

A checklist of Polyplacophora (Mollusca) from the Fiji islands

ENRICO SCHWABE^{1,4}, BORIS I. SIRENKO² & JOHNSON SEETO³

¹Bavarian State Collection of Zoology, Muenchhausenstrasse 21, D-81247 Muenchen, Germany.

E-mail: enrico.schwabe@zsm.mwn.de

²Zoological Institute, Russian Academy of Sciences, St. Petersburg 199034, Russia. E-mail: marine@zin.ru

³The University of the South Pacific, Suva, Fiji. E-mail: johnson.seeto@usp.ac.fj

⁴Corresponding author

Table of contents

Abstract	2
Introduction	2
Short key to the generic taxa treated here	4
Systematics	4
Polyplacophora Gray, 1821	4
Neoloricata Bergenhayn, 1955	4
Lepidopleurida Thiele, 1909	4
Lepidopleurina Thiele, 1909	4
Leptochitonidae Dall, 1889	4
<i>Parachiton</i> Thiele, 1909	4
Key to the Fiji species	5
<i>Parachiton puppis</i> Hull, 1923	6
<i>Nierstraszellidae</i> Sirenko, 1992	6
<i>Nierstraszella</i> Sirenko, 1992	6
<i>Nierstraszella lineata</i> (Nierstrasz, 1905)	6
<i>Chitonida</i> Thiele, 1909	9
<i>Chitonina</i> Thiele, 1909	9
<i>Chitonoidea</i> Rafinesque, 1815	9
<i>Callochitonidae</i> Plate, 1901	9
<i>Callochiton</i> Gray, 1847	9
<i>Callochiton neocalledonius</i> Kaas & Van Belle, 1990	9
<i>Chitonidae</i> Rafinesque, 1815	11
<i>Chitoninae</i> Rafinesque, 1815	11
<i>Chiton</i> Linnaeus, 1758	11
<i>Rhyssoplax</i> Thiele, 1893	12
Key to the Fiji species	13
<i>Chiton (Rhyssoplax) ectypus</i> (de Rochebrune, 1884)	13
<i>Chiton (Rhyssoplax) pulcherrimus</i> Sowerby, 1842	13
<i>Tegulaplaix</i> Iredale & Hull, 1926	15
<i>Chiton (Tegulaplaix) hululensis</i> (E. A. Smith in Gardiner, 1903)	15
<i>Acanthopleurinae</i> Dall, 1889	18
<i>Acanthopleura</i> Guilding, 1829	18
<i>Acanthopleura gemmata</i> (de Blainville, 1825)	18
<i>Toniciniae</i> Pilsbry, 1893	22
<i>Lucilina</i> Dall, 1882	22

Key to the Fiji species	22
<i>Lucilina lamellosa</i> (Quoy & Gaimard, 1835).....	22
<i>Lucilina nigropunctata</i> (Carpenter, 1865) comb. nov.	24
<i>Lucilina novemrugata</i> (Bergenhayn, 1930) comb. nov.	26
† cf. <i>Lucilina</i> sp.	26
<i>Onithochiton</i> Gray, 1847	26
<i>Onithochiton societatis</i> Thiele, 1909.....	27
Acanthochitonina Bergenhayn, 1930	27
Cryptoplacoidea H. & A. Adams, 1858	27
Cryptoplacidae H. & A. Adams, 1858	27
<i>Cryptoplax</i> de Blainville, 1818	27
Key to the Fiji species (body length at least 13 mm).	27
<i>Cryptoplax elioti</i> Pilsbry, 1901	27
<i>Cryptoplax larvaeformis</i> (Burrow, 1815)	29
<i>Cryptoplax</i> sp.	31
? † <i>Cryptoplax menkrawitensis</i> Beets, 1941	31
Acanthochitonidae Pilsbry, 1893	34
<i>Choneplax</i> Carpenter MS, Dall, 1882	34
<i>Choneplax littlerorum</i> Sirenko, 2003	35
Discussion	39
Acknowledgements	40
References	40

Abstract

A compiled list of Fiji Islands chitons, including an updated chresonymy list and identification key, is provided. To the nine species previously known from the literature ten more are added. Of the 19 species now known from Fijian waters, one is a deep-water species and two are also known from fossils. A redescription of *Callochiton neocaledonicus* Kaas & Van Belle, 1990, and a detailed description of subadult specimens of *Choneplax littlerorum* Sirenko, 2003 are herein provided. *Chiton spinosetatus* Bergenhayn, 1930 is here regarded as a synonym of *Chiton subassimilis* Souverbie in Souverbie & Montrouzier, 1866. A lectotype designation is herein made for one of the numerous syntypes of *Cryptoplax jugosus* Bergenhayn, 1930 and for one of the two syntypes of *Chiton reticulatus* Nierstrasz, 1905 to stabilize the type localities for these species. For the same reason, and to clarify the confusing type status of *Lepidopleurus niasicus* Thiele, 1906, a lectotype is also selected from the three available syntypes. *Acanthopleura nigropunctata* Carpenter, 1865 and *Tonica novemrugata* Bergenhayn, 1930, formerly placed in *Tonica*, are both reassigned to the genus *Lucilina* on the basis of radular differences of both genera (second lateral tooth quadricuspid in *Lucilina* vs. unicuspis in *Tonica*) and the geographic isolation of the *Tonica*, of which species occur in central and south American waters only.

Key words: Mollusca, Polyplacophora, Pacific Ocean, Melanesia, Fiji, checklist

Introduction

The Melanesian Fiji island group consists of over 360 islands, which are surrounded by complex reef systems, especially the larger islands that show some remarkable double reef belts (Nunn 1994). The Fiji islands are located between latitude 12° to 20° South and longitude 176° East to 178° West.

Data on the molluscan diversity of this island group are rather scarce and restricted mainly to revisions of single gastropod groups (e.g., Cernohorsky 1964a, 1964b, 1965a, 1965b, 1967a, Cernohorsky & Jennings 1966; Brodie & Brodie 1990, Seeto 1998). Exceptions are the field guides of the South Pacific molluscs (Cernohorsky 1967b, 1972) and the list of the molluscs from the Fijian Lau group from where Cernohorsky (1978) reported 313 marine species. Thus it is very difficult to estimate a total number of molluscs inhabiting the Fiji