afgiftekantoor: Aarschot 1

ISSNN 0778-4767

GLORIA MARIS

tijdschrift uitgegeven door de

BELGISCHE VERENIGING VOOR CONCHYLIOLOGIE

[VOL. 50(1-2) May 2011]

A conchological climax
photo: A. Delsaerdt

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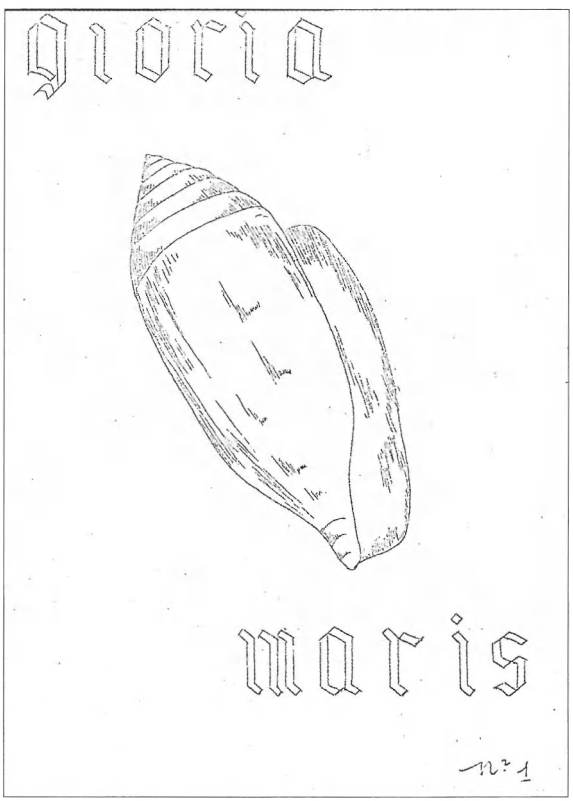


Voorwoord

Voor u ligt het eerste nummer van de 50ste jaargang van Gloria Maris. Het allereerste, toen nog gestencilde nummer, verscheen in november 1961. Het bevatte slechts één pagina, van de hand van de eerste secretaris, Lode Willems, met het verslag over de tweede vergadering van onze vereniging die kort daarvoor, op 8 oktober 1961, was opgericht. Hierin schreef hij: "Het aantal liefhebbers is in gestage groei. Dit is aanmoedigend en bewijst tevens dat onze vereniging een dringende noodzaak was. Er was een zeer hartelijke sfeer en vruchtbare samenwerking onder de aanwezigen. ... Daarna ging al onze aandacht naar de schelpen van de heer Vanderhoeven [nvdr. de eerste voorzitter], die enkele interessante gegevens verstrekte over de voortplanting bij sommige soorten. Na wat ruilen en bestellen ging iedereen huiswaarts". Daarna volgde een oproep voor de volgende vergadering, en een oproep om lid te worden. We citeren: "Hoe meer zielen hoe meer vreugd, luidt het spreekwoord. Laten we deze groepering opbouwen tot een machtig orgaan, dat kan wedijveren met de beste buitenlandse clubs. Ik weet het, schelpenverzamelaars aanziet men als speciale mensen. Duivenmelkers, bierpotten- en knopenverzamelaars of wat ook, ja, dat verstaat men, maar mensen die zich vermaken met schelpjes op te rapen op het strand! Neen, dat gaat er bij velen niet in. Geloof me vrij, de natuurkennis en studie, welke tak ook, is werkelijk de ontspanning in ons jachtige leven, het is geen gek verzamelen, zoals helaas te vaak gebeurt, maar wel een beschaafde vorm van intellectueel verzet, van esthetische ontwikkeling. Ik denk dat velen onder ons er best aan deden weer te keren naar die natuurkennis, om in zichzelf de ware mens te ontdekken die in deze tijd ... afgestompt voortijlt van de wieg naar het graf"
En vandaag, 50 jaar later, is dit betoog nog steeds even actueel ..., waar of niet?

De eerste 24 jaargangen van Gloria Maris waren alle in gestencilde vorm. Al die nummers zijn trouwens nog steeds verkrijgbaar, sommige in fotokopievorm. De voorpagina van het allereerste nummer -met de hand vervaardigd- wordt hierbij afgebeeld; een historisch document! Het is trouwens opvallend hoeveel boeiende en wetenschappelijke informatie reeds in de eerste jaargangen aanwezig is, wat wijst op de gedrevenheid en de diepgang die ook in de beginjaren al bij veel leden aanwezig was.
Onder impuls van de vroegere voorzitter André Delsaerdt verscheen Gloria Maris vanaf de 25ste jaargang, in 1986, in gedrukte vorm en in het formaat dat we vandaag nog steeds kennen. Tegelijk kreeg Gloria Maris een nog duidelijker wetenschappelijke inslag. In de

jaren die volgden werden geleidelijk ook auteurs van buiten de B.V.C. aangetrokken en werd het als conchyliologisch tijdschrift op de internationale kaart gezet.
Vanaf het jaar 2000 prijkt er telkens een andere kleurenfoto op de voorpagina en kort daarna werd ook een professionele vormgever ingeschakeld waardoor de kwaliteit nog verder verbeterd is. Sinds 2002 zorgt David Monsecour als redacteur dat de status van ons tijdschrift gewaarborgd blijft en hij heeft er voor gezorgd dat de groep auteurs die in Gloria Maris publiceren een evenwichtige mengeling van leden en buitenlandse auteurs is geworden. Als 50-jarige is ons tijdschrift nu nog duidelijker internationaal zichtbaar als conchyliologisch tijdschrift en heeft het zeker een nog een mooie toekomst.
In deze jaargang willen we, zonder afbreuk te doen aan het wetenschappelijk karakter van Gloria Maris, enkele artikels brengen die een brede groep van lezers kunnen interesseren. Dit eerste nummer bijvoorbeeld bevat een becommentarieerd overzicht van de mollusken die op de Maldiven voorkomen.

Nathal Severijns
voorzitter

Preface

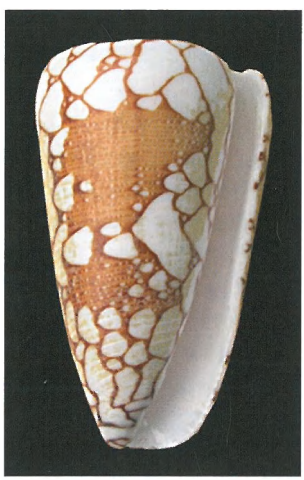
This is the first issue of the 50th volume of Gloria Maris. It started in November 1961 with a hand-made issue containing only two pages one of which was the cover page that is copied here; a truly historical document for our society. It was only in 1986, at the occasion of the 25th volume an under the impulse of the previous president André Delsaerdt, that Gloria Maris appeared in printed form for the first time. At the same time the scientific level of the journal also increased and the number of external authors started to grow. Over the years the quality of the journal, both as to appearance and contents, have been gradually improving. From the year 2000 on, a different colour picture rather than the drawing of the *Conus gloriamaris*, symbol of our society, appears on the cover page. Soon after the lay-out was given to a professional person and as of the year 2002 the editorial work is in the good hands of David Monsecour. The ratio of external authors to BVC authors has shifted to about one to one over the last ten years. At its 50th birthday Gloria Maris is a well established scientific journal with for sure a bright future and many exciting volumes still to come. Cheers to Gloria Maris!

Nathal Severijns
president

Gloria Maris	50 (1-2)	1-51	Antwerpen, Mei 2011

MARINE MOLLUSCA OF THE MALDIVES

Annotated List of Species collected during the International Scientific Maldives Expedition 2003



dedicated to the gentle people of the Maldives

André DELSAERDT
honorary president of the
Belgian Society for Conchology
andre.delsaerdt@telenet.be

Acknowledgment.

Melchior Treub (1851-1910), botanist (Univ. Leiden) and director (1880-1909) of the botanical garden "Buitenzorg" (research centre in Java). In 1890 he founded the society for the promotion of natural scientific research in the Dutch colonies, later known as the "Treub Society" in Amsterdam. Until world war II several expeditions were sponsored, of which the "Siboga Expedition" (1899-1900) is the most famous for malacology.
The Int. Sc. Maldives Exp. renewed the interest in a large-scale project. The support by the Treub Society made the expedition possible. Working together in a team with such different interests was a special experience.
The meeting with the local Maldivian people, in their own culture and their own Islamic way of life, was fascinating.
And last but not least I gratefully mention W. Backhuys who asked me to participate in the expedition. We do not only have our age and our passion for malacology in common, but also other interests which made him a superb travelling companion.

Een woord van dank.

Melchior Treub (1851-1910) was plantkundige (Univ. Leiden) en bestuurde (1880-1909) de botanische tuin "Buitenzorg" (een onderzoekscentrum op Java). In 1890 stichtte hij in Amsterdam de "Maatschappij ter Bevordering van het Natuurkundig Onderzoek der Nederlandsche Koloniën", achteraf "Treub Maatschappij" genoemd.
Tot de tweede wereldoorlog sponsorde deze maatschappij meerdere expedities, waarvan de "Siboga Expeditie" (1899-1900) ons het bekendste in de oren klinkt (Schepman identificeerde het malacologisch materiaal).
De Int. Sc. Maldives Exp. was opnieuw een gelegenheid voor de Treub traditie om een breedschalig onderzoek te sponsoren. Zonder de ondersteuning door de Treub Maatschappij was de expeditie niet mogelijk geweest.
De samenwerking in een team met zulke uiteenlopende disciplines was een belevenis op zich, maar nog boeiender was het mogen ontmoeten van de plaatselijke bevolking op de Malediven, met hun eigen cultuur en in hun eigen islamitische manier van leven.
Tenslotte wil ik vooral W. Backhuys bedanken die me uitnodigde om aan de expeditie deel te nemen. We hebben niet alleen dezelfde leeftijd en dezelfde passie voor malacologie; er is nog zoveel meer wat hem een bovenstebeste reisgezel maakt.

A. Delsaerdt

Introduction.

The first scientific expedition on the Maldives' fauna and geography was organised by J. Stanley Gardiner. Between 23 October 1899 and 25 April 1900 he explored 13 atolls. His collecting activities resulted in 381 species of mollusca, identified by Edgar Albert Smith (1906). Half a century later the Yale Seychelles Expedition (1957), led by A.J. Kohn (Univ. Washington), crossed the Maldives for marine research, collecting mollusca in 4 atolls, followed by the Indian Ocean Expedition (1964) under the leadership of R. Robertson (Ac.Nat.Sc. Philadelphia) with research in 8 atolls.
One century after Gardiner's expedition, W. Backhuys thought it meaningful enough to do it again. Together with A. Voogt (Univ. leiden) and in cooperation with the Maldivian Abdullah Saeed (Univ. Melbourne) the "International Scientific Maldives Expedition 2003" was organised. The committee of the Treub Society willingly supported a large-scale project of multidisciplinary research.
Duration of the expedition: from 5 January to 3 February 2003.
The participants: Abdullah Saeed (Modernisation of Islam in the Maldives) — Alex de Voogt (Material culture and DNA-research) — Luc Reurich (Ethnomusicology) — Willem Backhuys (Malacology: land and fresh water mollusca) — André Delsaerdt (Malacology: marine mollusca).
Mollusca were collected by W. Backhuys and the present author in 6 atolls; their malacological research was new in 3 atolls: Foammulah Atoll (in the South), North Nilandhoo Atoll (centre), and Ihavandhippolhu Atoll (most northern atoll). Marine mollusca were collected in the intertidal zone at low tide, by snorkelling, collecting on reclaimed land, and by a grab down to -45 metres.
In comparison with Gardiner's expedition the duration of the Int. Sc. Maldives Exp. 2003 was limited, but of course the actual travel facilities were much easier. While Gardiner got blocked by heavy sea, strong currents, head or dead wind, and malaria, each atoll can now be reached in half a day.
Although one would expect an easy catch of mollusca in the Maldives, this was in fact not the case. This was also the conclusion in the report (2000) by Brian Bailey (New Zealand) and Carl and Denise Ehrlich (New York Shell Club) to the Marine Research Centre in Male. Although they were experienced divers with a good knowledge on malacology, collecting within 3 atolls, they reported a low number of species. Their sites for diving were within the tourist zone, a possible explanation? With the permission of the President of the Maldives, the Int. Sc. Maldives Exp. was organised in touch with the local people and avoided the tourist zone, but the conclusion by Bailey & Ehrlich has to be subscribed. Most species in our collection are represented by a very low number of specimens. The low number of bivalves in this report, in comparison with E.A. Smith's list of species, will be remarked by the reader. But Gardiner did not use less than seven different dredges and three trawls. On the other hand our samples taken by grab contained many species of microshells, but identification is very difficult

and therefore not yet reported here. The dramatic evolution of coral reefs (a worldwide problem) should be mentioned, too.
The reader willing to study the malacofauna of the Maldives is supposed to consult Gardiner's two volumes (1903, 1906). The identifications by Smith can cause some confusion as many specific names are now considered synonyms; therefore corrections are given here in the remarks. The list of species as the result of the Int. Sc. Maldives Exp. may be evaluated only as very incomplete, because of the methods of sampling and the limited number of visited localities. A real survey needs many years of fieldwork and its coordination by the Marine Research Centre in Male may be suggested.

Inleiding

J. Stanley Gardiner leidde de eerste wetenschappelijke expeditie in de Malediven. Tussen 23.10.1899 en 25.4.1900 bestudeerde hij de fauna en de aardrijkskunde in 13 atollen. Hij verzamelde toen 381 soorten mariene mollusken die door E.A. Smith (1906) werden geïdentificeerd.
Een eeuw later sponsorde de TREUB maatschappij de International Scientific Maldives Expedition 2003, georganiseerd door W. Backhuys en A. Voogt in samenwerking met de Malediviër A. Saeed. Er werd onderzoek gedaan vanuit verschillende disciplines. Wat malacologie betreft, inventariseerde W. Backhuys de land- en zoetwater mollusken, A. Delsaerdt de mariene mollusken. Het verzamelen van mollusken gebeurde in 6 atollen, waarvan 3 atollen nooit eerder door expedities waren aangedaan. Vergeleken met Gardiners expeditie was de Int. Sc. Maledives Exp. in tijd erg beperkt (slechts vier weken), maar de reismogelijkheden zijn nu natuurlijk wel een stuk gemakkelijker en sneller dan in de tijd van Gardiner.
In Gloria Maris [45(1-2): 46-59] werden de resultaten gepubliceerd voor wat betreft de **Conidae**. In dit rapport werd al vermeld dat mollusken verzamelen op de Malediven eigenlijk tegenviel en dat was ook de mening van doorgewinterde duikers als B. Bailey en de Ehrlichs. Zij bleven wel in de toeristische zone, wat hun magere resultaten zou kunnen verklaren. De Int. Sc. Maldives Exp., dankzij de bijzondere toelating van de president, verliep echter in nauw contact met de plaatselijke bevolking en vermeed genoemde zone, maar kwam tot dezelfde conclusie. Vooral ons aantal soorten bivalven was teleurstellend, zeker in vergelijking met de lijst van Gardiner, maar die beschikte over zeven verschillende dreggen en drie sleepnetten. Wij hadden wel een manueel bediende grijper die tot op een diepte van ruim 40 meter bodemzand kon scheppen: dat leverde nogal wat micromollusken op, maar ze determineren is bijzonder moeilijk en tijdrovend en ze worden hier buiten beschouwing gelaten.
Wie zich wil verdiepen in de malacofauna van de Malediven, verwijzen we naar de twee volumes over Gardiners expeditie (1903, 1906). Verwarrend: vele soortnamen door E.A. Smith gebruikt, zijn tegenwoordig synoniemen (zie hier: remarks).

The Republic of the Maldives is situated SW off India, between the Lakshadweep (or Laccadives) and the Chagos archipelao; between 7° 6' N and 0° 42' S — 72° 32' E and 73° 46' E. Of the 1190 coral islands and islets only nine are larger than two square kilometres and only 200 islands are inhabited (90 are resorts for tourism). All these islands and islets, scarcely above sea level, belong to a double chain of 26 atolls.

During his expedition Gardiner visited 13 atolls (from N to S): S. Miladhunmadulu, Faadhippolhu, Maalhosmadulu, Goidu [small atoll S of S. Maalhosmadulu], N. Male, S. Male; Felidhoo, Mulaku, S. Nilandhoo, Kohlumadulu, Hadhdhunmathee, Huvadhoo and Addoo.

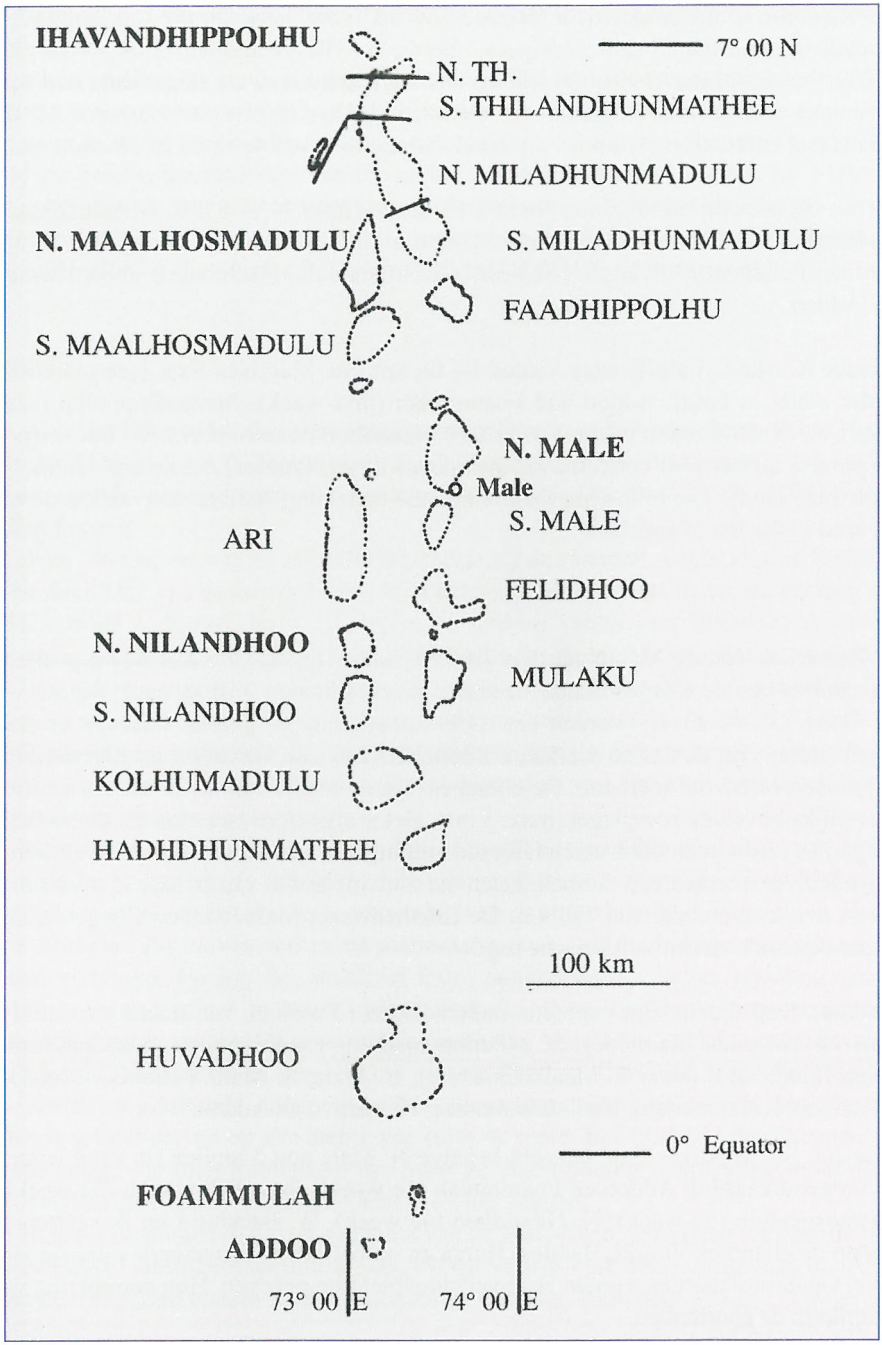
Besides N. Male, 5 atolls were visited by the Int. Sc. Maldives Exp. [see map: names of the atolls in bold]: Addoo and Foammulah (first week), Ihavandhippolhu (second week), N. Maalhosmadulu (third week), N. Nilandhoo (fourth week). W. Backhuys and the present author also collected on the islets Viligili, Bandos, Huraa and Huhlu Male [reclaimed land]. The following maps show the collecting stations: the station-numbers are used in the list of species.

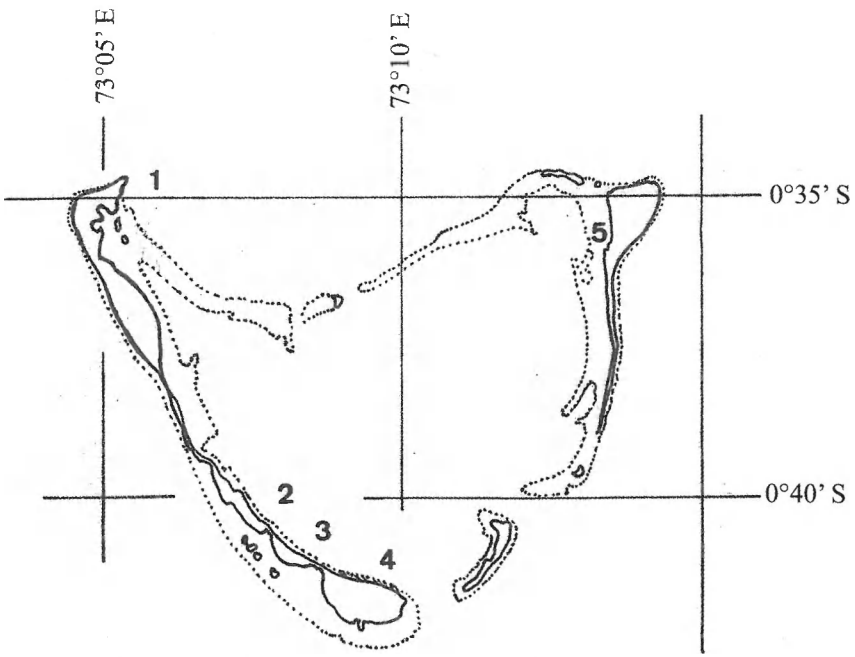
***

De Republiek van de Malediven ligt ZW van India, tussen de Lakshadweep eilanden (Laccadives) en de Chagos eilanden; tussen de coördinaten 7° 6' N en 0° 42' Z — 72° 32' O en 73° 46' O. Er worden een 1190 koraaleilandjes geteld, waarvan er slechts negen groter zijn dan twee vierkante kilometer. 200 zijn bewoond en hiervan zijn er 90 gereserveerd voor toerisme. De eilandjes zijn de topjes van de 26 atollen en komen nauwelijks boven de zeespiegel (max. 3 m!). Het is algemeen geweten dat de Malediven dreigen te verdwijnen door een gevreesde stijging van het oceaanwater. De atollen van de Malediven vormen een dubbele keten die zich uitspreidt van N naar Z over een 800 km en over een breedte van 130 km. De Lakshadweep, Malediven en Chagos eilanden liggen eigenlijk op een vulkanische rug.

Gardiner deed tijdens zijn expeditie onderzoek in 13 atollen, van noord naar zuid [zie kaart op volgende bladzijde]: S. Miladhunmadulu, Faadhippollhu, Maalhos-madulu, Goidu [kleine atol onder S. Maalhosmadulu], N. Male, S. Male, Felidhoo, Mulaku, S. Nilandhoo, Kolhumadulu, Hadhdhunmathee, Huvadhoo en Addoo.

Onze Int. Sc. Maldives Exp. bezocht behalve N. Male nog 5 atollen [in vette letters op het volgend kaartje]: Addoo en Foammulah (1e week), Ihavandhippolhu (2e week), N. Maalhosmadulu (3e week), N. Nilandhoo (4e week). W. Backhuys en ik verzamelden nog op de eilandjes Viligili, Bandos, Huraa en op het nieuw aangelegde eilandje Huhlu Male. Op de atolkaartjes worden onze verzamelplaatsen gegeven. Hun nummering wordt gebruikt in de soortenlijst.


IHAVANDHIPPOLHU
7° 00 N
N. TH.
S. THILANDHUNMATHEE
N. MILADHUNMADULU
N. MAALHOSMADULU
S. MILADHUNMADULU
FAADHIPPOLHU
S. MAALHOSMADULU
N. MALE
Male
S. MALE
ARI
FELIDHOO
N. NILANDHOO
MULAKU
S. NILANDHOO
KOLHUMADULU
HADHDHUNMATHEE
100 km
HUVADHOO
0° Equator
FOAMMULAH
ADDOO
73° 00 E
74° 00 E



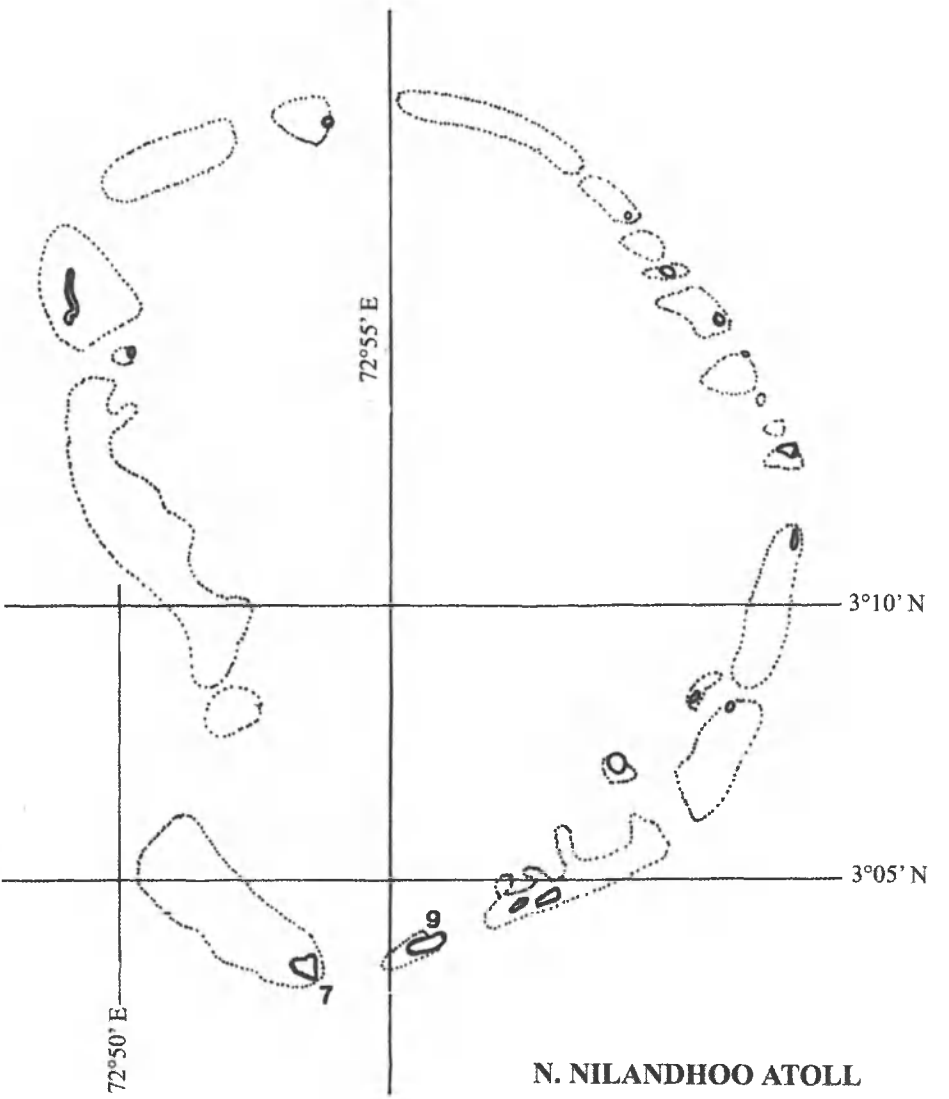
ADDOO ATOLL

1: Hithadhoo
2: Maradhoo
3: Feydhoo
4: Gan
5: Hulhumeedhoo

6. FOAMMULAH ATOLL
(NE off Addoo atoll)

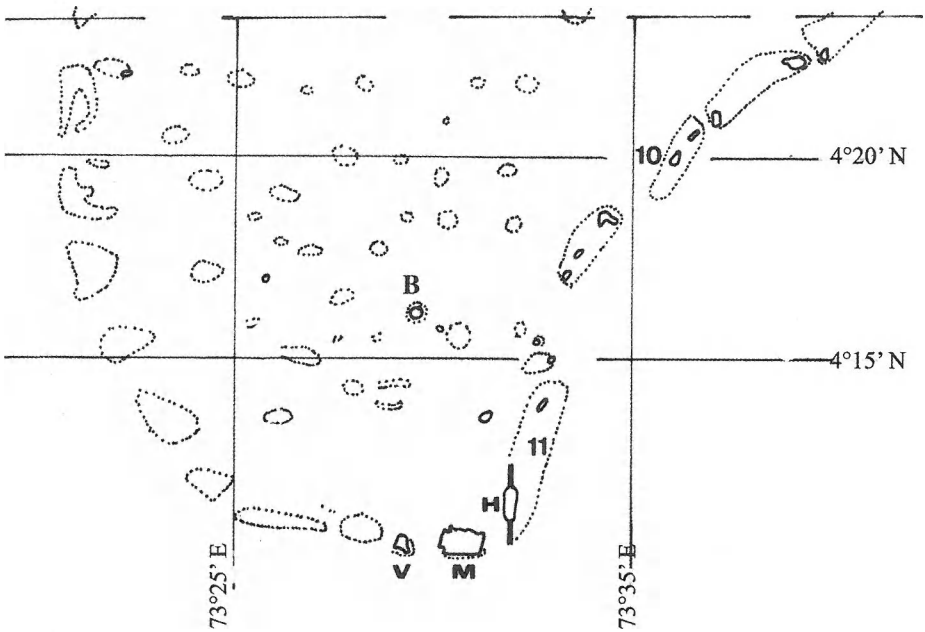
Island

Reef



N. NILANDHOO ATOLL

7: Nilandhoo
9: Dharaboodhoo

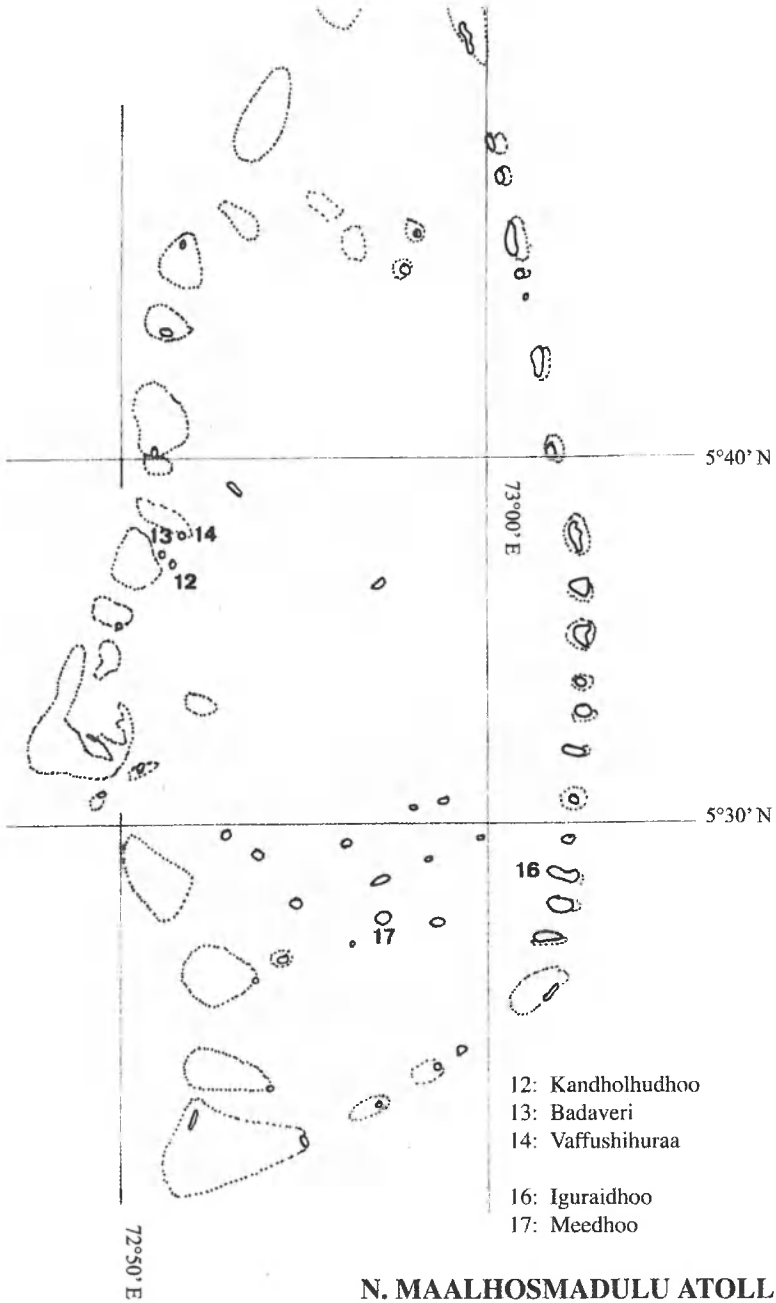


N. MALE ATOLL

10: Huraa
11: Hulhumale

B: Bandos *
H: Hulhule (airport)
M: Male
V: Viligili *

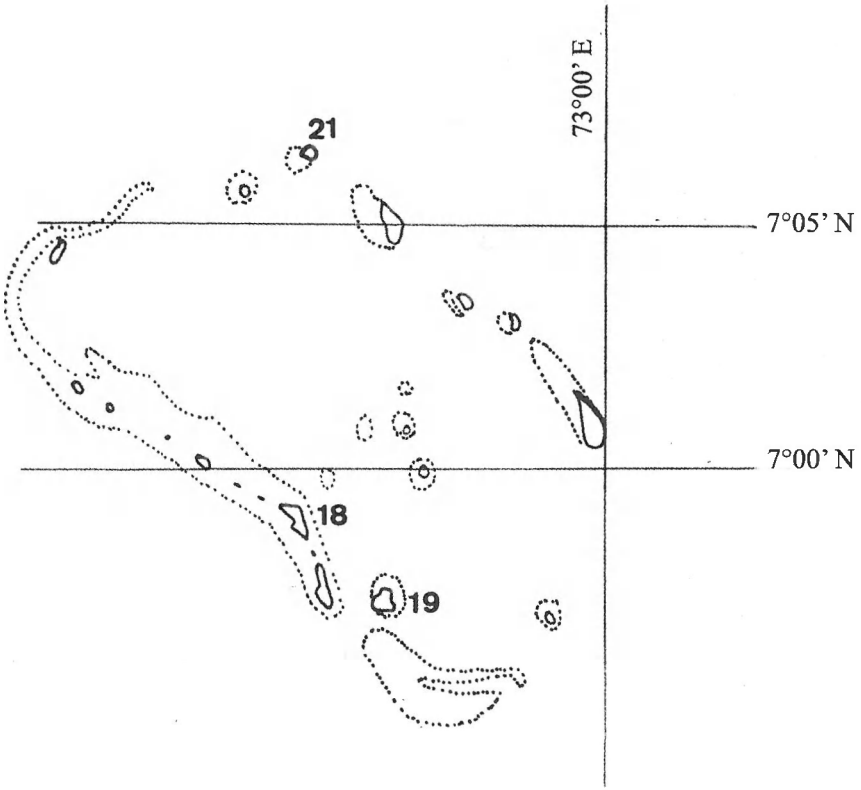
* visited by W. Backhuys & A. Delsaerdt, but only land snails were collected



12: Kandholhudhoo
13: Badaveri
14: Vaffushihuraa

16: Iguraidhoo
17: Meedhoo

N. MAALHOSMADULU ATOLL



IHAVANDHIPPOLHU ATOLL

18: Huvarafushi
19: Ihavandhoo

21: Thuraakunu

List of Species
collected during the International Scientific Maldives Expedition 2003

This publication will be a contribution to the knowledge of the mollusca of the Maldives. It intends to be helpful for a comparison with the list of species collected by Gardiner and identified by E.A. Smith (1906). Therefore preference is given to the traditional classification [Class, Subclass, Order, Superfamily (-oidea), Family (-idae), Subfamily (-inae)] as assembled by K.C. Vaught (1989).
It must be remarked that Smith reversely listed the families of the Gastropoda: species 12. *Conus arenatus* — species 272. *Haliotis ovina*!

If a species bears an asterisk, it means that it was not reported by E.A. Smith, but we must admit that many species identified by the latter could not be collected during our expedition.
Each species is followed by at least one figure: it refers to the locality where the species was collected [these localities are given on the maps]. For example: "*Haliotis clathrata* Reeve, 1846 * 7 17 20" means: not mentioned by E.A. Smith; collected in Nilandhoo (North Nilandhoo Atoll), Meedhoo (North Maalhosmadulu Atoll) and by grab off Thuraakunu (Ihvandhippolhu Atoll).

Bij de lijst van soorten.

Deze publicatie wil vooral bijdragen tot de kennis van de mollusken-fauna van de Malediven. Wie meer wil, krijgt hier hulp om te vergelijken met de lijst van soorten die Gardiner ruim een eeuw geleden verzamelde en die door E.A. Smith (1906) werden gedetermineerd. Daarom werd de voorkeur gegeven aan de traditionele klassering [Klasse, Onderklasse, Orde, Superfamilie (-oidea), Familie (-idae), Onderfamilie (-inae)] zoals die door K.C. Vaught (1989) uitstekend werd opgemaakt. In Smiths lijst staan de families van de Gastropoda eigenaardig genoeg in omgekeerde volgorde: species 12. *Conus arenatus* — species 272. *Haliotis ovina* (om twee algemeen gekende soorten te noemen).
Indien een soort in onze lijst een sterretje draagt, betekent het dat deze niet voorkomt in de soortenlijst van E.A. Smith, maar we moeten ook onmiddellijk bekennen dat vele soorten op zijn lijst door ons niet werden gevonden.
Iedere soort wordt gevolgd door minstens één cijfer: dit verwijst naar de vindplaats. Bijvoorbeeld "*Haliotis clathrata* Reeve, 1846 * 7 17 20" betekent: deze soort werd niet vermeld door Smith; door ons verzameld in Nilandhoo (Noord Nilandhoo Atol), Meedhoo (Noord Maalhosmadulu Atol) en met onze grijper bij Thuraakunu (Ivandhippolhu Atol).

GASTROPODA

PROSOBRANCHIA

I. ARCHAEOGASTROPODA

PLEUROTOMARIOIDEA

Fam. Haliotidae
Haliotis clathrata Reeve, 1846 * 7 17 20

TROCHOIDEA

Fam. Trochidae
Trochus maculatus Linné, 1758 11 13 16
Trochus radiatus Gmelin, 1791 11
Tectus pyramis (Born, 1778) * 13
Tectus fenestratus (Gmelin, 1791) * 12 16
Clanculus atropurpureus (Gould, 1849) 20
Clanculus punicus (Philippi, 1846) * 11

Fam. Stomatellidae
Stomatella auricula Lamarck,, 1816 17 20
Stomatella nigra Quoy & Gaimard, 1834 * 20
Stomatia phymotis Helbling, 1779 * 17

Fam. Turbinidae
Subfam. Turbininae
Turbo (*Turbo*) *petholatus* Linné, 1758 * 3 11 12 15
Turbo (*Marmarostoma*) *argyrostoma* (Linné, 1758) 3 7 10 11 12 15 18
Subfam. Astraeinae
Astralium rhodostoma (Lamarck, 1822) * 13 16

NERITOIDEA

Fam. Neritopsidae
Neritopsis radula (Linné, 1758) * 3 12 15

Fam. Neritidae
Subfam. Neritinae
Nerita (*Theliostyla*) *albicilla* Linné, 1758 3 5 14
Nerita (*Cymostyla*) *nigrita* Röding, 1798 3 14

Nerita (*Ritena*) *plicata* Linné, 1758 1 3 6 7 10 14 17
Nerita (*Linnerita*) *polita* Linné, 1758 3 5 7 12 14
Subfam. Smaragdiinae
Smaragdia rangiana (Récluz, 1842) * 18

II. MESOGASTROPODA

LITTORINOIDEA

Fam. Littorinidae
Subfam. Littorininae
Littorina scabra (Linné, 1758) 3 10
Littoraria glabrata (Philippi, 1846) 15

CERITHIOIDEA

Fam. Planaxidae
Planaxis ineptus Gould 1 6 7 10 17

Fam. Modulidae
Modulus tectum (Gmelin, 1791) 3 5 7 11 13 17

Fam. Cerithiidae
Subfam. Cerithiinae
Cerithium columna Sowerby, 1834 7 11
Cerithium echinatum (Lamarck, 1822) 3 5 7 11 13 17
Cerithium nodulosum (Bruguière, 1792) * 11 13 14
Cerithium punctatum (Bruguière, 1792) 7
Cerithium torulosum (Linné, 1767) * 3
Clypeomorus batillariaeformis Habe & Kosuge, 1966 * 3
Rhinoclavis articulata (Adams & Reeve, 1850) 1 3 7 11 17
Rhinoclavis aspera (Linné, 1758) 3 7 11
Rhinoclavis kochi Philippi, 1848 3
Rhinoclavis fasciat (Bruguière, 1792) 7 12 17 18

Fam. Potamididae
Subfam. Potamidinae
Terebralia palustris (Linné, 1767) 11

Fam. Vermetidae
Serpulorbis variabilis Hadfield & Kay, 1972 * 13

STROMBOIDEA

Fam. Strombidae

Strombus (*Conomurex*) *decorus decorus* Röding, 1798 * 11 16
Strombus (*Gibberulus*) *gibberulus* Linné, 1758 3 7 10 11 12 16 17 20
Strombus (*Lentigo*) *lentiginosus* Linné, 1758 9 10
Strombus (*Canarium*) *mutabilis* Swainson, 1821 3 7 11 12 16
Strombus (*Canarium*) *afrobellatus* Abbott, 1960 * 3 7 11 12
Lambis (*Harpago*) *chiragra chiragra* (Linné, 1758) 10 14 16
Lambis (*Lambis*) *crocat crocata* (Link, 1807) *
Lambis (*Lambis*) *lambis* (Linné, 1758) 3 18
Lambis (*Lambis*) *truncata truncata* Humphrey, 1786 * 10

HIPPONICOIDEA

Fam. Hipponicidae

Hipponix conicus (Schumacher, 1817) *
Hipponix species 7
Cheilea cicatricosa (Reeve, 1858) 11 17
Cheilea tectumsinense (Lamarck, 1822) * 14

Fam. Vanikoridae

Vanikoro cancellata (Lamarck, 1822)

3 11 17

CYPRAEOIDEA

Fam. Cypraeidae

Cypraea (*Erosaria*) *annulus* Linné, 1758 1 5 7 16 19 20
Cypraea (*Mauritia*) *arabica* Linné, 1758 17
Cypraea (*Lyncina*) *argus* Linné, 1758 12 16
Cypraea (*Palmadusta*) *asellus* Linné, 1758 7 11 12 19
Cypraea (*Pustularia*) *bistrinotata* Schilder & Schilder, 1937 * 12
Cypraea (*Erosaria*) *caputserpentis* Linné, 1758 1 9 12 16 17 18
Cypraea (*Lyncina*) *carneola carneola* Linné, 1758 6 11 12 16
Cypraea (*Erronea*) *caurica dracaena* Born, 1778 10 11
Cypraea (*Pustularia*) *cicercula* Linné, 1758 * 12

Cypraea (*Cribrarula*) *cribraria cribraria* Linné, 1758 11 12
Cypraea (*Mauritia*) *depressa* Gray, 1824 * 1 16
Cypraea (*Erosaria*) *erosa chlorizans* Melvill, 1891 5 10 11 16 17
Cypraea (*Erronea*) *felina* Gmelin, 1791 19
Cypraea (*Luria*) *gilvella* Lorenz, 2002 * 11
Cypraea (*Pustularia*) *globulus globulus* Linné, 1758 12 16 19
Cypraea (*Erosaria*) *helvola argella* Melvill, 1888 6 11 12 19
Cypraea (*Mauritia*) *histrio* Gmelin, 1791 * 3 10 11 12 16 17
Cypraea (*Luria*) *isabella* Linné, 1758 10 12 16 17 18
Cypraea (*Bistolida*) *kieneri kieneri* Hidalgo, 1906 * 11 12 19
Cypraea (*Lyncina*) *leviathan titan* Schilder & Schilder, 1962 * 10 12 16
Cypraea (*Lyncina*) *lynx* Linné, 1758 7 10 11 12 16 17 18
Cypraea (*Purpuradusta*) *microdon* Gray, 1828 * 12
Cypraea (*Erosaria*) *moneta* Linné, 1758 [2] 1 5 7 9 10 11 12 16 7 18 19 20
Cypraea (*Staphylaea*) *nucleus* Linné, 1758 12 19
Cypraea (*Erosaria*) *poraria* Linné, 1758 12 16
Cypraea (*Notadusta*) *punctata* Linné, 1771 * 18
Cypraea (*Mauritia*) *scurra indica* Gmelin, 1791 * 12
Cypraea (*Staphylaea*) *staphylaea staphylaea* Linné, 1758 11 12 16
Cypraea (*Bistolida*) *stolida rubiginosa* Gmelin, 1791 * 11 12 15 16
Cypraea (*Talparia*) *talpa* Linné, 1758 3 12 17
Cypraea (*Blasicrura*) *teres alveolus* Tapparone, 1882 * 12
Cypraea (*Cypraea*) *tigris* Linné, 1758 4 6 9 12 16

Fam. Ovulidae
Procalpurnus lacteus (Lamarck, 1810) * 7

Fam. Triviidae
Subfam. Triviinae
Trivia pellucidula (Reeve, 1846) 20
Trivia oryza (Lamarck, 1811) * 7 9 17

NATICOIDEA

Fam. Naticidae
Subfam. Polinicinae
Polinices (*Mamilla*) *melanostoma* (Gmelin, 1791) 11 16 17
Polinices (*Polinices*) *mammilla* (Linné, 1758) 7 10 11 12 13 16

TONNOIDEA

Fam. Tonnidae

Tonna persica (Linné, 1758) *	3 12
Malea pomum (Linné, 1758)	3 5 7 10 11 12 16

Fam. Cassidae

Subfam. Cassinae

Cassis cornuta (Linné, 1758)	12
Cypraecassis rufa (Linné, 1758)	16

Subfam. Phaliinae

Casmaria erinaceus erinaceus (Linné, 1758) *	10 12 15 17
Casmaria ponderosa ponderosa (Gmelin, 1791) *	7

Fam. Ranellidae

Subfam. Ranellinae

Gyrineum (*Gyrineum*) *gyrinum* (Linné, 1758) *	7 11 13

Subfam. Cymatiinae

Cymatium (*Gutturnium*) *muricinum* (Röding, 1798)	3 5 7 11 13 14 15
Cymatium (Monoplex) aquatile (Reeve, 1844) *	3 11 12
Cymatium (*Monoplex*) *mundum* (Gould, 1849) *	5 7 11 16
Cymatium (*Monoplex*) *nicobaricum* (Röding, 1798)	3 11 17
Cymatium (*Monoplex*) *pileare* (Linné, 1758) *	12
Cymatium (*Ranularia*) *pyrum* (Linné, 1758)	12
Cymatium (*Septa*) *closeli* Beu, 1987 *	11
Cymatium (*Septa*) *flaveolum* (Röding, 1798) *	11
Cymatium (*Septa*) *hepaticum* (Röding, 1798) *	7 11 12
Cymatium (*Septa*) *mixtum* Arthur & Garcia-Talavera, 1990 *	11 16
Cymatium (*Septa*) *rubeculum* (Linné, 1758) *	11
Cymatium (*Turritriton*) *labiosum* (Wood, 1828) *	11

Fam. Personidae

Distorsio anus (Linné, 1758)	10 12

Fam. Bursidae

Bursa (*Bursa*) *bufonia* (Gmelin, 1791)	14
Bursa (*Colubrellina*) *condita* (Gmelin, 1791) *	12
Bursa (*Colubrellina*) *granularis granularis* (Röding, 1798)	10 11 12 13 17
Tutufa (*Tutufella*) *rubeta* (Linné, 1758) *	12

EPITONIOIDEA

Fam Epitoniidae

Epitonium replicatum (Sowerby, 1844)	20

III. NEOGASTROPODA

MURICOIDEA

Fam. Muricidae
Subfam. Muricinae

Chicoreus (*Triplex*) *brunneus* (Linné, 1758)	11
Chicoreus (*Triplex*) *palmarosae* Lamarck, 1822 *	16
Chicoreus (*Triplex*) *torrefactus* (Sowerby, 1811)	11
Chicoreus (*Naquetia*) *cumingii* (A.Adams, 1853) *	
Chicoreus (*Naquetia*) *triqueter* (Born, 1778) *	16
Pterymarchia martinetana (Röding, 1798) *	11

Subfam. Ergalataxinae

Cronia biconica (Blainville, 1832)	11
Cronia margariticola (Broderip, 1833)	3 5 6 10 11
Muricodrupa funiculus (Wood, 1828) *	

Subfam. Thaidinae

Thais armigera (Link, 1807)	10
Thais aculeata (Desh. & Milne Edwards, 1844)	14
Thais tuberosa Röding, 1798	16
Drupa lobata (Blainville, 1832)	3 7 11 12
Drupa morum Röding, 1798	1 6 13 14 18
Drupa ricinus	
(a: forma *albolabris* Blainville, 1832)	1 3 6 7 12 18
(b: forma *arachnoides* Reeve, 1845)	13 14 16
Drupa rubisidaeus Röding, 1798 *	5 7 9 11 12 13 14 17
Drupella cornus (Röding, 17 98)	3 5 10 11 12 17
Drupella rugosa (Blainville, 1778)	7 10 11 12 17
Morula biconica (Blainville, 1832)	11
Morula dumosa (Conrad, 1837) *	11 17
Morula granulata (Duclos, 1832)	1 5 6 14 16
Morula morus (Lamarck, 1822) *	3 6 14 18
Nassa francolina (Bruguière, 1789)	7 11 12 15 16

Fam. Coralliophilidae

Coralliophila neritoidea (Lamarck, 1816)	3 7 11 17
Coralliophila costularis (Lamarck, 1816) *	3 11 13
Coralliophila erosa (Röding, 1798) *	3 11 17
Coralliophilla squamosissima (Smith, 1876)	17
Quoyula madreporarum (Sowerby, 1832)	13 17

Fam. Buccinidae
Subfam. Pisaninae

Pisania ignea (Gmelin, 1791) *	7 11 12
Cantharus fumosus (Dillwyn, 1817) *	11 12
Cantharus undosus (Linné, 1758) *	11 12 15 17
Cantharus (*Pollia*) *fragaria* (Wood, 1828) *	11
Cantharus (*Pollia*) *pulchra* (Reeve, 1846) *	11
Engina bonasia von Martens, 1880	11
Engina mendicaria (Linné, 1758)	14
Engina phasinola (Duclos, 1840) *	11
Engina zea Melvill, 1893 *	10 11

Fam. Columbellidae

Columbella turturina Lamarck, 1822	3 7 10 11 12 17
Pardalina propinqua (Smith, 1901) *	12
Pyrene flava (Bruguière, 1789)	11 12
Mitrella sp.	17

Fam. Nassariidae

Nassarius (*Niotha*) *distortus* (A.Adams, 1852)	10 11 12 17
Nassarius (*Niotha*) *echinatus* (A.Adams, 1852)	8 11
Nassarius (*Plicarcularia*) *granifer* (Kiener, 1834)	3 5 7 10 11 12 17
Nassarius (*Zeuxis*) *castus* (Gould, 1850)	5 7 11 13 16 20
Nassarius (*Zeuxis*) *concinnus* (Powys, 1835) *	3
Hebra horrida (Dunker, 1847)	3 11 12 17

Fam. Fasciolariidae
Subfam. Fasciolariinae

Pleuroploca filamentosa (Röding, 1798) *	12 18

Subfam. Peristerniinae

Peristernia fastigium (Reeve, 1847)	16 17
Peristernia nassatula (Lamarck, 1822)	11 12 16 17
Latirus gibbulus (Gmelin, 1791) *	12
Latirus nodatus (Gmelin, 1791) *	11 18
Latirus turritus (Gmelin, 1791) *	11
Dolicholatirus acus (Adams & Reeve, 1850) *	11
Latirolagena smaragdula (Linné, 1758)	11 12 14 16 17

Subfam Colubrariinae

Colubraria muricata (Lightfoot, 1786) *	11 12
Colubraria nitidula (Lamarck, 1822) *	12

Fam. Harpidae
Harpa amouretta Röding, 1798 — 3 11 12 13 16 18

Fam. Turbinellidae
SubfamilyVasinae
Vasum ceramicum (Linné, 1758) * — 12 16
Vasum turbinellus (Linné, 1758) — 1 3 5 9 14 18

Fam. Olividae
Oliva ponderosa Duclos, 1840 — 11 12 16

Fam. Mitridae
Subfam. Mitrinae
Mitra (*Mitra*) *coffea* Schubert & Wagner, 1829 * — 11 12 16 18
Mitra (*Mitra*) *eremitarium* Röding, 1798 — 11
Mitra (*Mitra*) *imperialis* Röding, 1798 — 7 11 12 16
Mitra (*Mitra*) *mitra* Linné, 1758 — 3 7 10 11 12 17
Mitra (*Nebularia*) *aurantia aurantia* (Gmelin, 1791) * — 3 7 10 11 18
Mitra (*Nebularia*) *bernhardina* Röding, 1798 * — 7 11 12
Mitra (Nebularia) chrysostoma Broderip, 1836 * — 11 18
Mitra (Nebularia) coarctata Reeve, 1844 * — 3 11 12
Mitra (*Nebularia*) *contracta* Swainson, 1820 * — 3 10 11 12
Mitra (*Nebularia*) *coronata* Lamarck, 1811 * — 11 12
Mitra (*Nebularia*) *cucumerina* Lamarck, 1811 — 3 11 12 16
Mitra (*Nebularia*) *ferruginea* Lamarck, 1811 * — 3 11 12
Mitra (*Nebularia*) *fraga* Quoy & Gaimard, 1833 * — 11 12
Mitra (*Nebularia*) *fulvescens* Broderip, 1836 * — 3 11 12 16 18
Mitra (*Nebularia*) *rubritincta* Reeve, 1844 * — 3 11 12 16
Mitra (*Nebularia*) *tabanula* Reeve, 1844 * — 11
Mitra (*Nebularia*) *telescopium* Reeve, 1844 * — 11 12 18
Mitra (*Nebularia*) *vexillum* Reeve, 1844 * — 3 7 10 11 12
Mitra (*Strigatella*) *acuminata* Swainson, 1824
Mitra (*Strigatella*) *assimilis* Pease, 1868 * — 11
Mitra (*Strigatella*) *litterata* Lamarck, 1811 — 1 3 11
Mitra (*Strigatella*) *paupercula* Linné, 1758 * — 3 14 17
Mitra (*Strigatella*) *columbelliformis* Kiener, 1838 * — 3 11 12 16
Mitra (*Dibaphus*) *edentula* Swainson, 1823 * — 12
Subfam. Cylindromitrinae
Pterygia crenulata (Gmelin, 1791) * — 11 12
Pterygia nucea (Gmelin, 1791) * — 3

Subfam. Imbricariinae

Imbricaria bicolor (Swainson, 1820) *					11	12	22
Imbricaria conularis (Lamarck, 1811) *							3
Scabricola (*Swainsonia*) *fissurata* (Lamarck, 1811) *							12
Domiporta filaris (Linné, 1771)		3	7	10	11	12	
Domiporta granatina (Lamarck, 1811) *							11

Fam. Costellariidae

Vexillum (*Costellaria*) *coronatum* (Helbling, 1779) *						7	11
Vexillum (*Costellaria*) *costatum* (Gmelin, 1791) *							12
Vexillum (*Costellaria*) *exasperatum* (Gmelin, 1791)			7	10	11	12	
Vexillum (*Costellaria*) *leucozonias* (Deshayes, 1834) *							7
Vexillum (*Costellaria*) *sanguisugum* (Linné, 1758) *							11
Vexillum (*Costellaria*) *sculptile* (Reeve, 1845) ?							11
Vexillum (*Vexillum*) *melongena* (Lamarck, 1811 - ?) *							11
Vexillum (*Pusia*) *aureolatum* (Reeve, 1844) *							11
Vexillum (*Pusia*) *bizonale* (Dautzenberg & Bouge, 1922) *							11
Vexillum (*Pusia*) *crocatum* (Lamarck, 1811) *						11	12
Vexillum (*Pusia*) *pardalis* (Küster, 1841) *			3	11	12	15	
Vexillum (*Pusia*) *semicostatum* (Anton, 1839) *							11
Vexillum (*Pusia*) *unifasciale* (Lamarck, 1811) *							11

CONOIDEA

Fam. Conidae

Conus arenatus Hwass, 1792	3	7	10	11	12	16	18
Conus aulicus Linné, 1758 *							
Conus auricomus Hwass, 1792 *						3	12
Conus balteatus Sowerby I, 1833 *							12
Conus bandanus Hwass, 1792 *							
Conus betulinus Linné, 1758							3
Conus canonicus Hwass, 1792 *						12	16
Conus capitaneus Linné, 1758 *					11	12	16
Conus catus Hwass, 1792							11
Conus chaldaeus (Röding, 1798) *							3
Conus coffea Gmelin, 1791 *					11	12	16
Conus coronatus Gmelin, 1791					3	11	16
Conus distans Hwass, 1792						7	14
Conus ebraeus Linné, 1758	3	6	11	13	16	18	
Conus eburneus Hwass, 1792					4	10	11
Conus emaciatus Reeve, 1849 *							16
Conus episcopatus da Motta, 1982 *					12	16	18

Conus flavidus Lamarck, 1810				16	18
Conus generalis krabiensis da Motta, 1982					18
Conus glans Hwass, 1792			3	12	16
Conus leehmani da Motta & Röckel, 1979 *				10	11
Conus leopardus (Röding, 1798) *					11
Conus litoglyphus Hwass, 1792 *				12	16
Conus litteratus Linné, 1758 *					14
Conus lividus Hwass, 1792	3	11	15	16	18
Conus miles Linné, 1758					12
Conus miliaris miliaris Hwass, 1792 *				3	6
Conus mustelinus Hwass, 1792 *			11	16	18
Conus nussatella Linné, 1758		3	10	12	16
Conus parvatus parvatus Walls, 1979 *					12
Conus paulucciae Sowerby III, 1877 *					12
Conus pennaceus ganensis Delsaerdt, 1988					14
Conus pertusus Hwass, 1792 *					11
Conus quercinus Lightfoot in Solander, 1786					11
Conus rattus rattus Hwass, 1792 *		3	10	13	15
Conus retifer Menke, 1829 *				3	12
Conus striatellus Link, 1807 *				11	12
Conus tenuistriatus Sowerby II, 1858 *				12	15
Conus terebra Born, 1778 *					11
Conus tessulatus Born, 1778				10	11
Conus varius Linné, 1758 *				1	2
Conus vexillum vexillum Gmelin, 1791 *			11	12	13
Conus violaceus Gmelin, 1791			3	12	16
Conus virgo Linné, 1758*		11	13	16	18
Conus zonatus Hwass, 1792					16

Fam. Turridae

Clavus bilineatus (Reeve, 1845) *					3
Lophiotoma acuta (Perry, 1811)				7	11
Turridrupa bijubata (Reeve, 1843)			7	11	17
Turris spectabilis (Reeve, 1843) *					11
Xenuroturris cingulifera (Lamarck, 1822) *					11

Fam. Terebridae

Terebra affinis Gray, 1834					13	17
Terebra babylonia Lamarck, 1822			7	10	11	17
Terebra cingulifera Lamarck, 1822	3	7		11		12
Terebra crenulata (Linné, 1758)				11	12	16
Terebra dimidiata (Linné, 1758)					11	18
Terebra felina (Dillwyn, 1817) *					17	18
Terebra guttata (Röding, 1798)					10	11
Terebra maculata Linné, 1758	10	11	12	16	18	
Terebra subulata (Linné, 1758)			10	11	18	20
Hastula lanceolata (Linné, 1767)						1

HETEROBRANCHIA

ARCHITECTONICOIDEA

Fam. Architectonicidae

Psilaxis radiatus (Röding, 1798) *			3	7	10	

PYRAMIDELLOIDEA

Fam. Pyramidellidae

Pyramidella acus (Gmelin, 1791)						11
Pyramidella dolabrata (Linné, 1758)						
Pyramidella sulcata (A.Adams, 1854)						3
Otopleura auriscati (Holten, 1802)						
Otopleura nodicincta (A.Adams, 1855)						11

OPISTOBRANCHIA

PHILINOIDEA

Fam. Acteonidae

Pupa nitidula (Lamarck, 1816)						3
Pupa solidula (Linné, 1758)					10	11

Fam. Bullidae

Bulla ampulla (Linné, 1758)	3	7	10	11	12	19

Smith (1906) identified 276 species of **Gastropoda** all together. During the Int. Sc. Maldives Exp. 285 identified species were collected, of which 142 cannot be found in Smith's list of species. This makes a total of 418 Gastropod species collected during the two expeditions.
It is possible that identification of our microshells (not included here) will produce some more species listed by Smith: e.g. the family **Liotiidae** is surely represented.

BIVALVIA

PTERIOMORPHIA

ARCOIDEA

Fam. Arcidae
Subfam. Arcinae
Barbatia fusca (Bruguière, 1789) 3 12 15
Barbatia lacerata (Bruguière, 1789) 7
Subfam. Anadarinae
Anadara antiquata (Linné, 1758) 10
Anadara urypygmelana (Bory de St. Vincent, 1824) 11

MYTILOIDEA

Fam. Mytillidae
Septifer bilocularis (Linné, 1758) 12

PTERIOIDEA

Fam. Isognomonidae
Isognomon perna (Linné, 1767) 3 20

PINNOIDEA

Fam. Pinnidae
Atrina vexillum (Born, 1778) 9 18

LIMOIDEA

Fam. Limidae
Limatula sp.

OSTREOIDEA

Fam. Ostreidae
Saccostrea cucullata (Born, 1778) * 11

PLICATULOIDEA

Fam. Plicatulidae
Plicatula plicata (Linné, 1767) * 12

PECTINOIDEA

Fam. Pectinidae
Chlamys (*Chlamys*) cf. *lemniscata* (Reeve, 1853) 21
Chlamys (*Cryptopecten*) *bernardi* (Philippi, 1855) 20 22
Chlamys (*Scaeochlamys*) *irregularis* (Sowerby II, 1842) 20
Gloripallium pallium (Linné, 1758) * 11 18

Fam. Spondylidae
Spondylus imperialis Chenu, 1843
Spondylus nicobaricus Schreibers, 1793 7 10 11 16 18
Spondylus versicolor Schreibers, 1793 5

HETERODONTA

LUCINOIDEA

Fam. Lucinidae
Codakia punctata (Linné, 1758) 7 10 11
Ctena divergens (Philippi, 1850) 11

CARDITOIDEA

Fam. Carditidae
Cardita variegata Bruguière, 1792 7 11 16

CHAMOIDEA

Fam. Chamidae
Chama asperella Lamarck, 1819 13 20
Chama brassica Reeve, 1847 * 11
Chama pacifica Broderip, 1835 * 11
Chama plinthota Cox, 1927 5 7 11

CARDIOIDEA

Fam. Cardiidae
Subfam. Cardiinae
Acrosterigma luteomarginata luteomarginata (Voskuil & Onverwagt, 1991)* 11
Acrosterigma simplex (Spengler, 1799) * 7 13
Subfam. Fraginae
Fragum fragum (Linné, 1758) * 7 13

TRIDACNOIDEA

Fam. Tridacnidae
Tridacna maxima (Röding, 1798)
Tridacna squamosa Lamarck, 1819 * 2

MACTROIDEA

Fam. Mesodesmatidae
Atactodea glabrata (Gmelin, 1791) 10

TELLINOIDEA

Fam. Tellinidae
Quidnipagus palatum Iredale, 1929 * 7

Fam. Psammobiidae
Asaphis deflorata (Linné, 1758) 7
Asaphis violascens (Forsskal, 1775) * 3 14 17 18

VENEROIDEA

Fam. Veneridae
Subfam. Venerinae
Antigona (*Periglypta*) *clathrata* Deshaeyes, 1853 * 11
Subfam. Circinae
Gafrarium pectinatum (Linné, 1758) 3 7
Subfam. Chioninae
Timoclea arakana (G. & H. Nevill, 1871) *
Timoclea marica (Linné, 1758)

Smith identified 96 species of **Bivalvia**. Our expedition collected only 37 species, most of them on one or two localities; 13 species are not in Smith's list, which makes a total of 109 bivalves for the two expeditions.

REMARKS

Besides the expeditions mentioned in the introduction, some more (but limited) collections and reports have been made on the marine fauna of the Maldives. Mrs. P. Phillips e.g. collected some hundred species of molluscs (of which only 9 bivalves) in Male Atoll (1957) and in Addu Atoll (1959), identified by K.R. Smythe. Representative samples have been donated to the Bognor Regis Museum (Nat. Hist. Coll.), West Sussex. See report by Smyth & Phillips (1972).

GASTROPODA

Haliotidae.- Smith (1906: sp. 272) identified "*Haliotis ovina* Chemnitz" (= *H. ovina* Gmelin, 1791). This was also the only species collected by Mrs. P. Phillips (Smythe & Phillips, 1972: 293). Geiger (2000) reported two more species: *H. varia* Linné, 1758 and *H. clathrata* Reeve, 1846. The first by only one "doubtful" specimen in ANSP, collected in "Rasdu Atoll" (which is west of the North Male Atoll); *H. clathrata* by specimens kept in BMNH, ANSP and Coll. Faucci and collected in Addoo Atoll, Ari Atoll and Helengeli (=in the north of North Male Atoll).
After careful comparison all our collected specimens (juveniles) belong to *H. clathrata.* Identification based on an excellent photo of the 3 syntypes of *H. clathrata* in BMNH (from R. Pickery) and material in Coll.author.

Stomatellidae.- Rao & Rao [1991: 291 *Stomatella* (*Gena*) *varia* (A. Adams, 1850)] remarked that "perhaps the same species was reported under the name *S. auricula* by Smith [...] from Maldives". Comparison with material of *S. auricula* and *S. varia* in coll. author eleminates the latter as identification for our specimens. Wilson (1993: 74) synonymised *S. auricula* and "a dark colour form named *S. nigra* Quoy & Gaimard" with *S. impertusa* (Burrow, 1815). Yet, the well established name *S. auricula* is kept here and *S. nigra* seems to represent a separate species because of difference in the embryonic whorl.

Astraeinae.- No species of this subfamily was reported by Smith (1906). Two specimens from Lakshadweep were identified as *Astraea* (*Astralium*) *semicostata* (Kiener, 1839) by Rao & Rao (1991: 292) and "commonly found". The authors added: "It can be recognized by its conical shape and short nodules along the periphery of the shell, sculptured with oblique axial ribs on the whorls". After study of Kiener's type figures (as reproduced by Pilsbry, 1888: pl. 69) this identification is left.

Springsteen & Leobrera (1985: 43) described *Astralium rhodostoma* (Lamarck, 1822) as follows: "...sculptured with oblique axial ribs which terminate at the periphery as

a row (sometimes 2) of partially open spines". In our specimen the row of peripheral tubercles is splitting up into two rows of partially open spines on the last whorl. The minor characteristics given by these authors are corresponding too. Also matching the description given by Wilson (1993: 109) and the figured specimen (pl. 13, figs. 11a-b). *A. rhodostoma* is said to have an Indo-West Pacific distribution (Wilson) and may reach 50mm in height (Springsteen, & Leobrera).

Cerithiidae.- Identifications based on: Houbrick (1992), Bosch, et al (1995: 51-54), and Verbinnen & Dirkx (1997).

Smith (1906: 614) mentioned to have based his identifications of the species 213-222 on "Sowerby, *Conch. Icon.*". The *Conchologica Iconica* is the famous work by Reeve, who published thirteen volumes. After Reeve's death G.B. Sowerby-II edited the last five volumes , which explains Smith's reference.
Two specific names in Smith's identifications became synonyms:
—(sp. 219) "*Cerithium lacteum* Kiener" [=Kiener, 1842] = *Cerithium nesioticum* Pilsbry & Vanatta, 1906.
—(sp. 220) "*Cerithium piperitum* Sowerby" [=Sowerby, 1855] = *Cerithium punctatum* Bruguière, 1792.
Smith identified 7 species of the genus *Triforis* (of which 4 new), said to belong to **Cerithiidae**, but now separated as the family **Triforidae**.
Two specimens, collected in Feydhoo (Addoo Atoll), were recognised in Cernohorsky (1978: pl. 13, figs. 10) as *Cerithium* (*Tiaracerithium*) *torulosum* (Linnaeus, 1767). Cernohorsky mentioned the species as rare and never satisfactorily localised. "Nineteenth century reports located the species in the Society Islands, but recent extensive collecting in Polynesia did not turn up any specimens. The illustrated specimens are from 'Mauritius' and the species' occurence in the Pacific region requires confirmation." (Cernohorsky, 1978: p. 53). Our two specimens collected in Feydhoo, are illustrated here.

Vermetidae.- Identification based on Bosch, et al (1995: 58, sp. 196), but must be regarded as provisional: the present author does not have any knowledge concerning **Vermetidae**.- Our specimen seems to correspond with most of the characteristics ("thick, irregularly tubular and colled in a flattened spiral... 8 mm tube diameter...") and with the colour plate in the above cited book.

Strombidae.- Identifications based on Berkhout & Kronenberg (1984), Bosch, et al (1995: 60-65), Kreipl & Poppe (1999), and on Moolenbeek & Dekker (1993).
Smith (1906: 612-613) identified 10 species, based on Reeve's *Conchologia Iconica* (vol. VI: Monograph of the family Strombidae). Three specific names became synonyms (following Wilson, 1993: 156-158):
—(sp. 197) "*Strombus floridus* Lamk." [=Lamarck, 1822] = *S.* (*Canarium*) *mutabilis* Swainson, 1821.

—(sp. 201) "*Strombus guttatus* (Chemnitz), Kiener" [= 'Martini' Kiener, 1843] = *S.* (*Euprotomus*) *bulla* (Röding, 1798).
—(sp. 202) "*Strombus lamarckii* Gray" [=Gray, 1842] = *S.* (*Euprotomus*) *aurisdianae* Linné, 1758.
It is possible that Smith's species 205 "*Terebellum terebellum* Linn." was misidentified; this species (very superficially) resembles *S.* (*Terestrombus*) *terebellatus* Sowerby, 1842 of which the sister species *afrobellatus* was collected during our expedition.

Hipponicidae.- Our collected shell, 21.5mm (max. diam.) x 15mm, resembles the figured *C. tectumsinense in* Sharabati (1984: pl. 1, figs. 14, 14a) very well.
Smith (1906: 615) identified two species:
—(sp. 232) "*Mitrularia cicatrosa* Reeve" = *Cheilea cicatricosa* (Reeve, 1858)
—(sp. 233) "*Mitrularia equestris* Linn." = *Cheilea equestris* (Linné, 1758).

Cypraeidae.- The subgenera are upgraded to genera by recent authors (Lorenz & Hubert, 2000; Lorenz, 2002). The conservative use of the genus *Cypraea*, followed by the subgenus between brackets, seems preferable. Instead of gathering the species in their subgenus, these are listed in alphabetical order of the specific name. Identifications based on Cate (1965), Burgess (1970, 1985), Lorenz & Hubert (2000), Lorenz (2002); and compared with Bosch, et al (1995), Rao & Rao (1991), Wilson (1993). Some doubtful (eroded) specimens have been identified by mr. M. Van der Vliet, a very advanced Cowries-collector in our society (BVC).

Smith (1906: 611-612) identified 28 species, based on Reeve's Conchologia Iconica (vol. III: Monograph of the genus *Cypraea*). He included "var. *histrio*" in the species *C. arabica* Linné, 1758. *C. histrio* and *C. depressa* are generally accepted as separate species in the subgenus *Mauritia*. Lorenz seems to be convinced that *C. histrio* does not occur in the Maldives, and that resembling specimens must be identified as *C. arabica grayana* Schilder, 1930. Yet, members of the expeditions to the Red Sea, organized in our BVC, did not agree as they were convinced that *C. grayana* is endemic to the Red Sea. The specimens collected during our expedition are identified as *C. histrio*.

Lorenz & Hubert (2000: 57, map) drew the Maldives within the distribution range of *C. scurra scurra*, which was corrected by Lorenz (2002), who identified specimens from the Maldives as *C. scurra indica*. Characteristics of the latter: "More cylindrical, somewhat depressed; tips distinctly blotched with darker; marginal spots distinct and distant" (Lorenz & Hubert, 2000: 56).
C. argus was split into *C. argus argus* (Central Indian Ocean to Pacific) and *C. argus contrastriata* (E. Africa to Maldives). The latter with two basal blotches instead of four, and the pattern with the rings mostly unfilled (Lorenz & Hubert, 2000: 77).

The Maldives are within the distributional range of *C. carneola carneola* (from E. Africa to SE. Asia), while the subspecies *C. carneola propinqua* Garret, 1879 occurs in the W. Pacific. The somewhat resembling species, *C. leviathan titan* has an Indo-Pacific distribution. Two other subspecies are generally accepted: *C. leviathan bouteti* Burgess & Arnette, 1981 (Polynesia) and *C. leviathan leviathan* (Hawaiian chain).

Recently *Luria gilvella*, already announced as an important variety of *Luria isabella* (Lorenz & Hubert, 2000: 82-83 + colour pl. 19), was described by Lorenz (2002: 38) as a valid species, separated from *Luria isabella.* He noted consistent differences in animal and habitat between *C. isabella* and the "callused paler-shelled morph, usually called *lekalekana* Ladd, 1934, a name that had to be replaced because it was originally based on a fossil shell which did not resemble *Luria isabella* at all". The Maldives are within the range of the new species (Lorenz, 2002: 41, map).

More species of **Cypraeidae** are recorded from the Maldives, but the species listed here were collected during our expedition, only. Nevertheless three not collected species are added now: first an interesting one, impossible to confuse with any other, and probably very rarely found in the Maldives: *Cypraea* (*Annepona*) *mariae* Schilder, 1927, *C.* (*Erosaria*) *beckii* Gaskoin, 1836 and *C.* (*Erosaria*) *guttata surinensis* Raybaudi, 1978. All were collected by Ahamed Shafeeg (Shafeeguge Henvenu, Male) and kept in his private collection. In his local publication (1997) *C.* (*Lyncina*) *leucodon* Broderip, 1828 was also mentioned.
The meeting with this serious collector just one day before our departure, will remain one of the best Maldives memories.

Ovulidae.- Our species is well figured for instance by Bosch, et al (1995: 81, sp. 283) and Springsteen & Leobrera (1986: pl. 24, fig. 8a) and identified as *Calpurnus* (*Procalpurnus*) *lacteus*. The subgenus *Procalpurnus* Thiele, 1939 was separated from its genus *Calpurnus* Montfort, 1810 and upgraded to a full genus, with only one species in Wilson (1993: 207).

Triviidae.- Smith (1906: sp. 195) identified "*Trivia pellucidula* Gaskoin", based on Sowerby's *Thesaurus Conchyliorum* (vol. IV). Rao & Rao (1991: sp. 104) only mentioned the species *Dolichupis* (*Cleotrivia*) *globosa cosmoi* (Dautzenberg) for Lakshadweep, based on Panicker (1977-1978); they do not mention *Trivia pellucidula.* Sharabati (1984: text for pl. 12, sp. 12 *Trivia oryza*) remarked: "*Trivia pellucidula* (Gaskoin, 1846) is identical in shape and size but lacks a dorsal groove". Wilson (1993: 212) also figured *Trivia pellucidula* (Reeve, 1846) "...dorsal sulcus lacking, ribs continuous over the dorsum..." and remarked that *T. pellucida* Gaskoin, 1846 is an unpublished manuscript name. Bosch, et al (1995: 83, sp. 301) also identified *Trivirostra pellucidula* (Reeve, 1846) and added "no longitudinal dorsal furrow". Under magnification (binocular) our specimens lack a dorsal groove and correspond with the description of this Indo-West

Pacific species.

Trivia oryza resembles *T. pellucidula* very well in sculpture, but is somewhat larger and, as already said, with a dorsal groove. Both species have an extensive Indo-Pacific distribution, .

Tonnidae.- "Doliidae" in Smith's list, with species of *Malea, Dolium* and *Pirula ficoides* Lamarck. The latter is a synonym of *Ficus ficus* (Linné, 1758) in **Ficidae**.

"Lotoriidae".- This family of Smith's list included species, now in **Ranellidae** (Ranellinae, Cymatiinae and Personinae) and **Bursidae**.

Ranellidae.- Identifications based on Arthur & Garcia-Talavera (1990), Singer (1990) and Wilson (1993), but especially on Henning & Hemmen (1993).

Smith (1906: 610) only identified four species:
—(sp. 147) "*Lotorium chlorostoma* Lamarck" [=Lamarck, 1822] = *Cymatium* (*Monoplex*) *nicobaricum* (Röding, 1798).
—(sp. 148) "*Lotorium gemmatum* Reeve" = *Cymatium* (*Monoplex*) *gemmatum* (Reeve, 1844).
—(sp. 149) "*Lotorium pyrum* Lamarck" = *Cymatium* (*Ranularia*) *pyrum* (Linné, 1758).
—(sp. 150) "*Lotorium tuberosum* Lamarck" [=Lamarck, 1822] = *Cymatium* (*Gutturnium*) *muricinum* (Röding, 1798).

Bursidae.- Identifications based on Cossignani (1993); secondary on Springsteen & Leobrera (1986) and Wilson (1993).

Smith (1906: 611) mentioned five species:
—(sp. 156) "*Ranella bufonia* Lamarck" = *Bursa* (*Bursa*) *bufonia* (Gmelin, 1791).
—(sp. 157) "*Ranella granifera* Lamarck" [=Lamarck, 1816] = *Bursa* (*Colubrellina*) *granularis granularis* (Röding, 1798).
—(sp. 158) "*Ranella tuberosissima* Reeve" = *Bursa* (*Bursa*) *tuberosissima* (Reeve, 1844).
—(sp. 159) "*Ranella thomae* d'Orbigny" [=d'Orbigny, 1842] = *Bursa* (*Bursa*) *rhodostoma* (Beck in Sowerby II, 1858).
The subspecies (?) *B. rhodostoma thomae* is known from the Western Atlantic and from Canary Islands and Cape Verde. Specimens from Mauritius and Réunion, described as forma *bergeri* Tapparone Canefri, 1880, should belong to the same subspecies (Cossignani, 1993: 57).
—(sp. 160) "*Ranella (Lampas) lampas* Lamarck" = *Tutufa* (*Tutufa*) *bubo* (Linné, 1758).

A very interesting species could be added by our expedition: *Bursa* (*Colubrellina*) *condita* (Gmelin, 1791). According to Cossignani (1993: 68) "One of the hardest to

find..(…) Fairly frequent in the Philippines (...) and in the South West Pacific (...) rarely reported for Australia (...)". Wilson (1993: 226) mentioned the distribution of the species as "Central Indo-West Pacific". Our specimen is figured here.

Epitoniidae.- Smith (1906: 616) could identify two species and described one new species in the "family Scalidae" (= **Epitoniidae**), of which only one collected during our expedition: *E. replicatum.* Identification based on the description and figures in Bosch, et al (1995: sp. 429).

Muricidae.- Identifications of Muricinae based on Houart (1992), Ponder & Vokes (1988); also checked by mr. R. Houart, well known specialist of **Muricidae** (former president of the Société Belge de Malacologie). Identification help for Thaidinae: Singer & Mienis (1991), Wils & Dirkx (2000) and Wilson (1994); two species checked by mr. R. Houart.

Smith (1906: 608-610) identified 7 species of Muricinae and 19 species of Thaidinae (also 3 species which belong to Muricopsinae and Ocenebrinae), most of them based on Reeve's *Conchologia Iconic*a (vol. III). Because several generic and specific names have become synonyms, the correct names are given here, which makes comparison easier.

Muricinae:
—(sp. 112) *Murex ternispina* Lamarck, 1822.
—*(sp. 113) "Murex haustellum* Linn." = *Haustellum* (*H.*) *haustellum* Linné, 1758.
—*(sp. 114) "Murex* (*Pteronotus*) *tripterus* Born" = *Pterynotus tripterus* (B., 1778).
—*(sp. 115) "Murex* (*Chicoreus*) *aculeatus* Lamarck" = *Chicoreus* (*Triplex*) *aculeatus* (Lamarck, 1822).
—(sp. 116) "*Murex* (*Chicoreus*) *adustus* Lamarck" [=Lamarck, 1822] = *Chicoreus* (*Triplex*) *brunneus* (Linné, 1758).
—(sp. 117) "*Murex* (*Chicoreus*) *rubiginosus* Reeve" [=Reeve, 1825] = *Chicoreus* (*Triplex*) *torrefactus* (Sowerby, 1811).
—(sp. 118) "*Murex* (*Chicoreus*) *ramosus* Linn." = *Chicoreus* (*Chicoreus*) *ramosus* (Linné, 1758).
Thaidinae:
—(sp. 122) "*Purpura armigera* Lamarck" [=Lamarck, 1822] = *Thais armigera* (Link, 1807).
—(sp. 123) "*Purpura bitubercularis* Lamarck" [no information]
—(sp. 124) "*Purpura hippocastanum* Lamarck" [=Lamarck, 1822] = *Thais aculeata* (Deshayes & Milne Edwards, 1844).
—(sp. 125) "*Purpura pica* Blainville" [=Blainville, 1832] = *Thais tuberosa* (Röding, 1798).
—(sp. 126) "*Iopas situla* Reeve" = *Nassa situla* (Reeve, 1846).
Bosch, et al. (1995: 122, sp. 487) figured *Nassa situla* (Reeve, 1846). This is the species

from the Indian Ocean, known as *Nassa francolina* (Bruguière, 1729). The following species (sp. 127) occurs in the Western Pacific. Although some specimens are more sculptured than others, they never correspond with the sculpture of *Nassa serta.*

—(sp. 127) "*Iopas sertum* Bruguière" = *Nassa serta* (Bruguière, 1789).

—(sp. 128) "*Sistrum digitatum* Lamarck" [=Lamarck, 1822] = *Drupa* (*Drupina*) *lobata* (Blainville, 1832).

—(sp. 129) "*Sistrum horridum* Lamarck" [=Lamarck, 1822] = *Drupa morum* Röding, 1798.

—(sp. 130) "*Sistrum ricinus* Linn." = *Drupa ricinus* (Linné, 1758).

Although scientifically irrelevant the two known colour forms are separately listed in our species-list: forma *albolabris* (aperture completely white) and forma *arachnoides* (with yellow blotches on the white aperture).

—(sp. 131) "*Sistrum tuberculatum* Blainville" [=Blainville, 1832] = *Morula granulata* (Duclos, 1832).

—(sp. 132) "*Sistrum undatum* Chemnitz" = *Cronia margariticola* (Brod., 1832) (?)

—(sp. 133) "*Sistrum elatum* Blainville" [=Blainville, 1832] = *Drupella cornus* (Röding, 1798).

—(sp. 134) "*Sistrum spinosum* A. Adams" = *Morula spinosa* (H. & A. Adams, 1853).

—(sp. 135) "*Sistrum biconicum* Blainville" = *Morula biconica* (Blainvill, 1832).

—(sp. 136) "*Sistrum cavernosum* Reeve" [=Reeve, 1846] = *Pascula ochrostoma* (Blainville, 1832).

—(sp. 137) "*Sistrum iostoma* A. Adams" = *Morula spinosa* (H. & A. Adams, 1853)?

—(sp. 138) "*Sistrum squamosum* Pease" (no information).

—(sp. 139) "*Sistrum concatenatum* Lamarck" [=Lamarck, 1822] = *Drupella rugosa* (Born, 1778).

—(sp. 140) "*Sistrum decussatum* Reeve" [=Reeve, 1845] = *Muricodrupa fiscella* (Gmelin, 1791).

Coralliophilidae.- Smith (1906: 610) could identify six species:

—(sp. 141) "*Coralliophila monodonta* Quoy & Gaimard" [= Q. & G.,1833] = *Quoyula madreporarum* (Sowerby, 1832).

—(sp. 142) "*Coralliophila neritoidea* Gmelin" [= Lamarck, 1816].

—(sp. 143) "*Coralliophila suturalis* A. Adams" [no information].

—(sp. 144) "*Coralliophila squamosissima* Smith" [=Smith, 1876].

—(sp. 145) "*Leptoconchus ellipticus* Sowerby" = *Magillus ellipticus.*

—(sp. 146) "*Leptoconchus cumingii* Deshayes" [=Deshayes, 1863] = *Magillus antiquus* Montfort, 1810.

Columbellidae.- This family, with a large number of species and a lot of confusion, is in study by K. Monsecour (BVC) who identified some of our shells. Based on Reeve's *Conchologia Iconica* (vol. XI) Smith (1906: 608) identified six species.

Nassariidae. Identifications based on Cernohorsky (1984).

Smith (1906) identified eight species and described four new species of which two are considered forms only. The generic name *Nassa* (family *"Nassidae"*) and several of the specific names used by Smith have become synonyms:
—(sp. 94) "*Nassa bifaria* Baird" [=Baird in Brenchley, 1873] = *Nassarius* (*Niotha*) *novaezelandiae* (Reeve, 1854). [in the following species: *N.* = *Nassarius*]
—(sp. 95) "*Nassa marratti* Smith" [=Smith, 1876] = *N.* (*Telasco*) *reeveanus* (Dunker, 1847).
—(sp. 96) "*Nassa monile* Kiener" [=Kiener, 1834] = *N.* (*Niotha*) *distortus* (A. Adams, 1852).
—(sp. 97) "*Nassa stigmaria* A.Adams" [=A.Adams, 1852] = *N.* (*Niotha*) *splendidulus* (Dunker, 1846).
—(sp. 98) "*Nassa echinata* A.Adams" = *N.* (*Niotha*) *echinata* (A. Adams, 1852).
—(sp. 99) "*Nassa glans* Linn." = *N.* (*Alectrion*) *glans* (Linné, 1758).
—(sp. 100) "*Nassa granifera* Kiener" = *N.* (*Plicarcularia*) *graniferus* (Kiener, 1834).
—(sp. 101) "*Nassa maldivensis* n.sp." = *N.* (*Zeuxis*) *castus* (Gould, 1850).
—(sp. 102) "*Nassa mulukuensis* n.sp." = *N.* (*Zeuxis*) *castus* (Gould, 1850).
The form *maldiviensis* lacks the axial sculpture of typical *N. castus* on the last whorl. The same in form *mulukuensis*, but here the shell is much slenderer.
—(sp. 103) "*Nassa subtranslucida* n.sp." = *N.* (*Zeuxis*) *subtranslucida* (Smith, 1906).
—(sp. 104) "*Nassa disparilis* n.sp." = *N.* (*Zeuxis*) *disparilis* (Smith, 1906).
According to Cernohorsky the distribution of this species is limited to the Indian seas. All other species identified by Smith have a wide Indo-Pacific range.
—(sp. 105) "*Nassa ecstilba* Melvill & Standen" = *N.* (*Niotha*) *ecstilbus* (Melvill & Standen, 1896).

Fasciolariidae.- Four species were identified by Smith (1906: 605); all belonging to the subfamily Peristerniinae.

Harpidae.- Smith (1906: 604) identified two species:
—(sp. 59) "*Harpa ventricosa* Linn.".
Bosch, et al (1995: sp. 595) mentioned *H. ventricosa* Lamarck, 1801. Because the taxon *H. ventricosa* Lamarck seems to be unavailable, recently the name *H. cabriti* Fischer, 1860 is prefered for the species living in the western Indian Ocean (information by D. Monsecour (BVC). Noticed for instance in Prati Musetti (1995: 42) and in Brulet, Dance & Poppe (1999: 9, 14; colour pls. 6-9, 28), but the latter mentioned Lamarck, 1816 in stead of Fischer, 1860.
—(sp. 60)"*Harpa minor* Lamarck" [=Lamarck, 1822] = *H. amouretta* Röding, 1798.
Turbinellidae.- Smith identified only one species: (sp. 88) "*Cynodonta cornigera* Lamarck" = *Vasum turbinellus* (Linné, 1758).

Olividae.- Smith (1906: 603) identified only one species: (sp. 58) *"Oliva erythrostoma* Lamarck *(var. ponderosa Reeve)"*. Smith based his identification on Reeve's *Conchologia Iconica* (1850, vol.VI: Oliva).
In Tryon's *Manual of Conchology* (1883, Series 1, vol. 5: Oliva) *O. ponderosa* is considered a synonym of *O. erythrostoma,* while other authors considered it a variety of *O. miniacea.* But for Zeigler & Porreca (1969: 77), Petuch & Sargent (1986: 97) and Tursch & Greifeneder (2001) *O. ponderosa* is a valid species. Living in the Indian Ocean, from East Africa to Sri Lanka.

Mitridae.- Identifications based on Arnaud, et al (2002), Cernohorsky (1976; 1991), Pechar, et al (1980), Rao & Dey (1984), Robin & Martin (2004) with corrections by Stossier (2006), Salisbury (1991), Turner (1989; 1997, Wils & Verbinnen (2002), Wilson (1994) and Xenophora (1972-1978). Comparison of our material in the Mitridae-collection of Ludo Steppe (BVC).

Smith (1906: 604), based on Sowerby's Thesaurus Conchyliorum (vol. IV), could identify 16 species of Mitridae. Several specific names have become synonyms. As this family is represented by numerous species, it is interesting enough to give Smith's list of species here, but now arranged in subfamilies and subgenera; easier for comparison with our list:

Mitrinae:
—(sp. 62) "*Mitra episcopalis* Linn." = *Mitra (Mitra) mitra* Linné, 1758.
—(sp. 63) "*Mitra pontificalis* Lamarck" [=Lamarck, 1811] = M. *(M.) stictica* (Link, 1807).
—(sp. 64) "*Mitra tessellata* Martyn" a rejected name (non binominal) = (?) *M. tessellata* Swainson, 1824 (non Lam., 1811) = *M. (M.) rossiae* Reeve, 1848.
—(sp. 65) "*Mitra adusta* Lamarck" [=Lam., 1811] = *M. (M.) eremitarum* Röding, 1798.
(—sp. 66) "*Mitra digitalis* (Chemnitz) Dillwyn" [=Link, 1807] = *M. (M.) imperialis* Röding, 1798.
—(sp. 70) "*Mitra* (*Chrysame*) *cucumerina* Lamarck" = *M. (Nebularia) cucumerina* Lamarck, 1811.
—(sp. 75) "*Mitra* (*Strigatella*) *acuminata* Swainson" [=Swainson,1824].
—(sp. 76) "*Mitra* (*Strigatella*) *auriculoides* Reeve" [=Reeve, 1845].
—(sp. 74) "*Mitra* (*Strigatella*) *literata* Lamarck" [=Lamarck, 1811].
For several species in our list the Maldives are out of their distributional range as given by Cernohorsky (1976), e.g.: *M. contracta, M. fulvescens, M. columbelliformis and M. edentula.* Our identification of *M. aurantia aurantia* is based on Bosch, et al (1995:148, sp. 624). Recently the species *Vexillum (Pusia) bernhardina* was placed in *Mitra (Nebularia)*; see Arnaud, et al (2002: sp. 130).

Cylindromitrinae:
—(sp. 68) "*Mitra (Scabricola) scabriuscula* Linn." (*Voluta scabriuscula* Linné, 1767) = *Buccinum scabriculum* Linné, 1758 = *Pterygia scabricula* (Linné, 1758).

—(sp. 83) *"Cylindra sinensis Reeve"* = *Pterygia sinensis* Reeve, 1844.
Cernohorsky (1991: 150) selected a lectotype (Reeve, 1844: pl. 24, fig. 190b) and mentioned the distributional range of *P. sinensis* as from Japan to Solomon Islands. But he questioned Smith's record of Mulaku Atoll, Maldive Islands. Maybe the specimen identified by Smith in fact belongs to ***P. crenulata* (Gmelin, 1791).**

Our three adult specimens (largest 44.5 x 21.5mm) of *P. nucea* were collected alive, together under a coral stone on dry bottom during extreme low tide, off Feydhoo, Addoo Atoll.

Imbricariinae:
—(sp. 67) *"Mitra* (*Scabricola*) *crenifera* Lamarck" [=Lamarck, 1811] = *Neocancilla clathrus* (Gmelin, 1791).
—(sp. 69) *"Mitra* (*Scabricola*) *variegata* Reeve" [=Reeve, 1844; non Gmelin, 1791] = *Scabricola* (*Scabricola*) *desetangsii* (Kiener, 1838).
—(sp. 71) *"Mitra* (*Cancilla*) *filaris* Linn." = *Domiporta filaris* (Linné, 1771).
—(sp. 72) *"Mitra* (*Cancilla*) *insculpta* A. Adams" = *Ziba insculpta* (A. Ad., 1853).
—(sp. 73) *"Mitra* (*Cancilla*) *interlirata* Reeve" = *Ziba interlirata* (Reeve, 1844).

Cernohorsky (1991: 115-117) mentioned the geographical distributions: *Scabricola (S.) variegata* (Gmelin, 1791) from Philippines to Marquisas, and *S. (S.) desetangsii* (synonym: *M. (S.) variegata* Reeve, 1844) from the Red Sea to Samao and Tonga Islands.

Costellariidae. Identifications based on Arnaud, et al (2002), Salisbury (1999-2000), Turner (1989; 1997), Wils & Verbinnen (2002b), Wilson (1994) and Xenophora (1972-1978). Springsteen & Leobrera (1986: *Vexillum melongena*).

Smith could identify 5 species and described one new species:
—(sp. 77) *"Mitra (Costellaria) exasperata* Gmelin" = *Vexillum (Costellaria) exasperatum* (Gmelin, 1791).
—(sp. 78) "*Mitra (Costellaria) sculptilis* Reeve" = *V.* (*C.*) *sculptile* Reeve, 1845.
—(sp. 79) "*Mitra (Costellaria) acupicta* Reeve" = *V.* (*C.*) *acupictum* Reeve, 1844.
—(sp. 80) "*Mitra (Costellaria) armigera* Reeve" = *V.* (*C.*) *armigerum* Reeve, 1845.
—(sp. 81) "*Mitra (Costellaria) deshayesii* Reeve" = *V.* (*C.*) *deshayesii* Reeve, 1844.
—(sp. 82) "*Mitra (Costellaria) angustissima* n.sp." = *V.* (*C.*) *angustissimum* Smith, 1906.

Although Smith separated "*M.* (*C.*) *armigera*" from *"M. turrigera Reeve"* [=Reeve, 1845] because of "more sculptured between the costae", Salisbury (1999: 130) synonymized *C. armigera* with *V.* (*C.*) *turrigerum.*

The syntypes of *V. (C.) sculptile,* kept in NHMUK (1967877), were figured by Salisbury (2000, b: 76, fig. 251); they correspond with the figure in Bosch, et al (1995: 154, sp. 666), but absolutely not with the figured specimen in Arnaud, et al (2002: fig. 73). One

specimen is listed here, but identified with a question mark.

Wilson (1994: 163) synonymised *Mitra concentrica* Reeve, 1844 with ***Vexillum coronatum*** (Helbling, 1779). Yet, Salisbury (1999:132) and Turner (1997: 12) considered both as two valid species. Turner corrected the identification by Sharabati (1984: pl. 27, figs. 7-7a *"Vexillum coronatum"*). Our specimen resembles Sharabati's figured specimens. Turner (1997: pl. 4, fig. 19) mentioned: *Vexillum (Costellaria) concentricum* (Reeve, 1844) forma *echinata* A.Adams, 1853.

Concerning the subgenus *Pusia* (no species in Smith's list):
Arnaud, et al (2002: sp. 5) remarked that *Vexillum (Pusia) bizonale* (Dautzenberg & Bouge, 1922) was originally described as a variety of *Vexillum unifasciale* (Lamarck, 1811) and that its status is still discussed (Turner: valid / Salisbury: synonym). Our specimens resemble the figured specimen (Arnaud et al) from Réunion very well. *V. (P.) bizonale* is here regarded as a separate species.

Discussion again concerning the status of *V. (P.) unifasciale* (Lamarck, 1811) and *V. (P.) aureolatum* (Reeve, 1844): synonymized by Salisbury (1999: 130), separated by Bosch, et al (1995: 155-156); Wilson (1994: 167) synonymised *V. aureolineatum* Turner, 1988 with *V. unifasciale,* while Salisbury (1999: 130) regarded the first as a valid species. *V. (P.) aureolatum* is here provisionally accepted as a separate species; our specimens resemble the specimens figured by Bosch, et al (1995: sp. 669) very well.

R. Robertson (1964) collected 9 species of **Costellariidae.** Silvia Frantzen-Woltemas, a scuba diving teacher for several seasons at North Male Atoll, collected 36 species. T. Baer 7. These species were recently listed by Turner, Gori & Salisbury (2007) who identified a total of 67 species of **Costellariidae** from the Maldives, of which nine new species.

Conidae. See: Gloria Maris 45(1-2): 46-59.

Turridae. Smith (1906: 603) identified six species in "Pleurotomidae":
—(sp. 52) "*Pleurotoma armillata* Reeve".
—(sp. 53) "*Pleurotoma bijubata* Reeve" = *Turridrupa bijubata* (Reeve, 1843).
—(sp. 54) "*Pleurotoma tigrina* Lamarck" [=Lamarck, 1822] = *Lophiotoma acuta* (Perry, 1811).
—(sp. 55) "*Drillia* (*Clavus*) *exasperata* Reeve" = *Clavus exasperatus* (Rve., 1843).
—(sp. 56) "*Clathurella robillardi* A. Adams".
—(sp. 57) "*Daphnella saturata* Reeve".
Terebridae.- Identifications based on Bratcher & Cernohorsky (1987). Secondary on Wils & Wellens (2000) and Wilson (1994).

Smith (1906: 602-603) identified no fewer than seventeen species, based on Reeve's

Conchologia Iconica (vol. 12). The Maldives Expedition 2003 could only add one species. Some remarks on the specific names used by Smith:
—(sp. 38) "*Terebra oculata* Lamarck" [=Lamarck, 1822] = *T. guttata* (Röding, 1798).
—(sp. 43) "*Terebra monile* Quoy & Gaimard" [=Quoy & Gaimard, 1833] = *T. quoygaimardi* Cernohorsky & Bratcher, 1976.
—(sp. 47) "*Terebra bruguieri* Deshayes" [= Deshayes, 1859] = *T. conspersa* Hinds, 1844.
—(sp. 49) "*Terebra violascens* Hinds" [=Hinds, 1844] was considered a dubious species by Bratcher & Cernohorsky (1987: 32): type lost and the figure impossible to interpret. But Smith (1906: sp. 49) mentioned *T. exigua* Deshayes and *T. polygyrata* Deshayes as "probably only slight varieties". This is in contradiction with Bratcher & Cernohorsky (1987) who discussed *T. textilis* Hinds, 1844 (syn.: *T. exigua* Deshayes, 1859) and *T. polygyrata* Deshaeyes, 1859 as two valid species, both with an Indo-Pacific distribution. The latter can be distinguished from *T. textilis* "by its broader, more convex outline, and by its protoconch of 1 1/2 whorls". Types of *T. textilis* were figured in Bratcher & Cernohorsky (1987: figs. 103a-h); types of *T. polygyrata* (idem: figs. 104a-c). After comparison of these figures it must be said that the two species are very close to each other, which makes Smith's opinion understandable.

Architectonicidae.- Smith: "Solariidae" - 2 species.

Pyramidellidae.- Recent authors contradict each other Concerning the family **Pyramidellidae**, which makes the identification of our material questionable.
Smith (1906: sp. 249-253) identified five species:
—(sp. 249) *Pyramidella corrugata* Lamarck.
—(sp. 250) "*Pyramidella nodicincta* A. Adams" = *Otopleura nodicincta* (A. Adams, 1855). An easy species to distinguish by the strong, sharp subsutural nodules.
—(sp. 251) "*Obeliscus dolabratus* Linn." = Pyramidella dolabrata (Linné, 1758), following Dharma (1992).
—(sp. 252) *Obeliscus monila* A. Adams.
—(sp. 253) "*Obeliscus sulcatus* A. Adams" = *Pyramidella sulcata* (A. Adams, 1854). It is a valid species following Abbott & Dance (1982: 277), but synonym of *Pyramidella maculosa* Lamarck, 1822 following Bosch, et al (1995: 177, sp. 811); *P. maculosa* should be a synonym of *P. acus* (Gmelin, 1791), following Abbott & Dance (1982), "possibly a form of *P. acus*" in Springsteen & Leobrera (1986: 283). The material collected off Feydhoo by W. Backhuys, can (hardly) be separated in a smaller species with flat whorls, provisionally identified as *P. sulcata* and in a larger species with more convex whorls, provisionally identified as *P. acus*.

One specimen of our material seems to belong to *Otopleura auriscati* (Holten, 1802), an ovate shell with many axial ribs on the whorls.

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Families in Smith's list which were not found by our expedition:
[PROSOBRANCHIA] **Fissurellidae** (*Diodora, Emarginula*) (4 species), **Ianthinidae** (1), **Xenophoridae** (1), **Capulidae** (1), **Marginellidae** (1); [**OPISTOBRANCHIA**] **Scaphandridae** (*Atys*, genus now in **Hamineidae**) (3), **Akeridae** (1).

Families with a large number of species (the number of species in Smith is followed here by our number of species):
Cypraeidae (28—32), **Muricidae** (28—23), **Mitridae** + **Costellariidae** (23—44), **Conidae** (23—45).

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Chamidae.- Smith identified two species:
—(sp. 347) "*Chama jukesi* Reeve" [=Reeve, 1847] = *Chama asperella* Lamarck, 1819.
—(sp. 348) "*Chama imbricata* Broderip" [=Broderip, 1835] = *Chama plinthota* Cox, 1927.

Cardiidae.- Identification by J.J. ter Poorten (Hilversum, The Netherlands), a well known specialist of **Cardiidae**.

Smith (1906: sp.337-346) could identify ten species. Three specific names are synonyms; five species actually belong to another genus, while two subgenera are upgraded to full genera.
Ed. Fischer-Piètte (1977: 59-65) synonymised *Cardium nebulosum* and *C. maculosum* with *C. enode* for Indo-Pacific populations, while he proposed to use the name *C. leucostoma* for populations from Atlantic America, although he could not establish any difference between them. This is absolutely not the opinion of recent **Cardiidae**-specialists, who are critical of this work by Fischer-Piètte.
Information by J.J. ter Poorten concerning Smith's identifications:
—(sp. 337) "*Cardium leucostoma* Born" [=Born, 1780] = *Acrosterigma magna* (Linné, 1758).
—(sp. 338) "*Cardium nebulosum* Reeve)" [=Reeve, 1845] = *Acrosterigma simplex* (Spengler, 1799). The type locality of the holotype of *Cardium nebulosum* Reeve, kept in NHMUK (1900.2.13.22): Maldives.
—(sp. 339) "*Cardium maculosum* Wood" = *Acrosterigma maculosa* (Wood, 1815).
—(sp. 340) "*Cardium levisulcatum* n.sp." = *Microfragum erugatum* (Tate, 1889).
—(sp. 341) "*Cardium sueziense* Issel" = *Parvicardium sueziense* (Issel, 1869).
—(sp. 342) "*Cardium* (*Laevicardium*) *lobulatum* Deshayes" = *Laevicardium lobulatum* (Deshayes, 1855).
—(sp. 343) "*Cardium* (*Laevicardium*) *australe* Sowerby" = *Fulvia australis* (Sowerby,

1841).
—(sp. 344) "*Cardium* (*Laevicardium*) *biradiatum* Bruguière" = *Laevicardium biradiatum* (Bruguière, 1786).
—(sp. 345) "*Cardium* (*Ctenocardia*) *victor* Angas" = *Ctenocardia victor* (A., 1872).
—(sp. 346) "*Cardium* (*Ctenocardia*) *fornicatum* Sowerby" = *Ctenocardia fornicata* (Sowerby, 1840).

Tridacnidae. Many specimens could be observed in situ. *T. squamosa* is locally common, maybe one of the most frequently seen mollusca-species in the Maldives. Not present in our collections, because an import permission was refused by the Belgian ministry, in spite of an export license (limited to one specimen/atoll) by the President of the Maldives.

Smith (1906: 624) identified only one species:
—(sp. 336) "*Tridacna cumingii* Reeve" [=Reeve, 1862] = *T. maxima* (Röding, 1798).

J. Rosewater (1965) identified the material collected by R. Robertson (1964):
T. (*Chametrachea*) *squamosa* Lamarck, 1819 from North Male Atoll and South Nilandhoo Atoll (Rosewater, 1965: 383).
T. (*Chametrachea*) *maxima* (Röding, 1798) from North Male Atoll (idem: 390). Smith mentioned "Hulule Island" (now the international airport). Both species are also reported for the Maldives by Sirenko & Scarlato (1991), who described *T. rosewateri*, a new species of giant clam from the Indian Ocean (Saya de Malha Bank).
By snorkelling many specimens of the two *Tridacna*-species were observed in Addoo Atoll; also off the small islands near Kandholhudhoo and off Iguraidhoo (North Maalhosmadulu or Raa atoll).

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Large families (with the number of species by Smith):
[PTERIOMORPHIA] **Arcidae** (11), **Mytillidae** (10), **Pteriidae** (9), **Pectinidae** (12);
[HETERODONTA] **Cardiidae** (10), **Tellinidae** (10).
Disappointing: **Chamidae** (2).

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Gardiner collected 7 species of **Polyplacophora** — none found by our expedition.

Bibliography
[publications used during the identifiction of species]

Arnaud, J.P., Berthault, C., Jeanpierre, R., Martin, J.C. and Martin, P., 2002. *Costellariidae et Mitridae de Nouvelle Calédonie.* "Xenophora", Association Française de Conchyliologie, Paris, France.

Arthur, A.R. & Garcia-Talavera, F., 1990. A new species of *Cymatium* (*Septa*) from the Indo-Pacific and discussion of the species in the Subgenus *Septa*. *La Conchiglia* 256: 4-11.

Baer, T.W., 1989. Liste des Mollusques gastropodes des Maldives. *Bulletin de la Société Internationale de Conchyliologie* 11(2): 15-24.

Berkhout, J. & Kronenberg, G., 1984. Strombidae. Reprint: *Vita Marina*, 1981: 263-362 + 9 colour pls. "Stichting Biologia Maritima", Den Haag,– Addenda en Corrigenda: 363-367 (*Vita Marina*, 1986).

Bosch, D.T., Dance, S.P., Moolenbeek, R.G. & Oliver, P.G., 1995. *Seashells of Eastern Arabia.* "Motivate Publishing", Dubai, Abu Dhabi & London.

Bratcher, T. & Cernohorsky, W.O., 1987. *Living Terebras of the World. A Monograph of the Recent Terebridae of the World.* "American Malacologists", Melbourne, Florida, USA.

Brulet, T., Dance, S.P. & Poppe, G.T., 1999. *Family Harpidae*. (in) A Conchological Iconography. ConchBooks, Hackenheim.

Burgess, C.M., 1970. *The Living Cowries*. A.S. Barnes and Co., New York + Carlton Beal, London, Cranbury.

Burgess, C.M., 1985. *Cowries of the World*. Seacomber Publications. Cape Town.

Cate, C.N., 1965. Hawaiian Cowries. *The Veliger* 8(2): 45-61 + pls. 4-10.

Cate, C.N., 1965. Philippine Cowries. *The Veliger* 8(4): 234-264 + pls. 32-45.

Cernohorsky, W.O., 1965. The Mitridae of Fiji. *The Veliger* 8(2): 70-160 + pls. 14-23.

Cernohorsky, W.O., 1969. The Muricidae of Fiji. Part II. Subfamily Thaididae. *The Veliger* 11(4): 293-315 + 3 pls.

Cernohorsky, W.O., 1974. Type specimens of Mollusca in the University Zoological Museum, Copenhagen. *Records of the Auckland Institute and Museum* 11: 143-192.

Cernohorsky, W.O., 1976. The Mitridae of the World. Part 1. The Subfamily Mitrinae. *Indo-Pacific Mollusca* 3(17): 273-528.

Cernohorsky, W.O., 1978. *Tropical Pacific Marine Shells*. Pacific Publications, Sydney.

Cernohorsky, W.O., 1984. Systematics of the family Nassariidae (Mollusca: Gastropoda). *Bulletin of the Auckland Institute and Museum* 14: 1-356.

Cernohorsky, W.O., 1991. The Mitridae of the World. Part 2. The Subfamily Mitrinae concluded and subfamilies Imbricariinae and Cylindromitrinae. *Monographs of Marine Mollusca. Taxonomic Revisions of the Marine Mollusca of the World.* No. 4. Trophon Corporation, Silver Spring.

Cossignani, T., 1994. *Bursidae of the World.* Mostra Mondiale Malacologia, Cupra Maritima.

Delsaerdt, A., 1986. Revision of the Chamidae of the Red Sea. [Series 'Red Sea Malacology -I']. *Gloria Maris*25 (3): 73-125.

Delsaerdt, A., 1996. Neritoidea of the Solomon Islands. Alphabetical review. Part 1 marine species. *Gloria Maris* 35 (3): 33-48.

Delsaerdt, A., 2006. Conidae in the Maldives. Report on species collected during the Int. Sc. Maldives Exp. 2003. *Gloria Maris* 45(1-2): 46-59.

Dharma, B., 1988. *Siput Dan Kerang Indonesia. Indonesian Shells*. Jakarta.

Dharma, B., 1992. *Siput Dan Kerang Indonesia. Indonesian Shells* II. Verlag Christa Hemmen, Wiesbaden.

Dijkstra, H.H. & Knudsen, J., 1998. Some Pectinoidea (Mollusca: Bivalvia: Propeamussiidae,

Pectinidae) of the Red Sea. *Molluscan Research* 19 (2): 43-104.
Drivas, J. & Jay, M., 1989. Family Vanikoro. (Shells from Réunion, part 12 Fam. Vanikoridae). *La Conchiglia* 242-245: 40-46.
Fischer-Piètte, E., 1977. Révison des Cardiidae (Mollusques Lamellibranches). *Mémoires du Muséum National d'Histoire Naturelle*. Nouvelle Série. Série A, Zoologie, tôme 101: 1-212.
Gardiner, J.S., 1903. *The Fauna and Geography of the Maldive and Laccadive Archipelagoes – being the Account of the Work carried on and of the Collections made by an Expedition during the years 1899 and 1900*. Vol. I. Cambridge Univ. Press.
Gardiner, J.S., 1906. *The Fauna and Geography of the Maldive and Laccadive Archipelagoes – being the Account of the Work carried on and of the Collections made by an Expedition during the years 1899 and 1900*. Vol. II and Supplements I and II. Cambridge Univ. Press.
Geiger, D.L., 2000. Distribution and Biogeography of the Recent Haliotidae (Gastropoda: Vetigastropoda) World-wide. *Bollettino Malacologico, International Journal of Malacology* 35 (1999): 57-120.
Gmelin, J.F., 1791. *Caroli a Linné,... Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis. Tomus II. Editio decima tertia, acuta, reformata. (Systema Naturae, 13th edition)*. Lipsiae.
Hanley, S.C.T.,1855. *Ipsa Linnaei conchylia*. London.
Henning, T. & Hemmen, J., 1993. *Ranellidae & Personidae of the World*. Verlag Christa Hemmen, Wiesbaden.
Houart, R., 1992. The genus *Chicoreus* and related genera (Gastropoda: Muricidae) in the Indo-West Pacific. *Mémoires du Muséum National d'Histoire Naturelle, Zoologie* 154 : 1-188.
Houbrick, R.S., 1992. Monograph of the Genus *Cerithium* Bruguière in the Indo-Pacific (Cerithiidae: Prosobranchia). *Smithsonian Contributions to Zoology* No 5101-211.
Kirtisinghe, P., 1978. *Sea Shells of Sri Lanka – including forms scattered throughout the Indian and Pacific Oceans*. Charles E. Tuttle Comp., Japan.
Kreipl, K. & Poppe, G., 1999. Family Strombidae. (in) *A Conchological Iconography*. ConchBooks, Hackenheim.
Krijnen, C., 2002. The Subgenera of the Genus *Nerita* Linnaeus, 1758 *Gloria Maris* 41(3): 38-69.
Krijnen C., Celen F., Delsaerdt, A., Duchamps, R., Notelteirs, L., Revis, N., Severijns, N. and M. Verhaeghe, 1996. Genus Nerita. Alphabetical review. Part 1 treating the species up to *Nerita fulgurans*. *Gloria Maris* 34 (5-6): 65-84.
Krijnen C., Celen, F., Delsaerdt, A., Duchamps, R., Notelteirs, L., Revis, N., Severijns, N., Verhaeghe, M. and R. Vink, 1997. Genus Nerita. Part 2 treating the species from *Nerita funiculata* up to *Nerita maura*. *Gloria Maris* 36 (1-2): 1-14 .
Krijnen C., Delsaerdt, A., Severijns, N. and M. Verhaeghe, 1999. Genus Nerita. Alphabetical review. Part 3 treating the species from *Nerita litterata* up to *Nerita polita*. *Gloria Maris* 38(1): 1-15.
Krijnen C., Delsaerdt, A., Severijns, N. and M. Verhaeghe, 2001. Genus Nerita. Alphabetical review. Part 4 treating the species from *Nerita quadricolor* up to *Nerita yoldii*. *Gloria Maris* 40(2-3): 27-52.
Krijnen C., Delsaerdt, A., Severijns, N. and M. Verhaeghe, 2005. Genus Nerita. Part 5 Addendum to the alphabetical review. *Gloria Maris* 44 (3-4): 69-86.
Linnaeus, C., 1758. *Systema Naturae... Editio decima, vol. 1 Regnum Animale. II. Mollusca.* 652-788. Stockholm.
Lorenz, F. & Hubert, A., 2000. *A Guide to Worldwide Cowries. Second enlarged and completely*

revised edition. ConchBooks, Hackenheim.
Lorenz, F., 2002. *New Worldwide Cowries. Descriptions of new taxa and revisions of selected groups of living Cypraeidae (Mollusca: Gastropods)*. ConchBooks, Hackenheim.
"Malways". *Maldives Island Directory*. Atoll Editions. Apollo Bay, Victoria, Australia.
Moolenbeek, R.G. & Dekker, H., 1993. On the identity of *Strombus decorus* and *Strombus persicus*, with description of *Strombus decorus masirensis* n. ssp. and a note on *Strombus fasciatus*. *VitaMarina* 42(1): 3-10.
Pechar, P., Prior, C. & Parkinson, B., 1980. *Mitre Shells from the Pacific and Indian Oceans*. R. Brown and Associates., Bathurst.
Petuch, E.J. & Sargent, D.M., 1986. *Atlas of the Living Olive Shells of the World*. The Coastal Education & Research Foundation, Fort Lauderdale.
Pickery, R., 1990. Chronological List of the References to the original descriptions of recent subgenera and species belonging to the family Haliotidae. *Gloria Maris* 29(6): 105-118.
Pickery, R., 1995. Recent Stomatellidae. *Gloria Maris* 33(6): 104-112 + 1 colour pl.
Ponder, W.F. & Vokes, E.H., 1988. A Revision of the Indo-West Pacific Fossil and Recent Species of *Murex* s.s. and *Haustellum* (Mollusca: Gastropoda: Muricidae). *Records of the Australian Museum*, Supplement 8: 1-160 pp.
Prati Musetti, A., 1995. Familia Harpidae. Tables for the identification of similar species (I). *World Shells* 13: 39-44.
Rao, N.V. Subba & Dey, A., 1984. *Contribution to the Knowledge of Indian Marine Molluscs. I. Family Mitridae*. Zoological Survey of India, Calcutta.
Rao, K.V. Surya & Rao, N.V. Subba, 1991. Mollusca. (in) *State Fauna Series 2: Fauna of Lakshadweep*: 273-362 + 3 pls. Zoological Survey of India, Calcutta.
Récluz, M.C.A., 1841. Description de quelques nouvelles espèces de Nérites vivantes. *Revue Zoologique*: 102-109.
Récluz, M.C.A., 1842. Description de plusieurs espèces de Nérites vivantes. *Revue Zoologique*: 177-184.
Reeve, L.A., 1843-1878. *Conchologia Iconica, or illustrations of the shells of molluscous animals. Vol. 9. Monograph of the genus Nerita*. London.
Robin, A. & Martin, J.-Cl., 2004. *Mitridae Costellariidae*. ConchBooks, Hackenheim.
Röckel, D., Korn, W. & Kohn, A.J., 1995. *Manual of the Living Conidae. Vol. 1 Indo-Pacific Region*. Verlag Christa Hemmen, Wiesbaden.
Röding, P.F., 1798. *Museum Boltenianum. Pars 2. Conchylia...* Hamburg.
Rombouts, A., 1991. *Guidebook to Pecten Schells. Recent Pectinidae and Propeamussiidae of the World*. Universal Book Services/Dr. W.Backhuys, Oegstgeest.
Rosewater, J., 1961. The family Pinnidae in the Indo-Pacific. *Indo-Pacific Mollusca. Monographs of the Marine Mollusks of the Tropical Western Pacific and Indian Oceans* 1 (4): 175-226.
Rosewater, J., 1965. The Family Tridacnidae in the Indo-Pacific. *Indo-Pacific Mollusca. Monographs of the Marine Mollusks of the Tropical Western Pacific and Indian Oceans* 1 (6): 350-394.
Rumphius, G.E., 1705. *D'Amboinsche Rariteitkamer of eene beschrijvinge van allerhande Schaalvisschen; benevens de voornaamste Hoorntjes en Schulpen als ook zommige Mineraalen, Gesteenten, enz.* Amsterdam.
Salisbury, R., 1991. Miters A to Z. Part 1. *Of Sea and Shore* 14(2): 52-62.
Salisbury, R., 1999. Costellaridae of the World. Part 1. *Of Sea and Shore* 22(3): 125-136.
Salisbury, R., 1999. Costellaridae of the World. Part 2. *Of Sea and Shore* 22(4): 221-235.

Salisbury, R., 2000. Costellaridae of the World. Part 3. *Of Sea and Shore* 23(1): 4-14.
Salisbury, R., 2000. Costellaridae of the World. Part 4. *Of Sea and Shore* 23(2): 70-84.
Sharabati, D., 1984. *Red Sea Shells*. KPI – Routledge & Kegan P., London.
Singer, B.S., 1990. Family Ranellidae Gray, 1854 (=Cymatiidae Iredale, 1913) in the Red Sea. *La Conchiglia* 250-252: 18-28.
Singer, B.S. & Mienis, H.K., 1991. Shells of the Red Sea – The family Thaididae (II). *La Conchiglia* 261: 54-60.
Sirenko, B.I. & Scarlato, O.A., 1991. *Tridacna rosewateri* sp.n. – A new species of giant clam from Indian Ocean (Bivalvia: Tridacnidae). *La Conchiglia* 261: 4-9.
Smith, E.A., 1903. Land and Freshwater Mollusca. (in) J. Stanley Gardiner (see: Gardiner) Vol. I, report 10: 141-145.
Smith, E.A., 1906. Marine Mollusca. (in) J. Stanley Gardiner (see: Gardiner) Vol. II, report 7: 589-629 + pls. 35-36.
Smythe, K., 1982. Seashells of the Arabian Gulf. In: *The Natural History of the Arabian Gulf. Series*. G. Allen & Unwin, London.
Smythe, K.R. & Phillips, W.W.A., 1972. Some observations on the Fauna of the Maldive Islands (Indian Ocean) Part VIII. Marine Shells. *Journal of the Bombay Natural History Society, India* 69(2): 290-296.
Sowerby, G.B. I, Sowerby, G.B. II, Sowerby, G.B. III, 1842-1887. *Thesaurus conchyliorum, or monographs of genera of shells*. London,.
Springsteen, F.J. & Leobrera, F.M., 1986. *Shells of the Philippines*. Carfel Seashell Museum, Manila.
Stossier, G., 2006. Mitridae — Costellariidae by Robin & Martin (2004): Corrections and Additions to that valuable book. *Club Conchylia Informationen* 37 (3-4): 20-21, 41-44.
Turner, H., 1989. *Uncommon and New Mitriform Gastropods from the Indo-Pacific*. Part 1. Swiss Federal Research Inst. Forest, Snow and Landscape, Birmensdorf – Enlarged Engl. Version of the original article "Ungewöhnliche une neue Mitroidea aus dem Indopazific. Teil 1" *Informationen Club Conchiglia* 21(5-6): 31-62.
Turner, H., 1997. Three new species of mitriform gastropods with an illustrated check-list of the species living in the Red Sea. *Argonauta* 10(1-6): 3-31.
Turner, H., Gori, S & Salisbury, R., 2007. Costellariidae (Gastropoda) of the Maldive Islands, with descriptions of nine new species. *Vita Malacologica* 5: 1-47.
Vaught, K.C., 1989. *A classification of the living Mollusca*. American Malacologists, Melbourne, Florida.
Verbinnen, G. & Dirkx, M., 1997. Cerithiidae (part 2: Fam. Cerithiidae). Series: Red Sea Mollusca. *Gloria Maris* 36(3): 53-56 + 2 colour pls., text continued in *Gloria Maris* 36(4): 57-58.
Verhaeghe, M. & Poppe, G., 2000. *The Family Ficidae*. In: A Conchological Iconography. Directed by G.T. Poppe & K. Groh. ConchBooks, Hackenheim.
Vidal, J., 1997. Large Trachycardiinae from the Indo-West Pacific: The group of *Vasticardium orbita* (Broderip & Sowerby, 1833) (Mollusca, Cardiidae). *Molluscan Research* 18(1): 11-32.
Vidal, J., 1999. Taxonomic review of the elongate cockles: genera *Trachycardium, Vasticardium* and *Acrosterigma* (Mollusca, Cardiidae). *Zoosytema* 21 (2): 259-335.
Wellens, W., 1988. Contribution to the knowledge of marine molluscs from South Andaman Island (Andaman Islands, India). *Gloria Maris* 2 (2-3): 17-35.
Wils, E. & Dirkx, M., 2000. Muricidae (part 5: Fam. Muricidae). Series: Red Sea Mollusca. *Gloria Maris* 38 (4-5): 64-76 + 6 colour pls.

Wils, E. & Verbinnen, G., 2002. Mitridae (part 11: Fam. Mitridae). Costellariidae (part 12: Fam. Costellariidae). Series: Red Sea Mollusca. *Gloria Maris* 41 (1-2): 1-37.

Wils, E. & Wellens, W., 2000. Terebridae (part 7: Fam. Terebridae). Series: Red Sea Mollusca. *Gloria Maris* 38(6): 77-86 + 3 colour pls.

Wilson, B., 1993. *Australian Marine Shells. Vol.1 Prosobranch Gastropods.* Odyssey Publ., Kallaroo.

Wilson, B., 1994. *Australian Marine Shells. Vol. 2 Prosobranch Gastropods.* Odyssey Publ., Kallaroo.

Xenophora (studygroup of B.V.C.), 1972-1978. De Familie Mitridae. *Gloria Maris* 11-17.

Zeigler, R.F. & Porreca, H.C., 1969. *Olive Shells of the World.* Zeigler and Porreca, West Henrietta.

Plate 1:
1: ***Haliotis clathrata*** Reeve, 1846. Juveniles. 12-19mm.
2-3: ***Astralium rhodostoma*** (Lamarck, 1822). 28.5 x 37.5 mm.
4: ***Cerithium torulosum*** (Linnaeus, 1767). 21.5 mm & 25.7 mm.
5: ***Cheilea tectumsinense*** (Lamarck, 1822). 15 x 21.5 mm.
6: ***Cymatium aquatile*** (Reeve, 1844). 52 x 27 mm.
7: ***Cymatium flaveolum*** (Röding, 1798). 56 x 27.5 mm.
8: ***Cymatium hepaticum*** (Röding, 1798). 21 x 14.5 mm & 30.5 x 15.5 mm.
9: ***Cymatium mixtum*** Arthur & Garcia-Talavera, 1990. 39.5 x 19 mm & 35.5 x 19 mm.

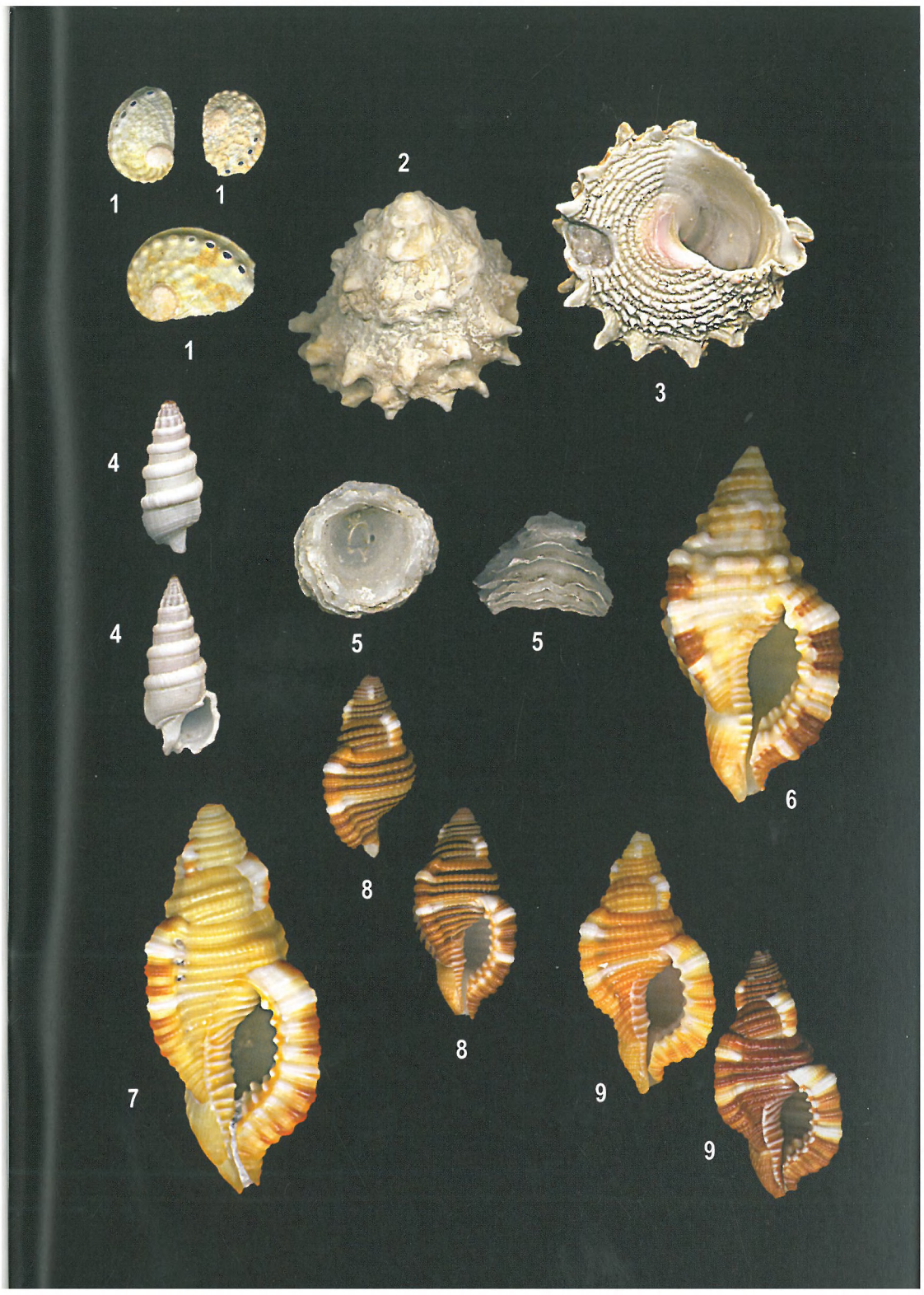
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Plate 2:

10-11: ***Bursa condita*** (Gmelin, 1791). 62 x 31 mm.
12: ***Chicoreus triqueter*** (Born, 1778). 60.9 x 27.5 mm.
13: ***Drupa rubisidaeus*** (Röding, 1798). 37.5 x 34.5 mm.
14: ***Pterymachia martinetana*** (Röding, 1798). 34.5 x 20 mm.
15: ***Pollia pulchra*** (Reeve, 1846). 26.5 x 14 mm.
16: ***Engina zea*** Melvill, 1893. 17 x 10.5 mm & 17 x 10 mm.
17: ***Pollia fragraria*** (Wood, 1828). 19.8 x 10 mm.
18: ***Engina phasinola*** (Duclos, 1840). 14.5 x 8.5 mm.
19: ***Dolicholatirus acus*** (Adams & Reeve, 1850). 31.3 x 7.5 mm.
20: ***Pleuroploca filamentosa*** (Röding, 1798). Juvenile. 31.5 x 11.5 mm.
21: ***Latirus nodatus*** (Gmelin, 1791). 41.5 x 13.5 mm.
22: ***Latirus turritus*** (Gmelin, 1791). 50.5 x 19 mm & 54 x 20 mm.
23: ***Colubraria muricata*** (Lightfoot, 1786). 58.4 x 26.3 mm.
24: ***Colubraria nitidula*** (Lamarck, 1822). 34 x 11.5 mm.

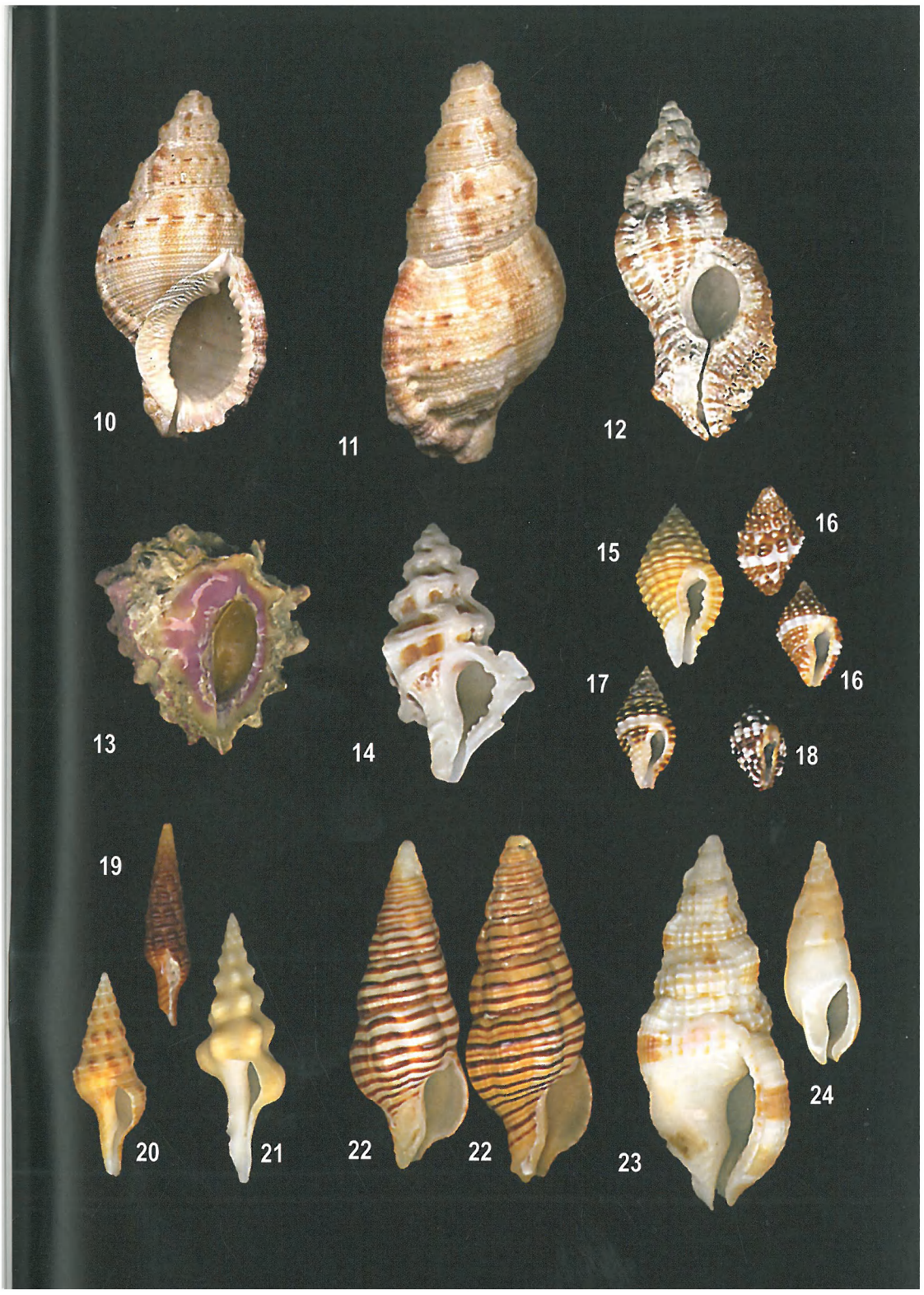
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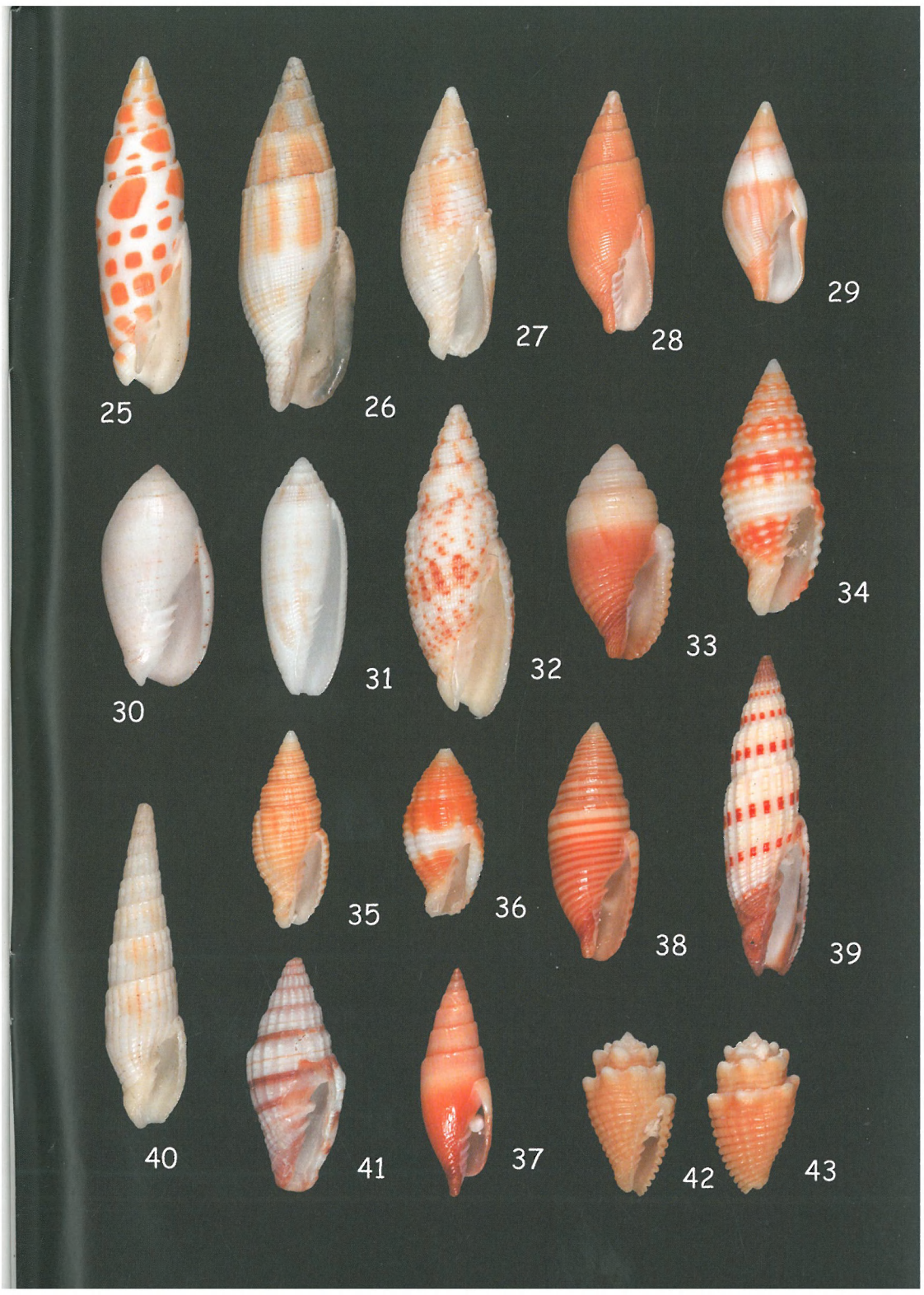
Plate 3:
25: ***Mitra mitra*** Linné, 1758. 58.8 x 19.1 mm.
26: ***Mitra eremitarium*** Röding, 1798. 69.1 x 23.6 mm.
27: ***Mitra imperialis*** Röding, 1798 53.3 x 18.8 mm.
28: ***Mitra coffea*** Schubert & Wagner, 1829. 41.6 x 14.4 mm.
29: ***Mitra columbelliformis*** Kiener, 1838. 39.7 x 16.8 mm.
30: ***Pterygia nucea*** (Gmelin, 1791). 40.2 x 18.8 mm.
31: ***Pterygia crenulata*** (Gmelin, 1791). 25.9 x 9.6 mm.
32: ***Domiporta granatina*** (Lamarck, 1811). 46.3 x 16.1 mm.
33: ***Mitra aurantia*** (Gmelin, 1791). 25.5 x 12.4 mm.
34: ***Mitra fraga*** Quoy & Gaimard, 1833. 25.2 x 10.0 mm.
35: ***Mitra gracilifraga*** 38.6 x 15.5 mm.
36: ***Mitra rubritincta*** Reeve, 1844. 24.6 x 12.8 mm.
37: ***Mitra telescopium*** Reeve, 1844. 20.9 x 7.3 mm.
38: ***Mitra vexillum*** **Reeve,** 1844. 36.4 x 14.6 mm.
39: ***Vexillum sanguisugum*** (Linné, 1758). 39.1 x 10.4 mm.
40: ***Vexillum costatum*** (Gmelin, 1791). 42.4 x 9.0 mm.
41: ***Vexillum melongena*** (Lamarck, 1811). 38.0 x 14.6 mm.
42-43: ***Mitra bernhardina*** Röding, 1798. 18.6 x 10.0 mm.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BELGISCHE VERENIGING VOOR CONCHYLIOLOGIE (B.V.C.)
opgericht onder de naam Gloria Maris in 1961. De statuten van de vzw verschenen in het Belgisch Staatsblad van 29 augustus 1974, onder nr.5741. De naamverandering in Belgische Vereniging voor Conchyliologie verscheen in het Belgisch Staatsblad van 10 juni 1976, onder nr. 8160.
Algemene vergadering op de tweede zondag van elke maand: Extra Time, Louisalei 24, Hoboken (Antwerp) (10-13H).

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