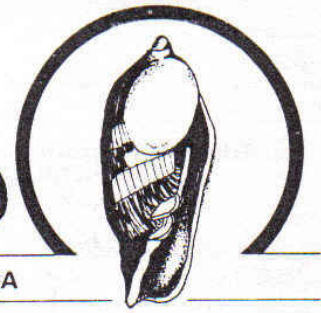


The Strandloper

BULLETIN OF THE CONCHOLOGICAL SOCIETY OF SOUTHERN AFRICA



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JUNE/JULY

1975

THE FAMILY FICIDAE IN SOUTH AFRICA

by

R.N. KILBURN
Natal Museum

INTRODUCTION

CHARACTERISTICS:

Medium-sized, fig-shaped with low spire, swollen shoulder and elongated, tapering siphonal canal: columella sinuous, with or without a thin callus glaze, which generally shows above the sutures as well; no umbilicus; outer lip thin and simple. Sculpture rather weak, spiral or cancellate in *Ficus*; shoulder spines are developed in the abyssal genus *Thalassocyon*. Protoconch low, dome-shaped, smooth, of about two whorls.

Operculum and periostracum absent (except in *Thalassocyon*). Foot large, mantle partially extended over the shell when crawling; generally mottled with brown.

CLASSIFICATION:

The Ficidae is closely related to the Tonnidae, members of the two families differing chiefly in shape. Two recent genera are recognized: *Ficus* Röding, 1798, from shallow tropical waters, contains about ten species and subspecies, of which two occur in Southern Africa, and *Thalassocyon* Barnard, 1960, from abyssal waters off Cape Point and New Zealand, contains two species. The latter genus was originally placed in the Cymatiidae, but was transferred to the Ficidae by Beu (1969). The only South African species, *Thalassocyon bonus* Barnard, 1960, inhabits depths of over 2 000 metres, and will not be discussed further.

GENERAL:

Apart from *Thalassocyon*, members of the family inhabit sand from low tide down to about 800 metres. On low tide sandbanks they burrow under as the tide recedes. Nothing is recorded of their biology, but like other members of the Tonnacea they are probably predatory, paralyzing their prey by means of toxic salivary secretions.

MEANING OF GENERIC NAMES:

Ficus = a fig (Latin, feminine); *Thalassocyon* = "Seadog: an animal resembling a talbot . . ." (Barnard, 1960) (Greek, masculine), named in honour of F. Talbot, late of the University of Cape Town, now at the Australian Museum, Sydney.

Note: In the following text "N.M." refers to the Natal Museum.

DESCRIPTION OF SPECIES

Ficus ficus (Linn., 1767) Pl. 1, fig. a; text fig. 1a.

SYNONYMS:

Murex ficus Linn., 1758, in part; *Ficus variegata* Röding, 1798.

DESCRIPTION:

Spire low, but conical; shoulder slopingly rounded. Sculpture of fine, flat-topped spiral ridges, alternately weaker and stronger, crossed by fine axial threads which are not apparent to the naked eye, except on the shoulder slope. Colour mottled light brown, more or less flecked with darker brown, body whorl with several pale spiral bands bearing chestnut spots; aperture brown inside, violet towards lip. Maximum length 95mm.

DISTRIBUTION:

Ranges over most of the Indo-West Pacific to the Natal/Pondoland border and probably further south, from low tide to 40m.

LOCALITY RECORDS:

Moçambique: Santa Carolina and Bazaruto Islands (N.M.; Mrs. E. Roscoe); Delagoa Bay (N.M.).

Natal: off Tugela River in 18 and 20 fathoms (N.M.); Ballito Bay, Umhlali (N.M.: P. Elston); Durban (N.M.); Clansthal (N.M.: W. Falcon). Type locality Amboina, Indonesia.

MEANING OF NAME:

Same as genus.

REMARKS:

The *Murex ficus* of Linnaeus, 1758, was based on an array of figures that could pertain to several different species and the description was totally inadequate; moreover, the type (if any) is lost (Dodge, 1958). For these reasons, some modern authors have preferred to use the name *F. variegata* Röding, 1758. In my opinion to discard such a universally accepted name conflicts drastically with the interests of stability. Fortunately Linnaeus subsequently (1767) expanded his description to indicate a species (*Bulla ficus*) from Amboina with obsolete cancellate sculpture, which can

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The Society's Bulletin, The Strandloper is issued free to members.

The Society has active groups in the following areas:-

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only be the traditional *Ficus ficus*. The name can satisfactorily be utilized as of this date.

Ficus ficus is rather uncommon in Natal, where it is occasionally found in shallow water in sheltered areas of clean sand. In Moçambique it is commoner and may be found burrowing in intertidal sandbanks.

Ficus subintermedia (D'Orbigny, 1852)

Pl. 1, fig. b.; text fig. 1b.

SYNONYM:

Pyrula ficoides Lamarck, 1822 (*non* Brocchi, 1814)

DESCRIPTION:

Body whorl less swollen than in *F. ficus*, strongly rather than slopingly rounded at the shoulder; spire normally depressed with only the apical region elevated. Sculpture rough and distinctly cancellate, consisting of thin, well-spaced, sharp spiral ridges, separated by sets of alternately weaker and stronger intermediary threads, and crossed by fine axial riblets. Colour mottled brown with darker and lighter flecks on the ridges, together with pale zones bearing chestnut marks, and sometimes with additional zones of irregular chestnut blotches; aperture brown inside, violet towards the lip. A rare form occurs which is tinged overall with pale violet. Maximum length 110mm.

RANGE:

As in *F. ficus*.

LOCALITY RECORDS:

Moçambique: Benguera and Bazaruto Is. (N.M.: E. Roscoe); Delagoa Bay (N.M.: P. Elston).

Zululand: Kosi Bay: (N.M.); Cape Vidal (N.M.: P. Elston); off Tugela River in 20 fathoms (N.M.).

Natal: Umhloti and off Umhlanga Rocks in 12-14 fathoms (N.M.); Durban, littoral (N.M.: H. Burnup, W. Falcon) and in 150 fathoms (N.M.); Melvill (N.M.). Type locality unknown.

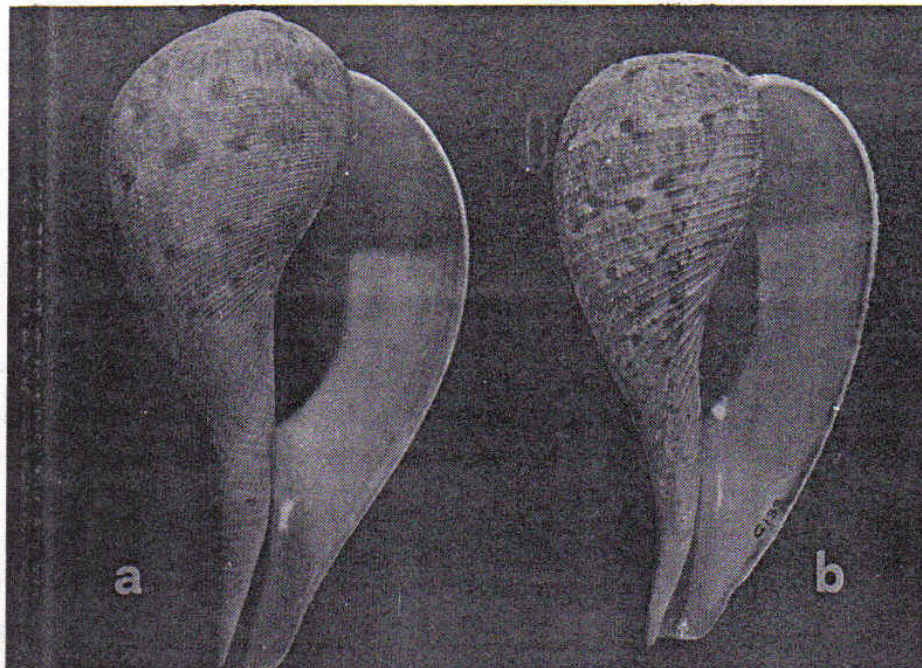
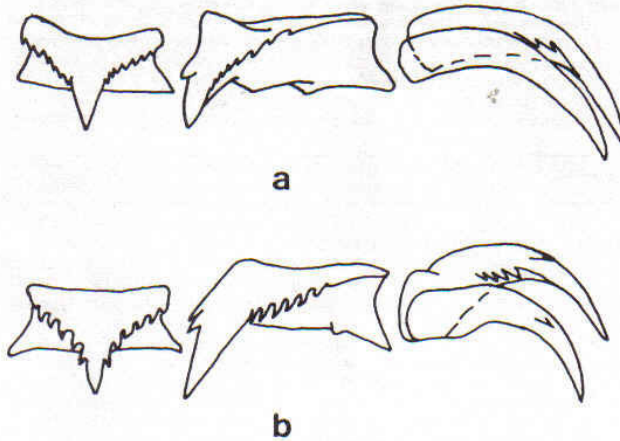


Plate 1. South African *Ficus* spp.
(a) *F. ficus* (Linnaeus)
(b) *F. subintermedia* (d'Orbigny)

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Text fig. 1. Radulae of (a) *Ficus ficus* and (b) *Ficus subintermedia*.

MEANING OF NAME:

"Half intermediate" (Latin).

REMARKS:

F. subintermedia is rarer than *F. ficus*, but seems to have similar habitat preferences, except that intertidal specimens are very seldom met with.

Shells vary much in proportion, with width/height ratios of 0.61 to 0.49; this does not seem to be correlated with habitat, but may prove to be sexual. Arakawa & Hayashi (1952) reported sexual dimorphism in Japanese *F. subintermedia*, the male having as a rule, a lower spire, stronger shoulder angle and less sinuous inner lip than the female; also each lateral corner of the front of the foot (the propodium) bears a hook-shaped projection in the male only.

REFERENCES

- ARAKAWA, K.Y. & HAYASHI, S., 1952. *Venus* 31 (2): 63-71.
 BARNARD, K.H., 1960 *J. Conch.* 24: 438-442.
 BEU, A.G., 1969. *N.Z. J. mar. f.w. Res.* 3: 445-452.
 DODGE, H., 1955 *Bull. Am. Mus. nat. Hist.* 107: 5-157.

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EXCHANGES WANTED

Mr. T. Tyler, P.O. Box 7014, Agat, Gaum. Wishes to obtain a specimen(s) of *Conus eumitus*. Would any member able to assist please write, willing to exchange or purchase.

Mr. F. Maurice Maurel, Riviere Des Anguilles, Mauritius. Would like to contact South African collectors with the view to exchange. Can offer Mauritius shells as well as overseas specimens.

Mrs. B. Boorman, 14 Hartley Street, Rockhampton, Queensland 4700, Australia. Is interested in Volutes, Cowries, Marginellas and Olives and to a lesser degree Cones, Pectens and Murex. If any member would like to send a list of spares Mrs. Boorman will do the same.

Mr. B. Katekaru, 742, 20th Avenue, Honolulu, Hawaii 96816. Is interested in obtaining shells from South Africa. Interests are focused on Mitra, Murex and Marginella, but is willing to accept other families, especially if they are endemic to South Africa.

INTERTIDAL TALK

Professor J.H. Day, our President, is at the moment at the Australian Museum, Sydney, and will remain there for the next year on a visiting fellowship. In a letter received from him he asks that we convey his greetings to all his friends in the Society. The following is an extract from his letter which we thought might be of interest to members: "My primary duties being to work on the Polychaeta and on the ecology of Australian estuaries. However, as you may imagine I lost no time in having a look at the marine molluscs and making contact with Dr. Ponder who is in charge of the mollusc collection in the Museum. I first went to Long Reef on the open coast near Sydney, where much of the collecting is done by local marine biologists. Sad to say the shell fauna was rather disappointing - it is nothing like as rich as Kalk Bay. None the less most of the shells one would expect are there - limpets, Littorinas, Neritas, Thaids, Cymatids, Turbos, Gibbulas, Mytilids and so on. But when you consult a local worker you do not recognise any of the generic names they use. I checked with Dr. Ponder and he is revising the nomenclature and with this (much still unpublished) the common shells on rocky shores are at least identifiable to genus by a South African. There are a number of tropical genera as well as Australian endemics so the Sydney fauna would correspond to an East London one in South Africa. A little while ago I attended an interesting talk by Alan Kohn of Washington University who, as you know is the expert on *Conus*. He's checking the biology of all the species through the Pacific and has just been working on the Great Barrier Reef. In many localities there are a dozen or more species and the problem is how they all manage to live together without eliminating all the others. Apparently they are all very specific in their habitats; one likes surf another not, some live on sandy rocks others in shady places but surprisingly none live on living coral - 'Their feet are tender and the coral stings'. They all have different feeding habits too. Most of them feed on polychaetes although there is one famous one *Conus geographicus* which spears small fish with its poison darts. All of them swallow their food whole for they have no normal radula teeth, only poison darts. Some feed on Terebellid worms, some on a species of Nereis, some on fan worms and one on Ptychodera. All of them are nocturnal and an expert like Dr. Kohn can look at a particular habitat and make a good guess as to what species of *Conus* will be found there".

Mr. Gordon Verhoef has extended an invitation to any members in and around Cape Town who may be interested in diving for shells to contact him at Cape Town telephone no. 2-7866 to arrange for an outing on either 19th or 26th July. Please telephone between 7 and 7.30 in the evenings only. Gordon will show those interested the how and where of diving for shells.

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At a recent meeting in Cape Town, Mr. Hawes asked whether the Society placed a limitation on the shells collected by members. In replying Mrs. Giles, our Vice-President, stated that the Society did not control the collecting of shells by members but remarked that members were expected to practice conservation and not to take more live shells than their requirements. It was also stated that a permit had to be obtained in order to collect live specimens in Natal and that this permit limited the number of specimens that could be taken on each outing.

NEW MEMBERS

Master P.J. Wynne, 249 Main Road, Walmer, Port Elizabeth
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AROUND THE GROUPS

CAPE TOWN: At a well attended meeting held on 24th April, Mrs. Giles spoke on the Endemic Cape Cones and Mr. Carlsson very briefly discussed the Endemic Cape Cowries. These talks were followed by slides of some of the shells discussed. After a break for tea two films, 'The Skeleton Coast' and 'The Starfish' were screened. Although the weather was cold and wet and no fewer than fifteen apologies were recorded we still had an attendance of 26 members at our meeting of 27th May. Dr. Branch from the University of Cape Town gave a very interesting and easy to follow talk on the evolution of the various classes of mollusca with special reference to the Cephalopods.

PORTELIZABETH: After a brief business session those present at our April meeting adjourned to the Department of Geology at the University, where, with the assistance of the staff, we were able to make cross cuts and polish shells. Members took turns at the wheel while those waiting their turn discussed the Coralliophidae. Mrs. Watters reported the finding of a specimen of *Magdalenitra gilesorum* at Boknes, and Mrs. Krige had a large box of Jeffreys Bay shells for distribution. Our Annual General Meeting was held in May and after the Chairman's and Secretary's Reports had been presented the new committee was elected as follows:— Mrs. Watters, Chairman; Mr. Graeve, Vice-Chairman and Secretary; Mrs. Ball, Mrs. Hoogenhout and Mr. McLachlan, members. Members were asked to try to obtain live specimens of *Nassarius kochianus*, which may prove to be two different species. Mr. Watters then gave a talk illustrated with slides on a trip to South West Africa, after which the Calyptraeidae were discussed.

EAST LONDON: Our April meeting opened with a discussion on the workings of our library, after which the time of meeting was discussed. It was decided to change to the evening of the third Wednesday of each month for a trial period of three months. Mrs. P. Palmer then gave an interesting talk, well illustrated with slides, on the Turbinidae.

PRETORIA: Ons vergadering op April 17 was die tweede Algemene Jaartlikse Vergadering. Die Voorzitter, Laurie Smith, lewer sy verslag oor die jaar se aktiwiteite en spreek sy waardering uit vir die medewerking van lede ontvang. 'n Finansiële staat wat aandui dat die Groep oor 'n krediet saldo van R17,85 beskik is deur die Pennigmeester ter tafel gelê. Nominasies vir Komiteede is gevra en 'n voorstel dat die huidige Komitee staande bly, is aanvaar. Dr. van Hoepen, Arie Jooste en Roland Zurich se ervarings met hul onlangse vakansies is vertel en was ook hoogs interessant.

We discussed the 'new Strandloper' at our May meeting and it was unanimously agreed that the Head Office be congratulated. Eddie Ralph discussed the Mitridae list and explained and demonstrated his index. Mr. Ralph's talk on the Nassaridae, together with slides, proved to be most interesting and he has agreed to talk at our August meeting.

JOHANNESBURG: Speaking at our March meeting Dr. van Hoepen described the new 'post war' Mozambique — friendly Prelimos, food not plentiful but adequate, a scarcity of fish but an abundance of shells. Doc is convinced that the variety of shells at Porto Amelia and neighbouring islands is equal to any shelling area in the world. Doc rounded off his trip by visiting Cabora Bassa and showed his slides. Barbro Hooper, speaking at our April meeting, told us of the new Kenyan laws relating to mollusca — shell collecting has been banned entirely. She confined herself to the simple pleasures of big-game fishing and other innocent pursuits. She brought back three live specimens of Nudibranchs. The authorities not yet having realised that these are classed as mollusca. Jack Polack and Allan Jenner gave graphic accounts of the good, bad and indifferent sides to Mauritius. Good weather, sparkling seas, an agreeable cottage and rent, warm hospitality, high food prices, three burglaries in ten days, too many sea urchins and too few shells. Bobby Adam presented a selection of slides of a live *Cymatium parthenopeum*. On 1st January, 1975, when the shell was found, it measured 22mm in length and by the 17th April it had grown to 71,5mm. Photographs included the mantle clearly in the process of putting out new shell and periostracum, and the shell at different stages of growth. She also showed several species of Cypraea, all with their mantles fully extended, in order to demonstrate the differences in papillae.

CHANGE OF ADDRESS

Mr. S.B.D. Nevill, 71 Agulhas, Topham Road, Doonside 4125, Natal
 Mrs. S.M.E. Lubbe, 71 Agulhas, Topham Road, Doonside 4125, Natal
 Mrs. P. Beuster, P.O. Box 4212, Durban 4000, Natal
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