# MOLLUSC TYPE-SPECIMENS IN THE SOUTH AUSTRALIAN MUSEUM. 3. POLYPLACOPHORA

by

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**ABSTRACT**

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The South Australian Museum collection of chiton types is the largest in the Southern hemisphere. It contains primary type material, and some secondary types, of 123 species, subspecies or varieties. A further 15 species are represented only by secondary types. The type status of at least 11 of the primary types is considered very doubtful or, in the case of neotypes, invalid. Listed in an appendix are an additional 21 species represented by types of dubious status from the Dupuis collection. Species are listed alphabetically according to the original name of the genus or species.

## INTRODUCTION

Most of the chiton types in the South Australian Museum are due to the early work of W. G. Torr and E. Ashby at the turn of the century, particularly Ashby who continued his active interest in chitons well into the 1930s.

Ashby donated his collection of chitons, including most of the types of Torr, to the South Australian Museum in 1932, but he continued to borrow material freely for his research. In 1934 Ashby's home at Blackwood in the Adelaide Hills was destroyed by fire and some type material of chitons and birds was lost. As there are no accurate records of the material on loan to Ashby at the time of the fire, one must assume that any Ashby or Torr types, listed in the literature as being in the Ashby or Torr collection, and which cannot now be located in an Australian museum were destroyed at that time.

Ashby also acquired a small collection of chitons from Commandant Paul Dupuis, once conchologist at the Museum Royal d'Histoire Naturelle de Belgique, Brussels, including some important historical and probable type material of Blainville, D'Orbigny, Quoy and Gaimard, Rochebrune, Jousseaume and Dupuis. The Dupuis collection is not well curated and original labels are often missing. Types have been indicated by a small label "TYPE" in red print glued to the label with the specimen and appears to be a later addition. As the type status of most of these specimens is very doubtful they have not been included in the main part of the following list but are listed separately in an appendix.

Other chiton types in the South Australian Museum came from the May collection, acquired by J. C. Verco and presented to the museum in 1929, and as a result of studies by Cotton, mostly in conjunction with Ashby, Godfrey and Weeding. Since Cotton and Godfrey (1940) little of consequence has been published on Australian chitons and type material of only one species, *Lucilina tilbrooki* Milne, 1958 (a paratype), has been added to the collection.

In their monograph on South Australian chitons, Cotton and Godfrey (1940) and also Cotton (1964) selected neotypes for South Australian Bednall and Matthews species on the basis of Ashby (1918) who recounts the loss of Bednall and Matthews types at sea. However they failed to verify which types were lost as at least some of the original type material (syntypes) of Bednall is known to exist (Davis *et al.* 1979). Similarly, neotypes were also designated for other species where the type was presumed lost. We believe that in most cases these neotypes were designated in a somewhat arbitrary manner, the possible existence of type material was not sufficiently investigated and there were no further statements regarding the specimens, other than the locality and that they had been designated as neotypes and given museum registration numbers. We therefore regard all of the neotypes selected by Cotton and Godfrey (1940) and Cotton (1964) and listed here, with the possible exception of *Acanthochites tatei* Torr & Ashby, 1898, as invalid.

We further believe that the South Australian Museum collection of chiton types is the largest in the southern hemisphere and one of the more significant collections in the world. It includes type material for 138 species or subspecies (excluding the Dupuis collection) and the type status of only 11 is in doubt or, in the case of neotypes, considered invalid, the remainder have been verified by us according to available material and information. A further 21 species are represented by types of dubious status in the Dupuis collection.

In the following list species are arranged alphabetically in families under the original name at the time of description. Changes in familial status have been cross-referenced. The present status of each species is, unless indicated otherwise, according to Kaas and van Belle (1980). The specimens are all dry except for some of the paratypes of *Ischnochiton johnstoni*

and *I. mawsoni* and are listed as "entire" when the articulated valves and girdle are present or as "entire with animal" when the dried animal is also present.

The following abbreviations are used in the text. AIM=Auckland Institute and Museum, New Zealand; AM=The Australian Museum, Sydney; ANSP=Academy of Natural Sciences of Philadelphia, U.S.A.; BANZARE=British, Australian and New Zealand Antarctic Research Expedition, 1929-31; MCZ=Museum of Comparative Zoology, Harvard University, U.S.A.; MNHN=Museum National D'histoire Naturelle, Paris; NMNZ=National Museum of New Zealand; MV=Museum of Victoria; N.S.W.=New South Wales; N.Z.=New Zealand; Qld.=Queensland; QM=Queensland Museum; S.A.=South Australia; SAM=South Australian Museum; Tas.=Tasmania; TM=Tasmanian Museum and Art Gallery; W.A.=Western Australia; WAM=Western Australian Museum.

## Family **ACANTHOCHITONIDAE**

### Genus *Acanthochites* Risso, 1826

*Acanthochites cornutus* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 217, pl. 6, fig. 3a-f.
=*Craspedochiton cornutus* (Torr & Ashby, 1898).
Holotype: D12188, 5 articulated median valves and associated girdle, from Marino, near Adelaide, S.A., at low tide, collected by E. Ashby, date of collection unknown.
Note: Rest of type presumed lost. Type unique.

*Acanthochites crocodilus* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 216, pl. 6, fig. 2a-f.
=*Notoplax crocodilus* (Torr & Ashby, 1898)
Holotype: D12137, posterior valve, one median valve and several fragments of valves and girdle, from Marino, near Adelaide, S.A., collected by W. G. Torr, date of collection unknown.
Paratype: D12195, entire specimen with animal with same collection data as holotype, labelled "cotype".

*Acanthochites exilis* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 218, pl. 7, fig. 6a-f.
=*Craspedochiton cornutus* (Torr & Ashby, 1898)
Holotype: D12251, posterior valve and 3 disarticulated median valves, from Spencer Gulf or Investigator Strait, S.A., dredged by J. C. Verco in 10-15 fathoms, date of collection unknown.
Note: Rest of type presumed lost.

*Acanthochites jucundus* Rochebrune, 1882
*Bull. Soc. Philom. Paris Ser.* 7, **6**: 194.
=*Acanthochitona jucunda* (Rochebrune, 1882)
Holotype: D12267, 1 median valve only, from New Holland, collected by Belligny, date of collection unknown.
Note: According to Ashby (1926) this valve came from the holotype and was given to him by Dr Lamy. Recent enquiries indicate that the rest of the type cannot be located in MNHN although Ashby (1922) apparently saw the type and says "there are a number of specimens in spirit ---- all much worn."

*Acanthochites kimberi* Torr, 1912
*Trans. R. Soc. S. Aust.* **36**: 167, pl. 6, fig. 5a-f.
=*Acanthochitona kimberi* (Torr, 1912).
Neotype: D13758, entire specimen with animal, from Aldinga, near Adelaide, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 522, fig. 515).
Syntypes: D12220, 3 entire specimens with animal, from Corny Point, Yorke Peninsula, S.A., collector and date of collection unknown. D12221, 2 entire specimens with animal and a median, posterior and anterior valve, from Kangaroo Island, S.A., collector and date of collection unknown. D12227, entire specimen with animal, stuck on card with other specimens from various localities—since removed, from Port Noarlunga, S.A., collector and date of collection unknown.

Note: In the presence of syntypes a neotype should not have been erected. The type status of D12220 and particularly D12227 is very doubtful as the locality data do not match the original description which was based on 4 specimens from Aldinga and Kangaroo Island. However, D12220 and D12221 has the label "Type CO-59" which corresponds to the number of the species in the publication, indicating that these specimens may have been part of the original material. D12221 also has a label which says "cotypes type to be selected". Therefore these are almost certainly syntypes. The loose valves with D12221 could have come from the specimen illustrated by Torr and thus the intended type, although Torr apparently intended the specimen collected by Kimber from Aldinga to be the type. None of the above specimens are as large as 10×4 mm which is a measurement given by Torr and it must be presumed that this specimen has been lost.

*Acanthochites (Loboplax) mariae* Webster, 1908
*Trans. Proc. N.Z. Inst.* **40**: 254, pl. 20, figs 1-11.
=*Notoplax mariae* (Webster, 1908).
Paratype: D11108, median valve 4, girdle fragment, and radula, without collection data.
Note: With label "valve from Webster's paratype". Webster apparently did not designate paratypes although he mentions at least 7 specimens in addition to the type. Type in AIM (TM-1).

*Acanthochites matthewsi* Bednall & Pilsbry, 1894
*Nautilus* 7 (10): 120.
=*Notoplax (Bassethullia) matthewsi* (Bednall & Pilsbry, 1894).

Neotype: D13741, entire specimen with animal, from Sultana Bay, Yorke Peninsula, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 536, fig. 534).
Note: Iredale and Hull (1925b) selected a neotype for this species presuming the type to be lost (probably AM, C10411). Cotton and Godfrey (1940) unaware of this selected yet another neotype. However, according to Davis *et al.* (1979) the holotype is in ANSP (Shell Cat. No. 64916). We therefore consider both neotypes invalid.

*Acanthochites maughani* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 218, pl. 7, fig. 5a-f.
=*Acanthochitona pilsbryi* (Sykes, 1896).
Holotype: D12264, 5 articulated median valves with remains of girdle and animal, plus one loose median valve, from Victor Harbor (Port Victor), S.A., collected by M. M. Maughan, date of collection unknown.
Note: Rest of type presumed lost.

*Acanthochites rubrostratus* Torr, 1912
*Trans. R. Soc. S. Aust.* **36**: 169, pl. 7, fig. 7a-f.
=*Notoplax rubrostrata* (Torr, 1912).
Holotype: D13717, entire specimen with animal, from St Francis Island, Nuyts Archipelago, S.A., collector and date of collection unknown.
Paratype: D16020, entire specimen with animal, from Corny Point, Yorke Peninsula, S.A., collector and date of collection unknown.
Note: A label with the holotype says "valves figured pl.vii have been lost". The type status of D16020 is in doubt as Torr (1912) only lists specimens from St Francis Island and Henley Beach; however a label with the specimen says "CO-TYPES 61" which corresponds to the number of the species in the publication.

*Acanthochites rufus* Torr, 1912
*Trans. R. Soc. S. Aust.* **36**: 167, pl. 6, fig. 4a-f.
=*Craspedochiton variabilis* (Adams & Angas, 1864).
Holotype: D12208, entire specimen with part of animal, from Kangaroo Island, S.A., collector and date of collection unknown.
Note: Type unique.

*Acanthochites subviridis* Torr, 1911
*Trans. R. Soc. S. Aust.* **35**: 104, pl. 25, fig. 3a-f.
=*Notoplax subviridis* (Torr, 1911).
Holotype: D12872, 4 articulated median valves with girdle and animal, plus the 4 remaining valves disarticulated, from Rabbit Island, Albany, W.A., presumably collected by Torr, Christmas, 1910-11.
Paratype: D14490, entire specimen with animal, with same collection data as holotype and labelled "co-type".

*Acanthochites tatei* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 219, pl. 7, fig. 7a-f.
=*Acanthochitona granostriata* (Pilsbry, 1894).
Neotype: D13732, entire specimen with animal, from Middleton, Encounter Bay, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 527, fig. 523).
Note: The neotype was selected from a lot from the Torr collection (D12260) with the label "our type of *Acan. tatei* was very diminutive and was ruined in dissecting. These are from the same spot . . .".

*Acanthochites tristis* Rochebrune, 1882'
*Bull. Soc. Philom. Paris Ser* 7, **6**: 194.
=Nom. inquir.
Holotype: D12269, 1 median valve only, from New Holland collected by Dussumier, date of collection unknown.
Note: According to Ashby (1926) this valve came from the holotype and was given to him by Dr Lamy. Rest of type in MNHN.

*Acanthochites verconis* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 217, pl. 6, fig. 4a-f.
=*Notoplax verconis* (Torr & Ashby, 1898).
Holotype: D12201, 3 articulated median valves with fragments of girdle and animal, plus fragments of the posterior valve and median valves, from Gulf St Vincent, S.A., dredged by J. C. Verco, date of collection unknown.
Note: Anterior valve presumed lost. Kaas and van Belle (1980) regard this species as a synonym of *Notoplax wilsoni* (Sykes, 1896) however, one of us (K.L.G.) has examined this species in detail and regards it a valid species.

Genus ***Acanthochiton*** Gray, 1821 em. Iredale, 1915.

*Acanthochiton bednalli* var *johnstoni* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 231.
=*Acanthochitona bednalli* (Pilsbry, 1894).
Holotype: D12185, entire specimen, from Carnarvon, Shark Bay, W.A., collected by W. C. Johnston, date of collection unknown.
Note: Kaas and van Belle (1980) follow Cotton and Weeding (1939) who elevate this variety to specific rank, however, one of us (K.L.G.) has examined this species in detail and regards it as a deep-water form of *A. bednalli*.

*Acanthochiton brookesi* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 14, pl. 1, fig. 3a-c, pl. 2, fig. 7
=*Acanthochitona brookesi* Ashby, 1926.
Holotype: D11025, 5 disarticulated median valves and girdle fragments from Auckland Harbour, N.Z., collected by H. Suter, date of collection unknown.
Paratype: D11031, entire specimen without girdle, with same collection data as holotype.
Note: Remainder of holotype in AIM (TM-2).

*Acanthochiton gatliffi* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 398, pl. 42, figs 2-5.
=*Acanthochitona gatliffi* Ashby, 1919.
Holotype: D12189, 2 median valves, a valve fragment, remains of girdle and animal, from Port Lincoln, S.A., collected by E. Ashby, Jan. 1917.
Note: Rest of type presumed lost.

*Acanthochiton heterochaetus* Bergenhayn, 1931
*Arkiv. Zool.* **23A** (13): 20, pl. 1, figs 38-42, pl. 3, figs 67-74.
=*Acanthochitona gracilis* (Jeffreys, 1859).
Syntype: D16185, entire specimen with animal but with anterior valve missing, from off La Luz, Gran Canaria, Canary Islands, dredged in 100 m on red algae by N. Odhner, 1930.
Note: Bergenhayn (1931) records 17 specimens but apparently did not designate a holotype. Our specimen is labelled "cotyp".

*Acanthochiton kimberi yallingupensis* Ashby, 1925
*Rep. Aust. Assoc. Adv. Sci.* **17**: 382.
=*Acanthochitona kimberi* (Torr, 1912).
Holotype: D13718, entire specimen with animal, from Yallingup, W.A., collected by E. Ashby, 23.x.1920.

*Acanthochiton macrocystialis* Ashby, 1924
*Trans. R. Soc. S. Aust.* **48**: 324, pl. 31, figs 3, 3a.
=*Acanthochitona macrocystialis* Ashby, 1924.
Holotype: D12248, 5 articulated median valves with remains of girdle, plus disarticulated anterior, posterior and median valve, from Point Puer, near Port Arthur, Tas., amongst holdfasts of *Macrocystis pyrifera*, collected by E. W. Mawle, date of collection unknown.
Paratypes: D10704, one entire specimen with same collection data as holotype. D12563, one entire specimen, one lot of 6 disarticulated median valves and one lot of 3 disarticulated median valves together with 2 anterior and one posterior valves, all with the same collection data as holotype.
Note: The label with D12563 indicates that the paratype measuring 20×9 mm was sent to Thackway.

*Acanthochiton maxillaris* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 397, pl. 41, figs 5 & 6, pl. 42, fig. 1.
=*Acanthochitona kimberi* (Torr, 1912).
Holotype: D12253, 4 median valves and anterior valve articulated with girdle, plus one loose median valve, from Marino, near Adelaide, S.A., on rocks at low tide, collected by E. Ashby, date of collection unknown.
Note: Rest of type presumed lost. Type unique.

*Acanthochiton pilsbryi maughaneanus* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 395, pl. 41, fig. 4.
=*Acanthochitona pilsbryi* (Sykes, 1896).
Holotype: D15536, 3 disarticulated median valves, anterior valve and valve fragments and remains of girdle, from Middle Harbour, Sydney, N.S.W., collected by E. Ashby, 6.x.1903.
Note: Rest of type presumed lost.

*Acanthochiton (Notoplax) porcina* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 395, pl. 41, figs 7-10.
=*Notoplax (Bassethullia) matthewsi* (Bednall & Pilsbry, 1894).
Holotype: D12250, specimen in two pieces with articulated median valves and remains of girdle and animal, plus disarticulated anterior, posterior and one median valve, from Gulf St Vincent, S.A., dredged by J. C. Verco, date of collection unknown.
Note: Type unique.

*Acanthochiton retrojectus* var. *pustulosus* Ashby, 1922
*Trans. R. Soc. S. Aust.* **46**: 15.
=*Acanthochitona retrojecta* (Pilsbry, 1894).
Holotype: D12205, entire specimen with animal, from Quarantine Station, Sydney Harbour, N.S.W., collected by E. Ashby, Nov. 1918.

*Acanthochiton shirleyi* Ashby, 1922
*Trans. R. Soc. S. Aust.* **46**: 13, pl. 3, fig. 2a-c.
=*Acanthochitona shirleyi* Ashby, 1922.
Paratype: D10715, disarticulated valves stuck on card, from Northwest Reef, Capricorn Group, Qld., collector and date of collection unknown.
Note: Type in QM (MO 4043).

*Acanthochiton (Notoplax) spongialis* Ashby, 1923
*J. Roy. Soc. W. Aust.* **10**(4): 13, pl. 1, fig. 1.
=*Notoplax spongialis* (Ashby, 1923).
Holotype: D13733, entire specimen from D'Entrecasteaux Channel, southern Tas., dredged in 9-10 fathoms by W. L. May, date of collection unknown.
Note: Cotton (1964) indicated that this specimen may not be the holotype presumably because it does not match the measurements given (38×16 mm for D13733; 38×18 mm given for the type) and does not appear to match the rather poor photo of the type. However, SAM seems to have the other 3 specimens mentioned by Ashby (D12803 and D14471) and as none approach the dimensions of the type, and in the absence of evidence to the contrary, we must assume that D13733 is the holotype.

*Acanthochiton thackwayi* Ashby, 1924
*Trans. R. Soc. S. Aust.* **48**: 318, pl. 31, figs 1 & 2.
=*Acanthochitona thackwayi* Ashby, 1924.
Holotype: D10716, entire specimen with animal, from Fly Point, Port Stephens, N.S.W., collected by E. Ashby, October, 1923.
Paratype: D16548, entire specimen with animal, from same locality as holotype, collected by A. E. J. Thackway, date of collection unknown.
Note: Smith and Robertson (1970) list 2 paratypes in the MV (F16376) with the locality as Shell Harbour.

We regard these specimens as very doubtful paratypes as Ashby only mentioned one other specimen which is the paratype in SAM.

*Acanthochiton turtoni* Ashby, 1928
*Proc. Malac. Soc. Lond.* **18**(2): 79, pl. 6, figs 1-4.
=*Acanthochitona garnoti* (Blainville, 1825).
Holotype: D10985, 5 disarticulated median valves and girdle fragment, from Port Alfred, South Africa, collected by W. H. Turton, date of collection unknown.
Paratypes: D10984, one entire specimen and two broken median valves, with same collection data as holotype.
Note: The type status of some of the valves labelled "holotype" is in doubt. There are two lots. One lot of 4 valves does not appear to belong to the type. The valves are from two different specimens and measure 5.3×3.2, 5.0×3.2, 4.1×2.5 and 2.1×1.8 mm respectively. The first two valves are too large for the type and the last one too small (Ashby gives a width of 4.5 mm for the type) and the third valve, and also the last one, are green in colour and not pink as stated for the type. The other lot, consisting of only one valve, with the label "valves 6 & 7 not photo'd" would appear to belong to the type.

Giles and Gosliner (1983) record another valve from the holotype in the South African Museum (A32649).

*Acanthochiton zealandicus doubtlessensis* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 12, pl. 1, fig. 2a-c; pl. 2, fig. 6.
=*Acanthochitona zealandica* (Quoy & Gaimard, 1835).
Holotype: D11109, disarticulated specimen, from Doubtless Bay, N.Z., collected by A. E. Brookes, date of collection unknown.
Paratypes: D11118, 3 entire specimens, with same collection data as holotype.
Note: Paratypes correspond to Ashby's paratypes No. 1, 3 and 4.

Genus ***Craspedochiton*** Shuttleworth, 1853

*Craspedochiton jaubertensis* Ashby, 1924
*Trans. R. Soc. S. Aust.* **48**: 326, pl. 31, fig. 5a-c.
Holotype: D11234, 2 articulated median valves with fragments of one valve and remains of girdle and animal, plus disarticulated anterior, posterior and remaining 3 median valves, dredged in 70 ft, 42 miles W.S.W. of Cape Jaubert, northern W.A., by Dr E. Mjoberg, 26.v.1911. (Swedish Scientific Expeditions 1910-1913).

Genus ***Lophoplax*** Ashby, 1926

*Lophoplax finlayi* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 30, pl. 3, fig. 4; pl. 4, figs 1-4.
=*Craspedochiton rubiginosus* (Hutton, 1872).
Holotype: D14318, 5 disarticulated median valves, dredged in 60 fathoms off Otago Heads, N.Z., by H. J. Finlay, date of collection unknown.
Note: Rest of type presumed lost. Type unique.

Genus ***Notoplax*** Adams, 1861

*Notoplax (Amblyplax) brookesi* Ashby, 1929
*Trans. Proc. N.Z. Inst.* **60**: 370, pl. 32, figs 1-4.
=*Notoplax brookesi* Ashby, 1929.
Holotype: D11030, 2 disarticulated median valves, from Tauranga Harbour, N.Z., dredged in 3 fathoms, collector and date of collection unknown.
Paratype: D11113, entire specimen with same collection data as holotype.
Note: Rest of type presumed lost.

*Notoplax (Amblyplax) foveauxensis* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 20 pl. 1, fig. 5a-c.
=*Craspedochiton rubiginosus* (Hutton, 1872).
Holotype: D16021, 1 median valve, from Foveaux Strait, N.Z., dredged in 15 fathoms on oyster shell, collected by W. R. B. Oliver, date of collection unknown.
Paratype: D16022, 4 articulated median valves with remains of girdle and animal, plus disarticulated anterior, posterior and 2 median valves, with same collection data as holotype.
Note: Rest of type in NMNZ (M1584).

*Notoplax (Amblyplax) mariae haurakiensis* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 26, pl. 2, fig. 3a-c.
=*Notoplax mariae* (Webster, 1908).
Holotype: D11043, 4 articulated median valves and remains of girdle, plus one disarticulated median valve, from Hauraki Gulf, N.Z., dredged in 20 fathoms, off *Atrina* shell, collected by A. E. Brookes, date of collection unknown.
Paratype: D16550, remains of girdle, stuck on card, with same collection data as holotype.
Note: Rest of type in AIM (TM 535).

*Notoplax (Amblyplax) oliveri* Ashby, 1926
*Proc. Malac. Soc. Lond.* **17**(1): 18, pl. 1, fig. 4a-c.
=*Craspedochiton rubiginosus* (Hutton, 1872).
Holotype: D11044, 1 median valve, from between Kawau and Tiritiri islands, Hauraki Gulf, near Auckland N.Z., dredged in 20 fathoms in dead *Atrina* shell, collected by A. E. Brookes, date of collection unknown.
Paratype: D16551, 5 articulated median valves with remains of girdle, plus disarticulated anterior, posterior and median valve, with same collection data as holotype.
Note: Rest of type in NMNZ (M1585). Paratype has label "Ashby's No. 2."

*Notoplax rottnestensis* Ashby, 1929
*J. Roy. Soc. W. Aust.* **15**: 47, figs 10-13.

Holotype: D12565, 3 disarticulated median valves (2, 3, & 7), fragments of girdle and radula mounted on slide, from Bathurst Point, Rottnest Island, W.A., collected by L. Glauert, date of collection unknown.
Note: Rest of type in WAM (12885).

Family **CALLISTOPLACIDAE**

Genus ***Callistochiton*** Dall, 1882

*Callistochiton antiquus mayi* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 401, pl. 42, figs 8 & 9.
=*Callistochiton antiquus meridionalis* Ashby, 1919.
Holotype: D12550, 1 median valve from Penguin rocks, north-western Tas., collected by E. Ashby, 11.x.1916.
Note: Rest of type presumed lost.

*Callistochiton antiquus meridionalis* Ashby, 1919
*Trans. R. Soc. S. Aust.* **43**: 400, pl. 42, fig. 7.
Holotype: D13716, disarticulated valves and piece of girdle and radula, from Marino, near Adelaide, S.A., collected by E. Ashby, date of collection unknown.

*Ischnochiton (Lepidozona) asthenes* Berry, 1919
=*Callistochiton asthenes* (Berry, 1919).
see ISCHNOCHITONIDAE

*Callistochiton augustensis* Ashby & Cotton, 1937
*Trans. R. Soc. S. Aust.* **61**: 145, pl. 8, figs 2-4.
Holotype: D12952, anterior valve, 6 disarticulated median valves with one broken and remains of animal, from Port George IV, Augustus Island, northern W.A., collected by B. Bardwell, October, 1933.
Note: According to Ashby and Cotton (1937) there were only six detached valves so presumably the posterior valve was lost before the description of the species. Type unique.

*Callistochiton broomensis* Ashby & Cotton, 1934
*J. Roy. Soc. W. Aust.* **20**: 213, pl. 13, fig. 3.
Holotype: D10723, entire specimen with animal, from Gantheaume Point, Broome, W.A., collected by MCZ expedition to Australia, September, 1929.
Note: Type unique.

*Callistochiton clenchi* Ashby & Cotton, 1934
*J. Roy. Soc. W. Aust.* **20**: 214, pl. 13, fig. 1.
Holotype: D10724, entire specimen with animal, from Gantheaume Point, Broome, W.A., collected by MCZ expedition to Australia, September, 1929.
Note: Type unique.

*Callistochiton mawlei* Iredale & May, 1916
*Proc. Malac. Soc. Lond.* **12**(2/3): 113, pl. 4, fig. 5.
Paratypes: D12019, one disarticulated specimen with dried radula, locality not indicated but probably Tas., collector and date of collection unknown; D12026, disarticulated valves of one specimen with same collection data as D12019.
Note: An old label with the specimens says that they were disarticulated by Iredale and used in the original type description but there is no indication that they were designated paratypes. Types in TM (E 201/7542).

*Callistochiton occidus* Ashby & Cotton, 1934
*J. Roy. Soc. W. Aust.* **20**: 215, pl. 13, fig. 4.
Holotype: D10725, entire specimen with animal, from Gantheaume Point, Broome, W.A., collected by MCZ expedition to Australia, September, 1929.
Note: Type unique.

Genus ***Lophochiton*** Ashby, 1923

*Lophochiton johnstoni* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 234, pl. 16, fig. 7a-c; pl. 17, fig. 1a-d.
=*Callistochiton coccus* (Menke, 1844).
Holotype: D12152, disarticulated specimen with one median valve fragmented, dried radula and piece of girdle, from Carnarvon, in extreme north of Shark Bay, W.A., collected by W. C. Johnston, date of collection unknown.
Note: Type unique.

Family **CALLOCHITONIDAE**

Genus ***Acutoplax*** Cotton & Weeding, 1939

*Acutoplax cottoni* Weeding, 1940
*Trans. R. Soc. S. Aust.* **64**(1): 48, pl. 4, fig. 1, 1a.
=*Callochiton cottoni* (Weeding, 1940).
Holotype: D13766, entire specimen with animal, dredged in shallow water, Spencer Gulf, S.A., by Fisheries launch "Whyalla", K. Sheard, March, 1938.
Note: P. Kaas, Rijksmuseum, Leiden, has examined the type and considers it a synonym of *Callochiton mayi* Torr, 1912.

Genus ***Callochiton*** Gray, 1847

*Callochiton elongatus* May, 1919
*Pap. Proc. R. Soc. Tas.* 1919: 55, pl. 14, fig. 1a-b.
Paratypes: D12696, 7 entire specimens (3 with animal), from Norfolk Bay, Tas., collected by E. Mawle, 1915. D10681, 6 entire specimens stuck on card, 2 from Port Arthur, Tas., collector and date of collection unknown, and 4 from Woodbridge, Tas., collected by E. Ashby, 26.iii.1920.
Note: D12696 are from the May collection (No. 230) and are labelled "cotypes". D10681 are from the Ashby collection and are also labelled "cotype", probably referring to the two specimens from Port Arthur, however May notes only 7-8 specimens so the type status of these specimens is in doubt. The 4 specimens from Woodbridge cannot be types. Type in TM (E177/7518).

*Callochiton klemi* Ashby, 1926
*Trans. R. Soc. S. Aust.* **50**: 243, fig. 4.
Holotype: D11703, 1 median valve, from amongst shell grit, Daly Head, Yorke Peninsula, S.A., collected by W. Klem, date of collection unknown.
Note: Type description was based on this single valve.

*Callochiton platessa* var. *fossa* Ashby, 1922
*Trans. R. Soc. S. Aust.* **46**: 19, pl. 3, fig. 4.
=*Callochiton crocinus* (Reeve, 1847).
Syntypes: D11699, 3 entire specimens (2 with animal remains), from Watson's Bay, Port Jackson, N.S.W., collector and date of collection unknown.
Note: The above three specimens were sent to Ashby by May and Ashby refers to them in his description and illustrated the larger specimen. The other specimens mentioned by Ashby do not appear to be in SAM although one specimen, D11694, with the label "variety with pits on valve 7" could be the SAM specimen mentioned by Ashby. Another specimen in SAM, D10671, is labelled "Holotype" but it does not match Ashby's description as the pits on valve 7 are poorly defined and only 6-7 in number. It is stuck on a card with 3 other specimens and is the only one labelled "var *fossa*" and we suspect that this information was added after the publication of the original description.

*Callochiton rufus* Ashby, 1900
*Trans. R. Soc. S. Aust.* **24**: 87, pl. 1, fig. 2a-g.
Holotype: D11700, specimen with first median valve removed and anterior valve missing, presumed lost, with animal, from Gulf St Vincent, S.A., dredged by J. C. Verco, date of collection unknown.
Note: Type unique.

## Family **CHITONIDAE**

### Genus ***Acanthopleura*** Guilding, 1829

*Acanthopleura gemmata* var. *queenslandica* Ashby, 1921
*J. Roy. Soc. W. Aust.* **8**: 30.
=*Acanthopleura gemmata* (Blainville, 1825).
Holotype: D12459, disarticulated specimen with girdle fragments, from Dunk Island, Qld., collected by J. Shirley, date of collection unknown.
Note: There is also a radula, mounted on a slide, labelled "*Acanthopleura gemmata* Bl. var 1, Dunk Id. Q.", which could have come from the above specimen. This same specimen was selected by Ashby (1928) as the neotype of *Chiton gemmatus* Blainville, 1825 (also listed here).

*Acanthopleura gemmatus maudensis* Ashby, 1928
*Trans. R. Soc. S. Aust.* **52**: 172, pl. 12, figs 8 & 9.
=*Acanthopleura gemmata* (Blainville, 1825).
Holotype: D10775, disarticulated anterior, posterior and 4 median valves, from Maud's Landing, north of Shark Bay, northern W.A., collected by T. Curton, date of collection unknown.
Note: Median valves 2 and 6 presumed lost.

### Genus ***Chiton*** Linnaeus, 1758

*Chiton aureomaculata* Bednall & Matthews, 1906
*Proc. Malac. Soc. Lon.* **7**(2): 91, pl. 9, figs 3 & 3a-f.
=*Chiton (Rhyssoplax) tricostalis* Pilsbry, 1894.
Neotype: D14135, entire specimen with animal, from Cape Banks, S.A., collector and date of collection unknown. Selected by Cotton (1964: 94).
Note: From Torr collection. Listed by Cotton (1964) as neotype without discussion and considered, by us, as invalid.

*Chiton bednalli* Pilsbry, 1895
*Nautilus* **9**: 90.
=*Chiton (Rhyssoplax) bednalli* Pilsbry, 1895.
Holotype: D13742, disarticulated specimen with remains of animal, from Sultana Bay, Yorke Peninsula, S.A., collected by W. T. Bednall, date of collection unknown.
Note: From Bednall collection.

*Chiton exoptandus* Bednall, 1897
*Proc. Malac. Soc. Lond.* **2**(4): 152.
=*Chiton (Rhyssoplax) exoptandus* Bednall, 1897.
Neotype: D13744, entire specimen, from Sultana Bay, Yorke Peninsula, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 559).
Note: Listed by Cotton and Godfrey (1940) as neotype without discussion and considered, by us, as invalid.

*Chiton gemmatus* Blainville, 1825
*Dict. Sci. Nat.* **36**: 544.
=*Acanthopleura gemmata* (Blainville, 1825).
Neotype: D12459, the same specimen as the holotype of *Acanthopleura gemmata* var *queenslandica* Ashby, 1921, also listed here. Selected and figured by Ashby (1928: 172, fig. 6 & 7).

*Chiton (Rhyssoplax) kimberi* Ashby, 1928
*Trans. R. Soc. S. Aust.* **52**: 170, pl. 12, figs 10-12.
Holotype: D12393, disarticulated anterior, posterior and 3 median valves plus fragments of girdle and radula mounted on slide, from Capricorn Group, Qld., collected by W. J. Kimber, date of collection unknown.
Note: Rest of type presumed lost. Type unique.

*Chiton marmoreus* var. *coeruleus* Winkley, 1894
*Nautilus* **8**(4): 78.
=*Tonicella marmorea* (Fabricus, 1780) (ISCHNOCHITONIDAE)
Paratype: D10467, entire specimen, from Eastport, Maine, U.S.A., collected by H. W. Winkley, date of collection unknown.

Note: Specimen with original MCZ label and with the number "1707" written on the shell. From Ashby collection. Type in MCZ (MCZ 32856).

*Chiton oruktus* Maughan, 1900
*Trans. R. Soc. S. Aust.* **24**: 89, pl. 1, fig. 3a-g.
=*Chiton (Rhyssoplax) oruktus* Maughan, 1900.
Holotype: D1489, disarticulated specimen, plus girdle fragment, from MacDonnell Bay, S.A., collected by W. G. Torr, date of collection unknown.
Paratype: D12383, entire specimen, from Robe, S.A., collector and date of collection unknown.
Note: The type status of D12383 is doubtful as the only locality listed by Maughan (1900) was MacDonnell Bay.

*Chiton scaber* Blainville, 1825
*Dict. Sci. Nat.* **36**: 553.
=Nom. inquir.
Holotype: D12271, 1 median valve only, from New Holland, collector and date of collection not indicated.
Note: From Ashby collection with label "valve of type" presumably obtained by Ashby during his visit to Europe in 1922. However, the species is not mentioned by Ashby (1922).

*Chiton tulipa alfredensis* Ashby, 1928
*Proc. Malac. Soc.* **18**(2): 87, pl. 8, figs 19-21.
=*Chiton (Rhyssoplax) tulipa* Quoy & Gaimard, 1835.
Holotype: D10983, 3 disarticulated median valves, girdle fragments and loose girdle scales, from Port Alfred, South Africa, collected by W. H. Turton, date of collection unknown.
Paratypes: D11157, 3 entire specimens with same collection data as holotype.
Note: Holotype with label "these valves not photo'd". Rest of type presumed lost.

*Chiton verconis* Torr & Ashby, 1898
*Trans. R. Soc. S. Aust.* **22**: 215, pl. 6, fig. 1a-f.
=*Chiton (Mucrosquama) verconis* Torr & Ashby, 1898.
Lectotype: D16546, entire specimen with animal, from Gulf St Vincent, S.A., dredged by W. J. Kimber, date of collection unknown. (Lectotype chosen here).
Paralectotype: D16547, entire specimen with animal, with same collection data as lectotype.
Note: The SAM register and Cotton (1964) list D12380 as the holotype but this lot consists of one complete specimen, one median valve and the dried remains of a specimen from which the valves have been removed, none of which corresponds to the original description and is not even *C. verconis* but *Callochiton cottoni* (Weeding, 1940). In view of this confusion we have selected the above lectotype and paralectotype from a lot which we believe constituted syntype material. The lectotype (Fig. 1A) matches the original description and measures 17×11 mm (curled) and 31 mm along the curled dorsal surface, which approximates to the measurement of 24×12 mm given by Torr and Ashby, and may have been the specimen for which this measurement was given. The paralectotype (Fig. 1B)

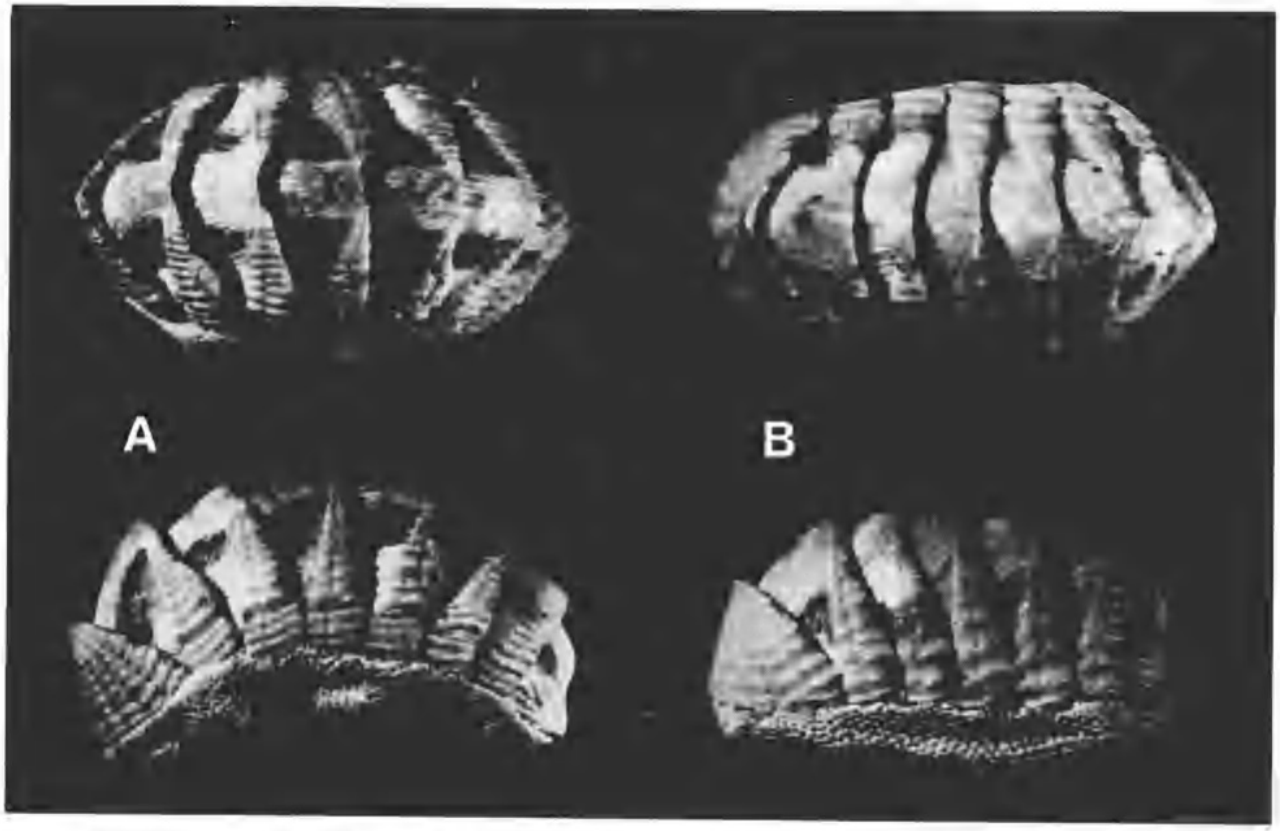


FIG. 1. *Chiton verconis* Torr & Ashby, 1898. A. Lectotype, 17×11 mm (curled). B. Paralectotype, 11.5×6.6 mm.

which was collected with the lectotype is less curled and measures 11.5×6.6 mm.
Another 3 specimens (D10739, D12379 and D12674) all dredged in Gulf St Vincent by Verco may also have belonged to the original type series but they are not given type status by us.
The valves figured by Torr and Ashby are presumed lost.

Genus ***Liolophura*** Pilsbry, 1893

*Plaxiphora pustulosa* Torr, 1911
=*Liolophura (Clavarizona) hirtosa* (Blainville, 1825). see MOPALIIDAE.

Genus ***Lucilina*** Dall, 1882

*Lucilina rainfordiana* Hull, 1924
*Proc. R. Soc. Qld.* **36**: 115, pl. 21, fig. 3.
=*Tonicia (Lucilina) fortilirata* (Reeve, 1847).
Paratype: D14496, entire specimen with animal, from North Head, Port Denison, Qld, collected by E. H. Rainford and A. F. B. Hull, 18.ix.1923.
Note: From Hull collection. Type in QM (MO 1139).

*Lucilina tilbrooki* Milne, 1958
*Proc. R. Zool. Soc. N.S.W.* 1956-57: 152, fig. 1-4.
=*Tonicia (Lucilina) tilbrooki* (Milne, 1958).
Paratype: D14591, entire specimen with animal remains, from Heron Island, Qld., collected by K. L. Milne, 1952.
Note: Type in MV (F18471).

Genus ***Mucrosquama*** Iredale & Hull, 1926

*Mucrosquama nielseni* Cotton & Weeding, 1939
*Trans. R. Soc. S. Aust.* **63**(2): 190, pl. 7, fig. 8.
=*Chiton (Mucrosquama) carnosus* Angas, 1867.
Holotype: D13720, entire specimen, from Hardwicke Bay, Yorke Peninsula, S.A., dredged by J. C. Verco, date of collection unknown.
Note: Type unique.

*Mucrosquama sheardi* Cotton & Weeding, 1939
*Trans. R. Soc. S. Aust.* **63**(2): 190, pl. 7, fig. 3.
=*Chiton (Mucrosquama) verconis* Torr & Ashby, 1898.
Holotype: D13721, entire specimen with animal, from Spencer Gulf, S.A., dredged by Fisheries Launch "Whyalla", K. Sheard, March, 1938.

Genus ***Onithochiton*** Gray, 1847

*Onithochiton ashbyi* Bednall & Matthews, 1906
*Proc. Malac. Soc. Lon.* **7**(2): 92, pl. 9, figs 2; 2a-e.
Neotype: D13745, entire specimen with animal, from south of Port Willunga jetty, near Adelaide, S.A., collected by E. Ashby, 2.iv.1926. Selected by Cotton and Godfrey (1940: 566).
Note: From Ashby collection. Listed by Cotton and Godfrey (1940) as neotype without discussion and considered, by us, as invalid.

*Onithochiton quercinus occidentalis* Ashby, 1929
*Trans. R. Soc. S. Aust.* **53**: 65.
Holotype: D12527, entire specimen, from Dongarra, W.A., from exposed outer reef, collected by E. Ashby, 10.xi.1920.

Genus ***Rhyssoplax*** Thiele, 1893

*Rhyssoplax jacksonensis* Ashby, 1921
*Proc. R. Soc. Vic.* (NS) **33**: 153, pl. 8, fig. 1a-b.
=*Chiton (Mucrosquama) carnosus* Angas, 1867.
Holotype: D10720, entire specimen, from Quarantine Station, Port Jackson, N.S.W., collected by E. Ashby, 23.xi.1918.

*Rhyssoplax surrecta* Hull, 1922
*Aust. Zool.* **2**(3): 84, pl. 24B, figs 1-4.
=*Chiton (Rhyssoplax) bednalli* Pilsbry, 1895.
Holotype: D12671, entire specimen, from Port Willunga, near Adelaide, S.A., collected by W. J. Kimber, date of collection unknown.
Note: Type unique.

Genus *Sypharochiton* Thiele, 1893

*Sypharochiton pellisserpentis septentriones* Ashby, 1924
*Trans. R. Soc. S. Aust.* **48**: 321.
=*Chiton pellisserpentis* Quoy & Gaimard, 1835.
Holotype: D17238, entire specimen with animal, from Nelson Bay, Port Stephens, N.S.W., collected by H. W. Thackway, October, 1923.

Genus ***Tonicia*** Gray, 1847

*Tonicia hullianus* Torr, 1911
*Trans. R. Soc. S. Aust.* **35**: 104, pl. 25, figs 4a-f.
=*Tonicia (Lucilina) hulliana* Torr, 1911.
Holotype: D12873, entire specimen from Ellenbrook, south of Cape Naturaliste, W.A., collected by W. G. Torr, Christmas, 1910-11.
Note: Type unique.

Family **CHORIPLACIDAE**

Genus ***Choriplax*** Pilsbry, 1894

*Choriplax grayi pattisoni* Ashby, 1921
*Trans. R. Soc. S. Aust.* **45**: 137, pl. 9, fig. 1a-c.
Holotype: D15019, entire specimen, found with giant kelp (*Laminaria*) washed ashore near Cape Banks Lighthouse, S.A., collected by G. Pattison, 1921.
Note: One of us (K.L.G.) has examined this species in detail and regards it a synonym of *Choriplax grayi* (Adams & Angas, 1864). Type unique.

Family **CRYPTOPLACIDAE**

Genus ***Cryptoplax*** Blainville, 1825

*Cryptoplax iredalei* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 238, pl. 19, fig. 4.
Holotype: D12306, entire specimen, from Port Lincoln, collected by E. Ashby, January, 1917.

*Cryptoplax striatus* var. *westernensis* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 238.
=*Cryptoplax striata westernensis* Ashby, 1923.
Holotype: D10717, entire specimen with animal remains, from Rottnest Island, W.A., collected by E. Ashby, 2.x.1920.
Note: Type unique.

Family **ISCHNOCHITONIDAE**

Genus ***Anisoradsia*** Iredale & May, 1916

*Anisoradsia mawlei saundersi* Ashby, 1918
*Trans. R. Soc. S. Aust.* **42**: 82.
=*Ischnochiton (Heterozona) cariosus* Pilsbry, 1892.
Holotype: D11961, specimen with anterior, posterior and 1 median valve disarticulated, from Port Lincoln, S.A., collected by E. Ashby, January, 1917.

Genus ***Dinoplax*** Dall, 1882

*Dinoplax gigas* var. *validfossus* Ashby, 1934
*Ann. Durban Mus.* **3**(4): 79, pl. 9, fig. 3.
=*Dinoplax validfossus* Ashby, 1934.
Holotype: D10971, entire specimen, from Durban, Natal, South Africa, collector and date of collection unknown.
Note: From J. D. Casey collection.

Genus ***Ischnochiton*** Gray, 1847

*Ischnochiton (Lepidozona) asthenes* Berry, 1919
*Lorquinia* **2**(6): 47.
=*Callistochiton asthenes* (Berry, 1919) (CALLISTOPLACIDAE).
Paratype: D10404, entire specimen, from White's Point, Los Angeles County, California, U.S.A., collected by A. G. Smith, 14-18.vii.1916.
Note: Label with specimen has the number "SSB 1196". Type in Berry Collection.

*Ischnochiton atkinsoni* Iredale & May, 1916
*Proc. Malac. Soc. Lon.* **12**(2/3): 110, pl. 4, fig. 3.
Paratypes: D15678, 8 entire specimens with animals, from Stanley to Devonport, Tas., collected by W. G. Torr, date of collection unknown.
Note: From May collection (No. 233). Type in TM (E179/7520).

*Ischnochiton atkinsoni bruniensis* Ashby, 1927
*Pap. Proc. R. Soc. Tas.* 1926: 111.
Holotype: D11966, entire specimen, from Lunawanna, South Bruny Island, D'Entrecasteaux Channel, Tas., collector and date of collection unknown.

*Ischnochiton atkinsoni lincolnensis* Ashby, 1920
*Trans. R. Soc. S. Aust.* **4**: 275, pl. 12, fig. 5a-b.
=*Ischnochiton variegatus* (Adams & Angas, 1864).
Holotype: D11763, entire specimen, from Port Lincoln, S.A., collected by E. Ashby, January, 1917.

*Ischnochiton auratus* Ashby, 1920
*Trans. R. Soc. S. Aust.* **44**: 277, pl. 12, fig. 6a-b.
=*Ischnochiton variegatus* (Adams & Angas, 1864).
Holotype: D11850, entire specimen with animal, from Marino, near Adelaide, S.A., collected by E. Ashby, date of collection unknown.
Paratype: D10738, entire specimen with animal, with same collection data as holotype.

*Ischnochiton bakeri* Torr, 1912
*Trans. R. Soc. S. Aust.* **36**: 169, pl. 7, fig. 8a-c, f.
=Nom. inquir.
Holotype: D12145, entire specimen with animal but posterior valve missing, from Henley Beach, Adelaide, S.A., collected by W. H. Baker, date of collection unknown.
Note: The specimen is very eroded and the posterior valve was missing at the time of collection. Type unique.

*Ischnochiton (Isochiton) bardwelli* Ashby & Cotton, 1934
*J. R. Soc. W. Aust.* **20**: 217, pl. 13, fig. 5.
=*Ischnochiton bardwelli* Ashby & Cotton, 1934.
Holotype: D11978, disarticulated specimen and girdle scales mounted on slide, from off Broome, W.A., dredged in 7 fathoms by B. Bardwell, date of collection unknown.
Paratypes: D11979, 2 entire specimens with same collection data as holotype.
Note: Smith and Robertson (1970) list the holotype as being in the MV (F17977). However, our specimens match the original description and are clearly marked "holotype" and "paratypes". Also we have the original label "*Solvaga recens* Thiele" as mentioned by Ashby and Cotton, so that the type status of the MV specimen must be very doubtful.

*Ischnochiton bednalli* Torr, 1912
*Trans. R. S. Aust.* **36**: 166, pl. 5, fig. 3a-f.
=*Subterenochiton bednalli* (Torr, 1912) (SUBTERENOCHITONIDAE)
Holotype: D11792, entire specimen and radula mounted on slide, from St Francis Island, Nuyts Archipelago, S.A., collector and date of collection unknown.

*Ischnochiton (Haploplax) broomensis* Ashby & Cotton, 1934
*J. R. Soc. W. Aust.* **20**: 216, pl. 13, fig. 2.

Holotype: D10729, disarticulated specimen with radula and girdle remains mounted on slides, from Gantheaume Point, Broome, W.A., collected by MCZ expedition to Australia, September, 1929.
Paratype: D15537, entire specimen with animal, with same collection data as holotype.

*Ischnochiton (Heterozona) cariosus* var. *occidentalis* Ashby, 1921
*Trans. R. Soc. S. Aust.* **45**: 42.
=*Ischnochiton (Heterozona) cariosus* Pilsbry, 1892.
Holotype: D11884, entire specimen with animal, from Point Peron, near Rockingham, W.A., collected by E. Ashby, 1920.

*Ischnochiton (Radsiella) delagoaensis* Ashby, 1931
*Ann. S. Afr. Mus.* **30**(1): 40, pl. 6, figs 63-66.
=*Ischnochiton delagoaensis* Ashby, 1931.
Holotype: D16019, girdle fragments mounted on slide only, from Delagoa Bay, South Africa, collected by K. H. Barnard, date of collection unknown.
Note: Rest of type in South African Museum (A 6589). Type unique.

*Ischnochiton hewitti* Ashby, 1931
*Ann. S. Afr. Mus.* **30**(1): 33, pl. 5, figs 50-53.
=*Ischnochiton bergoti* (Velain, 1877).
Holotype: D10997, entire specimen and radula mounted on slide from Table Bay, South Africa, collector and date of collection unknown.
Note: The above specimen is labelled "type" and with the South African Museum No. "6757". However, Ashby (1931) figured the specimen from the Albany Museum (No. 8085) as the type. The above specimen therefore cannot be the type but is probably a paratype. Giles and Gosliner (1983) are similarly in error as they list a valve from the type, also numbered A 6757.

*Ischnochiton iredalei* Dupuis, 1918
*Bull. Mus. Nat. Hist. Nat.* **24**(7): 526.
=*Ischnochiton lineolatus* (Blainville, 1825).
Syntypes: D12718, 7 entire specimens, 6 from Penguin and one from Stanley, north-western Tas., collector and date of collection unknown.
Note: From May collection (No. 236) labelled "paratypes". The type status of these specimens is very doubtful as Dupuis (1918) did not give specific details of specimens and says that he did not see any local examples.

*Ischnochiton iredalei kingensis* Ashby & Hull, 1923
*Aust. Zool.* **3**(2): 81, pl. 8, figs 1-4.
=*Ischnochiton lineolatus* (Blainville, 1825).
Holotype: D13731, median valves 3-5 and parts of girdle stuck on card, remaining valves disarticulated, from Fraser Bay, King Island, Bass Strait, collected by A. F. B. Hull, December, 1922.

*Ishnochiton* (sic.) *jervisensis* Ashby & Cotton, 1937
*Trans. R. Soc. S. Aust.* **61**(1): 147, pl. 8, fig. 1.
=*Ischnochiton pilsbryi* Bednall, 1897.
Holotype: D13282, entire specimen, from Cape Jervis, S.A., in a sheltered pool at low tide, collected by E. Ashby, 28.i.1937.
Note: Type unique?

*Ischnochiton johnstoni* Cotton 1937
*BANZARE Rep. Ser. B.* **4**(1): 11, figs 10-18.
Holotype: D14456, disarticulated valves stuck on glass and radula mounted on slide, from BANZARE Stn. 47 (49°50'S, 63°33'E), off Kerguelen Island, depth 150 m, collected by BANZARE, 7.ii.1930.
Paratypes: D14456, disarticulated valves of one specimen stuck on glass with holotype and radula mounted on slide, with same collection data as holotype. D15162, 2 entire specimens with animal, with same collection data as holotype. D16015, 3 entire specimens with animals, in spirit, with same collection data as holotype.

*Ischnochiton levis* Torr, 1912
*Trans. R. Soc. S. Aust.* **36**: 168, pl. 6, fig. 6a-f.
=*Ischnochiton (Autochiton) levis* Torr, 1912.
Holotype: D11976, 5 articulated median valves with girdle and animal and disarticulated posterior valve, from Edithburgh, Yorke Peninsula, S.A., collected by E. H. Matthews, date of collection unknown.
Note: Rest of type presumed lost. Type unique.

*Ischnochiton (Anisoradsia) mawlei* Iredale & May, 1916
*Proc. Malac. Soc. Lond.* **12**(2/3): 108, pl. 4, fig. 4.
=*Ischnochiton mawlei* Iredale & May, 1916.
Paratype: D12546, disarticulated specimen and remains of girdle, from South Tas., collector and date of collection unknown.
Note: A label with the specimen says "dissected by Iredale", a later SAM label says "Holotype (?)". The type does not appear to have been disarticulated, according to the original description, and is located in TM (E 196/7537) thus the SAM specimen is most likely a paratype.

*Ischnochiton mawsoni* Cotton, 1937
*BANZARE Rep. Ser. B.* **4**(1): 9, figs 1-9.
Holotype: D14457, disarticulated valves stuck on glass and radula and girdle mounted on slide, from BANZARE Stn. 83 (54°42'30"S, 158°54'30"E), off Lusitania Bay, Macquarie Island, depth 69 m, collected by BANZARE, 5.xii.1930.
Paratypes: D15160, about 300 specimens with animals, with same collection data as holotype. D15161 disarticulated valves of one specimen stuck on glass with holotype and radula and girdle mounted on slide, with same collection data as holotype. D16014, 55 entire specimens with animals, in spirit, with same collection data as holotype.

*Ischnochiton (Haploplax) mayi* var. *viridis* Ashby, 1920
*Trans. R. Soc. S. Aust.* **44**: 264.
=*Ischnochiton (Haploplax) mayi* Pilsbry, 1895.
Holotype: D11972, entire specimen with animal, from Lunawanna, South Bruny Island, D'Entrecasteaux Channel, Tas., collected by E. Ashby, 22.iii.1920.

*Ischnochiton (Haploplax) misimaensis* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 228, pl. 16, figs 6, 6a-c.
=*Ischnochiton (Haploplax) adelaidensis* (Reeve, 1847).
Holotype: D12498, disarticulated specimen and fragments of girdle, from Misima, Papua New Guinea, collected by R. Andrew, date of collection unknown.
Paratype: D16552, entire specimen with animal, with same collection data as holotype.

*Ischnochiton (Stenochiton) pallens* Ashby, 1900
*Trans. R. Soc. S. Aust.* **24**: 86, pl. 1, fig. 1a-e, g.
=*Stenochiton pallens* (Ashby, 1900).
Holotype: D978, 5 disarticulated median valves and the anterior valve, from Gulf St Vincent, S.A., dredged by J. C. Verco, date of collection unknown.
Paratype: D11728, entire specimen with animal, with same collection data as holotype (labelled "cotype").
Note: Rest of type presumed lost.

*Ischnochiton (Stenochiton) pilsbryanus* Bednall, 1897
*Proc. Malac. Soc. Lond.* **2**(4): 142.
=*Stenochiton pilsbryanus* (Bednall, 1897).
Neotype: D11729, posterior and 3 median valves articulated with remains of girdle and disarticulated anterior and median valve, from Tapley Shoal, Gulf St Vincent, S.A., on *Zostera* bed, collected by R. Tate, date of collection unknown. Selected by Ashby (1919: 67, pl. 11, figs 2, 2a-c).
Paraneotype: D11727, entire specimen from Marino, near Adelaide, S.A., collected by E. Ashby, 19.ii.1910.
Note: The above specimens are the "holotype" and "paratype" respectively of Ashby's (1919) description of *Stenochiton (Zostericola) pilsbryanus* (Bednall, 1897). According to Davis *et al.* (1979) there are at least 3 syntypes of this species in ANSP (Shell Cat. No. 69142) however, Ashby (1919) refers to this material and says "I easily identified in the material shown to me the three species *S. juloides*, Ad. and Ang.; *S. cymodocealis*, Ashby; and *S. posidonialis*, Ashby, all very small and juvenile". Later, Ashby (1927) doubted the validity of his identification of the neotype and renamed it as a new species, *Stenochiton tatei*, also listed here.
Rest of neotype presumed lost.

*Ischnochiton pilsbryi* Bednall, 1897
*Proc. Malac. Soc. Lond.* **2**(4): 143, pl. 12, figs 2, 2a-e.
Neotype: D11766, entire specimen, from Sultana Bay, Yorke Peninsula, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 491, fig. 477).
Note: From Matthews and Bednall collection. According to Davis *et al.* (1979) there are 3 syntypes in ANSP (Shell Cat. No. 67369); we therefore consider the selection of a neotype invalid. Davis *et al.* (1979) also erroneously list the type locality as Cape Yorke Peninsula, Qld.
Since the above specimen came from the Matthews and Bednall collection and is from the type locality we consider it likely to be a syntype.

*Ischnochiton (Heterozona) properensis* Ashby, 1920
*Trans. R. Soc. S. Aust.* **44**: 278, pl. 12, fig. 7a-b.
Holotype: D11896, entire specimen, from Proper Bay, Port Lincoln, S.A., collected by E. Ashby, January, 1917.

*Ischnochiton resplendens* Bednall & Matthews, 1906
*Proc. Malac. Soc. Lond.* **7**(2): 91, pl. 9, figs 4, 4a-f.
*Ischnochiton (Haploplax) smaragdinus resplendens* Bednall & Matthews, 1906.
Neotype: D13739, entire specimen with animal, from Marino, near Adelaide, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 503, fig. 491).
Note: Listed and figured by Cotton and Godfrey (1940) as neotype without discussion and considered, by us, as invalid.

*Ischnochiton (Haploplax) smaragdinus resplendens* var. *westernensis* Ashby, 1923
*Trans. R. Soc. S. Aust.* **47**: 226.
Holotype: D13722, entire specimen, from Yallingup, W.A., collected by E. Ashby, date of collection unknown.

*Ischnochiton (Haploplax) smaragdinus* var. *funereus* Ashby, 1924
*Trans. R. Soc. S. Aust.* **48**: 315.
Holotype: D11237, entire specimen, with animal, from Long Reef, N.S.W., collected by W. H. Hatcher, date of collection unknown.

*Ischnochiton strömfelti* Bergenhayn, 1931
*Arkiv. Zool.* **23A**(13): 11, pl. 1, figs 14-16; pl. 2, figs 52-56.
=*Lepidochitona stroemfelti* (Bergenhayn, 1931).
Syntype: D16186, entire specimen with animal, from Fuertaventura, Puerto Cabras, Canary Islands, on rocks at low tide, collected by N. Odhner, 1930.
Note: From Ashby collection.

*Ischnochiton tuteanus* Bednall, 1897.
*Proc. Malac. Soc. Lond.* **2**(4): 147, pl. 12, fig. 3a-d.
Neotype: D13738, entire specimen with animal, from Sultana Bay, Yorke Peninsula, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 493).
Note: Listed by Cotton and Godfrey (1940) without

discussion, also Davis *et al.* (1979) list 7 syntypes in ANSP (Shell Cat. No. 69143) and we therefore consider the selection of a neotype invalid.

*Ischnochiton thomasi* Bednall, 1897.
*Proc. Malac. Soc. Lond.* **2**(4): 149, pl. 12, figs 4a-d, 5a-d.
=*Ischnochiton (Haploplax) thomasi* Bednall, 1897.
Neotype: D13737, entire specimen with animal, from Marino, near Adelaide, S.A., collector and date of collection unknown. Selected by Cotton and Godfrey (1940: 504).
Note: Listed by Cotton and Godfrey (1940) without discussion, also Davis *et al.* (1979) list 8 syntypes in ANSP (Shell Cat. No. 69144) and we therefore consider the selection of a neotype invalid.

*Ischnochiton tindalei* Ashby, 1924.
*Trans. R. Soc. S. Aust.* **48**: 323, pl. 31, fig. 4a-c.
Holotype: D4656, disarticulated specimen with pieces of girdle, from Groote Eylandt, Gulf of Carpentaria, N.T., on a block of dead coral in deep water, collected by N. B. Tindale, date of collection unknown.
Note: Type unique.

*Lepidopleurus variegatus* Adams & Angas, 1864.
=*Ischnochiton variegatus* (Adams & Angas, 1864).
see LEPIDOPLEURIDAE.

*Ischnochiton verconis* Torr, 1911.
*Trans. R. Soc. S. Aust.* **35**: 102, pl. 24, fig. 1a-f.
Holotype: D12868, entire specimen, from Ellenbrook, south of Cape Naturaliste, W.A., in rockpool on inside reef, collected by W. G. Torr, Christmas, 1910-11.
Note: Type unique.

Genus ***Ischnoradsia*** Shuttleworth, 1853

*Ischnoradsia papuaensis* Ashby, 1923.
*Trans. R. Soc. S. Aust.* **47**: 227, pl. 17, fig. 2a-c.
=*Ischnochiton (Ischnoradsia) papuaensis* (Ashby, 1923).
Holotype: D14316, posterior and 2 median valves articulated with girdle, rest of specimen disarticulated, from Normanby Island, Papua New Guinea, collected by R. Andrew, date of collection unknown.
Note: Type unique.

Genus ***Stenochiton*** Adams & Angas, 1864

*Stenochiton cymodocealis* Ashby, 1918.
*Trans. R. Soc. S. Aust.* **42**: 70, pl. 13, figs 1, 4, 5; pl. 14, figs 11, 12a-c.
Holotype: D981, entire specimen with animal, from Marino, near Adelaide, S.A., on *Cymodocea antarctica* stems, collected by E. Ashby, date of collection unknown.
Paratypes: D980, 2 entire specimens with animals, with same collection data as holotype. D16545, disarticulated specimen with posterior valve presumed lost, with same collection data as holotype.
Note: D16545 is labelled "type" but was obviously disarticulated for fig. 12. According to Ashby (1918) the type is the specimen illustrated in fig. 5 which corresponds to the above.

*Stenochiton posidonialis* Ashby, 1918.
*Trans. R. Soc. S. Aust.* **42**: 72, pl. 13, figs 2, 6, pl. 14, fig. 13a-d.
=*Stenochiton pilsbryanus* (Bednall, 1897).
Holotype: D11714, entire specimen with animal, from Marino, near Adelaide, S.A., collected by E. Ashby, date of collection unknown.
Paratypes: D11718, 5 entire specimens stuck on one card; 2 from Cape Jervis, S.A., collected by E. Ashby 14.iii.1918: 1 from Outer Harbour, S.A., and one from Marino collected by E. Ashby, date of collection unknown and 1 from Largs Bay, S.A., collected by E. H. Matthews, date of collection unknown. D16544, disarticulated specimen with same collection data as holotype.
Note: D16544 is labelled "type" but was obviously disarticulated for fig. 13. According to Ashby (1918) the type is the specimen illustrated in fig. 6 which corresponds to the above.

*Stenochiton tatei* Ashby, 1927.
*Pap. Proc. R. Soc. Tas.* 1926: 113.
=*Stenochiton pilsbryanus* (Bednall, 1897).
Holotype: D11729, based on the same specimen as the neotype of *Ischnochiton pilsbryanus* Bednall, 1897, selected by Ashby, (1919) and also listed here.
Note: A new name for the shell described as *I. pilsbryanus* (Ashby, 1919) as the identification of the specimen selected as neotype was in doubt.

Genus ***Tonicella*** Carpenter, 1873

*Chiton marmoreus* var., *caeruleus* Winkley, 1894.
=*Tonicella marmoreus* (Fabricius, 1780).
see CHITONIDAE

Genus ***Trachydermon*** Carpenter, 1864

*Trachydermon lowei* Pilsbry, 1918.
*Nautilus* **31**(4): 127.
=*Lepidochitona lowei* (Pilsbry, 1918).
Paratype: D11275, entire specimen, from San Pedro, California, U.S.A., collected by H. N. Lowe, date of collection unknown.
Note: From Ashby collection. Type in ANSP (Shell Cat. No. 117955).

*Trachydermon (Craspedochilus) turtoni* Ashby, 1928.
*Proc. Malac. Soc. Lond.* **18**(2): 80, pl. 6, figs 5-8.

= *Lepidochitona turtoni* (Ashby, 1928).
Holotype: D10982, 2 median valves, valve fragments and fragment of girdle, from Port Alfred, South Africa, collected by W. H. Turton, date of collection unknown.
Note: A label with the valves says "valves not photographed". Rest of type presumed lost. Type unique.

## Family **LEPIDOPLEURIDAE**

### Genus *Lepidopleurus* Risso, 1826

*Lepidopleurus badius* Hedley & Hull 1909.
*Rec. Aust. Mus.* 7: 260, pl. 73, figs 1 & 2.
= *Leptochiton badius* (Hedley & Hull, 1909).
Paratypes: D10668, 5 entire specimens with animals, from Long Reef, near Narrabeen, N.S.W., collector and date of collection unknown. D12532, one entire specimen with animal, with same collection data as D10668.
Note: The localities "Port Stephens" and "Kangaroo Island S.A." have been added to D10668 (in pencil) and there is therefore some doubt regarding the type status of these specimens. Type in AM (C30459).

*Lepidopleurus columnarius* Hedley & May, 1908.
*Rec. Aust. Mus.* 7(2): 123, pl. 24, figs 27 & 28.
= *Leptochiton columnarius* (Hedley & May, 1908).
Paratypes: D10667, 2 median valves, from 7 miles east of Cape Pillar, Tas., dredged with holotype in 100 fathoms, collected by W. L. May, 18.xii.1907. D15679, posterior and 4 median valves, with same collection data as D10667.
Note: D15679 from May collection (No. 226). Type in AM (C29060).

*Lepidopleurus finlayi* Ashby, 1929.
*Trans. Proc. N.Z. Inst.* **60**: 372, pl. 32, figs 5-7.
= *Leptochiton finlayi* (Ashby, 1909).
Holotype: D11061, 5 disarticulated median valves and dried radula, from off Otago Heads, N.Z., dredged in 60 fathoms by H. J. Finlay, date of collection unknown.
Paratype: D16188, entire specimen with animal but posterior valve absent, with same collection data as holotype.
Note: Rest of type in AM (C95165).

*Lepidopleurus glauerti* Ashby, 1929.
*J. R. Soc. W. Aust.* **15**: 50, fig. 16.
= *Leptochiton glauerti* (Ashby, 1929).
Paratype: D16152, 5 median valves articulated with animal and remains of girdle, anterior valve and other median valve disarticulated, from Bathurst Point, Rottnest Island, W.A., collected by L. Glauert, date of collection unknown.
Note: Posterior valve presumed lost. Type in WAM (12876).

*Lepidopleurus iredalei* Ashby, 1921.
*Proc. R. Soc. Vic.* (NS) **33**: 157, pl. 8, fig. 3a-b.
= *Leptochiton inquinatus* (Reeve, 1847).
Holotype: D11240, entire specimen with animal, from Doubtless Bay, N.Z., collected by A. E. Brookes, date of collection unknown.

*Lepidopleurus liratus* Adams & Angas, 1864.
*Proc. Zool. Soc. Lond.* **13**: 192.
= *Leptochiton liratus* (Adams & Angas, 1864).
Neotype: D13735, entire specimen with animal, from Sultana Bay, Yorke Peninsula, S.A., collected by Matthews and Bednall, date of collection unknown.
Note: A neotype for *L. liratus* was selected by Iredale and Hull (1925a: 343) and this specimen is in the AM (C10410). The above specimen was presumably selected by Cotton and Godfrey (1940: 477, fig. 458) as yet another neotype for *L. liratus*; however, the specimen does not match fig. 458. The type status of the above specimen is therefore extremely doubtful and is invalid in any case as Iredale and Hull (1925a) had already selected a neotype.

*Lepidopleurus matthewsianus* Bednall, 1906.
*Proc. Malac. Soc. Lond.* **7**: 92, pl. 9, fig. 1a-f.
= *Leptochiton matthewsianus* (Bednall, 1906).
Neotype: D13734, entire specimen with remains of animal, from Marino, near Adelaide, S.A., collected by E. Ashby, 1919. Selected by Cotton and Godfrey (1940: 476, fig. 455).
Note: Listed and figured by Cotton and Godfrey (1940) as neotype without discussion and considered, by us, as invalid.

*Lepidopleurus niger* Torr, 1911.
*Trans. R. Soc. S. Aust.* **35**: 105, pl. 25, fig. 5a-f.
= *Leptochiton niger* (Torr, 1911).
Holotype: D11686, entire specimen with animal but with anterior valve missing, from Hopetoun, W.A., under stones in shallow pools, collected by W. G. Torr, Christmas, 1910-11.
Note: Anterior valve presumed lost. Type unique.

*Lepidopleurus pelagicus* Torr, 1912.
*Trans. R. Soc. S. Aust.* **36**: 165, pl. 5, fig. 2a-f.
= *Leptochiton columnaris* (Hedley & May, 1908).
Holotype: D11688, anterior, posterior and one median valve, dredged in 130 fathoms, off Cape Jaffa, S.A., collected by J. C. Verco, 25.xii.1905.
Note: Rest of type presumed lost.

*Lepidopleurus profundus* May, 1923.
Illust. Index Tas. Shells, pl. 14, fig. 2, Appendix
= *Leptochiton profundus* (May, 1923).
Holotype: D12533, entire specimen, dredged in 10 fathoms, off Pilot Station, Derwent River, Tas., collected by W. L. May, date of collection unknown.
Paratype: D16189, entire specimen with animal, with

anterior valve disarticulated, with same collection data as holotype.
Note: May (1923) illustrated *L. inquinatus* Sykes, 1896 but in an appendix says "An examination of the type in the British Museum shows that this is not *inquinatus*, which is the N.Z. species. Our shell is now to be known as *profundus* Ashby". Unfortunately Ashby's description of *profundus* was published after May's and in any case is a different species.

*Lepidopleurus profundus* Ashby, 1923.
*Trans. R. Soc. S. Aust.* **47**: 221, pl. 16, figs 2, 2a.
=*Leptochiton collusor* (Iredale & Hull, 1925).
Holotype: D11288, entire specimen with animal, from Gulf St Vincent, S.A., dredged by J. C. Verco, date of collection unknown.
Paratypes: D11691, 2 specimens, one entire, the other with animal but with anterior, posterior and one median valve disarticulated, from Port Phillip Bay, Vic., dredged by Bracebridge Wilson (No. 881), date of collection unknown.
Note: Renamed *Parachiton collusor* by Iredale and Hull (1925a), also listed here, as *L. profundus* was preoccupied.

*Lepidopleurus variegatus* Adams & Angas, 1864.
*Proc. Zool. Soc. Lond.* **13**: 192.
=*Ischnochiton variegatus* (Adams & Angas, 1864) (ISCHNOCHITONIDAE).
Neotype: D13736, entire specimen with animal, from Minlacowie, Hardwicke Bay, Yorke Peninsula, S.A., collected by E. H. Matthews, date of collection unknown. Selected by Iredale and Hull (1927: 13).

Genus ***Parachiton*** Thiele, 1909

*Parachiton collusor* Iredale & Hull, 1925.
*Aust. Zool.* **3**(8): 346, pl. 39, fig. 22.
=*Leptochiton collusor* (Iredale & Hull, 1925).
Holotype: D11288, based on the same specimen as the holotype of *Lepidopleurus profundus* Ashby, 1923, also listed here.
Note: There is some doubt that this specimen was the one selected as type by Iredale and Hull (1925a) as Iredale and Hull (1927) list the type of *P. cullusor* in SAM and the type of *L. profundus* in the Ashby collection. However, later labels with the specimen say that it is the type of *P. collusor* and Cotton and Godfrey (1940) also list and figure it as the type.

*Parachiton verconis* Cotton & Weeding, 1939.
*Trans. R. Soc. S. Aust.* **63**(2): 183, pl. 7, fig. 2.
=*Leptochiton verconis* (Cotton & Weeding, 1939).
Holotype: D11689, posterior valve only, from near St Francis Island, Nuyts Archipelago, S.A., dredged in 15-20 fathoms by J. C. Verco, date of collection unknown.
Note: Type description was based on this single valve.

Genus ***Terenochiton*** Iredale, 1914

*Terenochiton iscus* Cotton & Weeding, 1939.
*Trans. R. Soc. S. Aust.* **63**(2): 182, pl. 7, fig. 1.
=*Leptochiton iscus* (Cotton & Weeding, 1939).
Holotype: D1232, entire specimen with animal, from Cape Jervis, S.A., collected by F. L. Saunders, 1917.

Family **MOPALIIDAE**

Genus ***Kopionella*** Ashby, 1919

*Kopionella matthewsi* var. *intermedia* Ashby, 1927.
*Pap. Proc. R. Soc. Tas.* 1926: 101.
=*Plaxiphora (Fremblya) matthewsi* (Iredale, 1910).
Syntypes: D12115, 3 entire specimens with animal remains, from Penguin, north-western Tas., collected by E. Ashby, November, 1924.

*Kopionella tasmanica* Ashby, 1920.
*Trans. R. Soc. S. Aust.* **44**: 268, pl. 11, fig. 1a-d.
=*Plaxiphora (Fremblya) matthewsi* (Iredale, 1910).
Holotype: D12156, disarticulated specimen, from Lunawanna, South Bruny Island, D'Entrecasteaux Channel, Tas., collected by E. Ashby, March, 1920.
Note: Smith and Robertson (1970) list the holotype as lost as it could not be located at the time.

Genus ***Plaxiphora*** Gray, 1847

*Plaxiphora hedleyi* Torr, 1911.
*Trans. R. Soc. S. Aust.* **35**: 103, pl. 24, fig. 2a-f.
=*Plaxiphora (Fremblya) matthewsi* (Iredale, 1910).
Holotype: D12871, entire specimen with anterior and posterior valve disarticulated, from Rabbit Island, near Albany, W.A., collected by W. G. Torr, Christmas, 1910-11.

*Plaxiphora pustulosa* Torr, 1911.
*Trans. R. Soc. S. Aust.* **35**: 107, pl. 25, fig. 7.
=*Liolophura (Clavarizona) hirtosa* (Blainville, 1825) (CHITONIDAE).
Holotype: D13719, one median valve only, from Albany, W.A., collected by W. G. Torr, Christmas, 1910-11.
Note: Type description was based on this single valve.

*Plaxiphora zebra* Torr, 1911
*Trans. R. Soc. S. Aust.* **35**: 106, pl. 25, fig. 6.
=*Plaxiphora (Fremblya) matthewsi* (Iredale, 1910).
Holotype: D12869, one median valve only, from Port Esperance, W.A., collected by W. G. Torr, Christmas, 1910-11.
Note: Type description was based on this single valve.

Family **SCHIZOCHITONIDAE**

Genus ***Lorica*** H & A Adams, 1852

*Lorica elliottae* Cotton & Weeding, 1939.
*Trans. R. Soc. S. Aust.* **63**(2): 189, pl. 7, fig. 9.
Holotype: D11658, entire specimen, from Rottnest Island, W.A., collected by L. A. Elliott, January, 1933.
Note: Type unique.

*Lorica haurakiensis* Mestayer, 1921.
*Trans. Proc. N.Z. Inst.* **53**: 177, pl. 38, figs 1-3.
Paratype: D11089, entire specimen, dredged in 20 fathoms, off Kauwau and Tiritiri Islands, Hauraki Gulf, near Auckland, N.Z., collected by A. E. Brookes, date of collection unknown.
Note: Type in NMNZ (M1121).

Genus ***Loricella*** Pilsbry, 1893

*Loricella torri* Ashby, 1919.
*Trans. R. Soc. S. Aust.* **43**: 62, pl. 10, fig. 16.
= *Loricella angasi* (H. Adams in H. Adams & Angas, 1864).
Holotype: D12440, entire specimen, from Quarantine Station, Port Jackson, N.S.W., in shallow water at low tide, collected by E. Ashby, November, 1918.

Family **SUBTERENOCHITONIDAE**

Genus ***Subterenochiton*** Iredale & Hull, 1924

*Ischnochiton bednalli* Torr, 1912.
= *Subterenochiton bednalli* (Torr, 1912).
see ISCHNOCHITONIDAE.

## REFERENCES


ASHBY, E. 1918. Monograph of the genus *Stenochiton* (Order Polyplacophora), with descriptions of two new species. *Trans. R. Soc. S. Aust.* **42**: 65-78, pls 13 & 14.

ASHBY, E. 1919. Notes on Australian Polyplacophora, including descriptions of two new genera, a new variety, and the description and proposed recognition of Mr. Bednall's *Stenochiton pilsbryanus*. *Trans. R. Soc. S. Aust.* **43**: 66-73, pl. 11.

ASHBY, E. 1922. Types of species of Australian Polyplacophora described by De'Blainville, Lamarck, De'Rochbrune, and others, now in the Museum d'Histoire Naturelle, in Paris. *Trans. R. Soc. S. Aust.* **46**: 572-582.

ASHBY, E. 1926. The Acanthoid Chitons of New Zealand, with descriptions and figures, including several new species. *Proc. Malac. Soc. Lond.* **17**: 5-34, pls 1-4.

ASHBY, E. 1927. Notes on, and additions to, the Chiton fauna of North-West Tasmania, together with a brief review of the genus *Stenochiton*. *Pap. Proc. R. Soc. Tasm.* 1926: 92-117.

ASHBY, E. 1928. Notes on a collection of chitons (Polyplacophora) from the Capricorn Group, Queensland. *Trans. R. Soc. S. Aust.* **52**: 167-173, pl. 12.

ASHBY, E. 1931. Monograph of the South African Polyplacophora (Chitons). *Ann. S. Afr. Mus.* **30**(1): 1-59, pls. 1-7.

ASHBY, E., and COTTON, B. C. 1937. Description of two new species of Australian Chitons with additional notes and records. *Trans. R. Soc. S. Aust.* **41**: 145-148, pl. 8.

BERGENHAYN, J. R. M. 1931. Beiträge zur Malakozoologie der Kanarischen Inseln. Die Loricaten. *Arkiv. Zool.* **23A**(13): 1-38, pls. 1-3.

COTTON, B. C. 1964. *South Australian Mollusca: Chitons*. Govt. Printer Adelaide, 151 pp.

COTTON, B. C., and GODFREY, F. K. 1940. *The Molluscs of South Australia. Part II. Scaphopoda, Cephalopoda, Aplacophora and Crepipoda*. Govt. Printer Adelaide, 284 pp.

COTTON, B. C., and WEEDING, B. J. 1939. Flindersian Loricates. *Trans. R. Soc. S. Aust.* **63**: 180-199, pl. 7.

DAVIS, G. M., ROBERTSON, R., and MILLER, M. 1979. Catalogue of the Chiton types of the Academy of Natural Sciences of Philadelphia. *Tryonia* **1**: 1-60.

DUPUIS, P. 1917. Notes prises au cours de l'examen de la Collection de Polyplacophres du Muséum de Paris. *Bull. Mus. Natn. Hist. nat. Paris* **23**: 553-8.

DUPUIS, P. 1918. Notes concernant les Polyplacophores. *Bull. Mus. Nat. Hist. Nat.* **24**: 525-533.

GILES, E., and GOSLINER, T. 1983. Primary type specimens of marine mollusca (excluding Cephalopoda) in the South African Museum. *Ann. S. Afr. Mus.* **92**: 1-52.

IREDALE, T., and HULL, A. F. B. 1925a. A Monograph of Australian Loricates, Part IV. *Aust. Zool.* **3**: 339-362, pls 39-40.

IREDALE, T., and HULL, A. F. B. 1925b. A Monograph of Australian Loricates, Part V. *Aust. Zool.* **4**: 75-111, pls 9-12.

IREDALE, T., and HULL, A. F. B. 1927. *A Monograph of Australian Loricates (Phylum Mollusca—Order Loricata)*. R. Zool. Soc. N.S.W. publ., 168 pp., 21 plates.

KAAS, P., and VAN BELLE, R. A. 1980. *Catalogue of Living Chitons*. Dr W. Backhuys, Publ., Rotterdam, 144 pp.

MACPHAIL, M. K., and ZEIDLER, W. 1978. History in a Tasmanian Chiton. *Tas. Nat.* No. 53: 1-7.

MAUGHAN, M. M. 1900. Definition of a new species of South Australian Polyplacophora. *Trans. R. Soc. S. Aust.* **24**: 89, pl. 1.

MAY, W. L. 1923. *An Illustrated Index of Tasmanian Shells*. Govt. Printer Hobart, 54 pp., 50 pls., Appendix.

SMITH, B. J., and ROBERTSON, R. C. 1970. Catalogue of Chiton (Amphineura, Mollusca) types in the National Museum of Victoria, Australia. *Mem. Nat. Mus. Vic.* **31**: 81-90.


## APPENDIX

List of Chiton "types" from the Dupuis collection given to Ashby by Dupuis. All are labelled "TYPE" or "CO-TYPE" usually with a Dupuis label with the word "TYPE" in red print, glued to the label and the prefix "co-" added by hand. The specimens are listed in alphabetical order according to the original name at the time of description.

*Acanthopleura balansae* Rochebrune, 1882.
*Bull. Soc. Philom. Paris*, Ser. 7, **6**: 197.
= *Acanthopleura haddoni* Winkworth, 1927 (CHITONIDAE).
Syntype: D10231, entire specimen with animal, from Timor, collector and date of collection unknown.
Note: Specimen with label "co-TYPE de *A. balansae* Roch." and reidentified as *A. spinigera* Sowerby. The locality given by Rocheburne (1882) is "Australie (Péron et Lesueur). Nouvelle Caledonie (Balansa; Germain)". The type status of the above specimen is therefore very doubtful.

*Chiton elongatus* Blainville, 1825.
*Dict. Sci. Nat.* **36**: 352.
= *Ischnochiton elongatus* (Blainville, 1825) (ISCHNOCHITONIDAE).
Syntype: D10237, entire specimen, from King Island, Bass Strait, collected by Péron and Lesueur, 1802.
Note: The shell is marked on the inside "ile King"

presumably in the handwriting of Péron or Lesueur and is a historically significant shell (Macphail & Zeidler, 1978). It was sent to Ashby by Dupuis as "co-types" of *I. lineolatus* (Ashby, 1922) and a Dupuis label says the same. Ashby (1922) determined it as *I. crispus* (Reeve, 1847) which is now considered a synonym of *I. elongatus*. The above specimen matches the original description of *C. elongatus* and considering that it was collected by Péron and Lesueur it was most likely part of the series of specimens originally seen by Blainville.
Syntypes: D10238, 3 entire specimens with same collection data as D10237.
Note: =*I. subviridus* (Iredale & May, 1916) but would have been considered *I. elongatus* in the past. There is no original label with the specimen but a label presumably written by Ashby says "col. by Péron and Lesueur, Is. King 1802 (with Blainville's type of *lineolatus*)". If the information with the specimens is correct then they could also have been part of the original material seen by Blainville.

*Chiton lamyi* Dupuis, 1917.
*Bull. Mus. Natn. Hist. nat. Paris* **23**: 538.
=*Chiton peregrinus* Thiele, 1910 (CHITONIDAE).
Syntypes: D10211, 10 entire specimens, only one with animal, from Aden, Red Sea, collected by Dr Jousseume, date of collection unknown. D10252, one disarticulated specimen with piece of dried girdle, from the Red Sea, collected by Dr Jousseume, date of collection unknown. D10255, one disarticulated specimen with piece of dried girdle with same collection data as D10252. D11200, one entire specimen from the Red Sea, collector and date of collection unknown.
Note: All of the above are labelled "TYPE" except for D11200 which is labelled "co-type". As Dupuis did not clearly designate a type and since the above specimens were given to Ashby by him, it is likely that they are all syntypes.

*Chiton tehuelchus* D'Orbigny, 1841.
*Voy. Amer. merid., Moll.* **3**(3): 488, pl. 65, figs 7-13.
=*Chaetopleura angulata* (Spengler, 1797) (ISCHNOCHITONIDAE).
Syntype: D10293, entire specimen, from Bay of San Blas, Patagonia, collector and date of collection unknown.
Note: The above specimen is from the type locality but in the absence of original labels the type status must be very doubtful.

*Chiton undulatus* Quoy & Gaimard, 1835.
Voy. de l'Astrolabe, Zool. **3**: 393, pl. 75, figs 19-24.
=*Onithochiton neglectus* Rochebrune, 1881 (CHITONIDAE).
Syntypes: D10223, 2 entire specimens, from N.Z., collector and date of collection unknown.
Note: Specimens of very doubtful type status. The type is in MNHN and was seen by Ashby (1922). However, Quoy and Gaimard recorded several specimens but apparently did not designate a type so the above specimens could have been part of the type series.

*Chiton violaceus* Quoy & Gaimard, 1835.
Voy. de l'Astrolabe, Zool. **3**: 403, pl. 73, figs 15-20.
=*Notoplax violaceus* (Quoy & Gaimard, 1835) (ACANTHOCHITONIDAE).
Syntype: D11054, disarticulated specimen, from N.Z., collector and date of collection unknown.
Note: A specimen of doubtful type status. The Dupuis label with the specimen has "Tasman Bay nr. Nelson" added in pencil, which is the type locality.

*Cryptoplax caledonicus* Rochebrune, 1882.
*Bull. Soc. Philom. Paris*, Ser. 7, **6**: 196.
=*Cryptoplax larvaeformis* (Burrows, 1815) (CRYPTOPLACIDAE).
Paratypes: D10330, 3 entire specimens with animals, from New Caledonia, collector and date of collection unknown.
Note: A Dupuis label with the specimens designates them as "co-types" but a later Ashby collection label has the words "with TYPE" on it thus indicating that the above specimens could be paratypes.

*Cryptoconchus stewartianus* Rochebrune, 1882.
*Bull. Soc. Philom. Paris*, Ser. 7, **6**: 194.
=*Cryptoconchus porosus* (Burrows, 1815) (ACANTHOCHITONIDAE).
Paratype: D11053, disarticulated specimen, from Cook Strait, N.Z., collector and date of collection unknown.
Note: The above specimen is most likely a paratype as Ashby (1926) described and illustrated it and referred to it as "one of Rochebrune's cotypes". The type, a spirit specimen, is in MNHN (Ashby 1922).

*Gymnoplax spiciferus* Rochebrune, 1884.
*Bull. Soc. Philom. Paris*, Ser. 7, **8**: 36.
=*Ischnochiton (Ischnoplax) pectinatus* (Sowerby, 1840) (ISCHNOCHITONIDAE).
Syntype: D10297, 1½ median valves, from Cochino Island, Guadeloupe, collector and date of collection unknown.
Note: The above material is from the type locality and was probably part of the type series.

*Lepidopleurus campbelli* Filhol, 1880.
*Comptes Rendus hebd. Séanc. Acad. Sci. Paris*, **91**: 1095.
= *Ischnochiton circumvallatus* (Reeve, 1847) (ISCHNOCHITONIDAE).
Syntype: D11022, animal and disarticulated valves, from Campbell Island, N.Z., collector and date of collection unknown.
Note: There is some doubt that this is one of Filhol's types; however, it matches the description given by Dupuis (1917) for specimen "B" of two specimens that

he regarded as type material of *L. campbelli*. There is also a radula slide with D11022 but it does not belong to the above specimen; however, the SAM register refers to two specimens one of which may have been used for the radula preparation.

*Lepidopleurus cessaci* Rochebrune, 1881.
*Bull. Soc. Philom. Paris*, Ser. 7, **5**: 118.
=*Ischnochiton cessaci* (Rochebrune, 1881) (ISCHNOCHITONIDAE).
Syntype: D10324, disarticulated specimen, from Cape Verde Island, collector and date of collection unknown.
Note: SAM records indicate that there were another 5 specimens which Ashby kept and were presumably lost in the fire at Ashby's house. The above specimen is from the type locality and was probably part of the type series.

*Lepidopleurus fodiatus* Rochebrune, 1881.
*Bull. Soc. Philom. Paris*, Ser. 7, **5**: 119.
=*Ischnochiton textilis* (Gray, 1828) (ISCHNOCHITONIDAE).
Syntype: D10286, entire specimen, from Natal, South Africa, collected by M. Verreaux, date of collection unknown.
Note: The type status of this specimen is in doubt. The label with the specimen reads "*Ischnochiton tigrinus* Krauss (co-TYPE de *Lepidopleurus fodiatus* Rocheb. Australia!!) Verreaux *Natal*?". Obviously there is some confusion regarding the locality data.

Ashby (1922) says that he has never seen this species in Australia and is confident that New Holland, the type locality, is erroneous.

*Lepidopleurus melanterus* Rochebrune, 1884.
*Bull. Soc. Philom. Paris*, Ser. 7, **8**: 37.
=*Ischnochiton circumvallatus* (Reeve, 1847) (ISCHNOCHITONIDAE).
Syntypes: D10292, 7 entire specimens with animals, from Campbell Island, N.Z., collector and date of collection unknown. D10319, one entire specimen with animal, with same collection data as D10292. D13061, one entire specimen with animal, with same collection data as D10292.
Note: The above material is from the type locality and at least D10292 could have been part of the type series. D10319 and D13061 are without the usual Dupuis label and may have been extracted from D10292.

*Lepidopleurus rochebruni* Jousseaume, 1893
*Bull. Soc. Philom. Paris*, Ser. 8, **6**: 102.
=*Callistochiton adenensis* (E. A. Smith, 1891) (CALLISTOPLACIDAE).
Syntype: D10326, one entire specimen, from Djibouti, Gulf of Aden, collector and date of collection unknown. D10342, 2 disarticulated specimens, one from Djibouti, the other from Aden, Gulf of Aden, collector and date of collection unknown.
Note: D10326 is clearly marked "cotype du Dr Jousseaume" and the specimen matches the description and the largest measurement given by Jousseaume. It is therefore most probably a syntype. The type status of D10342 is rather more doubtful.

*Notochiton mirandus* Thiele, 1906
*Wiss. Ergebn. d. Tiefsee Exp.* **9**(2): 332, pl. 29, figs 11-16.
=*Nuttallochiton mirandus* (Thiele, 1906) (ISCHNOCHITONIDAE).
Syntype: D10213, 5 median valves articulated with girdle and disarticulated anterior, posterior and median valve 2, from Antarctica, collector and date of collection unknown.
Note: Despite the fact that D10213 is clearly labelled "cotype" it cannot be Thiele's type of *N. mirandus* as Thiele mentions only one specimen and an anterior valve from east of Bouvet Island (Valdivia Stn. 127) and this specimen was several times larger than D10213.

*Onithochiton filholi* Rochebrune, 1881
*Bull. Soc. Philom. Paris*, Ser. 7, **5**: 120.
=*Onithochiton neglectus* Rochebrune, 1881 (CHITONIDAE)
Syntype: D10215, disarticulated specimen, from Cook Strait, N.Z., collector and date of collection unknown.
Note: Clearly labelled "co-TYPE de *O. filholi* Roch".

*Onithochiton neglectus* Rochebrune, 1881 (CHITONIDAE)
*Bull. Soc. Philom. Paris*, Ser. 7, **5**: 120.
Syntypes: D10221, two entire specimens with animals, without collection data.
Note: In the absence of original labels and good locality data it is difficult to ascertain the type status of the above specimens.

*Schizochiton hyadesi* Rochebrune, 1889
*Miss. Sci. Cap. Horn* **4** *Zool.*, : 132, pl. 9, fig. 1.
=*Nuttallochiton hyadesi* (Rocheburne, 1889) (ISCHNOCHITONIDAE)
Syntype: D10189, entire specimen with animal, from Terra del Fuego, collector and date of collection unknown.
Note: The type status of this specimen is very doubtful. The original label does not indicate the type status but the words "cotype-paratype" have been added in pencil on the back of the label.

*Schizochiton jousseaumei* Dupuis, 1917 (SCHIZOCHITONIDAE)
*Bull. Mus. Natn. Hist. natr. Paris*, **23**: 536, figs 1-4.
Syntypes: D10233, 2 entire specimens with animals plus one anterior valve, from the Red Sea, collected by Jousseaume, date of collection unknown. D10235, one entire specimen with animal with same collection data as D10233.

Note: Although the above specimens are labelled "TYPE" it is unlikely that any of them are types as the species was based on a unique specimen which is in MNHN. The single anterior valve of D10233 is labelled "Perim", the type locality.

*Tonica fontainei* Rochebrune, 1882
*Bull. Soc. Philom. Paris,* Ser. 7, **6**: 193.
=*Ischnochiton punctulatissimus* (Sowerby, 1832) (ISCHNOCHITONIDAE)
Syntypes: D10291, 4 entire specimens with animals, 2 disarticulated specimens plus 3 end valves and 4 median valves from at least 2 specimens, from Chile, collector and date of collection unknown.
Note: The specimens are clearly marked "co-TYPE" and are probably types.

*Tonicia lebruni* Rochebrune, 1884
*Bull. Soc. Philom. Paris,* Ser. 7, **8**: 35.
Syntype: D10196, entire specimen with animal, from Patagonia, collector and date of collection unknown.
Note: The specimen is labelled "TYPE" and in the absence of evidence to the contrary it must be considered possible type material.

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