

## Paguroidea of New Caledonia and environs: Remarks on the preliminary checklist

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The shallow-water tropical paguroid communities of the Indo-Pacific typically are dominated by representatives of the family Diogenidae. However, while some 1217 dredgings were made in New Caledonian lagoons between 1984 and 1989 (Richers de Forges, 1991), the majority at depths of less than 100 meters, it is clear from the species listing that the hermit crab fauna from those collections have received little attention. The highly speciose genera *Clibanarius*, *Dardanus* and *Diogenes* are conspicuously absent. Further study of the collections of the Muséum national d'Histoire naturelle will undoubtedly result in appreciable increases in the representation of these genera. In contrast, the monographic study of *Ciliopagurus*, *Strigopagurus* and *Trizopagurus* by Forest (1995) and a similar study of species of *Paguristes* sensu lato in progress by Rahayu (in preparation) indicate that these genera are more accurately represented in the present checklist.

With the exception of species of the genus *Calcinus*, in all four families of paguroids, the preponderance of New Caledonian species documented to date has been collected during explorations of the bathyal fauna. Species representations in the families Pylochelidae and Parapaguridae are, for the most part, accurate indications of the biodiversity in the New Caledonia EEZ (Forest, 1987; Lemaitre, 1996, 1999, 2004a, b); however, that is not the case for the Paguridae. The monographic generic reviews of McLaughlin & Forest (1997), McLaughlin (2000, 2004a, b), Asakura (2005), and McLaughlin & Rahayu (2006) account for all but three of the listed species. Considerable additional study is necessary before biodiversity and potential endemism can be discussed.

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## List of the taxa of Paguroidea from New Caledonia and environs.

(From published reports and works in progress. The localities cited in parentheses following each species are the type localities)

### PYLOCHELIDAE Bate, 1888

- Trizocheles caledonicus* Forest, 1987 (New Caledonia)  
*Trizocheles pulcher* Forest, 1987 (New Caledonia)  
*Trizocheles spinosus bathamae* Forest & de Saint Laurent, 1987 (New Zealand)

### DIOGENIDAE Ortmann, 1892

- Calcinus anani* Poupin & McLaughlin, 1998 (Tuamotu, French Polynesia)  
*Calcinus argus* Wooster, 1984 (Guam)  
*Calcinus gaimardii* (H. Milne Edwards, 1848) (Indonesia)  
*Calcinus imperialis* Whitelegge, 1901 (Tasman Sea, Australia)  
*Calcinus inconspicuus* Morgan, 1991 (Tasman Sea, Australia)  
*Calcinus latens* Randall, 1840 (Hawaiian Islands)  
*Calcinus lineapropodus* Morgan & Forest, 1991 [Cocos (Keeling) Islands]  
*Calcinus minutus* Buitendijk, 1937 (Indonesia)  
*Calcinus morgani* Rahayu & Forest, 1999 (Indonesia)  
*Calcinus pulcher* Forest, 1958 (Vietnam)  
*Calcinus spicatus* Forest, 1951 (Gambier Islands, French Polynesia)  
*Ciliopagurus alcocki* Forest, 1995 (New Caledonia)  
*Ciliopagurus krempfi* (Forest, 1952) (Vietnam)  
*Ciliopagurus pacificus* Forest, 1995 (Tuamotu Archipelago)  
*Ciliopagurus strigatus* (Herbst, 1804) ("East Indies")  
*Paguristes aciculus* Grant, 1905 (New South Wales, Australia)  
*Paguristes alcocki* McLaughlin & Rahayu, 2005 (Australia)  
*Paguristes palythophilus* Ortmann, 1892 (Japan)  
*Paguristes puniceus* Henderson, 1896 (Bay of Bengal, India)  
*Paguristes ortmanni* Miyake, 1978 (Japan)  
*Paguristes versus* Komai, 2001 (Japan)  
*Pseudopaguristes laurentae* (Morgan & Forest, 1991) (Western Australia)  
*Pseudopaguristes monoporus* (Morgan, 1987) (Northern Territory, Australia)  
*Stratiotes ngochoae* Rahayu, 2005 (Indonesia)  
*Stratiotes micheleae* Rahayu, 2005 (Indonesia)  
*Strigopagurus boreonotus* Forest, 1995 (New Caledonia)

### PAGURIDAE Latreille, 1802

- Alainopaguroides megalophthalmus* McLaughlin, 2006 (New Caledonia)  
*Alainopagurus crosnieri* Lemaitre & McLaughlin, 1995 (New Caledonia)  
*Anapagurus bonnieri* Nobili, 1905 (Persian Gulf)  
*Catapagurus danida* McLaughlin, 2002 (Andaman Sea)  
*Catapagurus franklinae* McLaughlin, 2004 (Queensland, Australia)  
*Catapagurus imperialis* (Asakura, 2001) (Sagami Bay, Japan)  
*Catapagurus tanimbarensis* McLaughlin, 1997 (Tanimbar Islands, Indonesia)  
*Diacanthurus ecpHYma* McLaughlin & Forest, 1997 (New Caledonia)  
*Diacanthurus richeri* McLaughlin & Forest, 1997 (New Caledonia)

*Icelopagurus crosnieri* McLaughlin, 1997 (Tanimbar Islands, Indonesia)  
*Icelopagurus undulatus* McLaughlin, 2006 (New Caledonia)  
*Michelopagurus limatulus* (Henderson, 1888) (south of Philippine Islands)  
*Micropagurus polynesiensis* (Nobili, 1906) (French Polynesia)  
*Micropagurus spinimanus* Asakura, 2005 (New Caledonia)  
*Nematopagurus alcocki* McLaughlin, 1997 (Kai Islands, Indonesia)  
*Nematopagurus australis* (Henderson, 1888) (Arafura Sea)  
*Nematopagurus diadema* Lewinsohn, 1969 (Gulf of Aqaba, Red Sea)  
*Nematopagurus gardineri* Alcock, 1905 (Maldiv Islands)  
*Nematopagurus indicus* Alcock, 1905 (Travancore coast, Arabian Sea)  
*Nematopagurus kosiensis* McLaughlin, 1998 (east coast of South Africa)  
*Nematopagurus lepidochirus* (Doflein, 1902) (Sagami Bay, Japan)  
*Nematopagurus lewinsohni* Türkay, 1986 (Saudi Arabia)  
*Nematopagurus meiringae* McLaughlin, 1998 (eastern South Africa)  
*Nematopagurus ricei* McLaughlin, 2004 (New Caledonia)  
*Nematopagurus richeri* McLaughlin, 2004 (New Caledonia)  
*Nematopagurus scutelliformis* McLaughlin (Kai Islands, Indonesia)  
*Nematopagurus spinulosensoris* McLaughlin & Brock, 1974 (Hawaii)  
*Nematopagurus spongioparticeps* McLaughlin, 2004 (New Caledonia)  
*Nematopagurus vallatus* (Melin, 1939) [Ogasawara (Bonin) Islands, Japan]  
*Pagurojacquesia polymorpha* (de Saint Laurent & McLaughlin, 1999) (Vanuatu)  
*Porcellanopagurus chiltoni* de Saint Laurent & McLaughlin, 2000 (Kermadac Islands)  
*Porcellanopagurus filholi* de Saint Laurent & McLaughlin, 2000 (New Zealand)  
*Porcellanopagurus haptodactylus* McLaughlin, 2000 (New Caledonia)  
*Porcellanopagurus tridentatus* Whitelegge, 1900 (New South Wales, Australia)  
*Propagurus haigae* (McLaughlin, 1997) (Kai Islands, Indonesia)  
*Pteropagurus inermis* McLaughlin & Rahayu, 2006 (New Caledonia)  
*Pteropagurus spina* McLaughlin & Rahayu, 2006 (New Caledonia)  
*Solitariopagurus triprobolus* Poupin & McLaughlin, 1996 (French Polynesia)  
*Solitariopagurus trullirostris* McLaughlin, 2000 (New Caledonia)  
*Solitariopagurus tuerkayi* McLaughlin, 1997 (Kai Islands, Indonesia)  
*Tomopaguroides valdiviae* (Balss, 1911) (off Somalia)  
*Xylopagurus caledonicus* Forest, 1997 (New Caledonia)

#### **PARAPAGURIDIAE Smith, 1882**

*Parapagurus latimanus* Henderson, 1888 (New Zealand)  
*Parapagurus richeri* Lemaitre, 1999 (New Caledonia)  
*Parapagurus furici* Lemaitre, 1999 (New Caledonia)  
*Strobopagurus breviacus* Lemaitre 2004 (New Caledonia)  
*Strobopagurus gracilipes* (A. Milne-Edwards, 1891) (Azores, eastern Atlantic)  
*Strobopagurus sibogae* (de Saint Laurent, 1972) (Indonesia)  
*Sympagurus acinops* Lemaitre, 1989 (Bahamas, western Atlantic)  
*Sympagurus affinis* (Henderson, 1888) (Meangis Islands, north of New Guinea)  
*Sympagurus aurantium* Lemaitre, 2004 (New Caledonia)  
*Sympagurus brevipes* (de Saint Laurent, 1972) (Indonesia)  
*Sympagurus dofleini* (Balss, 1912) (Sagami Bay, Japan)  
*Sympagurus burkenroadi* Thompson, 1943 (Zanzibar)  
*Sympagurus planimanus* (de Saint Laurent, 1972) (Flores Sea, Indonesia)  
*Sympagurus poupini* Lemaitre, 1994 (Tuamotu Archipelago)  
*Sympagurus soela* Lemaitre, 1996 (Queensland, Australia)  
*Sympagurus symmetricus* Lemaitre, 2004 (New Caledonia)  
*Sympagurus trispinosus* (Balss, 1911) (Zanzibar)  
*Sympagurus villosus* Lemaitre, 1996 (Queensland, Australia)  
*Tylaspis anomala* Henderson, 1888 (South Pacific, "Challenger" station 285)

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