

DOCUMENTS  
SCIENTIFIQUES  
et TECHNIQUES

II7

Volume spécial  
Deuxième édition

# COMPENDIUM of marine species from New Caledonia



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Institut de recherche  
pour le développement

CENTRE DE NOUMÉA



## Shallow water Stomatopoda of New Caledonia (0–100 m)

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The most recent summary of the Stomatopoda of New Caledonia and adjacent localities recorded 69 species in 31 genera and 10 families of which 60 occurred at depths of 100 m or less. Richer de Forges & Moosa (1992) analysed the distribution patterns of the stomatopods from the lagoons of New Caledonia and Chesterfield Atoll based on the results of Moosa (1991). The present revised list of New Caledonian Stomatopoda is derived from recent revisionary studies (Ahyong, 2001) and reexamination of the stomatopod collections in the Muséum national d'Histoire naturelle, Paris (Ahyong, unpublished). Sixty-two species of stomatopod distributed in 35 genera and 9 families occur in the 0–100 m depth range in the New Caledonian EEZ.

The New Caledonian stomatopod fauna can be broadly divided into coral reef and lagoon components. The coral reef component largely corresponds to the cavity dwelling gonodactylids of the families Gonodactylidae, Odontodactylidae, Protosquillidae, Pseudosquillidae and Takuidae. The gonodactylids are the most speciose and abundant stomatopods on hard substrates and all, except for the pseudosquillids, are 'smashers'. The lagoonal component corresponds to the soft-bottom burrowing families, all of which are 'spearers', namely Eurysquillidae, Lysiosquillidae, Nannosquillidae and Squillidae. The division between reef and lagoon components, however, is not a strict one. Many gonodactylids also occur in the lagoon amongst rubble and coral outcrops, and many burrowers, mainly lysiosquillids and nannosquillids also live in the reef flat sediments. The minute squillid, *Parvisquilla multituberculata*, lives only in deep coral cavities, and odontodactylids occupy both coral reef crevices and burrows constructed on the lagoon floor.

Fifty New Caledonian species range widely in the Indo-West Pacific, extending beyond Oceania. Seven stomatopod species are shared only with Australia. At present, only two shallow water species have not been recorded beyond New Caledonia: *Pontiosquilla caledonica* and *Neoanchisquilla semblatae*. Whether these prove to be endemic awaits further study of regional faunas. Additional described and undescribed genera and species that are apparently endemic to New Caledonia are known, but these live at depths exceeding 100 m (Ahyong, unpublished). Thus, taking present data at face value, the shallow water stomatopods of New Caledonia appear to form part of a more widespread western Pacific fauna, with low levels of endemism. Of course, sampling that specifically targets stomatopods remains to be conducted in the region, particularly in deep coral crevices and deep burrows in soft substrates. Study of these habitats will almost certainly reveal a rich undescribed fauna that will probably also include numerous endemic species.

The new records of *Gonodactylellus micronesicus*, *G. espinosus*, *Gonodactylaceus ternatensis* and *Odontodactylus hansenii* from New Caledonia represent incremental range extensions of species previously recorded from Australia or other western Pacific localities. The record of *Gonodactyloideus tricarinatus*, however, previously known only from French Polynesia, represents a significant range extension (Ahyong, 2002).

## REFERENCES

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## *Checklist of the shallow water Stomatopoda of New Caledonia (0–100 m)*

New records are marked \*, widespread Indo-West Pacific species are marked +, species shared only with Australia %, and species presently known only from New Caledonia @.

### **STOMATOPODA Latreille, 1817**

#### **EURYSQUILLIDAE Manning, 1977**

- Coronidopsis bicuspis* Hansen, 1926 +
- Manningia australiensis* Manning, 1970 +

#### **GONODACTYLIDAE Giesbrecht, 1910**

- Gonodactylaceus falcatus* (Forskäl, 1775) +
- Gonodactylaceus randalli* (Manning, 1978) +
- Gonodactylaceus ternatensis* (Manning, 1978) +
- Gonodactylellus affinis* (de Man, 1902) +\*
- Gonodactylellus erdmanni* Ahyong, 2001 +
- Gonodactyellus espinosus* (Borradaile, 1898) +\*
- Gonodactylellus micronesicus* (Manning, 1971) +\*
- Gonodactylellus rubriguttatus* Erdmann & Manning, 1978 +
- Gonodactylellus viridis* (Serène, 1954) +
- Gonodactylus chiragra* (Fabricius, 1781) +
- Gonodactylus platysoma* Wood-Mason, 1895 +
- Gonodactylus smithii* Pocock, 1893 +
- Gonodactyloideus tricarinatus* Ahyong, 2002 +\*

#### **LYSIOSQUILLIDAE Giesbrecht, 1910**

- Lysiosquilla maculata* (Fabricius, 1793) +

#### **NANNOSQUILLIDAE Manning, 1980**

- Acanthosquilla derijardi* Manning, 1969 +
- Acanthosquilla multifasciata* (Wood-Mason, 1895) +
- Pullosquilla pardus* Moosa, 1991 %

#### **ODONTODACTYLIDAE Bigelow, 1893**

- Odontodactylus cultrifer* (White, 1850) +
- Odontodactylus hansenii* (Pocock, 1893) +\*
- Odontodactylus latirostris* Borradaile, 1907 +
- Odontodactylus scyllarus* (Linné, 1758) +

#### **PROTOSQUILLIDAE Brooks, 1886**

- Chorisquilla hystrix* (Nobili, 1899) +
- Chorisquilla pococki* Manning, 1975 +
- Chorisquilla tuberculata* (Borradaile, 1907) +
- Chorisquilla tweediei* (Serène, 1950) %
- Echinosquilla guerinii* (White, 1861) +
- Haptosquilla glyptocercus* (Wood-Mason, 1875) +
- Haptosquilla trispinosa* (Dana, 1852) %

#### **PSEUDOSQUILLIDAE Manning, 1977**

- Pseudosquilla ciliata* (Fabricius, 1787) +
- Pseudosquillana richeri* (Moosa, 1991) +
- Raoulserenea hieroglyphica* (Manning, 1972) +
- Raoulserenea komaii* (Moosa, 1991) +

#### **SQUILLIDAE Latreille, 1803**

- Alimopsoides tuberculatus* Moosa, 1991 %
- Anchisquilla chani* Ahyong, 2001 %
- Areosquilla indica* (Hansen, 1926) +
- Areosquilla interstincta* Manning, 1976 +
- Areosquilla* sp.nov. \*
- Busquilla quadraticauda* (Fukuda, 1911) +
- Carinosquilla australiensis* Ahyong, 2001 %

*Carinosquilla redacta* Ahyong, 2001 %  
*Clorida denticauda* (Chhapgar & Sane, 1967) +  
*Clorida gaillardi* Moosa, 1985 +  
*Cloridina chlorida* Brooks, 1886 +  
*Cloridina ichneumon* (Fabricius, 1798) +  
*Cloridina inflata* (Moosa, 1991) %  
*Cloridina moluccensis* Moosa, 1973 +  
*Cloridina malaccensis* (Manning, 1968) +  
*Cloridina verrucosa* (Hansen, 1926) +  
*Fallosquilla fallax* (Bouvier, 1914) +  
*Harpiosquilla japonica* Manning, 1969 +  
*Leptosquilla schmeltzii* (A. Milne-Edwards, 1873) +  
*Levisquilla jurichi* (Makarov, 1979) +  
*Miyakea nepa* (Latreille, 1828) +  
*Neoanchisquilla semblatae* Moosa, 1991 @  
*Oratosquilla fabricii* (Holthuis, 1941) +  
*Oratosquillina gravieri* (Manning, 1978) +  
*Paralimopsis carinata* Moosa, 1991 +  
*Pontiosquilla caledonica* Moosa, 1991 @  
*Quollastria subtilis* Manning, 1978 +  
**TAKUIDAE Manning, 1995**  
*Taku spinosocarinatus* (Fukuda, 1909) +