

Pycnogonida of New Caledonia

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Recording of pycnogonids from the New Caledonia region began as recently as 1977 (Child, 1977). Since then, the intensive sampling by cruises from the Paris Museum over the last twenty years has revealed a high diversity of pycnogonids in the Western Pacific, particularly in the area of the Melanesian island systems. The entire known pycnogonid fauna of the Melanesia-Micronesia-Polynesia region was discussed and summarized by Bamber (2004). The list below is of all species recorded from New Caledonia, the Loyalty Islands, the Chesterfield Islands and Vanuatu, including those from deeper water. There are as yet no published records of pycnogonids from the Matthew and Hunter Islands, the Norfolk Ridge or the Lord Howe Rise.

Although the region is relatively understudied for the rarer arthropod taxa, the high diversity of the region, and the preponderance of novel taxa are nevertheless surprising. Of 122 species listed for the wider area by Bamber (2004), 74 are known from the New Caledonia system as defined above, of which 66 are recorded from New Caledonia itself. The region represent the type-locality of 39 of these species, and 36 have not recorded elsewhere. At higher taxonomic levels, the monotypic genus *Proboehnia* (Ammonoidea) is only known from New Caledonia, while the subgenus *Austrodecus* (*Tubidecus*) (Austrodecidae) is only known from New Caledonia and the Loyalty Islands (Melanesia). Whether this represents endemism cannot be said, owing to the general lack of study of pycnogonids in the western Pacific. Essentially, the pycnogonid fauna of the Melanesia-Micronesia-Polynesia island systems represents a subset of the Indo-West Pacific pycnogonid fauna, of high diversity. The concept of local endemism was predicted for this region by the model of Bamber (1998), and is supported by the fact that few of these species are known also from Japan, an admittedly cooler region but one which has been the subject of intensive study and which also shows high endemism (Nakamura & Child 1991).

The following checklist indicates the local provenance of the species, those for which this is the type-locality, and those which are currently "endemic". The family structure is based on Arnaud and Bamber (1987), except for the resurrection of the family Pallenopsidae (see Bamber, 2004); *Annothella indica* Stock, 1954 is currently treated as a junior synonym of *A. appendiculata* (Dohrn, 1881).

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List of taxa

Class Pycnogonida

Family Nymphonidae Wilson, 1878

- Nymphon adenopus* Stock, 1991 (New Caledonia) ^{1,2}
- Nymphon apicatum* Stock, 1991 (New Caledonia) ^{1,2}
- Nymphon fortunatum* Stock, 1997 (New Caledonia) ^{1,2}
- Nymphon novaecaledoniae* Stock, 1991 (New Caledonia) ^{1,2}
- Nymphon parum* Stock, 1991 (New Caledonia) ^{1,2}
- Nymphon spinifex* Stock, 1997 (New Caledonia) ^{1,2}

Family Ammotheidae Dohrn, 1881

- Achelia assimilis* (Haswell, 1885) (New Caledonia)
- Achelia nana* Loman, 1908 (New Caledonia)
- Ammothella appendiculata* (Dohrn, 1881) (New Caledonia)
- Ammothella ninia* Stock, 1991 (New Caledonia) ^{1,2}
- Ammothella stauromata* Child, 1982 (New Caledonia)
- Scipiolus plumosus* Loman, 1908 (New Caledonia, Loyalty Islands)
- Ascorhynchus breviscapus* Stock, 1968 (New Caledonia)
- Ascorhynchus cactoides* Stock, 1954 (New Caledonia)
- Ascorhynchus constrictus* Stock, 1991 (Vanuatu) ^{1,2}
- Ascorhynchus fragilis* Stock, 1991 (New Caledonia) ^{1,2}
- Ascorhynchus ornatus* (Helfer, 1938) (New Caledonia)
- Ascorhynchus pilipes* Stock, 1991 (New Caledonia, Loyalty Islands) ^{1,2}
- Ascorhynchus seticauda* Stock, 1991 (New Caledonia, Chesterfield islands) ^{1,2}
- Bathyzetes setiger* (Loman, 1908) (New Caledonia)
- Cilunculus achelioides* Stock, 1991 (New Caledonia) ^{1,2}
- Cilunculus ateuchus* Bamber, 2004 (New Caledonia) ^{1,2}
- Cilunculus australiensis* Clark, 1963 (New Caledonia)
- Cilunculus compactus* Stock, 1991 (New Caledonia)
- Cilunculus crinitus* Stock, 1991 (New Caledonia) ^{1,2}
- Cilunculus frontosus* Loman, 1908 (New Caledonia)
- Cilunculus pedatus* Stock, 1991 (New Caledonia) ^{1,2}
- Cilunculus scaurus* Stock, 1997 (New Caledonia) ^{1,2}
- Dromedopycnon arthritis* Bamber, 2004 (New Caledonia) ^{1,2}
- Heterofragilia brevicauda* Stock, 1991 (New Caledonia) ^{1,2}
- Sericosura cochleifovea* Child, 1989 (New Caledonia)
- Proboehmia tubirostris* Stock, 1991 (New Caledonia) ^{1,2}

Family Endeidae Norman, 1908

- Endeis mollis* (Carpenter, 1904) (New Caledonia)

Family Pallenopsidae Fry, 1978

- Pallenopsis (Pallenopsis) angusta* Stock, 1991 (New Caledonia, Loyalty Islands)
- Pallenopsis (P.) dentifera* Stock, 1983 (New Caledonia)
- Pallenopsis (P.) spinipes* Carpenter, 1907 (Vanuatu)
- Pallenopsis (P.) virgata* Loman, 1908 (New Caledonia, Chesterfield islands, Vanuatu)
- Pallenopsis (B.) juttingae* Stock, 1964 (New Caledonia)
- Pallenopsis (B.) longimana* Stock, 1991 (New Caledonia) ^{1,2}
- Pallenopsis (B.) longirostris* Wilson, 1881 (Vanuatu)
- Pallenopsis (B.) mollissima* (Hoek, 1881) (Vanuatu)
- Pallenopsis (B.) richeri* Bamber, 2000 (Vanuatu)
- Pallenopsis (B.) scoparia* Fage, 1956 (Chesterfield Islands)
- Pallenopsis (B.) tydemani* Loman, 1908 (Vanuatu)

Family Callipallenidae Hilton, 1942

- Callipallene ersei* Bamber, 1997 (New Caledonia) ^{1,2}
Callipallene fallax (stock, 1994) (New Caledonia)
Seguapallene tricuspidata Stock, 1991 (New Caledonia) ^{1,2}
Parapallene arnaudae Stock, 1991 (New Caledonia) ^{1,2}
Parapallene australiensis (Hoek, 1881) (New Caledonia)
Pigrogromitus timsanus Calman, 1927 (New Caledonia)

Family Phoxichilidiidae Sars, 1891

- Anoplodactylus batangensis* (Helfer, 1938) (New Caledonia)
Anoplodactylus cribellatus Calman, 1923 (New Caledonia)
Anoplodactylus longiformis Child, 1977 (New Caledonia) ^{1,2}
Anoplodactylus pycnosoma (Helfer, 1938) (New Caledonia)
Anoplodactylus typhloides Stock, 1991 (New Caledonia) ^{1,2}
Phoxichilidium forfex Stock, 1991 (New Caledonia) ^{1,2}
Phoxichilidium tuberculatum Stock, 1991 (New Caledonia) ^{1,2}

Family Colossendeidae Hoek, 1881

- Colossendeis colossea* Wilson, 1881 (New Caledonia, Chesterfield islands, Vanuatu)
Colossendeis leptorhynchus Hoek, 1881 (New Caledonia, Vanuatu)
Colossendeis macerrima Wilson, 1881 (Chesterfield islands, Vanuatu)
Colossendeis minor Schimkewitsch, 1893 (New Caledonia)
Colossendeis pipetta Stock, 1991 (New Caledonia, Loyalty Islands, Chesterfield Islands) ¹
Colossendeis sinuosa Stock, 1997 (New Caledonia) ¹
Rhopalorhynchus filipes Stock, 1991 (New Caledonia, Loyalty Islands, Chesterfield Islands)
Hedgpeithia tibialis Stock, 1991 (New Caledonia) ^{1,2}

Family Austrodecidae Stock, 1954

- Austrodecus calvum* Stock, 1991 (New Caledonia) ^{1,2}
Austrodecus (Tubidecus) bathyale Stock, 1991 (New Caledonia, Loyalty Islands) ^{1,2}
Austrodecus (T.) excelsum Stock, 1991 (New Caledonia) ^{1,2}
Austrodecus (T.) latum Stock, 1991 (New Caledonia, Loyalty Islands) ^{1,2}
Austrodecus (T.) offerrecans Bamber, 2000 (New Caledonia) ^{1,2}
Austrodecus (T.) tuberculatum Stock, 1991 (New Caledonia) ^{1,2}

Family Pycnogonidae Wilson, 1878

- Pycnogonum crosnieri* Stock, 1991 (New Caledonia) ^{1,2}
Pycnogonum occa Loman, 1908 (New Caledonia)
Pycnogonum (Nulloviger) lobipes Stock, 1991 (New Caledonia) ^{1,2}
Pycnogonum (N.) moniliferum Stock, 1991 (New Caledonia) ¹

¹ type locality

² currently endemic

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