

# **Journal of Natural History**



ISSN: 0022-2933 (Print) 1464-5262 (Online) Journal homepage: https://www.tandfonline.com/loi/tnah20

# A synonymic catalogue of the Acari from Antarctica, the sub-Antarctic Islands and the Southern Ocean

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**To cite this article:** P.J.A. Pugh (1993) A synonymic catalogue of the Acari from Antarctica, the sub-Antarctic Islands and the Southern Ocean, Journal of Natural History, 27:2, 323-421, DOI: 10.1080/00222939300770171

To link to this article: <a href="https://doi.org/10.1080/00222939300770171">https://doi.org/10.1080/00222939300770171</a>



# A synonymic catalogue of the Acari from Antarctica, the sub-Antarctic Islands and the Southern Ocean

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(Accepted 5 August 1992)

The records, taxonomy and geographical distribution of 528 species of Acari collected from the Antarctic, sub-Antarctic islands and the Southern Ocean are collated. Included are free-living and phoretic mites, parasites and nidicoles associated with a variety of birds, seals and other introduced mammals, from terrestrial aquatic, seashore and benthic marine habitats. A number of these Acari have been introduced by humans, to and around research stations and disused whaling stations. A full alphabetical index to all current higher taxa, as well as current/redundant generic and specific names, is provided.

KEYWORDS: Acari, Antarctica, mites, Southern Ocean, systematics.

#### Introduction

There have been numerous studies listing the Acari collected from mainland Antarctica, the offshore and sub-Antarctic islands and the Southern Ocean itself (Table 1). Most are based upon material collected by expeditions to small areas of the continent or particular islands, and/or review all the records from their particular area. There have been accounts covering larger areas, even the whole of the Southern Ocean, though these are usually restricted to specific groups, such as free-living terrestrial mites, marine mites (Halacaridae) or seabird parasites. The present study collates all available data and includes 528 native and introduced, free-living, phoretic, parasitic and nidicolous mites. The data are presented as three main indexes, namely biosystematic, biogeographic and alphabetic.

#### The biosystematic index

This is based largely on Krantz (1978), but definitions of the higher taxa are drawn from other sources, for example the Cryptostigmata (Balogh, 1972), Mesostigmata (Evans and Till, 1979), Halacaridae (Prostigmata) (Newell, 1984; Bartsch, 1991, 1992), other Prostigmata and Astigmata (Griffiths and Macfarlane, 1989). A complete taxonomy is given for each species, along with a listing of all synonyms, some of which refer to records obtained outside the Southern Ocean study area. Synonyms are in chronological order, but authorities are listed only for changes to the specific names. Sources of descriptions to species listed are, where possible, restricted to the most recent works, especially those which provide comparative notes on related species and/or diagnostic keys.

Many of the expedition records were traced through the recent literature survey of Block (1992), who lists all of the Acari recorded in the expedition summaries. However, some of his entries for the early expeditions include species from beyond the Southern

Table 1. Regional reports listing Antarctic and sub-Antarctic Acari.

Area†	References‡
Antarctic sectors	
Maud	Strandtmann and Sømme (1977) [Prostigmata]; Sømme (1980, 1986a)
Enderby	Ewing (1945); Matsuda (1970); Roundsevell (1979)
Wilkes	_
Scott	Lankester (1902); Pryor (1962); Gless (1972)
Byrd	<del>_</del>
Ronne	Strandtmann (1982a) [Nanorchestidae]
Palmer	Tilbrook (1967); Strandtmann and Tilbrook (1968) [Prostigmata]
Graham	Strong (1967); Tilbrook (1967); Strandtmann and Tilbrook (1968) [Prostigmata]; Dastych (1990)
Sub-Antarctic islands	
South Shetland	Wallwork (1965) [Cryptostigmata]
South Orkney	Tilbrook (1973); Goddard (1979); Usher and Edwards (1984); Usher and Booth (1986)
South Sandwich	Holdgate and Baker (1979)
South Georgia	Banks (1914); Wallwork (1966b) [Cryptostigmata]; Gressitt (1970); West (1984)
Bouvetoya	Holdgate et al. (1968); Sømme (1986b)
Marion/P. Edward	Zinderen Bakker et al. (1971) [Metastigmata and Cryptostigmata]
Crozet	Strandtmann and Davies (1972) [Nanorchestidae]; Trave (1967b) [Cryptostigmata]; Wallwork (1972) [Cryptostigmata]
Kerguelen	Cambridge (1876); Studer (1879); Enderlein (1903); Gaud (1952) [Analgoidea]; Trave (1967a, 1967b, 1981) [Cryptostigmata]; Sitnikova and Andreychikova (1973)
Heard	Gressitt (1967, 1970); Horne (1984)
Macquarie	Dumbleton (1953) [Metastigmata]; Wallwork (1963) [Cryptostigmata]; Cross (1964) [Pyemotidae]; Watson (1967); Lee (1970) [Rhodacaridae]; Spain and Luxton (1971); Sitnikova and Andreychikova (1973); Luxton (1990)
Campbell	Dumbleton (1953) [Metastigmata]; Atyeo (1963) [Bdellidae]; Gressitt (1964); Wood (1967) [Stigmaeidae]; Lee (1970) [Rhodacaridae]; Luxton (1971, 1990)
Balleny/Scott Peter I	
Antarctica	Gressitt (1967); Wallwork (1967, 1973); Tilbrook (1973)
Southern Ocean	Newell (1984); Bartsch (in press) [Halacaridae]

<sup>†</sup> See definitions of areas in Fig. 1.

Ocean, and were collected either *en route* 'South' or homeward. These records have been omitted from the present study. 'New records' refer to material collected during the 1990/1991 British Antarctic Survey field season at Husvik, South Georgia.

With respect to locality, 'recorded from' is used in preference to 'habitat' for three reasons: (a) a number of records clearly refer to species that are not indigenous to the area, their distribution being restricted to the vicinity of present/former sites of human habitation, e.g. research and whaling stations; (b) some areas have not been studied systematically and the available records may not be truly representative of the region—this is particularly so when considering the shoreline of many of the sub-Antarctic islands, for which systematic studies exist only for small areas of South

<sup>‡</sup> References to specific groups within regions have the group listed in square brackets.

Georgia and Kerguelen; (c) some records, particularly those of marine mites other than Halacaridae (Prostigmata), clearly represent displaced or dislodged individuals. Full names are given to all animal hosts, but not to plants, which are taken only to genus. The latter are indicated as algae, mosses or lichens unless they are vascular plants.

A number of parasitic ticks (Metastigmata) and sarcoptiform Astigmata have been found on Antarctic seabirds outside the survey area, i.e. the host has been recorded from the Southern Ocean area, but not the parasites. In some cases these parasites have been *suggested* as being possible inhabitants of the area and so listed as such, but those species which have no authenticated records and which have not been mentioned as likely to occur with the area have also been omitted.

#### The biogeographic index

The Southern Ocean area has been divided up as shown in Fig. 1. Mainland (continental) Antarctica comprises a number of sectors which include all land, ice shelves and offshore islands, to an approximate depth of 30 m. These are named, with minor modification, after those of Greene *et al.* (1970), while the divisions of the Antarctic Peninsula are those of Hattersley-Smith (1991).

Thus the entire globe south of the 45°S line of latitude is included, except for two large areas, namely around (a) the Falkland Islands and Tierra del Fuego and (b) Auckland, Antipodes, Bounty and South Island, New Zealand. These two areas are not sub-Antarctic, but rather are heavily influenced by the fauna and flora of South America and New Zealand respectively (Moore, 1968; Aleksandrova, 1974; Dudley, 1983; Strange, 1987; Wardle, 1991). Each of the sub-Antarctic islands has been treated as a separate location, though Marion and Prince Edward islands are grouped together, as are Scott and the Balleny islands.

Records of halacarid (marine) mites have been ascribed to the shores of the Antarctic sectors or islands, if the records are clearly littoral or shallow sublittoral to a depth of 30 m, while records of deeper than 30 m have been ascribed to the oceanic sectors. Where there is doubt, records have been ascribed to both terrestrial and oceanic sectors and indicated by question marks. This index also summarizes additional records of species which lie outside the confines of the study area.

#### The alphabetical index

This lists all taxa, including synonyms, specific and generic names and suprageneric taxa.

#### The biosystematic index

Subclass: ACARI ANACTINOTRICHIDA

Cohort: PARASITIFORMES

Suborder: MESOSTIGMATA (=GAMASIDA)

Diagnoses and keys to all superfamilies (Krantz, 1978) and families (Evans and Till, 1979). Keys to some species: Antarctica (Strandtmann, 1967); South Georgia (Hunter,

1970); New Zealand region (Luxton, 1990).

Superfamily: SEJOIDEA

Family: ICHTHYOSTOMATOGASTERIDAE Sellnick, 1953

#### Asternolaelaps sp.

Description: West (1984).

Recorded from: nests of Halobaena caerulea (blue petrel).

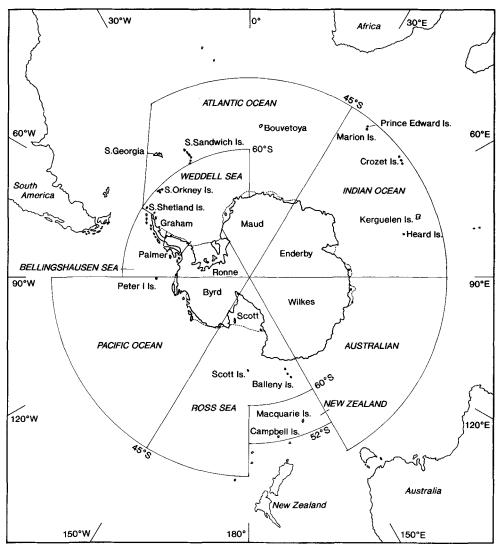


Fig. 1. Map of survey area. The following areas (in lower case) are recognized on mainland Antarctica. Maud: sector from 90°S to coast, between longitude 30°W and 30°E; Enderby: sector from 90°S to coast, between longitude 30°E and 90°E; Wilkes: sector from 90°S to coast, between longitude 90°E and 150°E; Scott: sector from 90°S to coast, between longitude 150°E and 150°W; Byrd: sector from 90°S to coast, between longitude 150°W and 90°W; Ronne: sector from 90°S to coast, between longitude 90°W and 30°W, but terminating at a line between Cape Adams (75°00'S, 62°34'W) and the English Coast (73°24'S, 72°00W); Palmer: the southern Antarctic Peninsula between the Cape Adams/English Coast line and a line between Cape Jeremy (62°24'S, 68°50'W) and Cape Agassiz (68°28'S, 62°37'W). Graham: the Antarctic Peninsula, north of Cape Jeremy/Cape Agassiz line. The following oceanic sectors (in capitals and italics) are recognized within the Southern Ocean: Atlantic Ocean: Mainland (Maud) coast from 0° to 30°E; other coordinates at 60°S, 0°W; 60°S, 65°W; 45°S, 30°W and 45°S, 30°E; Indian Ocean: Mainland (Enderby) coast to 45°S, between 30°E and 90°E; Australian: Mainland (Wilkes) coast to 45°S, between 90°E and 150°E; New Zealand: 'box' formed by the lines 60°S, 52°S, 150°W and 180°W; Ross Sea: Mainland (Scott) coast to 60°S, between 150°E and 150°W and a 'box' formed by the lines 60°S, 45°S, 180°W and 150°W; Pacific Ocean: Mainland (Byrd) coast to 60°S, between 150°W and 270°W; Bellingshausen sea: Mainland (west Ronne, west Palmer and west Graham) coast to 60°S, between 90°W and the tip of the Peninsula (65°W); Weddell Sea: Mainland (east Graham, east Palmer and north Ronne) coast to 60°S, between the tip of the Peninsula (65°W) and 0°W.

Superfamily: PARASITOIDEA

Family: PARASITIDAE Oudemans, 1901

Eugamasus sp. no. 1 Listed in: Watson (1967).

Recorded from: vegetation litter.

Eugamasus sp. no. 2 Listed in: Watson (1967).

Recorded from: vegetation litter.

Eugamasus sp. no. 3 Listed in: Watson (1967).

Recorded from: vegetation litter.

Eugamasus sp. no. 4 Listed in: Watson (1967).

Recorded from: vegetation litter.

Eugamasus sp. no. 5 Listed in: Watson (1967).

Recorded from: vegetation litter.

Parasitus tarsispinosus Hunter, 1964

Description: Hunter (1964).

Recorded from: 'under wood on ash plain', Deception Is.

**Pergamasus** sp. no. 1 Listed in: Watson (1967).

Recorded from: vegetation litter.

**Pergamasus** sp. no. 2 Listed in: Watson (1967).

Recorded from: vegetation litter.

Family: VEIGAIIDAE Oudemans, 1939 Key: South Georgia (Hunter, 1970).

#### Cyrthydrolaelaps watsoni Hirschmann, 1966

Cyrthydrolaelaps sp. (Watson, 1967)

Descriptions: Hirschmann (1966); Hunter (1970).

Recorded from: the sea shore under rocks, tidal debris; among lichens and whalebone in the supralittoral, the vascular plants (*Colobanthus*, *Cotula*, *Stilbocarpa*) and a variety of mosses.

#### Gamasolaelaps arenosus Hunter, 1970

Description: Hunter (1970).

Recorded from: tussock grass in penguin colony, in nests and rookeries of penguins; under rocks, dry moss and board and under rocks near stream.

Veigaia claggi Hunter, 1970 Description: Hunter (1970).

Recorded from: white-chinned (shoemaker) petrel (Procellaria aequinoctialis) nests.

Veigaiidae (gen. et sp.) Listed in: Tilbrook (1967). No habitat data given.

Superfamily: RHODACAROIDEA

Family: RHODACARIDAE Oudemans, 1902

Diagnoses and keys: World genera (Lee, 1970); Southern Ocean (Lee and Hunter,

1974); Australian region (Luxton, 1990).

#### Acugamasus watsoni (Hirschmann, 1966)

Gamasellus (Gamasellus) watsoni Hirschmann, 1966

Descriptions: Hirschmann (1966), Lee and Hunter (1974).

Recorded from: grassland soil and vegetation (Stilbocarpa) litter.

#### Athiasella longiseta Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: mosses and lichens on rocks.

#### Athiasella pecten Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: vegetation litter debris and bird nest.

#### Athiasella scaphosternum Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: among vegetation and bird nests.

#### Athiasella viripileus Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: under stones, among vegetation (Azorella and Poa), litter debris, moss

and low plants.

#### Caliphis schusteri (Hirschmann, 1966)

Gamasellus (Hydrogamasellus) schusteri Hirschmann, 1966

Descriptions: Hirschmann (1966); Lee and Hunter (1974).

Recorded from: leaf mould, sooty albatross and shag nests; among vegetation and

debris both on shore and in land; sheep dung.

#### Cymiphis watsoni (Hirschmann, 1966)

Gamasiphis watsoni Hirschmann, 1966

Descriptions: Hirschmann (1966); Lee and Hunter (1974).

Recorded from: among leaf debris and liverworts.

#### Euepicrius caesariatus Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: among vegetation, leaf litter and bird nests.

#### Euepicrius sp.

Listed in: Spain and Luxton (1971).

No habitat data given.

#### Gamasellus racovitzai (Trouessart, 1903)

Gamasus racovitzai Trouessart, 1903

Digamasellus racovitzai

Zercon tuberculatus Trägårdh, 1908

Gamasellus (Digamasellus) racovitzai

Cyrtolaelaps (Gamasellus) racovitzai

Cyrtolaelaps racovitzai

Hydrogamasellus racovitzai

Descriptions: Trouessart (1903), Hunter (1967a, 1970), Lee (1970).

Recorded from: in moss turf, on lichens, grass, algae, nests and 'herb'; on the seashore

under stones.

#### Gamasellus racovitzai neo-orcadensis Trouessart, 1912

Gamasellus racovitzai neoorcadensis

Descriptions: Trouessart (1912), Ryke (1962), Jumeau and Usher (1987).

Recorded from: among mosses and lichens on rocks.

#### Gamasellus sp.

Listed in: Gressitt (1967). No habitat data given.

#### Gamasiphoides macquariensis (Hirschmann, 1966)

Gamasellus (Hydrogamasellus) macquariensis

Description: Lee and Hunter (1974).

Recorded from: leaf litter.

#### Heterogamasus (calacarellus?) Lee, 1967

Description: Lee (1967).

New record from: among whalebone and high-level debris in the supralittoral,

#### Heydeniella crozetensis Richters, 1907

Gamasiphis crozetensis Trägårdh, 1907

Descriptions: Richters (1908), Lee (1970).

Recorded from: among moss.

#### Heydeniella sherrae Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: among vegetation, gull nests and rabbit burrows.

#### Heydeniella womersleyi Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: among vegetation, leaf mould and shag (Phalacrocorax) nests.

#### Heydeniella sp.

Listed in: Watson (1967).

Recorded from: among lichens, moss or plant litter, under stones.

#### Hydrogamasellus antarcticus (Trägårdh, 1908)

Hydrogamasus antarcticus Trägårdh, 1908 Neoparasitus crozetensis Richters, 1907

Hydrogamasellus gaussi Lee, 1970

Descriptions: Hunter (1964, 1967, 1970), Lee (1970).

Recorded from: moss, leaf litter, caves, lichens and bird nests.

#### Hydrogamasellus crozetensis (Richters, 1908)

Gamasellus crozetensis Richters, 1908 Hydrogamasellus richtersi Lee, 1970

Descriptions: Richters (1908), Lee (1970).

Recorded from: moss.

#### Hydrogamasus kensleri Luxton, 1967

Hydrogamasus (Austrohydrogamasus) watsoni Hirschmann, 1966 in pars.

Descriptions: Luxton (1967, 1990).

Recorded from: under stones, among lichens, whalebone and tidal debris on the

seashore.

#### Hydrogamasus (Austrohydrogamasus) watsoni Hirschmann, 1966

Descriptions: Hirschmann (1966), Hunter (1970).

Recorded from: among littoral algae, tidal debris, under stones on seashore and in

penguin rookeries.

#### Litogamasus falcipes Lee and Hunter, 1974

Descriptions: Lee and Hunter (1974), Luxton (1990).

Recorded from: under rocks, high in the littoral zone on the seashore.

#### Litogamasus gressitti (Hunter, 1970).

Gamasellus gressitti Hunter, 1970.

Description: Hunter (1970).

Recorded from: among bird nests, from moss, tidal debris and on rocks.

#### Litogamasus setosus (Kramer, 1898)

Cyrtolaelaps setosus Kramer, 1898.

Descriptions: Kramer (1898), Lee and Hunter (1974), Luxton (1990). Recorded from: the littoral zone, on stones near low water mark.

#### Litogamasus sp.

New record from: among upper littoral algae and supralittoral lichens.

#### Parastiphis aurora Lee, 1970

Hydrogamasus antarcticus Womersley, 1937 (nec. Trägårdh, 1910)

Descriptions: Lee (1970), Lee and Hunter (1974), Luxton (1990).

Recorded from: the upper littoral zone in rock crevices and under stones.

#### Parastiphis brunneus (Kramer, 1898)

Laelaps brunneus Kramer, 1898

Description: Kramer, (1898).

New record from: the littoral zone in rock crevices, under stones and among tidal debris. New record for the Southern Ocean, previously only found at Tierra del Fuego.

#### Parastiphis jeanneli (André, 1947)

Neoparasitus sp. Richters, 1908

Gamasellus jeanneli

Hydrogamasus (Austrohydrogamasus) watsoni Hirschmann, 1966 in pars

Descriptions: André (1947), Hirschmann (1966), Lee (1970), Luxton (1990).

Recorded from: on vegetation, in penguin rookery; rock crevices and under stone in the littoral zone.

Pilellus rugipellis Lee and Hunter, 1974

Description: Lee and Hunter (1974).

Recorded from: among moss.

#### Pilellus rykei Hunter, 1967

Cyrtolaelaps (Gamasellus) rykei

Gamasellus rykei

Description: Hunter (1967). Recorded from: among mosses.

#### *Pilellus* sp.

Listed in: Lee (1970). No habitat data given.

#### Rhodacaroides sp.

Rhodacarus sp. Richters, 1908

Listed in: Richters (1907); Lee and Hunter (1974). Recorded from: among roots of *Deschampsia*.

Family: DIGAMASELLIDAE Evans, 1957

#### Dendrolaelaps kargi Hirschmann, 1966

Description: Hirschmann (1966).

Recorded from: among vegetation, in a penguin nest, on the seashore under driftwood.

#### Dendrolaelaps templei (Hunter, 1970)

Digamasellus templei Hunter, 1970

Description: Hunter (1970).

Recorded from: burrow of dove prion (Pachyptila desolata).

#### Dendrolaelaps (Luxtondendrolaelaps) sp. nov. Hirschmann (personal communication)

New record from: supralittoral tidal debris.

#### Digamasellus schusteri (Hirschmann, 1966)

Dendrolaelaps schusteri Hirschmann, 1966

Description: Hirschmann (1966).

Recorded from: among litter debris, sheep dung and penguin nests.

#### Digamasellus watsoni (Hirschmann, 1966)

Dendrolaelaps watsoni Hirschmann, 1966

Description: Hirschmann (1966).

Recorded from: among plants, mosses, algae and on rocks in penguin rookery.

Superfamily: ASCOIDEA

Family: ASCIDAE Voigts and Oudemans, 1905

#### Asca crozetensis Richters, 1908

Description: Richters (1908).

Recorded from: moss.

#### Iphidozercon sp.

Listed in: Watson (1967).

Recorded from: penguin rookeries, in and around nest litter and vegetation.

#### Lasioseius sp.

Listed in: Goddard (1979). No habitat data given.

Family: HALOLAEAPIDAE Karg, 1965

Halolaelaps sp. nov. Karg (personal communication)

New record from: the seashore, under stones among tidal debris in supralittoral zone.

Superfamily: PHYTOSEIOIDEA

Family: AMEROSEIIDAE Evans, 1963

Ameroseius sp. Chant and Lindquist (1963)

Listed in: Watson (1967).

Recorded from: soil and litter of *Poa foliosa*, *Stilbocarpa*, *Colobanthus*; algae and lichens lining wall of a cave.

Family: PHYTOSEIIDAE Berlese, 1916

Sejulus plumosus Oudemans, 1905

Listed in: Richters (1908).

Recorded from: mosses, a non-indigenous species, introduced from Europe?

Superfamily: EVIPHIDOIDEA

Family: EVIPHIDIDAE Berlese, 1913

Alliphis siculus (Oudemans, 1905) sensu Karg, 1962

Listed in: Watson (1967); Spain and Luxton (1971). Description: (from Europe) Karg

(1962).

Recorded from: Sheep dung. This species is widespread throughout Europe and Africa and is probably cosmopolitan. The single record suggests that it is introduced.

Thinoseius hirschmanni Hunter, 1970

Description: Hunter (1970).

New record from: under rocks on the seashore.

Thinoseius katherinae Hunter, 1970

Description: Hunter (1970).

Recorded from: tussock grass and on the seashore among supralittoral tidal debris.

Family: PACHYLAELAPIDAE Berlese, 1913

Pachyseius adeliensis Womersley, 1937

Description: Womersley (1937).

Recorded from: the deep sea at 20–30 fathoms (37–55 m). This specimen must have been

washed in from a terrestrial site.

Superfamily: DERMANYSSOIDEA Family: LAELAPIDAE Berlese, 1892

#### Androlaelaps pachyptilae (Zumpt and Till, 1956)

Haemolaelaps pachyptilae Zumpt and Till, 1956

Descriptions: Hunter (1964, 1970).

Recorded from: burrows and nests of various seabirds.

#### Ayersacarus gellidus Hunter, 1964

Descriptions: Hunter (1964), Watson (1967).

Recorded from: Silbocarpus litter, sheep dung, gentoo penguin (Pygoscelis papua)

rookery soil, nest material of various birds, moss.

#### Ayersacarus gressitti Hunter, 1964

Description: Hunter (1964).

Recorded from: Colobanthus, Dracophyllum and other 'low plants', leaf mould, moss;

bird nests and burrows.

#### Ayersacarus plumapilpis Hunter, 1964

Description: Hunter (1964).

Recorded from: among vegetation, moss, leaf mould, bird nests and 'chicken yard

debris'.

#### Ayersacarus strandtmanni Hunter, 1964

Description: Hunter (1964).

Recorded from: burrows of dove prion (Pachyptila desolata).

# Ayersacarus tilbrooki Hunter, 1967 Description: Hunter (1967, 1970).

Recorded from: bird nests and among bird feathers.

#### Eulaelaps stabularis (Koch, 1836)

Gamasus stabularis Koch, 1836 Description: Wilson (1964a).

Recorded from: 'chicken yard debris', a cosmopolitan and possibly a non-indigenous

introduced species.

#### Haemogamasus pontiger Berlese, 1903

Eulaelaps mawsoni Womersley, 1937

Description: Berlese (1903).

One record from: the seashore (Australian Antarctic Expedition, 1911–1914), but it is usually a facultative parasite on rats and food. Cosmopolitan. This species is non-indigenous and the records from Macquarie Is. are probably the result of accidental introduction.

#### Hypoaspis evansi (Hunter, 1964)

Stevacarus evansi Hunter, 1964 Description: Hunter (1964).

Recorded from: nest of white-chinned (shoemaker) petrel (*Procellaria aequinoctialis*), on the seashore under board and rotting kelp (tidal debris).

#### Hypoaspis ('type') sp.

Listed in: Holdgate et al. (1968).

No habitat data given.

Laelaps (Eulaelaps) grahamensis Trägårdh, 1908

Description: Trägårdh (1908). Recorded from: under stones.

Leptolaelaps macquariensis (Womersley, 1937)

Pachylaelaps macquariensis Womersley, 1937

Descriptions: Womersley (1937), Luxton (1990).

Recorded from: between tidemarks, a non-indigenous species, possibly introduced

from another island site.

Leptolaelaps reticulatus Evans, 1957 subspecies campbellensis Hunter, 1964

Description: Hunter (1964).

Recorded from: vegetation, moss, leaf litter, bird nests.

Proctolaelaps hypudaei (Oudemans, 1902)

Description: Oudemans (1902).

Recorded from: shallow freshwater pool and on one un-named site.

Stevacarus claggi Hunter, 1970 Description: Hunter (1970).

Recorded from: moss, under rocks in penguin rookery, rock crevices, under stones,

tussock grass, shore vegetation, bird nests.

Laelapidae inquerendia

sp. no. 1 (damaged specimen).

Listed by: Bull (1960).

Recorded as: ectoparasite of rabbit (Oryctolagus cuniculus).

sp. no. 2 (damaged specimen).

Listed by: Bull (1960).

Recorded as: ectoparasite of rabbit (Oryctolagus cuniculus).

Family: HALARACHNIDAE Oudemans, 1906

Key: Wilson (1970).

Halarachne miroungae Ferris, 1925

Halarachne taita Eichler, 1958

Halarachne erratica Fain and Mortelmans, 1959

Descriptions: Ferris (1925), Newell (1947b), Domrow (1962), Wilson (1967, 1970a). Recorded from: within the nostrils of southern elephant seals (*Mirounga leonina*).

Halarachne sp. (close to H. halichoeri Allmann, 1847)

Halarachne halichoeri Allmann, 1847 in Block (1992)

Listed in: Blanchard (1906).

Recorded from: within the nostril of a leopard seal (Hydrurga leptonyx). This record

probably refers to Halarachne mirounga larva (personal observation).

Family: RHINONYSSIDAE Trouessart, 1894

Keys: Wilson (1967, 1970a).

Rhinonyssus rhinolethrum (Trouessart, 1895)

Sternostomum rhinolethrum Trouessart, 1895

Description: Wilson (1970a).

Recorded from: on ducks (Anas), cosmopolitan.

#### Rhinonyssus schelli Fain and Hyland, 1963

Rhinonyssus sphenisci schelli Fain and Hyland, 1894

Descriptions: Wilson (1967, 1970a).

Recorded from: on a variety of penguins including Humboldt, adelie and gentoo (Spheniscus humboldti, Pygoscelis adeliae and P. papua); one deuteronymph found

among yellow lichens on seashore.

Superfamily: CERCOMEGISTOIDEA

Family: CERCOMEGISTIDAE Trägårdh, 1938

Unidentified no. 1

Listed in: Watson (1967).

Recorded from among vegetation litter. Unidentified no. 2 (*Celaenogamasus* sp.)

Listed in: Watson (1967).

Recorded from: among vegetation.
Unidentified no. 3 (*Celaenogamasus* sp.)

Listed in: Watson (1967).

Recorded from: vegetation associated with penguin rookeries.

Family: DAVACARIDAE Kethley, 1977

# Davacarus gressitti Hunter, 1970

Description: Hunter (1970).

Recorded from: bird nests and rookeries.

#### Davacarus sp.

Daveacarus sp. in Tilbrook (1967) [sic.]

= Davacarus gressitti?

Listed in: Tilbrook (1967). Recorded from: bird nests.

Superfamily: POLYASPIDOIDEA

Family: POLYASPIDIDAE Berlese, 1913

Unidentified no. 1

Listed in: Watson (1967).

Recorded from: soil around roots of Poa foliosa.

Unidentified no. 2

Listed in: Watson (1967).

Recorded from: Stilbocarpus fruiting heads, Puccinellia moss and green algae of sea-

sprayed coastal rocks.

Superfamily: UROPODOIDEA

Family: UROPODIDAE Berlese, 1900

#### Phaulodinychus gressitti Hirschmann, 1972

Uropoda (Phaulodinychus) gressitti Hirschmann, 1972

Description: Hirschmann (1972). Listed in: West (1984).

Recorded from: terrestrial vegetation.

#### Uroobovella gressitti Hirschmann and Z-Nicol, 1972

Description: West (1984).

Recorded from: terrestrial vegetation.

#### Uropoda sp. no. 1

Listed in: Watson (1967).

Recorded from: among vegetation and soil, under stones and in nesting material of

birds, sheep dung, cave-wall lichens.

#### Uropoda sp. no. 2

Listed in: Watson (1967).

Recorded from: bird nesting material, plant litter associated with penguins and sheep.

#### Uropoda sp. no. 3

Listed in: Watson (1967).

Recorded from: plant litter and soil, mosses, bird nests and sheep dung.

# Uropodidae nr. Uroobovella

Listed in: Tilbrook (1967).

Recorded from: terrestrial vegetation.

#### Uropodidae Inquerendia

#### Opisthope crozetensis Richters, 1908

Description: Richters (1907).

Recorded from: moss.

#### Piracaraus crozetensis Richters, 1908

Description: Richters (1908).

Recorded from: the sea at a depth of 37-55 m, probably a dislodged specimen.

# Suborder: METASTIGMATA (=IXODIDA)

Diagnosis and key to genera: Krantz (1978).

#### Superfamily: IXODOIDEA

A number of species not mentioned here are listed in Speiser (1909), but these are not authenticated records from the Southern Ocean and were collected en route in South Africa.

#### Family: IXODIDAE Murray, 1877

Keys: Wilson (1964b, 1967).

#### Ixodes auritulus Neumann, 1907

Ixodes thoracicus Neumann, 1899 Ixodes percavatus Dalenius, 1965

Description: Wilson (1967).

Recorded from: king penguin (Apenodytes patagonia) and antarctic skua (Catharacta antarctica).

#### Ixodes kerguelensis André and Colas-Belcour, 1942

Ixodes canisuga kerguelensis André and Colas-Belcour, 1942 Ixodes canisuga André and Colas-Belcour 1942, in Block, 1992 Ixodes percavatus André, 1947 Ixodes auritulus Zumpt, 1952

Ixodes pterodromae Arthur, 1962, nec. Wilson (1964a)

Ixodes zumpti Arthur, 1960

Descriptions: Wilson (1970a, 1970b). Recorded from: a variety of seabirds.

#### Ixodes pterodromae Arthur, 1960

Ixodes auritules [sic.] Nuttall, 1916

Description: Wilson (1964).

Recorded from: wandering albatross (Diomedea exulans), king penguin (Apenodytes patagonia), southern skua (Catharacta antarctica) and dove prion (Pachyptila desolata).

#### Ixodes uriae White, 1852

Ixodes eudiptydis Maskall, 1885?

Hyalomma puta Pickard-Cambridge, 1876 Ixodes borealis Kramer and Neumann, 1883 Ixodes fimbriatus Kramer and Neumann, 1883

Ixodes hirsutus Birula, 1895

Ixodes (Ceratixodes) putus Neumann, 1911 Ceratixodes putus Cambridge (Bank, 1914)

Ixodes (Ceratixodes) putus procellariae Schulz, 1930

Ixodes (Ceratixodes) uriae Arthur, 1963

Ceratixode uriae Ixodes putus

Descriptions: Watson (1967), Wilson (1964a, 1967, 1970a, 1970b).

Recorded from: a variety of seabirds, including albatrosses, penguins and petrels.

Subclass: ACARI-ACTINOTRICHIDA

Order: ACARIFORMES

Suborder: PROSTIGMATA (= ACTINEDIDA)

Diagnoses and keys: all families (Krantz, 1978); some Antarctic species (Strandtmann,

1967).

Superfamily: PACHYGNATHOIDEA

Family: NANORCHESTIDAE Grandjean, 1937

Keys: Booth (1984), Luxton (1990).

#### Nanorchestes amphibius Topsent and Trouessart, 1890

Listed in: Dalenius (1965) from the Australian Antarctic Expedition.

Recorded from: seaweed. This species is European and the record is probably a mis-

identification (personal observation).

#### Nanorchestes antarcticus Strandtmann, 1963

Descriptions: Womersley and Strandtmann (1963), Strandtmann (1964, 1967, 1982). Recorded from: on open rock surfaces, under stones and in soil.

#### Nanorchestes bellus Strandtmann and Sømme, 1977

Descriptions: Strandtmann and Sømme (1977); Strandtmann (1982a).

Recorded from: on bare soil and under stones.

#### Nanorchestes berryi Strandtmann, 1982

Description: Strandtmann (1982c).

Recorded from: among vegetation including the lichen Stereocaulon, Polytrichum and other mosses, grass and on rocks.

#### Nanorchestes bifurcatus Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: lichens (*Usnea* and *Umbellicaria*), patches of mosses (*Grimmia* and *Bryum*), under small rocks and among gravel more or less covered by vegetation.

#### Nanorchestes brekkeristae Strandtmann and Sømme, 1977

Descriptions: Strandtmann and Sømme (1977), Strandtmann (1982a).

Recorded from: among lichens, under rocks covered with lichens, moist gravel and sand.

#### Nanorchestes gressitti Strandtmann, 1982

Description: Strandtmann (1982c).

Recorded from: the interface of wet and dry humus, among *Polytrichum*, under rocks on moss bed, under stones and among penguin feathers under snow.

#### Nanorchestes lalae Strandtmann, 1982

Description: Strandtmann (1982a).

Recorded from: on bare soil, under rocks and in moss.

#### Nanorchestes macquariensis Strandtmann, 1982

Descriptions: Strandtmann (1982b), Luxton (1990).

Recorded from: among Puccinellia, green algae and in littoral crevices in coastal

regions.

#### Nanorchestes marianae Strandtmann, 1982

Description: Strandtmann (1982b).

Recorded from: among soil and vegetable litter.

#### Nanorchestes rounsevelli Strandtmann, 1982

Description: Strandtmann (1982b).

Recorded from: among Pleurophyllum and soil.

#### Nanorchestes triclavatus Booth, 1984

Description: Booth (1984). Recorded from: fellfield.

#### Nanorchestes watsoni Strandtmann, 1982

Descriptions: Strandtmann (1982b), Luxton (1990).

Recorded from: lichens on coastal rocks.

# Nanorchestes wilbanksi Strandtmann, 1981

Description: Strandtmann (1981) Recorded from: lichens on rocks.

#### Nanorchestes sp. no. 1

Listed in: Strandtmann and Davies (1972).

Recorded from: lichens on rocks.

#### Nanorchestes sp. no. 2

Listed in: Matsuda (1977).

Recorded from: lichens on rocks.

#### Nanorchestes sp. no. 3

Listed in: Strandtmann (1977). Recorded from: lichens on rocks.

Nanorchestes sp. no. 4

Listed in: Wynn-Williams (1985). Recorded from: lichens on rocks.

Speleorchestes sp.

Listed in: Rounsevell and Greenslade (1988).

No habitat data provided.

Family: PACHYGNATHIDAE Kramer, 1877

Gainia nivalis Trouessart, 1914

Listed in Dalenius (1965) and Gressitt (1967). Description: Thor and Willmann (1941)

from Europe. This species may be a Nanorchestes (personal observation).

Recorded from: surface of snow.

Superfamily: EUPODOIDEA

Family: EUPODIDAE C. L. Koch, 1835

Keys: Strandtmann and Tilbrook (1968), Strandtmann (1971), Strandtmann and

Davies (1972), Booth et al. (1985).

Cocceupodes australis Strandtmann and Tillbrook, 1968

Description: Strandtmann and Tilbrook, 1968.

Recorded from: among Polytrichum alpinum on volcanic ash.

Eupodes angardi Strandtmann and Sømme, 1977 Description: Strandtmann and Sømme, 1977. Recorded from: breeding ground of snow petrels.

Eupodes crozetensis Strandtmann and Davies, 1972

Description: Strandtmann and Davies (1972).

Recorded from: among Blechnum and Deschampsia on peat and mineral soil.

Eupodes exiguus Booth, Edwards and Usher, 1985

Description: Booth et al. (1985).

Recorded from: extractions form Polytrichum/Chorisodontium moss turf and from

Andraea on fellfield.

Eupodes longisetatus Strandtmann, 1964

Description: Strandtmann (1964).

Recorded from: leaf mould and litter, among moss on rocks; moss and lichen on trunk

of Drachophyllum.

Eupodes minutus (Strandtmann, 1967)

Tydeus antipodianus (Womersley, 1937)

Eupodes antipodianus

Protereunetes minutus Strandtmann, 1967

Description: Strandtmann (1967, 1970), Booth et al. (1985), Luxton (1990).

Recorded from: among *Deschampsia*, the mosses *Polytrichum*, *Pohlia* and *Drapenocladus*, the alga *Prasiola*; nest material of wandering albatross (*Diomedea exulans*) and white-chinned (shoemaker) petrel (*Procellaria aequinoctialis*); among littoral algae.

#### Eupodes parvus Booth, Edwards and Usher, 1985

Description: Booth et al. (1985).

Recorded from: moss turf extractions, including the mosses Drepanocladus,

Choristondium and Polytrichum.

#### Eupodes parvus grahamensis Booth, Edwards and Usher, 1985

Description: Booth et al. (1985).

Recorded from: Deschampsia; moss turf extractions, including Polytrichum, Disitichium

and Bryum.

#### Eupodes tottanfjella Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: among mosses (Grimmia and Bryum) and lichens (Usnea and Umbellicaria), especially near water seepage with green alga (Prasiola); under rocks and at entrance of snow petrel (Pagodroma nivea) nest.

#### Eupodes wisei Womersley and Strandtmann, 1963

Description: Womersley and Strandtmann (1963).

Recorded from: under stones in southern skua (Catharacta macckormicki) rookery.

#### Eupodes wisnesi Strandtmann and Sømme, 1977

Description: Strandtmann and Sømme (1977).

Recorded from: breeding ground of snow petrel (Pagodroma nivea); on scree, among moss and lichens.

#### Eupodes sp. no. 1

Listed in: Watson (1967).

Recorded from: among leaves, litter and soil of grassland and herbfield plants; Colobanthus; sheep dung; rockhopper penguin (Eudyptes chryocome); algae on coastal and rookery rock; under wooden board on sandy beach. From sea level to +250 m.

#### Eupodes sp. no. 2

Listed in: Usher and Edwards (1984).

Recorded from: Deschampsia.

#### Eupodes sp. no. 3

Listed in: Usher and Edwards (1984).

Recorded from: Deschampsia.

#### Eupodes sp. no. 4

Listed in: Usher and Edwards (1984).

Recorded from: Deschampsia.

#### Eupodes sp. no. 5

Listed in: Usher and Edwards (1984).

Recorded from: Deschampsia.

#### Protereunetes crozeti Strandtmann and Davies, 1972

Description: Strandtmann and Davies (1972).

Recorded from: mineral soil pocket in fellfield; in moss and Blechnum on peat and among Deschampsia.

#### Protereunetes maudae Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: soil and lichens; among sand and gravel with patches of moss (Bryum)

near colonies of snow petrels.

#### Protereunetes paulinae Gless, 1972

Protereunetes sp. Gless, 1967 Description: Gless (1972).

Recorded from: among soil under loose rocks.

#### **Protereunetes** sp. no. 1 Listed in: Gressitt (1967). No habitat data given.

### Protereunetes sp. no. 2 Listed in: Watson (1967).

Recorded from: grassland soil and herb field plants; Colobanthus, Puccinella, lichens of caves and coastal rocks; sheep dung, rockhopper penguin debris and under wooden board on a sandy beach.

#### Family: PENTHALEIDAE Oudemans, 1931

#### Halotydeus signiensis Strandtmann and Tilbrook, 1968

Description: Strandtmann and Tilbrook (1968).

Recorded from: among mosses.

#### Halotydeus sp. no. 1 Listed in: Wilson (1967).

Recorded from: among Cotula and Colobanthus growing on sea-sprayed rocks.

#### Halotydeus sp. no. 2

New record from: supralittoral whalebone crevices.

#### **Penthaleus major** (Duges, 1834)

Tetranychus major Duges, 1834 Description: Strandtmann (1964).

Recorded from: among grass by a stream.

#### Penthaleus sp.

New record from: supralittoral tidal debris and stones.

#### Family: PENTHALODIDAE Thorell, 1933

Key: Strandtmann (1971).

#### Stereotydeus belli (Trouessart, 1902)

Penthaleus belli Trouessart, 1902

Chromotydeus belli

Descriptions: Womersley and Strandtmann (1963), Strandtmann (1967), Gless (1972). Recorded from: on and under rocks near penguin rookery; among stones, moss and soil below a snow patch; under stones on soil.

#### Stereotydeus delicatus Strandtmann, 1967

Description: Strandtmann (1967). Recorded from: among stones.

#### Stereotydeus intermedius (Trouessart, 1907)

Penthalodes intermedius Trouessart, 1907 Description: Trouessart (1907a).

Recorded from: moss.

#### Stereotydeus longipes Strandtmann, 1970

Description: Strandtmann (1970).

Recorded from: under rocks, among tussock grass near beach; on seashore under

rotting wood, stones, in rock crevices and tidal debris.

#### Stereotydeus meyeri Strandtmann, 1967

Description: Strandtmann (1967).

No habitat data provided.

#### Stereotydeus mollis Womerley and Strandtmann, 1963

Description: Womersley and Strandtmann (1963).

Recorded from: among mosses, lichens and algae, under rocks, among sand, soil and

stones.

#### Stereotydeus nudiseta Strandtmann, 1964

Description: Strandtmann (1964).

Recorded from: among low plants, mosses and lichens.

#### Stereotydeus pulcher Strandtmann, 1964

Description: Strandtmann (1964).

Recorded from: among mosses and lichens on rocks.

#### Stereotydeus punctatus Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: under stones on rock debris, among mosses, lichens and on bare

ground.

#### Stereotydeus reticulatus Strandtmann, 1970

Description: Strandtmann (1970).

Recorded from: rock crevices, on moss and rocks, under stones, among tussock grass.

Sea level to  $+400 \,\mathrm{m}$ .

#### Ster otydeus shoupi Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: under stones, on soil and moss.

#### Stereotydeus undulatus Strandtmann, 1964

Description: Strandtmann (1964).

Recorded from: tussock grass leaf mould, among mosses and lichens on rocks.

#### Stereotydeus villosus (Trouessart, 1903)

Penthaleus villosus Trouessart, 1903

Tectopenthalodes villosus

Stereotydeus (Tectopenthalodes) villosus

Stereotydeus villosus

Descriptions: Womersley and Strandtmann (1963), Strandtmann (1967).

Recorded from: among lichens and rocks, mosses; under stones and grass roots.

Family: RHAGIDIIDAE Oudemans, 1902

Keys: Womersley and Strandtmann (1963) (Coccorhagidia), Strandtmann (1971) (Rhagidia).

#### Coccorhagidia gressitti Womersley and Strandtmann, 1963

Description: Womersley and Strandtmann (1963).

Recorded from: among stones, algae, soil, 'feather boluses' (= boli), in southern skua (Catharacta macckormicki) rookery.

#### Coccorhagidia keithi Strandtmann, 1967

Description: Strandtmann (1967).

Recorded from: under stones and in soil.

#### Coccorhagidia sp.

Listed in: Wise (1964). No habitat data provided.

#### Rhagidia gerlachei (Trouessart, 1903)

Norneria gigas subsp. gerlachei Trouessart, 1903

Rhagidia racovitzai Trägårdh, 1907

Rhagidia gigas Canestrini

Rhagidia gerlachei

Descriptions: Womersley and Strandtmann (1963), Strandtmann (1970).

Recorded from: under stones and mosses, running over mosses, in rock crevices, among tussock grass, in nest material of white-chinned (shoemaker) petrel (*Procellaria aequinoctialis*); on seashore under rocks and in tidal debris.

#### Rhagidia kerguelensis (Cambridge, 1876)

Poecilophysis kerguelensis Cambridge, 1876.

Description: Strandtmann and Davies (1972).

Recorded from: among mosses (Rhacomitrium) and Blechnum on peat, tufts of Deschampsia in pockets of mineral soil on fellfield, among tussock grass and Azorella on peat.

#### Rhagidia leechi Strandtmann, 1963

Description: Womersley and Strandtmann (1963).

Recorded from: on scree; among tussock grass and leaf litter; under rocks, moss and under wood.

#### Rhagidia macquariensis Womersley and Strandtmann, 1963

Description: Womersley and Strandtmann (1963).

Recorded from: among tussock grass roots, Colobanthus, Pleurophyllum debris.

#### Rhagidia mildredae Strandtmann, 1964

Description: Strandtmann (1964).

Recorded from: among Colobanthus, Drachophyllum litter, on rocks, moss and leaf mould; under rocks in the upper littoral zone.

#### Rhagidia sp.

Listed in: Strandtmann (1964). Recorded from: moss and lichens. Superfamily: HALACAROIDEA

Family: *HALACARIDAE* Murray, 1877 Keys: Newell (1984), Bartsch (in press).

Subfamily: COPIDOGNATHINAE Barsch, 1983

#### Copidognathus acanthophorus Viets, 1950

Copidognathus (Copidognathopsis) acanthophorus Viets, 1950

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 12 to 13 m, among algae, bryozoans and brachiopods; between small

algal bunches and colonial animals.

#### Copidognathus arnaudi Newell, 1984

Description: Newell (1984).

Recorded from: 50 to 75 m and 370 m on hydroids and sponges; kelp holdfasts at 12 m.

#### Copidognathus confusus Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 13 to 152 m on bryozoans and algae; among kelp holdfast tidal debris.

Adapted to penetrating small interstices.

#### Copidognathus crypticus Newell, 1984

Description: Newell (1984).

Recorded from: 15 m on holdfasts of Macrocystis kelp.

#### Copidognathus floridus Trouessart, 1914

Copidognathus (Copidognathopsis) floridus Viets, 1927 Descriptions: Newell (1984), Bartsch (in press).

Recorded from: sponge (Homaxinella supratumescens), alga (Desmarestia menziesi) and

holdfast of Phyllogigas grandifolius at 31 m.

#### Copidognathus hureaui Newell, 1984

Description: Newell (1984)

Recorded from: 15 m on holdfasts of Macrocystis pyrifera.

#### Copidognathus johnstoni (Womersley, 1937)

Werthella johnstoni Womersley, 1937 Description: Womersley (1937).

Recorded from: in gut of weddell seal (Leptonychotes weddelli); but this species is not recorded from later studies (Newell, 1984; Bartsch, 1992) and may not be a valid species.

#### Copidognathus kerguelensis (Lohmann, 1907)

Halacarus (Copidognathus) kerguelensis Lohmann, 1907

Copidognathus (Copidognathopsis) kerguelensis

Copidognathus (Copidognathopsis) kerguelenensis [sic.] André, 1933

Description: Newell (1984).

Recorded from: algae in shallow water.

#### Copidognathus marcandrei Viets, 1956

Copidognathus (Copidognathopsis) marc-andrei Viets, 1950

Copidognathus Marc-Andrei Dalenius, 1965

Copidognathus marc-andrei

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 22 m on algae and mud.

#### Copidognathus porosus Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 13 m, among brachiopod shells, algae and mud.

#### Copidognathus simonis (Lohmann, 1907)

Halacarus (Copidognathus) simonis Lohmann, 1907

Description: Newell (1984).

Recorded from: littoral algae, shells and worm tubes; also from sub-littoral among

ascidians. Record may be a contaminant (Newell, 1984).

#### Copidognathus vanhoeffeni (Lohmann, 1907)

Copidognathus (Copidognathus) vanhöffeni Lohmann, 1907

Copidognathus vanhöffeni

Copidognathus liouvillei Trouessart, 1914 Copidognathus (Copidognathopsis) liouvillei Copidognathus (Copidognathopsis) vanhöffeni

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 46 to 500 m, associated with ascidians, bryozoans and sponges.

#### Copidognathus ypsilophorus Newell, 1984

Halacarus (Copidognathus) oculatus Lohmann, 1907

nec. Halacarus oculatus Hodge, 1863

Copidognathus oculatus

Description: Newell (1984).

Recorded from: 15 m on holdfasts of Macrocystis kelp.

# Werthella eltanini Newell, 1984

Description: Newell (1984).

Recorded from: 92 to 113 m, on unrecorded or unknown substrata.

#### Werthella lohmanni Newell, 1984

Werthella parvirostris Lohmann, 1907

Copidognathus parvirostris

Description: Newell (1947a, 1984).

Recorded from: 15 m on Macrocystis kelp.

#### Werthella terra Bartsch, 1979 Description: Bartsch (1979).

Recorded from: 95 m on muddy sand.

#### Werthella terrella Bartsch (in press)

Description: Bartsch (in press).

Recorded from: the sublittoral, on unrecorded or unknown substrata.

#### Subfamily: HALACARINAE Viets, 1927

#### Agaue agauoides (Lohmann, 1907)

Halacarus (Polymela) agauoides Lohmann, 1907

Leptospathis agauoides

Agaue debilis v. consobrina André, 1933

Agaue consobrina

Description: Newell (1984), Bartsch (in press). Recorded from: 30 to 385 m, probably epizooic.

#### Agaue hamiltoni Womersley, 1937

Description: Newell (1984). No habitat data provided.

#### Agaue obscura Bartsch, 1987

Descriptions: Bartsch (1987, in press).

Recorded from: 70 to 350 m on soft substrata—'flocculent surface sediment'.

#### Agaue parva (Chilton, 1883)

Halacarus parvus Chilton, 1883
Leptospathis Bouvieri Trouessart, 1907
Halacarus (Polymela) occultus Lohmann, 1907
Leptospathis (Polymela) occultus
Halacarus (Polymela) bouvieri
Halacarus (Polymela) pilosus Gimbel, 1919
Agaue pilosa Viets, 1931
Agaue occultus
Agaue occultus var. setifer Womersley, 1937
Agaue parva womersleyi Viets, 1950

Agaue affinis Sokolov, 1962 Descriptions: Newell (1984), Bartsch (in press).

Recorded from: the littoral zone to 1061 m, epibenthic also on kelp holdfasts,

bryozoans and hydrozoans.

#### Agaue setalis Newell, 1984 Description: Newell (1984).

Recorded from: 124 to 128 m, on unrecorded or unknown substrata.

#### Agaue tenuirostris (Lohmann, 1907)

Halacarus (Polymela) tenuirostris Lohmann, 1907 Leptospathis scriptor Trouessart, 1907 Leptospathis tenuirostris Agaue scriptor Viets, 1931 Agaue scriptor (syn. A. tenuirostris) Viets, 1940 Agaue longissima Sokolov, 1962

Description: Newell (1984), Bartsch (in press).

Recorded from: 20 to 622 m, epibenthic and epizooic.

#### Agaue uncinata Bartsch, 1990

Description: Bartsch (1990, in press).

Recorded from: 342 to 360 m, on soft sediments, such as flocculent deposits.

#### Agaue verrucosa Bartsch, 1982

Descriptions: Newell (1984), Bartsch (1982, in press).

Recorded from: 1200 to 2700 m, on soft sediments such as flocculent deposits.

#### Agaue villosa (Lohmann, 1907)

Halacarus (Polymela) villosus Lohmann, 1907

Leptospathis villosus

Agaue villosus

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 310 to 385 m, on muddy substratum with sponges and rocks.

#### Agaue sp.

Listed in: Bartsch (1979)

Recorded from: 95 m on muddy sand.

#### Agauopsis antarctica (Lohmann, 1907)

Agaue antarctica Lohmann, 1907 Agaue polaris Lohmann, 1907 Agaue veles Trouessart, 1907b

Agauopsis veles

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 20 to 46 and 385 to 460 m, among haptera of Macrocystis kelp, benthos

and littoral algae.

#### Agauopsis costatus Newell, 1971 Descriptions: Newell (1971, 1984).

Recorded from: 550 to 590 m, on unrecorded or unknown substrata.

#### Agauopsis delicatus Newell, 1971 Descriptions: Newell (1971, 1984).

Recorded from: 170 to 160 m, on unrecorded or unknown substrata.

#### Agauopsis glacialis Bartsch (in press)

Description: Bartsch (in press).

Recorded from: the shallow sublittoral among hapteres, algal bunches and colonial

organisms.

#### Agauopsis inflatus Newell, 1984

Description: Newell (1984).

Recorded from: Macrocystis (kelp) holdfasts; sand and shells between rocks; on littoral

Porphyra.

#### Agauopsis mccaini Newell, 1984

Descriptions: Newell (1984); Bartsch (in press).

Recorded from: shallow sublittoral scrub algae and bryozoans.

#### Agauopsis paulensis (Lohmann, 1907)

Agaue microrhyncha var. paulensis Lohmann, 1907

Agaue microrhyncha paulensis Description: Newell (1984).

Recorded from: 'on shore', on unrecorded or unknown substrata.

#### Agauopsis racki Newell, 1984 Description: Newell (1984).

Recorded from: 250 to 570 m, in small (rock?) crevices.

#### Bradyagaue aspidionis Newell, 1984

Descriptions: Newell (1984); Bartsch (in press).

Recorded from: 1442 to 1444 m, on stoloniferous hydrozoans.

#### Bradyagaue crassa Bartsch, 1990

Descriptions: Bartsch (1990, in press).

Recorded from: 350 m on stoloniferous organisms.

#### Bradyagaue drygalskii (Lohmann, 1907)

Halacarus (Polymela) drygalskii Lohmann, 1907 Leptospathis alberti antarctica Trouessart, 1907a

Leptospathis drygalskii

Leptospathis (Polymela) drygalskii

Agaue alberti antarctica Viets, 1931

Agaue drygalskii

Halacarus (Halacarus) drygalskii

Bradyagaue alberti drygalskii

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 62 to 1674 m, on mud, muddy sand, sand with gravel, gravel, stolons of hydroids and in the sublittoral on holdfasts of Durvillea kelp; also from 'other various

habitats'.

#### Halacarellus arnaudi (Newell, 1984)

Thalassarachna arnaudi Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 50 to 460 m, and from 'shallow water', on Phyllogigas grandifolius, and

rocks covered with the algae Desmarestia and Plocamium.

#### Halacarellus auster Bartsch, 1990

Descriptions: Bartsch (1990, in press).

Recorded from: 9 to 60 m, on unrecorded or unknown substrata.

# Halacarellus bouvieri (Trouessart, 1914)

Werthella Bouvieri Trouessart, 1914

Copidognathus bouvieri Thalassarachna bouvieri

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 6 and 22 m, amongst tufts and hapteres of algae, sponges and colonial

animals.

# Halacarellus decipiens (Newell, 1984)

Thalassarachna decipiens Newell, 1984

Description: Newell (1984).

Recorded from: 113 to 92 m, on unrecorded or unknown substrata.

#### Halacarellus eltanini (Newell, 1984)

Thalassarachna eltanini Newell, 1984

Description: Newell (1984).

Recorded from: 439 m, on unrecorded or unknown substrata.

#### Halacarellus georgiensis (Newell, 1984)

Halacarus (Halacarellus) novus Viets, 1950

Halacarus novus Dalenius, 1965

Thalassarachna georgiensis

Descriptions: Viets (1950), Newell (1984).

Recorded from: 22 m, among algae.

#### Halacarellus glaber Bartsch, 1990

Description: Bartsch (1990, in press).

Recorded from: 93 to 121 m, epibenthic and epizcoic.

#### Halacarellus harioti (Trouessart, 1898)

Halacarus Harioti Trouessart, 1889

Halacarus (spinifer-Gruppe) Harioti Lohmann, 1893

Halacarus armatus Kramer, 1898

Halacarus (Halacarellus) Balticus harioti var. kerguelensis Lohmann, 1907

Halacarus (Halacarus) harioti

Halacarus (Hal., Balticus-Gruppe) harioti forma typica Lohmann, 1907

Halacarus Halacarus harioti kerguelensis Trouessart, 1907

Halacarus (Halacarellus) harioti harioti

Halacarus (Halacarellus) harioti kerguelensis Viets, 1927

Halacarus (Halacarellus) armatus Viets, 1939

Halacarus (Halacarellus) harioti

Halacarus (Halacarellus) uschakovi Sokolov, 1962

Halacarus harioti var. kerguelensis Dalenius, 1965

Thalassarachna harioti Newell, 1984

Thalassarachna kerguelensis Newell, 1984

Thalassarachna uschakovi (Sokolov) Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: the littoral and shallow sublittoral, among coarse sediments, barnacles,

Mytilus sp. and red algae.

#### Halacarellus heteroculus (Newell, 1984)

Thalassarachna heteroculus Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 6 and 22 m, on the surface of sediments and among algal tufts.

# Halacarellus lubricellus Bartsch, 1990

Descriptions: Bartsch (1990, in press).

Recorded from: 300 m, epizooic on colonial animals.

#### Halacarellus novior (Lohmann, 1907)

Halacarus (Halacarus) (Artengruppe Balticus) novior Lohmann

Halacarus novior

Halacarus (Halacarellus) novior

Thalassarachna novior

Description: Newell (1984).

Recorded from: in shallow water, on unrecorded or unknown substrata.

#### Halacarellus novus (Lohmann, 1907)

Halacarus (Halacarus) novus Lohmann, 1907

Halacarus novus

Halacarus (Halacarellus) novus

Halacarus (Halacarellus) nudipelliger André, 1933

Thalassarachna novus

Description: Newell (1984).

Recorded from: 15 m, on holdfasts of Macrocystis kelp; also littoral and sublittoral on

unrecorded or unknown substrata.

#### Halacarellus parillis Bartsch, 1979

Description: Bartsch (1979)

Recorded from: 95 m on muddy sand.

#### Halacarellus thomasi (Newell, 1984)

Thalassarachna thomasi Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 200 to 460 m, on unrecorded or unknown substrata.

#### Halacarellus porrellus sp. nov. no. 1 Bartsch and Pugh (in preparation)

Description: Bartsch and Pugh (in preparation).

Recorded from: littoral crevices.

#### Halacarellus novellus sp. nov. no. 2 Bartsch and Pugh (in preparation)

Description: Bartsch and Pugh (in preparation).

Recorded from: littoral algae (Adenocystis and Gigartina), crevices and Durvillea kelp

holdfasts in the extreme lower littoral.

#### Halacarus arnaudi Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 370 m and the shallow sublittoral, epibenthic on hydrozoans, between

kelp holdfasts.

#### Halacarus sp. C Bartsch (in press as cucullatus)

Description: Bartsch (in press).

Recorded from: the shallow sublittoral, on unrecorded or unknown substrata.

#### Halacarus elegans Newell, 1984

Description: Newell (1984).

Recorded from: At 415 m, on unrecorded or unknown substrata.

#### Halacarus excellens Lohmann, 1907

Halacarus (Halacarus) excellens Lohmann, 1907 Descriptions: Newell (1984), Bartsch (in press). Recorded from: 35 m, on surface of sediments.

#### Halacarus falklandensis Newell, 1984

Halacarus (Halacarus) actenos robustus Viets, 1950

Description: Newell (1984).

Recorded from: 22 m, on unrecorded or unknown substrata.

#### Halacarus gracile-ungiculatus<sup>1</sup> Lohmann, 1907

Halacarus (Halacarus) gracile-unquiculatus<sup>1</sup> Lohmann, 1907

Description: Newell (1984).

Recorded from: 15 m on Macrocystis kelp holdfasts.

#### Halacarus hemispinosus Newell, 1984

Description: Newell (1984).

Recorded from: at 88 to 278 m, on unrecorded or unknown substrata.

<sup>&</sup>lt;sup>1</sup> The use of a hyphen within a specific name is illegitimate under ICZN rules, but its removal would, in this case, destroy the correct pronounciation; while inserting a blank space would suggest separate species and subspecies, which is technically incorrect. The original name has been retained *in lieu* of a suitable revision.

#### Halacarus laterculatus Viets, 1950

Halacarus (Halacarus) laterculatus Viets, 1950

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: low water to 120 m, on sand, gravel, broken shells, barnacles and

coralline algae.

#### Halacarus minor Lohmann, 1907

Halacarus (Halacarus) minor Lohmann, 1907 Halacarus (Halacarus) latirostris Gimbel, 1919

Halacarus latirostris

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 46 to 385 m, on the surface of sediments.

#### Halacarus nanus Gimbel, 1919

Halacarus (Halacarus) nanus Gimbel, 1919

Halacarus (Halacarus) nanus nanus

Descriptions. Newell (1984), Bartsch (in press). Recorded from: 350 to 385 m, on soft sediments.

#### Halacarus sp. O Bartsch (in press as otiosus)

Description: Bartsch (in press).

Recorded from: 250 m, among washings of crinoids, within scrub algae.

#### **Halacarus** sp. P Bartsch (in press as parmatus)

Description: Bartsch (in press).

Recorded from: 300 m on unrecorded or unknown substrata.

#### Halacarus profundus Newell, 1984

Descriptions: Newell (1984), Bartsch (in press). Recorded from: 2212 to 1306 m, on soft sediments.

#### Halacarus propinguus Viets, 1940

Halacarus (Halacarus) lohmanni Womersley, 1937

nec. Halacarus (Copidognathus) lohmanni Trouessart, 1889

Halacarus nanus propinquus Viets, 1940 Halacarus (Halacarus) nanus propinquus

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 46 m, on unrecorded or unknown substrata.

#### Halacarus robustus Lohmann, 1907 sensu Newell, 1984

Halacarus actenos Trouessart, 1889

Halacarus actenus Trouessart var robusta Lohmann, 1907

Halacarus actenos v. robustus Lohmann, 1907

Halacarus (Halacarus) actenos robustus

Description: Newell (1984).

Recorded from: 79 to 278 m on muddy sand and unrecorded or unknown substrata,

also at 15 m on holdfasts of Macrocystis kelp.

#### Halacarus setifer Newell, 1984

Descriptions: Newell (1984), Bartsch (in press). Recorded from: 148 m, on soft substrata.

#### Halacarus validus Gimbel, 1919

Halacarus (Halacarus) validus Gimbel, 1919

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 350 to 385 m, on surface of substratum.

#### Halacarus werthi Lohmann, 1907

Halacarus (Halacarus) werthi Lohmann, 1907 Halacarus (Halacarus) werthii [sic.] Police, 1909

Description: Newell (1984).

Recorded from: 'shallow water' on algae and tubiculous polychaetes.

#### Halacarus sp.

Listed in: Banks (1914). No habitat data given.

#### Mictognathus werthelloides Newell, 1971

Copidognathus sp. Womersley, 1937

Copidognathus (Copidognathus) sp. Viets, 1950 Descriptions: Newell (1984); Bartsch (in press). Recorded from: 13 m, on algae and bryozoans.

Subfamily: LOHMANNELLINAE Viets, 1927

#### Lohmannella antarctica Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: shallow water to 460 m, in crevices between algal hapteres and colonial

animals; also from *Phyllogigas grandifolius* stranded in tidal debris.

#### Lohmannella bihamata Viets, 1950

Description: Newell (1984)

Recorded from: crevices and algae in the extreme lower littoral.

#### Lohmannella consimilis Bartsch (in press)

Description: Bartsch (in press).

Recorded from: 100 m, on unrecorded or unknown substrata.

#### Lohmannella falcata (Hodge, 1863)

Leptognathus falcatus Hodge, 1863 Leptognathus marinus Lohmann, 1889

Trouessartia falcata

Lohmannella falcata falcata

Descriptions: Newell (1947, 1984).

Recorded from: upper littoral algae, and bryozoans and sponges at 385 m. This species is also recorded from the Atlantic Ocean. The Antarctic records are questionable.

#### Lohmannella fukushimai Imamura, 1968

Descriptions: Imamura (1986), Newell (1984). Recorded from: 190 to 800 m on soft sediments.

#### Lohmannella gaussi Lohmann, 1907

Lohmannella humerosa Newell, 1984

Descriptions: Newell (1984), Bartsch (1979, in press).

Recorded from: 95 to 385 m, on surface sediments of muddy sand.

#### Lohmannella grandipora Newell, 1984

Description: Newell (1984).

New record from: lower to upper littoral among coarse shell fragments between rocks, under stones and among *Macrocystis* kelp holdfasts washed up onto the shore.

#### Lohmannella hureaui Newell, 1984

Description: Newell (1984).

Recorded from: (the lower littoral/shallow sublittoral) on holdfasts of *Durvillea* kelp.

#### Lohmannella kerguelensis Lohmann, 1907

Lohmannella gaussi var. Lohmann, 1907a

Lohmannella gaussi var. kerguelensis Lohmann, 1907b Descriptions: Newell (1984); Bartsch (in press).

Recorded from 49 to 58 m, among colonial organisms and algal tufts.

#### Lohmannella reticulata Viets, 1950

Description: Newell (1984). No habitat data provided.

Subfamily: SIMOGNATHINAE Viets, 1927

#### Simognathus magellanicus Newell, 1984

Simognathus sculptus Viets, 1952 nec. Simognathus sculptus Brady, 1875

Description: Newell (1984).

Recorded from: 88 to 278 m, on unrecorded or unknown substrata; lower littoral barnacle/coralline red alga associations, brown and green algae attached to *Mytilus* shells and in kelp holdfasts cast up on shore by storms.

#### Subfamily: RHOMBOGNATHINAE Viets, 1927

#### Isobactrus macquariensis Newell, 1984

Description: Newell (1984).

Recorded from: the seashore plant Colobanthus. This is an artifact, probably blown

inland from littoral algae.

#### Isobactrus magnus (Lohmann, 1907)

Rhombognathus magnus Lohmann, 1907

Description: Newell (1984). Recorded from: littoral algae.

#### Isobactrus microdens Newell, 1984

Description: Newell (1984).

Recorded from: littoral crevice, in sediment.

#### Rhombognathus adeliensis Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: on stranded *Phyllogigas grandifolius*, and from the shallow sublittoral

on unrecorded or unknown substrata.

#### Rhombognathus ambiguus Newell, 1984

Descriptions: Newell (1984), Bartsch (1992).

Recorded from: 20 m on red algae

Rhombognathus apsteini Lohmann, 1907

Description: Newell (1984).

Recorded from: the lower littoral on Durvillea kelp.

Rhombognathus auster Bartsch, 1989

Description: Bartsch (1989).

Recorded from: littoral algae and crevice fringes.

Rhombognathus gressitti Newell, 1967

Rhombognathus magnirostris lionyx Trouessart, 1914.

Descriptions: Newell (1967, 1984).

Recorded from: littoral algae, on and beneath stones.

Rhombognathus multisetosus Newell, 1984

Description: Newell (1984).

Recorded from: kelp holdfasts and among artificial colonization substrata.

Rhombognathus plumifer Trouessart, 1989

Description: Newell (1984).

Recorded from: littoral alga and among artificial colonization substrata.

Rhombognathus sandwichi Newell, 1984

Descriptions: Newell (1984), Bartsch (in press).

Recorded from: 148 m on algae; an unusual depth for a rhombognathine, possibly a

dislodged specimen.

Superfamily: TYDEOIDEA

Family: EREYNETIDAE Oudemans, 1931

Ereynetes macquariensis Fain, 1962

Ereynetes (Gymnereynetes) macquariensis Fain, 1962

Descriptions: Fain (1962), Strandtmann (1970), Watson (1967).

Recorded from: nest of white-chinned (shoemaker) petrel (Procellaria aequinoctialis), old gulls' nests, among moss and lichens, in soils; Colobanthus, Rhizoclonium (alga) and

littoral algae (Porphyra).

Ereynetes sp. no. 1 (macquariensis?)

Description: Strandtmann (1964).

Recorded from: Dracophyllum leaf mould.

Ereynetes sp. no. 2

Listed in: Strandtmann and Davies (1972).

No habitat data given.

Ereynetoides watsoni Fain, 1962

Description: Fain (1962).

Recorded from: Stilbocarpus litter.

Family: TYDEIDAE Kramer, 1877

Diagnosis and keys: Usher and Edwards (1986a) (maritime Antarctica).

Most of the early records are listed under genus Tydeus, though more recently

described species, together with those re-examined, have been ascribed to a number of new genera (André, 1980). The generic status of the older records needs to be reappraised with reference to these 'new' tydeid genera.

Apotriophtydeus penola Usher and Edwards, 1986

Description: Usher and Edwards (1986). Recorded from: extracts of fellfield material.

Apotriophydeus scotiae Usher and Edwards, 1986

Description: Usher and Edwards (1986).

Recorded from: extracts of fellfield material and Drepanocladus moss.

Apotriophtydeus terror Usher and Edwards, 1986

Description: Usher and Edwards (1986). Recorded from: extracts of fellfield material.

Apotriophtydeus sp.

Listed in: Usher and Edwards (1984). Recorded from: *Deschampsia* sward litter.

Lorryia leptonychotes Womersley, 1937

Description: Womersley (1937).

Recorded from: 'among cestodes in a weddell seal' (Leptonychotes weddelli) (Dalenius,

1965). Probably a dislodged specimen.

Lorryia polaris Womersley, 1937 Description: Womersley (1937).

Recorded from: 19 to 20 fathoms (27-37 m), probably a dislodged specimen.

Lorryia sp.

Listed in: Strandtmann (1964).

Recorded from: Colobanthus at 200 m altitude.

Paratiophytydeus dubius Usher and Edwards, 1986

Description: Usher and Edwards (1986b).

Recorded from: extracts of Chorisodontium/Polytrichum moss turf.

Paratydeolus enigmaticus Usher and Edwards, 1986

Description: Usher and Edwards (1986).

Recorded from: fellfield and extracts of Chorisodontium/Polytrichum moss turf.

Paratydeolus sp.

Listed in: Usher (1986).

Recorded from: Deschampsia sward litter.

Pretriophtydeus tilbrooki (Strandtmann, 1967)

Tydeus tilbrooki Strandtmann, 1967

Descriptions: Strandtmann (1967, 1970), Usher and Edwards (1986a), Dastych (1990).

Recorded from: lichens, mosses, under rocks, gull's nest.

Tydeus antipodus Womersley, 1937

Description: Womersley (1937). Recorded from: littoral seaweeds.

Tydeus erebus Strandtmann, 1967 Description: Strandtmann (1967).

Recorded from: among rocks, gravel and in snow petrel nest.

Tydeus setsukoae Strandtmann, 1967 Description: Strandtmann (1967).

Recorded from: soil under rocks; under a dead penguin; among lichens and algae.

Tydeus wadei Strandtmann, 1967 Description: Strandtmann (1967).

Recorded from: among scoria with algae and under a dead penguin.

Tydeus wilkesi Strandtmann, 1967 Description: Strandtmann (1967).

No habitat data given.

Tydeus sp. no. 1

Listed in: Watson (1967). Recorded from: grassland.

Tydeus sp. no. 2

Listed in: Strandtmann and Davies (1972).

No habitat data given.

Superfamily: BDELLOIDEA

Family: BDELLIDAE Duges, 1834

Keys: Atyeo (1963) (Australasian Sector), Atyeo (1964) (Campbell I.), Wallace (1970) (Southern Ocean).

Bdella symmetrica? Kramer

Listed in: Banks (1914). No habitat given.

Bdella sp.

New record from: under stones, among lichens and on whalebone in the supralittoral.

**Bdellodes flexosus** Atyeo, 1963

Bdellodes (Hoploscirus) flexosus Atyeo, 1963

Description: Atyeo (1963).

Recorded from: among vegetation (Colobanthus), under stones.

Bdellodes georgianensis Wallace, 1970

Bdellodes (Bdellodes) georgianensis Wallace (1970)

Description: Wallace (1970).

Recorded from: sea level to 300 m, under rocks and in crevices, among mosses and

lichens.

Bdellodes gressitti Atyeo, 1964

Bdellodes (Hoploscirus) gressitti Atyeo, 1964

Description: Atyeo (1964).

Recorded from: among moss and an albatross nest.

#### Bdellodes macquariensis Atyeo, 1963

Bdellodes (Hoploscirus) macquariensis Atyeo, 1963 Description: Atyeo (1963), Wallwork (1973).

Recorded from: among leaf (fern and Stilbocarpus) litter, mosses, soil, vegetation (Colobanthus and Azorella), and from white-headed petrel (Pterodroma lessoni) burrow.

#### Bdellodes multicia Atyeo, 1963

Bdellodes (Hoploscirus) multicia Atyeo, 1963

Description: Atyeo (1963).

Recorded from: under vegetation.

#### Bdellodes petila Atyeo, 1963

Bdellodes (Hoploscirus) petila Atyeo, 1963

Description: Atyeo (1963).

Recorded from: the seashore under rocks at the high tide mark.

#### **Bdellodes rachia** Wallace, 1970

Bdellodes (Hoploscirus) rachia Wallace, 1970

Description: Wallace (1970).

Recorded from: under rocks on beach and in penguin rookery.

#### Bdellodes watsoni Atyeo, 1963

Bdellodes (Hoploscirus) watsoni Atyeo, 1963

Description: Atyeo (1963).

Recorded from: dead *Poa* roots, vegetation debris and among green algae on rocks in a penguin rookery.

#### Bdellodes sp. no. 1

Listed in: Wallace (1970).

Recorded from: moss and Acaena from sea level to 150 m.

#### Bdellodes sp. no. 2

Listed in: Strandtmann and Davies (1972).

No habitat data given.

#### Bdellodes sp. no. 3

New record from: supralittoral crevices; under stones, on whalebone and among lichens.

#### Scirus pallidus (Pickard-Cambridge, 1876)

Bdella pallida Pickard-Cambridge, 1876

Description: Cambridge (1876)

Recorded from: 'among dry localities'.

#### Spinibdella antarctica (Trägårdh, 1907)

Bdella antarctica Trägårdh, 1907

Descriptions: Trägårdh (1907); Thor (1931).

Recorded from: on rocks; in the supralittoral among tidal debris and under stones.

Superfamily: PYEMOTOIDEA

Family: PYEMOTIDAE Oudemans (1937)

Key: Cross (1970).

### Bakerdania antarcticus (Mahunka, 1967)

Pygmephorus sp. Tilbrook, 1973 Description: Mahunka (1967).

Recorded from: bird nests and burrows.

### Bakerdania equisetosa Cross, 1970

Description: Cross (1970).

Recorded from: nest material of white-chinned (shoemaker) petrel (Procellaria

aequinoctialis).

### Bakerdania rugosa Cross, 1970

Description: Cross (1970).

Recorded from: nest material of white-chinned (shoemaker) petrel (Procellaria

aequinoctialis).

# Bakerdania sp. no. 1 Listed in: Cross (1970).

Recorded from: nest of Wilson's storm petrel (Oceanites oceanites).

# Bakerdania sp. no. 2

Listed in: Cross (1970).

Recorded from: a moss-lichen sample.

Superfamily: PYGMEPHOROIDEA

Family: PYGMEPHORIDAE Key: Macquarie (Cross, 1964)

#### Neopygmephorus arvorum (Jacot, 1936)

Pygmephorus arvorum Jacot, 1936

Description: Jacot (1936).

Recorded from: Stilbocarpus litter and soil.

## Neopygmephorus pannonicus (Willmann, 1951)

Pygmephorus pannonicus Willmann, 1951

Description: Willmann (1951).

Recorded from: Azorella, mosses and soil.

#### Neopygmephorus sellnicki (Krczal, 1958)

Pygmephorus sellnicki Krczal, 1958

Description: Krczal (1958).

Recorded from: Stellaria and soil.

# Neopygmephorus togatus (Willmann, 1942)

Pygmephorus togatus Willmann, 1942 Description: Willmann (1942).

Recorded from: vegetation (Azorella), wet moss and soil.

#### Neopygmephorus tripartitus Cross, 1964

Description: Cross (1964).

Recorded from: vegetation, litter and soil.

Pygmephorus sp.

Listed in: Holdgate and Baker (1979).

No habitat data given.

Superfamily: TARSONEMOIDEA

Family: TARSONEMIDAE Canestrini and Fanzago, 1877

Chaetotarsonemus kerguelensis Fain, 1976

Description: Fain (1976).

Recorded from: 'halophilic phanaerogams'.

Disparites antarcticus Richters, 1908

Description: Richters (1908). Recorded from: mosses.

Tarsonemus halophilus Fain, 1976

Description: Fain (1976).

Recorded from: on rocks, among mosses and vegetable debris near the seashore.

Tarsonemus subantarticus Fain, 1976

Description: Fain (1976).

Recorded from: mosses, lichens and humus.

Unidentified

Listed in: Watson (1967). No habitat data provided.

Superfamily: CHEYLETOIDEA

Family: CHEYLETIDAE Leach, 1814

Acaropsis sp.

Listed in: Tilbrook (1973). No habitat data given.

Cheyletus eruditus (Schrank, 1781)

Acarus eruditus Schrank, 1781 Description: Oudemans (1906).

Recorded from: Rat debris in food stores, cosmopolitan outside the Southern Ocean,

probably an introduced species.

Cheyletus sp.

Listed in: Tilbrook (1973). No habitat data provided.

Family: CHEYLETIELLIDAE Volgin, 1966

Cheyletiella parasitivorax (Megnin, 1878)

Listed in: Bull (1960)

Recorded as: ectoparasites of rabbits (Oryctolagus cuniculus).

Superfamily: RAPHIGNATHOIDEA

Family RAPHIGNATHIDAE Kramer, 1877

## Raphignathus johnstoni Womersley, 1937

Rhagidia johnstoni (Womersley) [sic.] in Gressitt (1967).

Description: Womersley (1937).

Recorded from: on cestodes from a weddell seal (Leptonychotes weddelli)? (Dalenius,

1965). This must be a displaced specimen (personal observation).

Family: STIGMAEIDAE Oudemans, 1931

# Mecognatha hirsuta Wood, 1967

Description: Wood (1967)

Recorded from: moss and lichen from tree trunk (Dracophyllum).

#### Mullederia arborea Wood, 1964

Description: Wood (1964).

Recorded from: vegetation litter (Coprosma).

#### **Pseudostigmaeus collyerae** Wood, 1967

Description: Wood (1967).

Recorded from: lichens on tree trunk (Dracophyllum and Coprosma).

## Pseudostigmaeus longisetis Wood, 1970

Description: Wood (1970).

Recorded from: moss, algae, grass turf and mollymawk nests; and 'miscellaneous

extractions'.

#### Pseudostigmaeus striatus Wood, 1967?

Description: Wood (1967). No habitat data given.

#### Stigmaeus campbellensis Wood, 1970

Description: Wood (1970).

Recorded from: leaf mould under tussock; among moss and lichens and Azorella.

Superfamily: TETRANYCHOIDEA

Family: TETRANYCHIDAE Donnadeiu, 1875

## Bryobia praetiosa (C. L. Koch, 1836)

Torrynophora serrata Cambridge, 1876

Bryobia speciosa C. L. Koch, Kramer and Neumann, 1883

Listed in: Dalenius (1965), West (1984).

Recorded from: Under stones and wood in the supralittoral and in the terrestrial

environment.

#### Bryobia sp.

Listed in: Strandtmann and Davies (1972).

No habitat data given.

Superfamily: ERYTHRAEOIDEA

Family: ERYTHRAEIDAE Oudemans, 1902

No previous records of this family from the Southern Ocean area, the records of *Erythraeus papageno* (Speiser, 1909) are from South Africa.

#### Balaustium sp.

New record from: supralittoral yellow lichens.

Erythraeus sp. no. 1

Listed in: Strandtmann and Davies (1972).

No habitat data given.

Erythraeus sp. no. 2

New record from: supralittoral yellow lichens.

Erythraeus sp. no. 3

New record from: among old tidal debris.

Family: SMARIDIDAE Kramer, 1878

Neosmaris sp.

Listed in: West (1984).

Recorded from: among vegetation (Festuca).

gen. nr. *Neosmaris* et sp. Listed in: Tilbrook (1967). No habitat data given.

Superfamily: TROMBIDOIDEA

Family: TROMBIDIIDAE Leach, 1814

Microtrombidium karriensis Womersley, 1934

Microtrombidium (Microtrombidium) tasmanicum Womersley, 1937

Descriptions: Womersley (1934), Strandtmann (1964).

Recorded from: mollymawk (Diomedea) rookery, among beach boulders, moss, leaf

mould under tussock roots, penguin colony.

Family: TROMBICULIDAE Ewing, 1944

Eutrombicula hirsti (Sambon, 1927)

Listed in: Bull (1960).

Recorded as ectoparasitic of rabbits (Oryctolagus cuniculus), possibly an introduced

species.

Order: SARCOPTIFORMES

Suborder: CRYPTOSTIGMATA (=ORIBATIDA)

Keys and diagnoses to superfamilies (Krantz, 1978); to families and genera (Balogh, 1972); to some species from the Peninsula (Wallwork, 1965) and Antarctica (Wallwork, 1967).

Superfamily: ARCHEONOTHROIDEA

Family: ARCHEONOTHRIDAE Grandjean, 1932

Andacarus campbellensis Wallwork, 1966

Description: Wallwork (1966).

Recorded from: moss.

Andacarus macfarlani Grandjean

Listed in Travé (1976a, 1976b).

No habitat data given.

Andacarus watsoni Travé, 1964

Descriptions: Travé (1964); Watson (1967).

Recorded from: moss.

Superfamily: PHTHIRACAROIDEA

Family: PHTHIRACARIDAE Perty, 1841

Neophthiracarus neotrichus Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: moss.

Superfamily: BRACHYCHTHONOIDEA

Family: BRACHYCHTHONIIDAE Balogh, 1943

Eobrachythonius oudemansi van der Hammen, 1952

Eobrachythonius argentinensis van der Hammen, 1958

Description: van der Hammen (1952).

Recorded from: Acaena.

**Eobrachythonius** sp. (possibly nymph of E. oudemansi?)

Listed in: Wallwork (1967). No habitat data given.

Liochthonius australis Covarrubias, 1968

Description: Covarrubias (1968).

Recorded from: isolated patches of moss growing on stones on soil.

Liochthonius fimbriatissimus (Hammer, 1958)

Description: Hammer (1958).

Recorded from: moss.

Liochthonius mollis (Hammer, 1958)

Brachychthonius mollis Hammer, 1958

Descriptions: Hammer (1958), Wallwork (1966b, 1967)

Recorded from: vegetation (Acaena).

Liochthonius sp.

Listed in: Wallwork (1966).

Recorded from: vegetation (Acaena).

Superfamily: NOTHROIDEA

Family: CROTONIIDAE Thorell, 1876

### Crotonia brevicornutus (Wallwork, 1966)

Acronothrus brevicornutus Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: moss and mollymawk (Diomedea sp.) nest.

# Holonothrus concavus Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: moss.

# Holonthrus foliatus Wallwork, 1963

Description: Wallwork (1963).

Recorded from: among vegetation (Stilbocarpus, Azorella, lichens and mosses) and

litter.

Family: CAMISIIDAE Oudemans, 1900

## Camisia segnis (Hermann, 1804)

Nothrus segns Hermann, 1804

Listed in: Wallwork (1970, 1972).

Recorded from: moss.

#### Camisia sp.

New record from: supralittoral tidal debris.

## Platynothrus skotsbergii Trägårdh, 1931 (= P. s. expansus?)

Description: Trägårdh (1931).

Recorded from: moss and vegetation.

#### Platynothrus skottsbergii expansus Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: Acaena and the moss Sphagnum.

#### MALACONOTHRIDAE Berlese, 1916

#### Trimalaconothrus flagelliformis Wallwork, 1970

Description: Wallwork (1970a).

Recorded from: (usually damp) moss.

Superfamily: HERMANNIELLOIDEA

Family: HERMANNIELLIDAE Grandjean, 1934

#### Hermanniella sp.

Listed in: van Pletzen and Kok (1971). Recorded from: old *Poa* inflorescence.

Superfamily: GYMNODAMAEIODEA

Family: GYMNODAMAEIDAE Grandjean, 1954

Allodamaeus sp.

Listed in: Travé (1976). No habitat data given.

Family: PLATEREMAEIDAE Trägårdh, 1931

Pheroliodes australis (Hammer, 1962)

Pedrocortesia australis Hammer, 1962

Descriptions: Hammer (1962), Wallwork (1966b).

No habitat data given.

Pheroliodes sp.

Listed in: Travé (1976). No habitat data given.

Superfamily: LIACAROIDEA

Family: METRIOPPIIDAE Balogh, 1943

Macquarioppia striata (Wallwork, 1963)

Macquariella striata Wallwork, 1963 Description: Wallwork (1963).

Recorded from: algae on coastal rocks and mosses.

Superfamily: CARABODOIDEA

Family: CARABODIDAE C. L. Koch, 1837

Carabodidae gen. et sp. Listed in: Tilbrook (1967). Recorded from: lichens.

Superfamily: OPPIOIDEA

Family: OPPIIDAE Grandjean, 1954

Globoppia campbellensis Wallwork, 1964

Description: Wallwork (1964a).

Recorded from: mosses.

Globoppia gressitti Wallwork, 1964 Description: Wallwork (1964a).

Recorded from: mosses.

Globoppia intermedia Hammer, 1962

Description: Hammer (1962).

Recorded from: base of tussock grass on beach. Globoppia intermedia longiseta Wallwork, 1970

Damaeus nitens Richters, 1908

Description: Wallwork (1970a).

Recorded from: vegetation and whalebone on top of shore, supralittoral tidal debris.

# Oppia beemanensis Wallwork, 1964

Description: Wallwork (1964a).

Recorded from: mosses.

### Oppia crozetensis (Richters, 1908)

Notaspis crozetensis Richters, 1908 Oppia magellanis Hammer, 1962

= Oppia crozetensis anareensis Wilson, 1958?

Descriptions: Richters (1907), Wallwork (1966a, 1967), Watson (1967).

Recorded from: bases of tussock grass on the beach, and a variety of plant litter.

### Oppia crozetensis anareensis Wilson, 1958

= Oppia crozetensis (Richters, 1908)?

Description: Dalenius and Wilson (1958). Recorded from: Colobanthus cushions.

# Oppia diaphora Wallwork, 1964

Description: Wallwork (1964a).

Recorded from: mosses.

# Oppia disjuncta Wallwork, 1964

Description: Wallwork (1964a).

Recorded from: mosses.

## Oppia loxolineata Wallwork, 1965

Oppia loxolineata longipilosa Covarrubias, 1968 in Buryn and Usher (1986)

Description: Wallwork (1965); Covarubias (1968).

Recorded from: under rocks; among mosses and lichens, the terrestrial alga Prasiola

and bird nests.

#### Oppia nitens brachytrichinus Wilson, 1958

Damaeus nitens Michael in Richters 1908? Description: Dalenius and Wilson (1958).

Recorded from: mosses and lichens.

#### Oppia pepiptensis brevipectinata Covarrubias, 1968

Description: Covarrubias (1968).

Recorded from: the terrestrial alga Prasiola.

#### Opia scotiae Wallwork, 1970

Description: Wallwork (1970a).

Recorded from: mosses.

Oppia sp. no. 1

Listed in: Travé (1976a, 1976b).

Recorded from: mosses and lichens.

#### Oppia sp. no. 2

Listed in: Travé (1981).

Recorded from: supralittoral lichens.

Superfamily: AMERONOTHROIDEA
Family: PODACARIDAE Grandjean, 1955

### Alaskozetes antarcticus (Michael, 1903)

Notaspis antarctica Michael, 1903 Notaspis (Parachipteria) antarctica

Halozetes antarctica Alaskozetes antarctica

Alaskozetes antarcticus antarcticus

Descriptions: Dalenius and Wilson (1958), Wallwork (1965, 1967), Watson (1967),

Dastych (1990), Luxton (1990).

Recorded from: the littoral zone, usually among lichens and algae.

## Alaskozetes antarcticus grandjeani Dalenius, 1958

Halozetes antarctica Grandjeani Dalenius, 1958

Descriptions: Dalenius and Wilson (1958), Wallwork (1963a).

Recorded from: under rocks and among a variety of vegetation; freshwater pools on

cliffs; bird nests and in rookeries.

### Alaskozetes antarcticus intermedius Wallwork, 1967

Description: Wallwork (1967).

Recorded from: supralittoral and terrestrial mosses, lichens and on whalebone.

#### Alaskozetes bovetoyaenis van Pletzen and Kok, 1971

Description: Van Pletzen and Kok (1971).

Recorded from: littoral pools rich in filamentous algae.

#### Alaskozetes sp.

Listed in: Horne (1984).

Recorded from: ice-free vegetated areas.

#### Antarcticola georgiae Wallwork, 1970

Description: Wallwork (1970).

Recorded from: supralittoral and terrestial lichens, mosses, tidal debris and whalebone.

#### Antarcticola meyeri Wallwork, 1967

Petrozetes oblongus Sitnikova, 1969 Description: Wallwork (1967) Recorded from: lichens and mosses.

**Antarcticola** sp. (A. georgiae?)

Listed in: Bellido (1981), Travé (1981a).

Recorded from: the littoral and supralittoral zones (among lichens?).

#### Halozetes belgicae (Michael, 1903)

Notaspis belgicae Michael, 1903

Halozetes belgicae Pertorgunia belgicae Halozetes belgicae belgicae

Descriptions: Dalenius and Wilson (1958), Wallwork (1965, 1967, 1970a), Dastych

(1990).

Recorded from: mosses, lichens, algae and rocks in the littoral and supralittoral zones and inland.

# Halozetes belgicae brevipilis Wallwork, 1963

Description: Wallwork (1963a).

Recorded from: vegetation and litter, rock crevices and penguin rookeries, especially

close to the coast.

## Halozetes belgicae longiseta Wallwork, 1967

Description: Wallwork (1967).

Recorded from: vegetation and litter close to or on the seashore.

#### Halozetes crozetensis (Richters, 1907)

Scutovertex crozetensis Richters, 1907

Pertorgunia crozetensis

Pertorgunia colobanthi Dalenius and Wilson, 1958

Descriptions: Dalenius and Wilson (1958), Wallwork (1963), van Pletzen and Kok (1971).

Recorded from: lichens, algae and in the littoral and supralittoral; also from sheep dung, penguin rookery debris and vegetation.

# Halozetes edwardensis van Pletzen and Kok, 1971

Description: van Pletzen and Kok (1971)

Recorded from: lichens and mosses; one record from tunicates is probably a dislodged

specimen.

# Halozetes fulvus Englebrecht, 1975

Description: Englebrecht (1975).

Recorded from: soil close to the coast; among supralittoral yellow lichens.

## Halozetes impeditus Niedbala, 1986

Description: Niedbala (1986).

Recorded from: mosses and lichens.

# Halozetes intermedius Wallwork, 1963

Descriptions: Wallwork (1963a), Watson (1967).

Recorded from: 'vegetation', algae, rock crevices; soil from the seashore and coastal

regions.

#### Halozetes littoralis Wallwork, 1970

Description: Wallwork (1970a).

Recorded from: littoral and supralittoral crevices, algae and lichens and plant debris.

#### Halozetes macquariensis (Dalenius and Wilson, 1958)

Pertorgunia macquariensis Dalenius and Wilson, 1958

Descriptions: Dalenius and Wilson (1958), Wallwork (1963, 1966).

Recorded from: under driftwood and by a stream on the seashore; among vegetation

(Poa and Colobanthus), soil from penguin rookery.

#### Halozetes marinus (Lohmann, 1907)

Notaspis marinus Lohmann, 1907

Halozetes marina Womersley, 1937

Anarea maquariensis Dalenius and Wilson, 1958

Anarea marina

Descriptions: Dalenius and Wilson (1958), Wallwork (1963).

Recorded from: among littoral and supralittoral algae, lichens, crevices and debris; one record of a sublittoral (dislodged?) specimen.

Halozetes marinus devilliersi Englebrecht, 1974

Description: Englebrecht (1974). Recorded from: upper littoral algae.

Halozetes marinus minor Wallwork, 1966

Description: Wallwork, 1966.

Recorded from: under stones associated with a mollymawk colony.

Halozetes marionensis Englebrecht, 1974

Description: Englebrecht (1974). Recorded from: upper littoral algae.

Halozetes necrophagus Wallwork, 1967

Description: Wallwork (1967).

Recorded from: whalebone in supralittoral.

Halozetes plumosus Wallwork, 1966

Description: Wallwork (1966a).

Recorded from: littoral or supralittoral lichens.

Halozetes sp. no. 1 Listed in: Travé (1976).

Recorded from: the littoral zone.

Halozetes sp. no. 2 Listed in: Horne (1984).

Recorded from: the littoral zone.

Podacarus auberti Grandjean, 1955

Description: Grandjean (1955), Luxton (1990).

Recorded from: under stones in penguin and cormorant (Phalacrocorax) rookeries;

among extractions from terrestrial vegetation; from rat faecal pellets.

Podacarus auberti occidentalis Wallwork, 1966

Description: Wallwork (1966).

Recorded from: Poa, close to seashore and from debris high in the supralittoral zone.

**Podacarus** sp. nov. Luxton (personal communication).

New record from: nest debris of dominican gull in supralittoral zone.

### Podacaridae inquerendia

Notaspis scotiae Trouessart, 1912
Description: Trouessart, 1912
Description: Trouessart, 1912

Recorded from: mosses and lichens.

Notaspis sp.

Listed in: Michael, 1903. No habitat data given. Superfamily: ORIBATULOIDEA

Family: ORIBATULIDAE Thor, 1929

# Campbellobates acanthus Wallwork, 1964

Description: Wallwork (1964b).

Recorded from: vegetation and litter.

## Dometorina marionensis van Pletzen and Kok, 1971

Description: van Pletzen and Kok (1971). Recorded from: vegetation and litter.

### Paraphauloppia sp.

Listed in: Trevé (1976). No habitat data given.

#### Scheloribates flagellatus Wallwork, 1966

Description: Wallwork (1966a).

Recorded from: mosses.

## Zygoribatula subantarctica van Pletzen and Kok, 1971

Description: van Pletzen and Kok (1971). Recorded from: inflorescence of *Poa*.

Family: HAPLOZETIDAE Grandjean, 1936

### Maculobates nordenskjoeldi (Trägårdh, 1908)

Oribatula Nordenskjoldi Trägårdh, 1908

Liebstadia Nordensjoldi Dalenius and Wilson, 1958

Descriptions: Trägårdh (1908), Dalenius and Wilson (1958).

Recorded from: under stones in a pool.

#### Totobates anareensis (Dalenius, 1958)

Liebstadia anareensis Dalenius, 1958

Description: Dalenius and Wilson (1958)

Recorded from: terrestrial vegetation, extracted from bird nest material, sheep dung

and soil.

#### Totobates elegans Hammer, 1958

Totobates sp. Hammer (Wallwork, 1963)

Description: Wallwork (1963).

No habitat data given.

#### Totobates elegans antarcticus Wallwork, 1966

Description: Wallwork (1966a). Recorded from: vegetation.

#### Totobates marionensis van Pletzen and Kok, 1971

Description: van Pletzen and Kok (1971).

Recorded from: Blechnum moss.

Superfamily: CERATOZETOIDEA

Family: CERATOZETIDAE Grandjean, 1954

Ceratozetes gaussi (Richters, 1907)

Oribata gaussi Richters, 1907

Jeannelia gaussi

Description: Wallwork (1972).

Recorded from: mosses and lichens?

Edwardzetes dentifer Hammer, 1962

Description: Hammer (1962). No habitat data given.

Edwardzetes elongatus Wallwork, 1966

Description: Wallwork (1966).

Recorded from: among vegetation and litter?; tidal debris and whalebone in the

supralittoral.

Macrogenia monodactyla Wallwork, 1966

Description: Wallwork (1966b).

No habitat data given.

Magellozetes antarcticus (Michael, 1895)

Oribata antarctica Michael, 1895

Ceratozetes antarctica

Descriptions: Dalenius and Wilson (1958), Wallwork (1965).

Recorded from: (barren?) rocks; under stones, among tidal debris and nest of

dominican gull in the supralittoral.

Magellozetes processus Hammer, 1962

Listed in: Travé (1974). No habitat data given.

Maudheimia petronia Wallwork, 1962

Description: Wallwork (1962).

Recorded from: lichens growing on (warm?) rocks.

Maudheimia wilsoni Dalenius, 1958

Description: Dalenius and Wilson (1958). Recorded from: nunataks on lichens?

Porozetes polygonalis Hammer, 1962

Listed in: West (1984). No habitat data given.

Porozetes polygonalis quadrilobatus Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: lichens and whalebone in the supralittoral and away from the shore.

Scotiazetes bidens Wallwork, 1966

Description: Wallwork (1966b).

Recorded from: moss and under rocks near a stream.

Sphaerozetes sp.

Listed in: Travé (1976). No habitat data given. Family: MYCOBATIDAE Grandjean, 1954

# Antarctozetes crozetensis (Richters, 1907)

Oribata crozetensis Richters, 1907

Jeannelia crozetensis Antarctozetes crozetensis

Descriptions: Dalenius and Wilson (1958), Wallwork (1972. Recorded from: mosses and lichens; inflorescence of *Poa*.

### Antarctozetes sp.

Listed in: Travé (1976b). No habitat data given.

# Cryptobothria monodactyla Wallwork, 1963

Descriptions: Wallwork (1963a), Watson (1967).

Recorded from: vegetation (Pleurophyllum and Colobanthus).

# Neomycobates tridentatus Wallwork, 1963

Description: Wallwork (1963).

Recorded from: on algae on littoral zone and among Poa in seal wallows.

Superfamily: ORIBATELLOIDEA

Family: ACHIPTERIIDAE Thor, 1929

### Achipteriidae inquerendia

Listed in: Sitnikova and Andreychikova, 1973

No habitat data given.

Superfamily: GALUMNOIDEA

Family: GALUMNIDAE Jacot, 1925

## Galumna alata Hermann, sensu Micheal (1908).

Oribata alata Hermann, 1804

Listed in: Trägårdh (1907), Dalenius and Wilson (1958), Dalenius (1965).

Recorded from: under stones in a pool.

#### Galumna sp.

Listed in: Dalenius and Wilson (1958). Recorded from: under stones in a pool.

Family: PARAKALUMMIDAE Grandjean, 1936

#### Sandenia georgiae (Oudemans, 1914)

Galumna georgia Oudemans, 1914 Description: Wallwork (1966b).

Recorded from: among rocks, moss and lichens.

#### Sandenia rotunda Wallwork, 1963

Porokalumma rotunda (Wallwork) Luxton, 1990

Description: Wallwork (1963a)

Recorded from: among vegetation (Puccinellia, Colobanthus, Poa, Stilbocarpus), rock

crevices, debris in penguin rookeries.

# Species inquerendia

## Acarus riparius

Listed in: Studer (1879), Dalenius (1965).

# Poronotique

Listed in: Travé (1976). No habitat data given.

Suborder: ASTIGMATA (= ACARIDIDA)

Diagnoses and keys to families: Krantz (1978), Griffiths and Macfarlane (1989).

Superfamily: ACAROIDEA

Family: ACARIDAE Murray, 1877

### Acarus siro Linnaeus, 1758

Acarus farinae Linnaeus, 1758

Tyroglyphus farinae

Descriptions: Hughes (1976), Griffiths and Macfarlane (1989).

Recorded from: nests of rats, albatross and penguin; among Stilbocarpa litter and Puccinillia in association with rockhopper penguins (Eudyptes chryocome), fowl-house debris, wheat and bran and in a freshwater lake. A non-indigenous species introduced via ships stores.

#### Aleurobius farinae de Geer

Listed in: Berlese (1917), Dalenius (1965).

Recorded from: ships' stores; a non-idigenous introduced species, usually associated with stored products in temperate regions.

#### Rhizoglyphus echinopus Fumouze and Robin

Listed in: Womersley (1937).

Recorded from: ships' stores; a non-idigenous introduced species, usually associated with soils in temperate regions.

#### Rhizoglyphus sp. (echinopus?)

New record from: yellow lichens on whalebone in the supralittoral zone.

### Tyrophagus castelini Hirst

Listed in: Bull (1960).

Recorded as: ectoparasites of rabbits (Oryctolagus cuniculus), but may be an in transit contaminant of material.

#### Tyrophagus longior (Gervais, 1844)

Tyroglyphus longior Gervais, 1844

Tyroglyphus dimidiatus var. longior (Womersley, 1937)

Descriptions: Robertson (1959), Griffiths and Macfarlane (1989).

Recorded from: fowl-house debris, rat debris, lichens and algae lining wall of cave.

## Tyrophagus putrescentiae (Schrank, 1781)

Listed in: Tilbrook (1964); Goddard (1979); Griffiths and Macfarlane (1989).

No habitat data given; probably introduced.

#### Tyrophagus cf. putrescentiae (Schrank, 1781)

Description: Dastych (1990).

Recorded from: among stones and lichens, but probably represents a contamination and this species is almost certainly introduced.

# Tyrophagus similis Volgin kerguelensis Fain, 1976

Description: Fain (1976).

Recorded from: phanaerogams on a rocky shore, humus and mosses.

Family: CARPOGLYPHIDAE Oudemans, 1923

# Carpoglyphus neglectus Cambridge, 1876

Listed in: Enderlein (1903), Dalenius (1965).

No habitat data given, but a non-indigenous species and probably introduced.

#### Carpoglyphus sp.

Listed in: Watson (1967).

Recorded from: leaf litter; lichens and algae lining cave walls; *Puccinella*; *Colobanthus*; *Cotula* flowers; royal penguin (*Eudyptes chrysolophus schlegeli*) nest debris; cormorant (*Phalacrocorax*) nest material; hay and dung from stable; sheep dung.

Family: CHAETODACTYLIDAE Zachvatkin, 1941

## Chaetodactylus antarcticus (Trägårdh, 1907)

Trichotarsus antarcticus Trägårdh, 1907

Description: Trägårdh (1907).

No habitat data given.

Family: GLYCACARIDAE Griffiths, 1977

# Glycacarus combinatus Griffiths, 1977

Description: Griffiths (1977).

Recorded from: burrow of white-chinned (shoemaker) petrel (Procellaria

aequinoctiallis).

Family: GLYCYPHAGIDAE Berlese, 1887

## Caloglyphus sp.

Listed in: Watson (1967).

Recorded from: fowl-house debris.

#### Glycyphagus destructor (Schrank, 1781)

Description: Griffiths and Macfarlane (1989).

No habitat data given, but a non-indigenous species and probably introduced.

#### Glycyphagus domesticus (de Geer, 1778)

Acarus domesticus de Geer, 1778

Description: Hughes (1976).

Recorded from: nest litter of dove prion (Pachyptila desolata), wandering albatross

(Dioemeda exulans); vegetation, litter and soil; fowl-house debris.

#### Glycyphagus spinipes (Koch)

Listed in: Berlese (1917); Dalenius (1965).

Recorded from: ships stores; a non-indigenous introduced species.

#### Glycyphagus sp. no. 1

Listed in: Gressitt (1967).

No habitat data given, but probably an introduced species.

Glycyphagus sp. no. 2 Listed in: Watson (1967).

Recorded from: rockhopper penguin (Eudyptes chrysocome) debris in a cave rookery.

Glycyphagus sp. no. 3

New record from: the littoral zone from the alga Gigartina, possibly a displaced

specimen, blown there by wind.

Schwebia talpa Oudemans, 1916

Description: Hughes (1957).

Recorded from: wandering albatross (Diomedea exulans) nests.

Schwebia talpa subantarctica Fain, 1976

Description: Fain (1976)

Recorded from: Phanaerogams, mosses, humus, soil and terrestrial algae.

Family: HYADESIDAE Halbert, 1915 Keys: Fain (1974), Luxton (1990).

Reys. Fam (1974), Luxion (1990).

Algophagus antarcticus Hughes, 1955

Description: Hughes (1955).

Recorded from: among mosses, grasses and humus.

Algophagus antarcticus latricollaris Fain, 1974

Description: Fain (1974). Recorded from: wet soil.

Algophagus semicollaris Fain, 1974

Description: Fain (1974).

Recorded from: terrestrial algae, vegetable debris, mosses, bird nest debris and bird

droppings.

Hyadesia halophila Fain, 1974

Description: Fain (1974).

Recorded from: littoral rocks, crevices and algae.

Hyadesia kerguelensis Lohmann, 1907

Hyadesia (Hyadesiella) kerguelensis nec. Hyadesia kerguelensis André, 1933

Description: Fain (1974).

Recorded from: littoral algae.

Hyadesia maxima Fain, Sømme and Block, 1983

Description: Fain et al. (1982).

Recorded from: littoral algae and crevices.

Hyadesia subantarctica Fain, 1974

Hyadesia (Hyadesia) subantarctica Fain, 1974

= Hyadesia kerguelensis André, 1933? nec. Hyadesia kerguelensis Lohmann, 1907

Description, Fair (1974)

Description: Fain (1974).

Recorded from: littoral algae and crevices.

### Hyadesia womersleyi Luxton, 1989

Hyadesia (Hyadesia) womersleyi Luxton, 1989

Hyadesia uncinifer (Womersley 1937) nec. Meigen (1891)?

Description: Luxton (1989).

Recorded from: littoral green algae.

# Hyadesia sp.

Hyadesia womersleyi Luxton, 1989?

Listed in: Watson (1967).

Recorded from: the green alga Rhizoclonium, on coastal rocks.

# Neofiyadesia signyi Hughes and Goodman, 1969

Description: Hughes and Goodman (1969).

Recorded from: littoral brackish and freshwater pools.

## Neohyadesia signyi punctulata Fain, 1974

Noehyadesia (sic.) signyi subsp. punctulata Fain, 1974.

Description: Fain (1974).

Recorded from: littoral plants ('phanérogames halophiles').

# Family: SAPROGLYPHIDAE Oudemans, 1924

Key: Neocalvolia (Fain, 1974).

### Calvolia sp.

Listed in: Watson (1967).

Recorded from: Poa soil, Prasiola alga on penguin rookery, penguin and albatross

nests, lichens, wall scrapings and penguin nest debris from caves.

#### Neocalvolia antarctica (Hughes and Tilbrook, 1966)

Calvolia antarctica Hughes and Tilbrook, 1966 Description: Hughes and Tilbrook (1966) Recorded from: lichen-covered rock.

# Neocalvolia claggi Hughes, 1970

Description: Hughes (1970). Recorded from: tussock grass.

#### Neocalvolia kerguelensis Fain, 1974

Description: Fain (1974).

Recorded from: 'phanaérogams', mosses, lichens, humus and in soil.

# Neocalvolia travei Fain, 1974

Description: Fain (1974).

Recorded from: leaf litter, 'phanaérogams' on soil, mosses.

#### Psylloglyphus crenulatus Fain and Beaucournu, 1984

Description: Fain and Beaucournu (1984).

Recorded as: phoretic on flea Notiopsylla kerguelensis from burrow of grey petrel

(Procellaria cinerea).

Superfamily: ANALGOIDEA

Diagnoses and keys: Atyeo and Petersen (1967, 1970).

Family: ANALGESIDAE Trouessart, 1915

Alloptes aschizurus Gaud, 1952

Description: Gaud (1952).

Recorded on: American and lesser sheat-bills Chionis alba and C. minor.

Alloptes bisetatus Haller, 1881 Description: Haller (1881).

Recorded on: kerguelen tern (Sterna virgata).

Alloptes chionis Atyeo and Petersen, 1967 Description: Atyeo and Petersen, 1967, 1970).

Recorded on: American and lesser sheathbills (Chionis alba and C. minor).

Alloptes crassipes (Canestrini, 1878)

Listed in: Dalenius (1965).

Recorded on: American sheathbill (Chionis alba).

Alloptes obtusulobus Dubinin, 1951

Description: Dubinin (1951).

Recorded on: Kelp gull (Larus dominicanus).

Alloptes stercorarii Dubinin, 1952

Description: Dubinin (1952).

Recorded on: Antarctic and south polar skuas (Catharacta skua maccormacki and

C. loennbergi).

Alloptes sp. no. 1

Listed in: Gaud (1952).

Recorded on: thin-billed prion (Pachyptila belcheri orientalis).

Alloptes sp. no. 2

Listed in: Schaeffer and Strandtmann (1971).

Recorded on: South polar skua (Catharacta skua macckormicki).

Leptosphyra antarctica (Gaud, 1952)

Megninia antarctica Gaud, 1952

Descriptions: Gaud (1952), Atyeo and Peterson (1970).

Recorded on: Geogian diving petrel (Pelicanoides georgicus).

Leptosphyra sp.

Megninia centropodus forcipata (Haller, 1876) in Trouessart, 1914 (misidentification).

Description: Trouessart (1914).

Recorded on: American sheathbill (Chionis alba).

Family: AVENZOARIDAE Oudemans, 1908

Avenzoaria calidridis (Oudemans, 1904)

Pterolichus calidris Oudemans, 1904

Descriptions: Dubinin (1956), Atyeo and Peterson (1970).

Recorded on: Calidris fuscicollis, which occurs in the sub-Antarctic.

Bdellorhynchus polymorphus Trouessart, 1885

Descriptions: Trouessart (1885), Dubinin (1956), Atyeo and Peterson (1970).

Recorded on: South Georgia pintail (Anas georgicus).

### Laronyssus marinus (Trouessart, 1886)

Pterolichus marinus Trouessart, 1886

Description Trouessart (1886), Dubinin (1951), Atyeo and Peterson (1970).

Recorded on: gulls and terns (genera Larus, Rissa and Sterna).

## Laronyssus martini (Trouessart, 1886)

Pterolichus martini Trouessart, 1886

Descriptions. Trouessart (1886), Dubinin (1951, 1956), Atyco and Peterson (1970).

Recorded on: gulls and terns (genera Larus, Rissa and Sterna).

### **Promegninia pedimania** (Trouessart, 1899)

Megninia pedimania Trouessart, 1899

Descriptions: Gaud and Atyeo (1967), Atyeo and Peterson (1970).

Recorded on: black footed and grey-headed albatrosses (Diomedea nigripes and

D. chrysostoma).

# Scutomegninia phalacrocaracis (Dubinin and Dubinina, 1940)

Megninia phalacrocaracis Dubinin and Dubinina, 1940

Descriptions: Atyeo and Petersen (1967, 1970).

Recorded on: imperial shag (Phalacrocorax atriceps).

### Zachvatkinia hydrobatidii Dubinin, 1949

Descriptions: Dubinin (1949), Atyeo and Peterson (1970).

Recorded on: Wilson's storm petrel (Oceanites oceanicus), snow petrel (Pagadroma

nivea) and black-billed storm petrel (Fregetta tropica).

## Zachvatkinia puffini (Buchholz, 1869)

Dermaleichus puffini Buchholz, 1869

Bonnatella puffini Buchholzia puffini

Listed in: Gaud (1952).

Description: Buchholz (1869?)

Recorded on: Antarctic skua (Catharacta antarctica).

## Zachvatkinia stercorarii Dubinin, 1949

Description: Dubinin (1949).

Recorded on: Antarctic and south polar skuas (Catharacta loennbergi and

C. maccormacki).

#### Zachvatkinia sp. no. 1 (near hydrobatidii)

Listed in: Atyeo and Peterson (1970).

Recorded on: giant petrel (Macronectes giganteus).

#### Zachvatkinia sp. no. 2

Listed in: Horne and Rounsevell (1982).

Recorded on: Antartic skua (Catharacta loennbergi).

Family: PROCTOPHYLLODIDAE Megnin and Trouessart, 1883

## Brephosceles dromedei Atyeo and Peterson, 1970

Description: Atyeo and Peterson (1970).

Recorded on: grey-headed and black-browed albratross (Diomedea chrysostoma and

D. melanophris).

Brephosceles gressitti Atyeo and Peterson, 1970

Description: Atveo and Peterson (1970).

Recorded on: grey-headed albatross (Diomedea chrysostoma).

# Brephosceles marginiventris (Trouessart, 1899)

Proctophyllodes (Alloptes) marginiventris Trouessart, 1899

Descriptions: Troughant (1899), Peterson and Atyco (1968).

Recorded on: yellow-nosed albatross (Diomedea chlororhynchus) and giant petrel (Macronectes giganteus).

## Echinacarus petaliferus (Trouessart, 1898)

Pterolichus rubidus petaliferus Trouessart, 1898 Echinacarus rubidus (in part) Dubinin, 1949

Descriptions: Dubinin (1949), Atyeo and Peterson (1970)

Recorded on: grey-headed and black-browed albatrosses (Diomedea chrysostoma and

D. melanophris, and possibly other species in the genus).

### Echinacarus rubidus (Trouessart, 1886)

Pterolichus rubidus Trouessart, 1886

Descriptions: Dubinin (1949), Atyeo and Peterson (1970). Recorded on: several species of albatross (genus *Diomedea*).

## Microspalax manicata Megnin and Trouessart, 1884)

Freyana (Microspalax) manicata Megnin and Trouessart, 1884

Microspalax (Microspalax) manicata

Descriptions: Dubinin (1949), Atyeo and Peterson (1970)

Recorded on: Antartic petrel (Thalassioca (= Priocella) antarctica), which has been

recorded at Heard I. The mite has been found at Cape Horn.

# Oxyalges cardiurus Gaud and Atyeo, 1966

Descriptions: Gaud and Atyeo (1966), Atyeo and Peterson (1970).

Recorded on: dove prion (Pachyptila desolata); and possibly slender-billed and fairy

prions (P. belcheri or P. crassirostris).

#### Oxyalges incertus (Gaud, 1952)

Thecarthra incerta Gaud, 1952

Descriptions: Gaud (1952); Gaud and Mouchet (1959).

Recorded on: Georgian diving petrel (Pelicanoides georgicus).

# Pterolichus sp.

Echinacarus sp?

Listed in: Trouessart (1903).

Recorded on: American sheathbill (Chionis alba).

# Trouessartia chionidis Trouessart, 1914

Descriptions: Trouessart (1914), Atyeo and Peterson (1970).

Recorded on: American sheathbill (Chionis alba).

Superfamily: HISTIOSTOMATOIDEA

Key to some species: Atyeo and Peterson (1967)

Family: HISTIOSTOMATIDAE O'Connor, 1982

### Amyzanoetus halophilus Fain, 1976

Description: Fain (1976). Recorded from: tidal debris.

#### Austranoetus kerguelensis Fain, 1976

Description: Fain (1976).

Recorded from: tidal debris and among marine algae.

#### Austranoetus sp. (nr. kerguelensis)

New record from: Oopterus soledadinus and Hydromedion sparsutum (Coleoptera) as

active deuteronymphs, close to the seashore.

### Histiostoma kerguelense Fain, 1976

Description: Fain (1976).

Recorded from: humus and vegetable matter.

#### Histiostoma sp.

Listed in: Watson (1967).

Recorded from: leaf litter, vegetation (Stilbocarpa and Colobanthus), sheep dung and

'mud with decaying kelp'.

### Myianoetus travei Fain, 1976

Description: Fain (1976). Recorded from: No data.

Superfamily: FREYANOIDEA

Key to some species: Atyeo and Peterson (1967)

Family: FREYANIDAE Dubinin, 1951

#### Diomedacarus gigas (Touessart, 1895)

Freyana (Microspalax) gigas Trouessart, 1895

Descriptions: Dubinin (1949, 1951, 1953), Atyeo and Peterson (1970).

Recorded on: several albatross (Diomedea) species.

#### Freyana anatina anatina (Koch, 1844)

Dermaleichus anatinus Koch, 1844

Descriptions: Dubinin (1953), Atyeo and Peterson (1970). Recorded on: South Georgia pintail (Anas georgicus)?

## Freyana largifoliata largifoliata (Megnin and Trouessart, 1884)

Freyana anatina var. largifoliata Megnin and Trouessart, 1884

Description: Atyeo and Peterson (1970).

Recorded on: South Georgia pintail (Anas georgicus)?

## Michaelia heteropus (Michael, 1881)

Dermaleichus heteropus Michael, 1881

Michaelichus heteropus

Descriptions: Dubinin (1953), Atyeo and Peterson (1970). Recorded on: imperial shag (*Phalacrocaris atriceps*).

### Michaelia microcarbonis (Dubinin, 1953)

Michaelichus microcarbonis Dubinin, 1953

Descriptions: Dubinin (1953), Atyeo and Peterson (1970). Recorded on: imperial shag (*Phalacrocaris atriceps*).

# Michaelia urile (Dubinin, 1953)

Michaelichus urile Dubinin, 1953

Descriptions: Dubinin (1953), Atyeo and Peterson (1970). Recorded on: imperial shag (*Phalacrocaris atriceps*).

Superfamily: LISTOPHOROIDEA

Key to some species: Atyeo and Peterson (1967) Family: LISTROPHORIDAE Canestrini, 1892

# Listrophorus gibbus (Pagenstecher, 1861)

Listed in: Bull (1960).

Recorded on: rabbits (Oryctolagus cuniculus), a non-indigenous introduced species.

Superfamily: PTEROLICHOIDEA

Key to some species: Atyeo and Peterson (1967).

Family: PTEROLICHIDAE Trouessart, 1915

## Ardeacarus aredeae (Canestrini, 1878)

Dermaleichus ardeae Canestrini, 1878

Descriptions: Dubinin (1956), Gaud and Till (1961), Atyeo and Peterson (1970). Recorded on: great crested heron (Camaserodius albus = Egretta alba), which has been

recorded on South Georgia.

# Thecarthra theca (Megnin and Trouessart, 1884)

Pterolichus (Pterolichus) theca Megnin and Trouessart, 1884 Descriptions: Dubinin (1956), Atyeo and Peterson (1970).

Recorded on: terns (Sterna sp.), including migrants to the sub-Antarctic islands.

## ACARI inquerendia

# Torynophora saxorum (Studer, 1879)

Acarus saxorum Studer, 1879

Description: Studer (1879). Is this a prostigmatic mite? Torynophora serrata is a junior

synonym of Bryobia praetiosa.

No habitat data given.

The biogeographical index		
	A. Maud Sector B. Enderby Sector C. Wilkes Sector C. Wilkes Sector C. Palmer Land C. Palmer Land C. Palmer Land C. South Shetland Is. C. South Sandwich Is. C. Sanpbell Is. C. Campbell Is	Additional Records
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Engamasus sp no. 1	~	
$\check{E}$ . sp. no. 2	<b>~</b> 1	
E sp. no. 3	∞ 4	
E. sp. no. 4	<b>* *</b>	
Parasitus tarsispinosus	I	
Pergamasus sp. no. 1	~ :	
P. sp. no. 2 VEIGAIIDAE	~	
Cyrthydrolaelaps watsoni	LR	
Gamasolaelaps arenosus	7	
Veigaia claggi	Γ	
Veigaiidae (gen. et sp.) RHODACARIDAE	L	
Acugamasus watsoni	P RS	Auckland Is.
Atniasella longiseta A. pecten	2 02	Auckland Is.
A. scaphosternum A. viripileus	s s	

	Additional Records	Auckland Is. Auckland Is. Auckland Is. Auckland Is.	Auckland Is. Auckland Is.; New Zealand New Zealand	Auckland Is. Auckland Is.; Tierra del Fuego	Auckland Is.; Gough Is.; New Zealand Tierra del Fuego Auckland Is. Auckland Is.
Enderby Sector Wilkes Sector Scott Sector Byrd Sector Ronne Sector Palmer Land Graham Land South Shetland Is. South Sandwich Is. South Sandwich Is. South Sandwich Is. Marion/Prince Edward Is. Bulleny/Scott Is. Wedgell Is. Bellingshausen Sea Peter I Is. Weddell Sea	NOPOR S.T.U.Y.	R S S CH I J L S CH I J L K R S (L) O S	S S S S S S S S S S S S S S S S S S S		(L) L OPQ RS K L S
		Cymiphis watsoni Euepicrius caesariatus E. sp. Gamasellus recovitzai G. r. neo-orcadensis G. sp. Gamasiphoides macquariensis Heterogamasus (calacarellus?) Heydemiella crozetensis H. sherrae	H. somersleyi H. sp. Hydrogamasellus antarcticus H. crozetensis H. drooamasus kensleri	H. (A.) watsoni Litogamasus falcipes L. gressitti L. setosus L. sp.	Parastiphis aurora P. brunneus P. jeanneli Pilellus rugipellis P. rykei

Additional Records	Auckland Is.			Immigrant—Europe
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector F. Ronne Sector C. Palmer Land I. South Shetland Is. I. South Shetland Is. I. South Sendwich Is. I. South Chengia A. Marion/Prince Edward Is. I. South Sendwich Is. I. South Chengia I. South Sendwich Is. I. South Chengia I. South Sendwich Is. I. South Chengian I. South Sendwich Is. I. South Chengian I. South Sendwich Is. I. South Sendwi	s O	(L) R R Q Q R	O R (L) R S	O R L
	P. sp. Rhodacaroides sp. DIGAMASELLIDAE	Dendrolaelaps (Luxtondendrolaelaps) sp. Digamasellus kargi D. schusteri D. templei D. wassoni	ASCIDAE Asca crozetensis Iphidozercon sp. Lasioseius sp. HALOLAELAPIDAE Halolaelaps sp. AMEROSEIIDAE	PHYTOSEIIDAE Sejulus plumosus EVIPHIDIDAE Alliphis siculus Thinoseius hirschmanni T. katherinae PACHYLAELAPIDAE

	Additional Records	Auckland Is.	New Zealand; Cosmopolitan				Pacific; N. America	Atlantic; Pacific	
Scott Sector Byrd Sector Ronne Sector Palmer Land Graham Land South Shetland Is. South Sandwich Is. South Georgia South Georgia Marion/Prince Edward Is. Kerguelen Is. Macquarie Is. Macquarie Is. Campbell Is. Balleny/Scott Is. Peter I Is. Bellingshausen Sea Weddell Sea	NO PO	L R R S S S S S S S	KL S	B J LM R K M H H K M	R J	L R	HIJKLMNOP R J	A D H L P	<b>~</b> ~
		LAELAPIDAE Androlaelaps pachyptilae Ayersacarus gellidus A. gressitti A. plumapilpis	A. tilbrooki Eulaelaps stabularis	Haemogamasus pontiger Hypoaspis evansi H. ('type') sp. Laelaps grahamensis	Leptolaelaps maquariensis L. retic. campbellensis Proctolaelaps hypudaei	Stevacarus claggi Unidentified no. 1 Unidentified no. 2	HALAKACHINIDAE Halarachne miroungae H. St. St. St. St. St. St. St. St. St. St	KHINON YSSIDAE Rhinonyssus rhinolethrum R. schelli	CERCOM EGISTIDAE Unidentified Celaenogamsus sp. DAVACARIDAE

Additional Records		Auckland Is.; Tierra del Fuego Australia; Pacific Australia Other Sub-Antarctic islands; North Pole	Europe All Sub-Antarctic islands?; to 85°S
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector F. Ronne Sector G. Palmer Land H. Graham Land I. South Shetland Is. J. South Sandwich Is. L. South Sandwich Is. M. Marion/Prince Edward Is. M. Marion/Prince Edward Is. C. Crozet Is. M. Marion/Prince Edward Is. O. Crozet Is. C. South Georgia M. Marion/Prince Edward Is. M. Marion/Prince Edward Is. C. South Georgia M. Weddell Sea S. Campbell Is. C. Halleny/Scott Is. M. Weddell Sea T. Balleny/Scott Is. V. Bellingshausen Sea W. Weddell Sea X. Atlantic Ocean Y. Indian Ocean Y. Indian Ocean Y. Houstralian R. New Zealand * New Zealand * Ross Sea	L R R R R C C C C C C C C C C C C C C C	H P QR L N OP QR S N R S D FG I K L O S	R? ABD GHIJK M RST
	Davacarus gressittj D. sp. POLYASPIDIDAE Unidentified no. 1 Unidentified no. 2 UROPODIDAE Phaulodinychus gressitti Urobovella gressitti Uropoda sp. no. 1 U. sp. no. 2 U. sp. no. 2 U. sp. no. 2 U. sp. no. 3 Wropodidae nr. Uroobovella Opisthope crozetensis Piracaraus crozetensis NETASTIGMATA	IAODIDAE Ixodes auritulus I. kerguelensis I. prerodromae I. uriae	NANORCHESTIDAE Nanorchestes amphibius N. antarcticus

Additional Records		'Antarctica'				6 - 5 7 - 7 - 7 9	Antarctica																					
Marion/Prince Edward Is. O. Crozet Is. O. Heard Is. Q. Heard Is. R. Macquarie Is. S. Campbell Is. T. Balleny/Scott Is. U. Peter I Is. W. Weddell Sea W. Weddell Sea X. Atlantic Ocean X. Atlantic Ocean X. Australian X. Australia		~					f	× 1	∞. 1	×	1	~		0									0	ŧ		×.		
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector C. Palmer Land C. Palmer Land H. Graham Land L. South Shetland Is. L. South Shetland Is. M. South Standwich Is. L. South Standwich Is. M. South Sandwich Is. M. Bouvetoya		A	GHIJ	<b>∀</b>		HIIT	į	(L)			<b>-</b>		ъ		В	D	ជា	æ	H		HI	A		-		HIJKLMN	L I H	111
	7,000	N. bellus	N. berryi	N. bifurcatus	N. brekkeristae	N. gressitti	N. lalae	N. macquariensis	N. marianae	N. rounsevelli	N. triclavatus	N. watsoni	N. wilbanksi	N. sp. no. 1	N. sp. no. 2	N. sp. no. 3	N. sp. no. 4	Speleorchestes sp. PACHYGNATHIDAE	Gainia nivalis	EUPODIDAE	Cocceupodes australis	Eupodes angardi	E. crozetensis	E. exiguus	E. longisetatus	E. minutus	E. parvus	E. parvus granamensis

Additional Records	Cosmopolitan	
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector E. Byrd Sector C. Palmer Land H. Graham Land I. South Shetland Is. I. South Sandwich Is. I. South Sector I. South Sandwich Is. I. South Sector I. South Sandwich Is. I. South Sector I. South Sector I. South Sandwich Is. I. South Sector I. South Sandwich Is. I. South Georgia P. Kerguelen Is. I. Balleny/Scott Is. I. Balleny/Scott Is. I. Balleny/Scott Is. I. Marchaell Is. I. Macduarie Is. I. Macduarie Is. I. Marchaell Is. I. Machaell Is. I. Marchaell Is. I. Marchael		ſ
	E. tottanffella E. wissesi E. wissnessi E. sp. no. 1 E. sp. no. 2 E. sp. no. 3 E. sp. no. 3 E. sp. no. 4 E. sp. no. 5 Protereunetes crozeti P. maudae P. paulinae P. sp. no. 1 P. sp. no. 2 PENTHALEIDAE H. sp. no. 2 Penthaleus major P. sp. no. 2 Perthaleus wajor P. sp. no. 2 Perthaleus wajor P. sp. no. 2 Perthaleus wajor P. sp. no. 2	S. intermedius

	Additional Records	St Paul Is.
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Crozet Is. Kerguelen Is. Heard Is. Macquarie Is.	O. P. Q. R.	O P P P S S S S S S S S S S S S S S S S
South Orkney Is. South Sandwich Is. South Georgia Bouvetoya	ľ K' ľ	r L L L
Ronne Sector Palmer Land	E E E H	H H H I
Enderby Sector Wilkes Sector	B. B. C.	
		S. İnngipes S. meyeri S. meyeri S. mulisses S. muliseta S. pulcher S. pulcher S. shoupi S. undulatus S. shoupi S. undulatus S. villosus RH AGIDIIDAE Coccorhagidia gressitti C. keithi C. sp. Rhagidia gerlachei R. kerguelensis R. leechi R. mildredae R. sp. COPIDOGN ATHINAE Copidognathus acanthophorus C. arnaudi C. confusus C. confusus C. confusus C. floridus C. johnstoni

Additional Records	?; S. Africa; 'Antarctica'  N. Atlantic; Medit.; Black Sea  St Paul Is.  New Zealand	Argentine Basin S.E. Pacific S. America
<ul> <li>K. South Sandwich Is.</li> <li>L. South Georgia</li> <li>M. Marion/Prince Edward Is.</li> <li>O. Crozet Is.</li> <li>Q. Heard Is.</li> <li>Q. Heard Is.</li> <li>Q. Heard Is.</li> <li>S. Campbell Is.</li> <li>T. Balleny/Scott Is.</li> <li>U. Peter I Is.</li> <li>V. Meddell Sea</li> <li>X. Atlantic Ocean</li> <li>X. Australian</li> <li>X. Australian</li> <li>X. Pose Sea</li> <li>Y. Pose Sea</li> <li>Y. Pastrolian</li> <li>Y.</li></ul>	L V? V? V Y-Z P Y K K  R  W Y-Z  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y	Y-Z † X
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector F. Ronne Sector G. Palmer Land H. Graham Land I. South Shetland Is. J. South Orkney Is.	H? G	
	C. kerguelensis C. marcandrei C. porosus C. simonis C. vannoeffeni C. ypsilophorus Werthella ettanini W. lohmanni W. terra W. terrella HALACARINAE Agaue agauoides A. hamiltoni A. obscura A. setalis	A. tenutrostr A. uncinata A. verrucosa A. villosa A. sp. Agauopis anta A. costatus A. delicatus

	Additional Records	S. Chile		St. Paul Is.		(Suspect?); Falklands					:	S. Chile; Falklands			St Paul Is.					Mr Andriand Is	M Auchlaim 15.
Byrd Sector Ronne Sector Palmer Land Graham Land South Shetland Is. South Sandwich Is. South Georgia Bouvetoya Marion/Prince Edward Is. Kerguelen Is. Kerguelen Is. Macquarie Is. Macquarie Is.	NOPORSTUV	(T)		Q.	4	H P R YZ		=======================================	*	×	د		H	H? Y	7. D	1	+ M	(i)	Z (C) IH	Н	Z-X
		A. glacialis A inflatus	A. mccaini	A paulensis	Bradyagaue aspidionis	B. crassa B. drvaalskii	Halacarellus arnaudi	H. auster	H. bouvieri	H. aecipiens H. eltanini	H. georgiensis	H. glaber	H. heteroculus	H. lubricellus	H. novior	H. parillis	H. thomasi	H. porellus sp. nov.	Halacarus arnaudi	H. sp. C	H. etegans H. excellens

	Additional Records	Falklands	Falklands; S. America						Falklands	'Antarctic Sea'	S. Chile
South Shetland Is. South Orkney Is. South Georgia South Georgia Marion/Prince Edward Is. Crozet Is. Kerguelen Is. Macquarie Is. Macquarie Is. Balleny/Scott Is. Bellingshausen Sea Retir I Is. Retter I Is. Peter I Is. Pheter I Is. Italian Ocean	HIJKLMUOPORSTUVWXXZ.*	Р Р R	H L Y-Z †		†	+ * X	+ XX	T X Z †	H (L)		$\begin{array}{ccc} K & NO & XYZ & \dagger \\ (L) & & \end{array}$
Enderby Sector  Wilkes Sector  Scott Sector  Byrd Sector  Palmer Land	A B C D E F.	H. falklandensis H. gracile-unguiculatus B. Lanicaisa		H. sp. 0	rudus T	pinquus ustus	ler dus	des C	LLINAE ntarctica hamata	1 <i>s</i> na <sub>i</sub>	L. gaussi L. grondipura
		H. falk H. gra	H. latercu H. minor	H. nan H. sp.	H. sp. H. proj	H. pro <sub>.</sub> H. robi	H. seti H. vali	H. sp. Mictognath	LOHMA Lohmann Lohmann	L. consimilis L. falcata I. fukushimai	L. gaussi L. grondi

Additional Records			,	Falklands	Chile			S. Chile				Tierra del Fuego	Tierra del Fuego	S. Chile	Tierra del Fuego; Chile									
L. South Orkney Is. K. South Sandwich Is. L. South Georgis M. Bouvetoys O. Crozet Is. P. Kerguelen Is. Q. Heard Is. R. Macquarie Is. Campbell Is. T. Balleny/Scott Is. U. Peter I Is. V. Bellingshausen Sea W. Weddell Sea W. Weddell Sea Y. Indian Ocean X. Atlantic Ocean X. Atlantic Ocean X. Atlantic Ocean Y. Indian Ocean Y. Indian Ocean Y. Indian Ocean Y. Peter I Is.		ር የ	24		*	4	~	(L)	Ь		ď	(L)	J R	(L)	K (L)	4	JK LN P RS		0	ĸ	<u>.</u>			
A. Maud Sector B. Enderby Sector C. Wilkes Sector D. Scott Sector E. Byrd Sector F. Ronne Sector G. Palmer Land H. Graham Land H. Graham Land I. South Shetland Is.		(	ל						í	35	1		H				H					H		D
	,	L. hureaui	L. Kerguelensis	L. reticulata SIMOGNATHINAE	Simonathus manellanicus	RHOMBOGNATHINAE	Isobactrus macquariensis	I. microdens	I. magnus	Knombognathus adeltensis R ambiatus	R. apsteini	R. auster	R. gressitti	R. multisetosus	R. plumyer R. sandwichi	EREYNETIDAE	Ereynetes macquariensis	E. sp. no. 1 macquariensis?	E. sp. no. 2	Ereynetoides watsoni TYDEIDAE	Apotriophtydeus penola	A. scotiae	A. Lerror	Lorryia leptonychotes

	Additional Records	N.E. Antartactica Auckland Is. New Zealand	
Wilkes Sector Scott Sector Scott Sector Ronne Sector Ronne Sector Craham Land Couth Shetland Is. South Sandwich Is. South Sandwich Is. South Sandwich Is. Couth Georgia Marion/Prince Edward Is. Chozet Is. Campbell Is. Campbell Is. Campbell Is. Campbell Is. Campbell Is. Chozet Is. Chozet Is. Chozet Is. Chozet Is. Campbell Is. Chozet Is. Chozet Is. Chozet Is. Chozet Is. Campbell Is. Chozet I	ROLLERO HIJKING POPORSTIVWWX	A B F O B C C C C C C C C C C C C C C C C C C	
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	CHEYLETIELLIDAE Cheyletiella parasitivorax RAPHIGNATHIDAE Raphignathus johnstoni STIGMAEIDAE Mecognatha hirsuta Mullederia arborea P. longisetis P. striatus Stigmaeus campbellensis TETRANYCHIDAE Bryobia praetiosa B. sp. ERYTHRAEIDAE Balaustium sp. Erythraeus sp. no. 1 E. sp. no. 3 E. sp. no. 3 SMARIDIDAE Neosmaris sp. TROM RIDIDAE	Microtrombidium karriensis

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	0. sp. no. 1 0. sp. no. 2 0. sp. no. 2	Alaskozetes antarcticus A. a. grandjeani A. a. intermedius A. bovetoyaensis A. sp.	Antarcticola georgiae A. meyeri	A. Sp. Halozetes belgicae H. belgicae brevipilis H. belgicae longiseta H. crozetensis H. edwardensis	H. impeditus H. intermedius H. littoralis H. macquariensis H. marinus H. marinus	H. marinus minor H. marionensis H. necrophagus H. plumosus H. sp. no. 1

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	H. sp. no. 2 Podacarus auberti P. auberti occidentalis P. sp. Podacaridae ingerendia Notaspis scotiae N. sp. ORIBATULIDAE Campbellobates acanthus Dometorina marionensis Paraphauloppia sp. Scheloribates flagellatus Zygoribatula subantarctica HAPLOZETIDAE Maculobates nordenskjoeldi Totobates anareensis T. elegans T. elegans	T. marionensis CERATOZETIDAE Ceratozetes gaussi Edwardzetes dentifer E. elongatus Macrogenia monodactyla

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Additional Records	From ship's stores  Cosmopolitan St Paul Is. Ship's stores, Europe	
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	S. talpa subantarctica	Algophagus antarcticus	A. a. latricollaris A somicollaris	Hyadesia halophila	n. kerguetensis H. maxima	H. subantarctica	H. Womersieyi H sn	Neobvadesia sianvi	N. signyi punctulata	SAFROGLYFHIDAE Calvolia sp.	Neocalvolia antarctica	N. claggi N keravelensis	N. travei	Psylloglyphus crenulatus	Allontes aschizurus	A. bisetatus	A. chionis	A. crassipes	A. obtusulobus	A. sp. no. 1

	Additional Records	Maipo Is. Alaska Cape Horn Falklands	
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# Discussion—uses and limitations of the catalogue

At present it is neither possible nor practical to produce a complete identification guide to the mites of Antarctica and the Southern Ocean. Of the 528 species recorded, 110 have not been identified beyond the generic level, or are inadequately described. A number of the larger families, for example the Podacaridae and Rhodacaridae, contain numerous synonyms but have not been re-appraised for a number of years, and the status of many of the species recorded in these families, in particular, needs to be examined critically. Other families, for example the Tydeidae, need a generic revision of the early recorded species.

In addition to the obvious taxonomic problems, the available data are biased on two fronts:

#### Habitat bias

Much of the collection data available for particular areas has concentrated upon specific mite faunas, notably those associated with particular regions of vegetation, or birds and seals. Data from shore-line collections are only available for two of the sub-Antarctic islands, namely South Georgia and Kerguelen. This is especially important if one considers that if the parasitic and nidicolous mites are excluded, all of the remaining mites belong to families which are usually associated with the seashore in more temperate regions (Pugh, 1985; Pugh and King, 1985). This suggests that many of the Antarctic Acari may have had a shoreline origin. Yet until shoreline collections have been collated from all sub-Antarctic islands, the true nature of the peri-Antarctic fauna cannot be established. Sea ice formation naturally precluded the development of such fauna on most of the glaciated regions of the sub-Antarctic islands and mainland Antarctica.

Although Bartsch (in press) provides an up-to-date list of peri-Antarctic Halacaridae, she does not include all of those recorded from the northern regions of the Southern Ocean, namely around the sub-Antarctic islands. The major problem with surveys of halacarid mites is that very few expeditions have actually looked for benthic mites in the region. The majority of records have resulted from such mites being collected during more general surveys, but (luckily!) recognized as being mites and handed to a specialist for identification. Newell's data (1984) from a series of collections made around southern South America, included over 100 species for which the 'type' records are the only known ones. Some of these have subsequently been recorded at South Georgia (personal observation), and others may also occur at other islands within the Southern Ocean. Hence, some of Newell's species have been included in this survey.

## Regional bias

Although there are good records for the Acari collected from the sub-Antarctic and sub-temperate islands around New Zealand (Macquarie, Auckland and Campbell), records for the comparable Scotia Arc sector (South Georgia, Tierra del Fuego and in particular the Falkland Islands) are very poor. These areas need to be studied in detail if the proper distribution and biogeography of the fauna is to be assessed properly.

### Acknowledgements

I wish to thank the British Antarctic Survey for their support during the production of this paper, in particular to Dr William Block for critical comment, Dr Ron Lewis-Smith, Shaun Russell, Dr David Walton and Martin White for their help with the biogeography. Thanks also to Dr Ilse Bartsch (Hamburg), Dr W. Hirschmann (Nürnberg), Prof. W. Karg (Kleimachnow) and Dr M. Luxton (Liverpool) for their help with the identification of some of the material.

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