcot. Sciences Naturelles: Documents Scientifiques. Crustacés. Paris 1906 (1907).
  - 1912 (1913): Amphipodes. Deuxième Expédition Antarctique Française (1908—1910), commandée par le Dr. Jean Charcot. Sciences Naturelles. Documents Scientifiques. Paris 1913.
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  - 1908: Isopodes (2e mémoire). Ibid., Paris 1908.
  - 1913: Crustacés Isopodes. Deuxième Expédition Antarctique

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