

Podocopid and platycopid ostracoda of New Caledonia

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The first record of Ostracoda from New Caledonia was by Brady (1868) in *Les Fonds de la Mer*. Brady mentioned two species from sediment collected at Nouméa, naming one as new (but the name is a junior homonym) and identifying the other with a West Indian species. Both species belong to circumtropical genera with bewildering diversity, and their true identities are only conjectural at present. Later, Brady (1890) reported 45 marine species from collections near Nouméa, of which 23 were named as new. McKenzie (1986) designated and illustrated lectotypes for several of Brady's species, but without taxonomic analysis; a few were later discussed and re-illustrated by Titterton *et al.* (2001). Most of Brady's identifications of previously named species at Nouméa cannot be sustained today.

Apostolescu (1967) reported 32 species from five sediment samples in the Baie de Saint Vincent. Most of the names were in open nomenclature, and the tiny illustrations show insufficient detail for identification. Cabioch *et al.* (1986) identified 40 species of Ostracoda in Pleistocene and Holocene sediments of drillholes through the fringing reefs near Mamié on the southeast coast and near Ricaudy on the southwest coast of Grande-Terre. Although many of the names were in open nomenclature, they provided good SEM photographs, together with brief synonymies and descriptions.

Babinot and Degaugue-Michalski (1996) analyzed assemblages in reef sediments of Holocene cores from northern New Caledonia and the Chesterfield Islands. Their species list included a number of well-known and cosmopolitan species, as well as many in open nomenclature, but without accompanying illustrations or taxonomic treatment. Hoibian *et al.* (2000, p. 224) listed 47 species and composite taxa (28 in open nomenclature or undifferentiated below subfamily) from collections on the Néra Delta, on the west coast of Grande-Terre, providing illustrations for 24 of them but no systematics. Hoibian *et al.* (2002, Figs. 8a, 8b, 13) listed 100 species and composite taxa (69 in open nomenclature or undifferentiated below subfamily) from sediments of Roche Percée Bay and adjacent fringing reef flats, providing illustrations for 18 of them but no systematics. For these species identifications not accompanied by illustrations, synonymies or taxonomic discussion, the occurrence in New Caledonia is regarded as likely but not documented as yet.

To support their biogeographic analyses of Indo-Pacific faunas, Benson (1965) and Hartmann (1984, 1988) compiled species lists from older publications, mostly by original binomen without re-evaluation of identifications. Subsequent analyses of Indo-Pacific biogeography, of which Titterton and Whatley (1988) was the most comprehensive, have been presented only at the generic level, with occasional mention of selected species to illustrate a theme. None of these published the underlying database of species occurrences, and for most it seems that the authority for species identifications was unpublished student theses. Therefore, although some authors state that the Ostracoda of the Indo-Pacific realm are both wide-ranging and well-known, there is remarkably little evidence of exactly how New Caledonia fits into this nexus.

For freshwater Ostracoda, the data are even more meager. Méhes (1939) described seven species of freshwater Ostracoda from three surface ponds on Grande Terre and one on Ouvéa. De Deckker (1979) and Neale (1979) mentioned additional species, represented in collections of the British Museum (Natural History), from two other freshwater localities on Ouvéa. Two more freshwater species were described from streams and ponds of Grande-Terre by Mary & Marmonier (2000, in open nomenclature), Rossetti & Martens (1999), and Martens & Rossetti (2002). Six freshwater species (most in open nomenclature) and four anchialine species were described from sinkholes and caves of Maré, Ouvéa and Lifou by Maddocks *et al.* (1993) and Maddocks (2005).

Although it is likely that the total podocopid and platycopid ostracode fauna of New Caledonia and surrounding waters totals several hundred species, the species list that follows is short. It includes only those species whose occurrences in New Caledonia have been documented reliably (especially by illustration) and which have a valid name. Many species known to occur in New Caledonia are excluded from this list, because they have been named only in open nomenclature (as sp., cf., or aff.) or because it is considered likely that they were misidentified. Many other species have valid names but must be omitted from the list, because their presence in New Caledonia cannot be verified at present from published information. Entire families of smooth-shelled ostracodes are absent from the list, because of the difficulties of consistent identification from carapace characters alone. Nothing is known of the soft anatomy of marine species of New Caledonia, nor have systematic comparisons of these populations with those of neighboring Pacific localities been undertaken. Although doubtless the deep-sea ostracode populations in territorial waters of New Caledonia are as diverse as in other parts of the western Pacific Ocean, nothing is known of them as yet.

To produce this checklist, only publications were examined, but no specimens. The species list represents a conservative re-appraisal of information visible in published illustrations. The generic assignments of some species have been updated according to taxonomic progress elsewhere (new combinations are designated by *). In a few cases a different species identification is suggested, for either taxonomic or nomenclatural reasons (designated by +).

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SYSTEMATIC LIST OF SPECIES

Class OSTRACODA Latreille 1802
 Subclass PODOCOPA Sars 1866
 Order PLATYCOPIDA Sars 1866
 Suborder PLATYCOPINA Sars 1866
 Superfamily CYTHERELLOIDEA Sars 1866
 Family CYTHERELLIDAE Sars 1866

Cytherella semitalis Brady 1868

Order PODOCOPIDA Sars 1866
 Suborder BAIRDIOCOPINA Gruendel 1967
 Superfamily BAIRDIOIDEA
 Family BAIRDIIDAE

Anchistrocheles funata Brady 1890
Neonesidea schulzi (Hartmann 1964).
Paranesidea algicola Maddocks 1969
Paranesidea conulifera (Bonaduce, Masoli and Pugliese 1976)
Triebelina bradyi Triebel 1948
Triebelina numensis (Mueller 1912)
Triebelina sertata Triebel 1948

Suborder DARWINULOCOPINA Sohn 1988
 Superfamily DARWINULOIDEA Brady and Norman 1889
 Family DARWINULIDAE Brady and Norman 1889

Penthesilenula brasiliensis (Pinto and Kotzian 1961)
Vestalenula marmonieri Rossetti and Martens 1999

Suborder CYPRIDOCOPINA Jones 1901
 Superfamily CYPRIDOIDEA Baird 1845
 Family CANDONIDAE Kaufmann 1900

Dolerocypria iliffei Maddocks 2005
Mungava woutersi Maddocks 2005
Mungava xariessa Maddocks 2005
Paracypria uberis Maddocks 2005

Family CYPRIDIDAE Baird 1845
Cypridopsis sarasini Mehes 1939
Cyprinotus cingalensis Brady 1886
Eucypris wolffhuegeli Méhes 1914
Herpetocypris caledonica Méhes 1939
Herpetocypris minor Méhes 1939
Stenocypris malcolmsoni (Brady 1886)
Stenocypris marginata Daday 1910
Strandesia rouxi Méhes 1939

Family NOTODROMADIDAE Kaufmann 1900

Kennethia major (Mehes 1939)

Suborder CYTHEROCOPINA Gruendel 1967
Superfamily CYTHEROIDEA Baird 1850
Family CYTHERIDAE Baird 1850

Neomonoceratina entomon (Brady 1890)

Family CYTHERIDEIDAE Sars 1925

Cyprideis australiensis Hartmann 1978
Cyprideis consobrina (Brady 1890)
Miocyprideis spinulosa (Brady 1868)
Miocyprideis timorensis (Fyan 1916) +

Family CYTHEROMATIDAE Elofson 1939

Paracytheronia arenicola Hartmann 1978 +

Family KRITHIDAE Mandelstam 1958

Parakrithella flavescens (Brady 1890) *

Family LEPTOCYTHERIDAE Hanai 1957

Callistocythere crenata (Brady 1890)
Callistocythere keiji (Hartmann 1978)
Mediocytherideis (Sylvestra) ochracea (Brady 1890)

Family PARACYTHERIDEIDAE Puri 1957

Paracytheridea gynaikokratia Behrens 1991 +
Paracytheridea trilobites (Brady 1890)

Family PECTOCYTHERIDAE Hanai 1957

Keija demissa (Brady 1868)
Kotoracythere inconspicua (Brady 1880)

Family LOXOCONCHIDAE Sars 1925

- Loxoconcha dampierensis* Hartmann 1978
Loxoconcha georgei Hartmann 1978
Loxoconcha gracilis Brady 1890
Loxoconcha heronislandensis Hartmann 1981
Loxoconcha huahineensis Hartmann 1984
Loxoconcha parahuahineensis Behrens 1991 +
Loxoconcha pumicosa Brady 1880
Loxoconchella anomala (Brady 1880)
Loxoconchella honoluluensis (Brady 1880)

Family PARADOXOSTOMATIDAE Müller 1894

- Paradoxostoma lizardensis* Behrens 1991 +
Paradoxostoma novaecaledoniae Brady 1890

Family TRACHYLEBERIDIDAE Sylvester-Bradley 1948

- Actinocythereis tetrica* (Brady 1880)
Alococythere kendengensis (Kingma 1948) +
Auradilus packardi (Brady 1880)
Caudites javana Kingma 1948
Caudites litusorienticola Hartmann 1981
Coquimba torticollis (Brady 1890) *
Lankacythere scotti (Brady 1890) *
Neobuntonia guttata (Brady 1890) *
Pistocythereis cribriformis (Brady 1866).
Ponticythereis ichthyoderma (Brady 1890)
Ponticythereis manis Whatley and Titterton 1981
Ponticythereis quadriserialis (Brady 1890).
Tenedocythere deltoides (Brady 1890)
Tenedocythere elongata (Hu 1979)
Tenedocythere transoceanica (Teeter 1975)
Venericythere darwini (Brady 1868)

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