

# MOLLUSC TYPE-SPECIMENS IN THE SOUTH AUSTRALIAN MUSEUM

## 1. CEPHALOPODA and SCAPHOPODA

by

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### ABSTRACT

ZEIDLER, W., and MACPHAIL, M. K., 1978. Mollusc type-specimens in the South Australian Museum. 1. Cephalopoda and Scaphopoda. *Rec. S. Aust. Mus.* 17 (26): 381-385.

Type-specimens of nine species of Cephalopoda and seventeen species of Scaphopoda in the South Australian Museum are catalogued. All are recent species and except for one scaphopod species from New Zealand, all are from Australian waters.

### INTRODUCTION

This is the first of an intended series of papers listing the mollusc types held by the South Australian Museum.

The species are arranged alphabetically according to the original name of the genus or species. Full synonymies are not given, but where a name change has occurred, the most recent acceptable name is given together with the relevant reference.

### CLASS CEPHALOPODA

Cephalopod types in the South Australian Museum comprise "cuttles" (family Sepiidae) and one octopus. The Sepiidae are known only from the gladius and even now, *Sepia braggi* Verco, 1907 is the only species for which a whole animal is available, collected in 1969.

Nearly all the types were described by Bernard C. Cotton, the second curator of Molluscs at the South Australian Museum. Cephalopods were Cotton's first interest and the subject of his first paper (Verco & Cotton 1928). The bulk of the types came from Western Australia and are described in Cotton (1929). Little research has been done on the group in South Australia since.

In their revision of the Sepiidae, Adam & Rees (1966) discuss the synonymy of a number of species for which the South Australian Museum holds the types. However since the requisite type or number of specimens was then

not always available, the taxonomic status of several South Australian species could not be resolved. It is probable that the sub-genera *Decorisepia* and *Solitosepia* (given full generic status by Iredale 1926) are no longer valid, but until further material, particularly of the whole animal, is available, additional comment cannot be made.

In all cases, the *Holotype* was clearly selected but *Paratypes* were rarely designated, even when other good material was available.

### Family Sepiidae

#### Genus *Crumenasepia* Iredale, 1926

*Crumenasepia ursulae* Cotton, 1929.

*J. Proc. R. Soc. W. Aust.*, 15: 90-91, pl. 15, figs. 3, 4.

=*Sepia pharaonis* Ehrenberg, 1831; after Adam & Rees, 1966: 22.

*Holotype*: D10013, gladius with detached spine, from Cottesloe Beach, W.A. collector and date of collection unknown.

*Paratypes*: D10011, gladius with detached spine, from Cottesloe, W.A., collected by Mrs. U. Glauert, date of collection unknown. D16016 (ex. D10013), two gladiuses, one juvenile, the other with missing spine, both with same locality and collection data as holotype. (Paratype D10012 sent to Western Australian Museum.)

Note:—Paratypes incorrectly labelled co-types as a type specimen was clearly selected.

#### Genus *Decorisepia* Iredale, 1926

*Decorisepia cottesloensis* Cotton, 1929.

*J. Proc. R. Soc. W. Aust.*, 15: 90, pl. 16, figs. 1, 2.

=*Sepia (Decorisepia) cottesloensis* (Cotton, 1929); after Cotton and Godfrey, 1940: 438.

*Holotype*: D13681, gladius from Cottesloe, W.A., collector and date of collection unknown.

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**Decorisepia jaenschi** Cotton, 1931.*S. Aust. Nat.*, **12** (3): 41, figs. 5, 6.—*Sepia jaenschi* (Cotton, 1931); after Adam & Rees, 1966: 55.

Holotype: D10163, gladius broken in half (clean break), from Robe, S.A., collected by B. C. Cotton, date of collection unknown.

**Genus Sepia** Linnéus, 1758**Sepia braggi** Verco, 1907.*Trans. Roy. Soc. S. Aust.*, **31**: 213, pl. 27, figs. 6a-d.

Holotype: D14130 (ex D311), gladius from Glenelg, S.A., collected by Mr. Bragg, 1907.

Paratypes: D15998 (ex. D311), three gladiuses, one broken, one very worn around the edges, from Torquay, Vic., collected by C. J. Gabriel, date of collection unknown. D16017 (ex D311 and D14130), gladius figured with holotype, with spine missing, from St. Vincent Gulf, S.A., collected by A. Zietz, date of collection unknown.

Note:—Cotton and Godfrey (1940) list the holotype as being held in the Manchester Museum, U.K., but a recent search there failed to locate any records of it. The specimen cited as the holotype here conforms exactly to that described by Verco and the label with it in Verco's handwriting refers to it as the "figured type". This must therefore be the authentic type.

**Genus Solitosepia** Iredale, 1926**Solitosepia glauerti** Cotton, 1929.*J. Proc. R. Soc. W. Aust.*, **15**: 87, pl. 14, figs. 3, 4.—*Sepia (Solitosepia) glauerti* (Cotton, 1929); after Cotton and Godfrey, 1940: 421.

Holotype: D13628, gladius from Rottnest Is., W.A., collector and date of collection unknown.

**Solitosepia hendryae** Cotton, 1929.*J. Proc. R. Soc. W. Aust.*, **15**: 87-88, pl. 15, figs. 1, 2.—*Sepia (Solitosepia) hendryae* (Cotton, 1929); after Cotton and Godfrey, 1940: 421.

Holotype: D13625, gladius from Rottnest Is., W.A., collector and date of collection unknown.

**Solitosepia occidua** Cotton, 1929.*J. Proc. R. Soc. W. Aust.*, **15**: 88, pl. 14, figs. 1, 2.—*Sepia (Solitosepia) occidua* (Cotton, 1929); after Cotton and Godfrey, 1940: 420.

Holotype: D13627, gladius from Rottnest Is., W.A., collector and date of collection unknown.

**Genus Tenuisepia** Cotton, 1932**Tenuisepia mira** Cotton, 1932.*Rec. S. Aust. Mus.*, **4** (4): 546-547, figs. 7-9.—*Sepia mira* (Cotton, 1932); after Adam & Rees, 1966: 87.

Holotype: D10507, gladius broken in half (clean break), from North-West Islet, Capricorn Group, Qld., collected by W. J. Kimber, date of collection unknown.

**Family Octopodidae****Genus Octopus** Lamarck, 1798**Octopus flindersi** Cotton, 1932.*Rec. S. Aust. Mus.*, **4** (4): 543-544, fig. 6.

Holotype: D10169, large female (in spirit) from Largs Bay, S.A., collected by L. Davidson, K. Heywood and H. Cobb, date of collection unknown.

**CLASS SCAPHOPODA**

Most of the scaphopod types in the South Australian Museum were collected around the turn of the century by Sir Joseph C. Verco (Verco 1935), subsequently Honorary Curator of Molluscs at this museum from 1914 to 1933. Only two species, one described by Suter (1907) and the other described by Tate and May (1900) were not collected by Verco but types were acquired by him for the museum collection. Verco (1911a, 1911b) described 7 of the 17 types in the museum's collections. Cotton and Ludbrook (1938) described the remaining Dentaliidae (five species) and Cotton and Godfrey (1940) described the remaining Siphonodentaliidae (three species).

The taxonomy of the recent scaphopod molluscs of South Australia have not been revised since Cotton and Godfrey (1940) but the supraspecific classification of the Scaphopoda has received considerable attention (Ludbrook 1960, Emerson 1962 and Palmer 1974). In this paper the classification proposed by Palmer (1974) is adopted. Thus most of the subgenera referred to by Cotton and Godfrey (1940) are now regarded as full genera.

In most cases the holotype was clearly selected but, as with the Cephalopoda, paratypes were rarely designated, even when other good material was available.

### Family Dentaliidae

#### Genus *Dentalium* Linnéus, 1758

##### *Dentalium francisense* Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 207-208, pl. 26, figs. 1, 1a.

=*Paradentalium francisense* (Verco, 1911); after Palmer, 1974: 119.

Holotype: D13724, dry shell dredged in 15-20 fms., Petrel Bay, St. Francis Is., S.A., collected by J. C. Verco, date of collection unknown.

Paratype: D16004 (ex D13724), juvenile dry shell with same locality and collection data as holotype.

##### *Dentalium hemileuron* Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 208, pl. 26, fig. 2.

=*Paradentalium hemileuron* (Verco, 1911); after Palmer, 1974: 119.

Holotype: D13727, dry shell dredged in 300 fms., off Cape Jaffa, S.A., collected by J. C. Verco, date of collection unknown.

##### *Dentalium hyperhemileuron* Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 217-218, pl. 26, figs. 3, 3a.

=*Episiphon hyperhemileuron* (Verco, 1911) (*Laevidentaliidae*); after Palmer, 1974: 120.

Holotype: D13726, dry shell dredged in 12-14 fms., King George Sound, W.A., collected by J. C. Verco, December, 1910 or January, 1911.

Paratypes: D16000, four dry shells with same locality and collection data as holotype.

Note:—Paratypes incorrectly labelled co-types as a type specimen was clearly selected.

##### *Dentalium octopleuron* Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 206.

=*Paradentalium octopleuron* (Verco, 1911); after Palmer, 1974: 119.

Holotype: D13725, dry shell dredged in 15-22 fms., St. Vincent Gulf, S.A., collected by J. C. Verco, date of collection unknown.

#### Subgenus *Episiphon* Pilsbry and Sharp, 1897

*Dentalium (Episiphon) arenarium* Suter, 1907. *Proc. Mal. Soc. Lond.*, **7** (4): 214-215, pl. 18, fig. 11.

=*Dentalium suteri* Emerson, 1954; after Emerson, 1954: 185.

Paratype: D16001, dry shell dredged in 18 fms., Port Pegasus, Stewart Is., New Zealand, collected by Captain J. Bollons, date of collection unknown.

Note:—Specimen incorrectly labelled co-type as a type specimen was clearly selected.

The specific name *arenarium* was preoccupied when Suter first described this species. Emerson (1954) therefore erected the new name *suteri* to replace the homonym.

*Dentalium (Episiphon) bordaensis* Cotton and Ludbrook, 1938.

*Trans. R. Soc. S. Aust.*, **62** (2): 220-221, pl. 12, fig. 3.

=*Episiphon bordaensis* (Cotton and Ludbrook, 1938) (*Laevidentaliidae*); after Palmer, 1974: 120.

Holotype: D13340, dry shell dredged in 60 fms., off Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown.

Subgenus *Eudentalium* Cotton and Godfrey, 1933

*Dentalium (Eudentalium) beachportensis* Cotton and Ludbrook, 1938.

*Trans. R. Soc. S. Aust.*, **62** (2): 220, pl. 12, fig. 2.

=*Entalina beachportensis* (Cotton and Ludbrook, 1938) (*Siphonodentaliidae*); after Ludbrook, 1954: 110.

Holotype: D13339, broken and eroded dry shell dredged in 110 fms., off Beachport, S.A., collected by J. C. Verco, date of collection unknown.

#### Subgenus *Fissidentalium* Fischer, 1885

*Dentalium (Fissidentalium) jaffaensis* Cotton and Ludbrook, 1938.

*Trans. R. Soc. Aust.*, **62** (2): 221, pl. 12, fig. 5.

=*Fissidentalium jaffaensis* (Cotton and Ludbrook, 1938); after Palmer, 1974: 119.

Holotype: D13337, dry shell dredged in 90 fms., off Cape Jaffa, S.A., collected by J. C. Verco, date of collection unknown.

**Dentalium (Fissidentalium) verconis** Cotton and Ludbrook, 1938.

*Trans. R. Soc. Aust.*, **62** (2): 221-222, pl. 12, fig. 1.

=*Fissidentalium verconis* (Cotton and Ludbrook, 1938); after Palmer, 1974: 119.

Holotype: D13341, dry shell dredged in 200 fms., off Beachport, S.A., collected by J. C. Verco, date of collection unknown.

**Subgenus Paradentalium** Cotton and Godfrey, 1933

**Dentalium (Paradentalium) flindersi** Cotton and Ludbrook, 1938.

*Trans. R. Soc. S. Aust.*, **62** (2): 210, pl. 12, fig. 4.

=*Paradentalium flindersi* (Cotton and Ludbrook, 1938); after Palmer, 1974: 119.

Holotype: D13338, dry shell dredged in 22 fms., St. Vincent Gulf, S.A., collected by J. C. Verco, date of collection unknown.

#### Family Siphonodentaliidae

**Genus Cadulus** Philippi, 1844

**Cadulus angustior** Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 211-212, pl. 26, figs. 5, 5a, 5b.

=*Gadila angustior* (Verco, 1911) (Cadulidae); after Palmer, 1974: 121.

Holotype: D13728, dry shell dredged in 26 fms., 18 miles South-East of Newland Head, outside Backstairs Passage, S.A., collected by J. C. Verco, date of collection unknown.

**Cadulus occiduus** Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 218, pl. 26, fig. 7.

=*Gadila occiduus* (Verco, 1911) (Cadulidae) after Palmer, 1974: 121.

Holotype: D13759, dry shell dredged in 15 fms., Geographe Bay, off Bunbury, W.A., collected by J. C. Verco, December, 1910 or January, 1911.

**Subgenus Gadila** Gray, 1847

**Cadulus (Gadila) bordaensis** Cotton and Godfrey, 1940.

*The Molluscs of South Australia, Part II, Scaphopoda, Cephalopoda, Aplacophora and Crepipoda*: 340, fig. 362.

=*Gadila bordaensis* (Cotton and Godfrey, 1940) (Cadulidae); after Palmer, 1974: 121.

Holotype: D13761, dry shell dredged in 55 fms., off Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown.

**Cadulus (Gadila) ludbrookae** Cotton and Godfrey, 1940.

*The Molluscs of South Australia, Part II, Scaphopoda, Cephalopoda, Aplacophora and Crepipoda*: 340, fig. 362.

=*Gadila ludbrookae* (Cotton and Godfrey, 1940) (Cadulidae); after Palmer, 1974: 121.

Holotype: D13760, dry shell dredged in 62 fms., North-West of Cape Borda, Kangaroo Island, S.A., collected by J. C. Verco, date of collection unknown.

**Cadulus (Gadila) spretus** Tate and May, 1900.

*Trans. R. Soc. S. Aust.*, **24** (2): 102.

=*Gadila spretus* (Tate and May, 1900) (Cadulidae); after Palmer, 1974: 121.

Syntypes: D15848 (May No. 1048), twenty-two dry shells dredged in 24 fms., Port Esperance, Tasmania, collected by W. L. May, date of collection unknown. D16002 (ex. D303), five dry shells with no locality or collection data.

Note:—Specimens originally labelled co-types.

**Cadulus (Gadila) vincentianus** Cotton and Godfrey, 1940.

*The Molluscs of South Australia, Part II, Scaphopoda, Cephalopoda, Aplacophora and Crepipoda*: 338-339, fig. 360.

=*Gadila vincentianus* (Cotton and Godfrey, 1940) (Cadulidae); after Palmer, 1974: 121.

Holotype: D13730, dry shell from Holdfast Bay, St. Vincent Gulf, S.A., collected by J. C. Verco, date of collection unknown.

**Subgenus Polyschides** Pilsbry and Sharp, 1898

**Cadulus (Polyschides) gibbosus** Verco, 1911.

*Trans. R. Soc. S. Aust.*, **35**: 213, pl. 26, fig. 6.  
=*Polyschides gibbosus* (Verco, 1911) (Cadulidae); after Palmer, 1974: 121.

Holotype: D13729, dry shell dredged in 300 fms., off Cape Jaffa, S.A., collected by J. C. Verco, date of collection unknown.



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