

## Carideans, stenopodideans and lobsters of the New Caledonian shallow waters

Tin-Yam CHAN and Masako MITSUHASHI  
Institute of Marine Biology, National Taiwan Ocean University,  
Keelung, TAIWAN, R.O.C.  
tychan@mail.ntou.edu.tw

The first report dealt with a collection of carideans and lobsters from the New Caledonia was by Borradaile in 1899, which reported 18 species. Since then, there were scattered reports on the shrimps and lobsters of the New Caledonia. Only after 1990 there have been active works on the New Caledonian shrimps and lobsters. For the shallow marine species, Bruce (1991), Short and Marquet (1998), and Li and Bruce (in press) reported extensively on the palaemonids, Hayashi (1995/6) on *Leptochela* (family Pasiphaeidae), and Okuno (1997) on *Cinetorhynchus* (family Rhyhocinetidae) of the New Caledonia. A general account of the lobsters of the New Caledonia was given by Richer de Forges and Laboute (1995/6) while Holthuis (2002) revised those genera previously assigned to *Scyllarus* based on an extensive collection from the New Caledonia.

Now 154 species of carideans, 1 stenopodidean species and 17 species of lobsters are known from the shallow waters (less than 100m) of New Caledonia, with the family Palaemonidae being the most speciose (100 species). Considering the diversity of palaemonids in New Caledonia is comparable to those from the other parts of the Western Pacific such the Philippines and Japan (Chace and Bruce, 1993; Miyake, 1998) with a high diversity, the number of alpheid species (ie. 10) in New Caledonia should be severely underestimated as the ecology and diversity of alpheids in the shallow waters of the Western Pacific generally resemble those of palaemonids (see Chace and Bruce, 1993; Miyake, 1998). Furthermore, it is highly likely that some more species will be found in the families Hippolytidae, Crangonidae, Palaemonidae, Processidae, Rhyhocinetidae and Stenopodidae from the shallow waters of New Caledonia. It may need to point out that some families, such as Enoplometopidae, Ogyrididae as well as some families of the superfamily Bresilioidea are still await to be discovered in the New Caledonian shallow waters.

At present, 23 species of carideans and 2 species of lobsters were originally described from the shallow waters of the New Caledonia (including the Loyalty Island) and are still valid. Nevertheless, only 13 species are still so far known from the Caledonia.

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## List of taxa

### CARIDEA Dana, 1852

#### ALPHEIDAE Rafinesque, 1815

- Alpheus gracilipes* Stimpson, 1860  
*Alpheus lottini* Guérin, 1829  
*Alpheus gracilidigitus* Miers, 1884  
*Alpheus diadema* Dana, 1852  
*Alpheus obesomanus* Dana, 1852  
*Alpheus frontalis* H. Milne Edwards, 1837 (Borradaile used Say, 1832)  
*Potamalpheops pininsulae* Bruce & Iliffe, 1992 ( ? holotype from New Caledonia and still endemic)  
*Synalpheus demani* Borradaile, 1899  
*Synalpheus streptodactylus* Coutière, 1905  
*Synalpheus stimpsonii* (de Man, 1888)

#### ANCHISTIOIDIDAE Borradaile, 1915

- Anchistioides willeyi* (Borradaile, 1899)

#### CRANGONIDAE Haworth, 1825

- Aegaeon orientalis* Henderson, 1893  
*Pontocaris hilarula* (de Man, 1918)  
*Philocheras pilosus* (Kemp, 1916)

#### GNATHOPHYLLIDAE Dana, 1852

- Gnathophyllum americanum* Guérin-Méneville, 1855

#### HIPPOLYTIDAE Dana, 1852

- Gelastocaris paronae* (Nobili, 1905)  
*Gelastreutes crosnieri* Bruce, 1990\*  
*Hippolysmata grabhami* Gordon, 1935 (Atlantic species!!)  
*Hippolysmata multiscissa* Nobili, 1904  
*Hippolysmata vittata* Stimpson, 1860  
*Hippolyte caradina* Holthuis, 1947  
*Latreutes mucronatus* (Stimpson, 1860)  
*Latreutes pygmoeus* Nobili, 1904  
*Parhippolyte uveae* Borradaile, 1899\*  
*Lysmata zaca* Armstrong, 1941  
*Saron neglectus* (de Man, 1902)  
*Thor paschalis* (Heller, 1862)  
*Thor spinosus* Boone, 1935  
*Tozeuma armatum* Paulson, 1875

#### HYMENOCERIDAE Ortmann, 1890

- Hymenocera picta* Dana, 1852  
*Phyllognathia ceratophthalma* (Balss, 1913)

#### OPLOPHORIDAE Dana, 1852

- Oplophorus gracilirostris* A. Milne-Edwards, 1881

#### PALAEOMONIDAE Rafinesque, 1815

- Allopontonia iaini* Bruce, 1972  
*Anchiopontonia hurii* (Holthuis, 1981)  
*Anchistus australis* Bruce, 1977  
*Anchistus custos* (Forsskal, 1745)

*Anchistus demani* Kemp, 1922  
*Anchistus gravieri* Kemp, 1922  
*Anchistus miersi* (de Man, 1888)  
*Anchistus pectinis* Kemp, 1925  
*Apopontonia dubia* Bruce, 1982  
*Brachycarpus biunguiculatus* (Lucas, 1846)  
*Brachycarpus crosnieri* Bruce, 1998\*  
*Conchodytes meleagrinae* Peters, 1852  
*Conchodytes maculatus* Bruce, 1989  
*Conchodytes tridacnae* Peters, 1852  
*Coralliocaris graminea* (Dana, 1852)  
*Coralliocaris superba* (Dana, 1852)  
*Dactylonia monnioti* (Bruce, 1990)\*  
*Dactylonia ascidicola* (Borradaile, 1898)  
*Dasycaris symbiotes* Kemp, 1922  
*Dasycaris zanzibarica* Bruce, 1973  
*Hamodactylus boschmai* Holthuis, 1952  
*Hamodactylus noumeae* Bruce, 1970\*  
*Harpiliopsis depressa* (Stimpson, 1860)  
*Harpiliopsis spinigera* (Ortmann, 1890)  
*Isopontonia platycheles* Bruce, 1982\*  
*Jocaste japonica* (Ortman, 1890)  
*Jocaste lucina* (Nobili, 1901)  
*Kemponia agag* (Kemp, 1922)  
*Kemponia amymone* (de Man, 1902)  
*Kemponia anacanthus* (Bruce, 1988)  
*Kemponia andamanensis* (Kemp, 1922)  
*Kemponia darwiniensis* (Bruce, 1987)  
*Kemponia elegans* (Paulson, 1875)  
*Kemponia ensifrons* (Dana, 1852)  
*Kemponia grandis* (Stimpson, 1860)  
*Kemponia nilandensis* (Borradaile, 1915)  
*Kemponia seychellensis* (Borradaile, 1915)  
*Kemponia tenuipes* (Borradaile, 1898)  
*Leander plumosus* Bruce, 1994  
*Leander tenuicornis* (Say, 1818)  
*Leandrites cyrtorhynchus* Fujino & Miyake, 1969  
*Macrobrachium equidens* (Dana, 1852)  
*Manipontonia psamathe* (de Man, 1902)  
*Metapontonia fungiacola* Bruce, 1967  
*Odontonia compacta* (Bruce, 1996)\*  
*Odontonia katoi* (Kubo, 1940)  
*Odontonia sibogae* (Bruce, 1972)  
*Odontonia simplicipes* (Bruce, 1996)  
*Onycocaris longirostris* Bruce, 1980\*  
*Palaemon concinnus* Dana, 1852  
*Palaemon debilis* Dana, 1852  
*Palaemon pacificus* (Stimpson, 1860)  
*Palaemonella dolichodactylus* Bruce, 1991\*  
*Palaemonella hachijo* Okuno, 1999  
*Palaemonella pottsi* (Borradaile, 1915)  
*Palaemonella pusilla* Bruce, 1975  
*Palaemonella rotumana* (Borradaile, 1898)  
*Palaemonella spinulata* Yokoya, 1936  
*Palaemonetes atrinubes* Bray, 1976

- Paraclimenes franklini* (Bruce, 1990)  
*Paranchistus nobilii* Holthuis, 1952  
*Parapontonia nudirostris* Bruce, 1968\*  
*Periclimenaeus arabicus* (Calman, 1939)  
*Periclimenaeus bidentatus* Bruce, 1970  
*Periclimenaeus colodactylus* Bruce, 1996\*  
*Periclimenaeus jeancharcoti* Bruce, 1991\*  
*Periclimenaeus nobilii* Bruce, 1974  
*Periclimenaeus rastrifer* Bruce, 1980\*  
*Periclimenaeus stylirostris* Bruce, 1969  
*Periclimenella spinifera* (de Man, 1902)  
*Periclimenes affinis* (Zehntner, 1894)  
*Periclimenes amboinensis* (de Man, 1888)  
*Periclimenes brevicarpalis* (Schenkel, 1902)  
*Periclimenes ceratophthalmus* Borradaile, 1915  
*Periclimenes commensalis* Borradaile, 1915  
*Periclimenes hertwigi* Balss, 1913  
*Periclimenes hirsutus* Bruce, 1971  
*Periclimenes holthuisi* Bruce, 1969  
*Periclimenes imperator* Bruce, 1967  
*Periclimenes incertus* Borradaile, 1915  
*Periclimenes ischiospinosus* Bruce, 1991\*  
*Periclimenes kemp* Bruce, 1969  
*Periclimenes lanipes* Kemp, 1922  
*Periclimenes lepidus* Bruce, 1978  
*Periclimenes magnificus* Bruce, 1979  
*Periclimenes novaecaledoniae* Bruce, 1968\*  
*Periclimenes obscurus* Kemp, 1922  
*Periclimenes soror* Nobili, 1904  
*Periclimenes tenuirostris* Bruce, 1991\*  
*Periclimenes venustus* Bruce, 1990  
*Philarius imperialis* (Kubo, 1940)  
*Philarius lifuensis* (Borradaile, 1898)\*  
*Pliopontonia furtiva* Bruce, 1973  
*Pontoniopsis comanthi* Borradaile, 1915  
*Stegopontonia commensalis* Nobili, 1906  
*Thaumastocaris streptopus* Kemp, 1922\*  
*Typtonychus crassimanus* Bruce, 1996\*  
*Urocaridella antonbrunii* (Bruce, 1967)  
*Urocaridella urocaridella* (Holthuis, 1950)  
*Zenopontonia noverca* (Kemp, 1922)\*
- PANDALIDAE Hayworth, 1825**
- Chlorocurtis jactans* (Nobili, 1904)  
*Chlorotocella gracilis* Balss, 1914  
*Plesionika narval* (Fabricius, 1787)
- PASIPHAEIDAE Dana, 1852**
- Leptochela chacei* Hayashi, 1995 (or 1996)  
*Leptochela crosnieri* Hayashi, 1995 (or 1996)\*  
*Leptochela irrobusta* Chace, 1976  
*Leptochela robusta* Stimpson, 1860  
*Leptochela sydniensis* Dakin & Colefax, 1940
- PROCESSIDAE Ortmann, 1896**
- Nikoides danae* Paulson, 1875  
*Nikoides gurneyi* Hayashi, 1975  
*Nikoides steinii* (Edmondson, 1935)

*Clytomanningus coutieri* (Nobili, 1904)

*Hayashidonus japonica* (de Haan, 1844)

*Processa zostericola* Hayashi, 1975

**RHYNCHOCINETIDAE Ortmann, 1890**

*Cinetorhynchus concolor* (Okuno, 1994)

*Cinetorhynchus erythrostrictus* Okuno, 1997

*Cinetorhynchus hendersoni* (Kemp, 1925)

*Cinetorhynchus hiatti* (Holthuis & Hayashi, 1967)

*Cinetorhynchus reticulatus* Okuno, 1997\*

*Cinetorhynchus striatus* (Nomura & Hayashi, 1992)

*Rhynchocinetes brucei* Okuno, 1994

**STYLODACTYLIDAE Bate, 1888**

*Neostylodactylus amarynthi* (de Man, 1902)

**STENOPODIDEA Bate, 1888**

**STENOPODIDAE Claus, 1872**

*Stenopus tenuirostris* de Man, 1888

**PALINURA Latreille, 1803**

**PALINURIDAE Latreille, 1803**

*Palinurellus wieneckii* (de Man, 1881)

*Panulirus penicillatus* (Olivier, 1791)

*Panulirus versicolor* (Latreille, 1804)

*Panulirus ornatus* (Fabricius, 1798)

*Panulirus longipes bispinosus* Borradile, 1899\*

*Panulirus homarus* (Linnaeus, 1758)

**SCYLLARIDAE Latreille, 1825**

*Arctides regalis* Holthuis, 1963

*Biarctus vitiensis* (Dana, 1852)

*Crenarctus bicuspidatus* (de Man, 1905)

*Eduarctus martensii* (Pfeffer, 1881)

*Eduarctus reticulatus* Holthuis, 2002

*Galearctus aurora* (Holthuis, 1982)

*Gibbularctus gibberosus* (de Man, 1905)

*Parribacus antarcticus* (Lund, 1793)

*Parribacus caledonicus* Holthuis, 1960\*

*Petrarctus rugosus* (H. Milne Edwards, 1837)

*Scyllarides squammosus* (H. Milne Edwards, 1837)

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Edited by  
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Publication éditée par:  
Centre IRD de Nouméa  
BP A5, 98848 Nouméa CEDEX  
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Téléphone: (687) 26 10 00  
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**Modèle de référence bibliographique à cette revue :**

Adjeroud M. *et al.*, 2000. Premiers résultats concernant le benthos et les poissons au cours des missions TYPATOLL.  
*Doc. Sci. Tech.* II 3, 125 p.

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ISSN 1297-9635

Numéro II7 - Octobre 2006

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Distribué pour le Pacifique par le Centre de Nouméa.

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Vignettes : voir les planches photographiques

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PLANCHES PHOTOGRAPHIQUES  
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La traduction en anglais des textes d'introduction, des Ascidies et des Echinodermes a été assurée par EMMA ROCHELLE-NEWALL, la préface par MINA VILAYLECK.

Ce document a été produit par le Service ISC, imprimé par le Service de Reprographie du Centre IRD de Nouméa et relié avec l'aimable autorisation de la CPS, financé par le Ministère de la Recherche et de la Technologie.

ISSN 1297-9635  
Numéro II7 - Octobre 2006  
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