



COLLECTING SHELLS

In times of Internet

GUIDO T. POPPE

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IMPRESSUM

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Conchbooks
Publishing house, book-traders and antiquarian
Dr. Carsten Renker
Bahnhofstr. 117
D-55296 Harxheim, Germany
email: conchbooks@conchbooks.de
web: <http://www.conchbooks.de>

Guido T. Poppe
email: guido@conchology.be
web: <http://www.conchology.be>

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Guido T. Poppe
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Editorial by Guido T. Poppe
Produced by Guido T. Poppe, Dr. Carsten Renker & Klaus Groh.



August Lovell Reeve, Shell Collector, Shell Dealer and Author of major conchological books. His hand holds a large Murex from the east coast of Mexico and rests on a volume of his famous Conchologica Iconica (Photo Wikipedia).

INTRODUCTION

About two years ago, during one of the many philosophical “attacks” on our minds, as we all have once in a while, I thought there is a huge change going on in shell collecting. And it is evident that the new generation has no solid backbone in collecting shells – as did the older generation. The reasons for that are obvious: the old generation relied on painful and difficult communication systems and much of their knowledge was acquired through “real” talks with often “older and wiser” conchologists. This mainly happened during multiple conchological gatherings. In Belgium for example, we got 3 such gatherings a month, and many among us seldom skipped a reunion. There were two Saturday afternoons in the center of Brussels and one Sunday morning in Antwerp. The meeting in Antwerp attracted also many Dutch collectors and virtually each meeting counted more than 100 participants, occasionally even over 150 persons attended, coming from as far as Amsterdam in the north as the north of France in the south.

We did not realize at the time how important these meetings were. Many of us came there to acquire shells and to listen to “talks”, most often on travels one of the members undertook, in order to find the desired treasures. But the best gift to all of us was the transmission of knowledge and values in the field. Apart from the big transfer of know-how in collecting: from how to keep shells on how to clean them. All the clubs and societies at that time got also a library. So, we stayed up to date and the club became a window on the world, through exchange of journals.

All this is fast disappearing today, and even the latest shell shows in Europe see a strong decline. Most of us think that the BIG EVENTS, such as the Antwerp and Paris shell shows will remain major pools of attraction, but the smaller shell shows have a difficult survival stage at present.

This does not mean there are less collectors, on the contrary, there have never been so many before: but they all get together on the internet. Either as members of mega-homepages of shell companies such as Conchology, Inc., who has 3600 active members and as many dormant members. Or they buy and sell on auction-websites. At present, many correspond also by Facebook.

A comparison: in the golden time of shell collecting, the biggest popular journals reached up to almost 2000 members (Of Sea and Shore, La Conchiglia, Hawaiian Shell News). Today, we know there are at least 10 000 people actively interested in mollusks. This is without the many thousands of biologists working on them in Universities and Ecological societies worldwide – a world not much linked with the shell-collector society.

So, the goal of this book, which was growing more than expected through the year, is to procure newcomers with basic knowledge so that their venue in the shell world is easier. The knowledge we got from older collectors on shell clubs, part of that at least should be acquired through the present writings. If this succeeds, then the time we took in making this book, was well spend.

Some of the chapters in this book may be controversial and not to all tastes: opinions differ. I tried throughout the book to see always the pro and contra, the recto and the verso of thoughts and opinions. It is the purpose that delicate matters, often left unspoken, are discussed in order to bring peace and unity, not the reverse.

Mason Blunt, a collector from Victoria, Australia, made a very nice meme on “Malacologists”. It is well done and humoristic. But more true than one thinks. The book is also made to avoid the traps he writes about. Here the meme:

Malacologists



What my friends think I do



What my mum thinks I do



What society thinks I do



What other malacologists think I do



What I think I do



What I really do

Meme created by Mason

ACKNOWLEDGMENTS

Much of the knowledge here accumulated comes from several thousand collectors, scientists and naturalists, met during almost half a century of conchological activities that brought me to all continents and a multitude of cultures this planet is rich on. My prime thanks go to all of them.

For the practical realization of this book the people in Conchology, Inc. and the facilities of the company were incredibly valuable. Particularly I want to name Sheila Tagaro and Jerlyn Sarino for the direct assistance of the author. Philippe for all the technical achievements around both the computer version and the eBook. Cecilia Villavelez for layout and Jeneriza Gesapine for programming. Lourina Segovia and Jecilia Gabutin for re-reading and ameliorating the text. Finally Carsten Renker, Klaus Groh, Steve Hubrecht and Tom Rice for re-reading, remarks and the editorials.

Other direct contributors, for texts and photos of their materials and collections have been mentioned throughout the work as their information and input was used and are thanked here for their efforts and trust.

CHAPTER 2

COLLECTING SHELLS AND WHY

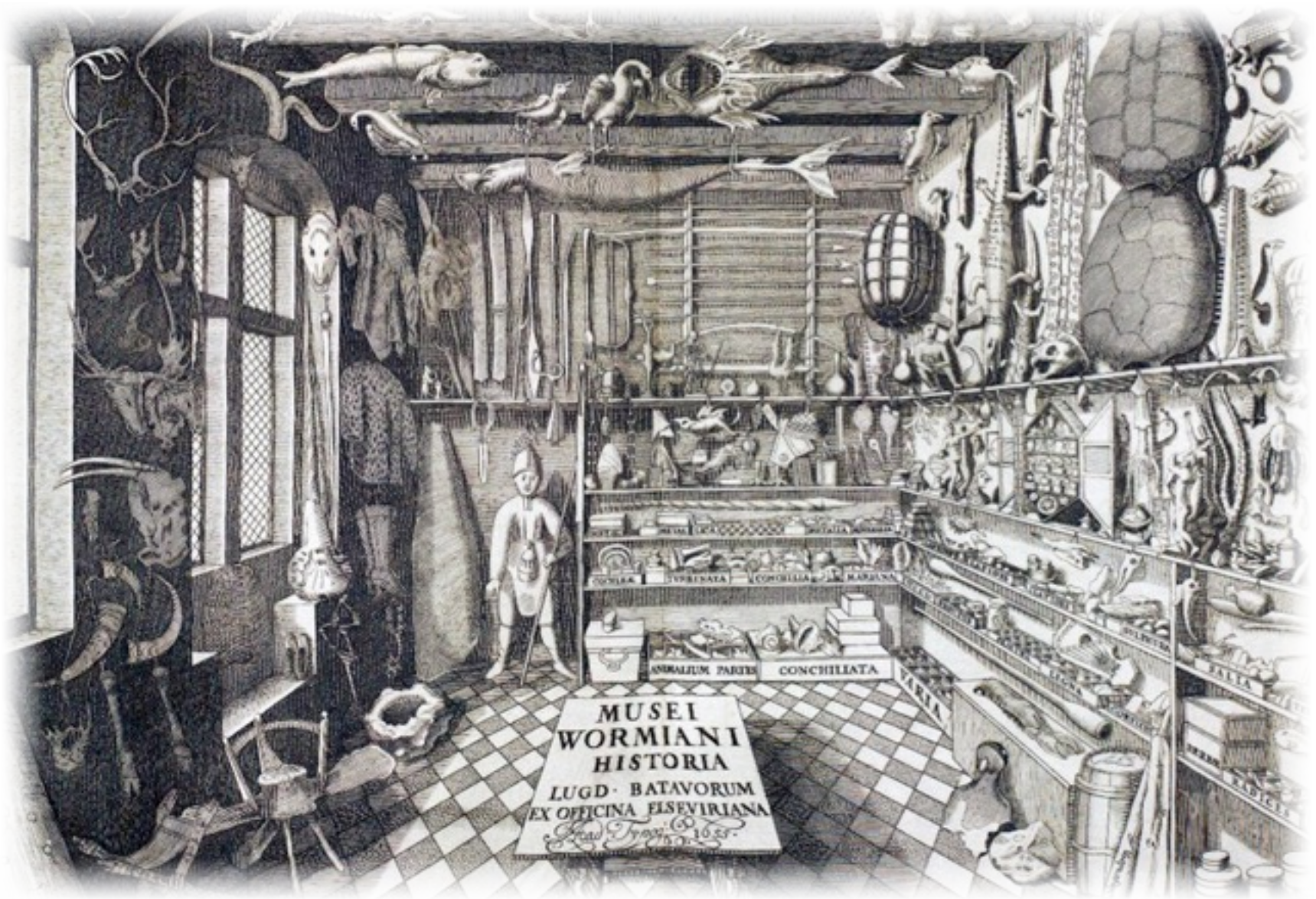
Checking Wikipedia we read: “The hobby of collecting includes seeking, locating, acquiring, organizing, cataloging, displaying, storing, and maintaining whatever items are of interest to the individual collector.”

Wikipedia gives a good overview of “collecting” and we refer here to this wonderful subject: <http://en.wikipedia.org/wiki/Collecting>

In the gigantic world of collectors, shell collectors are framed by the name “**Conchologists**”. Occasionally, when their hobby extends to the study of the animals inhabiting the shells, they are called “**Malacologists**”. Malacologists are rather rare among the vast number of shell collectors, while “Conchologists” are the norm.

Collecting is a very old occupation, deeply rooted in humanity, and likely linked to the need of “gathering together” things. It gives a direct satisfaction to the ones busy with it, not alien to the more original satisfaction one gets when finding berries in nature or during the hunting experience.

As an occupation, collecting shells or other natural objects, such as butterflies, are the most direct descendants of the 16th and 17th century “Curiosity Cabinets”.



A 16th century Curiosity cabinet, the cabinet of curiosities of Ole Worm in the Netherlands. The shells are on the backwall in boxes called “Cochlea, Turbinata, Conchilia and Conchiliata (After: http://en.wikipedia.org/wiki/Cabinet_of_curiosities#mediaviewer/File:Musei_Wormiani_Historia.jpg).

As pointed out in Wikipedia, we confirm that collecting activities go in pair with wealth: when times of prosperity and possible leisure time arrives, the number of collectors increases. The reverse is also true. In the world of Conchology, the World Wars virtually stopped conchological activities and even the size of conchological journals decreased during these years.

The most important feature of collecting is the **amelioration of the quality of life** of the collector. As many Conchologists experience: their life is way better since they collect shells and in a large diversity of topics, the hobby is incredibly rewarding, mentally, intellectually and materially. If one wants, in a society where loneliness is a major problem, the active Conchologist gets an easy access to many social events. Shell collecting has been advised for certain types of psychological disorders since around 1960.

Alfred Russel Wallace, Born 1823 became 90 years old and lived until 1913 in a time where most people made it decades shorter. He was a naturalist and hunted all kinds of animals from the Amazon River basin to Malaysia and Indonesia, making a living out of collecting natural history. He also is called the father of Biogeography, invented the Wallace effect in biology and the “line of Wallace”, separating huge biogeographic regions in Asia (From Wikipedia).



However, as any other activity, shell collecting has to be done intelligently to reach a maximum of satisfaction. I met several, but fortunately only a few, conchologists, for who life became worse and the shells an obsession which obliged them in a frame of unhappy work. Avoid this course of events and shell collecting will enrich your life so much that you will never stop the activity. For the delight of many: most conchologists and malacologists have exceptionally long lives. This was true a hundred years ago and is even more true today.

The old shell Cabinets were occasionally documented in major books which are quite rare today. Here a book that we acquired many years ago and which was written by “Father du Molinet”.



Part of an engraving on two large folio pages. In the centerpiece weapons of all kinds, one can even see clubs collected in north America. We recognize many things, paintings, small statues, cups, vases, but also taxidermy: a giant snake. More with a trumpet, a collection of shoes, and in the compartments on the left, on top, skulls of birds and below that some bivalves.



Claude du Molinet amassed a huge library, and as an annex he made a curiosity cabinet. Here two views, one of a display of curiosities, next to the cabinet, and a plate of shells. The book is called “Le Cabinet de la Bibliothèque de Sainte Genevieve divisé en deux parties”. And it was published shortly after the death of Molinet, in 1692. The second part of the book is dedicated to natural history and du Molinet writes: “...des Animaux les plus rares & les plus singuliers, des Coquilles les plus considérables, etc...” (...of the rarest and most particular animals, of the most considerable shells, etc...).

CHAPTER 3

THE HISTORICAL CONTEXT OF SHELL COLLECTING

It is already stated above that shell collecting is a direct descendent of the 16th century “Curiosity Cabinets”. These cabinets lasted quite long. When they belonged to royalty they were directly linked to botanical gardens. And in some cases, together, the cabinets and the botanical gardens later became national museums or national research centers.

Many National and other Museums of Natural History have early roots in the 18th century. Occasionally they were created to house major collections. A good example is the British Museum of Natural History, which started with the housing of the Sloane collection. But in the 18th and 19th centuries, nature was regarded as a source of possible wealth. It was a semi-secret dream that Linnaeus aimed at the discovery of a new kind of “tea” for Sweden. A tea which should make him and his country much richer. The publication of Rumphius, “Herbarium Amboinense” was delayed for almost half a century after his death:



Sir Hans Sloane (1660-1753) (Source: Wikipedia). His gigantic natural history collections and master library were the foundation of the British Natural History Museum. Among other things, Sloane collected Shells.

owned by the Dutch East Indies Company, it was a possible source of “secrets” that could bring wealth to the Netherlands.

So, there was a healthy mixture of greed and curiosity that was a powerful motor that led to the discovery of the earth by western countries. About all European nations build Natural History Museums, later followed by the North American countries. Between 1870 and 1910 this culminated in a rush for a discovery of the seas and especially the deep sea: once more greed and the hope of fantastic discoveries were the motor. Expeditions were organized all over the world.

During the 20th century, conchological interest declined worldwide: economic crises and two world wars ruled people’s lives more than anything else and it was only after the 1950’s that people had again the leisure and curiosity to return to this fascinating subject which is “shells”.

But at the end of the 20th century, the collecting of plants and animals useful to humankind went mainly in the hands of pharmaceutical companies and today, many nations do not feel that their museums are still a priority. This may reveal a major mistake in the long run, as upcoming countries may develop a healthy curiosity for their environment and win in knowledge and civilization “of and for” their countrymen.

CHAPTER 4

SHELL COLLECTING: DIRECT IMPACT ON THE LIFE OF EVERY DAY

Shells – mainly exoskeletons of mollusks – contain meat. Meat that is consumed by the hundreds of tons every day. And as food, mollusks have a direct weekly impact on hundreds of millions of humans. It is likely that Cephalopods – squids, cuttlefishes and octopuses are the most consumed mollusks, but this is even not certain. Some groups of freshwater snails, such as *Viviparus*, are consumed by the billions in South-east Asia. Others undergo the same faith, think about the common “mussels” which are subject to a substantial fishery and an important industry in the southern Netherlands.



A beautiful Viviparus boettgeri from northern Vietnam. Everyday, thousands are fished in the rivers around Saigon: they are a delicacy in the area.

Several thousand different molluscan species are consumed. Fisheries vary from hand picking at low tide by individuals, either for a living, for own consumption, or for a leisure pastime during holidays. To the very industrial collection with large vessels and complicate machinery.

For the collector this human attitude to mollusks as a source of daily food, is great. It is uppermost interesting to visit fish markets along coasts, either the seacoast or the coasts of lakes. Occasionally, the catch of fishermen contains rare species that are easy additions to collections. Sometimes the meat of certain mollusks is so highly appreciated and so seldom available that the demand exceeds the offer, and especially in Asian countries, living mollusks can be very expensive – only for the meat. Abalones – *HALIOTIDAE* – are that high in price that the value of the meat is a multiple of the value of the shells on the collectors market.



Shell vendors on a market near Halong Bay, Vietnam. Early 2014.

Pharmaceutical research is another field that uses small quantities of shells. Especially, CONIDAE are now subject already since three decades to vast research on their toxins, and the first results as pharmaceutical products are on the market. One of these is Prialt (Ziconotide), a powerful drug against severe chronic pains.



A Conus striatus attracts small fish, and is ready for the kill. Central Philippines.
<http://www.poppe-images.com>



But there are hundreds of minor applications in the use of mollusks and their shells. They are sometimes surprising: there exist major companies crushing billions of shells, disinfecting them, broiling them and selling the final product as an essential part of chicken food. The calcium content indeed makes the egg-shells more solid. Another much more visible application of the shells is the use of mother-of-pearl: this wonderful and beautiful part of the shells decorates millions of objects, mainly produced in the last 5 centuries. And we can go on, the subject is big enough for a voluminous book.

CHAPTER 5

FAMOUS SHELL COLLECTORS AND NATURAL HISTORY COLLECTING

A “deep curiosity” was one ingredient of change in Europe, a curiosity that led to millions of discoveries, small and large.

Many volumes have been written chronicling the remarkable events that changed Europe since Luther’s Reformation. In five centuries, humanity moved from almost “nothing” to the complex “ways of the west”, that today, in the beginning of the 21st century, permeates thinking throughout the planet. A “deep curiosity” was one ingredient of change in Europe, a curiosity that led to millions of discoveries, small and large. Many of these discoveries were the ones focused on our own environment: the natural world. A high point was reached at the end of the 18th century in Great Britain: Cook sailed the Pacific, Banks and his fellows collected exotic plants, while Herschel was observing the night skies.

With this curiosity came considerable knowledge, which led to a desire to put order to the newly gathered information. In the biological realm, ideas of classification and name-giving proposed by Linnaeus gained the enthusiasm of the scientists at that time.



James Cook's ships HMS Resolution and Discovery in Tahiti, late 18th century. The shells brought back from the Cook travels were highly prized by British collectors and fought for as soon as they arrived in Brittany (From Wikipedia).

Natural history collections of tremendous scope were assembled by famous collectors. These same collectors often built libraries in which they stored their new knowledge. Studying these collections and gaining expertise in observing nature led to a new perception of our environment and our very own existence.

The thinkers who achieved these new views of nature and who ultimately developed the theories of evolution, geographic distribution and ecology were most often collectors of natural history – and “shells” were a passion for most of them. Having their collections was essential to achieving what they did. Today, many of these names raise admiration and some of them are truly famous and known to the general public. We document here a selection of these collectors, some were occasional natural history dealers: Banks, Lamarck, Buffon, Wallace, Darwin and Haeckel. Many books have been written, that document their lives; a search on the internet should provide a wide choice of these books; Wikipedia has big chapters on all of them. Their lives are proof of the importance of natural history collecting.

GEORGES-LOUIS LECLERC, COMTE DE BUFFON

(1707-1788)



*Statue in the Jardin des Plantes, Paris
(from Wikipedia).*

The majestic statue of the Comte de Buffon can be seen when walking into the Jardin des Plantes in the center of Paris, the general public may not be very familiar with Buffon, yet, according to Ernst Mayr in Wikipedia: “Except for Aristotle and Darwin, no other student of organisms has had as far-reaching an influence”. Buffon is best known for the magnificent 36 volume “Histoire naturelle, générale et particulière”. In the later Dufart edition, we note the important volumes on mollusks by Montfort.

JOSEPH BANKS

(1743-1820)



*Banks at an older age, 1810, portrait by Thomas Philipps.
(from Wikipedia).*

Banks was primarily a botanist, but his vast collection also included shells and ethnographic artifacts. At a very young age Joseph Banks inherited a great fortune, which he used for many things, particularly to fulfill his aspirations as a naturalist. He went with Cook on his first big voyage to the Pacific. This led later to his intervention for the colonization of New South Wales, so one consequence of his taste for natural history was a change in the political shape of the modern world. He also introduced many new plants to the west, including *Eucalyptus* and *Acacia* trees.

JEAN-BAPTISTE DE LAMARCK

(1744-1829)

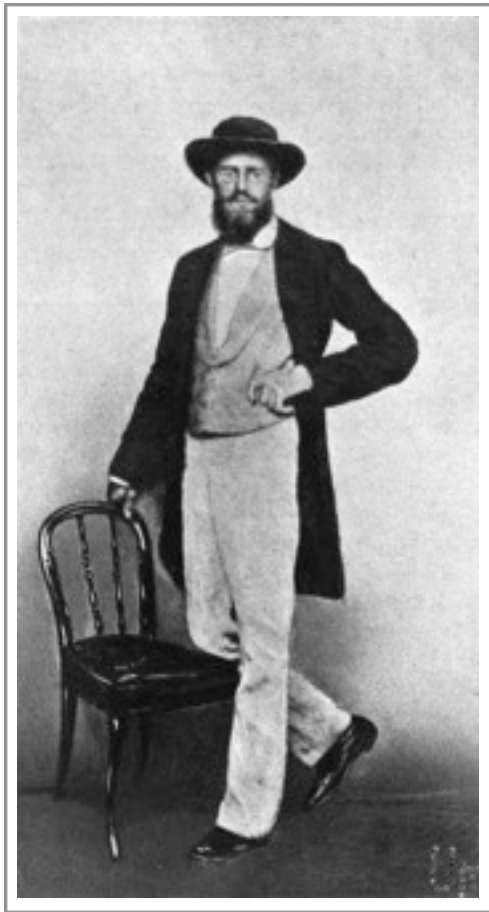


*Jean-Baptiste de Lamarck, painted by Thevenin in 1802.
(from Wikipedia).*

Lamarck was a French naturalist, but also soldier, biologist and academic. He promoted the idea of evolution “avant la lettre” and gave a broader meaning to biology. He coined terms for sciences such as “chemistry”, “meteorology”, “geology” and more. His most famous work is the “*Système des animaux sans vertèbres*”. Lamarck described hundreds of shells and his collections are kept in Geneva, Switzerland and Paris, France.

ALFRED RUSSEL WALLACE

(1823-1913)



*A.R. Wallace in Singapore in 1862
(From Wikipedia).*

Wallace was a dealer in natural history samples. He was well known for his expertise when it came to providing gorillas and birds of paradise, but he also provided shells and a wide variety of other items. His considerable field expertise led him to develop the theory of evolution through natural selection slightly before Darwin published his great opus. Today, Wallace is especially remembered as the father of biogeography, a science that, as taxonomists, we have to deal with every day.

CHARLES ROBERT DARWIN

(1809-1882)



The HMS Beagle, with Darwin as naturalist and Fitzroy as captain, painted by C. Martens, ships artist in 1833 in Tierra del Fuego (From Wikipedia).

Everybody is well acquainted with the great contributions of this naturalist. Charles Darwin was also an expert in Barnacles, and many sentences in his “Voyage of the Beagle” show he was at ease with the Latin shell names: he collected shells and had a good knowledge of them.

ERNST HAECKEL

(1834-1919)



This magnificent photo of E. Haeckel (left) with his assistant naturalist Miklukho-Maklai was taken in the Canaries in 1866. Note the large Pinna below his left knee (From Wikipedia).

Ernst Haeckel was a ferocious worker and few mortals could achieve what he did. He was a German biologist who wrote the chapters on the Radiolaria of the Challenger Expeditions, published whole series of very popular books, collected natural history in the Canaries, the Mediterranean and Sri Lanka. He was the representative of Darwin on the mainland and did so much more...

But out of his many publications, his 100 plates in the “Kunstformen der Natur” are likely among the most widely appreciated by the general public. A few of these plates depict shells – shown elsewhere on this homepage already.

CHAPTER 6

HOW TO START COLLECTING SHELLS

In the years 2016-2017 it is likely that your very start is looking for shells and shell collecting on the Internet.

While writing this, I did the “essay” and googled shell collecting. On the first line, we see “Conchology – Wikipedia etc...”, the second line is www.conchology.be. So this is a confirmation that **you are on the correct place here and now.**



The computer is definitely access number one to the shell world today, as it is already for about two decades. (Photo Collection Ph. Poppe).

But there are several more classic ways to start your adventure in the Conchological world, and even if they are a little more costly and demanding a certain effort, they are also tremendously rewarding.

One of them is to look for fellow interested “shell people”: they are to be found on the shell shows (see our calendar: <http://www.conchology.be/?t=402>).

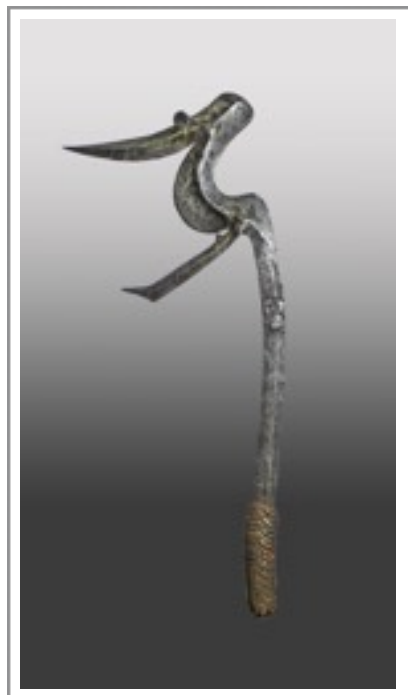
Or you find them on Facebook.

Visits to either the shell shows and/or collectors will bring you fast in contact with books on the subject, and you can browse these books on both places. When you meet other collectors, try to select the most enthusiast ones and exchange ideas with them.

Avoid people such as categorical “non buying” or “only self found” obsessed collectors. – see our Chapter on **THE PHILOSOPHICAL TRAPS**. Look for the broad thinking and traveled people and the ones with major collections. A select brand of collectors goes for “all ways” of purchasing: finding shells themselves, exchanging, buying and the like. After a decade of active collecting they have a multitude of adventures to share, of which you can pick up for free the good experiences and learn in a fast way what to avoid. Apply to yourself what suits you best. If you are 70, best do not concentrate on diving, unless you are particularly fit. And if you are 18, do not concentrate on buying alone, unless your family is rich and provides you with the means. But if you are well doing, 40 and fit, then the world is there for you to chose from.

How to select the shells for your collection goes in pair with taste and knowledge. To acquire these is a long time process and not an affair of months. If you collected something to do with “arts” in the past, it will help you save some years, as trained eyes in the arts will easier detect the fabulous pieces in shells than not trained eyes. To train yourself in aesthetics, it may be useful to buy some dozen books on paintings and sculptures and browse these. Also, you can register on sites as Sotheby’s and Christies: they update you with their public sales and usually, they only offer the best. By browsing their sales – even if you buy only once every three years – you will acquire a vast knowledge on what is beautiful and what is not. This to apply in shells afterwards.

<http://www.christies.com/> - <http://www.sothebys.com/>



For many years, the author collected African Knives, and today, next to shells, he is still busy with ancient art from the mountain people of the Philippines.

Here an example of VERY BEAUTIFUL

The documentation of this knife is as follows:

TIBBU & TEDA – MUZRI / TIBESTI THROWING KNIFE
<p>Throwing knife made by the famous Haddat forgers and used by the Tibbu and the Teda tribes from the Darfur region. According to Frobenius, the shape represents a duck, which is the secret animal of the noble Tomagra-clan from the Tibbu tribe. Before 1900, H: 62,5 cm, Iron-leather.</p> <p>This throwing knife of the “northern style” has been on display in the Exhibition “Utotombo” held from March 25 to June 5, 1988 at the Centre for Fine Arts, Brussels. A prominent jury of African art experts selected this particular knife as a center piece.</p> <p>According to Westerdijk (1988) there are only 23 pieces of this type in museums and private collections.</p>
<p>Reference: The African throwing knife, 1988</p>
<p>This particular knife has been figured in 2 books:</p> <ul style="list-style-type: none"> • Utotombo, Kunst uit Zwart- Afrika in Belgische prive-bezit, 1988. • Belgium Collects African Art, 2000
<p>Ex-collection Garrebeek, Ex-collection Poppe.</p>
<p>Of a particular interest because it has an original repair in the center of the shaft and the exquisite shape.</p>

In this knife: the following ingredients are present:

- a correct determination and nomination
- an origin
- it has been on an exhibition
- it was in two books
- and, not mentioned here, it was handled already by Sotheby’s.

For the best shells, these ingredients are merely the same. Determination, origin, documented in books, with or without certificate, pedigree and the like.

Unfortunately, there is no such thing as being an “expert” or “connoisseur” in less than a decade. But after the many errors of the beginning collector, the repeatedly falling and standing up, you will become a connoisseur, with all the major pleasures that go in pair when you discover “the piece” among many shells.

The funny affair is that many would be shell dealers on shell shows have no proper training and often they sell treasures for virtually nothing. The same is true on the net: auction sites may hold treasures. As a beginner you will definitely buy immense quantities of garbage, but as time goes the dedicated collector will see some considerable opportunities in the most obscure of places. The more you train yourself, the better you will buy. The greater the mental and material rewards.

So, after a decade of hard work, comes the golden time for the experienced connoisseur who spend many years in refining not only his collections, but also his mind. The same is true when your trained eyes will have the satisfaction to recognize wonderful treasures while diving on the sea bottom or while purchasing a fresh batch of shells from a fisherman. The delight of THE exquisite piece is always a major pleasure.

A question that is occasionally raised here is: what to do with the wrongly acquired shells? After a couple of years, you will definitely find yourself back with dozens, eventually hundreds of second grade shells, that you only understand to be in this condition at that moment.

Several collectors will offer these for sale, without shame, on shell shows. Try to avoid such sellers: look at the color of their stocks: if things look “faded” or “dried out”, move to the next table. The best solution for such shells is as gifts to young children: they will find these nice shells “fun” and it will trigger their aesthetic senses, so decades later, they will feel attracted to shells. Or place them in a vase in the bathroom, or in a big basket in the corner in the living room, as “touch” pieces. Even if they are not perfect and suitable for collections, they may be very suitable on their place in such destinations. Many people also use second grade shells in “collages”: to glue on boxes, to make dolls with them and the like.



After decades in shells, the author is still regularly tricked by unscrupulous sellers. Here a few shells that went not to the trash, but which I find still good for display in an empty space in the library with a bronze crab and a “cut” *Achatina*.

The *Achatina* I use to teach students from schools, which regularly visit our company: to explain the columella.

The *Xenophora* has a piece glued in, to look better – I could not see that on the photographs online.

And twice, the sellers of the *junonia*-shells were hiding the small growth lines and other defects. These shells look good, but I do not consider them good enough for our collections or to sell.

A last advise: start slowly, but buy immediately: both a few books and not so expensive shells. Look for the books from our **THE ENCYCLOPEDIA** books section, and best shop shells with shapes and colors you like most. Move on carefully and concentrate slowly on what you prefer. After some months you may decide to collect the shells from a given area, you will feel more attracted to the marine or either to land and freshwater shells. Or you want to go for “beauty”. In the latter case you best acquire the books from our section **TEACHING IN AESTHETICS**.

But as you will see from the book section: the conchological world is extremely vast, for everybody there is something...

The first two or three years of shell collecting also yield a tremendous treasure of enjoyment which will diminish as time goes, but in fact it never stops. Only less. This is the great surprise and the new discovery of all the shapes and beauty, shell after shell, family after family, coming in and pleasing your eyes, challenging your brain and your aesthetic sins. Day after day, week after week, year after year. This is the better life as a shell collector.



An artistic cover – somewhat kitsch but nice – about beautiful shells.

CHAPTER 7

WHAT TO COLLECT

THE CHOICES: A TEMPORARY OR AN OCCASIONAL OCCUPATION

For many tens of thousands of people “shells” are occasional mental pleasure providing objects. The spirals as seen in shells are one of the most powerful aesthetic motors, reaching instantly our deepest instincts in the brain. It is not for nothing that “ π ” is found about everywhere in the shell shapes.



The perfect spiral: a Nautilus.

A few shells properly displayed in the bathroom will be a daily pleasure which even goes unnoticed while shaving or combing the hair. And so is a well arranged set of shelves with shells near the entrance of your apartment or house. The ones that possess such collections will occasionally put there some of their beach findings from a far holiday: they combine memories to a place with the shells. Or they will visit in a regular way a coastal shop offering a variety of usually not so good quality, but nevertheless, beautiful shells. Their family members are saved at once and do not have difficulties in finding the proper gifts for such collectors: a nice shell will do.

Such small accumulations – small collections they can be called – are a nice subject for the talk – especially when visiting people get curious about the shells. And they adorn the house in a perfect way.

THE CHOICES: A LIFE FULFILLING ACTIVITY

But for a few thousand people shells are more than that: they become the purpose of a lifetime. One of their major activities, eventually even their profession. For a few of the professionals and a large majority of the non professionals, the life fulfilling conchological activity is very rewarding: as a medium of self accomplishment, as an excellent social medium and as a permanent source of happiness.

THE NUMBERS

The estimated number of different, living species of marine mollusks varies according to the source, but recent estimates which I believe to be close to reality mention around 110 000 different species.

The group as a whole has adapted to nearly all available biotopes on the planet: from deserts to tropical rainforests, from mountain rivers to the deep sea.

But conchologists usually distinguish three important groupings:



Marine species

They number somewhere between 50 000 and 70 000 species and live in all seas, from the Arctic and Antarctic to the tropical, from the shallow to the deep sea. All classes of mollusks are present: Cephalopods, Polyplacophora, Bivalves, Gastropods, Scaphopods and some minor classes.



Land species

It is estimated that there are between 30 000 and 40 000 different species, although the number may be considerably lower. Almost all land species are Gastropods – either snails or slugs.



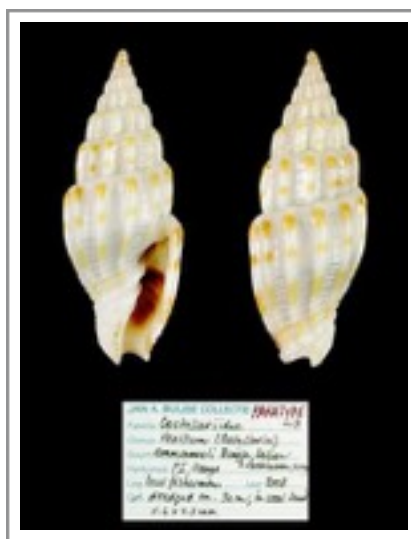
Freshwater species

We think that there are between 3000 and 4000 different species living in fresh waters: from rivers to lakes to small ponds and the like. Most freshwater species are Gastropods, although there are about a thousand species of Bivalves, some of considerable size, living in the rivers and lakes. They are a fascinating group of animals and they are superb survivors in a very changing and hard environment.

CHAPTER 8

DIFFERENT TYPES OF COLLECTIONS

The classic saying goes that in shells, there are as many types of collections as there are shell collections. We here list a few of the possibilities of different shells collections:



The reference collection

Target: give an overview of what exists in a particular group of mollusks. The subject can be a family (e.g. LITTORINIDAE, or CYPRAEIDAE), or a geographic area (for example: New Zealand seashells or Chinese land snails).

Identifications and accurate locality data are important. The collection will be used as a reference for new findings, databases, geographic mapping etc... Eventually, unavailable species can be replaced by a photograph.



The aesthetic collection

Target: to bring together a set of shells that fulfill great aesthetic enjoyment.

These collectors specialize in "beautiful" shells. Quality, exceptional specimens, size, color and the like deserve the highest attention. The beautiful presentation of such a collection is uppermost important: much care has to be taken in the display. Even when the collection is housed in drawers for example, the drawers should be taken care of to be clean, neat and or beautiful. I have seen collections housed in antique furniture which was inside transformed in a very modern display tool.



The study collection

Target: shells brought together for the purpose of study. Easy access, research facilities, and labels with field information have priority over beauty. There always ought to be a "dry collection" and a "wet collection". The latter being a collection of mollusks preserved in alcohol solutions (it is better not to use formaldehyde because of its poisonous and calcite-dissolving effect).



The microshell collection

Many people specialize in micro mollusks: shells smaller than 10 mm. A binocular microscope with x 6, x 10, and up to x 60 is needed. The big advantage is storage: a collection of several thousand shells does not take much space. The many hours spent over the microscope are in general pure delight and will occupy winter evenings that may otherwise be quite boring in a cold climate.

It is all very diverse:

During the many years of shell collecting, I met people specializing in: “Only white shells”, “Only black shells”, “Shells over 1 inch”, “Left handed shells”, “Yellow shells”, “Albino shells”, “One of each genus”, “One of each family”, etc...



A mini-collection of all orange shells.

Combinations of several types of collections is also possible. A study collection covering for example “European Seashells” may have one room or one huge cabinet displaying only aesthetic treasures, while many of the not so good looking, but nevertheless very interesting pieces, are housed in hundreds of drawers.

The author of this text has even a “sentimental collection” of about 40 species and two hundred shells: these are shells with memories, including all the shells given as “gifts” by fellow collectors, family and friends worldwide.

Group collections: collect one family, or even one genus.

Many collectors specialize in one group of shells, usually a family. CYPRAEIDAE or CONIDAE are classic collections. There are several hundred families to chose from. The choice of the group will depend on your financial means, the space you have at your disposal and your personal taste.

CHAPTER 9

THE PERIPHERIC COLLECTIBLES

Conchological Philately or “Conchophilately”



An FDC (First Day Cover) with shell stamps and shell drawings.

There is a vast group of people interested in stamps figuring shells. In fact, there are so many philatelists collecting conchological subjects that Stanley Gibbons produced a catalogue on the subject, from the hands of a shell collector: Tom Walker.

Read more on:

<http://www.britishshellclub.org/pages/articles/stamps/artstamp.htm>

Or look at the stamps on: <http://www.conchology.be/?t=43>

Conchological Phillumeny - Matchboxes



*Collecting shells figured on matchbox labels.
(Coll. C. Hoskens).*

Conchological Deltiology – The Collection of Postcards



*These two postcards show shells from the authors collections from around 1988. They were produced near Oostende, Belgium and were very common in shops along the Belgian coast for more than a decade. Today they are much sought after items by conchological deltiologists
(Coll. C. Hoskens).*

Deltiology is the study and collection of postcards. Many hundreds, if not thousands, of postcards figure shells. From shells sold on fish markets, to shells with nice ladies and shells or pearls in local costumes. The subject is almost endless.



Nice modern postcard of a doll-like girl with shells in the hairs and a Nautilus in front.

Conchological Numismatics



A large number of coins and a smaller number of paper money figures snails or cephalopods. Listings of these exist(ed). Coins with holy chanks – from India – exist since at least two thousand years. More recent is the gold coin from Jersey depicting a *Haliotis tuberculata*. Making an extensive collection of coins depicting mollusks is a wonderful achievement.

Conchological Fusilately



Fusilately is the activity of collecting phonecards, occasionally also called “telecards”. Fusilately is a British term, the Americans prefer “Telegery”. Around 1995 there were about 2 million fusilatelist worldwide, but with the development of the mobile phones the production of decorated phonecards has greatly diminished and so has the number of collectors.

Look at a collection of Conchological telecards at: <http://www.conchology.be/?t=40>

Conchological Cigar Bands



Cigar bands were once a truly popular target for collectors. Even today an international society groups these collectors and most of the Cigar Bands are now vintage.

There is a fairly good number of Cigar Bands depicting shells, but collections of these are rather rare. I have seen only one.

CONCHOLOGICAL OBJECTS

Ephemera: walking snails of all kinds



Walking snails of all kinds, human made, brought together. (Coll. C. Hoskens).

Ephemera: “Pins”



“Pins” with shell themes, a collectable mainly in the 1990’s. (Coll. C. Hoskens).

Ephemera: “Magnets”



“Magnets” with shell themes, a modern collectable: Snails. (Coll. C. Hoskens).



As the term says, Ephemera are things that are not meant to be preserved. In shells they are varied and numerous.

To name a few:

- pins from shell clubs
- jewelry depicting shells or snails
- toys in the shape of shells or snails
- key holders
- publicity depicting shells or snails – to cut out from magazines.

The subject is endless

Collecting Ephemera with shells is now greatly facilitated by the huge quantities of junk objects offered for sale on the Internet. It is a much pleasure providing activity and can be as cheap or expensive as you wish.

Vintage Ephemera



A vintage ephemera: an Oyster plate, still relatively cheap but becoming fast expensive. Hand-painted by the late Guy Trevous, around 1955. Quimper, France.

The term vintage is derived from the wine-culture (“vendange”). It refers to “old” with a mixture of “high quality” or even “excellence”.

Vintage Conchological Ephemera are high quality executed objects that were in fact not made to last. They are highly collectable and promise to become wanted antiques in a few decades.



This is a very valuable antique Oyster plate, circa 1890, depicting sculptured oysters.



Two French “Barbotines” of the 19th century, on the left, a lady with a Nautilus, on the right, an Argonauta. (Coll. C. Hoskens).

These are wonderful objects of more than a century old. Conchological antiques are not particularly rare: they are often former vintage Ephemera, but some are truly works of art, such as paintings depicting shells. Collections of Conchological Antiques are rare but exist. As all true and well conserved antiques, also conchological antiques tend to be expensive. Usually, they gain in value and once I witnessed an auction of such a collection: it brought in several hundred thousand euros.

The Shell-Combinations



A shell combination: On the left a real *Argonauta*; in the center the real antique art object; on the right a postage stamp figuring an *Argonauta*. (Coll. C. Hoskens).

A number of collectors combine the collection of the real shell with the conchological object. They unite for example a stamp or stamp(s) depicting *Strombus gigas* with a real *Strombus gigas*.

Some go even further and will bring together all about for example *Haliotis tuberculata*: porcelain objects in the shape of the *H. tuberculata*, the stamps, the coin, the telecard and the like.

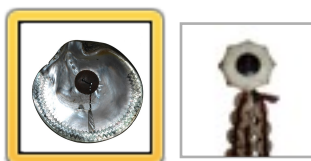
Such subjects are popular displays during shell shows: the activity is creative and satisfying.

Artistically used Shells

Some collect shells that have been turned in either kitsch or artistic objects. A big section of these are the objects made out of mother of pearl. Another well known subject are ethnographic objects made out or with shells.



A 19th century mother-of-pearl oyster shell, engraved by the mountain people of Luzon, the Philippines. Mother-of-pearl shells have been engraved or carved all over the planet for centuries and are a passionate collectable.



HYGIENIC COLLECTING

This is the correct place to put some general remarks in order to avoid the reality which we see all too often, and which is the theme of the meme of Mason Blunt that you have seen in the introduction.

In order not to end up with a big mess without value, more a burden than a pleasure, one has to keep track of a few basic rules.

ORGANIZATION is a key word. PLANNING is another one. CORRECT TIMING is important. BUDGETING a third one. CHOOSING YOUR PARTNERS to work with. And the list can go on.

Lots of the problems can be solved by working with professional materials and professional people. Do not think that you are the hero who will write all the labels yourself and copy them from the internet: it does not work like that. If somebody sends you shells without labels, or half cleaned only, then they will probably end up in a corner, waiting for days, then weeks and months and finally years. Few people can handle the overload of work that suppliers of shells should have done in the first place.

The habits of collecting need maintenance, reviewing and an almost daily care, just like your body needs a shower, deodorant and toothpaste.

The rewards will be major, and you will wake up with more enthusiasm in the morning if you know the postman will bring in some nice package with shells from the other side of the world, or if you know you gone walk hours on the beach discovering treasures, or if you know you can work several hours with your treasures, relax in your shell room, enjoying all the nice shapes, volumes and colors!

Hygienic collecting also means: be selective in the contacts. It is a myth you will find fantastic shells in a poorly arranged show-table on a shell show: if one cannot even put order and beauty in the display arrangement, how can he chose a good shell? Culture is everywhere.

CHAPTER 10

A LITTLE TERMINOLOGY: THE GROUPS

The study of mollusks is called “Malacology” (from the Greek malacos = soft), whereas the study of shells within the science of Malacology is called “Conchology” (Concha = shell). Persons devoting their time to these respective studies are called “Malacologists” and “Conchologists”.

Scientists have divided the mollusks into groups based on the relationships between the animals. As time passes and knowledge increases, different subdivisions have been proposed so that science reflects more and more accurately what happens in nature.

The table below shows the main subdivisions of the phylum **MOLLUSCA**, (excluding fossils):

- Phylum **MOLLUSCA**
 - Class **CAUDOFOVEATA**
 - Class **SOLENOGASTRA**
 - Class **MONOPLACOPHORA**
(slightly segmented)
 - Class **POLYPLACOPHORA**
(chitons)
 - Class **GASTROPODA**
(generally coiled shells)
 - Clade **PATELLOGASTROPODA**
 - Clade **VETIGASTROPODA**
 - Clade **COCCULINIFORMIA**
 - Clade **NERITOMORPHA**
 - Clade **CAENOGASTROPODA**
 - Clade **HETEROBRANCHIA**
 - Class **BIVALVIA**
(with two valves)
 - Class **SCAPHOPODA**
(tusk-shaped)
 - Class **CEPHALOPODA**
(cuttlefishes, squids, octopuses)

Most people are confronted with the following classes only. A visualization.



POLYPLACOPHORA



GASTROPODA



BIVALVIA



SCAPHOPODA



CEPHALOPODA

Our homepage usually follows the classification after Bouchet & Rocroi (2005), but this classification also starts getting outdated and the uppermost modern thinking is found on WoRMS – World Register of Marine Species. This database is getting better every year, but there are still major handicaps. A compromise between WoRMS, Bouchet & Rocroi and older classifications is often a must.

The Bouchet & Rocroi classification subdivides the Gastropoda into “Clades” which correspond to monophyletic groups. Monophyletic groups are descending from one particular common ancestor. Groups which are not proven to be monophyletic are called “Informal groups”. Clades may contain other clades, and we refer to “Systematic Arrangement” for the complete subdivision down to the family level.

The **CAUDOFOVEATA** and **SOLENOGASTRA** are two small classes, together containing about 150 species. They look like worms and their importance to collectors is minimal.

The **POLYPLACOPHORA** with about 1,200 living marine species, usually have a “shell” consisting of 8 overlapping plates. These plates are held together by a soft “gir-dle”, occasionally covered with spines or scales.

In literature, **ACULIFERA** are also called **AMPHINEURA**: this group contains the **APLACOPHORA** and the **POLYPLACOPHORA**. **APLACOPHORA** refers to the **SOLENOGASTRA** and **CAUDOFOVEATA**. Members of the class **POLYPLACOPHORA** are commonly called chitons or coat-of-mail shells.

The class **MONOPLACOPHORA** contains only 27 recent species with small disc-shaped shells, almost never found in private collections. The animal is partly segmented.

The class **GASTROPODA**, with thousands of species, forms the most important class of mollusks. They are usually recognizable by the presence of a single, often coiled shell, a “foot” and a distinct head. The diversity among Gastropoda is huge, containing a few species with a bivalved shell and even a fairly good number of animals without a shell at all (i.e. slugs, nudibranchs).

Another class of mollusks, related to the **GASTROPODA** is the **SCAPHOPODA**. This is an ancient class, with only a few hundred purely marine species surviving in today's

oceans. The shell consists of a hollow, slightly curved tube, open on both ends. These shells are commonly called tusk shells. These primitive animals are blind and spend their life buried in soft substrates.

The **BIVALVIA** are generally differentiated from other classes by a shell which usually consists of two “valves”, joined by a ligament. In literature the names “**PELECYPODA**” and “**LAMELLIBRANCHIA**” are also used for this class. After the gastropods, the bivalves form the largest group of mollusks; they are well represented in all aquatic environments. The subdivision of the bivalves is based on characters such as the position of the gills and the shape of the hinge. Only a few families attract the attention of collectors, despite the vast array of different shapes and colors.

The class **CEPHALOPODA** is the most advanced of the phylum **MOLLUSCA** possessing a highly developed nervous system. This class contains well-known creatures such as squids and octopuses, only a few species (*Nautilus*, *Argonauta*) have an external shell. A small group (among these e.g. *Spirula* and *Sepia*) possesses a reduced internal shell.

CHAPTER 11

ABOUT LATIN NAMES: SYSTEMATICS, TAXONOMY AND NOMENCLATURE

The use of Latin names by shell collectors has the main purpose that we all understand each other when talking about shells, independent of our mother languages. At present the Internet is a good example where the penetration degree of Latin names in mollusks is very high: collectors from all over the world communicate perfectly, thanks to these. How the system works follows here:

The diversity of mollusks is extreme. The scientific study of this diversity is called Systematics. Within Systematics, the relationship between species is studied. When a malacologist studies the classification of the different groupings of mollusks he practices Taxonomy.

When applying names to the different groups which he recognizes, the taxonomist is practicing Nomenclature.

All this does not happen in a haphazard fashion: Taxonomy is a profession which requires a lot of knowledge and expertise. Nomenclature follows the strict rules of the ICZN (International Code of Zoological Nomenclature

<http://www.nhm.ac.uk/hosted-sites/iczn/code/>).



The small booklet of the ICZN, the bible with all the laws.

If you want to have a well-kept collection in the scientific sense, you should arrange it according to the most recent systematics of the **MOLLUSCA**.

Molluscan systematics undergo regular, often drastic modifications. These are sometimes covered only in scientific journals and books. In order to examine these and keep up-to-date, you may need to refer to the library of your local museum.

The different taxonomic groups, from “class” to “species” are demonstrated below, using as an example the species *Cymbiola aulica*.

Phylum: **MOLLUSCA**
Subphylum: **CONCHIFERA**
Class: **GASTROPODA**
Clade: **NEOGASTROPODA**
Family: **VOLUTIDAE**
Genus: *Cymbiola*
Species: *aulica*

There are several different systematic classifications. They use different subdivisions. A Class may be subdivided into “Subclasses”. These are often divided into “Orders”, Orders into “Suborders” and so on. The terms “Superfamily” “Sectio” and “Tribe” are also used to indicate taxonomical units.

Reference books with systematic classifications which are essential and affordable for the collector are Vaught (1989) and Bouchet & Rocroi (2005). The appearance of the 10th edition of the *Systema Naturae* of C. Linnaeus in 1758 is generally regarded by scientists to be the official start of “Binominal Nomenclature”. Formerly, animals were given “popular”, “vulgar”, “vernacular” or “common” names, which caused international confusion. Popular names are still used, but should be avoided.

The binominal “scientific” name of an animal permits us to communicate more clearly, and avoid language barriers.

When nomenclature is used correctly, the reader immediately disposes of an ex-



Cymbiola (Cymbiola) vesperilio Linnaeus, 1758

tensive amount of information, as demonstrated below:

Cymbiola vesperilio Linnaeus, 1758

The first part of the name (here: *Cymbiola*) indicates the genus to which the species belongs. This is somewhat like a surname (family name). The second part (here: *vesperilio*) is the species name (like a given name). But those are unique, unlike for people where several can have identical names. According to the ICZN there can only be one *Cymbiola* species called *vesperilio*. The third part (here: Linnaeus) is the name of the author who first recognized and described the species as new to science. Finally, the year in which Linnaeus described *Cymbiola vesperilio* is mentioned (here: 1758). By using the author’s name and the date of the description, the species cannot be confused with any other and researchers can trace the original figure and description back to its source.

Cymbiola (Cymbiola) vespertilio Linnaeus, 1758

Continuing to use the species *C. vespertilio* as an example, the name *Cymbiola* has been added once more after the genus-name *Cymbiola*. This is the subgenus and is always used within brackets. Using a subgenus-name implies that there is more than one subgenus within the genus and this further facilitates identification. Another subgenus within *Cymbiola* is *Cymbiolacca*.

Calliotectum tibiaeformis johnsoni (Bartsch, 1942)

Sometimes you will notice that the name of the author and the date are placed within parenthesis. This is also significant as it means that the author used a different generic name to describe the species originally. In this particular case it means that if you want to trace the original description in the work of Bartsch, written in 1942, you should not search for “*Calliotectum*” but for another genus name.

We here deal with a “trinominal” name. This third name, the subspecies name, refers to the subspecies “*C. t. johnsoni*”. If the species name is repeated twice, it means that the species has subspecies.

Some authors use the third name to indicate a “form”. For example the brown-orange *Conus generalis* are often called *Conus generalis* forma *regenfussi*. Form or variant names are not officially recognized by the ICZN. For collectors, however, colors or exceptional forms may be of great importance. The use of three or more names is a useful tool for them. In such case the formula to indicate that it doesn’t concern a subspecies is to add an indication such as “form”, “forma”, “variant” or “variety”. Form and forma are often abbreviated as “f.” and variant or variety as “var.”.

In case a determination is not sure, but probably correct, authors use the abbreviation cf. between the genus and species name: from the Latin “confere” = compare. Example: *Cymbiola* cf. *vespertilio*.

Another abbreviation is aff. from the Latin “affinis” = affinity. This abbreviation is used in case the determination was not possible, so the name of the closest known species is used. Example: *Cymbiola* aff. *vespertilio*.

Many newcomers are confused with the concept of “subspecies” and the concept of “variants” or “forms”.

A subspecies is part of the species, but separated from the typical “species” by a barrier which is most often geographic, but it can also be a barrier by other natural phenomena such as depth, “in time” – fossil subspecies versus recent subspecies, or by barriers which are even temperature.

However, 95 % of the subspecies are based on geography. When one population lives in Africa and another one in Europe, and there are constant differences, however minor, between the two populations, one speaks about two subspecies. Sometimes species have so many subspecies that it may take a lifetime to get a proper understanding of that species. The *Cymbiola vesperilio* is in that case: there are hundreds of subspecies of this Volute, but nobody ever could take the time to travel and collect and document each Island which has each time a different population, called subspecies.

Forms are different, a simple explanation is: a particular color or shape, found within one single population. For example: *Corculum cardissa* has a number of “color forms” found in almost all populations in the Philippines. For these we use the name “form”, abbreviated f. between the species name and the form name.

Things in nature are still more complex than that, and books have been written on the subject. Two of these works are mentioned below, for the ones that want to study mollusks in more depth.

Cymbiola (C.) vesperilio s.s. (L., 1758)

In this case, the subgenus *Cymbiola* has been shortened to *C.* because it bears the same name as the genus, s.s. (the abbreviation of sensu stricto) means that it concerns *Cymbiola vesperilio vesperilio* subspecifically.

Linnaeus has been shortened to L. Abbreviations of authors’ names usually follow a standard, if the author is well known.

Remember that there is no species name without a genus name. There exists no “*vesperilio*”. But there exists *Cymbiola vesperilio*.

Another abbreviation often met in malacological literature is “syn.”. This stands for “synonym”. The ICZN is based on the “Priority of publication” which means that the first name proposed for a given species is the valid name. Names published later than this first name become “synonyms”. Because of the lack of communication in the past, and divergent views on “species”, there are about as many “synonyms” as valid names today. In order to avoid confusion, many works list part or all synonyms for a given species. The technological aspects of nomenclature are complicate and they are a branch of science which needs study and knowledge before being practiced. Much has been written on the subject and I refer to Sturm et al. (2006) for an introduction to further study.

This short introduction to the use of scientific names will help you to understand most of the popular literature on mollusks. The problems within systematics, taxonomy and nomenclature are so extensive that most universities or museums have huge libraries at the disposal of interested students.

Although this may all seem very complicated, it is important to try to understand the rudiments early in your shell-collecting career.

It is a dream for many collectors and scientists to discover and then describe new species. Very regularly we get emails “how do I describe a new species?”.

The description of a new species goes in pair with many problems and much study.

The prime condition for describing new species is a many year long experience in mollusks: learning how to distinguish species in given groups. It is a process that takes time and thousands of working hours, as parameters change for each group of shells.

The second condition is a deep knowledge on literature. There are about 10 000 books and equal numbers of journals on shells, all appeared over five centuries. Access to these – now facilitated by Internet – and thousands of hours of library experience, with a genuine knowledge on “tool books” is essential before proceeding to the description of new species.

One has to scrutinize the existing literature to see if nobody described the species earlier. So, one has to get a deep understanding of the malacological literature from “roughly” the 17th century on until today.

Secondly one has to study the techniques of nomenclature and compare the newly discovered material with existing known species. So, extensive collections are needed and eventually much traveling and correspondence to see the material surrounding any given species.

For that we refer to our Chapter on the Library in **LEARNING NOMENCLATURE, TAXONOMY AND SYSTEMATICS**

Some of these books are already a little outdated, but most of their content is still actual today.

CHAPTER 12

MULTIPLE TYPES OF DETERMINATIONS

When labeling a shell, a few things are more important than others. Definitely, where the shell lived is the most important information on a label, and the more extensive, the better.

But the first thing one often looks at on the label is the name of the shell. The result of a name-giving process which is called the “determination”.

The quality of the determination of a given animal depends merely on the skills and experience of the expert, either it is a biologist, a museum curator or a collector.

But even then, the same expert can give different sorts of determinations:

The **DISCRIMINATING DETERMINATION** is a term occasionally used for the best of determinations: it involves most often extensive research in the literature, and with the result of the determination, references to the literature are given.

No need to say that such a determination needs major tools and top notch expertise: a giant library and an expert skilled in using the malacological library, having a big knowledge on the history of shell collecting, having extensive historical and geographical skills and best also many years of field experience. Such people are rare, and

the “Discriminating determination” is therefore only seldom seen. One USA scientist told me he asks 350 dollar an hour for discriminating determination work. I think it is reasonably priced, especially, the man is one of the very rare true experts running around on the planet. The Discriminating Determination is supposed to have a 100 % degree of correctness. Which is impossible, but at least it should reach 95 %. For difficult to determinate shells, such a determination may take many hours, even days.

There is no proper term on how to name most determinations used in collecting, but we can think about something like “**DAILY DETERMINATIONS**”.

Dealers will most often use this type of determination, which can be made in a moderate laps of time. Most often easy shells will take only minutes, difficult shells an hour. The degree of correctness is dependent on the expertise of the dealer, but should reach 80 % at least.

In a shell business it is often impossible to determinate accurately for example Scaphopods. This group of shells contains only a few dozen “easy to determinate” shells, but several hundred species which require hours of research and eventually travel to arrive at a Discriminating Determination. It should be impossible to sell any Scaphopods at a reasonable price if such determinations were expected. The same is true for scores of Turrid-like shells of half a dozen big families, such as CYSTICIDAE, PYRAMIDELLIDAE, and the like.

Definitely, most professional dealers will have better determinations than the occasional vendors. The extend of the libraries of the concerned parties is of course a major parameter to guarantee a certain degree of correctness in the Daily Determinations.

This is the proper place to talk about the Mega-databases to be found online. Because of the complexity of the determinations and the complexity of taxonomic work, all of us have to deal with the thousands of mistakes to be found online. Many databases such as the ENCYCLOPEDIA in Conchology, Inc. contain hundreds of small and big mistakes, but as time goes they become more and more correct. It is an ongoing process. If you remark obvious mistakes, usually the ones maintaining the databases will be very happy with your communication: it allows them to correct faster and better, eventually with your input of knowledge.

This is also the place to talk about determinations in Museum collections. The large majority of museums of today do not have the means and the staff to maintain collections. As a consequence, the determinations on labels in the large majority of museums are a frame shot of a given period, with all the dramatic results. Since the appearance of the systematic arrangement of Vaught (1989) – only 27 years ago – 25 % of the species in Mollusca have changed either family or genus name.

And also, in pre-internet times, the literature figuring thousand of types was simply not available to the average biologist not working in a major museum, let alone to the majority of collectors.

We truly hope that scientists and museum collectors will evolve in times where society sees the benefits of knowledge of our environment, so that all researches get the means of technology and staff to do a proper job. Maintaining a collection of more than half a million lots requires at least a staff of a dozen curators that can consecrate ALL their professional time on the task.

CHAPTER 13

THE BASICS OF SHELL COLLECTING

As all-important occupations in life, there is a learning process and many aspects to acquire knowledge on and skills to perform tasks. Here some of these aspects.

- **Quality**
- **Shell Photographs on the Web**
- **Quality Grading**
- **Exceptional Shells**
- **Freak Shells**
- **Poor Quality Shells**
- **Size in Shells**
- **On Rarity**
- **The Mighty Numbers of Species in the Phylum**
- **The Hierarchic Tree**
- **Restoration and the Fakes**

QUALITY

“What is collectable and what is not collectable” is essential for any collector.

The quality of a specimen may or may not be very important to you, but in general terms, the better the condition, the more valuable it is as a specimen. It can be a very personal tradeoff between price and quality. And self-collecting can provide a valuable lesson in just how difficult it is to find perfect specimens.

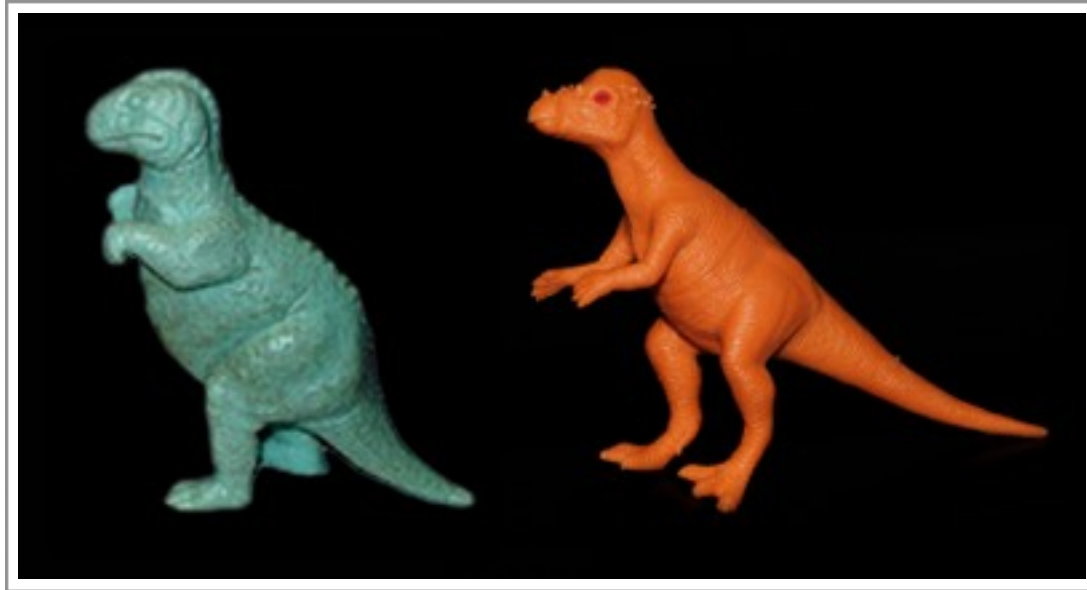
Perfect shells display all characteristics of the species and have more scientific value than when part of the shell is missing. Collectors like to purchase nice quality shells and will bypass poor quality ones, often reducing their value to near to nothing.

To be of perfect quality, a shell should be fully adult, without growth lines or other faults and with normal colors.

The term “Collectable” on itself is difficult to understand when new in collecting. Two examples will do:

If you collect BOTTLES, then a 19th century “Kobalt Blue” “Not to be taken” bottle from Great Britain is very collectable. The Coca Cola bottle you were just drinking is not collectable. But the Coca Cola bottle from 1920 is very collectable.

If you collect PLASTIC DINOSAURS, then the bottle with small dinosaurs, made yesterday in China, and sold at 2 euro for 6 pieces are considered “ugly” and not collectable. The MARX Dinosaurs, are from 1955 and even more “ugly” as the ones from China today. They are considered very collectable because they were among the very first plastic Dinosaurs humanity ever made.



On the left, a very collectable and precious MARX Dinosaur, truly ugly, and on the right a more beautiful modern Dinosaur, not (yet) collectable at all.

In Shells, some shells in very low quality are still collectable. A good example is the *Notovoluta hoskensae*, of which no live taken shells are known in private collections. The shell shown here below was handled for 750 € and I have seen better, but still very bad quality at 2000 €. Advanced collectors will call these dead collected shells “treasures”.



A very collectable ugly dead collected shell, which is a piece of pride in any good Volute collection. It takes many years before acquiring the knowledge of what is collectable or not, and one has to be able to rely on dealers big enough to allow themselves to be perfectly honest.

SHELL PHOTOGRAPHS ON THE WEB

Modern dealers on the Internet will provide photographs of even the cheapest shells they sell, so a buyer can judge the quality of the specimen for himself. Also, most shell collectors will refrain today to buy a shell without getting a photo upfront. And this is very justified indeed.

However, photography needs an interpretation. Many would-be dealers will hide defects on shells on their photographs. Professional dealers emphasize the defect and always show the detail of the defect, either by arrows or by enlargement or an extra image displaying the defect. When not very visible on the image, a text explaining the defect is necessary.

Many imaging programs provide Internet users with photo-enhancing tools. Defects can be easily hidden, colors are easily enhanced. One trick to ameliorate reality is to make slightly more reddish the photographs: untrained collectors often are victims of this trick. Another trick is to show the shells too small to be visible. A third “classic” are shells shown too dark to distinguish anything properly.

A truly “bad” way of displaying shells is figuring shells on two sides, hiding often a very important feature: the aperture. Many Volutes of the genus *Cymbiola* and *Cymbiolacca* are virtually worthless when the lip is not thickened. Unfortunately, in some species, there are more “young” garbage shells on the market than adults. So, would-be dealers and vendors have a tendency to hide the lip!

Here a few examples of such ABSOLUTE NO GOOD and RUN AWAY images:



Another funny way of showing shells is the shell “kept in the hand”. This looks like the vendor has no table or proper place to display the shell and is an easy method to hide more than half or all the defects. Using the hands of children is a classic: the shells then look bigger.



The “hand show” should alarm you with big RED lights. It is a No Go

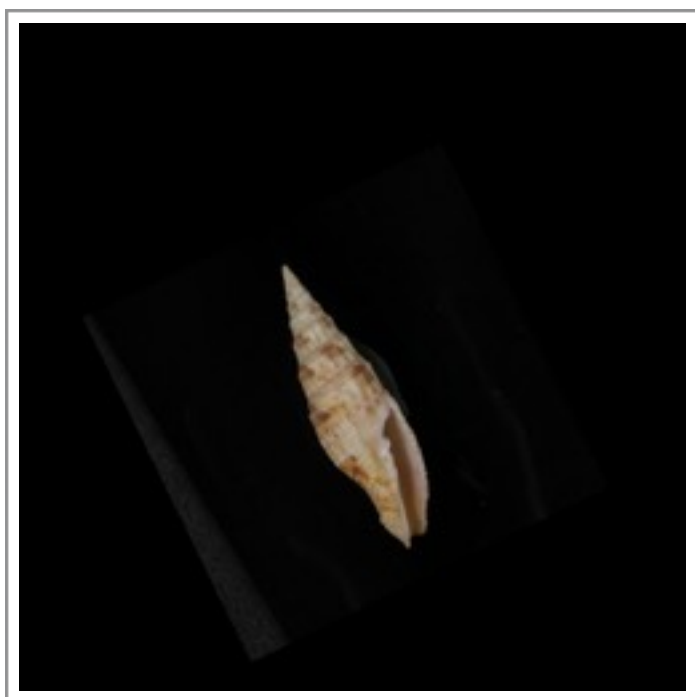
The “white balance”. When you use quality photographic material, there is a tool called “white balance”. By setting a proper white balance on your camera you can make reasonably realistic colors in the photos, even when photographing in artificial light. Most photos taken in such light are yellowish tinted if the white balance is not set properly.

So, do not believe in these “yellow” shells: it is only a fake coloration.

There is something which few people know, but which experts and professionals of programming only are aware of: only trust CALIBRATED COMPUTER screens to view shells in a professional way. To calibrate your screen: ask the proper tools and the programs in your computer shop.

Do NOT trust tablets and smartphones. Almost all are equipped with colour improving algorithms which make the shells look better than they are. Better consult with these tools: buy only after viewing with the computer screen. The same is true for television screens. When you want to view your digital photos “enhanced” and very beautiful, sharper than ever, then put them on your television.

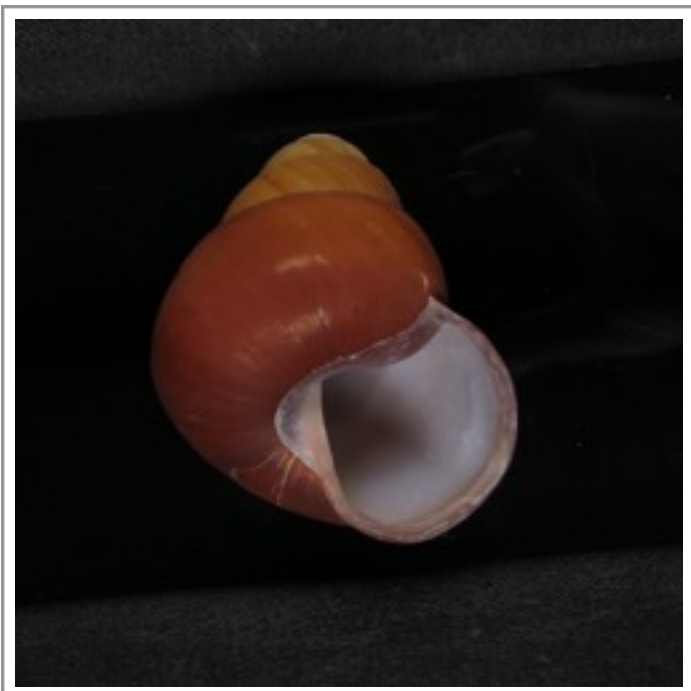
Here a few examples with the wrong and the correct image.
On the left, the wrong, on the right the correct images.



Growth line on the ventral side, difficult to see on the left image.
The trick is “too dark” and “too small”.



Here a special case, the growth line on the left of the *Conus* is visible in the left photograph: so, if you buy this *Conus*, you cannot pretend you did not see that. But more: we removed this beautiful *circumcissus* from our sales and trashed it, as the coloration is highly suspect, and there is 95 % chance this is a fake coloration.



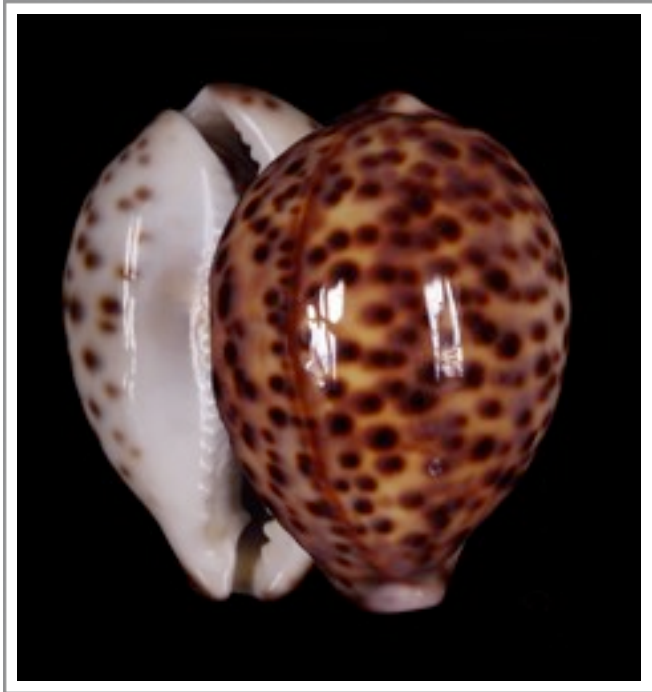
A classic “Internet” image on the left. On the right is what you get. This is the same shell.



On the left what you see, on the right how the reality is: a young shell, not an adult, with a ruined lip and a nice stress line on the dorsum.



A *Turbo reevei*, on the left, the usual offer. On the right the reality. The heavily filed lip is quite acceptable in this impossible “gem” shell, but the big growth lines are not.



A quite artistic view: accept artistic views only from shell dealers or vendors that proved their honesty. More often than not there will be misuse of the Photoshop qualities. The image is too red – this is wrong setting of light in most cases, but it ameliorates shells, and is not conform to reality. On the right the real shell, which has a rusty spot on the base and a very big defects on the lower half – a pin hole



A very easy to detect wrong photo: too red, the gloss of this *L. mappa* is completely gone on the base and on the right dorsum!



This *Amphidromus* has on the first glance a growth defect on the body whorl, on the left side. But the left photograph has simply been taken with no color balance. This enhanced the natural yellow to result in a fabulous collectors piece. The reality on the right is not too bad, but if you have seen only the left photo and in your parcel arrives the right one, the deception will be considerable. You can detect wrong white balance when all the photos of one dealer look too yellow or too rusty.



On the right the real shell that we trashed because of the defect on the periphery below right and the over cleaned condition and the dirty spot in the center right.

On the left, white balance mistake, too yellow, in the center, with either wrong camera settings or wrong light: too red.

Always photos should be taken with about 5 600 Kelvin artificial light, or outside, at noon, when sunlight is magnificent and strong.



Often shells photographed with a “cheap” telephone look as the one on the left.
On the right the same shell: top whorls very ugly indeed.



Be always suspicious when you see only one side of the shell, unless you deal with a reputable dealer that is trustworthy. The back of this *Lambis millepeda* looks “reasonable”, but the ventral side is a complete disaster.



The *L. mappa*, reasonable and good colors: in reality the shell has a milky glaze and the whole thing is to trash faster than Lucky Luke can shoot.

The list of shells to trash is endless. It is very important that as a dealer you scrutinize the pieces you get in bulk, and you trash the majority of course. When you venture in nature, it is important to check piece by piece of your shells when they are still alive: this will avoid hundreds of pieces going to the trash, but staying in nature to reproduce, at each time you go shell collecting. Unless you want to eat the catch.

QUALITY GRADING

Before the Internet, this was impossible as the trade used a grading system that was developed by the Hawaiian Malacological Society and the terms GEM, FINE, GOOD and FAIR were used to describe the quality of a specimen. Today, this far-from-perfect system, which helped the shell-community for several decades, is almost not used anymore but the terms GEM and FINE remain still in the vocabulary of the conchological world.

GEM: An adult, perfect shell. Normal color and without growth lines. A perfect lip with no unusual shapes. The gloss should be typical for the species.

Of course, this is an unusual condition for a shell: in almost all species, the perfect item is either uncommon or rare. Exceptional specimens which are beautifully colored or extremely large are referred to as **SUPER GEM**.

FINE: A shell with only one defect. For example, in a *Conus* shell it may mean a small growth line OR a small chip in the lip. Both faults together mean that the shell is no longer FINE.

This grading system got more terms such as **FAIR, GOOD** and the like.

Today most shells are sold with a photograph. Many dealers and vendors make only one photograph, representing the “set” of shells they have in stock for sale. But with the technology of today it is as easy to photograph each specimen individually. Always go for that type of dealer which illustrates well, especially if you collect for quality rather than science.

I refer to our chapter on **POOR QUALITY SHELLS** for a short training of what should not be accepted in advanced collections, unless pieces are rare....

EXCEPTIONAL SHELLS

With the venue of Conchology, Inc. on the Internet, the author introduced another term in the conchological vocabulary: **EXCEPTIONAL**.

Like “fine” and “gem”, this term is now well-established and can be seen on a majority of home pages. Exceptional shells are unusual shells for a variety of reasons: they can be oversized, have a rare coloration, an unusual shape. In all cases, they are rare and form the exception in the species. A decade ago, EXCEPTIONAL shells were often confused with RARE shells or INTERESTING shells. This is no longer true and several dealers properly use the term today.

The following shells below are examples of EXCEPTIONAL shells. Often EXCEPTIONAL shells are unique examples of the species that combine several attractive features such as exquisite beauty, special colors or shapes and unusual sizes. If not unique, they should not occur in big numbers, as the very definition of “exceptional” then disappears. And this is the only downside: a small percentage of “exceptional” shells disappears from the list once in a while when the item is found in big numbers. Such happens, but it is a very rare phenomenon.

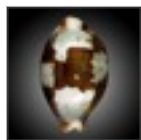
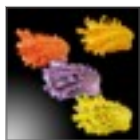
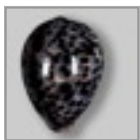
You can find a huge number of them in our latest twin books “1000 Shells” by Poppe, Poppe & Tagaro, 2014. See in our book section “**TEACHING IN AESTHETICS**”.

You can also view many EXCEPTIONALS in our weekly auctions, mixed up with rather uncommon and rare shells.

Exceptional shells usually deserve a premium price. Their purchase is worthwhile and satisfactory. Once in the collection they will stand out among the more “typical” shells.



This is an EXCEPTIONAL Annachlamys reevei, even the shell is fine and not gem. It has a defect on the right side and on the right ear. But virtually no collection can display a shell as such which has a combination of orange flecks in the very heavy red. The red is very red, the orange very orange. All is combined with whitish flecks in the sides.



FREAK SHELLS

FREAK shells are distorted, unusual, often diseased specimens, which developed an unusual shell. Freak shells are only counted as “COLLECTABLE” when they also display beauty or extreme curious features such as a double siphonal canal in cowries. This is only a minority: most freaks are not collectable and are rather garbage material.

Many freaks are UNIQUE. Some are REPEAT FREAKS. The Repeat Freaks are freaks that regularly turn up – but usually they are still very rare. In most cases a few dozen are known. To mention a few: *Strombus aurisdianae* with two spines on the upper lip. *Lambis scorpius* with two siphonal canals. *Harpago chiragra* with a double central spine. *Cerithium vertagus* with stepped whorls.

Repeat freaks can be extremely common, such as *Cypraea annulus* with inflated siphonal canals or certain *Maetra* species with the same deformation found by dozens on the same beach. So, be very careful when buying: only procure freaks from reputable dealers. Freaks are also a classic target for fakers: be double careful.

Occasionally collectors specialize in FREAK shells only and their collections are often interesting to view.

We here show a few the COLLECTABLE FREAKS and a few of the REPEAT FREAKS.



A REPEATABLE FREAK: the Tibia fusus with double siphonal canal. Likely about a hundred are known as such.



POOR QUALITY SHELLS

Here an overview of some shell defects which will help you get acquainted faster with “quality”. All shells below have no commercial value, but they may still have good scientific value if documented correctly. They are just a few examples out of many dozens of reasons why a shell is “poor” in quality and classified by most as “non collectable”.

Be very aware that some rare shells are very collectable, even in the poorest quality. And some species have never been found in private collections in a “COLLECTABLE” condition.

So, expertise is the keyword in deciding which shells are collectable or not. Some shells were collectable in poor condition ten years ago, and are garbage today. Others are in the reverse case: some were easy to obtain in perfect condition ten years ago, today one can accept the same species with a growth line or even in fairly dead condition. Rely on your supplier for information in this case.

Some classic defects are:

Growth lines

Looks like the shell was broken and continued growing afterwards.

Stress lines

Look like a diffuse line all over the shell, in the trace of the tiny or heavy lines that guide one on how the shell grows. Most *Conus* for example have stress lines, and are not collectable in this case when the shell is common or even uncommon. It will be accepted in rare *Conus*, but it has also a huge influence on the pricing. A *Conus* with a considerable stress line should not match much more than a third of the pricing of a

shell without that. But again, one stress line is not another one.... And there can even be cases where they are a plus point. But these are the big exceptions. In Conchology, we trash thousands of shells with stress lines.

Top whorls missing

The majority of shells never have their protoconch whorls – in fact, in many species these are always eroded. But in general, the top whorls should be fairly intact. Erosion of the protoconch is important when shells are used for study. But the first whorls missing are a big defect, and few people will buy shells as such. There is a small number of species in which the first whorls are always broken off: they are called shells with “deciduous” whorls. Learn to know these. Many **CLAUSILIIDAE** have deciduous protoconches, but also some **VOLUTIDAE** and/or **BUCCINIDAE** may show that feature.

Eroded areas

These are places where erosion has “deleted” the original colors, leaving most of the time a cream colored or white area. Especially, *Conus* are sensible to that on their shoulders. In some areas, where the sea is quite acid, all shells may have eroded areas. I have seen coasts with volcanic sands that are acid, where all shells were tin and non collectable. Once more: in some cases, no other specimens than eroded ones exist: rely on your dealer or knowledgeable collectors.

Pieces broken off

The preferred state of a shell is “entire”. When pieces are missing, such as spines, or parts of the lip, this is a big handicap. Lips should be perfect, unless you are in particular groups or species where the perfect lip is non-existent or extremely rare. For example, a perfect *Buccinum undatum* is a 25 euro shell with a perfect lip, and if large, even more. The shell is close to worthless with defects on the lip and the top gone. One has to look for specimens with “limited damage”, as the perfect one is a true rarity in central Europe. Eventually you will collect a perfect one yourself if diving in the Lofoten Islands for example.

Altered colors

Colors in shells come in two forms: “fresh” or “stabilized”. Both are valuable. What is NOT acceptable are shells that were sun bleached because having been placed on a shelf in bright light for twenty years. This is particularly important when buying

vintage or old collections: watch the colors and calculate the shells that are white from overexposure to light. A pale *Conus primus* will still fetch a good price. A very pale *Conus cervus* will fetch 200 euro the maximum, compared to a fairly good colored one near to a thousand euro or more.

Sponge holes

Most sponge holes refer shells to the garbage. In rare cases they are acceptable.

Uncleaned shells or half cleaned shells

This divides the value considerably, as cleaning shells is a costly affair, especially in the west where wages are high. Often a shell takes more than one hour to get it in a beautiful condition. One needs space, tools, time and experience.

Acid ruined shells

Many shells are acid-treated in order to remove the last particles of chalk. In some countries (for example India and Indonesia), acids or heavy bleach are used in huge quantities to clean shells for the wholesale business. Some minds will try to market such ruined shells also to collectors and occasionally one can see whole series of “glossy” *Conus* in listings online. Especially countries like India or Indonesia market acid treated shells by the container.

A *Conus amadis* or *Conus malaccanus*, glossy from acids will ruin your collection for any expert viewing.

Beached shells – single valves

Most shells, collected dead on beaches, have lost their fine features such as fresh colors, perfect patina, spines, protoconches, perfect lips and the like. They are considered not collectable. Experts will have the hairs in the neck raising when observing dead single valves in a collection. This may be occasionally acceptable in historical collections from famous conchologists and centuries old, or in the collection of a scientist studying rare bivalves from great depth. It is not to view in the modern natural history collection. But again, half a dozen exceptions exist.

PROBLEMS

A few things in poor quality are accepted, but the very die-hard “quality” scrutinizers will not accept even these. Therefore also, their collections will not be very considerable in some groups.

The first thing to discuss is the filing of lips in CONIDAE. It is virtually impossible to have a perfect lip in a large *Conus* species, as even when putting the shells in the bags of the divers, the lips will have chips. Also when they go through the trawling process: the compression with fish and other organism chips the lips. MODERATE filing is generally accepted. A collection of *Conus* without that is impossible, at least when one aims completeness.

The second affair is the polishing of cowries. Some cowries, such as Philippine “*mappa*” are always polished. We dived about a hundred *mappa* in the Philippines ourselves: virtually none are perfect. So, thousands of cowries are polished for the market. Here again, common sense is the word. Nothing is more ugly than a dealers table where all cowries are glossy like mirrors: things do not look natural there. Look for dealers which sell cowries with natural gloss – most of the time – in order to make a magnificent collection of natural history. Not a collection which resembles glossy ceramics.

A third problem is a chemical reaction, well known in dead shells: Byne’s disease. Read more on this chemical reaction in Wikipedia: avoid putting your shells in wooden acid cabinets. Many tricks to avoid this.

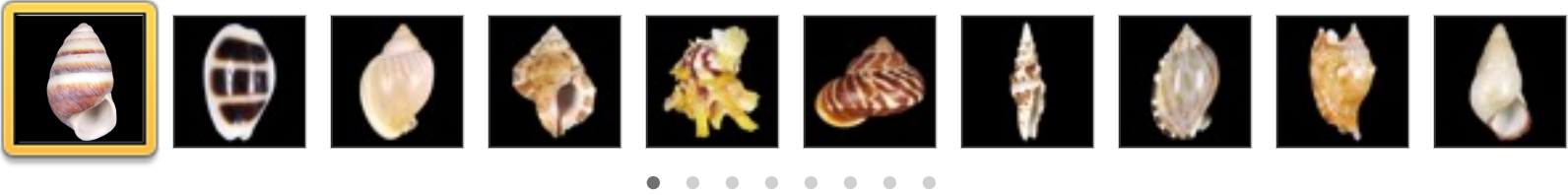
http://en.wikipedia.org/wiki/Byne%27s_disease

EXAMPLES

Here a series of examples with a few words of explanation. They are taken out of the trashed shells from our company while writing this page.



This land snail has a light form of Byne's Disease.



SIZE IN SHELLS

It is a personal matter if one is interested in BIG or SMALL shells. We here distinguish two kinds of BIG shells: shells that grow big and shells that are big for the species to which they belong.

THE GROW BIG SHELLS

The first category are shells that “grow big”. These species are particularly sought after as they are very suitable for display on shelves, either on old furniture or in glass cabinets in the shell room of the collector.

Especially starting collectors love to see these big species, and they share their astonishment with the non collecting, but curious people that will open their eyes wide when seeing a wall with all giant species of shells.

To avoid you searching for hours for “the largest”, here a listing.

Top 25 list of the largest marine shelled molluscs

<i>Kuphus polythalamia</i>	1532 mm	Bivalve
<i>Tridacna gigas</i>	1368 mm	Bivalve
<i>Protected today: lots of paperwork.</i>		
<i>Pinna nobilis</i>	970 mm	Bivalve
<i>Protected in several countries. Still a very common species that you can enjoy during many Mediterranean dives.</i>		
<i>Syrinx aruanus</i>	772 mm	Gastropod
<i>Tridacna derasa</i>	621 mm	Bivalve
<i>Protected today: lots of paperwork.</i>		
<i>Pleuroploca gigantea</i>	616 mm	Gastropod
<i>Pinna rugosa</i>	590 mm	Bivalve
<i>Melo amphora</i>	550 mm	Gastropod
<i>Turbinella angulata</i>	496 mm	Gastropod
<i>Adelomelon beckii</i>	404 mm	Gastropod



Kuphus polythalamia: This bivalve is known to grow to one meter and a half and is after the giant Cephalopods the largest mollusk known. The shell is merely a hollow tube, quite heavy and chalky in appearance.

The 25 largest marine Gastropods

<i>Syrinx aruanus</i>	772 mm
<i>Pleuroploca papillosa</i>	616 mm
<i>Melo amphora</i>	550 mm
<i>Turbinella angulata</i>	496 mm
<i>Adelomelon beckii</i>	494 mm
<i>Charonia tritonis</i>	490 mm
<i>Siliquaria ponderosa</i>	467 mm
<i>Melo miltonis</i>	450 mm
<i>Melo umbilicatus</i>	450 mm

This list has been made quickly using the databases of Conchology, Inc. More study may reveal minor changes, but the general image is close to correct.



A series of LARGE Gastropods: collecting these will fill a room fast. From left to right *Syrinx aruanus*, *Strombus goliath* and *Pleuroploca papillosa*.

THE LARGE SHELLS AND THE WORLD RECORD SIZES

In all types of objects: large appeals more to our aesthetic senses than small. In Tribal arts: any type of statue which comes in LARGE will fit a higher price if equally beautiful than a smaller one.

And shells are no exception on that.

A majority of species in Conchology, Inc. are priced according to size. The larger, the more rare and the more expensive. As we approach maximum sizes we often join the word LARGE, and for even larger, the word GIANT.

This ends with THE LARGEST one in the WORLD, it is called the World Record Size, often abbreviated to WRS.

The WRS list is published regularly in paper issues – now a book. It was originally maintained by Don Pisor, later by Conchology, Inc., and now by Philippe Quiquandon. You can consult the WRS list online. There is a small fee, but this is still worthwhile to pay, as WRS shells are usually expensive.

Visit: <http://www.wrs-shells.com/>

There are, also in this field, traps to avoid. The WRS shells are not necessarily expensive. Prices for WRS shells in **PYRAMIDELLIDAE** or **RISSOIDAE** are low. They will be slightly more only in **LITTORINIDAE** or **COLUMBELLIDAE**. But they may be sky high in **CYPRAEIDAE** or **CONIDAE**. But then again, if the shell is an eroded *Conus*, price falls down like a rocket. Beautiful “AND” WRS is what people look for.



A valuable World Record Size from the former Philippe Martin collection and now in the Havelet collection: A 53.8 mm Erronea caurica dra-caena.



Another trap are records of dwarf forms. Dwarf forms have no record size. Things can get subjective: either one looks at “*Lyncina leviathan*” as a valid species, in this case *Lyncina carneola* has a WRS, but if you look at *L. leviathan* as a form of *L. carneola*, then the *L. leviathan* will have the WRS and there is no such thing as a WRS of *L. carneola*.

Some collectors like “The smallest”. Especially in cowries this has been a vogue. Small shells stay cheap today, even they are “the smallest”. It is also tricky to decide on a small cowry if it is adult or not. Slippery ground here.

Often shells are found in “populations” or “groups”. Occasionally, one will find a place where all pieces of a given species are over the known WRS-size. Unscrupulous vendors and some dealers will then offer a WRS size specimen to different collectors. These different collectors occasionally will declare these WRS to the official list: and the fraud is easily detected, but usually the money is paid. These are cases that more than one weeps. Another not honest trick of suppliers becomes viable when they notice that a given collector likes “big sizes”. I know of a case where a collector became disgusted after he bought four times over the “biggest *Bursa*” of a given species from the same dealer. Always with an interval of three months! If going in the rewarding and pleasing game of the “biggest” shell, chose your suppliers and make concrete arrangements to avoid the above traps.

In the case of WRS-shells, also be “on the point” with the nomenclature. We have seen in the past collectors acquiring tens of thousands of € for synonyms. Some dealers went to long efforts to dig up synonyms on the Kaicher cards to trap customers. Best stick to WoRMS in this case.

Some vendors also oversize their shells on sales lists online. Be careful if the shell is too big to be true and the price too low for a giant.

THE MICROSHELLS

Some collectors, especially the ones living in apartments without much space, may limit themselves to small shells only. A rewarding field in malacology is the study and/or collection of these “microshells”.

In nature, the term Biodiversity is nowadays more misused than used. The lion part of biodiversity is smaller than 10 mm, most often even smaller than 5 mm, and the majority of people will not even notice these animals, even when standing on or next to them. Shells are no exception to this rule: the majority of species are truly small.

Little is known about the microshells, but they number tens of thousands in species, being the majority of shells known. Most of them are as beautiful, often more beautiful, than a big part of the well sized shells. With the event of the digital photography you can admire your own collection of big-sized shells on the screen.

A collection of many tens of thousands of microshells will hold on a few square meters and can provide you with a lifelong passion and high quality time each day.

The present author is very involved in micro-shells since a young age and has spend many years in life studying these. A sack of dived shell grit from central Mediterranean will enlighten many of your weekends with discovery after discovery, and although “common as dirt”, a color series of fresh *Alvania cimex* remains wonderfully attractive.



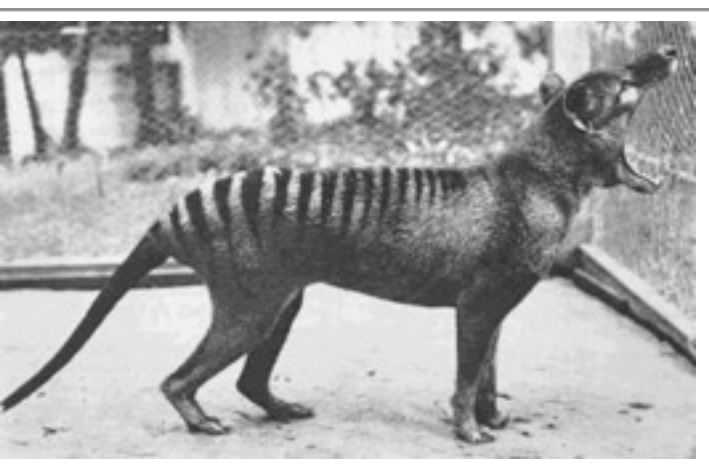
One of the most lovely microshells from Europe and VERY COMMON: *Alvania cimex*. Left the brown variant “*fusca*”, in the center the form “*fasciata*” (banded) and the white form is called “*lactea*”.

ON RARITY

Rarity in Nature

It is obvious that rarity in nature exists: as species go extinct, at a point where there are only a few survivors, a species becomes “rare”. Such cases are not often observed; during some specific transitions between geological periods, there were special circumstances that caused many species to become extinct: when comets touch the earth, when volcanoes plunge our planet into years of complete darkness, when the temperature of the earth changes drastically. At these times, many thousands of species disappear.

In some cases a species kills off another species, because it may use the other species as its prey, or it needs to occupy the habitat of the other species. The latter is one of the main reasons why a number of species went extinct because of human activity. Indeed, because we are a “large” species, we need considerable territory and food; consequently, humanity has the potential to be increasingly destructive to the other species on the planet.



A Tylacine (from Wikipedia).

A Tylacine, or the Tasmanian tiger, thought to be extinct by now. Most likely the extension of our human species is to blame for the disappearance on Tasmania, the last stronghold of the Tylacine. While we know of many landsnails that disappeared because of our species, no marine species are known to have vanished (as yet).

“Rarity” in nature is a term also used to express the relative lack of abundance of a species. Shells from coral seas are – in general – more “rare” than shells from cold water areas and the western coasts of continents. Indeed, along the western coasts of continents and along the north and the southern parts of the eastern coasts – where waters are cold, few species

thrive. But they thrive by the millions. In coral seas – with warm waters – there is a huge number of different species – but each species is occasionally represented by only a few hundred thousands of specimens. Large scientific expeditions in tropical seas bring back tens of thousands of specimens from warm water areas, but a majority of these specimens represent species through only one or a few, mostly dead taken pieces. These shells are considered “rare”.

The huge biodiversity in warm shallow seas is also explained through the vast number of “rare” species which are specialized in micro-habitats, often in micro-ranges. In the latter case of a highly localized distribution, they are called “endemics”. Endemic species usually occur in enough numbers to ensure their survival but when they live in areas that are difficult to access for either natural reasons or geopolitical reasons, then scientists have few possibilities to work with examples of these species, and they are therefore recognized as “rare”.

Rarity as understood by collectors

Collectors call a shell rare when it is either “scarce” on the market, or when there are few examples in collections. In general, there is no correlation between the perception of rarity by collectors with rarity in Nature.

Peter Dance (1969) gives a fine definition of this kind of rarity: “A ‘Rare’ shell, therefore, is one which has proved desirable to the many or the few; is in short supply either in nature or on the market; and commonly, but not necessarily, has beauty or some other attraction. It becomes a ‘common’ shell when supply exceeds demand.”



Although by now several thousand Conus gloriamaris have been collected and the species is known to exist by the millions in nature: it is still considered “rare”. Supply does not exceed demand as yet. There are indications that millions live at great depths, between 100 and 300 m deep, but they are difficult to get to the surface.

Definitely, a large majority of molluscan species belongs to the group that are difficult to find, with many species known from only a few examples in collections worldwide. A significant portion of all species has likely not yet been discovered.

The authors know from experience how extremely difficult it is to build collections of over 20 000 species in a lifetime, and this is hardly 20 % of the number of molluscan species thought to exist. The biggest companies, working for long periods cannot gather more than 35 000 different species, even by leveraging significant human effort and financial resources. Major collections may reach that number of species, it is the case of the Dautzenberg collection in the KBIN, Brussels. Hard working collectors reached may reach around 20 000 species in modern times: the Marcel Verhaeghe collection in Belgium or the Roll collection in Germany are good examples. There exist only a few collectors that succeeded in collecting much more. But these numbers of species are still extremely low when compared to what exists in nature.

The oceans have been little explored as yet: in the Indo-Pacific, 30 % of the species collected that live between 200 and 600 m will be new to science, almost wherever you go. Deeper, the levels reach 80 % of species that are new to science. The Atlantic below 600 m is still a blank zone: little is known or described.

Some collectors will boast that they have over a million shells. Do not be blinded by such statements. A morning dipping a net in a proper Thai river will procure you with more shells than that. There is no state of the art in accumulating ten thousands *Mytilus edulis*.

Being a merchant in edible mussels, *Mytilus edulis*, provides you with millions of shells each year. Also merchants in chalk, made out of shells, fish every year millions of shells, dead and alive, to crush and heat and to sell as an addition to the chicken diets. So, shells of chicken eggs get thick enough to be handled easy.

Shallow mud bottoms in seas all over the world yield many hundreds of thousands of mollusks on each hectare and in some cases many thousands of shells can be found on one square meter. A good example are *Hydrobia* on the intertidal mud flats of northern Europe, or densities of many dozens of freshwater mussels per square meter in a north American river. So far for rarity in shells.

Read more on rarity in “1000 Shells” by Poppe, Poppe & Tagaro, 2014.

THE MIGHTY NUMBERS OF SPECIES IN THE PHYLUM

When talking “shells”, and especially when touching the subject of “rarity”, one becomes curious how many different species of mollusks actually live on the planet. When I was young, most people thought there were 40 000 different species. Later in life, it changed, to 100 000. Still later, scientists uttered over 200 000 species. So, where is the truth?

Gary Rosenberg, Professor at the Academy of Natural Sciences in Philadelphia, and at present occupying the prestigious seat of Pilsbry made more scientifically based estimates in 2014 in an article published in BioOne: “A New Critical Estimate of Named Species-Level Diversity of the Recent Mollusca”.

In brief his conclusions are the following:

He estimates that there are between 70 000 and 76 000 described species of recent Mollusca. This is including terrestrial and freshwater mollusks, the marine molluscan diversity is somewhere around 43 600 species (with an error factor of +- 900).

The land snails are estimated at 24 200 species, 4 200 being operculate ones.

The freshwater mollusks are divided into gastropods and bivalves, with estimates of 3 900 and 1 200 species respectively.

It is obvious that over 20 000, possibly even 30 000 species are not described as yet. The curve of description goes up in a 45 degrees line since about 1840, at that time 5 000 species only were known. There was a slow weakening in the post WWII decades, but since 2 000 there is a revival in these descriptions.

Extinctions are not very well documented in Mollusca, but they exceed now over 690 species. 99 % of the extinctions are of land and freshwater species, the most vulnerable ones.

As shell collectors and dealers, we can conclude that a major part of the known species are rare to extremely rare in collections. Many shell species have only been collected once and are only known from the description. With big international efforts and even acquiring collections that were started 1926 (the Verhaeghe collection), our company could document and photograph about 40 % of the existing named species. Which is to be considered a record. Variation of this 40 % is well documented through almost a million pieces photographed, named and stored in databases.

It is a pleasure to know, for most collectors, that their collections are the more valuable, especially if well kept and well documented.

THE HIERARCHIC TREE

When you collect paintings, you will see that the French Impressionists are in the top ranking genre of most wanted paintings. When you collect African knives you will see that Throwing knives are more wanted than other types, and in the other knives, people are more attracted to the knives of the Mangbetu than to most others. The same is true in shells.

Priorities in preferences are changing also according to geographic areas and time. For example, while in most areas of the world, Cowries are number one, I noticed that in 1980 in Queensland, the number one were Volutes.

But in general, it goes in the following order:
(In red are links).

- The Royalty: **PLEUROTOMARIIDAE**
- The Aristocracy: **VOLUTIDAE, CYPRAEIDAE, CONIDAE, MURICIDAE**
- The Middle Class**: **STROMBIDAE, OLIVIDAE, OVULIDAE, CASSIDAE, PECTINIDAE, CORALLIOPHILIDAE, TEREBRIDAE, SPONDYLIDAE, FASCIOLARIIDAE, MITRIDAE** and **COSTELLARIIDAE**
- The beloved Minority Groups**: **ANGARIIDAE, HARPIDAE, NAUTILIDAE, ARGONAUTIDAE**
- The STARS among shells.**



Bayerotrochus poppei Anseeuw, 2003.
Off the Tonga Islands, deep water.

The Royalty: PLEUROTOMARIIDAE

On top of the tree in shells, we find the prestigious family of the **PLEUROTOMARIIDAE**. Also called the **SLIT SHELLS**, this family has only a few recent species, but there are hundreds of fossil species known. As Coelacanth, we can call them surviving fossils.

At present, the family has 30 species and 2 subspecies.

To learn more and to see all species figured, P. Anseeuw and G.T. Poppe dedicated the supplement 1 of Visaya to the **PLEUROTOMARIIDAE**.

Often, in a glance, the importance of a collection will be judged on the number of species of this family present. Part of the collection has democratic prices, and the first set will be very cheap, less than a hundred euro a piece, some species you can even find at 35 euro in top quality. A next batch floats between one thousand and two thousand euro a shell and the final species achieve prices from over ten thousand euro. The *Bayerotrochus poppei*, is known from only five shells. This *Pleurotomaria* lives in the deep waters around Tonga, so it is not tomorrow we are going to see more from it. The *Entemnotrochus rumphii* is one of the most wanted shells in the world. But it is only worthwhile when over 20 cm in diameter. Well doing Chinese families keep the shells as decoration in their homes, as lucky charms. In Japan, the name of this shell translates as “The house of the dragon on the bottom of the sea”.

The Aristocracy: VOLUTIDAE, CYPRAEIDAE, CONIDAE, MURICIDAE



Cymbiola perplicata (Hedley, 1902)
Offshore Queensland.

VOLUTIDAE – the Volutes

All VOLUTIDAE are well sized apart from half a dozen out of the more than 200 different species and several hundred more variants. These are the ultra rare and much sought after *Lyria mikoï* and the members of the genus *Enaeta*.

VOLUTIDAE have an irregularity in the shell shape, which is “arched” – giving the shells a special appeal. The family is extremely varied: some Volutes are among the largest shells of the world. Entire groups have a cold water charm, such as the *Fulguraria* and *Adelomelon*. Others are amongst the most beautiful ever shells and are very tropical such as the *Cymbiolacca* and *Amoria*.

While this is the second most prestigious family, a large Volute collection is pricy but will not match the price of a large CYPRAEIDAE OR CONIDAE collection.



Perisserosa guttata azumai (Schilder, 1960)
Taiwan. Deep water.

CYPRAEIDAE - the Cowries

This is an easy to love family as all members are beautiful, from the largest to the smallest. It is also an easy to store family: there are no gigantic cowries.

For these reasons there are many Cowry collectors. A major part of the family is easy to obtain and the shells are low priced, even they are extremely beautiful. But as one goes in larger and deep water species, things can be pretty costly. The rarest and most wanted cowries such as the “*Zoila perlae*” and “*Zoila mariellae*” may fetch the price of a small car.

All shell collectors sooner or later will be handling the nice and pleasing cowries, but many of the more advanced and experienced connoisseurs get a little bored as these shells are not very “puzzling” for most of them.



Cylinder scottjordani Poppe, Monnier & Tagaro, 2012
Philippines, Cuyo Islands.

CONIDAE – the Cones

This family is huge, with today well over 700 different species. *Conus* are fascinating as extremely variable and the taxonomy of the family is fascinating.

Because of their economic importance – their venoms have useful peptides for the pharmacy – this is one of the best studied families.

But experts do not agree as on the genera: the nomenclature changed several times in the latest two years, and this is disturbing for the collectors and the students.

Many species are extremely variable. Series in one species are a delight and a challenge to make. A collection of *Conus* can be cheap or expensive. The complete gigantic set can run in big amounts. Also rare and famous *Conus* occasionally reach prices of small cars.

One of these is the exclusive *Conus primus*. Another much sought after species is *Profundiconus darkini* – the black and white form from the Philippines.



Flexopteron poppei (Houart, 1993)

Is one of the most searched after shells of the Philippines. The species lives deep, below 250 m, around Balut Island and less than a dozen pieces of the quality of the shell shown here have ever been collected. There are on the contrary, over a hundred dead collected poor quality shells in collections worldwide.

MURICIDAE – the Murexes

As the CONIDAE, we here deal with a huge family, with many hundreds of different species. Recently, researchers melted the CORALLIOPHILIDAE into the MURICIDAE, adding in one step more than two hundred species.

Most Muricids are carnivores. They eat most often other mollusks, but do not hesitate to prey in anything which is meat, including dead fish. Some species grow large and literally “live” on their food. So, one can see in the Philippines the large *Chicoreus ramosus* sitting on top of *Malleus*-beds, on which it feed.

The beauty of Muricids is more in shapes than in color. Many species develop spectacular spines. Few develop grand variation in coloration, but if they do, the combination of shape and color is breath-taking. While some Muricids are very well finished, as well in material – they can be quite porcelaneous in texture – others are rough. Part of the material is dull and smooth, but not less interesting.

Muricids live from shallow to deep, where they dwell in the abyssal areas of the oceans.

Some of the members belong to the most sought after species in the world.

The Middle Class: STROMBIDAE, OLIVIDAE, OVULIDAE, CASSIDAE, PECTINIDAE, CORALLIOPHILIDAE, TEREBRIDAE, SPONDYLIDAE, FASCIOLARIIDAE, MITRIDAE, COSTELLARIIDAE



Rotaovula hirohitoi Cate & Azuma in Cate, 1973
The Philippines, Balicasag Island. 100 m deep.

This is a set of families that are affordable to most collectors, and they are beautiful to very beautiful. Most of these families have a few expensive species, while the majority is for all pockets. This adds to the charms. Many collectors are busy with one of these groups and find this a great delight.

The beloved Minority Groups: ANGARIIDAE, HARPIDAE, NAUTILIDAE, ARGONAUTIDAE



Nautilus pompilius suluensis Habe & Okutani, 2005
Philippines. Offshore Parawan Island.

Each of these families have very few species, they are extremely sought after, and beautiful shells always fetch good prices, although in general not excessive. *Angaria sphaerula* is one of the most desired shells in the world for centuries by now and the very common *Nautilus pompilius* is possibly the most “exact” mathematical natural history object.

The STARS among shells.

About 300 species are “vedettes”, or “stars” in the conchological sky. A few books dedicated attention to the subject. I refer to the BOOKS section “**TEACHING IN AESTHETIC**” to acquire the necessary books, in order to appreciate “the best” in shells.

Here a few of the stars, from my private collection. There is a page to write about each of them.



Calliostoma philippeii Poppe, 2004

Known from less than two dozen shells, the design of the brown pearly spiral lines on top of the porcellaneous white puts this shell on a superior aesthetic level. From the Central Philippines, where this beauty lives between 100 and 200 m deep.



Amoria kawamurai Habe, 1975

This majestic species has only been dredged once in the history of shell collecting. Even today the exact location is not known, although most experts think it is somewhere in the Arafura Sea. About two dozen perfect and more than a hundred second quality pieces are known.



Volutoconus bednalli (Brazier, 1878)

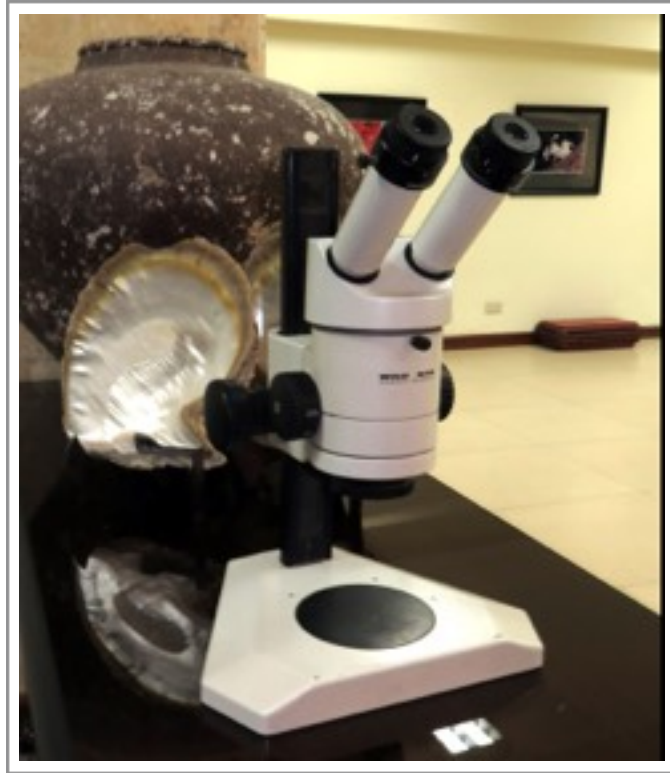
This is the authors “favorite” species. He has some *bednalli* in all the places he frequents – kitchens, living rooms, bath rooms – but the best set is in his office. This beautiful Volute, uncommon only in the waters of the Torres Straits, has a pink animal. It was the subject of the authors first article on a particular shell, many decades ago.

AND ALL THE OTHER SHELLS

Apart from the above mentioned very searched after and beloved shells, the planet offers you more than 700 different families, containing many tens of thousands of shelled and not shelled mollusks. Many of these have large and very collectable species, but if you want to equip yourself with a microscope and a good digital camera, your pleasure and astonishment in discovering new shapes, colors, sculptures and materials will have no end.

When you want to spend much time in mother nature itself, you can go photographing shells without shells, either on the land or in the sea. And also the shelled ones have an animal worthwhile to be digitalized.

Best chose, when you are young, a top level microscope with enlargements between 5 and 60. The investment is worth the weight in gold. four decades ago I bought two Wild microscopes of the best possible quality, and I still use them every day.



The stereomicroscope: endless pleasure.



A fine example of an astonishing microshell: *Macromphalus backeljawi* Poppe, Tagaro & Stahlschmidt, 2015. This beautiful species with a fantastic sculpture lives around Mactan Island between 180 and 250 m deep.

But one kilogram of sand, dived at 12 m deep along the Mediterranean coast and taken in a sand flat between *Posidonia* will provide you with hundreds of specimen one more colorful and fantastic than another one.

RESTORATION AND THE FAKES

Fakes appear in art markets, and in natural history markets, when demand is high and supply is not sufficient. This is the moment some would-be dealers and vendors are choosing to trick collectors with fake items.



*A beautiful fake ALBINO of the Cymbiola vespertilio.
Either albino vespertilio or albino tiger cowries can be only bought from a few select and trustworthy dealers with big financial means: they are expensive from the source on and it is advised to have a perfect pedigree for such shells.*

Fake shells are shells which were considerably altered in order to attract a buyer. In some cases, they are made out of other materials and do not even start with a real “shell”. In even different cases, the faker uses parts of different species to make a hitherto “new” species.

Since 2008, the Internet attracted hundreds of vendors that offered online shells at prices much below their production price. This halted the fishing industry: fishermen, middlemen and many shell dealers could not compete with these stocks online. The resulting lack of saleable shells resulted in the production of hundreds of fake shells.

The perfect victims for such pieces are occasional collectors or not experienced vendors and dealers visiting the Philippines. Usually, these move to the Philippines, in

order to get better prices than they can obtain when staying abroad. They often have considerable cash and are in the perfect “buying mood” to be trapped. Either on Mac-tan Island or on Panglao, the “middlemen” watch their possible victim – they are pro-fessionally trained in that – and occasionally will offer them altered shells at prices which are usually too good to be true. Another trick is, when the fakes are very well made, to start at high prices. The latter is dangerous for even the experienced buyer, as the slightly too low price will not ring the alarm bell.

In some cases the “purist” will get a hard time. Virtually no “*mappa*” cowries are not polished before being offered for sale. In Conchology, Inc. we were even not aware about that fact, until we noticed that very few of the 100 *Leporicypraea mappa* that we dived ourselves were in gem condition. After asking, the sellers told us that in-deed, all *mappa* are treated with a polishing machine.



A set of dived “*mappa*” from the central Philippines with natural gloss: glossy, but not like mirrors.

Having a long experience in diving cowries, one can see on a given shell show stands of cowries all with a gloss like a mirror. There is no doubt that all these shells have been polished. If this is to be called “fake” or not is doubtful and source of discussion. But a collection of excessively polished cowries is not attractive at all. And in some species, such as the *Nesiocypraea teramachii*, a polished shell is to be called “ugly”, as this species has a particular silky gloss due to the microgrooves all over the shell.

The same question arises with *Conus*: how to call *Conus* with a smoothed – filed lip. It is virtually impossible to get a *Conus* in “gem” condition out of the water and through the cleaning process. In 99 % of the *Conus* the lip has been smoothed. We think that both in the case of polished cowries or in the case of smoothed lip in *Conus*, things are acceptable to a certain degree. If the cowry is too glossy and there is alteration of the coloration it should be regarded as non collectable. And if a *Conus* has lost a centimeter of the lip, likewise.

There is always the equilibrium common-rare to consider in taking the decision if the item is collectable or not.

In the same context: in rare shells for example, a *Natica*-hole can be very disturbing. But there is no harm in restoring this. Done by professionals, this kind of restoration will be hard to detect. When selling shells, such restorations, if done, have to be mentioned of course.

Purists may feel very bad with some groups of shells that are virtually always acid cleaned. These are part of the MURICIDAE and part of the SPONDYLIDAE for example. Here again, if there is alteration of original colors, or entire parts of the outer shell layer are gone, this is not acceptable. Some shells are quite impossible to treat with acids, such as *Conus* shells. Especially, Indian and Indonesian wholesalers overclean millions of shells with acids: glossy *Conus consors* and glossy *Conus amadis* are not collectible.

A large part of the Japanese collectors prefer shells in a very “natural” condition. These collectors use only water to wash the shells from the smelly material, remove the animal, replace the operculum and let dry. Often shells are still covered with a natural fine layer of Intritacalx, such as is the case in VOLUTIDAE OR MURICIDAE. This way of preserving shells is not without charms and we call this in our lists “Japanese cleaning”.



This is the western style cleaning, after a bath in bleach or a short dip in acids, the Fulgoraria concinna looks as such. For many, this is more attractive. Purists, in this case, will prefer the Japanese cleaning. Many aesthetic connoisseurs will prefer the Western style.



Here a collection of fakes for your documentation. This is not exhaustive and new fakes are invented each month. We have a FAKE section in the Encyclopedia of Conchology, Inc. Studying these will avoid problems.

The policy of Conchology, Inc. is to refund even in the case of a “late discovery” of fakes sold. Such was the case in late 2014 with the *Guildfordia tagaroae* of which 75 % of the shells we handled were fakes. Avoid dealers who do not take these responsibilities.

Visit: <http://www.conchology.be/?t=6551&family=FAKES>



Pionoconus circumcisis FAKE



• •

The usual style of governments is to forbid the selling as fakes when they are sold as the genuine product. Selling fakes – while well declared to the buyer that it concerns fakes – is not forbidden. Take care: the zone between fakes and ameliorated shells is often gray and not easy to define.



A Conus glorioceanus with a completely repainted pattern. Looks good, but the shell was collected dead and without pattern.

CHAPTER 14

HOW TO ACQUIRE SHELLS

THE SITUATION

Much of the way you acquire shells will depend on the place you live in, the wealth you dispose of and the lifestyle you have. Young and energetic people may go for finding shells themselves, older and more settled wealthy people may decide on buying only.

The purpose of the collection will also have a big influence on how to acquire shells. If you want a fine collection of microshells, traveling to collect samples of “shell grit” is advised (see below). If you want a fine collection of historical shells, relying on dealers of reputation is definitely the only and best way of acquiring them.

THE MULTIPLE WAYS AND ASPECTS

Acquiring items when collecting is essential, so this is a huge subject, which we split into the following chapters:

- FINDING SHELLS
 - BEACHCOMBES
 - MUD FLATS
 - MANGROVES
 - ROCKY COASTS
- DIVING AND SNORKELING
- DREDGING
- FISHERMEN
- TANGLE AND LUMUN LUMUN NETS

- CLEANING SHELLS
- MAINTENANCE OF COLLECTIONS AND THE SHELLS

- EXCHANGING

- BUYING
 - SHELL PRICES
 - INVESTMENT OR HAVING FUN
 - DEALERS AND VENDORS
- WHEN BUYING, A RECENT CHANGE IN TIME AND METHOD

- SHELL SHOWS

FINDING SHELLS

Most people start collecting shells by finding them themselves. This is often a very satisfying way, the only drawbacks perhaps being that it is very time-consuming and by far the most expensive way of collecting. Travel costs are considerable and boat rental is usually far more than the price of the shells you will find.

Inexperienced collectors will find only the most obvious shells. Gaining experience, both in the field and by learning from others and studying the literature can take years, but then one may become an expert and find quite uncommon species, even rare ones.

There is a large variety of biotopes, and we here highlight a few of them:

- **BEACHES**
- **MUD FLATS**
- **MANGROVES**
- **ROCKY COASTS**

For all of these biotopes, a good geographical knowledge AND information on **the time and height of the tides** is important.



While even a few years ago, one had to rely on “tidal tables” published here and there, modern technology gave us an important helping hand at present.

You can download an APP on your cellphone, informing you about the amplitude and time of the tide, wherever you are on earth: search for the “Tideplanner” in the Apple App Store.

Before moving anywhere, it is advised to check out places with maps and on Google Earth. Most people today are well acquainted on all the travel facilities that the worldwide web provides for us, from reservations of flights, car rentals, to hotels and the rentals of boats and diving equipments.

BEACHES

Beachcombing is certainly the most common method of collecting shells: almost everybody has picked up shells from the beach at one time or another while spending holidays on the coast.

Beachcombing is a daily occupation for millions of people in search of food. Except in a very remote or seldom visited place, there is little chance of finding much live specimens in any quantity.

Of great interest is “shell grit” which is deposited along the tide lines. In this grit or “shell sand” you can find thousands of minute shells. The grit is usually collected in documented samples, dried and then sorted out under the microscope. You can keep the dried samples for years, and sort out when it convenes to you.

It takes experience to know what to keep and what to reject. It is best to keep only good quality specimens with fine protoconchs and good lips. Completely eroded or “rolled” shells are not very interesting unless they are rare or from remote places.

Use a rake just before and after low tide, so you may be able to find some of the species that live buried in the sand. You may also find buried shells, such as *Natica*, *Oliva*, *Nassarius* and *Solen* by recognizing the tracks they leave on the surface. However, not all beaches have shells and it may take visits to many sandy places before one learns where to look for which species. Some *Terebra* and *Nassarius* will “jump out” of the sand with incoming waves. Collecting these is a matter of seconds and can be big fun.

Do not neglect the fringes of the beaches: far above the high tide level, in the first plants, you may find half aquatic species such as several species of **ELLOBIIDAE**, **TRUNCATELLIDAE** and the like. They may even live mixed up with terrestrials.



Part of the beach on the west coast of Malapascua Island at low tide. The higher level of the beach has been ruined by soldier crabs: virtually no mollusks there, but here, at the lowest level, near the algae, many species can be collected by wading with a small mesh through these algae. On the back, under the trees at the left, many Ellobiids. Also much interesting materials where sand meets the rocks on the back at right.

Another type of beach, where I am walking in the center in 2003, going to a boat for a snorkel expedition. This type of beach is always interesting as between the boats you can see shells from nets and the remains of shells fished for food. In Mindolo, on São Vicente, the Cape Verde Islands.



MUD FLATS

A close examination of mud flats exposed at low tide can produce many shells not found in any other environment. Like on sand, the collector can use a rake or hand dredge, as well as a spade to dig for the deep-burrowing bivalves.

Being able to recognize the tracks left by crawling or digging mollusks plays an even greater role here than on the sandy beaches. Many mud-dwelling species are covered with a tiny layer of mud or will imitate the mud surface, such as members of the **ONCHIDIIDAE**.

A word of warning: mud can be a deadly trap and it is advisable to find out about the site and the tides beforehand. In the Philippines, mud flats are most often bordered by mangroves.



A mud pond near Danao, Cebu. These places are dangerous to collect in, but when being careful and in a group, the risks can be reduced. Such areas are often extremely rich in species.



On this photo, big *Isognomon* and a Cerithiid in the upper right. Also a kind of Venerid in old borer holes in the stone. All species have the same mud color in the mud area. In Cebu, Danao.

Below Pedro Arong is exploring a Nipa forest near Danao, Cebu. This is a dangerous exercise for the non-expert. This place yielded many species in quantity. Nipa forests are interesting all over Asia. Do not forget to take big knives to cut open rotting Nipa. ELLOBIIDAE are often found inside. Rotting leaves of Nipa in the water will yield interesting NERITIDAE, especially on the side resting on the black mud.



On the Right: A *Terebralia* on the mud at low tide. No evident to spot at first sight, but traces help in this case.



MANGROVES

Mangroves are a special biotope and can be visited either during low tide or by snorkeling. When walking, take the same precautions as on mud flats but you also need proper sturdy boots as the roots of the mangrove trees can hurt. When snorkeling, one needs experience; there are currents in the mangroves and one can get trapped between the roots.

On trees above sea level, you can collect *Littorina* and many dead shells inhabited by hermit crabs. These love to “sunbathe” and like humans, they stick together in groups of dozens, occasionally hundreds of individuals. Some of the shells they carry are still of nice quality and hard to find alive. It is always worth spending some time searching out congregations of hermits.

On the lower branches covered with mud, you may find larger species of mollusks such as different OSTREIDAE or the attractive Muricids. On the mud itself live quantities of POTAMIDIDAE. In the sandy parts of the mangrove, there are lots of bivalves to dig out: UNGULINIDAE, VENERIDAE and MYTILIDAE are the best-represented families in this biotope. The area around the mangroves, often covered with short algae, contains different species again: TROCHIDAE, NASSARIIDAE, TURRIDAE and others.



A wonderful mangrove near Alegria, Cebu. The mangrove trees were flowering and the freshly dead flowers fell on the black mud.



A very enchanting sight indeed. Remark the shells on the wood branch, upper left.



Members of the genus *Littoraria* are common all over southeast Asian mangroves. Here two pieces of different species in the “enchanted” mangrove near Alegria.

ROCKY COASTS

While sand and mud is better suited to bivalves, rocky coasts are often home to many gastropod species.

The collector can expect the best finds during the lowest tides.

A flat knife and a long steel bar, slightly curved at one end, are standard equipment for hunting shells along rocky coasts. The knife will help detach shells such as limpets off the rocks, and the steel bar is useful to reach animals which are hidden in rock crevices. Here again, experience will teach how to remove limpets without ruining their fragile shells. Literature will teach you in which algae or corals to find which species.

Examine all the tide pools, the small caves, the corals and the algae. Collecting the sand on the bottom of tide pools may reveal a treasure of microshells. Do not forget to look under rocks, but put them back in their original place and orientation after turning them over. If not, many marine organisms will die from exposure and this may affect the future of the area you collect in. Rocky coasts in the tropical countries are not as mollusk-rich as the rocky coasts in cold countries. The heat during low tides has prevented the adaptation of many species to this harsh biotope.



The Cape Verde Islands, São Vicente, south coast. One has to be a good swimmer.

A method to explore the rocky coast is by snorkeling. Only venture as such when you are a good swimmer, especially when waves are huge. Many species live in the splash zone, some very nice, such as the *Mauritiana* cowry.



In the above place, at low tide, a nice *Osilinus*, half in the tidal pool.

Hundreds of species can be collected by roaming on rocky coasts at low tide.

DIVING AND SNORKELING

In shallow water you can snorkel with a minimum of standard equipment: snorkel, mask and flippers. Good lungs are important: the working depth is generally limited to 12 m. Water temperatures are best between April and October. Tropical waters are full of dangerous stinging, scratching or biting animals and certain jellyfish are deadly. So, it is important to cover every inch of your body.

Better results are usually obtained by scuba diving. Air tanks permit the diver to explore the sea bottom thoroughly. Training and a minimum of fifty dives before starting to look for shells are essential. With normal air, the usual limit for safe diving is 25 m, but special methods now permit diving down to depths of over 100 m. Even with experience, very few shells are obvious finds under water: most species live either in substrates or are very well camouflaged. Bottom sampling and vacuum cleaning – sorting out lots of sand or mud bottoms with an airlift – give good results. The sea bottom is very much as a mosaic of many different colors. The majority of the bottoms do not yield easy catches: but after many hundreds of dives you will find out where the correct areas are that yield nice catches of shells. It is very much a matter of perseverance. A good method is to befriend local shell collectors that may take you to their favorite hunting group in order to procure you a nice experience. In this case, do not abuse - and do not plunder afterwards the secrets they shared with you.



Sheila Tagaro, Monaliza Zabala and Pedro Arong checking out a rich catch in cowries after 45 minutes below 20 m along the coast of northern Bohol. This kind of diving requires lots of experience and a good knowledge of the coasts in order to be successful. But with the cost of boats and diving, it is usually much cheaper to buy the shells, if shells “only” is the target. The thrill of picking up a nice *Talparia talpa*, is, however, tremendous.

DREDGING

A dredge usually consists of a special net, which is designed to be pulled by a boat and dragged on the sea bottom. This can be a very productive way of collecting with a small boat down to 200 m. Dredging is a professional occupation and requires lots of experience before it becomes productive. With a specially equipped boat and motorized winches, a dredge can reach down to 600 m and reach bottom samples that yield highly interesting species. Because of the cost of fuel and crew, dredging is expensive. The backset today is that dredging requires mountains of administrative papers and it is in many countries subject to severe rules and regulations. So, inquire before starting this rather expensive – but very rewarding – adventure.

Professional fishermen, dredging in 200 m deep water in Punta Engano, in 2011.



Museums and large institutions with proper research ships can dredge to depths of several kilometers and, in this way, can build up collections of deep-sea fauna, which are impossible to obtain any other way. Costs of such dredging operations run fast in the hundreds of thousands of euro and are out of reach to the very large majority of private collectors.



The rope for this depth is about 500 m long, and several men are required to get the small dredge on board.

After the dredging the residue coming from deep on the bottom has to be sorted out. This can not be done properly on the boat: the majority of the shells are small to very small and escape your attention when covered with mud, sands and slimes of all kind: this is how a dredge result looks.

Big shells can be manually picked out on the boat, as soon as the dredge surfaces. But the residue is then dried, washed, dried again, and sorted out. In our company, we do this in group, as the task is gigantic.

The sorted out shells are then split into perfect and reject shells, the perfect ones are sorted out once more in “online” shells and “stock” shells, in case we have enough online already.



Happy sorting out shells from dried dredged materials. A group task.

FISHERMEN

Many mollusks are edible and as such are important to the fishing industry. All over the world most fishermen today concentrate on fish and few boats will hold shells as a by-catch unless one can make special arrangements with the boat owners or the crew. The latter are the ones on the boats and they may be able to save treasures for your collection. Most often shells that are raised with nets from deep water die, even when thrown back into the sea, because of the decompression when hauled up. It is better that the shells end up in collections rather than dead on the sea bottom.

In your contacts with fishermen, consider the following philosophical thoughts before contacting them. In the western world, fishing, either with small coastal vessels, or with large offshore craft, is an industry. As in each industry, huge amounts of money are turned over, often to end with a loss, a small profit or either a huge profit. There is no such thing in the west as “small fishermen” that will be happy to bring in shells for a few dollars. Usually there daily gasoline runs in the many hundreds of dollars/euro, even for not so big vessels. (Consider that a 200 pk outboard motor easily consumes 75-100 liters of gasoline AN HOUR). So, when approaching the fishermen, it is wise to offer them the same price as they get for fish. They will happily catch you two hundred kilograms of shells, well packed in ice and orderly put in boxes. They will even deliver it in your city, as most cities in Europe have direct contact with large fishing harbors on the coast. It will cost you a few thousand euro, but you may expect treasures, especially if you make arrangements with boats fishing in the 600 m deep zone. Several collectors tried the “sympathetic” approach by socializing with the fishermen’s families. This is easily done when living nearby the harbors and many of them will appreciate the gesture of a bottle of whisky once in a while for in exchange a sack of shells out of their nets.



A fishing harbor on the northeast coast of Taiwan: dozens of boats fish red coral and have often a by-catch of interesting and expensive shells.

Much of the fishing in the tropics is done by individual diver-fishermen. They roam the seas with their small boats for many hours a day or at night and these sea people have a thorough knowledge of the shallows. They often collect shells that are either directly consumed by their families, but occasionally sell their catch at local markets. So, visiting local markets may provide you with lots of species that you might never be able to find yourself.

The collector of land or freshwater shells is advised to visit local markets, even far inland. Often near big rivers or lakes, there is a sustained collecting of freshwater mussels or snails for local markets.

Shells are consumed in immense quantities and when you are in coastal cities, a wise decision is to visit the local garbage dump. Indeed, after eating the mollusks, the shells end up “somewhere” and this somewhere is in the majority of cases the garbage. In the industrialized world, the garbage dumps are now limited, as much goes to facto-

ries treating the garbage directly – and they destroy all by doing so. But if you are in remote places – and there are many tens of thousands of kilometers of coast as such – shells are still thrown in dumps. In Mexico, I was extremely successful in garbage dumps – together with a friend we dug up 50 bivalve large gem *Laevicardium elatum* in less than an hour. In this country, out of dumps we once collected over a hundred kilograms of collector quality shells of at least 50 different species. But unexpected countries, such as Spain are also amazing on this level. In Spain, in San Carlos de la Rapita, I noticed a fishery of thousands of kilograms of *Bolinus brandaris* “a day”. This is still going on. In this city I made arrangements with a very popular sea fish restaurant. Each weekend hundreds of Catalans were eating tons of shellfish, and I got the garbage from this restaurant to check out before it was dumped. There were huge quantities of at least 20 large Mediterranean species to collect in no time, the animals already cleaned out.

On the other side of the world, in Vardö, Norway, near the North Pole, I got the reject from a scampi factory. The small Buccinids from there revealed themselves treasures in even the most advanced European collections!

As one sees, social contacts are key, and a little fantasy is needed to detect the best of places, sometimes very unexpected.



The author in a garbage dump on Margarita Island in Venezuela in 1990. This place yielded thousands of kilograms of collectable shells at that time.



Two fishermen walking on Mactan Island with their heavy catch of Strombus from the intertidal zone along the coast – taken at low tide. These shells all end up in markets and finally in the garbage.

TANGLE AND LUMUN LUMUN NETS

Between 1970 and 1975, inventive fishermen from Mactan Island developed two important methods in order to catch deep-water shells which are otherwise virtually impossible to obtain. They are tangle nets and lumun lumun nets.

Tangle nets are made of very thin and light nylon rope. Most nets are about 60 m long and 2 to 3 m wide. On one side, they are equipped with small floats, on the other side with small weights. Depending on the current between tides, the net will remain standing or lie flat and sweep the bottom. Animals on the move during night time get trapped in the nets and are hauled up each morning.

Most tangle nets are set at a depth of approximately a hundred meters; on occasion, nets are deployed at depths of over 300 m. Tangle nets brought to light an impressive array of many sought-after shells and provided collectors with successive discoveries for over twenty years. They are the ones bringing up the legendary *Conus gloriamaris* in quantity and they provided amateurs from all over the world with one of the most attractive cowries in the world: *Perisserosa guttata*.

Foreign collectors often think of tangle nets as a dream method for finding shells while not acquainted with the hardships of working them: nothing could be further from the truth: tangle netting is very hard work, which generally yields little result. Setting the net between 80 and 100 m requires a 160 m-long rope. The fishermen have to go out every morning and haul up by hand the heavy net which is often filled only with dead coral and stones. Most tangle nets will yield very few shells or none at all, usually less than three a day. Damaged nets often require daily repairs which take hours. The quantity of deep-water shells available by now several years ago was due to the large number of nets: indeed, 50 nets could provide the community with 50 good quality shells a day. But it takes hundreds of hours of hard work to get these 50 jewels to the surface. One of the nice things about tangle netting: it does not destroy the bottom

and its fauna. Less than 10 square kilometers were tangle-netted in the Philippines and these same areas can produce as many shells today as in the seventies. Unfortunately, most fishermen have now stopped tangle netting in the Philippines.

Lumun lumun nets are another fantastic method for catching mollusks. When tangle nets have been used beyond repair, they are wrapped into long bundles. These sausages of nets are placed along the drop-offs in water with reasonably strong currents. Drop-offs are places where the sea bottom plunges steeply to deeper water.

The nets are left hanging on the drop-off above the coral for several months and are an ideal biotope in which larvae of all kinds settle and grow. When the nets are finally lifted, they weigh hundreds of kilograms. Washing out these nets is again work-intensive, smelly and dirty. But after sorting out the material that came up, fishermen have a small box containing some dozens – if lucky, some hundreds – of small shells. A few of these, such as *OVULIDAE* or rare *CYPRAEIDAE*, are sold individually; the other shells are sold as a lot. The advantage of the system is obvious: most of the shells fished this way would never have survived without the artificial shelter of the tangle net and never would have existed. The disadvantage is that the tangle net material contains lots of juvenile specimens because three months is not long enough for some mollusks to reach adulthood.

Unfortunately, the use of tangle and lumun lumun nets has strongly diminished in the Philippines and today, in 2016 there are likely less than a few dozen still used here and there. The economical development of the country, which gives opportunities in the tourist industry, and the huge presence of shells for sale on the Internet, at prices, well below production price, are not alien to that. Nets are expensive today, gasoline prices are considerable in boating, and the work is hard. Without a strong financial motivation, as before, fishermen prefer to catch fish.

We now can say that tangle nets brought to light, over a period of a few decades only, thousands of new species and an amazing set of stunning beautiful shells. Most of these went to collections, and they now gain fast in value.



Balicasag in 2009. This was one of the hot spots of tangle net fishing until 2010. On the right Guphil I, destroyed in late 2014 by a typhoon in southern Leyte. Sunsets were most of the time spectacular in Balicasag and we did a lot of diving. All was still free: today you pay for each dive, for each camera, for each mooring and this, as soon as you arrive on the Island.

CLEANING SHELLS

Cleaning shells is a delicate enterprise, but a stage we all have to go through when we collect ourselves. Usually, most shells you buy from dealers are cleaned, or are supposed to be cleaned properly. It saves of course a lot of time and it is obvious that cleaning adds more value to your pieces.

We distinguish “Japanese cleaning” or “Western cleaning”, documented earlier.

The Japanese cleaning consists of keeping shells “as they are”, including attachments such as calcareous worms, corals, algae, balanus and the like. The animals are removed, the operculae are kept with great care.

Here some tips:

As soon as the catch is done:

- Rinse with water all shells, remove the sand, mud and the obvious algae and/or corals sticking to the shells.
- Separate the shells with animal from the empty shells without animal.
- The shells without ANIMAL:
 - Either dry them for storing and later cleaning or start the cleaning process.
- Shells with ANIMAL:
 - Either freeze these for later cleaning or start the cleaning process.

To REMOVE the ALGAE and ORGANIC organisms: put the shells in bleach or clean with pure water, depending on the groups. One has to learn which shells cannot be bleached and which shells can be bleached. One can leave many shells for overnight in bleach – dilute a little, not too strong. But others, such as *Haliotis* can only stay seconds, or even better: do not touch with bleach.

To REMOVE the animals:

Either cook the shells for ten to twenty minutes: should be long enough for most. Or freeze the animals for 48 hours.

Some animals, especially in land snails, can be removed from the shell by putting them alive in the micro-wave for a FEW seconds. The animals will pop out and the shell can be cleaned with water afterwards. Then dry and finished.

Here again, experience will teach you what is best for which species.

Chalk sticking to the shells can be removed with dentist material. Buying industrial small electric drills is the best. Ask your dentist for used drills, they always have excellent material.

Then go ahead, carefully, like a dentist, but on your shells. Remove piece after piece without damaging the shells. Experience is required in this case, and it is best done with a microscope.

After all the cleaning, eventually oil the shells. But not all. You will then learn fast which ones look awful with oil – such as Cowries or Olives, and which ones not.

Cleaning with acids is for experts: do not start this sport, as you will ruin hundreds of shells before you know which ones you can acid, and which ones not, and how. Best leave that for experts.

The operculae are kept, near the shells, and placed back in the apertures after having filled the latter with cotton. Apply some glue to the operculae on the cotton, it will then look good, others keep the operculae in a paper in the respective apertures, this does not look good.

When shells have periostracae, best keep some pieces with periostracum, and the same species without. Often with or without periostracum looks tremendously different. Periostracae are easily removed with bleach.

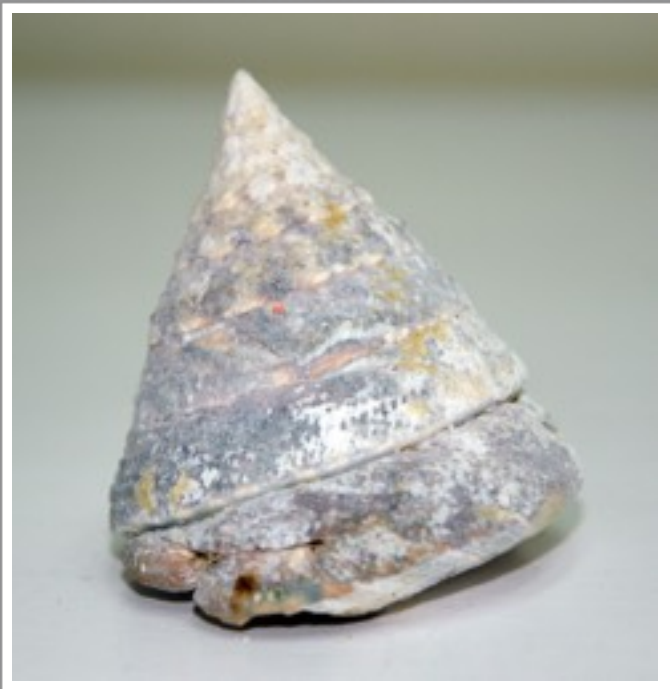
Big shells or shells with a lot of convolutions – a high spire, such as **TEREBRIDAE**, may have pieces of the animal difficult to remove. You can leave these shells upside down, some days, with water inside. This allows the animal to rot and become soft, after it is easily cleaned out with a jet of water.

The same is true for small shells: one can let these rot in water for some time, and a final cleaning with bleach in the ultrasonic machine.

Here some photos. As time goes, we will add more photos, the total affair should help you how to clean shells properly. It may take some months before being complete.



Cleaning takes LOTS of space. We use trays in specially conceived racks to optimize space. The system here shown, with racks of 1.6 m high, permit you to work on many square meters. Cleaning takes LOTS of time – mainly for drying properly after cleaning. So, several rows of trays allow you to clean over a period of a month.



An example of “Japanese Cleaning”. The shells have their operculum on cotton, the animal is removed. This is excellent for scientific collections as it learns at once that these pieces were living in a coral environment. But not much aesthetic enjoyment.



A microwave is very useful in the cleaning room: some animals are easily removed that way, especially land snails. Experience teaches how many seconds for each size.



Ultrasonic machine is excellent for cleaning small shells and microshells. Most often shells are placed in a container with water, or bleach when there are many algae. We then leave the shells for several minutes. Most often the small treasures come out like jewels.



These shells, were frozen, the major parts of the animals have been taken out by hand, the shells were then bleached. Here they stay several days in clear water, the water being changed twice a day, in order to allow the rests of the animals inside to become very soft. After they are flushed out with water jet and one has super clean shells.



Original labels stay with the shells all the time, but we add labels, often with instructions on the stage of cleaning and the like. Shells get several labels before ending up with a final label: a field label with number, a cleaning label with locality, a cleaning label with cleaning instructions, then final numbers that correspond to the data-base systems.



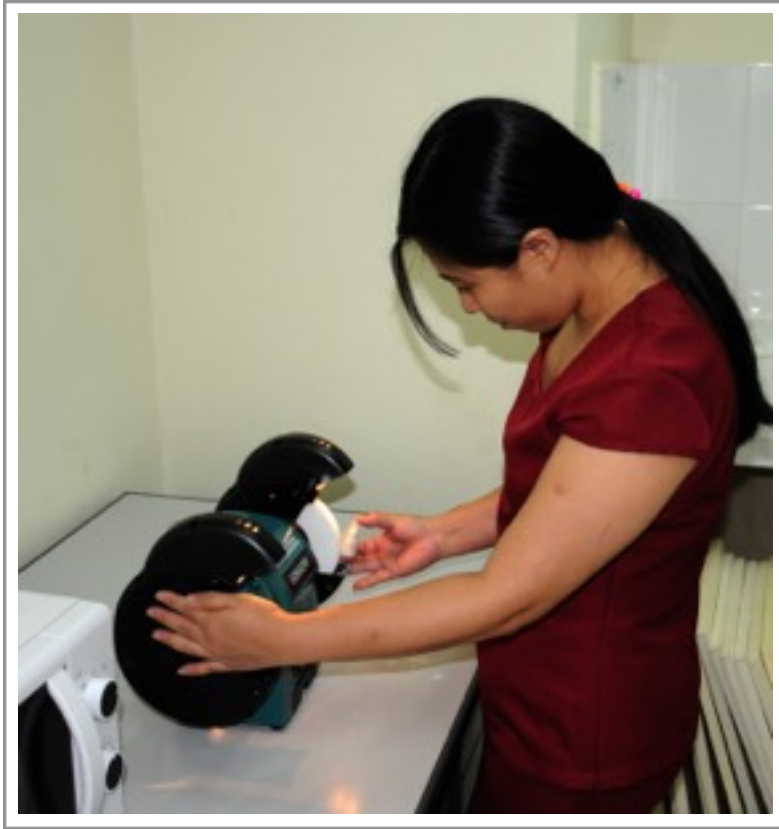
When operculae are important, the shells and the operculum individually are kept together with much space to avoid mixing up. Here you see a cleaning label. The number 2140 in this case is a tracking number. Tracking numbers stay with our shells, usually per plate, throughout the whole cleaning and encoding process. It allows us years later to know from where the shell comes, the price we paid and sold and the like.



The only way to remove thick layers of chalk is with an electric hand drill. Use dentist materials in order not to harm the shells. These drills are specially designed not to damage human teeth, from where.... Cleaning shells takes time. The shell which this Conchology Lady is cleaning may take up to an hour to get perfectly clean from chalk.



A stereomicroscope that goes from x5 to x40 is needed in all cleaning areas: small shells are now photographed and also need proper cleaning. Precision job.



In RARE cases, shells are smoothed on the lips. This is expert work and uses machines and hand tools. Here a Conchology Lady at work smoothing the lip of a Conus. Most Conus lips are smoothed, but in this family, such is accepted when done with moderation.



This Conchology Lady is sorting out microshells from dredged sands. It takes years of expertise to know which ones to pick and which ones are not worthwhile. After the handpicking, she will likely clean her catch with an ultrasonic machine before proceeding to sorting by species...



“Before and after” are big differences, the shell on the left is “almost” finished. These are Spondylus senegalensis from São Tomé, West Africa.



The cleaning area is important in a shell dealers company. Everyday I go roaming around to check things and look at the results of my own catch once in a while, as is the case on this plate.



*It is also a great enjoyment to see the freshly cleaned shells, as shown on this photo:
Strombus from São Tomé with some Coralliophilids.*

MAINTENANCE OF COLLECTIONS AND THE SHELLS

In 2005 Roland De Prins wrote an important article on a relatively taboo subject, in the journal *Gloria Maris* of the Belgian Society for Conchology. It is the volume 43 (5-6) of February of the above mentioned year.

The title is **DETERIORATION OF SHELL COLLECTIONS**.

We here give a resumé of this article – which is in fact a small booklet – that you now also can download on Conchology.Inc:

<http://www.conchology.be/?t=405>

The first chapter covers the chemical structure and make-up of a shell. Periostracum, ostracum, calcite and aragonite layers are explained.

The second chapter resumes the causes of deterioration:

- an acid environment – the Byne’s disease affaire.
- Wood and derived wood products

An extensive description of different kinds of wood and the chemical reaction of shells in an acid environment, influences of our skin, of humidity

- Deterioration by different kinds of fungi
- All the insects that may attack the collection, mainly rests of animals and labels of course.
- Harm from light.

The author then moves to “how to recognize” deterioration in a collection.

When that is done, he helps with the remedies.

After discussing ideal circumstances for the collection, an analysis of the best oils to use is made: mineral oils are the best, and he proves why. Cottons and plastics are next: know which kind of plastic to use and which one not. The kind of ziplock bags are perfect, but there are others... Paints and varnishes are next.

In his final word, the author claims that the perfect environment does not exist. The complete work is in fact fantastic and well done and the contents should not frighten anybody. It is however useful to avoid difficulties in the future by using correct materials and it is very good as it also gives tips for the remedies.

While the title is in Dutch, the content are in English.

THE FADING OF SHELLS

It is important to acquire knowledge on the influence of light and what I think is high temperature and dry air, on shells. Some species have shells that “fade”: a process where the color becomes less intense. Red becomes pale red, pinkish or more orange. Purple can fade into browns.

A freshly fished shell has usually BRIGHT colors, especially when wet. Cowries are considerably different in the first days after having been fished, than a few weeks later and two years later. When a cowry is two or more years old, one can speak about a “stabilized” coloration. When fresh, one should speak about “fresh” colors.

The *Lyncina vitellus* cowry will often have a slight pinkish base that may fade to white. The dorsum of a fresh *L. vitellus* is most often very dark, almost black: it becomes gray when the animal is removed and fades occasionally to light browns and grays when several months old.

South African cowries may have strong violets when fresh, as seen for some species in the book of Liltved who figured the shells “fresh”.

The same is true for a minority of other groups.

Keeping your shells away in a dark environment will delay the fading of your shells, keeping them at 16° is excellent. In fact, conditions of wine caves are optimum for shells, as they are for books.... Not too dry, not too wet.

No panic: big shells may fade when displayed in the sun, but they may last a few years very nice. Replacing the shells every five years is still much cheaper than go looking to a major sport event every weekend. If you take a dark room for your treasures, they last a lifetime with nice colors!

EXCHANGING

While truly popular between 1970 and 1990, exchanging shells is now a little out of fashion. We advocate exchanging. See our exchange page on:

<http://www.conchology.be/?t=3>

An alternative to finding shells yourself is to exchange specimens with other collectors or with dealers. This is ideal for the ones with many shells but little financial means. The author has seen some people as such building truly major collections with over 12 000 different species of mollusks! It asks a lot of energy and effort and a constant follow up.

The Internet can be a source of contacts with fellow collectors for trading shells. Possibly, you could join a club of shell collectors or subscribe to shell magazines. Prepare your exchange stock, exchange lists and digital photographs of your specimens for e-mailing to other collectors. Here again, one will learn from experience. Get acquainted with definitions of quality and values. Exchanging has the advantage that you may obtain a number of species seldom offered by dealers because there is only a small market for them, such as obscure families or shells too small to have considerable commercial value. These shells are not less interesting than showier specimens and often have a high intrinsic natural history or scientific value.

Some of the disadvantages of exchanging are the poor quality of much trading material and the virtual absence of more expensive items. Avoid exchanging with collectors who try to get rid of low quality shells. And avoid exchanging with the non generous.

Exchanging is a splendid way to build a great collection, but it is a labor-intensive occupation that requires the space, time and the energy of a full-time job.



The organization of an exchange stock in boxes and quantity is essential for a good functioning operation. Shells are best classified by family and by alphabet.

The basic principle of exchanging is based on the fact that the shells on your doorsteps (translate 1 000 km around your home) are very accessible and cheap for you, especially when you collect and clean these yourself. They are however, treasures on the other continent or for the ones not having these species.

How does it work? One starts with building up an “exchange” stock. If you live in Europe, you best travel to places with lots of shells, such as Brittany in France, the Lofoten Islands in Norway, or some shell-prone areas in Spain. You then collect “en masse”, a few hundred pieces of each species you can find in nice quality. Many of the shells you will find are “common as dirt”, such as *Haliotis lamellosa* in the Mediterranean or *Nucella lapillus* in the Atlantic. But these items will be the delight of a collector in South America or in China, who will send you back “his” common shells.

Ideal is to develop contacts with fishermen from your area: in exchange for some bottles of whiskey and/or some hard cash.

You will spend your holidays cleaning, sorting out and classifying these shells, first the best for your own collection, then for your exchange contacts.

After that, you proceed to find fellow collectors that want to exchange shells worldwide. Forums on shell topics, Facebook and the like are good places for that. First start carefully with an exchange of let us say about 25 species. If you receive “collection reject”, do not proceed for a second time. You will easily see what kind of shells you receive. Remember that juveniles with thin lips, shells with no apex, eroded and the like are not suitable unless they belong to rare species. Professional dealers will be happy to exchange shells with you and if you can afford to sell at wholesale prices, they will happily buy.

BUYING



A Computer: the way of today's buying.

These days, the Internet is the place for buying shells. Only a decade ago, dealers used to mail out price lists and orders came in by fax or letter. The Internet has been a perfect solution for faster and better service and has gradually replaced the old market. A few dealers in specimen shells survive the old way. Contact them to receive their price lists.

RICHARD M. KURZ, INC.		
SPECIALTY SHELLS		
Lot/Item	Description	Price
10001
10002
...
10015
10016
10017
10018
10019
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Today almost an antiquity: a mail order list of the famous USA dealer Richard M. Kurz. His list from December 1980.

Buying shells is the only way to build up a fairly complete and extensive collection, as the commercial trade synthesizes the work of thousands of enthusiasts. Many rarities are only available commercially because finding them requires considerable investment by fishermen, middlemen and dealers. Also, money has been invented to smoothen the “trade or exchange” activities.

In the early years of the Internet, most on-line dealers were professionals and there were few problems with the shells traded. Today, part of the Internet allows direct seller-buyer contact and classic shell dealers are disappearing because of the drop in prices caused by this phenomenon.

We distinguish “**shell dealers**” and “**vendors**” on the Internet. The term “shell dealer” represents quality and a guarantee of a fine result when working together. The term “vendor” refers to much of trouble, loss of time and not so happy results in general.

Shell dealers

The role of the shell dealer is important and complex. His prime function is to filter out the material for collectors, to properly document it and prepare it for collections. As in antiques, stamps or other collectables, he has a role of adviser to his customers. In the ideal situation, the dealer and collector work together to assemble a near-perfect collection, worthy of that name. Indeed, such high-grade collections are impossible to amass when buying from inexperienced or unproven sources such as the vendors. Shell dealers have, most of the time, their own site on the web and seldom use “common” auction sites.

Vendors

On the web, vendors are easy to detect: the material offered is seldom photographed professionally; shells are not positioned in the classical way of figuring them in literature; photographs hide defects and are occasionally not sharp on purpose. There are no proper labels or even no labels at all: identification is often questionable, often without family name, species name, author, size or date. Most vendors are clustered together in auction homepages as they cannot afford their own homepages.

Search the correct resource

It takes time to search for suitable quality dealers. Today, there are about half a dozen professional dealers on the Internet and most of them were in business well before the Internet started.

The author gets monthly complaints about vendors, abuses and the like. My advice is usually to limit your buying to a couple of the well established dealers. They are, in general, 30 % to 50 % more expensive than the vendors, but you will not bluntly lose your money without delivery of the goods, or receive the wrong shells, or get fakes in your catch, or wait for months to receive the shells. The premium paid is largely worth the effort.

Shell Shows, Shell Bourses

Apart from the Internet, visiting “Shell Bourses” is another way to improve your collection of shells and, even more important, to browse and acquire shell books. Bourses are organized by shell clubs all over the world.

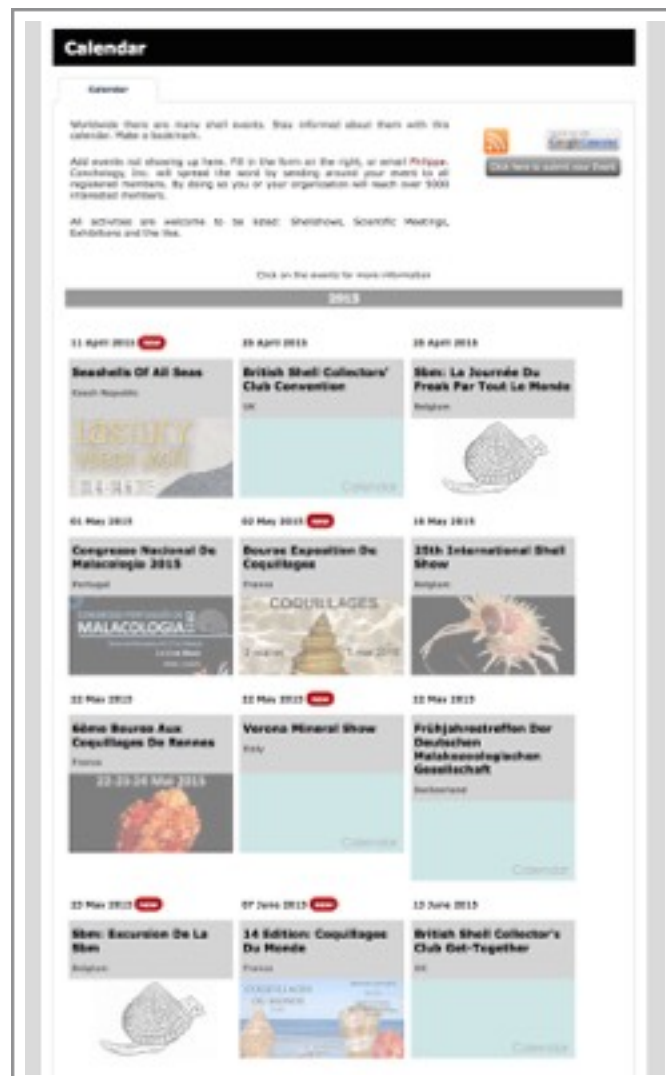


A “Shell Show” in Antwerp, Anno 2014. This is only a very small part of the vast place. This shell show featured over 300 m of exposed table length and got vendors and dealers from all over the world.

They have the big advantage that the shells are physically present and you can check the quality and labeling at once. Assisting to shell bourses is a costly activity. Much traveling, hotel costs and the activity is time consuming. Many bourses will take four days “to do it” properly. A not to under-estimate affair is the social contact on these bourses and the information you gather out of that. While some of the shell people you do not want to get in contact with, many more are interesting and very nice people of a good intellectual level when compared to the average of society. So, spending time and exchanging information will not only result in you becoming a better collector, but it will also, in the long term, result in some very nice friendships, occasionally for a lifetime. They may become your traveling and adventure buddies. And this is worth all efforts.

Our Events Calendar is the ideal source in order to know where happens what. In 2016 this calendar listed 160 shell gatherings, from shell shows to scientific forums. And there is definitely a number of events we did not know of. So, for the very free and traveling: there are more than three shell meetings a week on this planet.

Go to: <http://www.conchology.be/?t=402>



The Events Calendar on Conchology, Inc.

BUYING

SHELL PRICES

When talking in terms of “buying”, the “prices” are part of the game. Before Internet times, things were pretty neat. Vendors were few, virtually non-existent. The shell dealers kept prices at a certain level which could sustain the supply and make it worthwhile for collectors and fishermen to collect shells in nature. Prices were also guided by existing price catalogues such as “Tom Rice’s prices”. Virtually all collectors got a “Tom Rice” and this avoided huge abuses in prices.

The arrival of vendors, often would be collectors that find an easy way to make some cash, or in many cases fishermen that cut the traditional trajectory of supplier – dealer – collector, changed all that. Today, there is no Tom Rice catalogue any longer, so the result is that non-experienced collectors and the newcomers are easy targets for overpriced shells of unscrupulous vendors.

Avoid vendors which systematically choose the highest price possible to obtain. It is very impossible to build a collection as such for one simple reason: the majority of shells are “rare”. And some individuals dare to ask prices for each of these rare shells that are out of proportion. See our text on “Duck shooting” elsewhere in this book.

It is very correct that most “rare” shells fit prices up to 15, 25 and even 50 euro, but above that, one has to go into important families or in special species for which exceedingly more is allowed.

Rare is the rule in shells: the majority of species are rare in collections. Rare does not mean expensive, the high prices are dependent on many parameters and are applied to a minority of rather popular shells. Here a shell of which we only get one piece a year, very rare, but the price is moderate: 25 euro for a nice one, much less for the average piece.



Vexillum geronimae Poppe, Tagaro & Salisbury, 2009

This species is so rare that it was only discovered after 2000 and described as late as 2009. There are less than 200 specimens known. The piece shown here changed hands for only 12 euro!

Again, limit yourself to a few dealers in order to avoid major problems.

Shell prices do have little secrets today. Some collectors compare all vendors and dealers: they list a given shell, let us say, *Conus pertusus* and store in database prices from twenty sellers or more. Usually they then select the cheapest price before proceeding to the purchase. Shopping based on cheap prices is, in shells, the fastest way to form a garbage collection. And so it is in Arts, Books and many cultural activities.



Conus pertusus, both from Conchology, Inc. In 2004, on the left 30 mm shell sold for 2 euro, while the one on the right has a stunning 56 mm and is “sang de boeuf” color: it went for 115 euro in auction.

Vendors and dealers are usually as smart as collectors and few of them will sell a treasure for a low price. The *Conus pertusus* varies in price from 1 euro to about 1500 euro. The latter price is for shells close or equal to WRS size, in magnificent perfect condition and with spectacular colors. The 1 euro is for either too small, a little faded, a little too much filed, a little growth line and the like. A good average will be 25 euro for a quite nice specimen. The sport of comparing prices is excellent when you afterwards can proceed in buying the most expensive item of the series: if you do that systematically, and you can avoid crooks, you will have a magnificent collection at the end.

Conchology, Inc. keeps extensive databases of more than a million prices, gathered over the years worldwide: the prices in our company are usually based on the high end “average price” for a given quality. This allows our customers to buy at a fair price and it allows our company and our suppliers to continue their job.

Apart from quality and rarity, many other factors can influence a shell price. To name a few: All TYPE shells, such as PARATYPES and HYPOTYPES are particular, and shells with a PEDIGREE are special.

HYPOTYPES are shells that have been figured in a book or an article. They are more important than other shells, regarding the very long relation between the paperwork and collectors.

PARATYPES are part of the set of shells that the original description is based on. The number of Paratypes in your collection is significant for the importance of the entire collection.

PEDIGREE shells are fun to have and more worth than “anonymous” pieces. If you have a shell that was handled by Fulton or Reeve, the value is superior compared to a “normal” shell that comes out from nowhere. Occasionally, we will mention the pedigree, sometimes a list of ex-collections, which goes back thirty or more years, when we auction shells. Occasionally, we will sell the shell with the original label.



This Pleurodonte excellens from Haiti comes from the Letourneux collection, France.

Part of the auction text: Here a more than “typical” piece as it was definitely collected in the first half of the 19th century, likely before 1850. It was for a long time in the “Letourneux” collection in Rennes and/or Nantes, France.

Read more on:

From the Letourneux collection: see Wikipedia:

http://fr.wikipedia.org/wiki/Aristide_Letourneux

Either from the Aristide or the Tacite collections.”

BUYING

INVESTMENT OR HAVING FUN

It is very human that, when spending considerable amounts of money in shells, one wants to keep their value. This is a difficult affair, but not more difficult than in other collectibles. In fact it is easy in no domain.

Investing and having a good return is always quite difficult if you want it to be successful. In the long term it is most often an affair of disasters and success, with more success than disaster when well done.

Investing in shells is possible but it demands considerable amounts of money. Banks in Europe usually ask a 5 000 euro minimum deposit for even opening a small time deposit. Investment with private banking is only accepted starting at around 250 000 euro, and even at this amount, bankers tend to snob one. Some banks only start at 500 000 euro. The same is very true in shells.

Short studies (Poppe & Senders, 1994) have shown that at the time of writing of that book, classic groups of shells raised in price following the index: this was at that period true for Cowries. Small groups, in the decade before 1994 – what we call the “middle class” families and “small” families, have known huge raises in price, like 300 % in that same laps of time. But they have stayed basically stagnant since. Today, there is a huge price rise for very particular well chosen pieces.

Compare shells and shell collections with antiques: if you want to be successful by investing in antiques, stamps, or other collectibles, you need: much money, much time, good advise, perfect knowledge and only buy THE BEST.

But far better than investing, is enjoying shells for fun. To make it a life-consuming hobby and a source of happiness through the hunt and acquisition of wonderful objects and through the many social contacts which are most often very interesting.



Two fine examples of how prices can fluctuate. On the left, a Golden Cowry, protected in the Philippines, but a very common species all over the central Indo-Pacific and a big part of the Pacific. When I was a young collector, this shell was about 750 euro, or the equivalent of 2 monthly wages in Belgium. At the same time, the shell on the right costed about 500 euro: it is a *Zoila perlae*. The Golden Cowry fetches today in pristine condition and not faked 75 euro – the *Z. perlae* trawled by the Taiwanese: 12 000 euro.

This is how things go. To reflect on.

One question the author got regularly asked is whether prices “are artificially kept high” while there are big stocks of some species.

This is a complex question, and definitely it happens, but it is a rather rare phenomenon. The reason is simple: one has to be wealthy to maintain for two decades a stock of one given species that is expensive, and people wealthy enough to do that are rare. So, few can afford it. As the wealthy on this planet are not shell dealers, virtually none of them can maintain such stocks, although most shell dealers have tried it.



A nice case of such a failure was the case of a Portuguese dealer who was at the source of almost three thousand *Barycypraea fultoni* around 1990. He used to buy the *B. fultoni* at 100 \$ each from the fishermen. I was told the shells were fished by five boats, who destroyed their very expensive nets on the rocky bottoms where the shells lived: the shells bringing in more profit than the fish. The dealer sold for several years wholesale sets of five dozen pieces for 600 dollar each shell, enough to pay part of his buying. But after some years, his stocks were so big and the money was all gone in the buying and the selling slowed

down: all major collectors got a *B. fultoni* in their collection, the shells selling for about 1 000 euro retail.

In a Paris shell show, around 1995, the Portuguese dealer sold more than 1 000 *B. fultoni* in a few hours, below his buying price for the poor quality and between 100 and 300 \$ the better pieces. He found back his capital and all the invested money and got a fair but reasonable profit – only! Shortly after that he went back to Mozambique, the source of *B. fultoni* dried up: the boats did not fish the region any longer. If he could have kept his 1 000 pieces until today he easily made more than a million dollar in the ten years to come.

Out of the many dealers that bought *B. fultoni* in quantity that day, only one still has a small stock of a few dozen pieces at present. And he is the lucky one who can sell between two and three thousand dollars now, as there are no *B. fultoni* of nice quality left in the hands of any other dealer....

The true story of this famous species, to demonstrate the difficulties of the “artificial stocks”.

BUYING

DEALERS AND VENDORS

How to choose between the 200 vendors and the dozen dealers that roam the planet today is difficult. Definitely a dozen or so vendors are worth buying from. And most of the long time dealers are safe heavens for buying.

Asking around to fellow collectors is a good way in finding the right people.

Visiting shell shows is another source of communication. Browsing the web and looking at the details: the quality of the shells, the way of presenting, the labeling and so on. If the shells are taken with a mobile phone – these are minus points. If the position of the shells is not taken with the greatest care – minus points. If the shells are without authors on the labels: minus points. If the shells are without locality data: zero points and you better run.



A shell table at the Antwerp Shell Show 2014: this table gives trust: the shells are nice quality in general and well chosen. All shells are properly labeled and prices are given for each shells: this vendor does not work “A la tête du client” as the French say, but is honest in his pricing and approach.

There is a very particular way to look at shells on the screen. Watch for growth lines, watch for eroded areas. Look at the size. All this will avoid deceptions. We refer to our chapter on **quality**.

Look at the conditions of the sale: if “no returns” are announced, it is better not to start buying. Some dealers will sell shells of 10 euro and charge 60 euro for postage, while in fact it is only 15 euro. Watch this when the parcels arrive and it will directly guide you to the seriousness of the supplier. Ask conditions upfront if not stipulated properly on the homepage – which is also minus points.

When shells are not properly packed and labeled, with author, date, locality and the like, then you better do not order again. Buying is one stage in the formation of the collection. If you have to look up family author and date then you will lose A LOT of time. Shells will accumulate slowly here and there and you will even forget you ever got them. In the long term this results in a mess, which finally will make you decide to pass on to other activities.



Accumulated shells in old plastics of diverse sizes and factories. Not properly labeled and hard to see: the pleasure of the collection is far away.

So, better look for suppliers that save you time in the cleaning and save you time in the labeling. The better dealers will provide you with digital databases and listings of your purchases, so you do not have to retype all.

There are many more things to avoid, but there is enough information on wrongdoings on the Internet, and especially on Facebook.

Changes in names are constant in the shell world, as well on the family level, the genus level as on the species level. Conchology, Inc. solves part of your problems to stay updated with the particular system of “Your collection”. Customers of Conchology, Inc. get a yearly PDF with all the shells they ever purchased from the company, but with updated nomenclature. Ask your dealer to update you on changes whenever they are important.

The screenshot shows the Conchology, Inc. website interface. At the top, there is a navigation bar with the company name, a language selector, and social media links. Below this is a secondary navigation bar with categories like 'Home', 'Shells For Sale', 'Shell Topics', 'Books', 'Auction', and 'Encyclopedia'. The main content area is titled 'My Account' and includes tabs for 'Profile', 'My Collection', and 'Parcel Tracking'. The 'My Collection' tab is active, displaying a grid of shell images with their respective scientific names and measurements. A 'Top 20 Families' sidebar on the right lists various shell families with their counts and export options. At the bottom, there are search bars for 'Quick Search' and 'Advanced Search'.

Family	Count	EXPORT
1. CONIDAE - INDO-PACIFIC	711	excel pdf
2. STROMBIDAE	176	excel pdf
3. CYPRAEIDAE	139	excel pdf
4. NERITIDAE	73	excel pdf
5. RANELLIDAE	66	excel pdf
6. VOLUTIDAE	66	excel pdf
7. MURICIDAE	65	excel pdf
8. OLIVIDAE	46	excel pdf
9. MITRIDAE	43	excel pdf
10. TURBINIDAE	34	excel pdf
11. BUCCINIDAE	28	excel pdf
12. COSTELLARIIDAE	28	excel pdf
13. HARPIDAE	28	excel pdf
14. HALIOTIDAE	27	excel pdf
15. FASCIOLARIIDAE	27	excel pdf
16. TEREBRIDAE	25	excel pdf
17. COLUMBELLIDAE	21	excel pdf
18. CASSIDAE	18	excel pdf
19. NASSARIIDAE	18	excel pdf
20. TURRIDAE - TURRINAE	18	excel pdf

Total Shells Bought: 2005

A “my collection” view from Conchology, Inc. Clicking on the images gives you full information with authors and dates and the like, on all shells in your collection ever bought from Conchology, Inc. With automatic updates to modern nomenclature.

Remember that SERVICE from the part of vendors and dealers exists. The author bought shells from more than a hundred different people in the last two years. While a few were excellent, several were very good. But a large majority were to deplore: the packing was lousy, shells were even send in “envelopes”. Several times it happened we were referred to “the Internet” for the name and the locality. This is unthinkable. Nobody can manage a collection if each shell has to be double checked on the Internet, and without a label printed out! Be selective and do the same as me: never order twice from people practicing in such ways.

One good method to get fine contacts among the suppliers is asking the opinion of veteran collectors. Chose people that are broad thinking, not jealous, and with a real buying experience. Avoid asking such things to “non buyers”. Avoid also asking such to dealers or vendors: only a few will give you a subjective advise. Many vendors and a few of the even advanced dealers still believe in the fact that they have “Their clients”. Which are not allowed to buy elsewhere than from themselves. Do not fall in the trap of such dealers – they are short-thinking – and there is no such thing as obliging somebody to buy from you. Customers in shells are free as the wind and most of them, especially the better ones, know that: they shop where they can get the finest material at reasonable prices.

The financial crisis of 2008 created a new sort brand of sellers which I gently and with some romanticism call the “**duck shooters**”. With duck shooter are meant the sellers that carefully watch the environment and the possible clients, to shoot with an incredibly high price an unsuspecting customer. They do so by taking usually one parameter in the price setting without considering all others. Remember that “most” shells are rare in collections, many thousands of species are known only from the types and tens of thousands are known from less than 50 specimens. Yet, they are not incredibly expensive, for reasons explained elsewhere in this work. If somebody collects for example TROCHIDAE, it is easy to find dozens of species which are know from only a few dozen shells. Such items match indeed prices of nearly a hundred euro, but all excesses above that need more parameters, and a 7 mm Trochid is very seldom worth more than 200 euro, even there are only a dozen known. The fact that they live deep or on remote places is not a convincing argument: it is overshadowed by the fact that there are not half a dozen collectors willing to pay more than 200 euro!

Do not be the single Duck to be shot.

WHEN BUYING: A RECENT CHANGE IN TIME AND METHOD

Times change. Older collectors experience some difficulties in the buying ways of “today”. The changes in methods, offer and mentality, was for many even a reason to stop buying.

When collecting shells before 1980, one could buy about “everything” around. The offer was limited, there was no internet and I remember myself being very happy in acquiring anything suitable for my collections.

A good example was a particular day in Lutry, Lausanne around 1990: The late Jens Hemmen came into the shell show and on his shoulder he got that huge book, magnificent: a Gualtieri in absolutely perfect condition. He put it down before me and came up with a price which made me breath twice faster at that time, but which is a bargain today. So, I agreed to buy and paid in several months. And I was very happy with all that. Fifteen years later, I got an offer of a nice Rondelet from another book dealer. I checked first in the Internet and there were eleven Rondelet for sale. I declined and today I do not even have a Rondelet. Anyhow, I can buy one whenever I want.

“Buy what you can” is the past

So, what has changed ? The Internet has put THE WHOLE WORLD for sale. So, the collecting mentality from **I buy what I can** has gone. It was a pleasant thing, but now it is the past if you do not want to end up ruined.

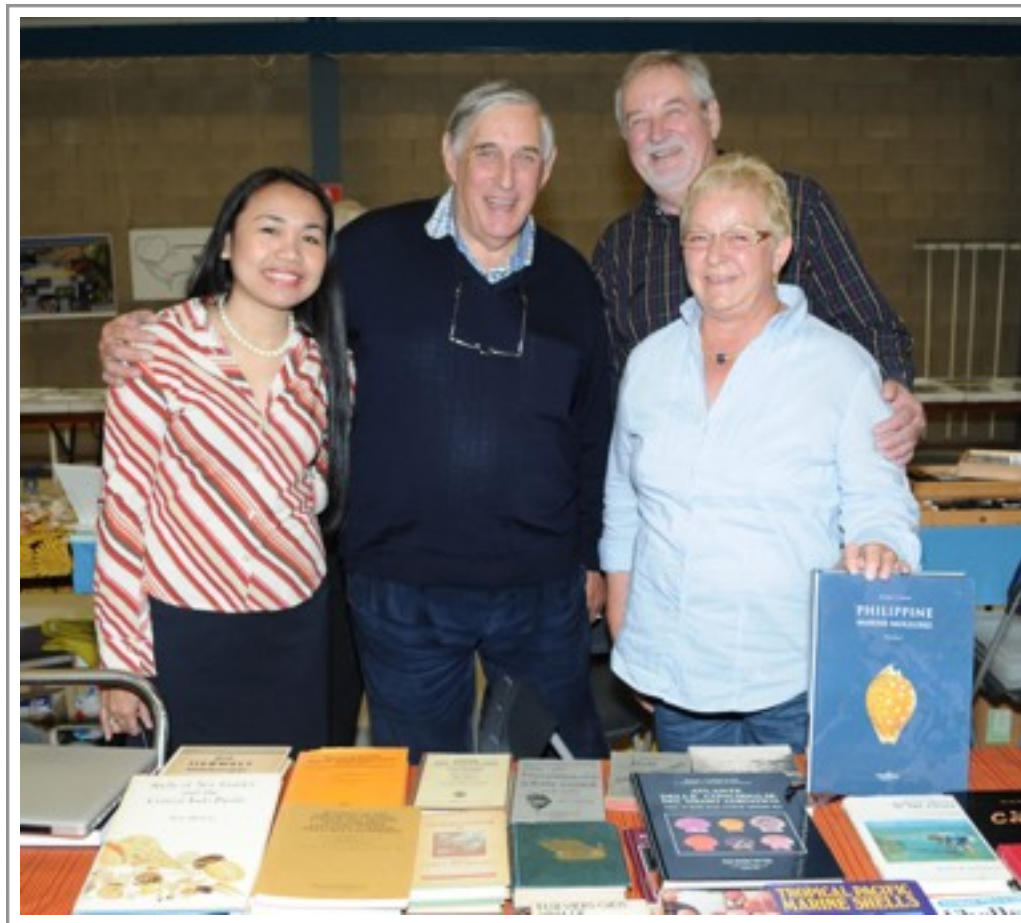
“Buy what you want” is the present

Today, one can be selective, decide in advance what to buy, make a budget and proceed. Today you buy what you want. For the older collectors among us, part of the fun is gone, but the collecting has fortunately other pleasures today. When you are in the common items, you can take your time to pick out the finest. A thing, one could not do, even two decades ago.



A Lyncina vitellus: this was once my first exotic cowry when I was a boy. I spotted the shell in an empty aquarium in an aquarium shop in Gent, Belgium, around 1968. Luckily and possibly it was the only vitellus for sale in the whole of Belgium. We bought it and it was for long the pride of my collection: we “bought what we could” in the past.

SHELL SHOWS



Gathering together as friends is an important plus in the Shell Show events. Sheila Tagaro with publisher Backhuys on the left and the Grohs on the right.

Shows, either antique shows, mineral shows, stamp shows or shell shows: they have this special atmosphere, which provides the collector usually with an ultra fine weekend, a weekend to look forward to.

The dates and places of shell shows you will find in our **Calendar**. Most shell shows are organized by shell clubs. If you need a hotel to stay overnight, the club will usually guide you to the proper place and give you some advance information.

Not all, but some of the best pieces are occasionally handled among dealers and top customers BEFORE the show, so, it may be interesting to take contact with your preferred dealers or vendors before the start of events and make an appointment, either in a particular place or in a hotel nearby.

Foresee a proper budget, so that your weekend is satisfying, even when unpacking your new treasures when back home.

Here again, when you pass from stand to stand, there are indications as “where to shop what”.

Stand holders on shell shows vary from vendors to professional dealers. From experienced crooks to the most honest people.

The tables you will halt on will depend very much on your own way of buying. The lovers of aesthetics will not stop at tables that are a mess of plastic bags and dirty shells piled up here and there in a not so pleasing way. They will target order and beauty in the display, which is indeed the best guarantee to find selected shells. But if you are looking for bargains, then the plastic bags and not so neat stands may be promising.

Check the following on the stands before proceeding:

Proper labels

Do not think, “I will have time to write the labels myself”. Life in advanced countries is way too busy at present, that you will save days to make your labels yourself. Anyhow, if you do not do it days after the show, you will have forgotten even from who you bought the shells, an information which is best kept.

Proper quality

Check the shells properly: the condition of the aperture (the lip), growth lines or not, sponge holes or not, the gloss, the fresh condition of the color and the like

Correct size

Learn how to recognize adult shells from young shells. This may be tricky for newcomers: how to distinguish when a cowry is adult or not, or a *Conus*, or the mouth of a *Murex*.

Packing

Ask your supplier for proper packing of the shells: possibly you will have to drive back many hours or spend many hours in a train and the like.

Information

If traveling by plane or changing country with your shells there may be administrative constraints. Ask your supplier to inform you on these.

CHAPTER 15

SHELLING ON THE WEB – INTERNET

Homepages

There is a huge variety of homepages to visit when busy with shells.

Professional dealer homepages

There are a few only, and most are very worthwhile.

Vendor homepages

There are many, some very good, a majority difficult to visit. The quality of the homepage will tell you already a lot about the quality of service and shells to expect.

Book homepages

There are half a dozen book dealers specialized in shell books, either recent one or antique ones, or a mixture of the two. Virtually all book dealers are professionals, but one has to lookout anyhow. It is useful to browse homepages such as www.addall.com before proceeding with order(s). Some of the book dealers will only buy the book elsewhere on the net, after you have made an order from them. It is obvious that this is to avoid.

Determination homepages

The most used websites for determination used are the [Encyclopedia of Conchology, Inc.](#) and Eddy Hardy his “[Internet Guide to Marine Gastropods](#)”.

Double-check the names of shells with [WoRMS](#).

The screenshot shows the homepage of the Conchology, Inc. Shell Encyclopedia. At the top, there is a navigation bar with links for Home, Shells For Sale, Shell Topics, Books, Auction, and Encyclopedia. A search bar is located on the right side of the navigation bar, with a dropdown menu set to 'All Shells' and a 'GO' button. Below the navigation bar is a large black banner with the text 'Shell Encyclopedia' in white. Underneath the banner is a news section with a red 'NEWS' icon and a paragraph of text: 'Most Philippine BIVALVES from the PHILIPPINES have been updated, also worldwide POLYPLACOPHORA. Land snails have been updated following Schileyko, down to genus level. Not yet the species.' Below the news section are two tabs: 'By Kind' and 'By Class'. The 'By Kind' tab is active, showing a list of shell families with their respective counts and a 'List' link for each. The list includes families such as ACANTHOCHITONIDAE (180), ACANTHOPLEURIDAE (273), ACAVIDAE (1,743), ACHATINELLIDAE (141), ACHATINIDAE (736), ACICULIDAE (48), ACLIDIDAE (43), ACROLOXIDAE (10), ACTEONIDAE (1,653), ADDISONIIDAE (2), AGRIOLIMACIDAE (1), AKERIDAE (29), AMASTRIDAE (41), AMATHINIDAE (46), AMNICOLIDAE (187), AMPHIBOLIDAE (125), AMPULLARIIDAE (482), AMPULLINIDAE (193), and ANGARIIDAE (2,712). To the right of the list is a 'Quick Search' section with fields for Family, Species, Common, and Name, and a 'Search' button. Below the search section is a 'Shell Status' section with a 'Purpose' tab. The 'Shell Status' section contains two paragraphs of text: 'This CONCHOLOGICAL MEGADATABASE is the largest iconographic overview on mollusks ever made. As our knowledge, literature and science advance, it is evident that constant updates are necessary. If you refer to one of the images in your publications, the NUMBER is the constant feature not changing in time. Shells may change family, genus etc... as knowledge goes.' and 'We started updating the database recently and you will get informed with this banner of recent updates. You will also be informed with our weekly emails about updates of important families. All images are copyrighted Conchology, Inc. Ask for free images for scientific publications by email to philippe@conchology.be, quida@conchology.be or shells@conchology.be. The same email'.

Conchology, Inc., The Encyclopedia. An excellent determination tool.



The other homepages

Whatever you can think about is on the web today. Train yourself to use properly the search engines. Train yourself not to lose too much time by useless browsing. It may be fun to browse social networks, but one cannot make a serious collection and spend most of the private time looking at what other collectors do.

Use the net and technology on your phone to travel better: you have Apps that give you the tides worldwide, that guide your movements on the road on your phone, that give you coordinates and the like.

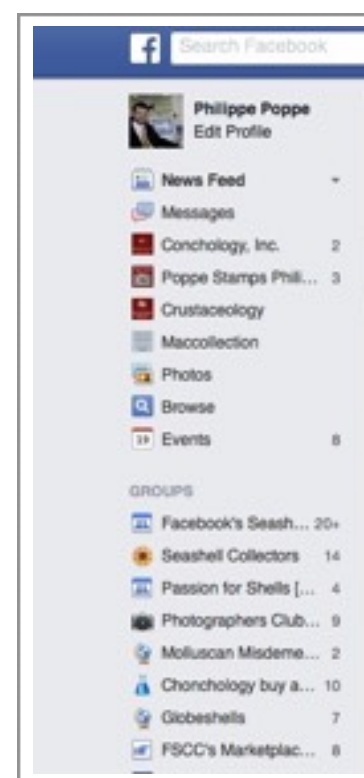
Use the net to get the best supplies: from plastic boxes to plastic bags to pincers and products to clean your shells.

ONLINE AUCTIONS

Online auctions: there are several places where you can buy shells in auction. The basic rule from auction shells is: you get what you pay for. Many auction sites list shells where the starting price of the auction is in fact the typical retail price of the shell. Vendors and dealers try to get slightly higher prices than what can be expected. Many vendors are in fact fishermen that have no knowledge about retail value of shells. So, one way to discover value, for them, is to put each shell at 1 dollar or 1 euro starting price. If a shell gets a higher value, on the next auction, they start at that price. Needless to say that, for the experienced, and only for the experienced collector, this is occasionally an opportunity.

FACEBOOK

Facebook should be consulted once in a while, as sometimes there are interesting individuals popping up. After a first contact, you can go on with email. But as all other places on the web, one has to go through lots of contacts to discover the few jewels-people that will provide you with the perfect material.



CHAPTER 16

DISPOSING OF SHELL COLLECTIONS

The classic destination of shell collections are museums. However, in modern times, the cultural side of most western countries is fighting for survival. This is true for government-sponsored sciences, such as national Natural History Museums, but also for other cultural activities such as the sponsorships of concerts and the like.

This means that most museums do not have the means any longer to purchase valuable collections. They rely on donations, but even then, many museums do not have the curating power to take proper care of such donations any longer.

The motivation is also gone, as most job-keepers do not see why they should take extra charges in their work without extra compensation. A whole change of mentality took place in the last two decades.

Few families or collectors that have spend small fortunes in valuable collections are not willing to “just donate” them to organizations. So, what are the solutions if your family has a valuable collection but nobody is interested in curating or keeping it any longer?

Collectors and dealers are the parties that will be willing to buy collections, but the better price you will definitely get from collectors. So, it may be interesting to roam around in shell clubs or the proper environment to encounter possible buyers.

Facebook may be a good place to announce the eventual disposal of a collection. Dealers are occasionally able to buy collections, but do not expect much more than a

third of the retail value. If a dealer pays that much, then he will calculate one third in selling costs and eventually a third in profit. Regarding that the common shells will reveal themselves as very hard or unsalable, he will end up with a ten percent profit. This is the reality of business today.

A final solution is to do yourself the “selling job” as a shell vendor and put all shells on an auction site. You will mail hundreds of parcels, do a huge administration, keep databases and collect the money. In a few years you will dispose of even the largest collections. The mere value you get, compared to selling at once to a shell dealer, is the direct result of your own “work”.

An alternative of course is to keep the collection in the family to enjoy, or to keep it until somebody will continue to let it grow, and enjoy a better life in doing so. If you can afford this, it is an excellent solution. While today many “poor thinking” countries turn their back to this aspect of culture, the future may yield more valuable country leaderships that sense the proper importance of natural history and art collections the like. Both were important ingredients in the time of European enlightenment and will repeatedly prove this again in a distant future. So, the day that will come that your family treasure will be “wanted” once more by even the most prestigious museums.

The author gets yearly half a dozen offers of “inherited” shell collections. Most often, such collections are not fit for museums or modern collectors. As stated elsewhere in this work, the “norm” of shell collecting has changed tremendously between what was done in the post-war period and since around 1980. Very seldom collections from before 1980 are worthwhile. Here some examples of what is in these collections: sometimes I keep them a while, as these objects are full of charms and nostalgia of times gone by. But they are not salable or worthwhile to be kept in Museums.



In this case, the matchbox is surely of interest to collectors of matchboxes, but it lost the value through the handwriting of the shell collector! This collector wrote on the box (in Dutch) “2 small bivalves freshwater”. On the other label: “two from Germany from the Main, 1966). These are two *Sphaerium corneum* from the Main River for sure, but this river is very long and the data cannot be used for anything special, except that the species lived in the Main in 1966.



Here the label is much better: “Paul found the shell on 25 July 1974 south of Alicante. The shell however is very small, of an extremely common species and should be cleaned properly: full of glue from the sticker. The beautiful matchbox is also ruined in this case.



A very beautiful box, about 10 cm in diameter, from a pharmacist in Hasselt, Belgium. The box contains shells gathered somewhere on a West African beach: dead *Cymatium dolarium*, a species rare in Europe. The collector found a vaguely resembling species in a book and wrote on the box "*Ocenebra erinaceus*", a common European Muricid.



And here a much more interesting shell from a vintage collection: *Cardium indicum* indeed, correctly labeled, and said to come from Angola, which is plausible. Unfortunately, and this is hardly visible on the photo, the shell is varnished!

But not all collections are as such: some great collectors were to be found throughout all periods, and many spend fortunes and took great care of their shells. In most of these cases, the families were wealthy, and they do not need to put these collections on the market.

But if families decide to get rid of the collections, then in some countries one can enjoy tax reduction when the collections are given to Museums. **Contact me** for proper contacts if this happens to be your case, and we will refer you to the perfect persons that can handle such things. This is especially true for collections in the USA.

CHAPTER 17

ECOLOGICAL CONSIDERATIONS

Until now, humanity has destroyed many land and freshwater species. Dams on rivers are particularly destructive. Poisoning waterways with fertilizer or applying insecticides against insects randomly kills a multitude of diverse animal species.

Tropical islands are vulnerable: the introduction of goats on islands was popular for two centuries. Goats were a source of protein for survivors of naval disasters throughout the planet. But the goats changed multiple islands from tropical paradises to deserts, destroying the endemic island species.

Later, biologists thought themselves clever enough to intervene in island faunas when they brought *Euglandina* snails from Florida all over the Pacific to destroy the *Achatina fulica*, the Giant African snails, brought there by Japanese warriors and American soldiers during the last world war. After eating the Giant African snails, the *Euglandina* attacked the endemic snails, and it was one of the biggest slaughtering and extinction periods for land snails ever.



Euglandina rosea Férussac, 1821
The shell of the mollusk, which ate to extinction hundreds of land snail species.

In comparison, the marine fauna has been left relatively untouched until today. However, humanity has brought huge potential alterations, such as modifying a coastline, which definitely greatly impacts the local molluscan fauna. For the better or the worst.

Positive and enriching: dams on a sandy coast can bring in more biodiversity.

Or negative: a harbor in front of a big city will definitely kill millions of animals and usually changes miles of coast into a biological desert.

So, as a conclusion, we know of many extinct land and freshwater species, but we see that the impact of human activity on the extinction of marine species does not yet seem as severe. And we know that true “rarity” – when a species goes on the brink of extinction, does exist in nature.

As a collector, we are THE ONLY ONES, truly concerned with the survival or the perishing of species. Together with a very small set of biologists working on mollusks, no other people give any sign of concern for mollusks, apart for their nutritive value.

Mollusks are eaten by the billions – monthly! From marine, to freshwater to landsnails. Only a few species are cultivated, most are wild catch.

But scientists, desperate for money, declared mollusks and other nature productions, either animals or plants, as having a treasure in molecules in their bodies. While such molecules are extremely rare in nature - less than one in ten thousand animals has useful molecules - many countries at once became suspicious and closed their frontiers for the trade in animals. The same scientists who invented the story were the first victims of their attitude.

Later, scientists took the modern attitude: when touching an animal, they declare it “vulnerable” and it “needs protection”. Another trick with which they hope to get either sponsoring or attention. Again, governments and the public opinion got suspicious and the ONLY parties that are victims of this attitude are the scientists themselves “and” the collectors.

ON CONSERVATION

Felix Lorenz is THE world expert on cowries. He achieved many useful writings and is an experienced shell dealer. On his homepage he wrote a splendid text on the subject of Conservation, which we could not ameliorate. He was so kind to give us the authorization to reproduce it here.

Felix Lorenz: CONSERVATION

It is an ongoing debate whether killing and collecting anything living is morally justified. Shell-collectors do not have a strong lobby against hobby-fishermen who feel there is a big difference between spearfishing a place empty, and shell-collecting. Shell-collectors are in the focus of individuals and companies who feel that they have to do something for nature - mostly to overcome their own bad conscience. Unfortunately, their arguments are often based on poor knowledge and lack of deliberation. That collecting and dealing seashells is ethical and ecologically acceptable can be appropriately ascertained by considering the following.

We all have to eat. Eating meat means killing animals. Being vegan still involves destruction of natural habitats for farmland. People making their living by catching fish, by producing crops or anything else we consume have a negative impact on natural resources, such as any job we do that involves using a car, electricity or a sheet of paper.

Before criticizing the activities of us shell-enthusiasts, kindly consider the following:

In the same context, I refer to a text on our opening page: please read **“Apart from the Laws the Reality is”**

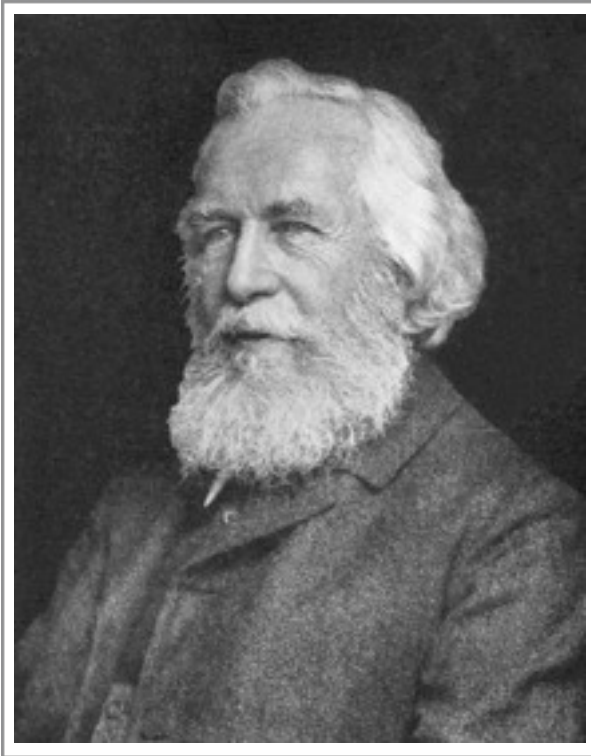
<http://www.conchology.be/?t=1000>

Furthermore, again in the same context, here an extract from an email received in 2014, from a collector in the USA, which I keep the name discrete for obvious reasons:

“Yes, 2012 and 2010 were dry years. During 2010 when gas prices were low, I traveled over 14,000 miles to collect in the rivers and streams of the Eastern USA. By 2012 gas had risen so I did not travel as much but made a significant collection in the Ohio River of Illinois where I also threw over 5,000 stranded Unios back into water. During September and October of 2013 my friends in Alabama and I surveyed three reservoirs on the Coosa River. The Alabama Power Company dropped the water level 1 meter in just two days, stranding about 500,000 mollusks, mostly snails. We threw back over 10,000 naiades but could not save the snails.

So where were the RED List and CITES people? Where were the Departments of Conservation and Natural Resources? Sitting in their offices, dreaming up more rules and regulations regarding the collection of mollusks. I did not see one official or ranger or tree hugging greenie out there trying to save a single mollusk. However, these are the people that tell us that collecting is wrong.”

This text also remembers us, that most shell collectors are “very ecological”, true nature lovers and mollusk-savers in thousands of cases. They are also the only ones truly concerned and direct victim if something goes wrong with their beloved mollusks. The term “ecology” was coined by a shell collector – among other natural history subjects: Ernst Haeckel.



Ernst Heinrich Philipp August Haeckel (1834-1919). A fascinating life and a fascinating career in Biology. He coined the term “ecology” (from Wikipedia).



The plate with shells from Haeckel’s “Kunstformen der Natur”, 100 plates on natural history objects/animals (from Wikipedia).

SHELLS NOT TO BE HANDLED TODAY

By today, many countries have small and large protections of nature areas. It is always wise, as a traveler to be informed. Search the web or ask on forums for information on the subject.

In the Philippines, we have a set of species, not handled by Conchology, Inc. that are protected by law. I refer to our main page for information on these:

<http://www.conchology.be/?t=1000>

Of course, Conchology, Inc. does not sell any of the forbidden shells or shells listed on Cites.

You can consult the list of species protected by Cites in the Cites appendices:

<http://www.cites.org/eng/app/appendices.php>

Today many countries oblige export and/or import licenses for wildlife, sometimes including shells. For example export of shells from the Philippines needs a permit from the Bureau of Fisheries and Aquatic Resources. Such papers you need to keep as a collector. In case a museum or other official instance gets interested in your collection they likely will ask for the permits of export of the different countries in order to be legally “correct”.

CHAPTER 18

THE PHILOSOPHICAL TRAPS

The shell world, with its 4000 dedicated collectors, several thousand scientists and a hundred thousand “curious” and moderately addicted people, is vast enough to harbor different “clans” and different “opinions” on several hot topics that survive, in some cases for centuries.

We here touch a few:

- **Lumping and Splitting**
- **Buyers and non-buyers**
- **Students and non-students**

LUMPING AND SPLITTING

“Lumping” and “Splitting” are much-discussed subjects on popular Web forums.

“Lumping” is a habit of authors on shells where several closely related species are occasionally regarded as one species. Or several forms are regarded as one form and the like. Different taxa are “lumped together”. Splitting is the contrary: there where the Lumper sees one species, the Splitter may see several, even dozens.

A practical example are the Caribbean *Conus* where some scientists see many dozens of species, and where other scientists will bring all these species together to a very limited number.

Likely the truth is in between.

The best attitude towards Lumping and Splitting is to take an appreciative attitude to all views expressed and form an own opinion. No reason to get nervous, upset or irritable on such things. The Splitter often documents many aspects of a group not seen elsewhere, while the Lumper may attract attention to unexpected relationships.



A few Caribbean Conus: splitting and lumping all the time. Make up your own well-studied opinion when you are to become an expert.

The International Code of Zoological Nomenclature does not recognize “variant names” as valid. But this does not mean they cannot be used. In fact, many experts and philosophers on natural history advocate the use of form or variant names. The fact they are so called “not valid” does not intervene in their practical use, which is huge. For example in the case one is organizing a shell collection or dealing or trading in shells.

It is indeed practical in cases such as the *Liguus fasciatus* in Florida where the limit between subspecies and form (either man made in this case or natural) cannot be well established. Or in the case of variable species such as *Nucella lapillus* where it is much easier to use “*Nucella lapillus* f. *bizonalis*” than writing: the banded *Nucella lapillus*.



The fantastic Liguus fasciatus has “endless” variants or subspecies or the two together. Variant names are the way out of confusion and the highway to communication between interested parties.

In Conchology, Inc., we use extensively the form names available in existing nomenclature, and we add extra information, such as color types or localities.

The fashion of being a lumpener was especially trendy in the latter half of the 20th century. It led to a considerable loss of knowledge about many species and the lumping approach has been gradually lost by many modern workers who tend more often to be splitters.

BUYERS AND NON-BUYERS

Many shell clubs are large enough to harbor different “groups” of members: the buyers and non-buyers form often opposed parties and the non-buyers are the most vocal when it comes to this topic. The “Buyers” are collectors that put small or considerable financial means in their natural history collecting. The “Non-Buyers” do not do that: they exchange, or collect themselves or limit themselves to literature and the like...

The Buyers enjoy the acquisition of the most formidable shells to their collections, as many deep-water shells are extremely rare items and these are only available when one produces hard cash. Getting them out of the sea or collecting these in the most remote areas of the planet is an expensive enterprise indeed. Non-Buyers do not do that, from where part of the friction.

But the attitude has even deeper roots. Much of the nature lovers turned to natural history study or natural history collecting because of deceptions caused by humanity. They see the natural world as a heaven of escape and idealize this environment which is “pure” and which should not be spoiled by commercial considerations. (While in fact, the natural world is highly cruel and tough to live in for most animals).

So far for that: there is a book to write on the subject, much “pro” and for sure an equal dose (or even more) of “contra”. The attitude had roots in the 18th century mainly. Especially the Voyage around the World by Bougainville, from 1771, in which the author depicted in his description of the Tahiti an “earthly paradise where men and women lived in blissful innocence, far from the corruption of civilization” is one of the sources of the misunderstandings. Bougainville and his fellows were not aware that Tahitian society was amongst the most cruel, class-minded and war-oriented ones: not easy to live in at all, as later studies revealed.

See Wikipedia for “[Bougainville](#)”.



Painting by William Hodges of Matavai Bay, Tahiti. Around 1780. (From Wikipedia.) Idyllic tropical Islands were for a long time the “heaven” in the mind of western cold-country societies.

THE TRUTH: no shame and no blame

There is no shame in **buying** shells, and no shame in **not buying** shells. There should be tolerance from both parties on this subject and un-polite remarks from Non-Buyers on Forums or Facebook should not be tolerated. It is remarkable that I have never seen remarks from Buyers against Non-Buyers. But lots of remarks from Non-Buyers on price settings and on Buyers.

So, it is best to stay neutral and respect each other. The present author has many shell friends that never buy shells, and has an equal number of friends that buy shells. The time spend together is high quality with both clans.

STUDENTS AND NON-STUDENTS

In some case the ones going deep in shell collecting and the study of mollusks snob the ones keeping shells “just” for pleasure. There is no reason to do so. In the same context, for some decades professional malacologists/conchologists looked down on collectors. The latter attitude was regrettable and can be called bluntly “not clever” as apart from a few industrial activities such as the cultivation of snails or mussels for consumption, collectors are the ONLY public for a vast array of the publications of professionals.

Fortunately, especially in the latest two decades, this attitude becomes more and more rare: scientists and collectors now collaborate in a majority of countries. In some instances, such as entomological surveys by lepidopterists, scientists, collectors and the normal nature lover: all collaborate in gigantic enterprises for the benefit of humanity and the butterflies.

There is, as in other branches of the zoology, a kind of bad feelings from some scientists against the trade of shells. This is often born out of a frustration and a powerless (or penniless) situation of many professionals. They do not have the proper means and the manpower to explore nature at present and out of this frustration some try to forbid the trade in natural history items. Their targets are the minorities without significant economical powers such as collectors. They do not attack or try to forbid things for armies, nations, governments or industrial powers such as the food industry, the diving industry or the hotel chains, which are constantly destroying billions of animals.

This situation is more obvious in “fossils” (read paleontology) than elsewhere. We deplore this situation as now millions of fossils disappear under human constructions or are destroyed all over the world each year. Often even important ones such as dinosaurs. In many countries, the “only” ones who saved a few pieces – collectors and dealers - can no longer do that for the reasons as explained above. There is much more

to write on the pro and contras in such things, but this is not the right place to go into the deep philosophy and the multiple details. Just do not fall in the trap of a one sided view and be aware of what is happening.

I want to touch one curiosity in these domains: at present there is big pressure even on National Museums and on all scientists involved in the description of the planet.

Museums are closing down, the people working in the institutions are now few and it is impossible for a majority of them to cope with the overflowing work. The move of the ecologists does not help them, on the contrary.

Simultaneously, because nomenclature and taxonomy are amongst the most difficult disciplines in science - it involves knowledge of geography, history, entire libraries and so many more skills: young scientists turn their back to these. They also have little future for a job in the field of taxonomy.

Some of the latest museum exhibits dare label their fish with “fish” and their butterflies with “butterfly”. This is an unseen loss of quality in science and the art of exhibitions. The attitude opens the way for blind destruction by human expansion and/or other means. Again, more stuff to think about.

We all regret the time that countries build, maintained and expanded major museums all over the west, a time now long gone. We look forward to a revival of that mentality in a better period to come.

CHAPTER 19

THE LIBRARY



- INTRODUCTION
- BOOKS ON THE HISTORY OF SHELL COLLECTING
- BOOKS TEACHING AESTHETICS
- BOOKS TEACHING IN MALACOLOGY OR CONCHOLOGY
- COFFEE TABLE BOOKS
- ON THE CLASSIFICATION OF MOLLUSCA
- LEARNING NOMENCLATURE, TAXONOMY AND SYSTEMATICS
- THE ENCYCLOPEDIA BOOKS, WORLDWIDE
- FAMILY-BOOKS
- REGIONAL BOOKS: MARINE
- REGIONAL BOOKS: LAND AND FRESHWATER
- JOURNALS
- MORE ON SOME BOOKS

INTRODUCTION

There is no such thing as becoming an expert in shells without an extensive library. If your supplier has less than five meters of books in the shelves, you have all reasons to be suspicious on his knowledge. So, always take a discrete look on that aspect of the shell collecting. Vendors often have only a few books or even no books. Any respectful shell dealer that deserves that name has an extensive shell book library.

Since centuries there is a close relationship between collecting and publications. Already in the 17th century you find exemplary books documenting shell cabinets. One of the famous conchological works of Buonanni has been published in such a book. Shells are there depicted together with 2000 year old Roman oil lamps, coins from all periods, corals, and all other curiosities that found their place in the Curiosity Cabinets.

Shells depicted in books or journals are called HYPOTYPES and are of special importance and more desirable than non Hypotypes. Especially if the author has become a celebrity. Once I owned the *Volutoconus grossi* depicted in the Compendium – and this was one of the pieces I was particularly proud of as it was handled by both Dance and Abbott. What we call a first class pedigree.



The above shells are about as good as shells can get: they are all famous species, they are all rare species, especially in the condition they are in, they are all well sized species, and all have been figured in Philippine Marine Shells, so they are also HYPOTYPES and not only “shells”.

Today the production of Conchological works has reached considerable proportions. In Conchology, Inc. I have housed my private library, which now numbers many thousands of books and many thousands of numbers of journals. It is regarded as the largest conchological library in Asia. Despite the gigantic size this is only a third of what has been produced over three centuries.



View of part of the library during the transformation and renovation of our offices in May 2013.

We live in many aspects the best times ever, and the very good news is that today BIODIVERSITY HERITAGE website: <http://www.biodiversitylibrary.org> offers thousands of books, now out of print, free for downloading.

The originals of some of these works run in the many tens of thousands of euros, as usually few copies survived on the planet. And many are sheer beautiful and attractive. The event of the Biodiversity heritage website is one of the big advantages of modern Internet technology, and is a big help in shortening what is called the taxonomic and nomenclatural “impediment”, this is the delay between the discovery of a new species and the description.

Because of the big range of books, hundreds of them are only what we call “good for filling shelves”. The difficulty is in knowing what to buy or what not to buy.

We here offer you an overview of what is very useful in the modern literature – the literature after 1900 in general, classified by group. If you have this set of books, you will retrieve 95 % of the taxonomic and nomenclatural knowledge on all different Molluscan species.

We subdivide the books in different topics, for easy use. Some of the books may appear in more than one subject.

To finish this introduction, here one of the many nice quotes of Robin Sharma:

Robin Sharma:

**“ORDINARY PEOPLE
HAVE
BIG TVS.**

**EXTRAORDINARY PEOPLE
HAVE
BIG LIBRARIES.”**

THE HISTORY OF SHELL COLLECTING

These books are important in order to situate yourself and to understand what you are busy with. It is advised to read several works documenting the event of science in the last 500 years: there is a huge library on the subject covering all aspects of the time of enlightenment. Also on several aspects of the illustration and the production of Natural History books in general. From Audubon to Redouté. But especially on shells, these are the most important ones:



1986 Dance, S. P. A.

A history of Shell Collecting.

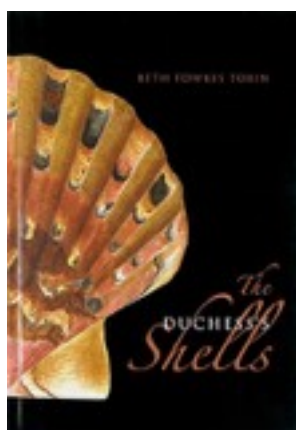
This is a must, the bible of the History of Shell Collecting. The book is used a lot by dealers in antique conchological books.



2007 Bouchet, P. & Mermet, G.

Shells.

Situates the shell study and the passion for shells in more modern times. A quite autobiographic book of the highest interest.



2014 Tobin B. F.

The Duchess's Shells.

A refreshing perspective while exploring the how and who around the Duchess of Portland.

TEACHING IN AESTHETICS

These books figure the lion part of interesting shells for the pure aesthetic collection, although there are many thousands of species that could join the pantheon. But it shows what people find important and what not. Some books are not discriminating enough on quality, but give an idea on rarity and prestige, such as Lan his “Rare shells of Taiwan in color.”



1963 Shikama, T. & Horikoshi M.

Selected Shells of the World I.

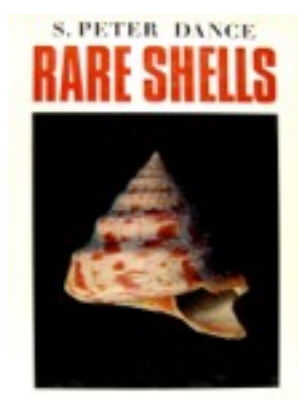
Standard work, old fashioned color plates, many black and white, splendid overview.



1964 Shikama, T.

Selected Shells of the World II.

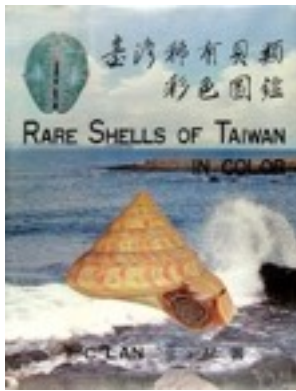
The Volume 2 of the preceding book by Shikama and Horikoshi.



1969 Dance, S. P. A.

Rare Shells.

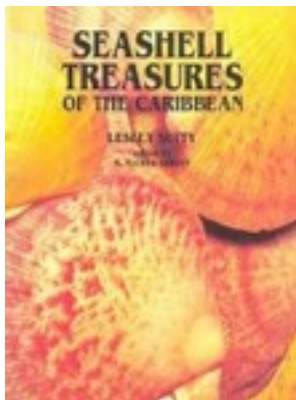
Documents 50 shells that were uppermost important in the history of shell collecting. Several collectors specialized in only these species.



1979 Lan, T. C.

Rare shells of Taiwan in color.

Shows a selection of important Taiwanese shells, not good quality, but these are the “to have” from that area.



1986 Sitty L.

Seashell Treasures of the Caribbean.



1991 Matsukuma, A., Okutani T. & Habe, T.

World Seashells of Rarity and Beauty.

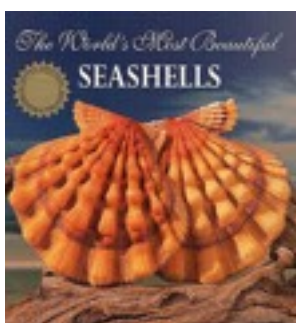
Masterpiece with for that time superb photography. Great selection of major shells.



1993 Lan, T.C.

The Classic Shells of the World.

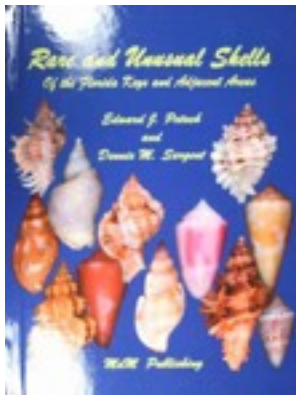
The late T.C. Lan traveled the world to realize this magnificent book, which many love, others detest. Asian style aesthetics of a high level.



1995 Hill L. & Carmichael, P.

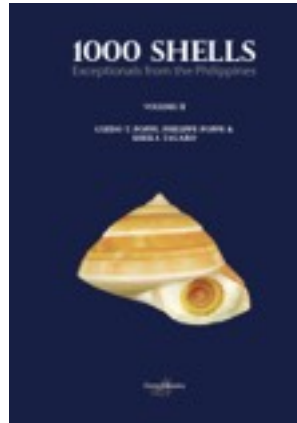
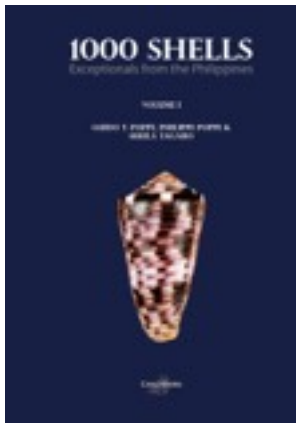
The World's Most Beautiful Seashells.

American style, super selection of desirable shells. Well done book.



2011 Petuch E. J. & Sargent D. M.

Rare and Unusual Shells of the Florida Keys and Adjacent Areas.

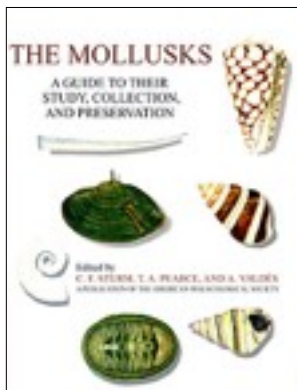


2014 Poppe G.T., Poppe P. & Tagaro S.

1000 Shells

Prime work with 1000 “The best of the best” shells for collectors from the Philippines.

TEACHING IN MALACOLOGY OR CONCHOLOGY



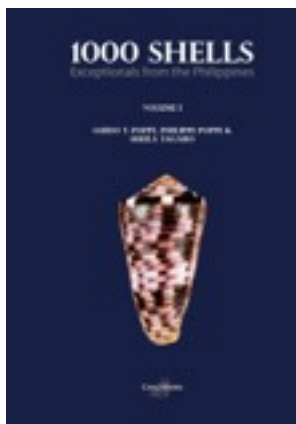
2006 Sturm C. F., Pearce, T. A. and Valdés, A.

The Mollusks, A guide to their study, collection and preservation.

This book is the best general guide I know, although the Internet and especially Conchology, Inc. are not nicely treated there. It is obvious that the authors do not like shell dealers too much and that they grossly underestimated the power of the net. But apart for the Internet, the book is excellent in most of the domains it touches.

COFFEE TABLE BOOKS

There are hundreds of shell books that can be used as such. But if you want to put a set of books on shells on your table, I should choose the following ones:



2014 Poppe G. T., Poppe P. & Tagaro S.
1000 Shells. Exceptionals from the Philippines.
 Shows and documents a thousand fabulous pieces.



1991 Matsukuma, A., Okutani T. & Habe, T.
World Seashells of Rarity and Beauty.

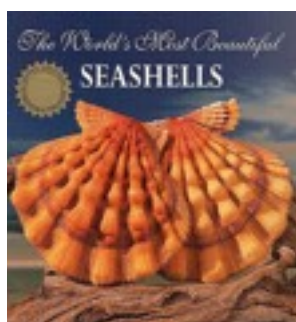
Great book with magnificent photographs, documenting a large number of must have shells.



1993 Lan, T.C.

The Classic Shells of the World.

Fantastic work: T.C. Lan traveled the world to achieve, this, visiting major collectors. The photography is very “Asian”, some love the book, others detest it. I love it.



1995 Hill L. & Carmichael, P.

The World's Most Beautiful Seashells.

A very well done American production.

ON THE CLASSIFICATION OF MOLLUSCA

This is a domain where changes go at high speed today. There are two reasons: first of all the event of molecular studies and DNA give new insights. Secondly there are many points to gain for scientists. Few amateurs or collectors are playing with this subject, they rather are busy with what is called alpha taxonomy and specialize in areas below the family level.

For the advanced collector or student the following works are very useful:



1931 Thiele, J.

Handbuch der systematischen Weichtierkunde. Vol. 1.

There was a Dutch re-edition of this very useful book, written in German, in 1963



1935 Thiele J.

Handbuch der systematischen Weichtierkunde. Vol. 2.

There was a Dutch re-edition of this very useful book, written in German, in 1963



1957-1960 -1964-1969-1971 Moore R. C.

Treatise on Invertebrate Paleontology. 6 Volumes on Mollusca.

Excellent as a lot of information is in there, many figures given and type specimen shown in black and white.

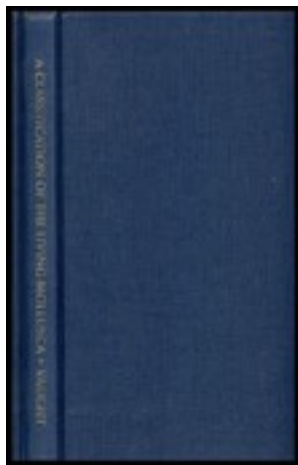
Apart from that already quite outdated classifications.



1961 Zilch, A. & Wenz W.

Handbuch der Palaeozoologie.

A reedition of 3 Volumes that were published in WWII. Few copies survived (about 10). Includes also the fossil material. Many type species of the genera given, many black and white figures. Expensive but a must have.



1989 Vaught, K. C.

A Classification of the Living Mollusca.

A very practical book that lists genera, subgenera and a lot of references to useful literature.



2005 Bouchet P. & Rocroi J. P.

Classification and Nomenclator of Gastropod Families.

Published in the journal Malacologia.

The most modern classification, but again already 9 years behind!



2010 Bieler R., Carter J. G., Coan E. V., Bouchet P; & Rocroi J.-P.

Modern classification of the Bivalves. Well done and still very up to date. Also published in the journal Malacologia.

If you are limited in budget, go for Bouchet & Rocroi, the Bieler & authors and Vaught only. This will help you to manage most in a quite modern way, although in these three works there are no figures and no references to the species that are types of the genera which is a major handicap. But you can find many of these in [WoRMS](#), online.

LEARNING NOMENCLATURE, TAXONOMY AND SYSTEMATICS



1999 International Commission on Zoological Nomenclature

International Code of Zoological Nomenclature

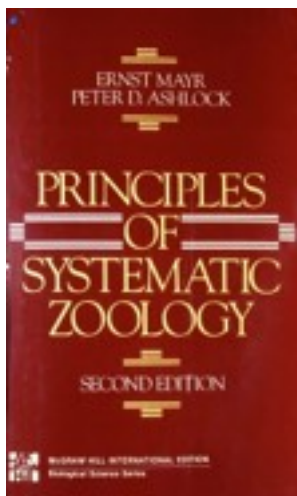
In this book the “rules and regulations”.



1995 Melville, R. V.

Towards Stability in the Names of Animals. A History of the International Commission on Zoological Nomenclature 1895-1995

On the history of the “rules and regulations”, not very important, but good to know.



1991 Mayr, E. & Ashlock, P. D.

Principles of Systematic Zoology (Second Edition)

The bible.



1967 Blackwelder, R. E.

Taxonomy: A Text and Reference Book

Plenty teaching and learning in this one.

THE ENCYCLOPEDIC BOOKS, WORLDWIDE

Since the beginning of shell collecting there were attempts to “figure all”. None succeeded, but many books were successful in figuring several thousand species worldwide. We here list a few that are enough to help you determinate many items.



1879-1898 Tryon, G. W. & Pilsbry H.

Series I, Marine shells. 17 volumes.

1885-1915 Tryon, G. W. & Pilsbry H.

Series II, Land and freshwater, 15 or 16 Volumes.

This Encyclopedia resumes all what is known until that time. Both authors figured a huge number of shells. Unfortunately only a few copies have been printed in color, most are black and white, but even there, few complete sets have been made and survived. Separate volumes are often found in the trade of antiquarian books, but they are quite pricy. The more so, a complete set.

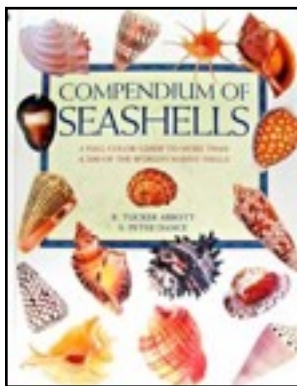
Conchology, Inc. acquired the colored set on the marine mollusks of the late Dick Petit shortly before he left us. Possibly you can find these works on the web.



1973-1992 Kaicher , S. D.

The Kaicher's Card Packs.

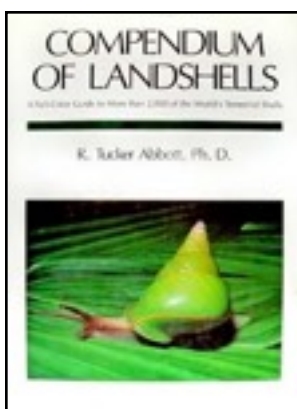
The author figured several thousand species on separate cards. We refer to our chapter “More on Books”, where you find more detailed information on this mega-publication.



1982 Abbott R. T. & Dance P.

Compendium of Seashells.

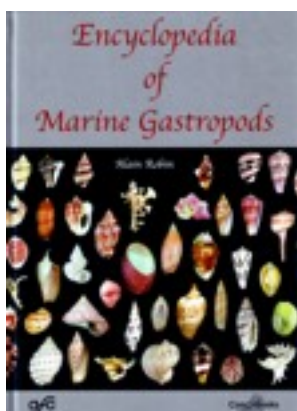
There were many later editions, but none have an updated nomenclature. The book shows more than 4000 species, so it is still very useful, but double check names and family names with WORMS.



1989 Abbott R. T.

Compendium of Landshells.

The most important encyclopedic book on landsnails. The nomenclature is now old, so double check names and families with WORMS, as soon as their landsnails are online. Remains important as it shows many types.



2008 Robin A.

Encyclopedia of Marine Gastropods.

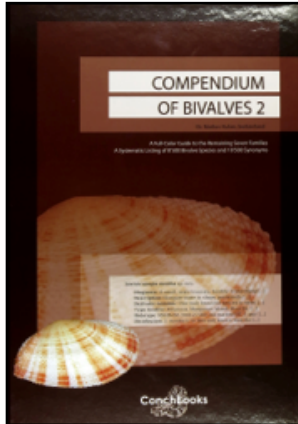
Good general work with a better nomenclature than Abbott & Dance.



2010 Huber, M.

Compendium of Bivalves.

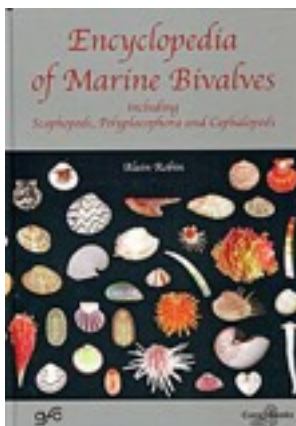
The best general work on Bivalves.



2015 Huber, M.

Compendium of Bivalves 2

Treats some very difficult families, not done in Vol. I.



2011 Robin A.

Encyclopedia of Marine Bivalves.

Includes also Scaphopods, Polyplacophora and Cephalopods.

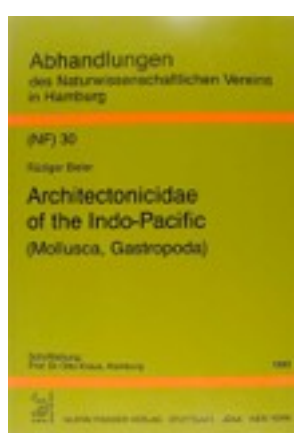
Again, more modern than older works.

FAMILY-BOOKS

Many books specialize on a subject, either a family or even a genus. In very rare cases, books have been dedicated to one species, such as a book on *Achatina fulica*. We here list the most important ones, but we list these by subject, in alphabetical order by family. This list is not exhaustive. Hundreds are not listed. We merely target books figuring a lot of species and giving acceptable determinations, tools for easy and fast determination. Only a few listings without figures are included.

In Conchology, Inc. we look at databases without figures with a very skeptical eye. Things are too complicate and a name does not mean much if the holotype is not seen, or a shell corresponding to the type.

ARCHITECTONICIDAE

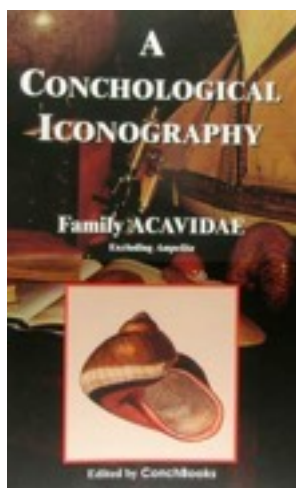


1993 Bieler, R. P.

Architectonicidae of the Indo-Pacific.

Excellent work, unfortunately not worldwide.

ACAVIDAE

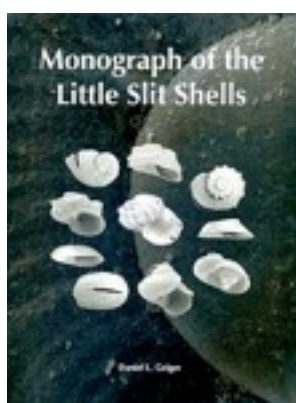


2002 Groh, K., Poppe, G. T. & Charles, M.

The Family Acauidae. In: A Conchological Iconography.

The big majority of ACAVIDAE are living in Madagascar. In this work, only the genera *Acavus*, *Oligospira*, *Stylodonta*, *Leuco-taenius*, *Paraclavator*, *Embertoniphanta*, *Helicophanta*, , *Clava-tor*, *Eurystila* were documented: the work did not sell enough to produce a volume II on the other Acauids and land snails of Madagascar.

ANATOMIDAE



2012 Geiger D. L.

Monograph of the Little Slit Shells. Vol. 1 & 2.

ACHATINELLIDAE



1960 Cooke, C. M. & Kondo, Y.

Revision of Tornatellinidae and Achatinellidae.

Has been reprinted in 1971. Gives a wealth of information but poorly illustrated. Use Severns for determinations (See Books by region on this homepage.)

ANGARIIDAE

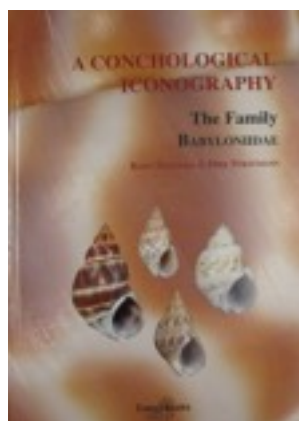


1993 Poppe G. T. & Goto, Y.

Recent Angariidae

Now old and not complete any longer, but a must if you are busy with the family.

BABYLONIIDAE



2013 Fraussen K. & Stratmann D.

The family Babylonidae. In: A Conchological Iconography. Babylonidae.

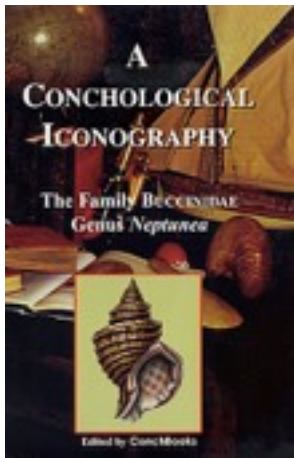
BUCCINIDAE



1981 Cernohorsky

The family Buccinidae, Part I, Nassaria, Trajana, Neoterion.

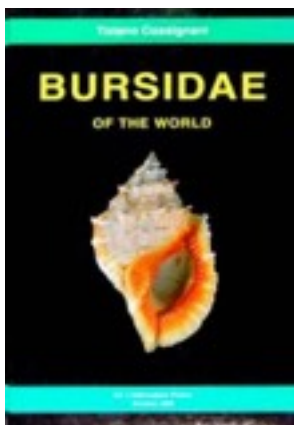
Published in Monographs of Marine mollusca nr. 2



2007 Fraussen K. & Terryn Y.

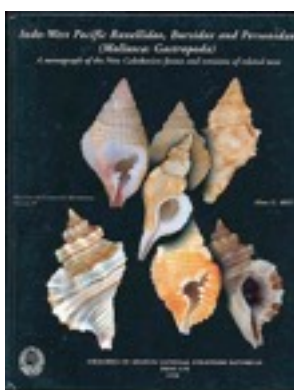
The Family Buccinidae. Genus Neptunea. In: A Conchological Iconography.

BURSIDAE



1994 Cossignani T. & Cossignani V.

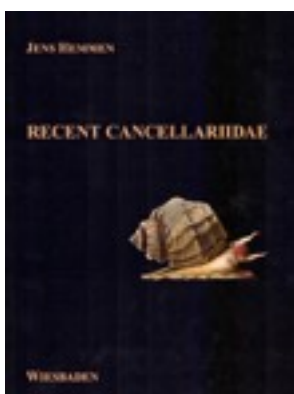
Bursidae of the world.



1998 Beu, A. G.

Indo-West Pacific Ranellidae, Bursidae and Personidae. - A monograph of the New Caledonian fauna.

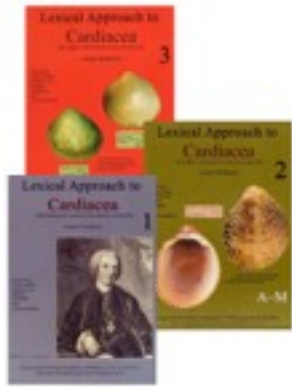
CANCELLARIIDAE



2007 Hemmen J.

Recent Cancellariidae.

CARDIIDAE



2004 Hylleberg J.

Lexical approach of Cardiacea. 3 Volumes.

Gives a wealth of information.

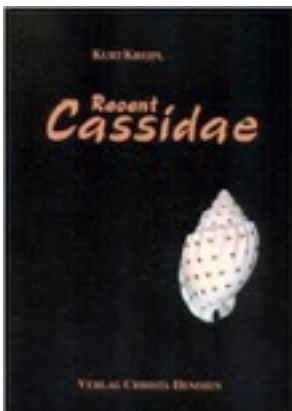
CASSIDAE



1968 Abbott, R.T.

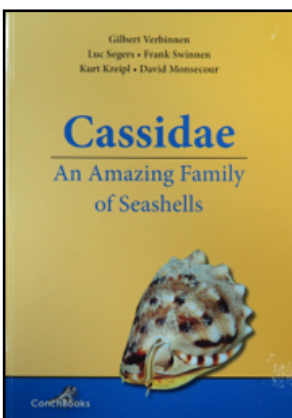
The Helmet Shells of the World. Cassidae. Part I. In: Indo-Pacific Mollusca.

A little outdated but still contains lots of valuable information and figures.



1997 Kreipl, K.

Recent Cassidae.



2016 Verbinnen, G., Segers, L., Swinnen, F., Kreipl, K. & Monsecour, D.

Cassidae – An Amazing Family of Seashells

The latest revision, a must have if interested in these.

CERITHIIDAE



1978 Houbriek R. S.

The family Cerithiidae in the Indo Pacific. 1-3.

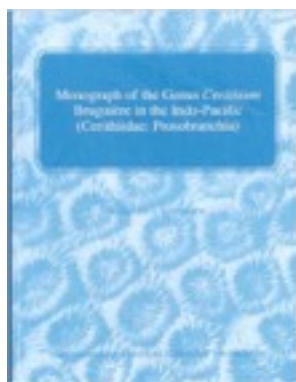
In: Monographs of Marine mollusca 1-3



1978 Cernohorsky, W.O.

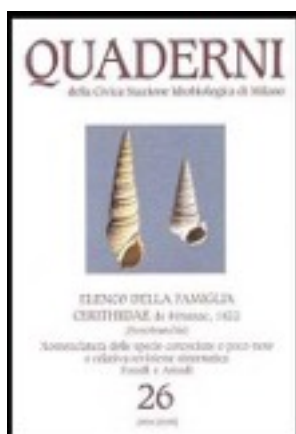
Family Cerithiidae of the Indo Pacific.

In: Monographs of Marine mollusca.



1992 Houbriek, R. S.

Monograph of the genus Cerithium Bruguière in the Indo-Pacific



2005 Cecalupo, A.

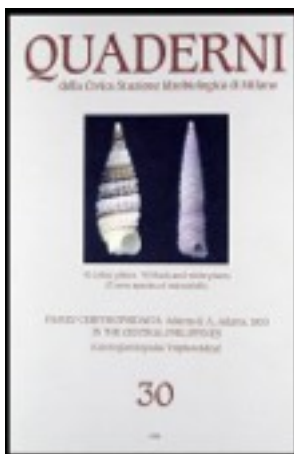
List of Cerithiidae Family Férussac, 1822. Vol. 1.



2006 Cecalupo, A.

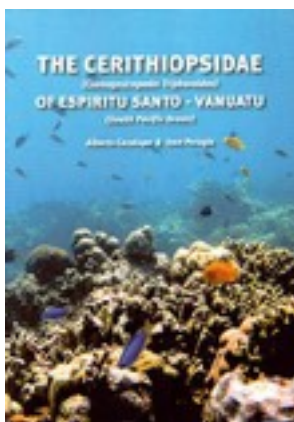
List of Cerithiidae Family Férussac, 1822. Vol. 1.

CERITHIOPSIDAE



2011 Cecalupo, A. & Perugia I.

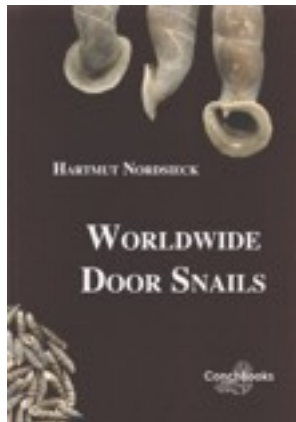
Family Cerithiopsidae H. Adams & A. Adams, 1853 in the central Philippines.



2013 Cecalupo, A. & Perugia I.

Family Cerithiopsidae of Espiritu Santo- Vanuatu.

CLAUSILIIDAE

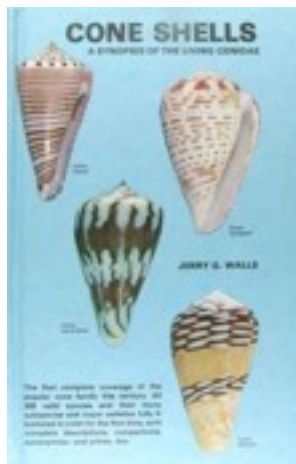


2007 Nordsieck H.

Worldwide Door Snails, recent and fossil.

This is a listing of the CLAUSILIIDAE known at that time. There are many dozens, if not hundreds, of publications on Door snails, but no comprehensive work that figures all, or most. This listing helps already a lot. But unbelievable: there is no index and in this case this is a major handicap for the user. A must if you are busy with *Clausilia*.

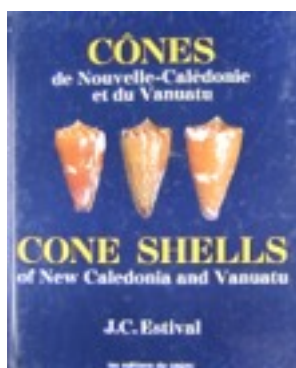
CONIDAE



1978 Walls, J. G.

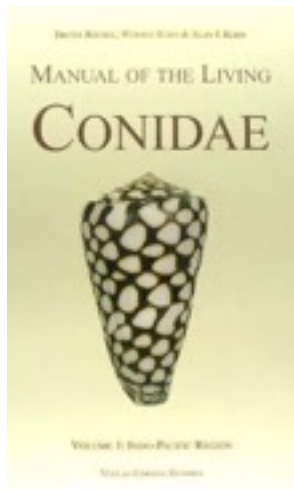
Cone Shells. A Synopsis of living Conidae.

Despite the fact that experts look down on this work, I find it still very useful and a good documentation. Healthy thinking in many cases.



1981 Estival, J. C.

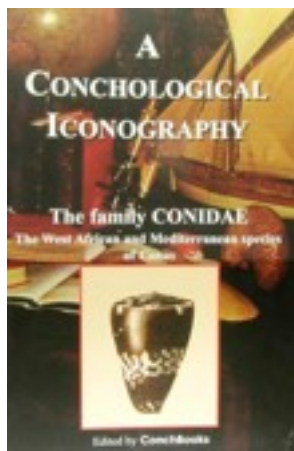
Cone shells of New Caledonia and Vanuatu.



1995 Röckel, Korn & Kohn.

Manual of the living Conidae. Vol. I: Indopacific Region.

The main work on the family for the Indo Pacific. A wealth of information, a considerable number of mistakes, because of excessive lumping, typical for the time of production.

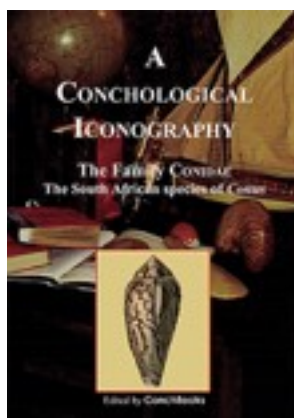


2004 Monteiro J. A., Tenorio M. J. & Poppe G.T.

The family Conidae. The West African and Mediterranean species of Conus.

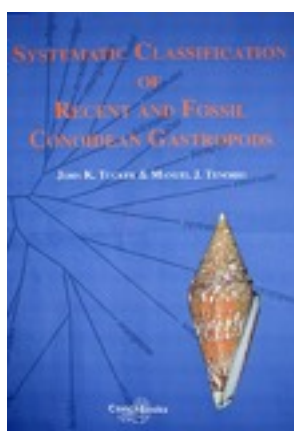
In A Conchological Iconography.

Still the best work on the area, but because of this very well done book, it gave also rise to a wealth of new species described shortly afterwards: justified or not.



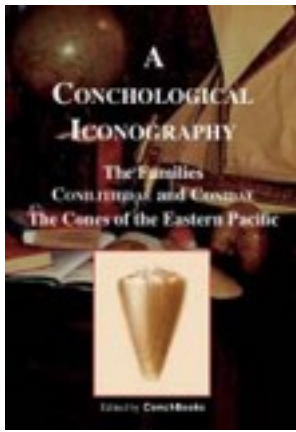
2008 Tenorio J. M., Monteiro J. A. & Terryn Y.

The South African species of Conus. In A Conchological Iconography.

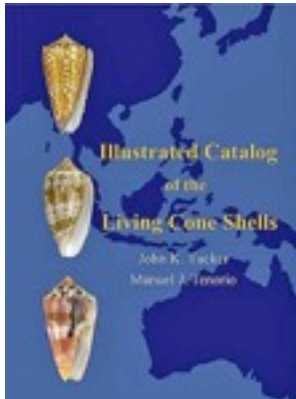


2009 Tucker J. K. & Tenorio M.J.

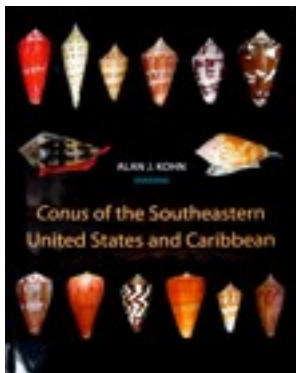
Systematic classification of Recent and Fossil Conoidean Gastropods.



2012 Tenorio J. M., Tucker J. K. & Chaney H.W.
The Cones of the Eastern Pacific. In A Conchological Iconography.



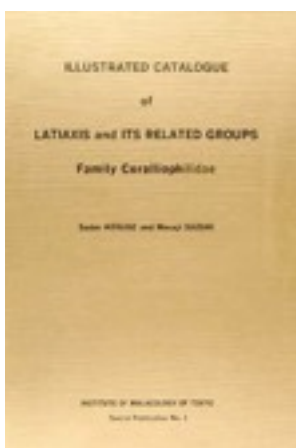
2014 Tucker, J. K. & Tenorio, M. J.
Illustrated Catalog of the Living Cone Shells.



2014 Kohn, A.J.
Conus of the southeastern United States and Caribbean.

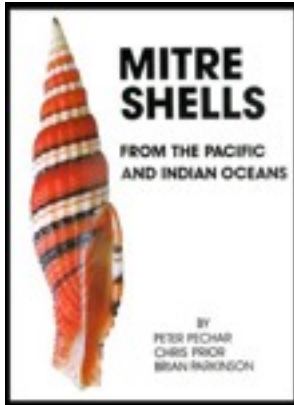
Well done book on this difficult subject.

CORALLIOPHILIDAE



1985 Kosuge S. & Suzuki M.
Illustrated Catalogue of Latiaxis and its related groups. Family Coralliophilidae.

COSTELLARIIDAE

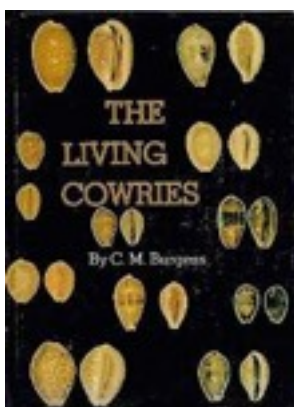


1985 Pechar, P., Prior, Ch., & Parkinson, B.
Mitre Shells from the Pacific and Indian Oceans.
Very poor quality printing but still useful.



2004 Robin, A. & Martin, J-C
Mitridae and Costellariidae.
Nice photographs, well done. However, the classification on the generic level is a great shame in these families.

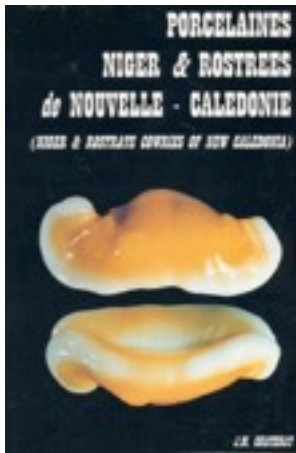
CYPRAEIDAE



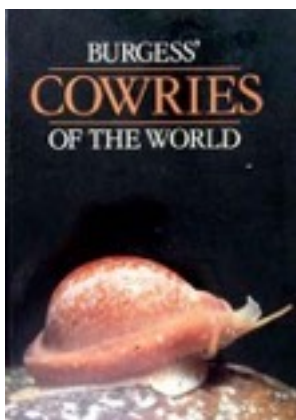
1970 Burgess, C. M.
The living Cowries.
Outdated, but I find it still fantastic to browse, even after more than 4 decades.



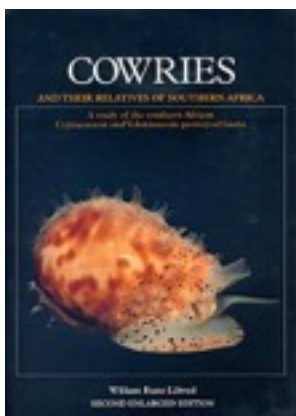
1975 Pierson, R. & Pierson, G.
Porcelaines mystérieuses de Nouvelle-Caledonie.
Mysterious Cowries of New-Caledonia.



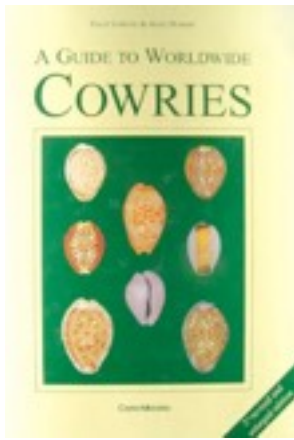
1977 Chateney, J. M.
Porcelaines niger et rostrees de Nouvelle Caledonie.



1985 Burgess, C. M.
Cowries of the World.
No good photographs, but nice info and shots of living animals.



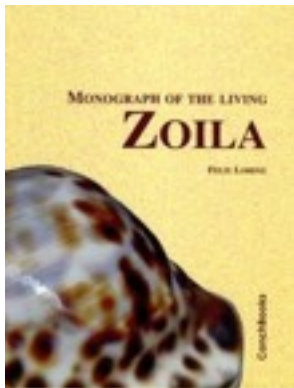
2000 Liltved, W. R.
Cowries and their relatives of southern Africa. A study of the southern African Cypraeacean and Velutinacean gastropod fauna
Still a bible for shells of that area.



2000 Lorenz, F. & Hubert, A.

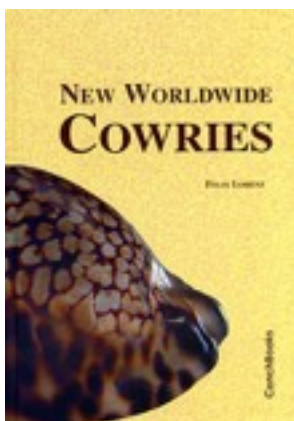
A Guide to Worldwide Cowries.

The modern Bible, but the author updates with the books shown below.



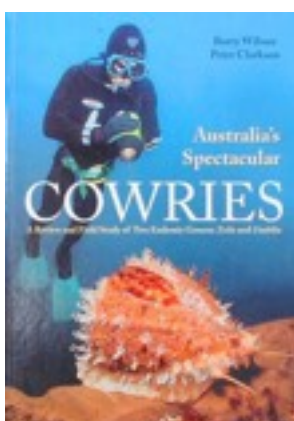
2001 Lorenz, F.

Monograph of the living Zoila, a fascinating group of Australian endemic cowries.



2002 Lorenz, F.

New Worldwide cowries.



2004 Wilson, B. & Clarkson, P.

Australia's Spectacular Cowries. A Review and Field Study of Two Endemic Genera: Zoila & Umbilia.

Fabulously well done book.

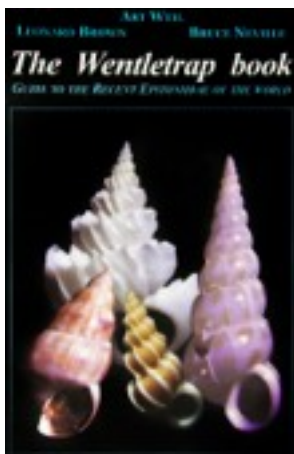


2014 Lorenz, F.

Monograph of the genus Pustularia.

Most recent update from the bible of the same author shown higher.

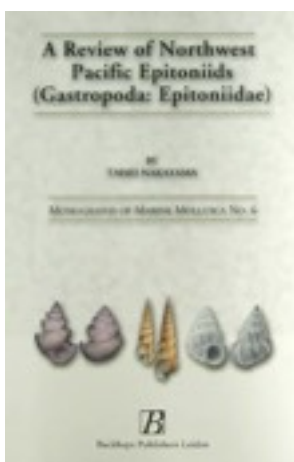
EPITONIIDAE



1999 Weil, A., Brown, L. & Neville, B.

The Wentletrap book - Guide to the Recent Epitoniidae of the world.

Quite some types shown. The classification on the generic level is a great shame in this family. Organized by region and useful work.



2003 Nakayama, T.

A Review of Northwest Pacific Epitoniids. Monographs of Marine Mollusca No. 6

Highly important for Pacific shells.

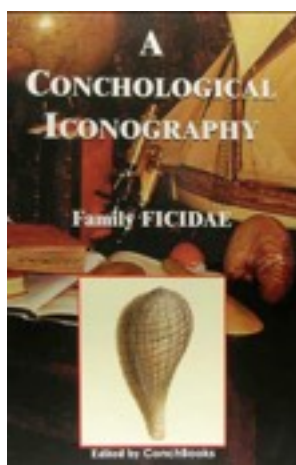
FASCIOLARIIDAE



2005 Mallard D. & Robin A.

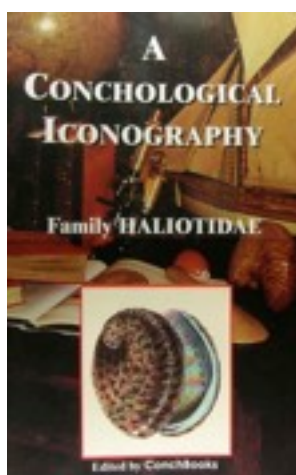
Fasciolaridae.

FICIDAE

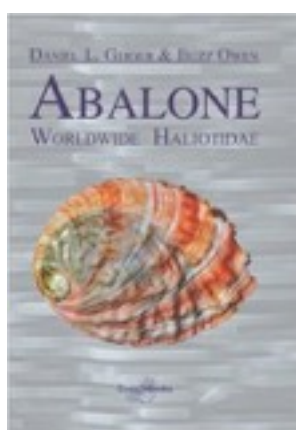


2000 Verhaeghe, M. & Poppe, G. T.
The Family Ficidae. In A Conchological Iconography.

HALIOTIDAE



2000 Geiger, D. & Poppe, G. T.
The Family Haliotidae. - In: A Conchological Iconography.



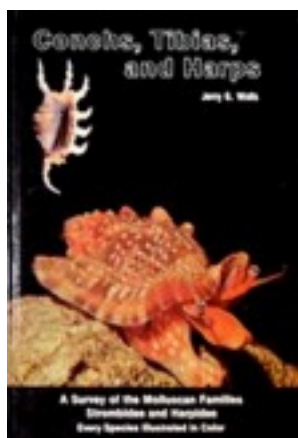
2012 Geiger, D. & Owen, B.
Abalone Worldwide Haliotidae.

HARPIDAE



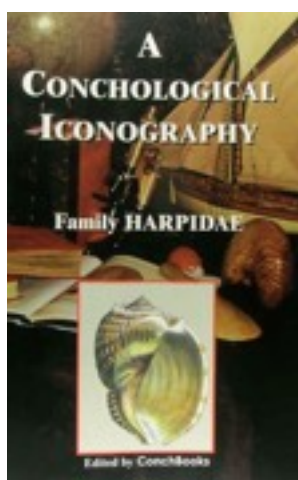
1973 Rehder H. A.

The family Harpidae of the World. In Indo-Pacific Mollusca.



1978 Walls, J. G.

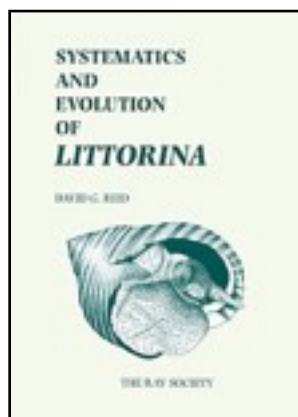
Another Viewpoint on the Living Harps.



1999 Dance, P., Poppe, G. T. & Brulet, T

The family Harpidae. - In: A conchological Iconography.

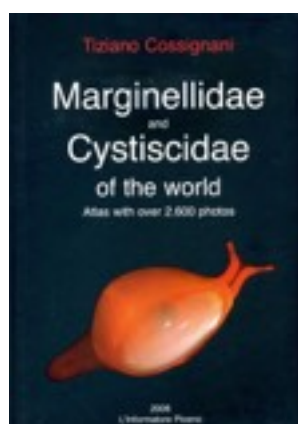
LITTORINIDAE



1996 Reid, D. G.

Systematics and evolution of Littorina.

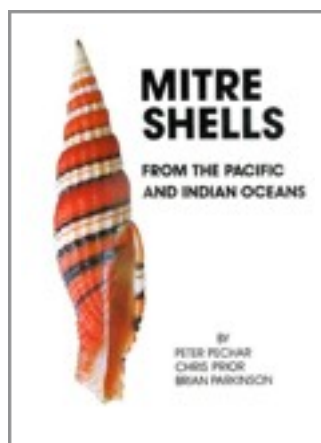
MARGINELLIDAE



2006 Cossignani, T.

Marginellidae and Cystiscidae of the world.

MITRIDAE



1985 Pechar, P., Prior, Ch., & Parkinson, B.

Mitre Shells from the Pacific and Indian Oceans.

Very poor quality printing but still useful.



1976 Cernohorsky, W.O.

The Mitridae of the World. Part I: The Subfamily Mitrinae.
In Indo-Pacific Mollusca.



1991 Cernohorsky, W. O.

The Mitridae of the World. Part II. The Subfamily Mitrinae concluded and subfamilies Imbricariinae and Cylindromitrinae. In *Monographs of Marine Mollusca.*



2004 Robin, A. & Martin, J-C

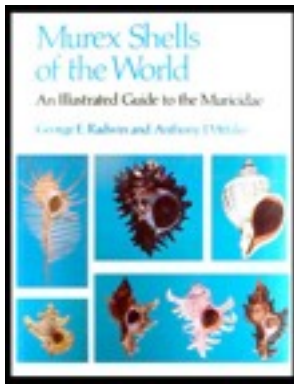
Mitridae and Costellariidae.

MURICIDAE



1976 Fair, R. H.

The Murex book: An illustrated catalogue of Recent Muricidae.



1976 Radwin, G. E. & d'Attilio, A.

Murex Shells of the World. An Illustrated Guide to the Muricidae.



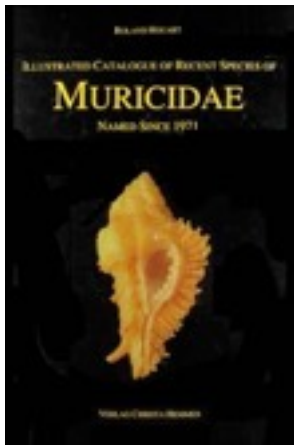
1988 Ponder, W. F. & Vokes, E. H.

A revision of the Indo-West Pacific fossil and recent species of Murex s.s. and Haustellum.



1992 Houart, R.

The genus Chicoreus and related genera in the Indo-West Pacific.



1994 Houart, R.

Illustrated catalogue of recent species of Muricidae named since 1971.



1996 Houart, R.

Les Muricidae d'Afrique occidentale. I. Muricinae & Muricopsinae.

The West African Muricidae. I. Muricinae & Muricopsinae



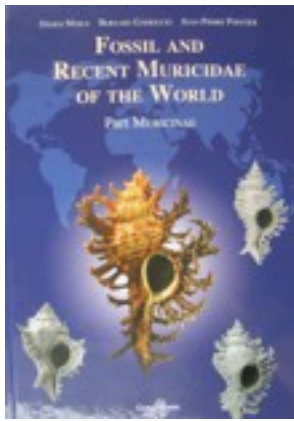
1997 Houart, R.

Les Muricidae d'Afrique Occidentale. II. Ocenebrinae, Ergalataxinae, Tripterotyphinae, Trophoninae & Rapaninae.



2001 Houart, R.,

A review of the Recent Mediterranean and northeastern Atlantic species of Muricidae



2011 Merle D., Garrigues B. & Pointier J.P.
Fossil & Recent Muricidae of the World. Part Muricinae.

NASSARIIDAE

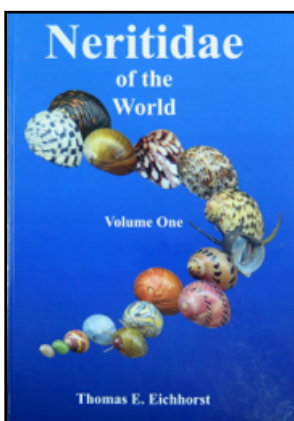


1984 Cernohorsky, W. O.
Systematics of the family Nassariidae



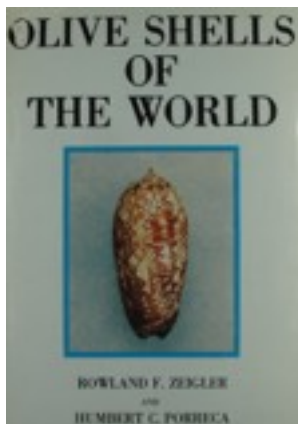
1990 Allmon, W. D.
Review of the Bullia group with comments on its evolution, biogeography, and phylogeny.

NERITIDAE



2016 Eichhorst, T.
Neritidae of the World, vol. 1
A revelation, top notch introduction and nice treatment of species. The Vol. II will be out in the beginning of 2017.

OLIVIDAE



1969 Zeigler R. F. & Porreca H. C.

Olive Shells of the World.

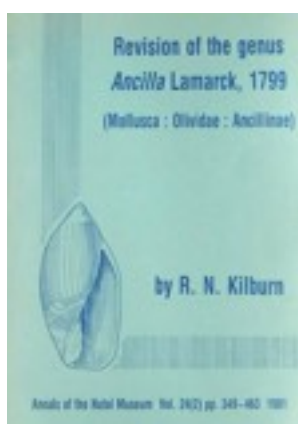
Outdated nomenclature, but good to see some form names no longer used and some special color forms.



1981 Greifeneder, D.

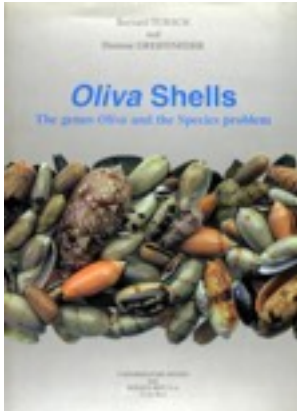
Beiträge zur Kenntnis der Olividae.

A rare work, only 400 copies were made. Useful to see some variants.



1981 Kilburn, R. N.

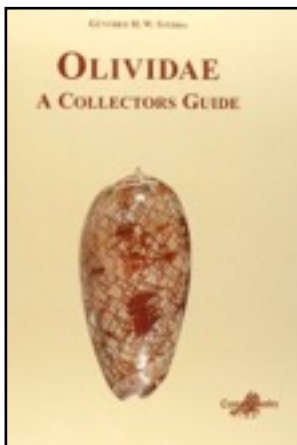
Revision of the genus Ancilla Lamarck, 1799.



2001 Tursch, B. & Greifeneder, D.

Oliva Shells - The genus Oliva and the species problem

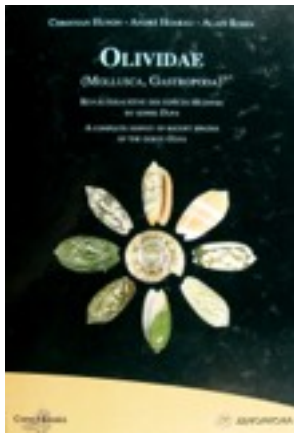
As much a philosophical work as a taxonomic work. Well done and worth reading, both for the thinkers and the Olive experts



2004 Sterba, G.

Olividae: A Collectors Guide.

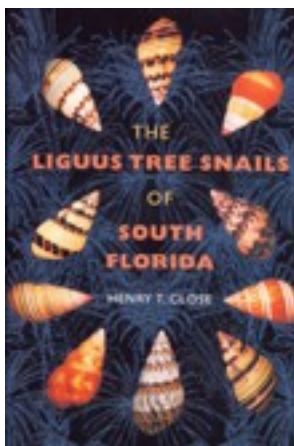
Masterpiece, based a lot on the preceding work, well illustrated and very practical. We use this most. In either German or English.



2009 Hunon, C., Hoarau, A. & Robin, A.

Olividae. A complete survey of recent species of the genus Oliva.
Good addition on the two preceding works.

ORTHALICIDAE – LIGUUS

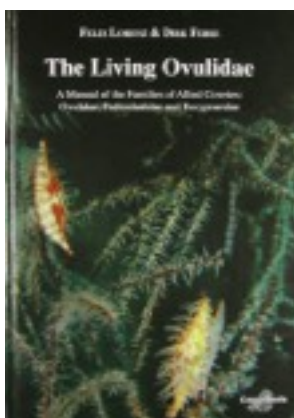


2000 Close, H. T.

The Liguus tree snail in South Florida

Up till now, nothing very well has been published on this fascinating group. This is the best.

OVULIDAE

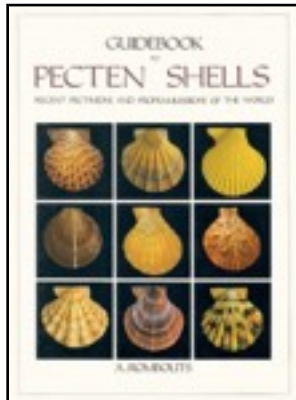


2009 Lorenz, F. & Fehse, D.

The Living Ovulidae. A Manual of the Families of Allied Cowries: Ovulidae, Pediculariidae & Eicypraeidae.

The bible on this family.

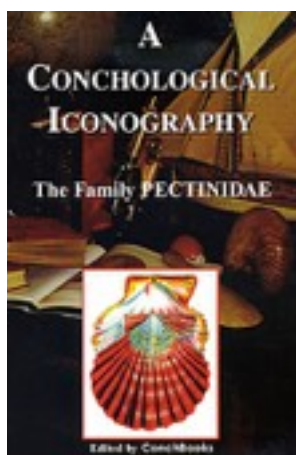
PECTINIDAE



1991 Rombouts, A.

*Guidebook to Pecten shells. Recent Pectinidae and Propeamus-
siidae of the world.*

Good to see some forms, outdated nomenclature.



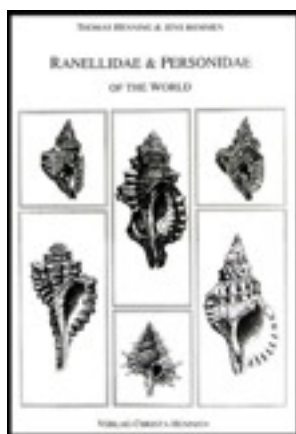
2006 Raines, B.K. & Poppe, G.T.

A Conchological Iconography. The Family Pectinidae.

The bible on this family.

Very voluminous work with thousands of photos.

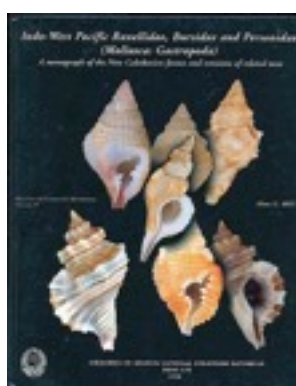
PERSONIDAE



1993 Henning, T. & Hemmen, J.

Ranellidae & Personidae of the world.

Small, excellent, but drawings, no photos.



1998 Beu, A. G.

*Indo-West Pacific Ranellidae, Bursidae and Personidae. - A
monograph of the New Caledonian fauna.*

PHASIANELLIDAE – TRICOLIA



1985 Robertson, R.

Archeogastropod Biology and the Systematics of the Genus Tricolia in the Indo-West-Pacific. Monographs of Marine Mollusca

PICWORTHIIDAE



2003 Le Renard J. & Bouchet P.,

New Species and genera of the family Pickworthiidae.

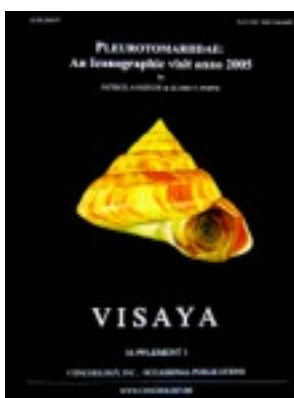
PLEUROTOMARIIDAE



1996 Anseeuw, P. & Goto, Y.

The Living Pleurotomariidae.

The bible on this family.

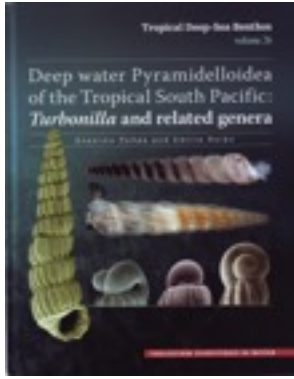


2005 Anseeuw, P. & Poppe, G.T.

Pleurotomariidae. An Iconographic visit anno 2005.

Update and addition to the above work.

PYRAMIDELLIDAE



2010 Penas A. & Rolan E.

Deep water Pyramidelloidea of the Tropical South Pacific: Turbonilla and related genera. Vol. 26.

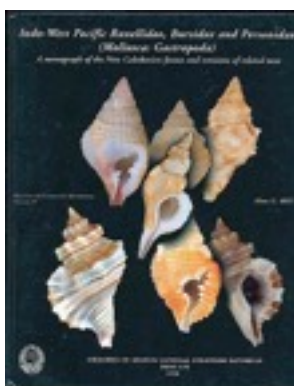
RANELLIDAE



1993 Henning, T. & Hemmen, J.

Ranellidae & Personidae of the world.

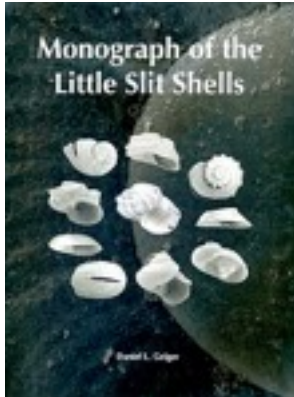
Black and white drawings.



1998 Beu, A. G.

Indo-West Pacific Ranellidae, Bursidae and Personidae. - A monograph of the New Caledonian fauna.

SCISSURELLIDAE

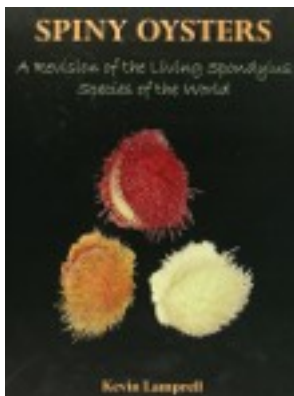


2012 Geiger, D.L.

Monograph of the Little Slit Shells. Vol. 1 & 2.

The bible on this family and the Anatomidae.

SPONDYLIDAE

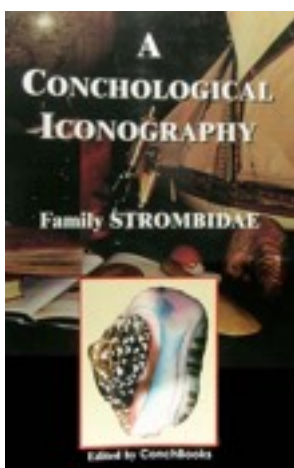


2006 Lamprell, K.

Spiny Oysters. A Revision of the Living Spondylus species of the World.

The bible on this family, but much work still to be done.

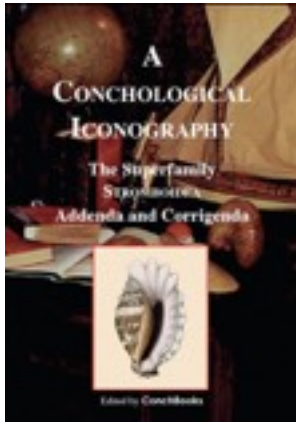
STROMBIDAE



1999 Kreipl, Poppe, Man in't Veld & De Turck

The family Strombidae. - In A Conchological Iconography.

The bible on this family.

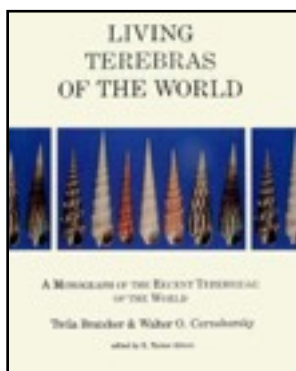


2013 Liverani V.

A Conchological Iconography. The superfamily STROMBOIDEA.

Addenda and Corrigenda on the above work.
Modern systematics.

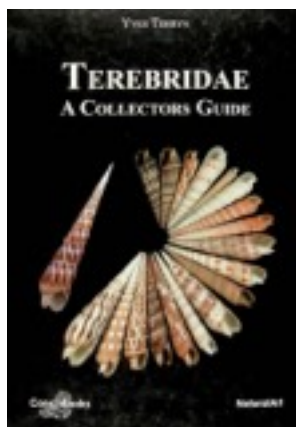
TEREBRIDAE



1987 Bratcher, T. & Cernohorsky, W.

Living Terebras of the World.

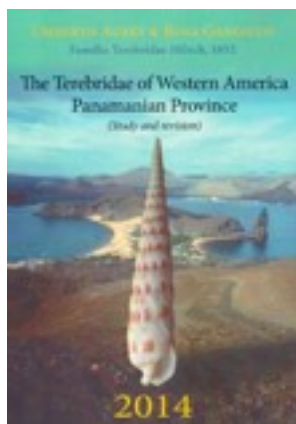
The bible on this family.



2007 Terry, Y.

Terebridae. A collectors Guide.

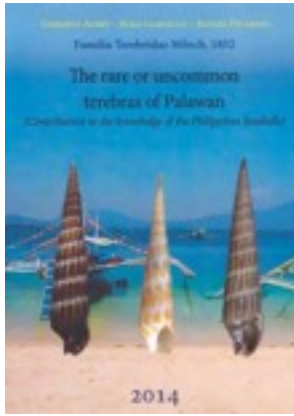
Useful addition on the above work, better photographs, includes many new species.



2014 Aubry U. & Gargiulo R.

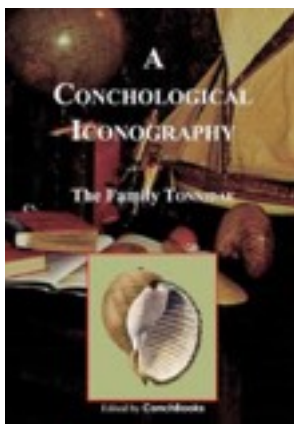
The Terebridae of Western America. Panamanian Province.

What the title says.



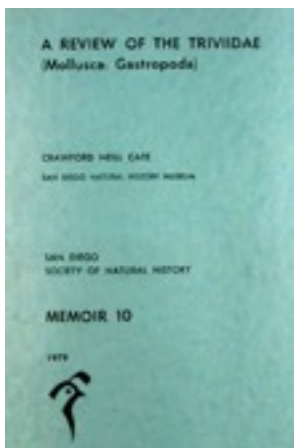
2014 Aubry U., Gargiulo R. & Picardal R.
The rare or uncommon terebras of Palawan.
What the title says.

TONNIDAE

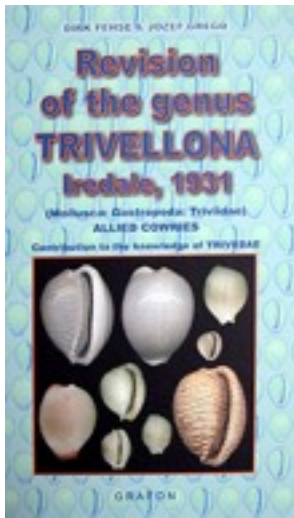


2007 Vos C. & Terryn Y.
The Family Tonnidae. In: A Conchological Iconography.
The bible on the family.

TRIVIIDAE

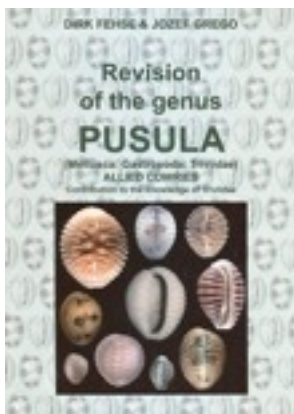


1979 Cate C.N.
A Review of the Triviidae.
The bible, but now outdated. Still useful.



2009 Fehse D. & Greho J.

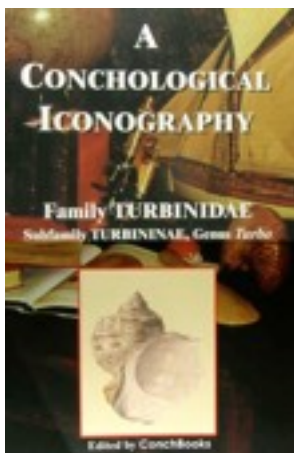
Revision of the Genus Trivellona Iredale, 1931.



2014 Fehse D. & Grego J.

Revision of the genus Pusula.

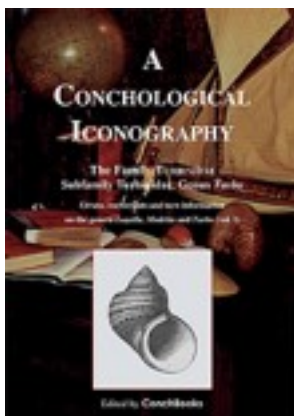
TURBINIDAE



2003 Alf A., Kreipl K & Poppe G.T.

The family Turbinidae. Subfamily Turbininae, Genus Turbo. In: A conchological Iconography.

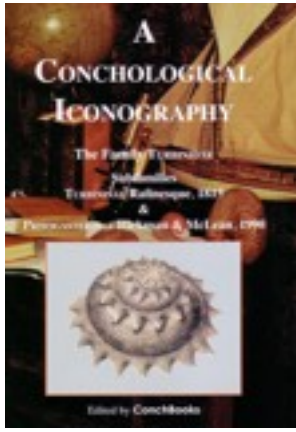
The bible on the family.



2011 Alf, A. & Kreipl, K

The Family Turbinidae, subfamily Turbinidae, Genus Turbo. Errata, Corrections and new information on the genera Lunella, Modelia and Turbo. In A Conchological Iconography.

Suite on the bible.



2011 Alf, A. & Kreipl, K.

The Family Turbinidae, subfamilies Turbininae and Prisogasterinae

In: A Conchological Iconography.

Second suite on the bible.

TURRIDAE



2004 Tucker, J.K.

Catalog of Recent and fossil turrids.

This work is useful as a database for names, authors and dates but cannot be used for determinations. Today, The Tucker Turridae are many families.

UNIONIDAE

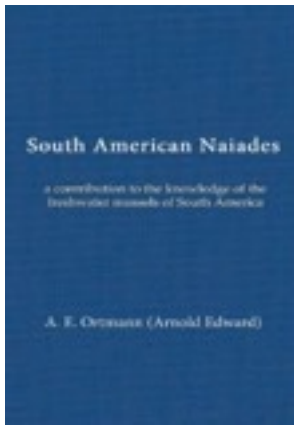
This fascinating group of mollusks is particularly well documented for the USA, there is a book for many states. We put the states in bold. We here list at least a part of the modern ones.



1911-1919 Ortmann, A. E.

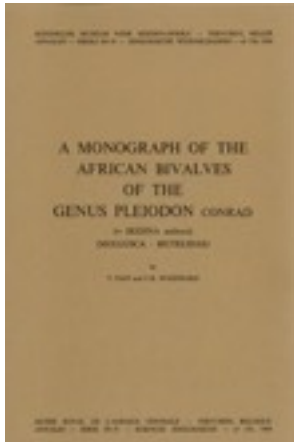
Monograph of the Naiades of Pennsylvania. Part III Systematic Account of the Genera and Species.

Ortmann also wrote on the Naiades of South American and several other works on the UNIONIDAE from north America.



1921 Ortmann, A. E.

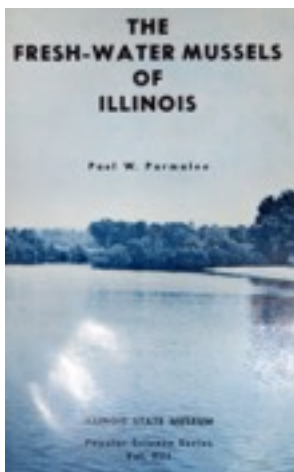
South American Naiades; a contribution to the knowledge of the freshwater mussels of South America.



1964 Pain, T. & Woodward, F. R.

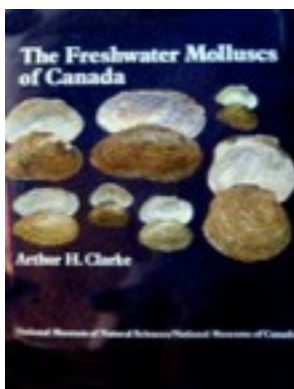
A monograph of the African Bivalves of the genus Pleiodon Conrad.

In fact: MUTELIDAE, but for practical reasons placed here.



1967 Parmalee, P. W.

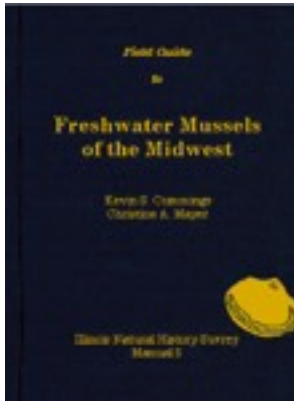
The freshwater mussels of Illinois.



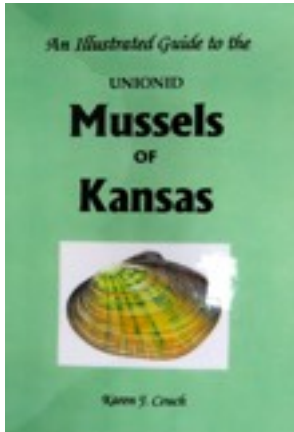
1981 Clarke, A. H.

The freshwater Molluscs of Canada.

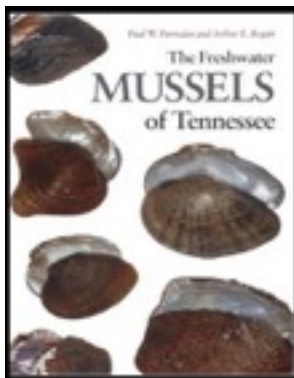
Lots of information on Canada Unios.



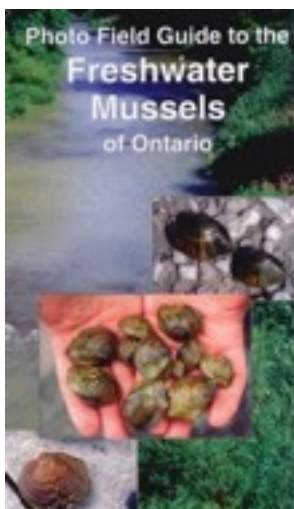
1992 Cummings, K. S. & Mayer, C. A.
Field guide to the freshwater mussels of the Midwest.



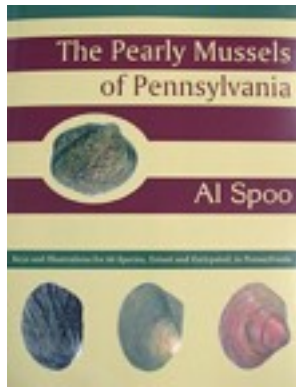
1997 Couch K.J.
An Illustrated Guide to the Unionid Mussels of Kansas.



1998 Parmalee, P. W. & Bogan, A. E.
The freshwater mussels of Tennessee.

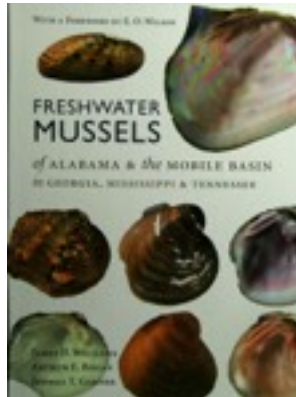


2005 Metcalfe-Smith J., Mackenzie A., Carmichael I. & McGoldrick D.
Photo field guide to the freshwater mussels of Ontario.
Useful very small guide, but well done.



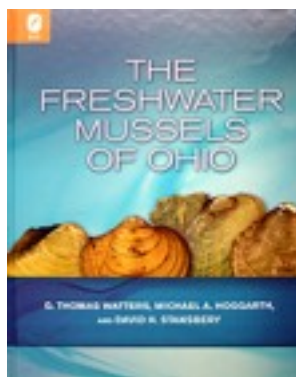
2008 Spoo, A.

The Pearly Mussels of Pennsylvania.



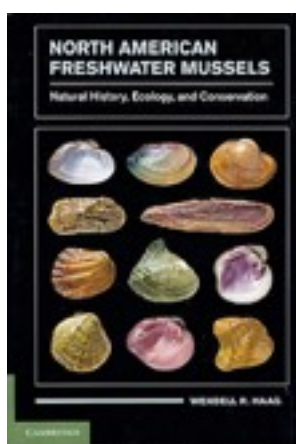
2008 Williams J. D., Bogan A. E. & Garner J. T.

Freshwater Mussels of Alabama & the Mobile Basin in Georgia, Mississippi & Tennessee.



2009 Watters, G.T., Hoggarth, M. A. & Stansbery, D.H.

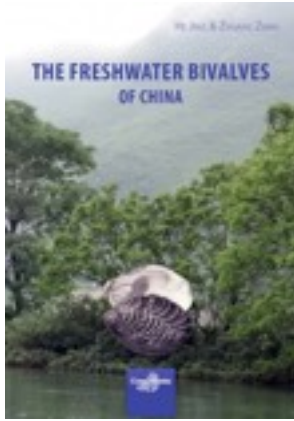
The freshwater mussels of Ohio.



2012 Haag, E. R.

North American Freshwater Mussels. Natural History, Ecology and Conservation.

This is not a determination book, but a must for all interested in the family. General information on freshwater mussels. Master-piece book.



2013 He Jing & Zimin Z.

The Freshwater Bivalves of China.

Not only the UNIONIDAE, but the best modern overview for Chinese Unionids.

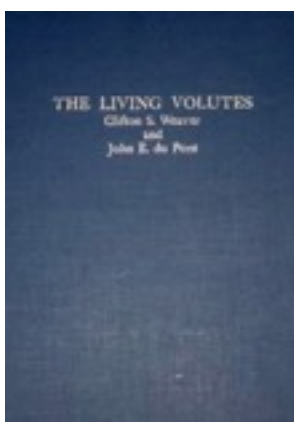
VOLUTIDAE



1968 Abbottsmith

Multiform Australian Volutes.

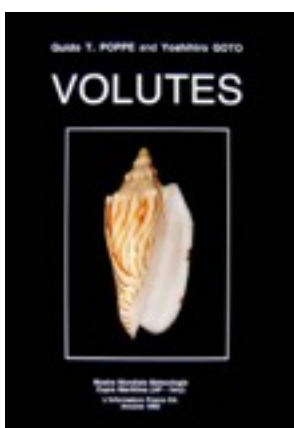
Outdated nomenclature, but gives lots of information on variation of Australian Volutes, as the title tells.



1970 Weaver, C.S. & DuPont, J.E.

The Living Volutes. A Monograph of the Recent Volutidae of the World.

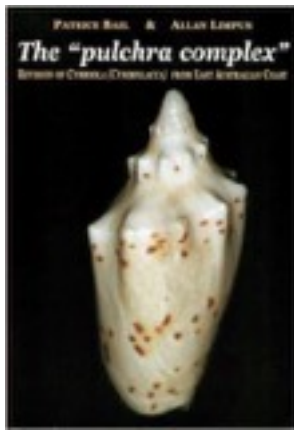
The bible on the family.



1992 Poppe, G. & Goto, Y.

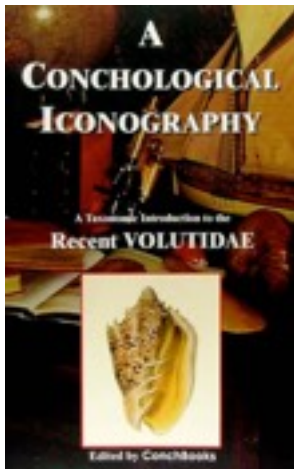
Volutes.

This is the modern version and addition to Weaver and DuPont.



1998 Bail, P. & Limpus, A.

The "pulchra complex" - Revision of Cymbiola from East Australian Coast.

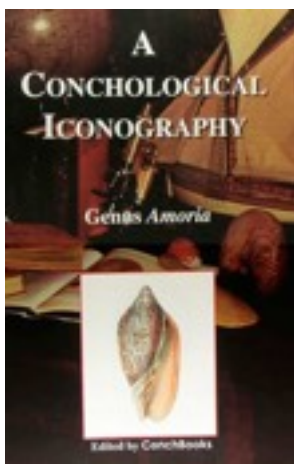


2001 Bail, P. & Poppe, G. T.

A taxonomic introduction to the Recent Volutidae.

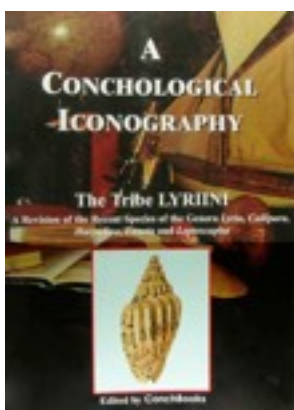
In: A Conchological Iconography

Is only a listing of valid names at that time, with authors and date and region.



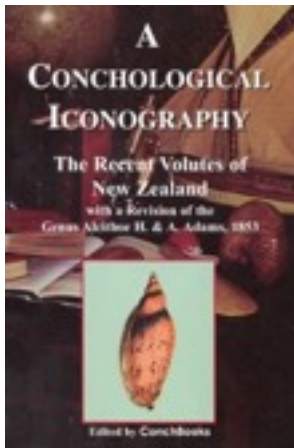
2001 Bail, P. & Limpus, A. & Poppe, G. T.

The genus Amoria. In: A Conchological Iconography

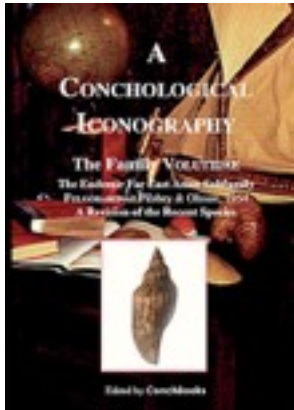


2004 Bail P. & Poppe, G.T..

The Tribe Lyriini. A Revision of the Recent Species of the Genera Lyria, Callipara, Harpulina, Enaeta and Leptoscapha. A conchological Iconography.



2005 Bail P., Limpus A. & Terryn Y.
The Recent Volutes of New Zealand. A conchological Iconography.

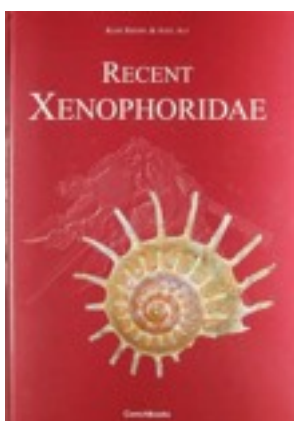


2010 Bail, P., Chino, M., & Terryn, Y.
The family Volutidae. The endemic Far East Asian subfamily Fulgorariinae Pilsbry & Olsson, 1954. A revision of the Recent species. In: A conchological Iconography.

XENOPHORIDAE



1983 Ponder, W. F.
Xenophoridae of the World.
The bible, poorly illustrated.



1999 Kreipl, K. & Alf, A.
Recent Xenophoridae.
Perfect and modern version of the bible with better illustrations.

REGIONAL BOOKS – MARINE

For the sake of simplicity, here a direct access to the books on the following regions and groups:

- EUROPE
- WEST AFRICA
- SOUTH AFRICA
- THE INDO PACIFIC
- AUSTRALIA
- NEW ZEALAND
- THE WESTERN AMERICAN COAST
- THE EASTERN AMERICAN NORTH COAST
- THE CARIBBEAN & BRAZIL
- SOUTHERN AMERICA
- ANTARCTICA
- COSMOPOLITAN
- CEPHALOPODA
- NUDIBRANCHES
- CHITONS
- SCAPHOPODA

The waves are the same all over the world, yet, they are different everywhere every second.



MARINE – EUROPE

With marine Europe we usually understand the region from the Arctic, including Iceland, south to the Canaries and including the Mediterranean and the Black Sea. The literature is overwhelming and there are books for almost all aspects, including on juvenile shells and many on nudibranches, cephalopods and the like (listed in these sections). With the following selection you have the best and you should be able to determine almost all... and gain fantastic knowledge on the subject.



1882-1898 Bucquoy, E., Dautzenberg, P. & Dollfus G.

Les Mollusques marins du Roussillon. 3 Volumes (of which one Atlas).

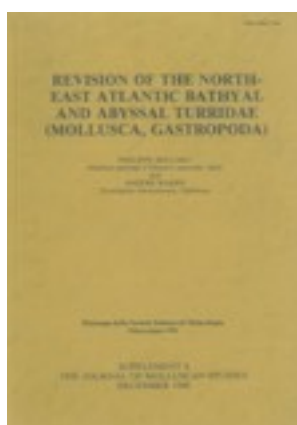
Great work with a wealth on information and many variant names, still important for collectors and students of European shells today. We have a recent reprint, undated, in Conchology, Inc.



1969 Nordsieck, F.

Die europäischen Meeresmuscheln (Bivalvia) vom Eismeer bis Kapverden, Mittelmeer und Schwarzes Meer.

Outdated and with poor quality drawings, this remains an important work with a wealth of information. Learn to interpret.



1980 Bouchet, P. & Waren, A.

Revision of the northeast Atlantic bathyal and abyssal Turridae (Mollusca, Gastropoda).

Now outdated nomenclature, but well illustrated, still important.



1982 Nordsieck, F.

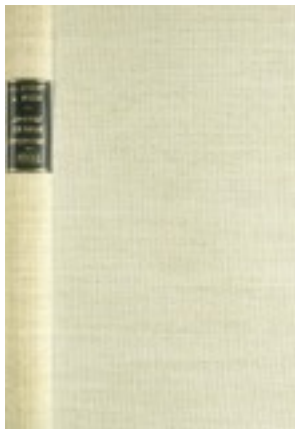
Die europäischen Meeres-Gehäuseschnecken (Prosobranchia).

Outdated and with poor quality drawings, this remains an important work with a wealth of information. Learn to interpret.



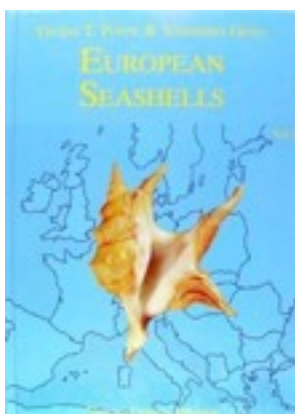
1985 Bouchet, P. & Waren, A.

Revision of the northeast Atlantic bathyal and abyssal Neogastropoda excluding Turridae (Mollusca, Gastropoda).



1986 Bouchet, P. & Waren, A.

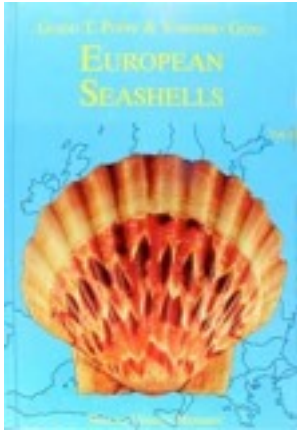
Revision of the northeast Atlantic bathyal and abyssal Aclididae, Eulimidae, Epitoniidae (Mollusca, Gastropoda).



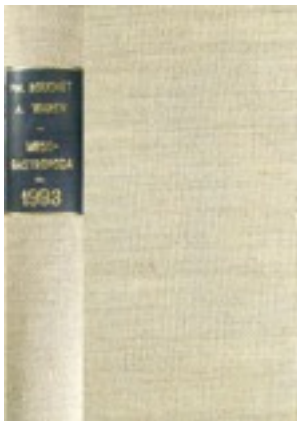
1991 Poppe, G. & Goto, Y.

European Seashells Vol. 1.

This work is now with a nomenclature getting older already, but advanced collectors told me they still use the book daily.



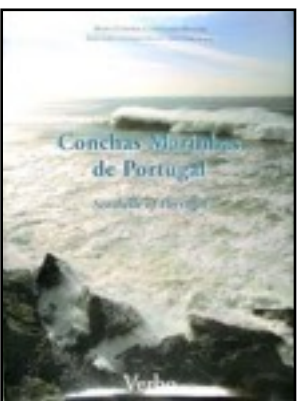
1993 Poppe, G. & Goto, Y.
European seashells Vol. 2
Same comment as on Volume 1.



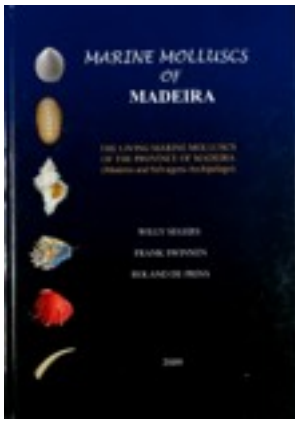
1993 Bouchet, P. & Waren, A.
Revision of the northeast Atlantic bathyal and abyssal Mesogastropoda.



1999 Ardovalini, R. & Cossignani, T.
Atlante delle Conchiglie di Profondita del Mediterraneo.



1999 Consolado Macedo, M. C. & M. I. & Borges J. P.
Conchas marinhas de Portugal - Seashells of Portugal.



2009 Segers W., Swinnen F. & de Prins R.
Marine Molluscs of Madeira.
Excellent photographs.



2011 Hernandez J.M., Rolan E., Swinnen F., Gomez R. & Perez J.M.
Moluscos Y Conchas Marinas de Canarias



2011 Cossignani T. & Ardovini R.
Malacologia Mediterranea.
This is now THE book on Mediterranean to have: 7500 color photos.



2011 Gofas, S., Moreno, D. & Salas, C.
Moluscos Marinos de Andalucía. Volumes I & II.



2013 de Bruyne R., van Leeuwen S., Gmelig Meyling A. & Daan R.

Schelpdieren van het Nederlandse Noordzeegebied.

Masterpiece book on the Dutch marine molluscan fauna in the North Sea.



2015 Alf, A. & Haszprunar, G.

Mittelmeer-Mollusken: Prosobranchia & Bivalvia.

Up to date work with excellent photography.

Atlante delle Conchiglie marine del Mediterraneo.

This is an important series of books on Mediterranean shells, with excellent photographs and superb execution, ongoing. This is what appeared already:



1994 Giannuzzi-Savelli R., Pusateri F., Palmeri A. & Ebreo C.

Volume 1 (Archaeogastropoda),



1999 Giannuzzi-Savelli R., Pusateri F., Palmeri A. & Ebreo C.

Volume 3 (Caenogastropoda, Parte 2 Ptenoglossa).



2001 Giannuzzi-Savelli R., Pusateri F., Palmeri A. & Ebreo C.

Volume 7: Bivalvia (Protobranchia - Pteriomorpha)



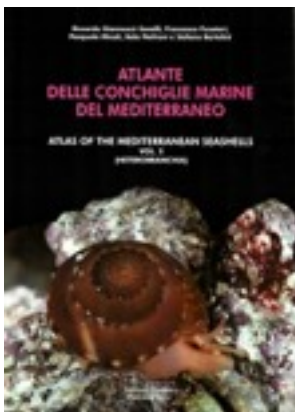
2002 Giannuzzi-Savelli R., Pusateri F., Palmeri A. & Ebreo C.

Volume 2 (Caenogastropoda, Parte 1: Discopoda - Heteropoda).



2003 Giannuzzi-Savelli R., Pusateri F., Palmeri A. & Ebreo C.

Volume 4 Neogastropoda: Muricoidea.

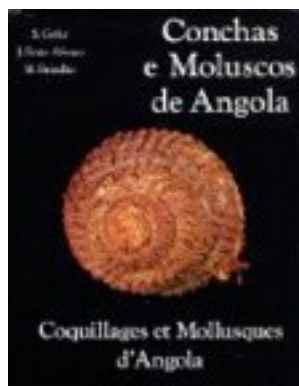


2014 Giannuzzi-Savelli R., Pusateri F., Micali P., Nofroni I. & Bartolini S.

Volume 5 (Heterobranchia).

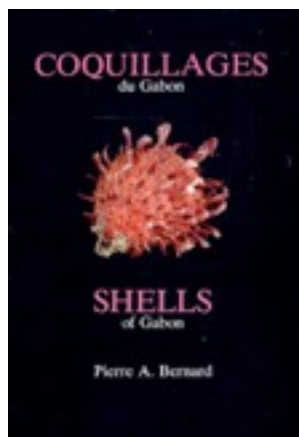
MARINE - WEST AFRICA

From Morocco south to Namibia. Excluding the Canaries, Selvagens and Madeira.



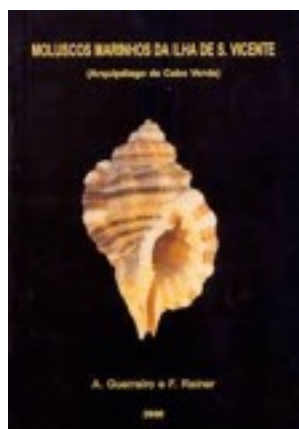
1980 Gofas, S., Alfonso, P. & Brandao, M.
Coquillages et Mollusques d'Angola.

Few species shown and outdated already, but all what you can get from this area is useful.

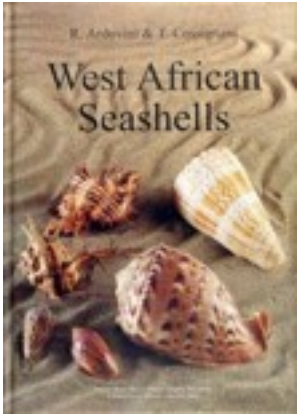


1984 Bernard, P. A.
Shells of Gabon.

Outdated nomenclature, but very good photography. Useful, as many vintage Gabonese shells in French collections.



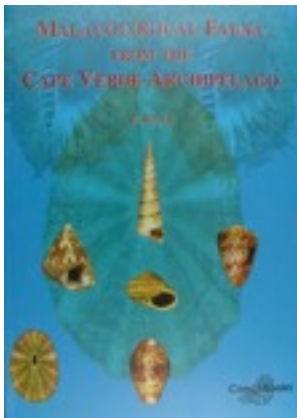
2000 Guerreiro, A. & Reiner, F.
Moluscos marinhos de Ilha de S. Vicente.
Good for the Cape Verde Shells.



2004 Arduvini, R, & Cossignani, T.

West African Seashells. Including Azores, Madeira and Canary Isl.

The best work on this area.



2005 Rolan, E.

Malacological Fauna from the Cape Verde Archipelago. Part I. Polyplacophora and Gastropoda.

The best work on this area.

MARINE - SOUTH AFRICA

All the coasts from South Africa.



1915 Bartsch, P.

Report on the TURTON collection of South African marine mollusks, with additional notes on other African shells...

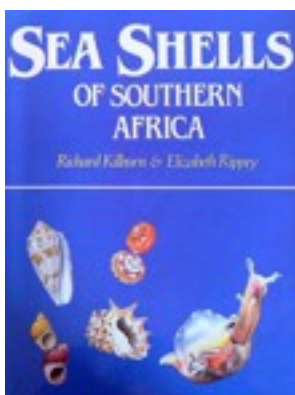
An old work but still very useful today.



1973 Kensley, B.

Sea-shells of Southern Africa. Gastropods.

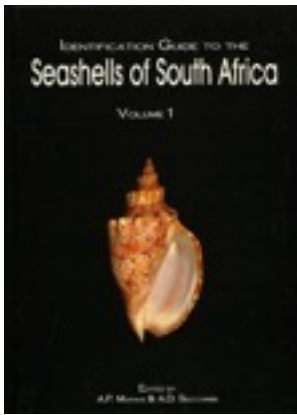
The first comprehensive determination book, outdated, but good for extra information.



1982 Kilburn, R. N. & Rippey E.

Sea Shells of Southern Africa.

Also with drawings, but much information.



1998 Steyn, D. G. & Lussi, M.

Marine shells of South Africa. An illustrated collector's guide to beached shells.

First “photobook”. Still useful.



2010 Marais A.P. & Secombe A.D.

Identification Guide to the Seashells of South Africa. Vol. 1.

The best for the region at present. Many photos.

MARINE - THE INDO PACIFIC

A vast area that goes from Eastern Africa all the way to Hawaii. From the Arctic south to New Guinea. Usually, Australian and New Zealand literature are not included, but classified separately.

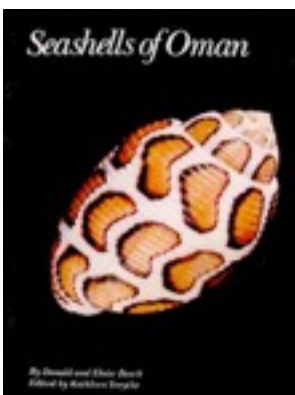
THE INDO PACIFIC – HORN OF AFRICA



1903 Sturany, R.

Gastropoden des Rothen Meeres Expeditionenen S. M. Schiff "Pola" in das Rothe Meer.

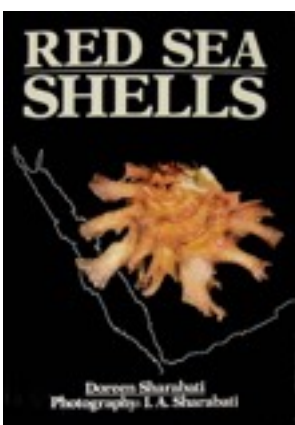
Very old and not easy to get in paper version, but probably you can download this one. Nice figures of some interesting species.



1982 Bosch, D. & Bosch, E.

Seashells of Oman.

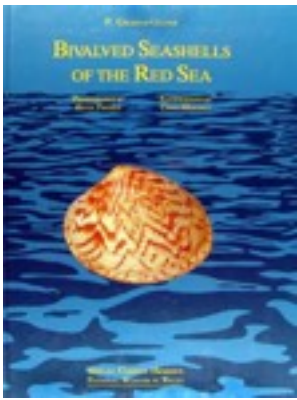
A classic, many good photos.



1984 Sharabati, D.

Red Sea Shells.

A classic, can be better, useful still.



1992 Oliver, P. G.

Bivalved seashells of the Red Sea.

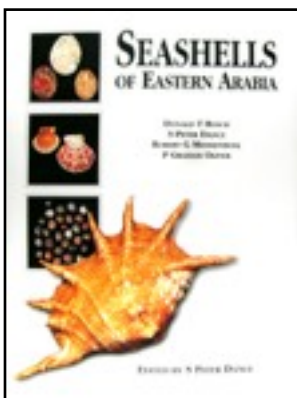
Excellent for the bivalves of the region.



1994 Coulombel, A.

Coquillages de Djibouti.

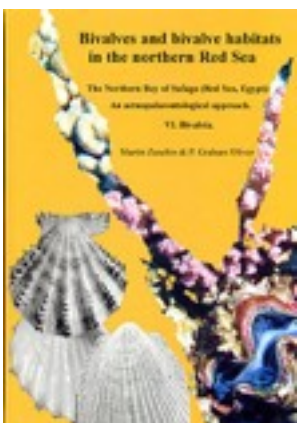
A classic, useful still.



1995 Bosch, D. T., Dance S.P., Moolenbeek R.G. & Oliver P.G.

Seashells of Eastern Arabia.

Very useful, many species, many photos.



2003 Zuschin, M. & Oliver, P.G.

Bivalves and Bivalve habitats in the Northern Red Sea. The Northern Bay of Safaga.

Adds to the Oliver work.



2008 Rusmore-Villaume M.L.

Seashells of the Egyptian Red Sea. The Illustrated Handbook.
For the Egyptian coast.

THE INDO PACIFIC & SOUTHEAST ASIA



1941 Kuroda, T.

A Catalogue of Molluscan Shells from Taiwan (Formosa), with Descriptions of New Species.

Useful, but outdated nomenclature.



1967 Maes, V. O.

The littoral marine mollusks of Cocos-Keeling Islands (Indian Ocean).

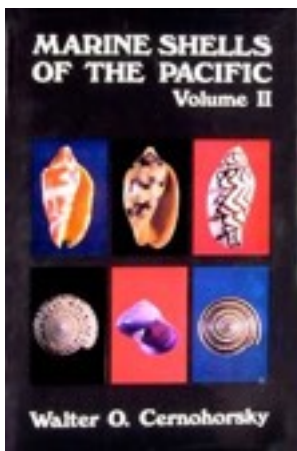
Useful, but outdated nomenclature.



1967 Cernohorsky, W. O.

Marine shells of the Pacific.

Useful, but outdated nomenclature. Many black and white photos, contains some seldom seen species.



1972 Cernohorsky, W. O.

Marine shells of the Pacific, Vol. 2.

Useful, but outdated nomenclature.

Many black and white photos, contains some seldom seen species.



1975 Salvat, B. & Rives, C.

Coquillages de Polynésie.

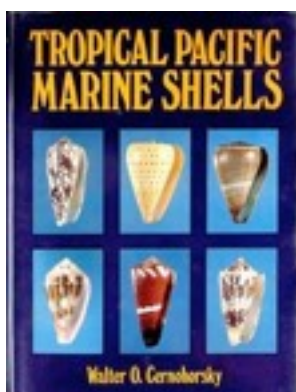
For the central Pacific a good work, but not many small species are shown.



1976 Yoo, J.S.

Korean shells in colour.

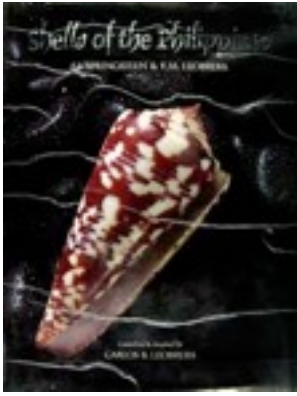
Nice work, northern Pacific shells.



1978 Cernohorsky, W. O.

Tropical Pacific marine shells.

A classic, shows some unusual species.



1986 Springsteen, F. J. & Leobrera, F. M.

Shells of the Philippines.

Excellent guide for Philippine shells, but few species shown and photos not very sharp. Nomenclature outdated.



1988 Drivas, O. & Jay, M.

Coquillages de La Reunion et de l'île Maurice.

Exactly what it says, documents the larger species of these Islands.



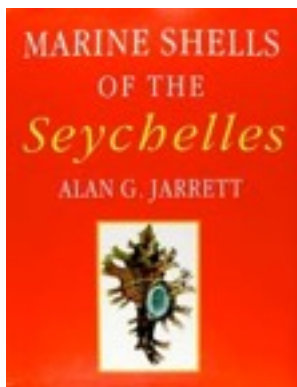
1994 Hu, C.H. & Tao, H.J.

Illustrated Shells in Natural Colors from Penghu Islands. Taiwan.



1995 Chung-hung Hu & Hsi-jen Tao

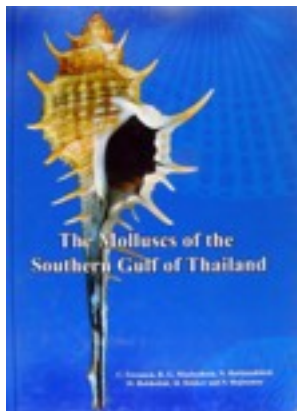
Shells of Taiwan Illustrated in color.



2000 Jarrett, A. G.

Marine shells of the Seychelles.

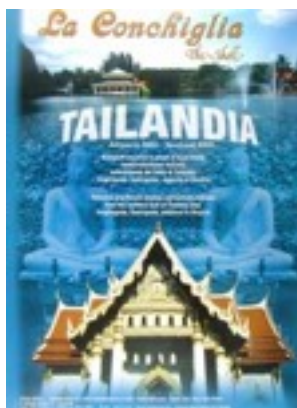
Only book on the Seychelles, not fabulous, but gives some hints on what to expect there.



2001 Swennen, C. Moolenbeek, R.G., Ruttanadakul, N., Hobbelink, H. Dekker H. and Hajisamae S.

The mollusks of the southern Gulf of Thailand.

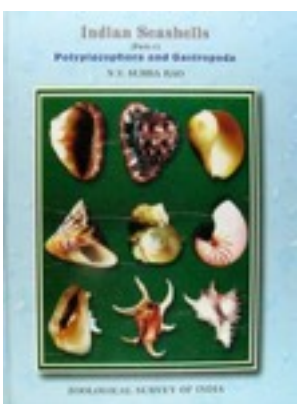
Excellent work.



2003 Robba E., Di Geronimo N., Chaimanee N., Pietro Negri M. & Sanfilippo R.,

Holocene and Recent shallow soft-bottom mollusks from the northern Gulf of Thailand Area: Scaphopoda, Gastropoda, additions to Bivalvia.

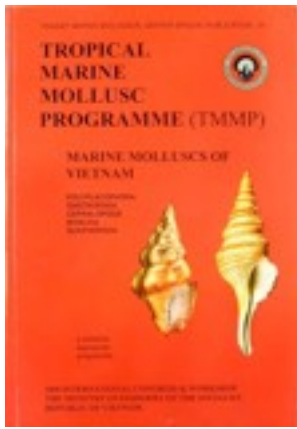
Excellent work.



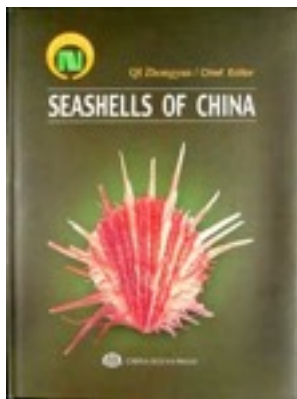
2003 Subba Rao, N.V.

Records of the Zoological Survey of India: Indian Seashells. Par. 1 Polyplacophora and Gastropoda.

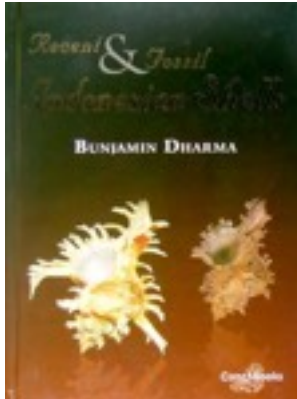
For references on the range of the larger species.



2003 Hylleberg, j. & Kilburn, R.N.
Marine Molluscs of Vietnam. Annotations, Voucher and Species in need of verification.



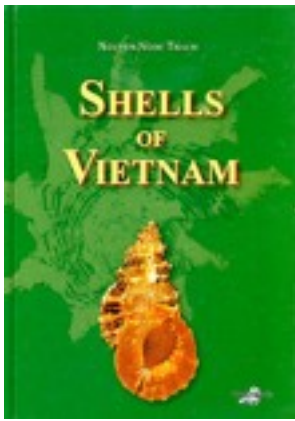
2004 Zhongyan, Q.
Seashells of China.



2005 Dharma, B.
Recent and Fossil Indonesian Shells.
Important work on the shells of Indonesia.



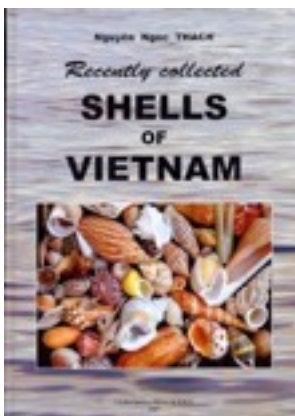
2007 Chen, W. D. & Lee, Y. J.
Mini –shells and small shells of Hengchun Peninsula, Taiwan.



2005 Thach, N. N.

Shells of Vietnam.

Important work on the shells of Vietnam.



2007 Thach, N. N.

Recently Collected Shells of Vietnam.

Important work on the shells of Vietnam.



2008 Lozouet P. & Plaziat, J. C.

Mangrove Environments and Molluscs. Abatan River, Bohol & Panglao Islands, Central Philippines.

Important work on mangrove faunas of the region.



2008 Fengshan, X., Suping, Z. & Shaoqing, W.

An Illustrated Bivalvia Mollusca Fauna of China Seas.

Magnificent well illustrated work.

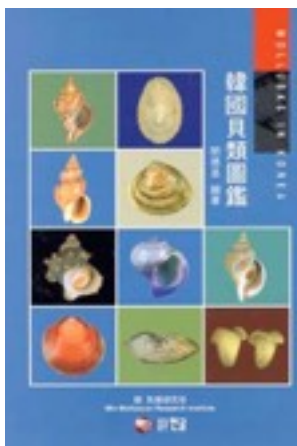


2008 Poppe, G.T.

Philippine Marine Mollusks Volume 1-5.

Written with the collaboration of 52 professional and semi-professional scientists.

One of the most important works on Indo-Pacific mollusks, in 4 Volumes and 1315 full page color plates. A fifth volume is in the make and the total number of different species known will exceed 5200 different species.



2009 Min, D. K., Lee, J-S., Koh, D-B. & Je, J-G.

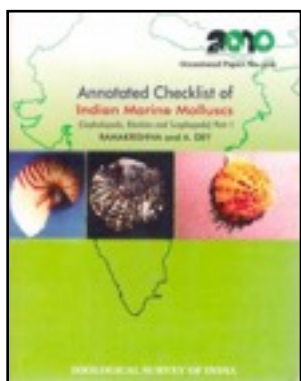
Mollusks in Korea



2000 Tan K.S. & Chou L.M.

A guide to common seashells of Singapore.

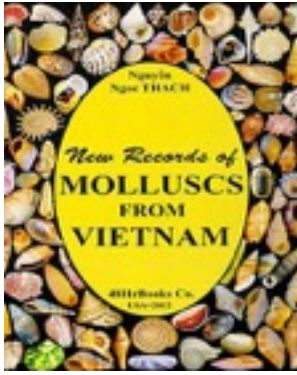
Exactly what it says.



2010 Ramakrishna, & Dey A.

Annotated Checklist of Indian Marine Molluscs. Part 1.

A checklist.



2012 Thach, N. N.

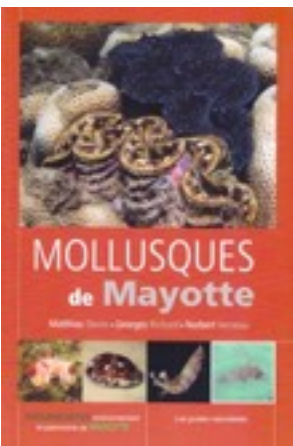
New Records of Molluscs from Vietnam.

Additional book on the other volumes from the same author.



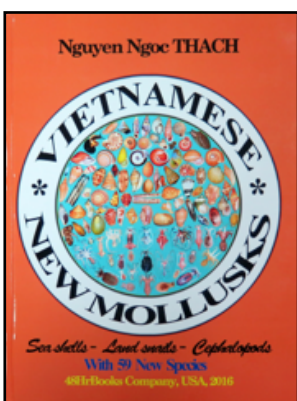
2013 Xiaodong Z., Xuecun Q., Xiaoqi Z. & Qi L.

Atlas of Aquatic Molluscs in China.



2013 Deuss M., Richard G. & Verneau N.

Mollusques de Mayotte.



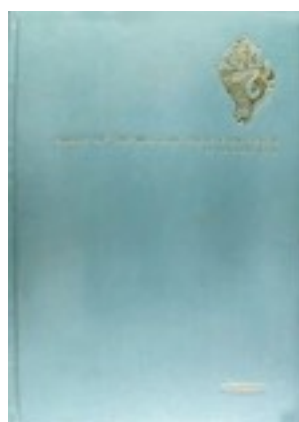
2016 Thach, N.

Vietnamese New Mollusks

Seashells – Land Snails – Cephalopods.

An addition to his former books, with 59 extra new species shown.

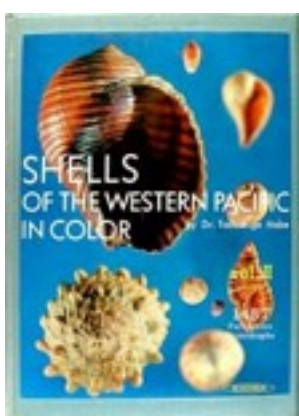
THE INDO PACIFIC – JAPAN



1962 Kira, T.

Shells of the Western Pacific in Color. First edition

A standard work, a must to have, but outdated nomenclature.



1964 Habe, T.

Shells of the Western Pacific in color. Vol. II.

A standard work, a must to have, but outdated nomenclature.



1971 Kuroda T., Habe T. & Oyama K.

The Sea Shells of Sagami Bay.

One of the three most important works on Japanese marine.



1988 Okutani, T., Tagawa, M. & Horikawa, H.

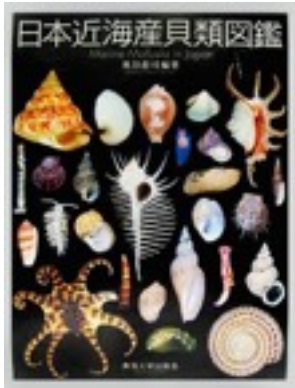
Gastropods from continental shelf and slope around Japan. 2 Volumes.



1999 Higo, S., Callomon, P. & Goto, Y.

Catalogue and Bibliography of the marine shell-bearing Mollusca of Japan.

Goes together with the 2001 Atlas. Very valuable information.
One of the three most important works on Japanese marine.



2000 Okutani, T.

Marine Mollusks in Japan.

One of the three most important works on Japanese marine.

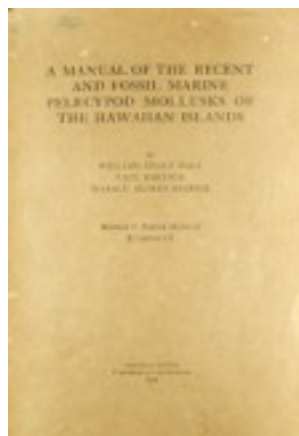


2001 Higo, S., Callomon, P. & Goto, Y.

Catalogue and bibliography of the marine shell-bearing Mollusca of Japan, Atlas of type figures.

Only 300 copies have been produced. A very valuable and rare book.

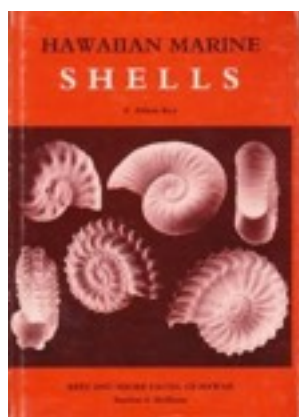
THE INDO PACIFIC – THE PACIFIC ISLANDS



1938 Dall, W. H., Bartsch, P. & Rehder, H. A.

A manual of the recent and fossil marine pelecypod mollusks of the Hawaiian Islands.

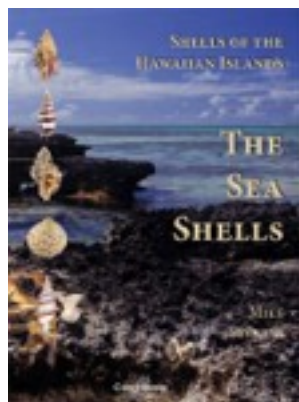
Important work, some descriptions, has been reprinted for this reason in 1971.



1979 Kay, E. A.

Hawaiian marine Shells.

Important work, but outdated nomenclature today.

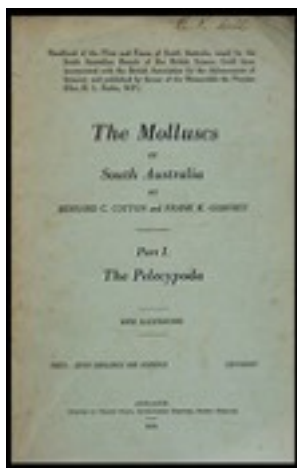


2011 Severns M.

Shells of the Hawaiian Islands. The Sea Shells.

The must to have, nice addition on the Philippine shells from Poppe, similar but for Hawaii.

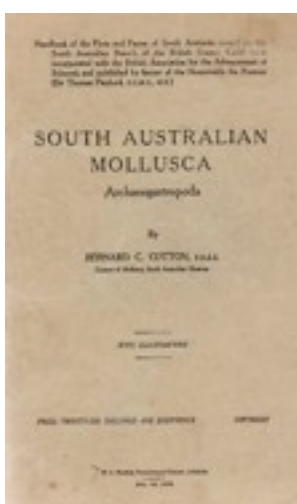
MARINE - AUSTRALIA



1938 Cotton, B. C. & Godfrey, F. K.

The molluscs of South Australia. Part I. The Pelecypoda.

Still useful today, outdated nomenclature.



1959 Cotton, B. C.

South Australian Mollusca. Archaeogastropoda.

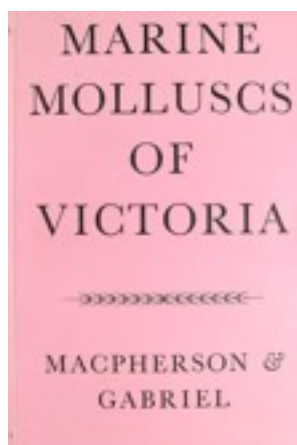
Still useful today, outdated nomenclature.



1961 Cotton, B. C.

South Australian Mollusca. Pelecypoda.

Still useful today, outdated nomenclature.



1962 Macpherson, J. H. & Gabriel, C. J.

Marine molluscs of Victoria.

Mostly drawings, but useful work.

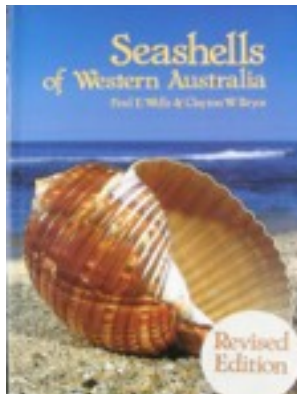
Still useful today, outdated nomenclature.



1971 Wilson, B. R. & Gillett, K.

Australian Shells - illustrating and describing 600 species of marine gastropods from Australian waters.

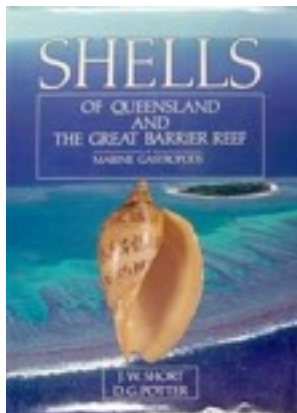
Now outdated nomenclature, but some good photographs and documentation in this nice vintage book.



1987 Short, J. W. & Potter, D. G.

Shells of Queensland and the Great Barrier Reef. Marine Gastropods.

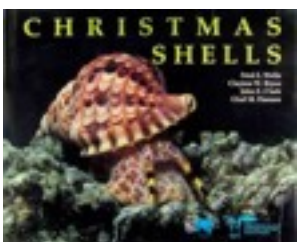
A fine work.



1988 Wells, F. E. & Bryce, C.W.

Seashells of Western Australia.

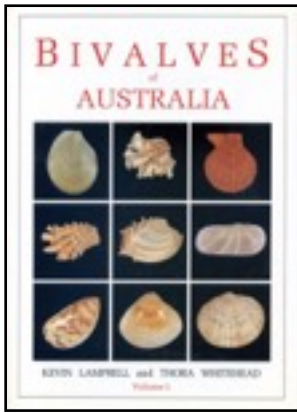
A fine work.



1990 Wells, F. E., Bryce C. W., Clark J. E. & Hansen G. M.

Christmas Shells. The marine molluscs of Christmas Island.

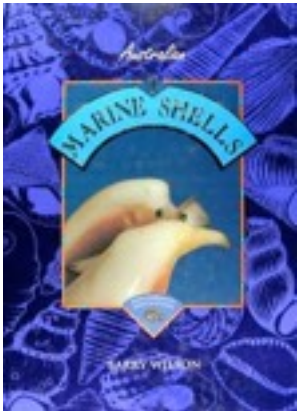
Good guide to larger shells of that remote Island.



1992 Lamprell, K. & Whitehead, T.

Bivalves of Australia, Vol. 1.

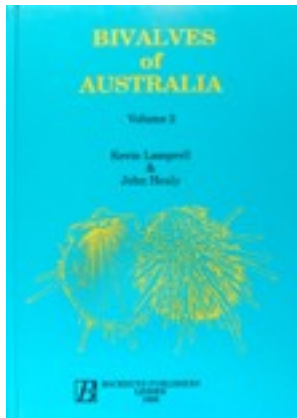
The best for the subject.



1993-1994 Wilson, B.

Australian marine shells. Prosobranch Gastropods. Two volumes.

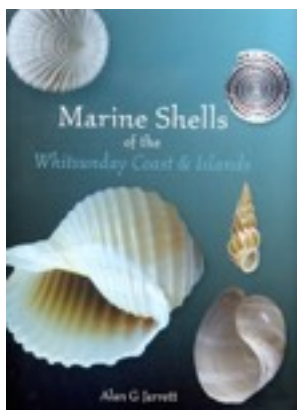
The major work for the area.



1998 Lamprell, K. & Healy, J.

Bivalves of Australia, Vol. 2.

The best for the subject, addition to the 1992 work of the first author.



2011 Jarrett, A. G.

Marine Shells of the Whitsunday Coast and Islands.

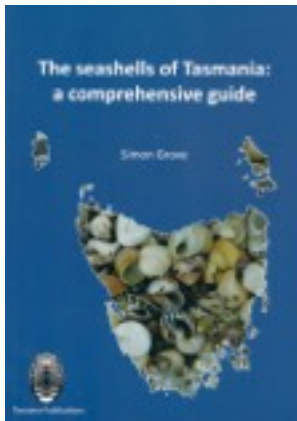
TASMANIA



1958 May, W. L.

An illustrated index of Tasmanian shells.

Drawings, but still useful.

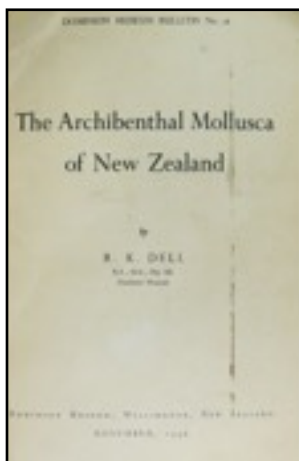


2011 Grove, S.

The Seashells of Tasmania: a comprehensive guide.

New, excellent.

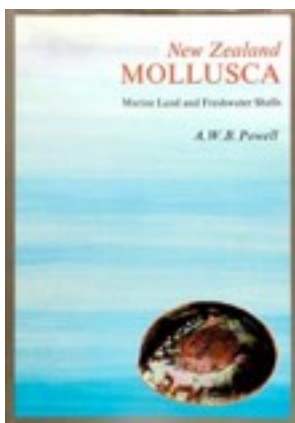
MARINE - NEW ZEALAND



1956 Dell, R. K.

The archibenthal mollusca of New Zealand.

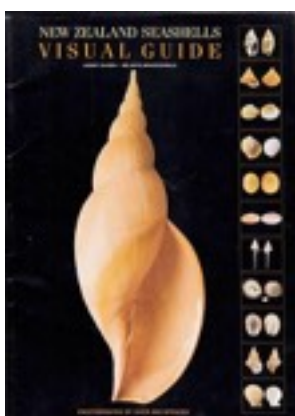
Outdated nomenclature, useful.



1979 Powell, A. W. B.

New Zealand Mollusca. Marine Land and Freshwater Shells.

This pretty rare work is the bible for New Zealand shells.



2010 Raven J. & Bracegirdle S.

New Zealand Seashells. Visual Guide.

Very good color photographs. Excellent for the collector.

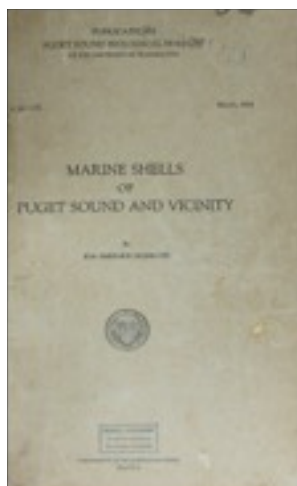
MARINE - THE WESTERN AMERICAN COAST

From the Arctic south to the tip of Chile. Including Galapagos and offshore Islands.



1909 Dall, W. H.

Report on a collection of shells from Peru, with a summary of the littoral marine mollusca of the Peruvian zoological province.



1924 Oldroyd, I. S.

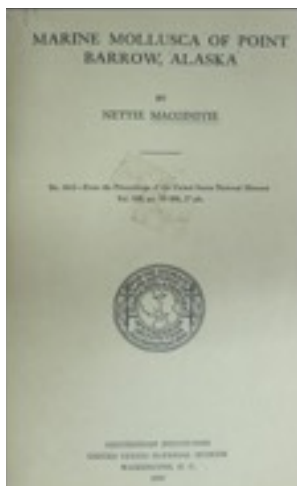
Marine Shells of Puget Sound and Vicinity.



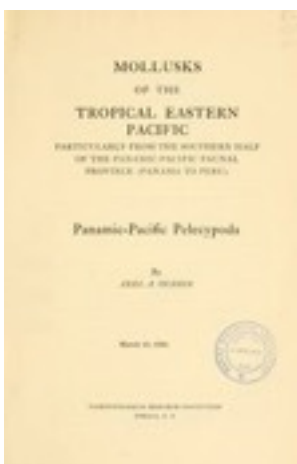
1924-1927 Oldroyd, I. S.

The Marine Shells of the West Coast of North America. 4 Books in 2 Volumes.

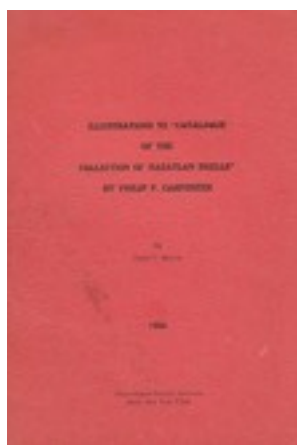
The bible, outdated nomenclature.



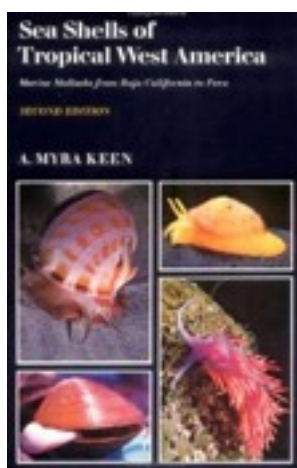
1959 Macginitie, N.
Marine Mollusca of Point Barrow, Alaska.



1961 Olsson, A. A.
Panamic-Pacific Pelecypoda. Mollusks of the Eastern Pacific Particularly From the Southern Half of the Panamic- Pacific Faunal Province (Panama to Peru)



1966 Brann, D. C.
Illustrations to "Catalogue of the collection of Mazatlan shells" by Philip. P. Carpenter.
Good to see the original drawings of Carpenter.



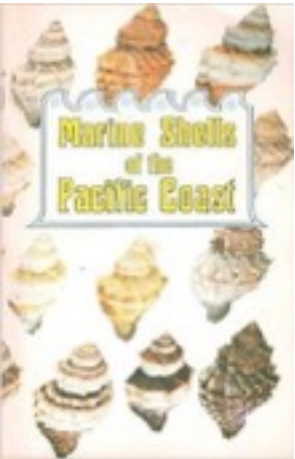
1971 Keen, A. M.
Seashells of Tropical West America.
Regarded as “The bible” for central American West coast shells.



1973 Marincovich, L.

The intertidal Mollusks of Iquique, Chile.

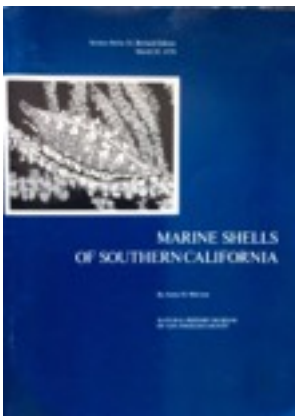
Few species, but interesting work.



1973 Rice, T.

Marine Shells of the Pacific Coast.

Small booklet, but good color photos of some northern shells.



1978 McLean, J. H.

Marine shells of the southern California.



1979 Bernard, F. R.

Bivalve mollusks of the Western Beaufort Sea.



1980 Rehder, H. A.

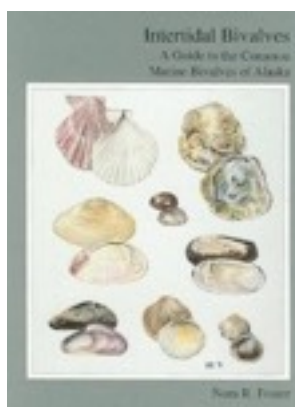
The marine mollusks of Easter Island (Isla de Pascua) and Sala y Gómez.

Very perfect and comprehensive work on this fauna.



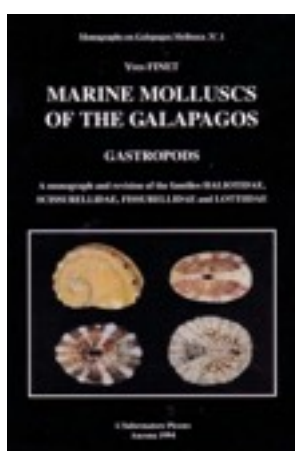
1982 Santa Maria, J.B.

Moluscos Marinos del Norte de Chile.



1991 Foster, N. R.

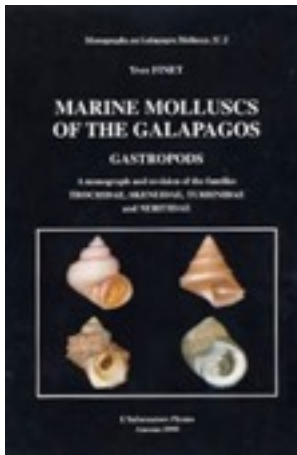
Intertidal Bivalves. A Guide to the Common Marine Bivalves of Alaska.



1994 Finet, Y.

Marine Molluscs of the Galapagos. Gastropods 1: Haliotidae, Scissurellidae, Fissurellidae and Lottiidae.

Excellent work for these families.



1995 Finet, Y.

Marine Molluscs of the Galapagos. Gastropods 2: Trochidae, Skeneidae, Turbinidae and Neritidae.

Excellent work for these families.



1996 McLean, J. H. & Gosliner, T. M.

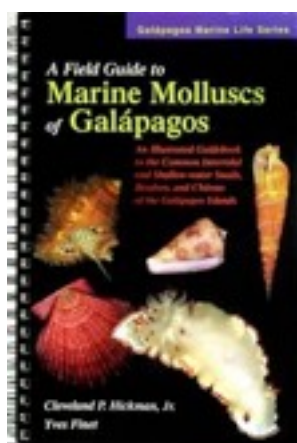
Taxonomic atlas of the benthic fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 9. Gastropoda.

For very deep living mollusks.



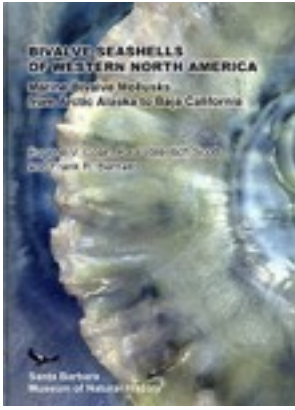
1997 Vasquez V.A. & Milla V.V.

Lista sistemática de Moluscos marinos del Perú.



1999 Hickman, C. P. & Finet, Y.

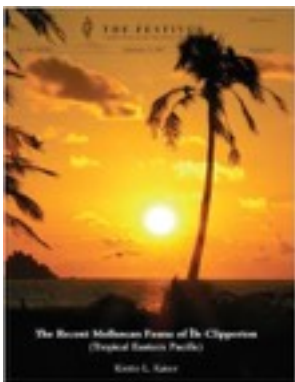
A field guide to the marine mollusks of Galapagos.



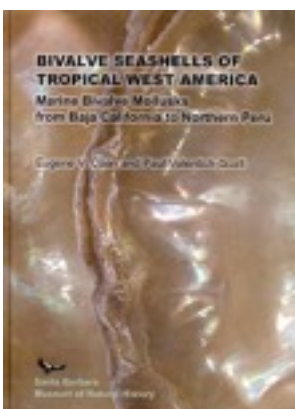
2000 Coan E. V. & Valentich-Scott P. & Bernard, F.
Bivalve Seashells of Western North America. Marine bivalve mollusks from Arctic Alaska to Baja California



2001 Kaiser, K.L. & Bryce, C. W.
The Recent Molluscan Marine Fauna of Isla de Malpelo, Colombia



2007 Kaiser K.L.
The Recent Molluscan Fauna of Ile Clipperton.



2012 Coan E. V. & Valentich-Scott P.
Bivalve Seashells of Tropical West America. 2 Volumes.
Monumental work.

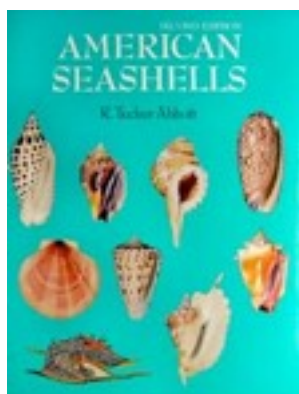
MARINE - THE EASTERN AMERICAN NORTH COAST

From the Arctic south to Carolina.



1971 Macpherson, E.

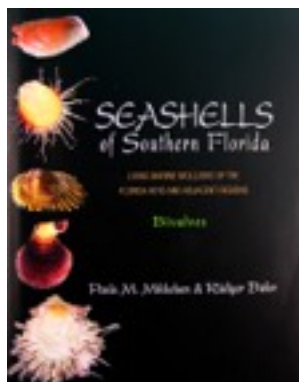
The marine Mollusca of arctic Canada.



1974 Abbott, R. T.

American Seashells. The Marine Mollusca of the Atlantic and Pacific Coasts of North America.

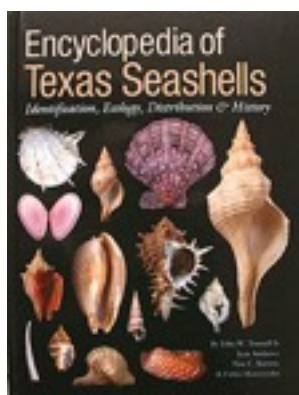
Masterpiece work, main affair for this area.



2008 Mikkelsen, P. A. & Bieler, R.

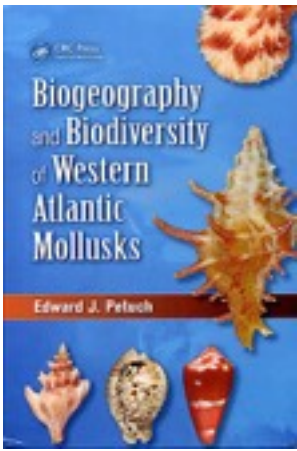
Seashells of Southern Florida. Living Marine Mollusks of the Florida Keys and Adjacent Regions. Bivalves.

Major work on Bivalves from Florida and in general, much info.



2010 Tunnell, J. W., Andrews, j., Barrera, N. C. & Moretzsohn, F.

Encyclopedia of Texas Seashells.



2013 Petuch E. J.

Biogeography and Biodiversity of Western Atlantic Mollusks.

MARINE - THE CARIBBEAN & BRAZIL

From Florida south to Brazil. There is also much material to be found in the journal *Johnsonia*, documented below.



1951 McLean, R. A.

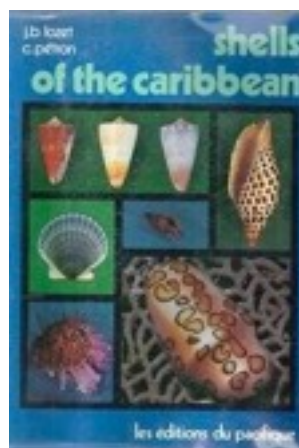
The Pelecypoda or bivalve Mollusks of Porto Rico and the Virgin Islands.



1971 Bayer, F. M. & Voss, G. L.

Studies in tropical American Mollusks.

Deep water species shown in black and white. Interesting.



1977 Lozet, J.B. & Petron, C.

Shells of the Caribbean.

Romantic booklet, translated from French version that also exists, well illustrated with collectable shells.

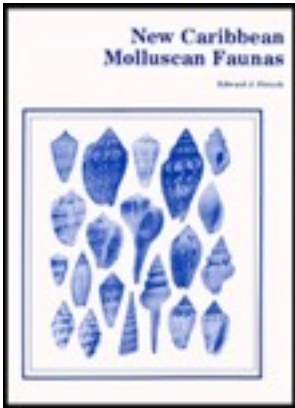


1981 Garcia-Cubas, A.

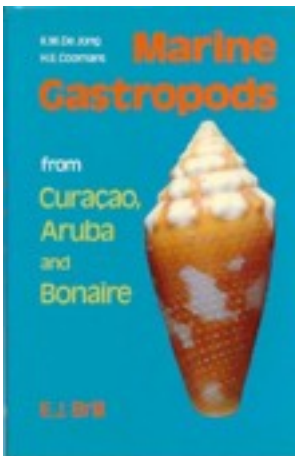
Moluscos de un sistema lagunar tropical en el Sur del Golfo de Mexico (Laguna de Terminos, Campeche).



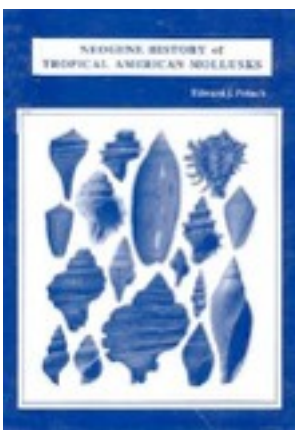
1983 Vokes, H. E. & Vokes, E. H.
Distribution of shallow-water marine Mollusca, Yucatan Peninsula, Mexico.



1987 Petuch, E. J.
New Caribbean molluscan Faunas.



1988 Jong, K. M. de & Coomans, H. E.
Marine Gastropoda from Curaçao, Aruba and Bonaire.

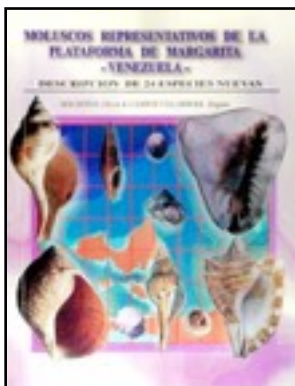


1988 Petuch, E. J.
Neogene history of tropical American Mollusks.



1991 Leal, J. H.

Marine prosobranch Gastropods from Oceanic islands off Brazil.



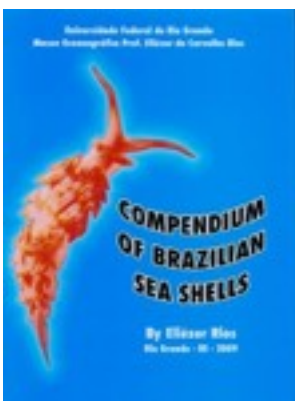
2001 Macsotay O. & Campos Villarroel, R. A.

Moluscos Representativos de la plataforma de Margarita Venezuela.



2009 Masseurin D., Lamy D., Pointier J-P. & Gargominy O.

Coquillages et escargots de Guyane. Seashells and snails from French Guyana.

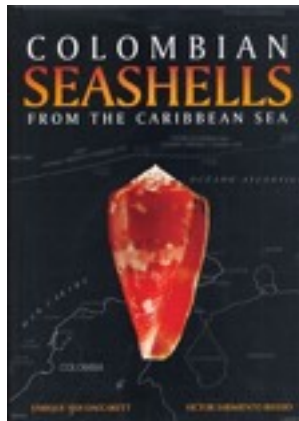


2009 Rios E.

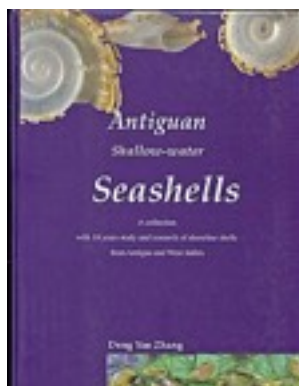
Compendium of Brazilian Sea Shells.



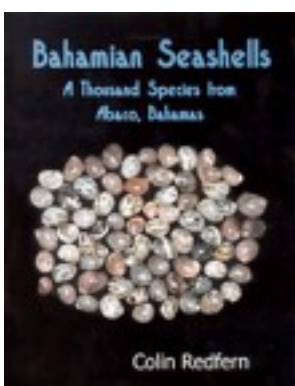
2010 Landau B. & da Silva C. M.
The early Pliocene Gastropods of Cubagua, Venezuela.



2011 Daccarett E. Y. & Bossio V. S.
Colombian Seashells from the Caribbean Sea.



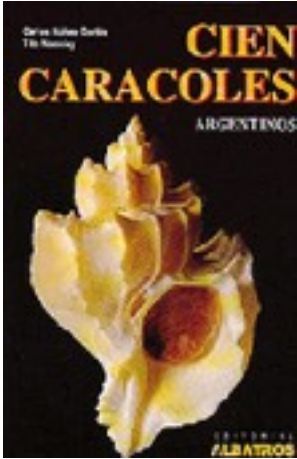
2011 Zhang, D. Y.
Antiguan Shallow-water Seashells.



2013 Redfern, C.
Bahamian Seashells. 1161 Species from Abaco, Bahamas.
Major work, much illustrated.

MARINE - SOUTHERN AMERICA

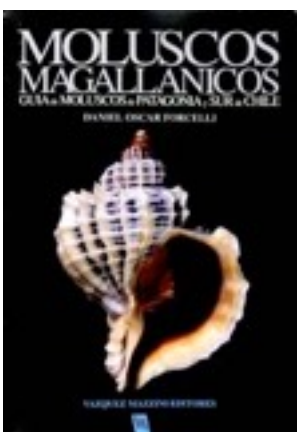
From northern Argentina to the southern tip, Tierro del Fuego.



1997 Nunez Cortes, C. & Narosky, T.
Cien caracoles Argentinos.

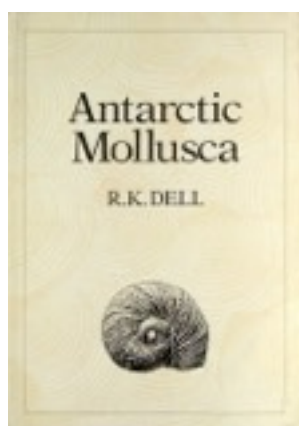


1988 Castellanos, Z. J. De A.
Catalogo descriptivo de la malacofauna marina Magallanica.
The best work on the region, but difficult to get.
Black and white.



2000 Forcelli, D. O.
Moluscos Magallanicos. Guia de Moluscos [marinos] de Patagonia y Sur de Chile.
Very well done, color.

MARINE - ANTARCTICA



1990 Dell, R. K.

Antarctic Mollusca. With special reference to the fauna of the Ross Sea.



2010 Aldea C. & Troncoso J. S.

Moluscos del Mar de Bellingshausen (Antarctica)



2012 Engl W.

Shells of Antarctica.

Excellent, well illustrated in color.

MARINE – COSMOPOLITAN



2001 Waren, A. & Bouchet, P.

Gastropoda and Monoplacophora from hydrothermal vents and seeps; new taxa and records.

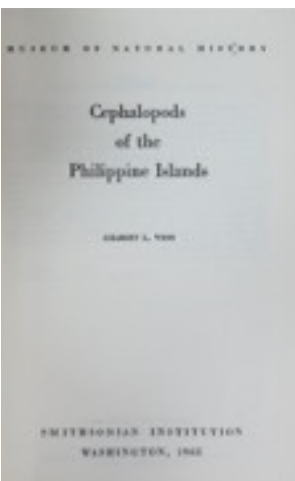
CEPHALOPODS



1898 Griffin, L. E.

The Anatomy of Nautilus pompilius

Old book, hard to get, that shows much of the animal and the details. The plate 1 is a masterpiece, apart from that, only for experts.



1963 Voss, G. L.

Cephalopods of the Philippine Islands

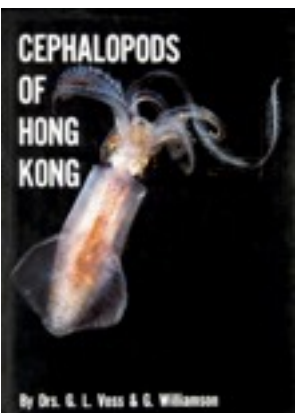
Nice work, many of the drawings were taken for the Philippine Marine Mollusks.



1966 Adam, W. & Rees, W. J.

A Review of the Cephalopod Family Sepiidae. The John Murray Expedition of 1933-1934.

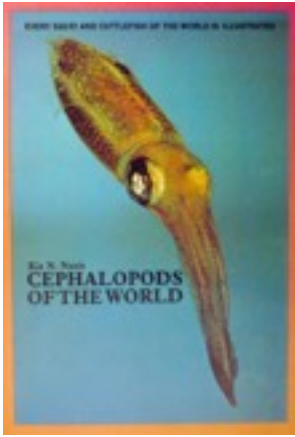
Well done, many black and white photos.



1971 Voss, G. L. & Williamson, G.

Cephalopods of Hong Kong.

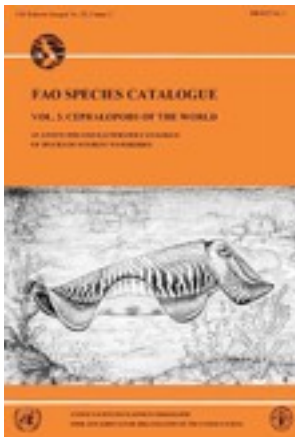
What the title says, some good color photos. A little old.



1982 Nesis, K. N.

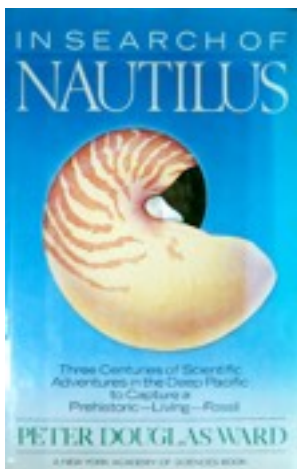
Cephalopods of the World.

Wonderful overview of all, a must have.



1984 Roper, F. E., Sweeney, M. J. & Nauen, C. E.

Cephalopods of the World. An Annotated and Illustrated Catalogue of Species of Interest to Fisheries.



1988 Ward, P. D.

In Search of Nautilus : Three Centuries of Scientific Adventures in the Deep Pacific to Capture a Prehistoric-Living-Fossil.

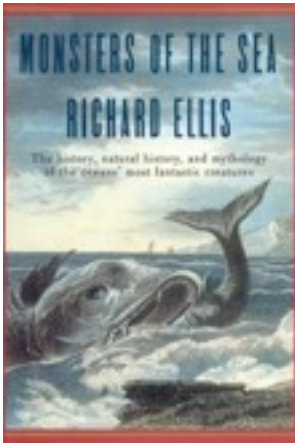
Jewel of a book on this species.



1989 Würtz, M.

Le Nautilé.

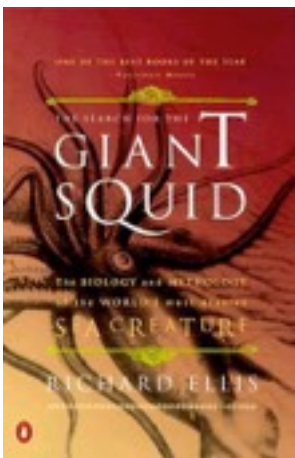
In French, not big, well done, beautiful drawings.



1995 Ellis, R.

Monsters of the Sea.

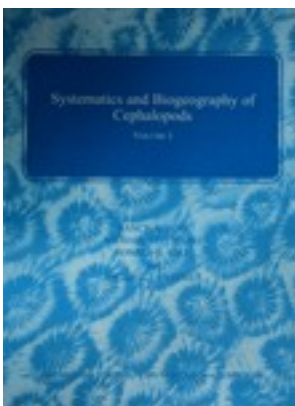
Not really a shell book and therefore only two stars, but great reading on the giant Octopus and the Kraken.



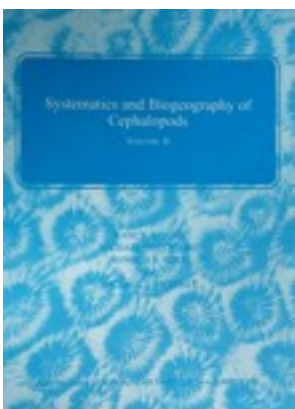
1998 Ellis, R.

The Search for the Giant Squid.

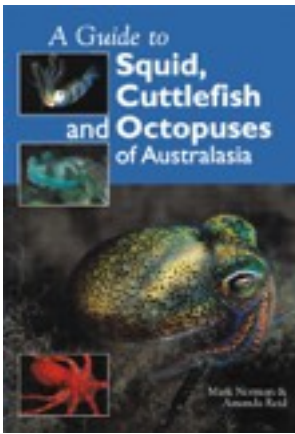
Same comment as above.



1998 Voss, N. A., Vecchione, M., Toll, R. B. & Sweeney, M. J.
Systematics and Biogeography of Cephalopods vol. I.

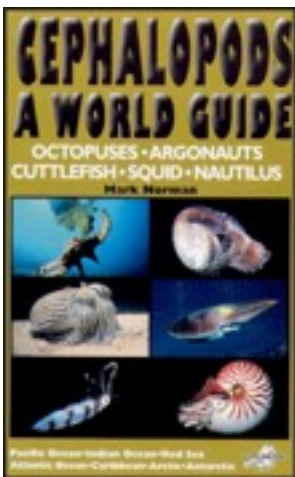


1998 Voss, N. A., Vecchione, M., Toll, R. B. & Sweeney, M. J.
Systematics and Biogeography of Cephalopods vol. II



2000 Norman M. & Reid, A.

A Guide to Squid, Cuttlefish and Octopuses of Australia



2000 Norman, M.

Cephalopods: A World Guide – Octopuses, Argonauts, Cuttlefish, Squid, Nautilus.

A classic Debelius book, excellent for numerous photographs.



2002 Tsuchiya, K., Yamamoto, N. & Abe, H.

Cephalopods in Japanese Waters.

Many photographs which make it useful, despite the text in Japanese, scientific names in Latin.



2005 Jereb, P. & Roper, C. F. E.

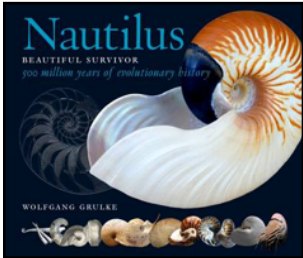
Cephalopods of the World. An Annotated and Illustrated Catalogue of Cephalopod Species Known to Date vol. I: Chambered Nautilus and Sepioids



2009 Wang, X. L. B.

Cephalopods of the World.

Great work, but text in Chinese, scientific names in Latin. Many maps and drawings.



2016 Grulke, W.

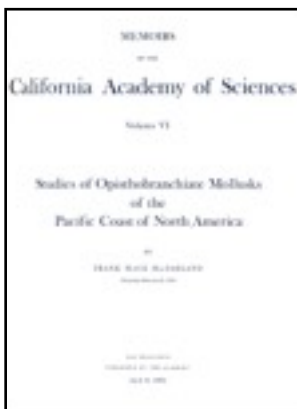
Nautilus Beautiful Survivor

500 million years of evolutionary history.

Great overview on the family, including the fossil species.

NUDIBRANCHES

This part of the mollusks is seldom seen in private collections as keeping vials with curled up snails is not an attractive sight. But they are the target in underwater photography of hundreds of divers. With the venue of the digital photography, there is an explosion in books. Here a nice series. There is also a chapter in the Philippine Marine Mollusks Volume III, on Philippine nudibranches, showing about 350 determined species. We have as many photos of species which have no name as yet.



1966 MacFarland, F. M.

Studies of Opisthobranchiate Mollusks of the Pacific Coast of North America.

Huge book, quite fantastic, superb drawings.



1974 Sanchez, S.

Ascoglossos y Nudibranquios de España y Portugal.

No fotos, drawings, still worthwhile.



1980 McDonald G. R. & Nybakken, J. W.

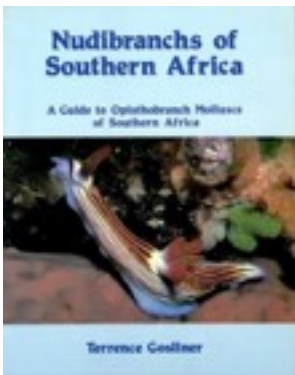
Guide to the Nudibranchs of California.

Plenty fotos, not top quality, from before the digital era. Still worthwhile.



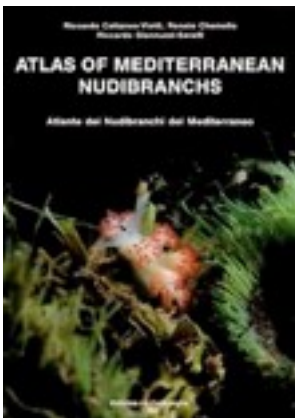
1985 Just, H. & Edmunds, M.

North Atlantic Nudibranchs (Mollusca) seen by Henning Lemche.
From unusual region, superb drawings, a must have.



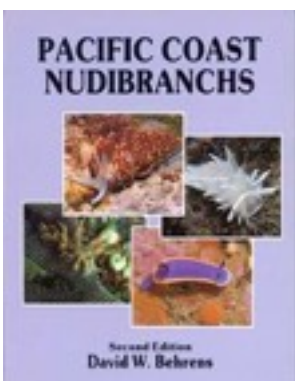
1987 Gosliner, T.

Nudibranchs of Southern Africa.
Good photos, for that region.



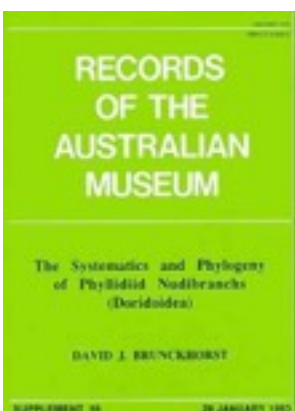
1990 Cattaneo-Vietti, R., Chemello, R., & Giannuzzi-Savelli, R.

Atlas of Mediterranean Nudibranchs.
Nice photographs, but not too many.



1991 Behrens D. W.

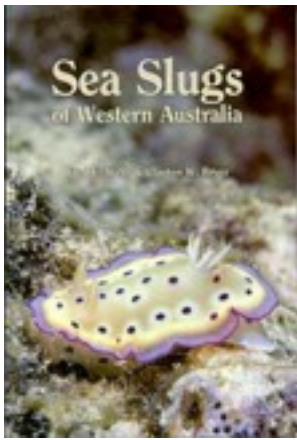
Pacific Coast Nudibranchs.
Perfect for that region of North America.



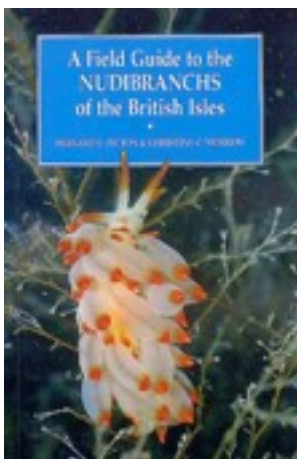
1993 Brunckhorst, D. J.

The Systematics and Phylogeny of Phyllidiid Nudibranchs (Doridoidea).

Excellent for that difficult family.



1993 Wells, F. E. & Bryce, C. W.
Sea Slugs of Western Australia.
Very good for that region.



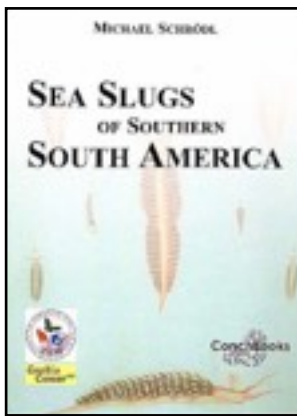
1994 Picton, B. E. & Marrow, C.C.
A Field Guide to the Nudibranchs of the British Isles.
Excellent for that region.



1999 Atsushi, O
Opisthobranchs of Kerama Islands.
Names and localities in Latin and English, rest in Japanese.



2000 Keiu, S.
Opisthobranchs of Izu Peninsula.
Names and localities in Latin and English, rest in Japanese.



2003 Schrödl, M.

Sea Slugs of Southern South America.

Fort that region.



2003 Tonozuka, T.

Opisthobranchs of Bali and Indonesia.

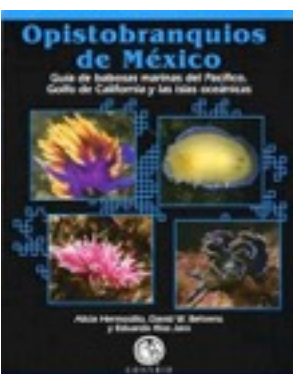
Good photographs for that region. Text in Japanese, names in Latin.



2004 Nakano, R.

Opisthobranchs of Japan Islands.

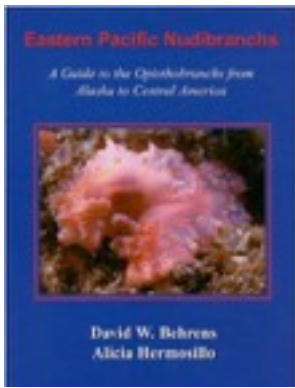
Text in Japanese, names in Latin, good photos.



2005 Hermosillo, A., Behrens D. W. & Jara, E. R.

Opistobranquios de México. Guía de babosas marinas del Pacífico, Golfo de California y las islas oceánicas.

Good photos, for that region.



2005 Behrens D. W. & Hermosillo, A.

Eastern Pacific Nudibranchs. A Guide to the Opisthobranchs from Alaska to Central America.

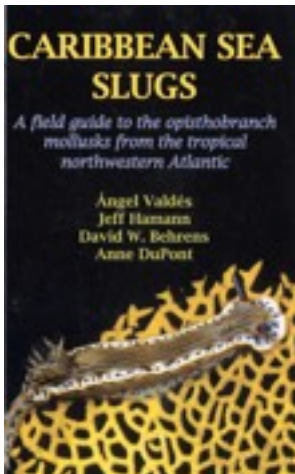
Good photographs for that region.



2006 Cobb, G. & Willan, R. C.

Undersea Jewels. A Colour Guide to Nudibranchs.

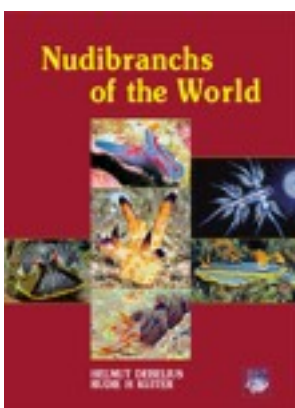
Good starting book, nice photos.



2006 Valdés, A., Hamann, J., Behrens, D. W, & DuPont, A.

Caribbean Sea Slugs. A field guide to the Opisthobranch mollusks from the tropical northwestern Atlantic.

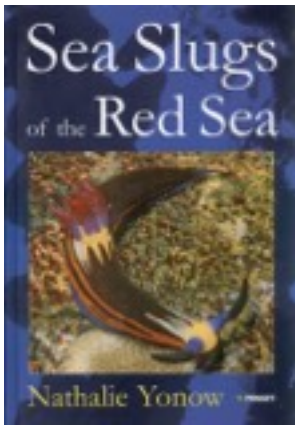
Good photographs for that region.



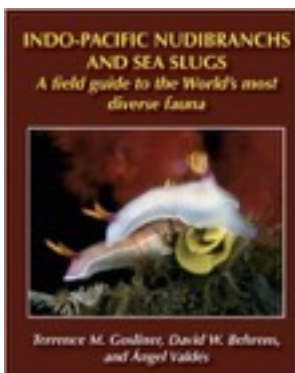
2007 Debelius, H. & Kuitert, R. H.

Nudibranchs of the World.

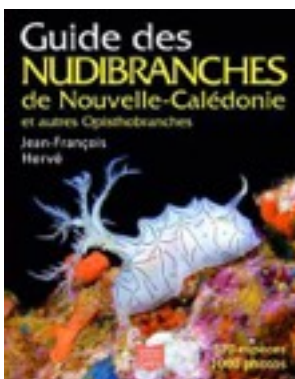
A must have gigantic guide.



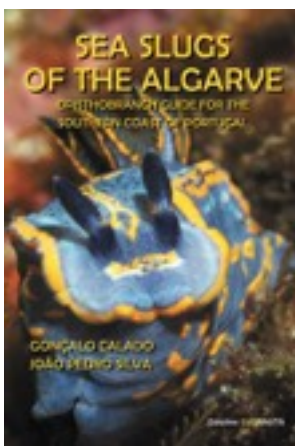
2008 Yonow, N.
Sea Slugs of the Red Sea.
Good photographs for that region.



2008 Gosliner, T. M., Behrens, D. W. & Valdés A.
Indo- Pacific Nudibranchs and Sea Slugs. A field guide to the World's most diverse fauna.
A must have gigantic work.



2010 Herve, J.F.
Guide des Nudibranches de Nouvelle-Calédonie.
Good photographs for that region.



2012 Calado, G. & Silva, J. P.
Sea Slugs of the Algarve. Opisthobranch Guide for the Southern Coast of Portugal.
Good photographs for that region.

CHITONS



1964 Cotton, B. C.

South Australian Mollusca – Chitons.

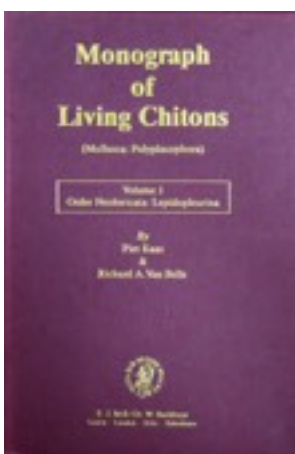
A little outdated and black and white, good for that region.



1969 Burghart, G. & L.

West Coast Chitons

A popular book, some nice color work, but old already. For the west coast of North America only.

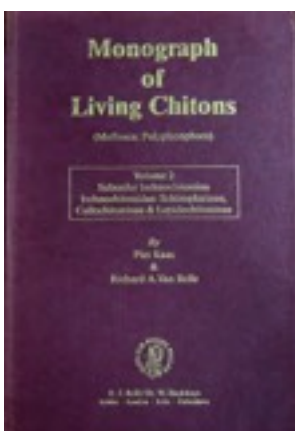


1985 Kaas, P. & Van Belle, R. A.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. I.

Order Neoloricata: Lepidopleurina.

The bible.

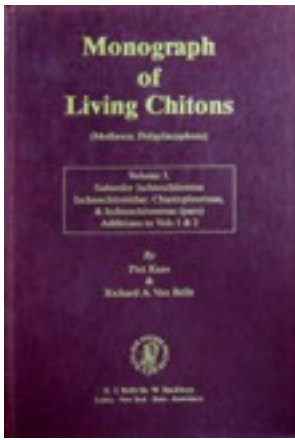


1985 Kaas, P. & Van Belle, R. A.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. II

Suborder Ischnochitonina Ischnochitonidae: Schizoplacinae, Callochitoninae & Lepidochitoninae.

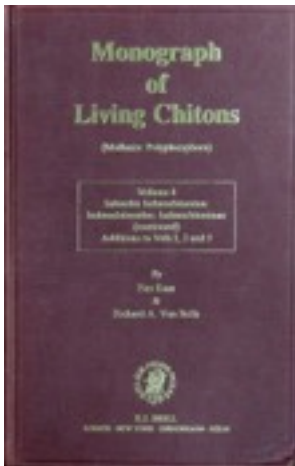
The bible.



1987 Kaas, P. & Van Belle, R. A.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. III.
Suborder Ischnochitonina Ischnochitonidae: Chaeropleurinae & Ischnochitoninae.

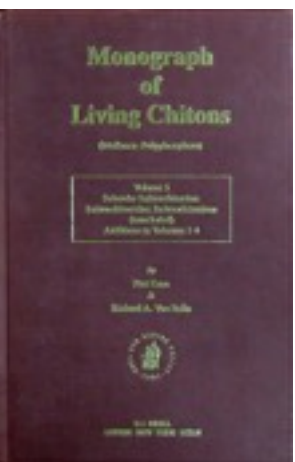
The bible.



1990 Kaas, P. & Van Belle, R. A.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. IV.
Suborder Ischnochitonina Ischnochitonidae: Ischnochitoninae (continued).

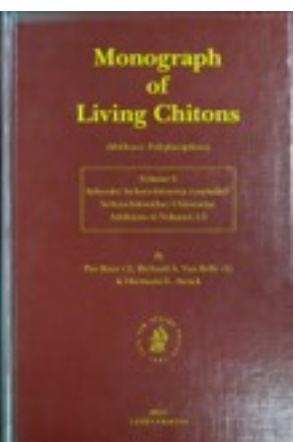
The bible.



1994 Kaas, P. & Van Belle, R. A.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. V.
Suborder Ischnochitonina Ischnochitonidae: Ischnochitoninae (concluded).

The bible.



2006 Kaas, P., Van Belle, R. A. & Strack, H.

Monographs of Living Chitons (Mollusca: Polyplacophora) vol. VI.
Suborder Ischnochitonina (concluded): Schizochitonidae; Chitonidae.

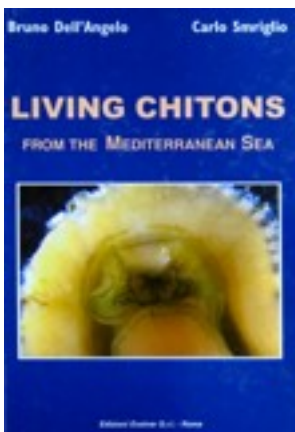
The bible.



1998 Kaas, P. & Van Belle, R. A.

Catalogue of Living Chitons (Mollusca, Polyplacophora).

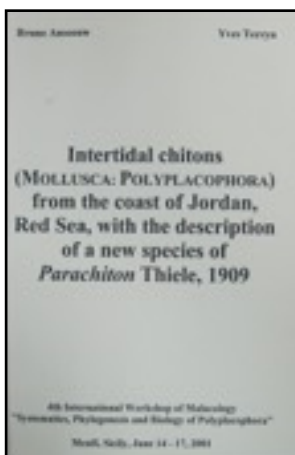
Listing only, good for organizing faster old collections, not possible to determinate with this. For the database management useful.



2001 Dell'Angelo B. & Smriglio

Living Chitons. From the Mediterranean Sea.

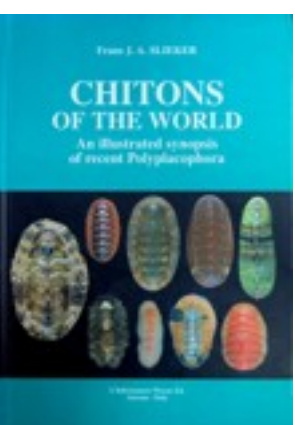
The best for that area.



2001 Anseeuw, B. & Terry, Y.

Intertidal Chitons from the coast of Jordan, Red Sea, with the description...etc. (Mollusca: Polyplacophora).

Best for that region.

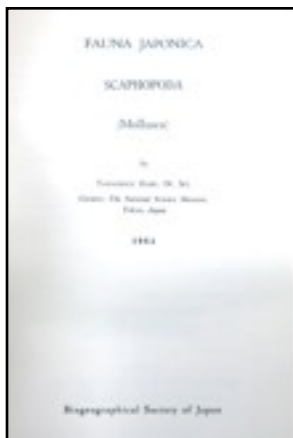


2006 Sliker, F. J. A.

Chitons of the World. An illustrated synopsis of recent Polyplacophora.

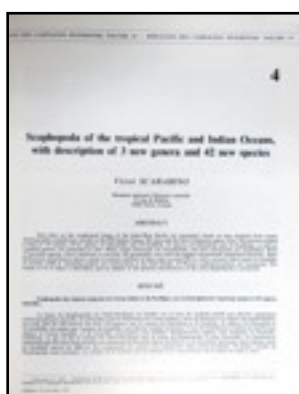
Very practical book for the collector, good overview of the phylum with nice color photographs.

SCAPHOPODA



1964 Habe, T.

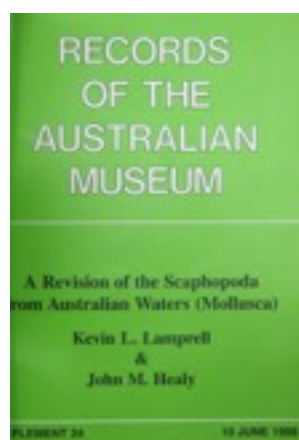
Fauna Japonica Scaphopoda (Mollusca)



1995 Scarabino, V.

Scaphopoda of the tropical Pacific and Indian Ocean with description of 3 new genera and 42 new species. In: MUSORSTOM.

Most important for the Indo-Pacific Scaphopods.



1998 Lamprell, K. L. & Healy, J. M.

A Revision of the Scaphopoda from Australian Waters (Mollusca)

REGIONAL BOOKS: LAND AND FRESHWATER

- PALEARCTIC REGION: EUROPE AND RUSSIA
- AFRICA
- SOUTHEAST ASIA
- AUSTRALIA
- NEW ZEALAND
- INDIAN OCEAN AND PACIFIC ISLANDS
- NORTHERN AMERICA
- CENTRAL AMERICA
- SOUTH AMERICA
- THE CARIBBEAN

LAND AND FRESH - PALEARCTIC REGION: EUROPE AND RUSSIA

This area covers Europe, including Iceland and a few Islands in front of north-west Africa: the Canaries, Selvagens and Madeira. Also included are the Mediterranean Islands. In Asia, this is the northern half of the continent. Excluded are India, the Southeast Asian Peninsula, part of southern China, Taiwan and Japan.

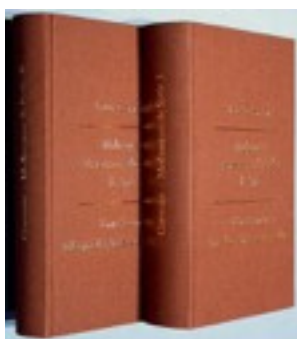
The land and freshwater shells of Europe are covered by a gigantic amount of literature. Virtually each country has guides and/or more specialized works documenting local faunas. You will find in local museum or on the web or by asking to book dealers a wide choice of books and articles. Many of the more modern works are brilliantly illustrated and well done. The older works have usually lots of texts, not an updated nomenclature and are hard to work with.

A few works are MUSTS.



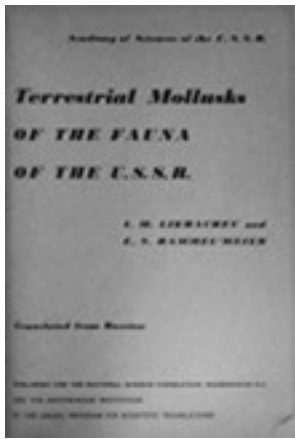
1936 Germain, L.

Mollusques terrestres et fluviatiles d'Asie mineure.



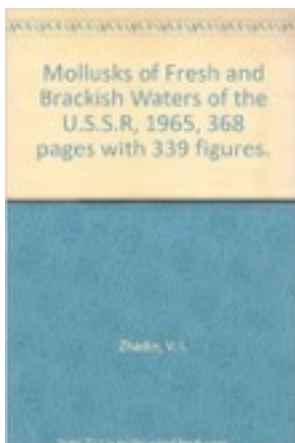
1921 Germain, L.

Mollusques terrestres et fluviatiles de Syrie. Vol. I.



1922 Germain, L.

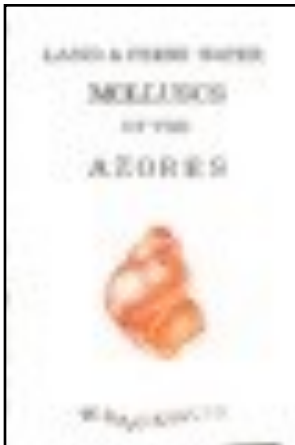
Mollusques terrestres et fluviatiles de Syrie. Vol. II.



1965 Zhadin, V. I.

Mollusks of fresh and brackish waters of the USSR.

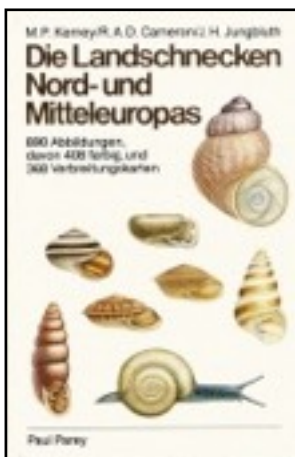
This is the English translation of the 1965 version in Russian.



1975 Backhuys, W.

Land and freshwater molluscs of the Azores

Old nomenclature and poorly illustrated, but still the best work on the land snails from that Archipel.

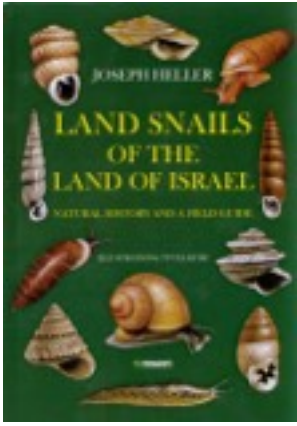


1983 Kerney, M., Cameron, R. & Jungbluth, J.

Die Landschnecken Nord- und Mitteleuropas.

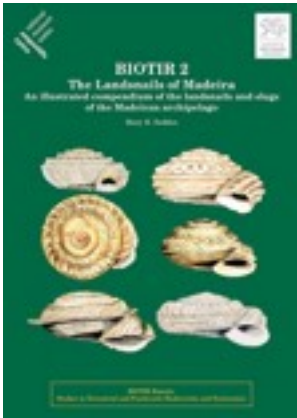
Although one best double-checks all the names with the Welter-Schultes, this is still a major source of information with good maps on the northern and central European snails. All drawings, but excellent ones. A favorite for when traveling. In this German version there is an addendum with the mollusks of southern France, not to be found in all editions. The English edition is from 1979. There is a Dutch version from 1980 and a French one from 1999.

There is a Dutch version from 1980 and a French one from 1999.



2009 Heller, J.

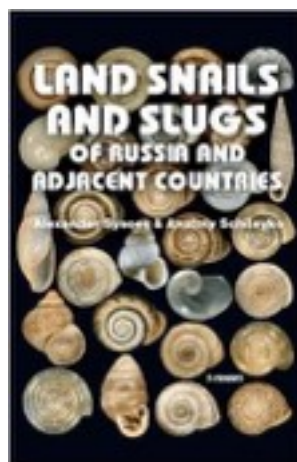
Land Snails of the land of Israel. Natural history and a field guide.
Exists also in an earlier version in Hebrew.



2008 Seddon, M. B.

The Landsnails of Madeira.

A much criticized work, there is somewhere a list with corrections in a journal, but it is the only comprehensive overview of the snails from that fascinating Island.



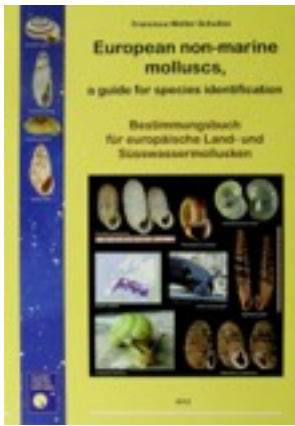
2009 Sysoev A. & Schileyko A.

Land Snails and Slugs of Russia and Adjacent countries.
Exactly what the title says with excellent photographs.



2010 Liberto F., Giglio S., Reitano A., Colomba M.S., Sparacchio I.

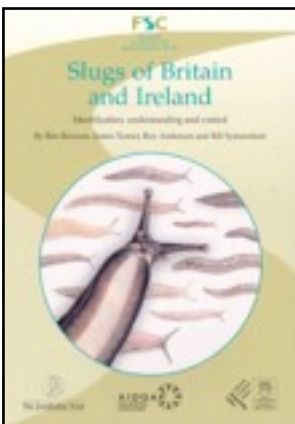
Molluschi terrestri e dulciacquicoli di Sicilia della collezione F. mina Palumbo di Castelbuono.



2012 Welter-Schultes F.

European non-marine molluscs, a guide for species identification.

Although very badly received by many, I personally find it the only work that gives a decent overview of the European land and freshwater species. It is very well done in general. Not included are the off-shore northwest African Islands.



2014 Rowson B., Turner J., Anderson R. & Symondson B.

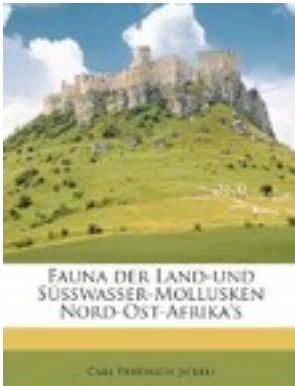
Slugs of Britain and Ireland.

A nice addition to the Welter-Schultes as this is the best work ever on the slugs

from Britain and Ireland, a majority of these lives also on the mainland of Europe and many have been dispersed worldwide.

LAND AND FRESH AFRICA

Few books on this huge continent. Most information has been published in journals.



1874 Jickeli C.F.

Fauna der Land und Süßwasser Mollusken Nord Ost Afrika's.

Fabulous work, well illustrated in Black and White. This work has been reproduced in facsimile not so long ago by Conchbooks.



1919 Pilsbry, H. A.

A review of the land Mollusks of the Belgian Congo chiefly based on the collections of the American Museum Congo Expedition 1909-1915.



1927 Pilsbry, H. A & Bequaert, J.

The aquatic mollusks of the Belgian Congo, with a geographical and ecological account of Congo malacology.



1936 Haas, F.

Binnen-Mollusken aus Inner-Afrika, hauptsächlich gesammelt von Dr. F. HAAS während der SCHOMBURGK-Expedition 1931/32.



1950 Leloup, E.

Exploration hydrobiologique du Lac Tanganika (1946-1947). Vol. III, Fasc. 1. Lamellibranches.



1953 Leloup, E.

Exploration hydrobiologique du Lac Tanganika (1946-1947). Vol. III, Fasc. 4. Gasteropodes.



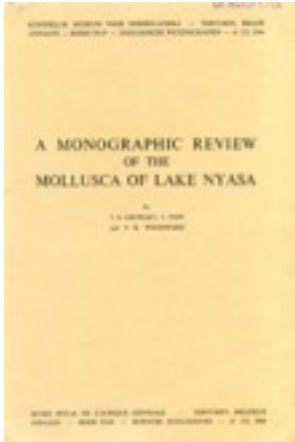
1954 Adam, W.

Etudes sur les mollusques de l'Afrique centrale et des régions voisines. I. Vertiginidae et Valloniidae.



1954 Mandahl-Barth, G.

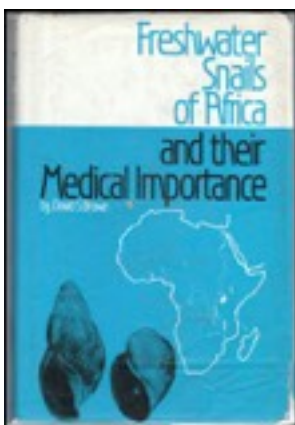
The freshwater Mollusks of Uganda and adjacent territories.



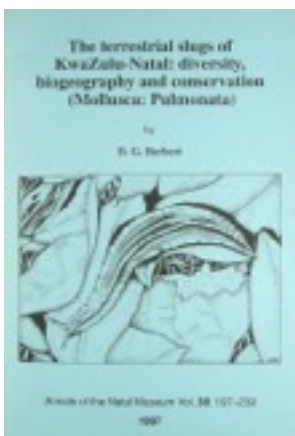
1964 Crowley, T.E., Pain, T. & Woodward, F.R.
A monographic review of the Mollusca of Lake Nyasa.



1969 Bruggen, A. C. van
Studies on the land Molluscs of Zululand with notes on the distribution of land Molluscs in Southern Africa.



1980 Brown, D. S.
Freshwater snails of Africa and their medical importance. 1st ed.

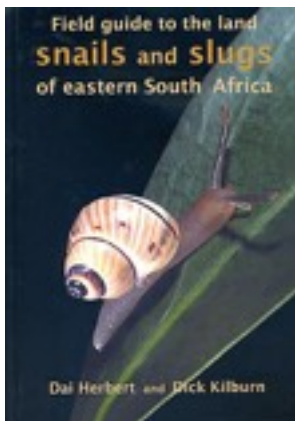


1997 Herbert, D. G.
The terrestrial slugs of KwaZulu-Natal.



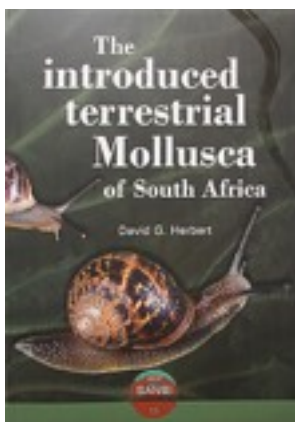
1998 Daget, J.

Catalogue raisonne des Mollusques bivalved d'eau douce africains.
Not a determination work, much information.



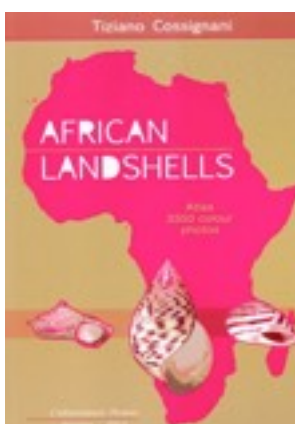
2004 Herbert D. & Kilburn D.

Field Guide to the land Snails and Slugs of eastern South Africa.



2010 Herbert, D. G.

The introduced terrestrial Mollusca of South Africa.

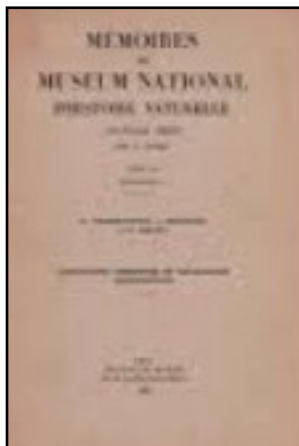


2014 Cossignani T.

African Landshells. Atlas 3350 colour photos.

This is definitely the best work for determinations and the most extensive on the subject.

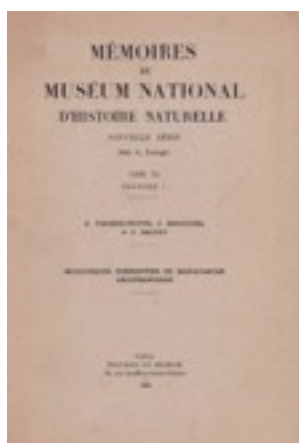
MADAGASCAR



1965 Fischer-Piette, E. & Bedoucha, J.

Memories du Museum National D'Histoire Naturelle. Tome XXXIII. Fascicule 2

Mollusques Terrestres Operculés de Madagascar.



1966 Fischer-Piette, E., Bedoucha J. & Salvat F.

Mollusques terrestres de Madagascar. Ariophantidae.



1969 Fischer-Piette E. & Blanc F. & Salvat F.

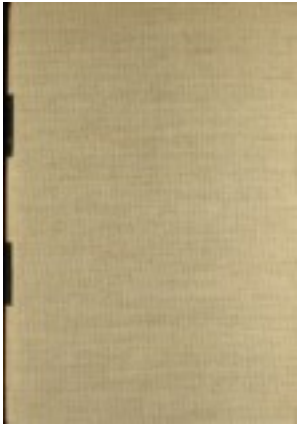
Complément aux Mollusques operculés terrestres de Madagascar.



1993 Fischer-Piette, E., Blanc Ch. P., Blanc F. & Salvat F.

Faune de Madagascar. 80 Gasteropodes terrestres.

A must for all busy with the land snails of Madagascar, but poor illustrations in black and white.



1994 Fischer-Piette E., Blanc C.P., Blanc F. & Salvat F.
Faune de Madagascar. 83 Gasteropodes Terrestres Pulmones.

A must for all busy with the land snails of Madagascar, but poor illustrations in black and white.



1999 Charles, M.

Escargots/Landsnails de/from Madagascar.

This is a privately and super well illustrated private manuscript of Michel Charles which he mainly sold on shell shows.

LAND AND FRESH - SOUTHEAST ASIA

Understood is India, the southeast Asian Peninsula (with mainly Burma, Thailand, Laos, Cambodia, Vietnam, Malaysia). Indonesia. The Philippines, south to Papua New Guinea and the offshore Islands.

INDIA



1908 Blanford, W.T. & Godwin-Austen, H.H.

The Fauna of British India. Mollusca. Testacellidae and Zonitidae.

1914 Gude G.K.

The Fauna of British India. Mollusca.

Trochomorphidae, Janellidae.

1915 Preston, H. B.

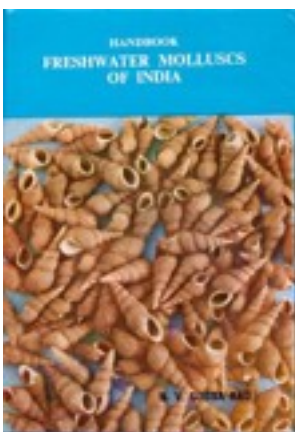
The Fauna of British India. Mollusca. Freshwater.

1921 Gude G.K.

The Fauna of British India. Mollusca.

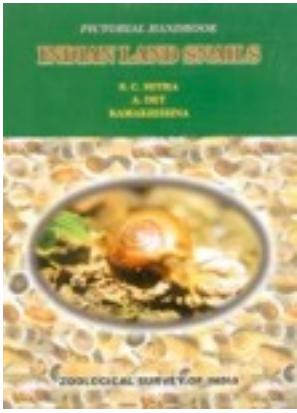
Cyclophoridae, Truncatellidae, Assimineidae, Helicinidae.

The 4 Fauna of British India, covering India and Sri Lanka, are outdated nomenclature, of course, and poorly illustrated, but they contain a wealth of information despite that.

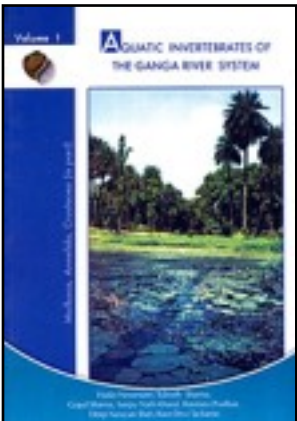


1989 Subba Rao, N. V.

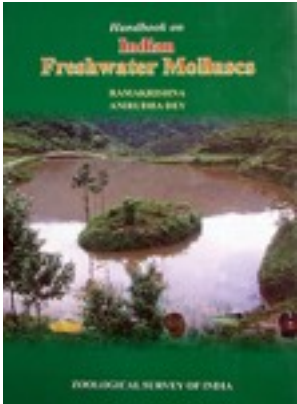
Handbook freshwater Molluscs of India.



2005 Mitra S. C., Dey A. & Ramakrishna.
Pictorial Handbook. Indian Land Snails. Zoological Survey of India.
Not nice quality photos, but pretty well done.

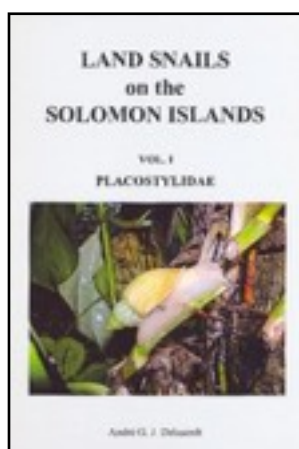


2007 Neesemann H. & All.
Aquatic invertebrates of the Ganga River System Vol. I



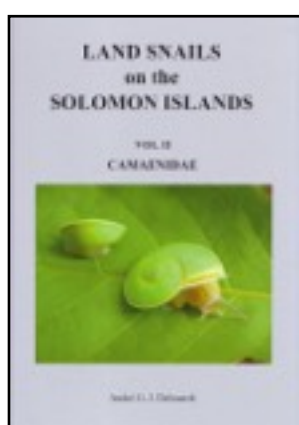
2007 Ramakrishna & A. Dey
Handbook on Indian Freshwater Molluscs.

SOLOMON ISLANDS



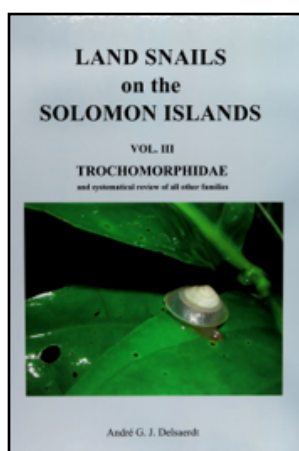
2009 Delsaerdt, A.

Landsnails on the Solomon Islands. vol. 1. Placostylidae.



2012 Delsaerdt, A.

Landsnails on the Solomon Islands. vol. 2. Camaenidae.

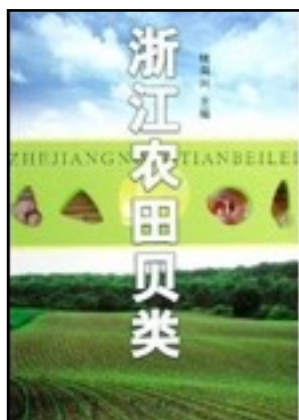


2016 Delsaerdt, A.

Land Snails on the Solomon Islands, vol. 3.

Trochomorphidae and systematical review of all other families, not treated in Vol. I & II.

CHINA



2008 Zhouxing, Q. & Denui, C.

Farmland Mollusca from Zhejiang Province, China.



2014 Qian Z. & Zhou W.

Illustrated Handbook of Common Terrestrial Mollusks in China

JAPAN



1982 Azuma, M.

Colored illustrations of the land snails of Japan.

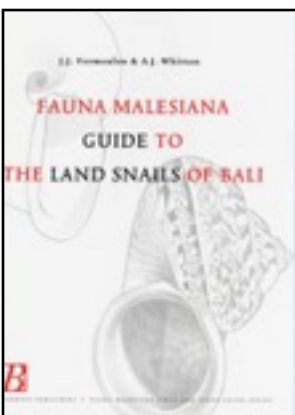
INDONESIA



1950 Benthem Jutting, W. S. S. van

Critical revision of the Javanese pulmonate land-shells of the fam. Helicarionidae, Pleurodontidae, Fruticicolidae and Streptaxidae.

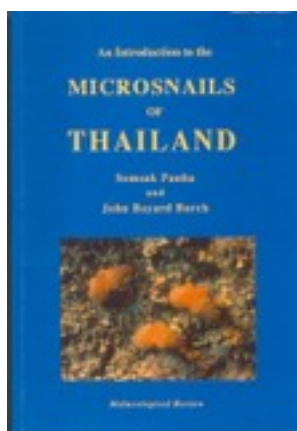
Poorly illustrated, lots of information.



1998 Vermeulen, J. J. & Whitten, A. J.

Fauna Malesiana. Guide to the land snails of Bali.

THAILAND



2005 Panha, S. & Burch J. B.

An introduction to the microsnails of Thailand.



2009 Panha S., Sutcharit C., Tongkerd P. & Naggs F.

An illustrated Guide to the Land Snails of Thailand.

This is not a book but an excellent folding folder.

TAIWAN



2003 Lee, J. S.

Land snails of Taiwan.

Not sure of the title, all in Chinese except the shell names.



2003 Hsieh, B. C.

Landsnails of Taiwan

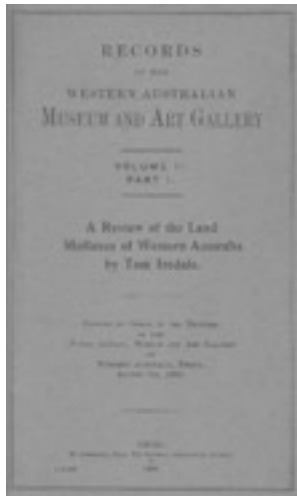


2011 Chen Wen Ter
Freshwater mollusks of Taiwan.



2013 Hsieh, B.C, Wu S.P. & Tsai C. L.
Landsnails of Taiwan.
Text in Chinese, names of shells in Latin, good photos.

LAND AND FRESH – AUSTRALIA



1939 Iredale, T.

A Review of the Land Mollusca of the Western Australia.

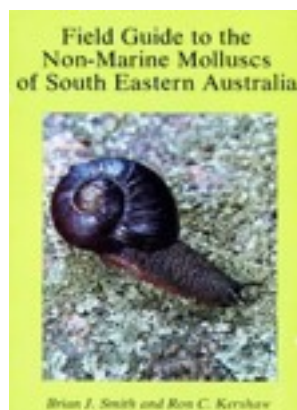


1952 Benthem Jutting, W. S. S. van

Syst. studies on non-marine mollusca of the Indo-Austr. archipel.

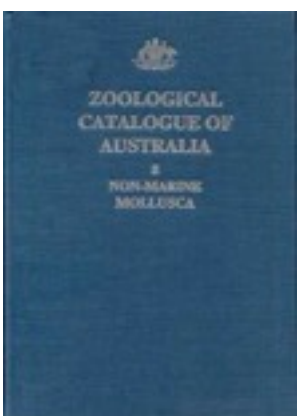
III: Ellobiidae to Limacidae, with appendix Helicarion

Lots of information, poorly illustrated, not good for determination.



1979 Smith, B. J. & Kershaw, R. C.

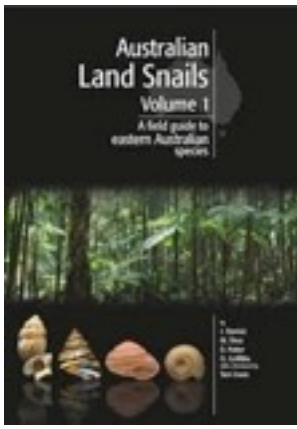
Field Guide to the non-marine molluscs of South Eastern Australia.



1992 Smith, B. J.

Zoological Catalogue of Australia 8: Non -Marine Mollusca.

Not illustrated Catalogue, so, not to use for determinations, but as a guide.



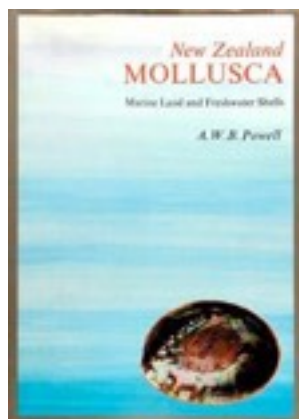
2010 Stanistic J., Shea M., Potter D. & Griffiths O.

Australian Land Snails. Vol. I.

Fabulously well done, one of the best land snail guides ever.

LAND AND FRESH - NEW ZEALAND

What it means: New Zealand and the satellite islands, mainly the Chathams.



1979 Powell, A. W. B.

New Zealand Mollusca. Marine Land and Freshwater Shells.

A large number of species has been documented in the present book which also lists and figures most of the marine species.

LAND AND FRESH - INDIAN OCEAN AND PACIFIC ISLANDS

All remote Pacific islands, excluding the Galapagos and some American offshore Islands. The Hawaiian Islands are included here. Most Islands have been documented by articles in Journals. Few books have been written on their subject.



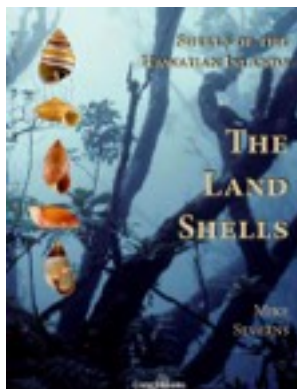
1976 Solem, A.

Endodontoid land snails from Pacific Islands. Part I. Family Endodontidae.



1983 Solem, A.

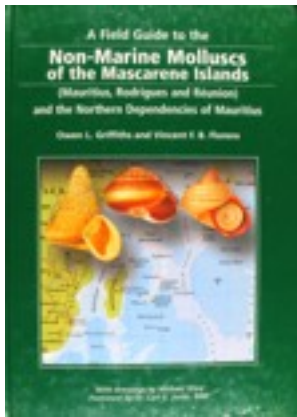
Endodontoid land snails from Pacific Islands. Part II. Fam. Punctidae and Charopidae.



2011 Severns M.

Shells of the Hawaiian Islands. The Land Shells.
The must.

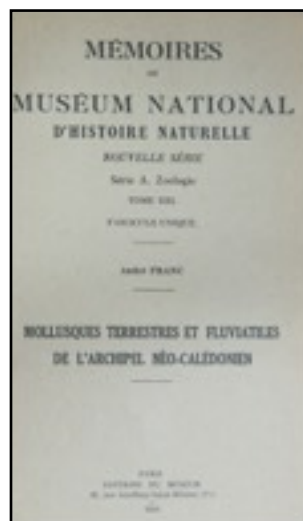
MAURITIUS & ADJACENT



2006 Griffiths, O. L. & Florens, V.F.B.

A Field Guide to the Non-Marine Molluscs of the Mascarene Islands.
Drawings, but very well done.

NEW CALEDONIA



1956 Franc, A.

Mollusques terrestres et fluviatiles de l'archipel Neo-Caledonien.

SEYCHELLES

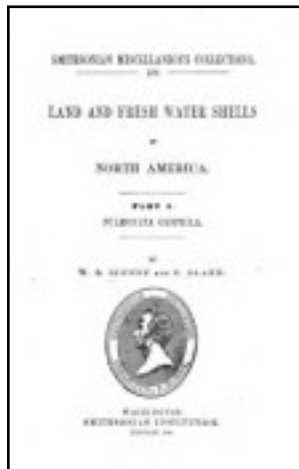


2006 Gerlach, J.

Terrestrial and Freshwater Mollusca of the Seychelles Islands.

LAND AND FRESH NORTHERN AMERICA

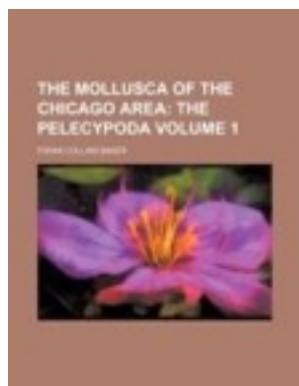
From the Arctic to the southern border of the USA.



1885 Binney, W.G.

American Land Shells.

Not so well illustrated, lots of information.



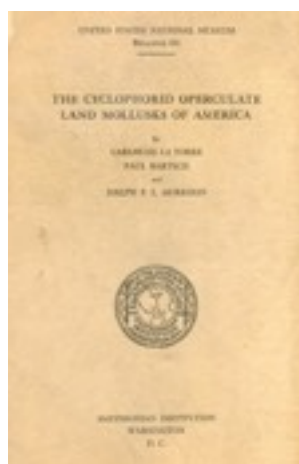
1898 Baker, F. C.

The Mollusca of the Chicago Area. The Pelecypoda.



1928 Baker, F. C.

The fresh water Mollusca of Wisconsin. 2 volumes.



1942 Torre, C. de la, P. Bartsch & Morrison

The cyclophorid operculate land Mollusks of America.



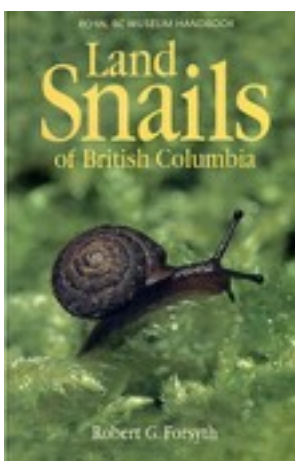
1939-1940-1946-1948 Pilsbry, H. A.
Land Mollusca of North America (North of Mexico). 4 Volumes.
Still the most important books in the field.



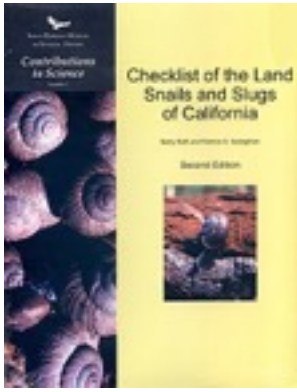
1980 Burch, J. B. & Tottenham J. L.
North American freshwater snails.



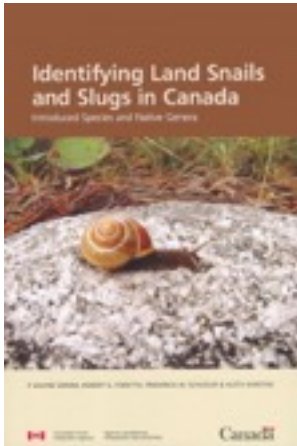
1982 Burch, J. B.
North American freshwater snails. Identification keys, generic synonymy, supplemental notes, glossary, references...



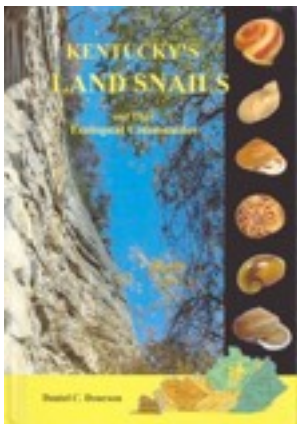
2004 Forsyth R.G.
Land Snails of British Columbia.



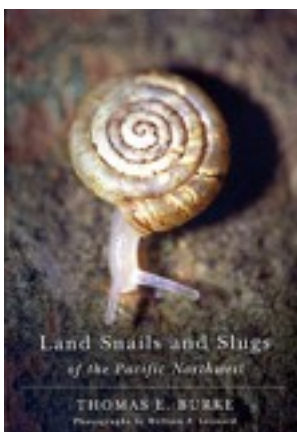
2006 Roth, B. & Sadeghain, P.S.
Checklist of the Land Snails and Slugs of California.
Already quite well illustrated.



2009 Grimm F. W., Forsyth R. G., Schueler F. W. & Karstad A.
Identifying Land Snails and Slugs in Canada.



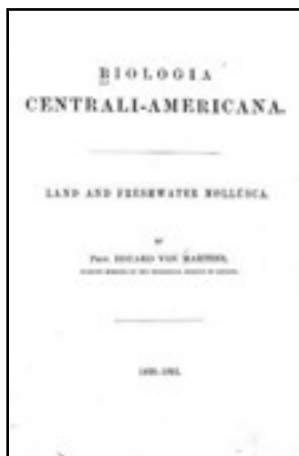
2010 Dourson D.C.
Kentucky's Land Snails. And their ecological communities.



2013 Burke T. E.
Land Snails and Slugs of the Pacific Northwest.

CENTRAL AMERICA

From the southern border of the USA to the southern border of Panama.
Including some sparse offshore Islands.



1890-1901 Martens E. von

Biologia Centrali-Americana. Land and freshwater mollusca.

Outdated nomenclature, but very well illustrated. Difficult to get copies, but can be downloaded from the internet.

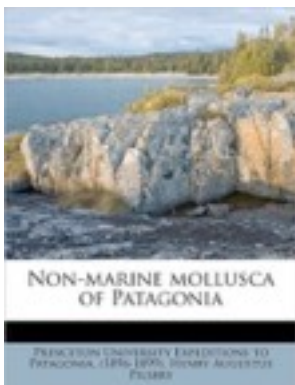
LAND AND FRESH - SOUTH AMERICA

From Colombia to Tierra del Fuego, including the Galapagos and Islands such as offshore Brazil.



1859 Drouet, H.

Mollusques terrestres et fluviatiles de la Guyane Française.



1911 Pilsbry, H. A.

Non Marine Mollusca of Patagonia. Part V of Reports of the Princeton University Expeditions to Patagonia. 1896-1899.



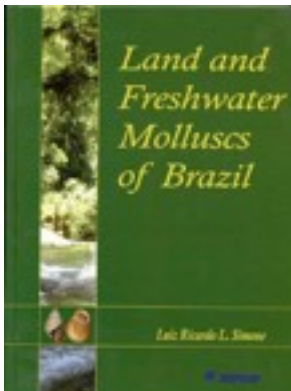
1921 Ortmann, A. E.

South American Naiades; a contribution to the knowledge of the freshwater mussels of South America.



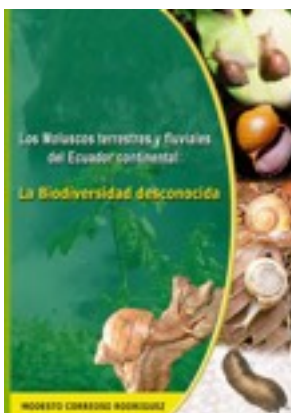
2005 Munoz S. G.

Estudio Taxonomico y sistematico de las familias Helicinidae y Cerecidae y el genero Drymaeus en tres zonas de la Reserva Amazonica de Peru.



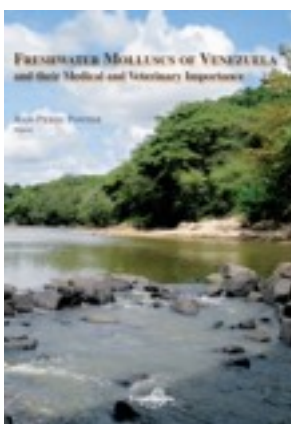
2006 Simone, L.R.L.

Land and Freshwater Molluscs of Brazil.
Excellent work, well illustrated.



2008 Rodriguez, M. C.

Los Moluscos Terrestres y fluviales del Ecuador Continental.



2015 Pointier J.-P.

Freshwater Molluscs of Venezuela and their Medical and Veterinary Importance.
Fabulous book on the subject.

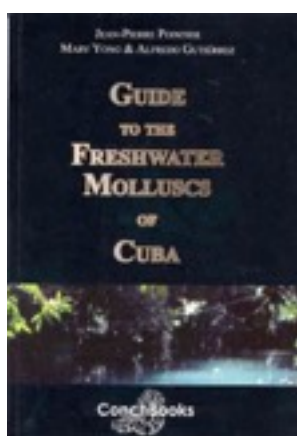
LAND AND FRESH - THE CARIBBEAN

All Islands from that area. Mainly from the Bahamas south to the border of Guyana.



2000 Bieler, R. & Slapcinsky, J.

A case study for the development of an island fauna: recent terrestrial mollusks of Bermuda.



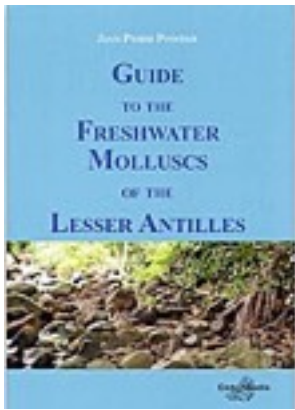
2005 Pointier, J.P., Yong, M. & Gutierrez, A.

Guide to the Freshwater Mollusks of Cuba.



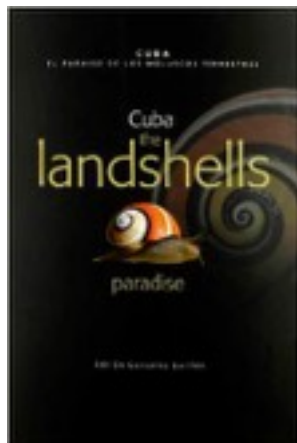
2005 Paul C. R. C. & Donovan S. K.

Quaternary and Recent Land Snails from Red Hills Road Cave, Jamaica.



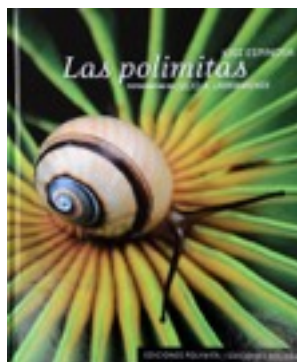
2008 Pointier, J-P.

Guide to the Freshwater Mollusks of the Lesser Antilles.



2008 Guillen, A. G.

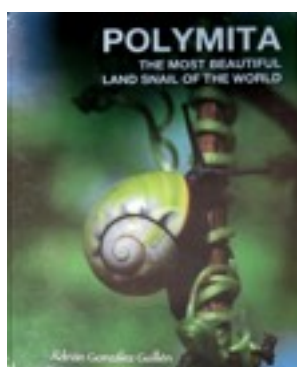
Cuba. The landshells paradise.



2014 Espinosa J. & Larramendi J.

Las Polimitas

Superb wise book on the subject.

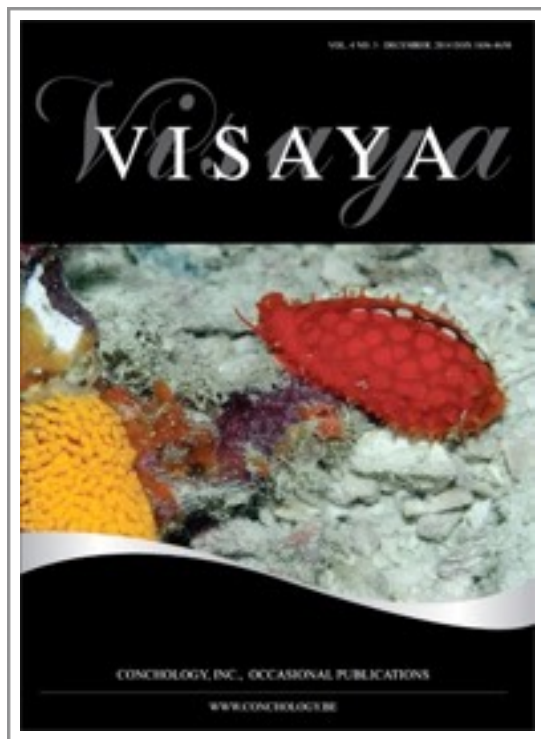


2014 Guillen, A. G.

Polymita, the most beautiful land snail of the World.

Well done on these magnificent shells.

JOURNALS



Throughout almost three centuries, a large number of Journals with conchological or malacological contents has been produced. We distinguish several types of journals:

- Club journals

- Have either a general content on the club activities, but may also have more serious contents.
- Some Clubs have two journals: a “popular” journal and a “scientific” journal.

- Individual journals

- Occasionally individuals or companies will produce journals depending on their activity. “Visaya” is such a company journal. “Malacologia” from Italy is the journal of a private museum and there are several more of importance.

- There is also a series of Conchological/Malacological journals with a good professional scientific reputation.

A complete list of journals in our domain is published online by the Field-museum of Chicago, and the list is produced and maintained by Rudiger Bieler and Alan R. Kabat.

Needless to say that this is a fabulous work of the highest importance.

Visit: <http://emuweb.fieldmuseum.org/iz/journals.php>

Bieler and Kabat state in their introduction that 157 out of 286 journals are still being published today !

MORE ON BOOKS

It is obvious that a considerable part of the very useful books for collectors and curators have been published in some series.

So, it is best to acquire the following series complete:

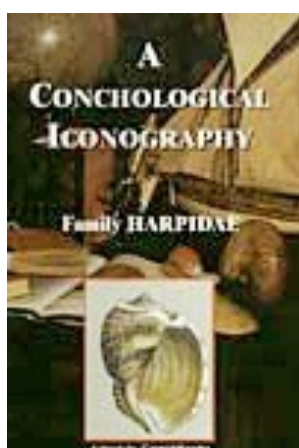
- *A Conchological Iconography*. Directed by Poppe G.T. & Groh K.
- *Indo Pacific Mollusca*
- *Monographs on Marine Mollusca*
- *The Kaicher cards*
- *Johnsonia - Monographs of the Marine Mollusks of the western Atlantic*.

A Conchological Iconography. Directed by Poppe G.T. & Groh K.

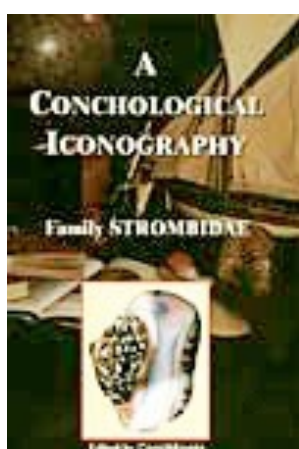
This large work contains now a considerable number of lavishly illustrated books. The series comes looseleaf and one can either buy binders from conchbooks@conchbooks.de or bind the books with a local binder.

There are 1797 full A4 plates, depicting many more thousands of shells.

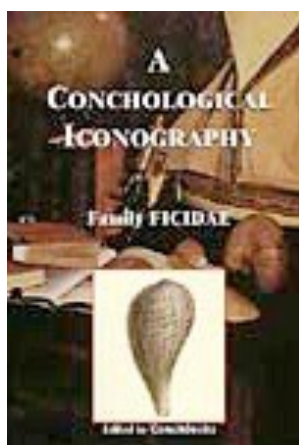
Here the list of publications in Chronological order. I refer to the listing above by family for details on the authors.



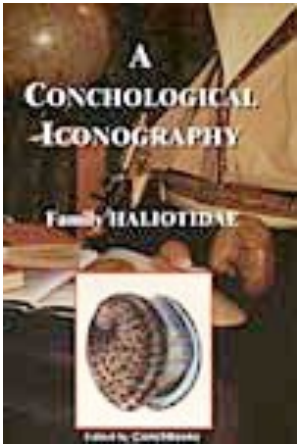
1999 The Family Harpidae.



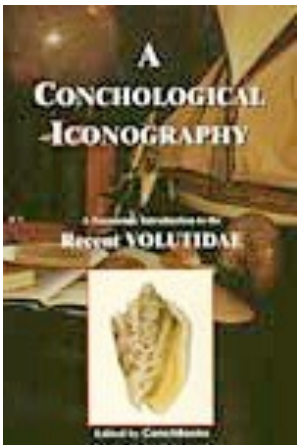
1999 The Family Strombidae.



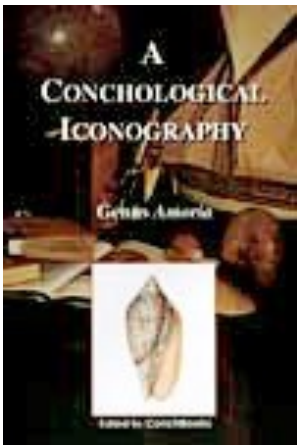
2000 The Family Ficidae.



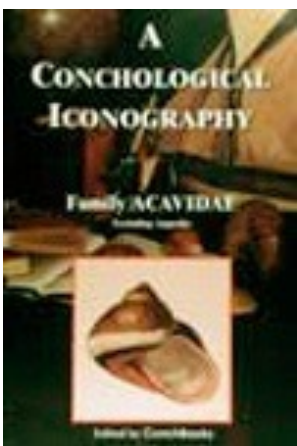
2000 The Family Haliotidae.



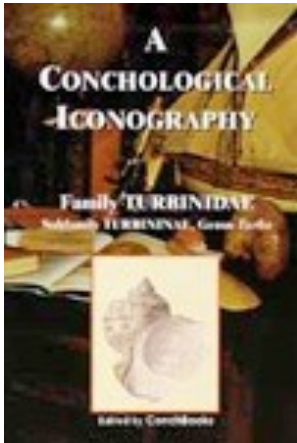
2001 A Taxonomic Introduction to the Recent Volutidae.



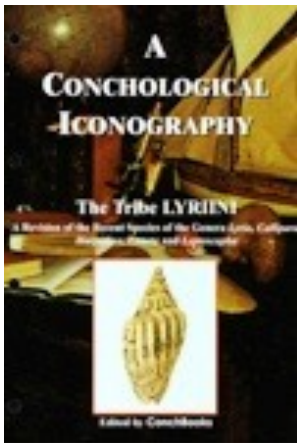
2001 The Genus Amoria.



2002 The Family Acauidae Excluding genus Ampelita

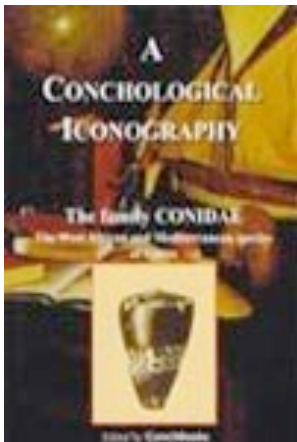


2003 The family Turbinidae. Subfamily Turbininae, Genus Turbo.



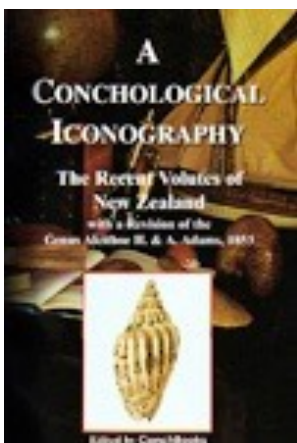
2004 The Tribe Lyriini.

A revision of the recent species of the genera Lyria, Callipara, Harpulina, Enaeta and Leptoscapha.

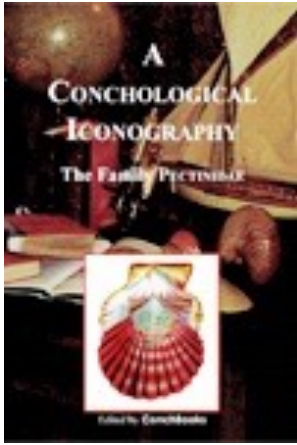


2004 The Family Conidae.

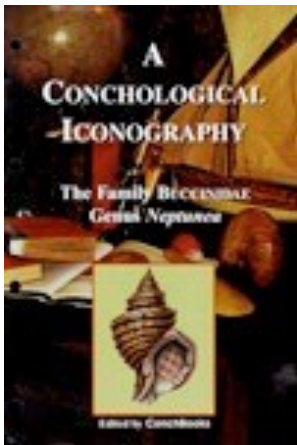
The West African and Mediterranean species of Conus.



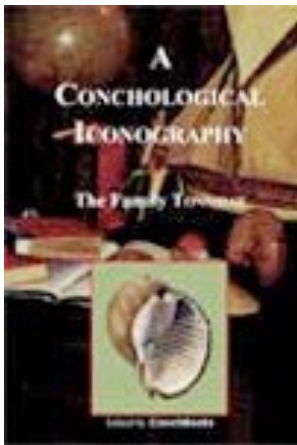
2005 The Recent Volutes of New Zealand.



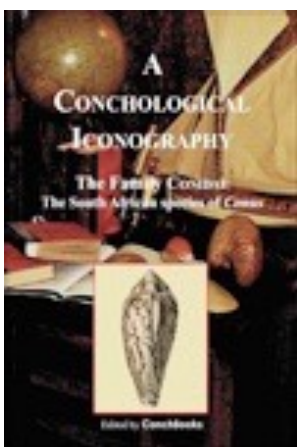
2006 The Family Pectinidae.



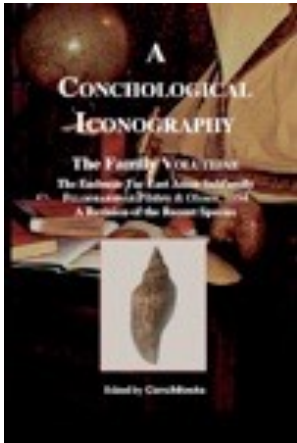
2007 The Family Buccinidae. Genus Neptunea.



2007 The family Tonnidae.

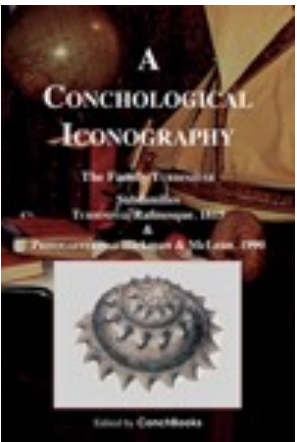


2008 The family Conidae. The South African species of Conus.

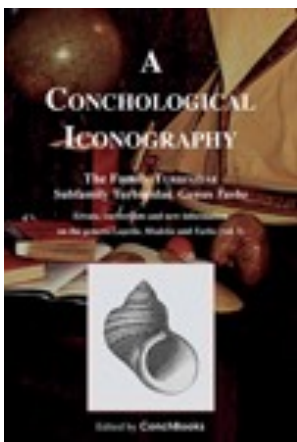


2010 The family Volutidae.

The endemic Far East Asian subfamily Fulgorariinae Pilsbry & Olsson, 1954.

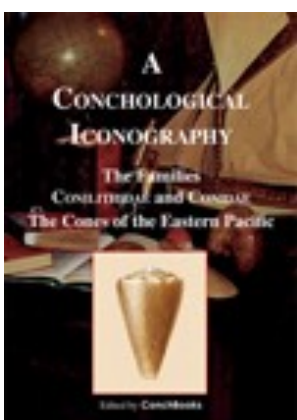


2011 The Family Turbinidae, subfamilies Turbininae and Prigasterinae.

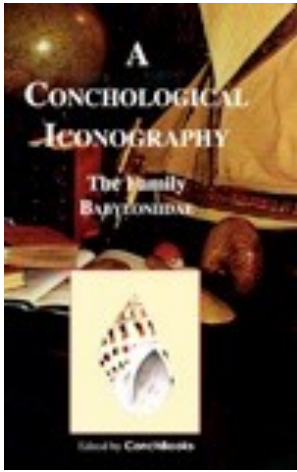


2011 The Family Turbinidae, subfamily Turbinidae, Genus Turbo.

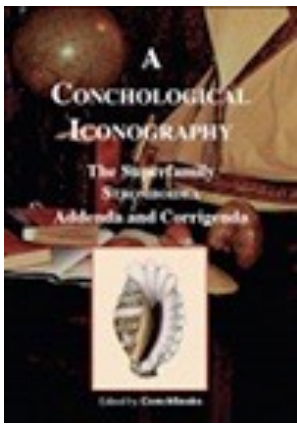
Errata, Corrections and new information on the genera Lunella, Modelia and Turbo.



2012 The Families Conilithidae and Conidae - The Cones of the Eastern Pacific.



2013 The family Babyniidae.



2013 The superfamily Stromboidea. Addenda and Corrigenda.

Indo Pacific Mollusca



VOLUME 1

1959 Abbott, R. T.

The family VASIDAE in the Indo-Pacific. In: Indo-Pacific Mollusca.

1961 Abbott, R. T.

The genus Lambis in the Indo-Pacific. In: Indo-Pacific Mollusca.

1961 Rosewater, J.

The Family Pinnidae in the Indo-Pacific. In: Indo-Pacific Mollusca.

1964 Powell, A. W. B.

The family Turridae in the Indo-Pacific. Part I: The Subfamily Turrinae. In: Indo-Pacific Mollusca.

1965 Emerson, W. K.

Strombus (Tricornis) oldi New Species. In: Indo-Pacific Mollusca.

1965 Rosewater, J.

The Family Tridacnidae in the Indo-Pacific. In: Indo-Pacific Mollusca.

1967 Jung, P. & Abbott, T.

The genus Terebellum (Gastropoda:Strombidae). In: Indo-Pacific Mollusca.

1967 Abbott, R.T.

Strombus (Canarium) Wilson New Species From The Indo-Pacific. In: Indo-Pacific Mollusca.

1967 Wilson, B.R. & McComb J.A.

The genus Cypraea (Subgenus Zoila Jousseaume). In: Indo-Pacific Mollusca.

1969 Powell, W.B.

The Family Turridae in the Indo-Pacific. Part II: The Subfamily Turriculinae. In: Indo-Pacific Mollusca.

VOLUME 2

1968 Abbott, R. T.

The Helmet Shells of the World (Cassidae). Part: I. In: Indo-Pacific Mollusca.

1970 Rosewater, J.

The Family Littorinidae in the Indo-Pacific. Part I. The subfamily Littorininae. In: Indo-Pacific Mollusca.

VOLUME 3

1973 Rehder, H. A.

The family Harpidae of the World. In: Indo-Pacific Mollusca.

1973 Emerson, W. K. & Cernohorsky, W. O.

The genus Drupa in the Indo-Pacific. In: Indo-Pacific Mollusca.

1973 Powell, A. W. B.***

The Patellid Limpets of the World. Patellidae. In: Indo-Pacific Mollusca.

1973 Robertson, R.***

The genus Gabrielona (Phasianellidae) in the Indo-Pacific and West Indies. In: Indo-Pacific Mollusca.

1976 Cernohorsky, W.O.

The Mitridae of the World. Part I: The Subfamily Mitrinae. In: Indo-Pacific Mollusca.

Monographs on Marine Mollusca



1978 Houbrick, R. S.

The family Cerithiidae in the Indo-Pacific. Part 1: The genera Rhinoclavis, Pseudovertagus and Clavocerithium. In: Monographs of Marine Mollusca.

1981 Cernohorsky, W. O.

The family BUCCINIDAE Part 1. The genera Nassaria, Trajana and Neoterion. In: Monographs of Marine Mollusca.

1985 Robertson, R.

Archeogastropod Biology and the Systematics of the genus Tricolia (Trochacea: Tricoliidae) in the Indo-West Pacific. In: Monographs of Marine Mollusca.

1991 Cernohorsky, W. O.

The Mitridae of the World. Part II. The Subfamily Mitrinae concluded and subfamilies Imbricariinae and Cylindromitrinae. In: Monographs of Marine Mollusca.

The Kaicher cards

Sally Kaicher's Card Catalogue

Sally Kaicher produced between 1973 and 1992 a series of 60 “packs” of shell cards, depicting each one or two specimens of a species, and well documented. A total of about 6300 cards were produced, showing about 5860 different species.

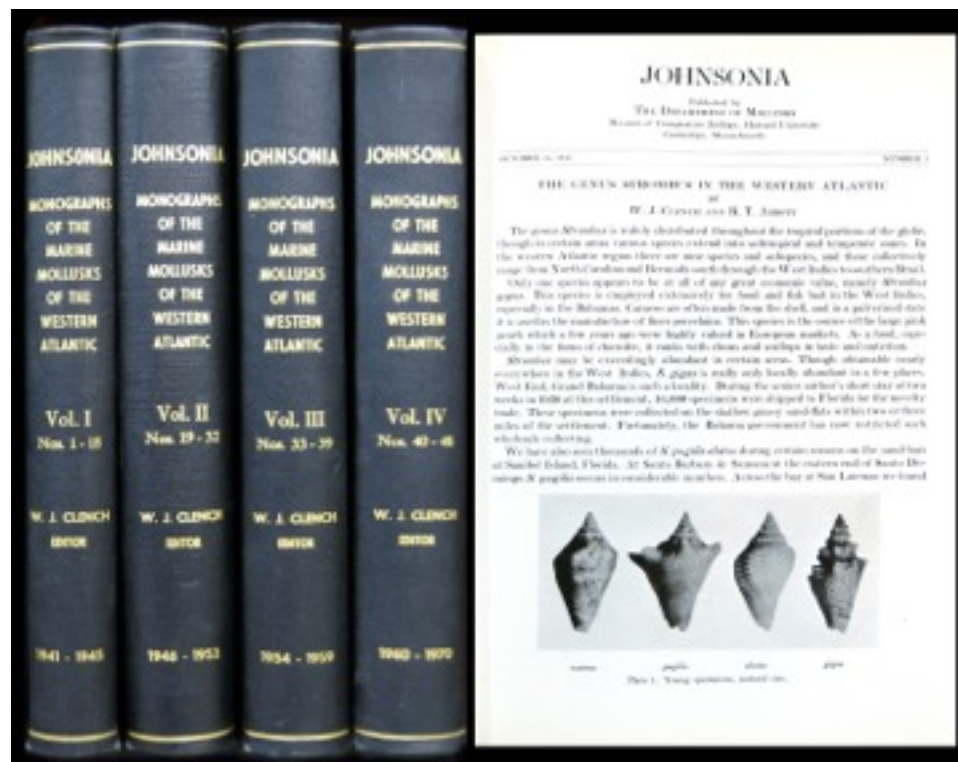
Needless to say that this is a very useful piece of shell-documentation, and a valuable addition to any library.

The Kaicher’s Card Catalogue has been documented by Paul Callomon who published an index in 1999. Later it was the subject of an extensive article in the journal “THE NAUTILUS” OF 2003. This work was from the hands of Gary Rosenberg and the late Richard E. Petit.



Johnsonia - Monographs of the Marine Mollusks of the western Atlantic

This is an important series of publications, usually bound in 4 Volumes. It is a nice addition to all libraries.



VOLUME 1

1941 Clench W. J. & Abbott R.T.

The genus Strombus in the Western Atlantic.

1942 Clench W. J.

The genera Dosinia, Macrocallista and Amiantis in the Western Atlantic.

1942 Clench W. J. & Abbott R.T.

The genera Tectarius and Echininus in the Western Atlantic.

1942 Bequaert J. C.

Cerithidea and Batillaria in the Western Atlantic

1942 Clench W. J.

The genus Conus in the Western Atlantic.

1943 Bequaert J.C.

The genus Littorina in the Western Atlantic.

1943 Clench W. J. & Aguayo C.G.

The genera Xenophora and Tugurium in the Western Atlantic.

1943 Clench W. J. & Abbott R.T.

The genera Cypraea, Cassis, Morum, Sconsia and Dalium in the Western Atlantic.

1943 Farfante I. P.

The genera Fissurella, Lucapina and Lucapinella in the Western Atlantic.

- 1943 Farfante I. P.
The genus Diodora in the Western Atlantic.
- 1943 Clench W. J. & Abbott R.T.
The genera Gaza and Livona in the Western Atlantic.
- 1944 Clench W. J. & Smith L.C.
The family CARDIIDAE in the Western Atlantic.
- 1944 Abbott R.T.
The genus Modulus in the Western Atlantic.
- 1944 Clench W. J.
The genus Columbarium in the Western Atlantic.
- 1944 Clench W. J.
The genera Casmaria, Galeodea, Phalium and Cassis in the Western Atlantic.
- 1945 Clench W. J. & Farfante I. P.
The genus Murex in the Western Atlantic.
- 1945 Clench W. J. & Abbott R.T.
The genus Strombus in the Western Atlantic.

VOLUME 2

- 1946 Clench W. J. & Turner R. D.
The genus Bankia.
- 1946 Foster R. W.
The genus Mya in the Western Atlantic.
- 1947 Clench W.J.
The genera Purpura and Thais in the Western Atlantic.
- 1948 Farfante I.P.
The genera Zeidora, Nesta, Emarginula, Rimula and Puncturella in the Western Atlantic.
- 1948 Clench W. J. & Turner R. D.
The genus Truncatella in the Western Atlantic.
- 1948 Turner R.D.
The family TONNIDAE in the Western Atlantic.
- 1950 Abbott R.T.
The genus Cyclostrema in the Western Atlantic.
- 1950 Abbott R.T.
The genera Xancus and Vasum in the Western Atlantic.
- 1950 Clench W. J. & Turner R. D.
The genera Sthenorytis, Cirsotrema, Acirsa, Opalia and Amaea in the Western Atlantic.
- 1951 Clench W. J. & Turner R. D.
The genus Epitonium in the Western Atlantic. Part I.
- 1952 Clench W. J. & Turner R. D.
The genus Epitonium in the Western Atlantic. Part II.

- 1953 Turner R.D. & Brown D.J.
The genus Bankia in the Western Atlantic.
- 1952 Clench W.J.
The genus Murex in the Western Atlantic.
- 1952 Clench W. J. & Turner R. D.
The genera Epitonium, Opalia and Cyldriscala in the Western Atlantic.
- 1952 Clench W. J.
The genus Conus in the Western Atlantic.
- 1952 Clench W. J.
The genera Scaphella and Auriniopsis in the Western Atlantic.

VOLUME 3

- 1954 Turner R. D.
*The family PHOLADIDAE in the Western Atlantic and the Eastern Pacific Part I.
Pholadinae.*
- 1955 Turner R. D.
*The family PHOLADIDAE in the Western Atlantic and the Eastern Pacific Part II.
Martesiinae, Jouaennetiinae and Xylophaginae.*
- 1956 Clench W. J. & Turner R. D.
The family MELONGENIDAE in the Western Atlantic.
- 1957 Clench W. J. & Turner R. D.
The family CYMATIIDAE in the Western Atlantic.
- 1958 Robertson R.
The family PHASIANELLIDAE in the Western Atlantic.
- 1958 Turner R.D. & Rosewater J.
The family PINNIDAE in the Western Atlantic.
- 1959 Clench W.J.
The genus Conus in the Western Atlantic.

VOLUME 4

- 1960 Clench W. J. & Turner R. D.
The Genus Calliostoma in the Western Atlantic.
- 1962 Turner R. D. & Boss K.J.
The genus Lithophaga in the Western Atlantic.
- 1964 Clench W.J.
The genera Pedipes and Laemodonta in the Western Atlantic.
- 1964 Clench W.J. & Turner R.D.
*The subfamilies Volutinae, Zidoninae, Odontocymbiolinae and Calliotectinae in
the Western Atlantic.*
- 1965 Boss K.J. & Merrill A.S.
The family Pandoridae in the Western Atlantic.

1966 Boss K.J.

The subfamily Tellininae in the Western Atlantic. The genus Tellina. Part I.

1968 Boss K.J.

The subfamily Tellininae in the Western Atlantic. The genus Tellina. Part II and Tellidora.

1969 Boss K.J.

The subfamily Tellininae in the Western Atlantic. The genus Strigilla.

1970 Clench W.J. & Turner R.D.

The family VOLUTIDAE in the Western Atlantic.

CHAPTER 20

CLUBS AND SOCIETIES

Throughout the planet, there is a considerable number of Clubs and Societies, united under the common denomination “Shell Clubs”.

Shell Clubs flourish when economies go good, and tend to be vulnerable when economies go down. The event of the Internet created a new generation of shell lovers that find social contact through the net. They have a tendency not to join shell clubs, which gives the impression that today there are less shell enthusiasts. But the contrary is true: never ever have there been so many people busy with shells, either as students or as collectors.

Dozens of Shell Clubs have a homepage, we refer to our LINKS page to discover these, and the ones that you can join, not too far away from your geographical situation. Go to: <http://www.conchology.be/?t=454>

In our events Calendar, you will see several of the activities of these Shell Clubs. Go to: <http://www.conchology.be/?t=402>

A curiosity not yet written down often: the beat of the conchological year is organized around the dates of shows. Several are called “International” Shell Shows, but there are few of that “very big ones”. Occasionally their meters of exhibited tables – full of shells – exceed more than 350 meters.

In Europe, the most important ones, are the **PARIS INTERNATIONAL SHELL SHOW**, usually in March, and organized by the French club. Equal in size and in importance is the **BELGIAN INTERNATIONAL SHELL SHOW**, organized by the Belgian Flemish Club (Belgium has also a Francophone club). The latter event is usually half way the month of May.

It is interesting to notice that the Paris Shell Show attracts the most prestigious and pricy shells, while the Belgian Shell Show has more democratic material and is much more diversified. If you look for top-notch cowries or cones, the place to be is Paris. But if you collect for example *Marginella*, Ranellids, *Strombus* or *Patella*, Belgium is a better destination.

In the United States the most international event is the **COA INTERNATIONAL SHELL SHOW**. This is organized by the “Conchologists of America” and changes location every year: they move from state to state and it is part of the COA annual convention.

The USA has also a “season” of shell shows in Florida. This is an alternation of weekends with shell shows in different cities of the state of Florida. Some collectors and dealers do not move out of the area as long as the season lasts.

There is a notorious difference between both continents in the behavior of collectors. It is very necessary to adapt properly and to respect visitors on both sides of the Atlantic. The European shell shows are much more business-minded while the American events have lots of activities for the collectors, more participants in the “displays” and the like. The European shell shows may appear quite rude to visiting Americans, so, be prepared when going there. And for Europeans: better adapt to the “gentle” approach of things in the new continent. Both in Europe and in the USA, there is a considerable shell business going on “before” and “after” the shows. In the USA this happens in hotel rooms, in Europe, any place is all right, from romantic cafés in Paris, to gardens in Flanders.

So, if you are a hardcore collector with considerable means, it may be wise to take contact with your preferred dealers and make an appointment in advance of the show. At the end of the shows, it is the perfect moment to make bargains, as usually some of the vendors and/or shell dealers that did not do good affairs: some are then willing to give discounts on the unsold shells. Remember that the unsold shells were either not “that good” a material or “overpriced”: one of the two in general, if not they are sold already.

As a “new” collector some advise: it is better to spend a couple of years in shells and gain experience before starting the considerable buying in shell shows. As other places of commerce in collectibles, some of the sellers are very professional and trustworthy, but most shell shows also shelter their number of crooks – hidden or not. So, the first years are best spend in gaining contacts with collectors and sellers, careful buying and learning.

This is the proper place to talk about “learning money”. There are only a few collectibles where one is properly equipped with the proper knowledge from the start on. The first years are usually spend learning: it is a very nice time, where one also discovers the adrenaline hits and major enthusiasm and the great amelioration of the quality and taste for life that shell collecting can procure.

But after a few years, when knowledge and experience is there, the collector will usually discover that the shells acquired in the first years are not “that” good: a growth line on a small *Conus marmoreus* was accepted because the colors were irresistible, and that *Murex* got no top whorls, but the spines were so beautiful... things like that.

This is the time where as a collector one becomes adult and some people have spend quite some amounts in “garbage”. A few will stop collecting, deceived by their own mistakes. But the clever ones will trash the poor quality – a good destination are children, schools and the like – the shells get a role there as “trigger” items. And then they continue the collecting, making less and less mistakes as time goes.

Apart from the acquiring and selling of shells, shell shows, and especially the International events, have grown to big social gatherings. In Europe especially, but I guess also in Florida, one has a classic “group” of participants that love to meet every so many weeks for a Shell Show event. It is also the perfect place to socialize with ven-

dors, dealers and collectors and to get much information on new discoveries, on exceptional pieces, on new books, new magazines, new homepages and the like.

Major shell shows are also attended by **BOOK DEALERS**. The author, when in Europe, made it a habit to acquire much of his library on these occasions.

CHAPTER 21

STORING YOUR COLLECTION

Storing the collection is a problem all collectors are confronted with from the start on. Shells are voluminous – in big contrast with collector items such as for example stamps, where thousands will hold in one “book”. This chapter is made for what we understand as a “serious” collector”: the ones for who shell collecting becomes an important part of their life.

The possibilities to store your shells are extremely varied, but all depends on the quantity and the size of the collectibles, and the passion and energy you want to dispense.

One extreme is for example a collection of CAECIDAE. One can store such a collection of 3000 pieces in even a very small cabinet, either in micro-boxes or plastic bags. The shells are less than one millimeter in diameter and usually less than 5 mm in length.

The other extreme is a collection of “large shells”. The one hundred largest species will fill a huge wall of 8 by 3 m high, when displayed on shelves.

The majority of advanced collectors dedicate one room – either in the apartment or the house – to their collecting activity. Houses are a little better for space, as one can arrange for example a complete basement, or a big attic, for the collecting activities.

One extreme – the author knows three of his friends who did that – is acquiring a second apartment, where you can release your collecting frenzy in the evenings or in the weekends without being disturbed by the outer world.

Once decided on the space, in function of the collectibles, is the way of storing. All variants are possible, but we here distinguish two methods:

- **CLASSIC SHELL COLLECTING**
- **MODERN SHELL COLLECTING**
- **EXAMPLES OF COLLECTIONS**

CLASSIC SHELL COLLECTING

This way of collecting will have shelves for the larger pieces and drawers for the smaller shells. If you plan to make an “extensive” collection: be prepared to make A LOT of drawers and to spend considerable money in many thousands of small plastic or paper boxes. Large collections have drawers numbering well into several hundreds. Very large collections like the Dautzenberg collection, now housed in the KBIN, Brussels, have over a thousand drawers from almost a square meter in size.

The drawer method has the advantage to see “real shells” well arranged by family and to know exactly how big the pieces are. The aesthetics or “beautiful” shells are enjoyable at once, and the pieces can be easily “touched”. The latter is important as many shells have great tactile qualities. There are even “blind” collectors that became experts in shells: the proof that the touch is ultra important. Sometimes, in the auctions of Conchology, Inc., the author will even write “A great piece to touch”, “a tactile shell”.

The disadvantages of this method:

- a. speed of finding a shell is limited. It takes time to get a shell for study, as one has to know where is the drawer, and “look” where is which species, often by reading the labels.
- b. keeping the collection, stored in drawers, updated is a big slave job. At each change of nomenclature, which are numerous, one has to change the real label with the shell.



View on a set of drawers from the famous Ph. Dautzenberg collection in the KBIN, Brussels. His mega collection is stored in more than a thousand such drawers.



The author knows of only a few collections worldwide that were kept updated properly and stored in this way: usually these are rather small family collections. But one collection is pretty good maintained, and the owner spends a considerable part of each year in doing so. Of course, each time he opens one of his hundreds of drawers, he has a huge pleasure in contemplating his shells.

MODERN SHELL COLLECTING

Modern shell collecting is the method used in Conchology, Inc. But at present, only a very small minority of shell collectors follow this method, merely because not very well known as yet.

The shells are stored in three ways:

1. Large and very pleasing shells on shelves.
2. Part of the shells in two dozen of drawers. For aesthetic pleasure.
3. The bulk of the collection in boxes in plastic bags, the boxes stored in cabinets.

The whole systems relies on computer technology, in which the complete collection is extensively documented.

Each shell is photographed. This can be done with one photograph per piece, but variants as three photos per shell are possible. The shell is numbered with a unique number and stored in a plastic bag. The plastic bags are stored by number in boxes. The boxes are stored – based on the numbers in cabinets. The labels contain all information, the most important one is the number of the shell and the locality data. The latter in case there is a computer crash or a loss of the computer info.



In this row of 6 cabinets, well over 30 000 shells are stored away. Each piece can be found in seconds, as they are classified by number. The numbers correspond to the file in the computer.

This method has tremendous advantages:













1. Storage species is maximized. Many tens of thousands can be stored in cabinets covering only one wall.
2. Shells are found back in seconds.
3. In the computer, a database showing the photographs of each shell, keeps updated the collection with the latest nomenclature. Only the number and the locality data are stable: the family often changes, the names of the genera also often change, occasionally, the species name changes. The original label we never change: but in the computer all is correct and up to date.
4. Small shells can be viewed and studied and compared in seconds, which is impossible with the drawer method.
5. The aesthetic enjoyment is maintained by a few drawers and shelves where the most pleasing pieces are kept for direct pleasure.
6. Photos are readily available to help researchers worldwide instantly.

The disadvantage is that each shell needs to be photographed. However, if you acquire your pieces from reputable dealers or a company such as Conchology, Inc, advantages are considerable as most of the shells sold today are photographed already. In a first time you can use the downloaded photographs. Conchology, Inc. maintains for this purpose a “my collection” tool, where one can view the shells acquired. Every so



Showy pieces can be discretely numbered with their reference number with Chinese Ink on the shell, and displayed as such in a cabinet.

many years we also update the “my collection” shells with modern nomenclature.

		
<i>Liguus fasciatus achatinus</i> Clench, 1934 Cuba. Trinidad. Yaguaramas.		
53 mm		
		
<i>Liguus fasciatus achatinus</i> Clench, 1934 Cuba. Holguin. From old collection.		
57.6 mm		
		
<i>Liguus fasciatus angelae</i> Clench & Aguayo, 1934 Cuba. Off Caibarien. Cayo Santamaria. 2012.		
42.4 mm		
		
<i>Liguus fasciatus archeri</i> Clench, 1934 Cuba. Pinar del Rio Province. Viñales. Millo. Mogote de Ramón. In native forest.		
44.1 mm		
The Poppe Collection of Terrestrial Mollusks		
1		

Each shell of the collection shown above is documented in a file of a database. This database can be printed out in seconds, with the details on the specimen.

EXAMPLES OF COLLECTIONS

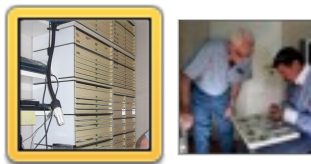
There is no better way to find what is best for your self, than by comparing and learning from other collectors their experience. Here a set of photographs from how people store their collections. Some are from friends, a few photos taken while visiting, others were so kind to send in photos in response of requests from our side. We occasionally join their comments or comments of the author. In alphabetic order.

- **Baer, Ted** – Switzerland, Lutry
- **Berschauer, David** – USA, California.
- **Bissett, Christopher John** – Canada, Alberta.
- **Callaert, Dirk** – Belgium, Sint Niklaas.
- **De Prins, Roland** – Belgium, Mechelen.
- **Deprez, Jan** – Belgium, Sint Gillis Waas.
- **Geyran, Kemal** – Turkey, Istanbul.
- **Ghijs, Arne** – Belgium, Deerlijk.
- **Ghyoot, Jean-Etienne** – Belgium, Sint-Denys-Westrem.
- **Gijssen, Luc** – Belgium, Liège.
- **Govaert, Frederik** – Belgium, Antwerp.
- **Grahams, Jeffrey** – (the late) Canada, Port Hardy.
- **Grulke, Wolfgang**, – Great Britain, Dorset.
- **Hayk, Rachidian** – USA, Virginia.
- **Klinken, Klaas** – The Netherlands, Enschede.
- **Latina, Lee** – USA, Florida.
- **Nichols, Gavin** – Australia, New South Wales.
- **Pardo, Manuel** – Spain, Madrid.
- **Pascucci, Alfonso** – Italy, Montepulciano.
- **Pollack, David & Joanne** – Ireland, Dublin
- **Poppe, Guido** – Belgium, Philippines.

- Reekie, Mark – USA, Oregon.
- Russo, Salvatore – Italy, Piano di Sorrento.
- Schavelzon, Marta – Argentinian, Buenos Aires.
- Swinnen, Frank – Belgium, Lommel.
- van den Berg, Alexander – Netherlands, Schagen.
- Vandenberghe, Philippe – Belgium, Berchem.
- Vos, Chris – Belgium, Scherpenheuvel.
- Ward, John – Australia, South Australia.
- Winters, Robert – USA, Tennessee.
- Wotton, Mary Agnes – New Zealand, Wellington.
- Zychowicz, Jacek – Poland, Cracow.

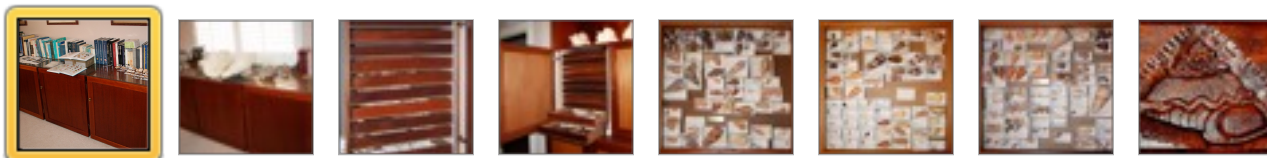
Baer, Ted – Switzerland, Lutry

Information from the author: Ted used to live most of his life in a splendid villa on the hills of romantic Lutry on lake Lemman. When advanced age came, he retired with Christine in a nice apartment, which limited his possibilities in space. At that time Ted sold his tremendous *Conus* collection and started in MITRIDAE. He organized a set of drawers in a corner of his office and keeps the shells neatly in plastics, grouped by species, in the drawers. A fine method and very space saving.



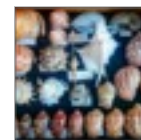
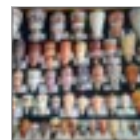
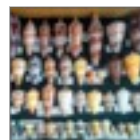
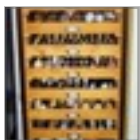
Berschauer, David – USA, California.

Information from David: “I designed and built my own shell cabinets using Honduras Mahogany. Drawers are roughly 50 cm x 50 cm interior dimensions, 8 to 10 drawers per cabinet, standard desk height.”



Bissett, Christopher John – Canada, Alberta.

Information from the author: Christopher keeps the shells in a dust-free cabinet, as was much en vogue around 1950 in offices all over the world. The cabinet has been neatly varnished and the drawers are labeled. The shells keep better in place thanks to a kind of velvet.



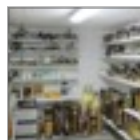
Callaert, Dirk – Belgium, Sint Niklaas.

Information from the author: Dirk collected cowries in his young years, but got a very busy business life. The collection is dormant for almost 30 years, but he enjoys it nicely displayed in his house, and hopes to restart one of these years. The display is splendid, the shells are all in glass cabinets.



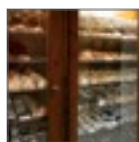
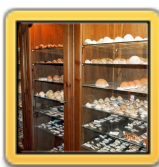
De Prins, Roland – Belgium, Mechelen.

Information from the author: Roland is a conchologist in the heart and amassed a gigantic collection, all stored in one house. Here some of the rooms, all perfectly organized. Roland is also an expert on preserving shells in excellent conditions. We refer to his work elsewhere in this book. Remark the “wet collection”, which is very scientific and specialized in Cephalopods, in one of the side rooms.



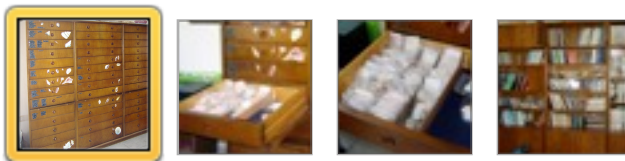
Deprez, Jan – Belgium, Sint Gillis Waas.

Information from the author: Jan has a busy professional life, but is passionate about cowries for decades. He amassed a very fine collection, which he keeps in part in wooden cabinets on glass shelves, but there is a little disorder at the time of my photography, as he was moving all, neatly arranged in drawers. Anyhow, here a view how he kept the shells for a long time.



Geyran, Kemal – Turkey, Istanbul.

Information from Kemal: I am sending you some photos of my cabinet and my library as well. My shell cabinet is about 40 years old made of beech wood. Since I am dealing with microshells also my samples are in plastic bags. The bottom drawers are for large shells. Let me add this information also; in these 40 years I encountered a very few Byne's disease cases. I hope these informations and pictures will help to bring out this very helpful book.



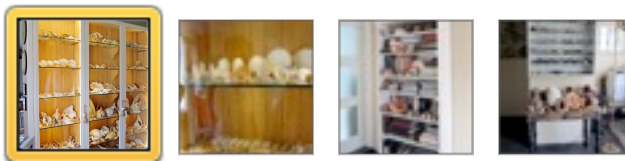
Ghijs, Arne – Belgium, Deerlijk.

Information from the author: Arne is an expert in scallops. He keeps his extensive collections in drawers and a few of the non-scallop shells and very larger pieces in cabinets in glass. All are in a separate room, especially designed for the purpose of his shell collections. The scallops are kept on a kind of green tissue/velvet, so they do not move easily when the drawers are handled.



Ghyoot, Jean-Etienne – Belgium, Sint-Denys-Westrem.

Information from the author: Jean-Etienne collect shells for several decades and is interested in traveling with the purpose of collecting. He recently moved from a large house in smaller apartment, so much of his collections are packed in. But he displayed quite some pieces in the cabinets shown here and uses others to enhance the rest of the apartment.



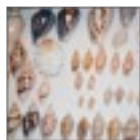
Gijsen, Luc – Belgium, Liège.

Information from the author: Luc collects mainly CONIDAE for aesthetics, which he loves very much. The cabinet of his collection is well integrated in the office and next to the computer. Here some photos taken during a visit of Philippe and young Alex.



Govaert, Frederik – Belgium, Antwerp.

Information from the author: Frederik lives with his brother in a stylish old house in the Antwerp center and has an exquisite taste for beautiful natural history items. His big love goes to cowries, but he has many other well chosen items as well. Part of his collection, the one he loves most, is kept in drawers on a kind of polystyrene carpet, so the shells do not move easily when the drawers are used.



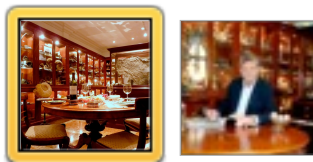
Grahams, Jeffrey – (the late) Canada, Port Hardy.

Information from the author: The well known collector Jeffrey Grahams passed away not so long ago. He used to keep his shells in wood cabinets, neatly arranged with the corals – other marine life he loved visibly a lot. Jeffrey used to collect much himself around Port Hardy, among other things, many Chitons. He exchanged worldwide and amassed these very beautiful exotic shells.



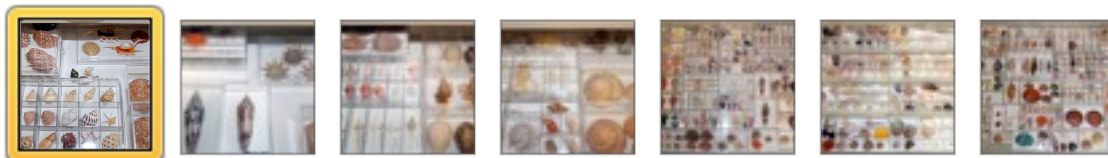
Grulke, Wolfgang, – Great Britain, Dorset.

Information from the author: Best known for his fantastic book on Heteromorph Ammonites, Wolfgang lives in the British countryside and send me photos of this fantastic well done and luxurious cabinet, now used for fossils. The same can be done with shells of course. The latest interest of Wolfgang is recent *Nautilus*, on which he recently published a splendid work. The style of the fossil cabinet is quite classic for libraries in Europe, but it is only the second time I see an adaptation for collecting natural history. The first time was in Turin, where a collector got a similar stylish arrangement for a mineral and shell collection.



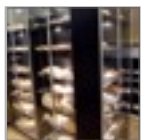
Hayk, Rachidian – USA, Virginia.

Information from the author: The shells are arranged in drawers and within the drawers, the shells are put in plastic boxes with crystal clear transparency. All shells are carefully labeled. This is a style the author liked very much, as all information is ready at hand and the arrangement is very beautiful. One can use special glues to keep the pieces in place. The shells are easily handled as the boxes are easy to remove from the drawers and can be well displayed on tables and the like, as shown in the later photos.



The late Klinken, Klaas – The Netherlands, Enschede.

Information from the author: Klaas collected “shells he likes” and made a tremendous beautiful attic room with a superb display of his treasures. The photos were taken during a visit from Philippe, who was truly impressed. A nice note is “empty labels” for shells he was especially looking for.



Latina, Lee – USA, Florida.

Information from Lee: I started collecting shells from the Gulf of Mexico, Pensacola, Florida, in the mid 1960's until the early 1970's. Put my collection in a box and stuck them in the attic for 40 years. Started collecting again, buying off the Internet. Had no way to display them, so I built this viewing cabinet, installed lighting and now I have my shells on display for my enjoyment. We have a very small home, so it was a tight spot to take the pic's. I hope this cabinet might bring a few ideas to someone wanting to display their collection, especially if they live in a limited space, as my wife and I do.



Gavin, Nichols - Australia, New South Wales.

Information from Gavin: I find high quality dead cowries in NSW, Australia. I understand never use bleach on cowries but have experimented with different strengths of bleach on different shells other than cowries. I have bought cowries from conchology and the lustre is perfect. I do worry about storage over the decades. I do want to have a museum quality collection and to pass onto my children. I am concerned about timber oils in furniture. Can't wait for your book.

Information from the author: Gavin uses exactly the same type of boxes as I do myself to keep part of my modest collections. For example, my *Calliostoma* and *Clanculus* collections are kept in these boxes. The boxes are arranged per alphabet by species. They are perfect to keep the shells safe, acid and dust free and are light and easy to handle.



Pardo, Manuel – Spain, Madrid.

Information from Manuel: Guido, I forward you a few photos of my display room, for your newest project. Shells above 50 to 70 mm (depending on shape) can be exhibited in the crystal cabinets. That makes for approx. one third of the collection. The rest are in plastic drawers. As you can see, the very small ones (below 1 inch?) are in plastic bags at the front of the drawer, where they can be easily seen. To enjoy the content of a drawer, you take it out and place it on the table. You can also see the optic device for microshells, on top of the drawers.



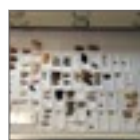
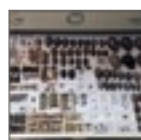
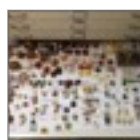
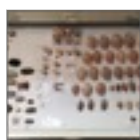
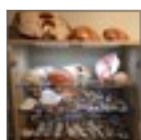
Pascucci, Alfonso – Italy, Montepulciano.

Information from the author: Alfonso uses either an original or a copy of a drawer used in vintage and antique printing factories to keep the letter types, most often in lead. When printing became digital, hundreds of thousands of the drawers were destroyed, but many thousands were used for display purposes. A nice way to get part of your collection “in the eye”, while fitting perfectly in the environment.



Pollack, David & Joanne – Ireland, Dublin

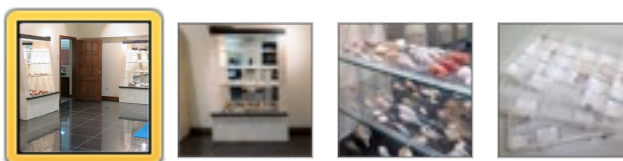
Information from the author: David and Joanne apparently have a big collection, stored in several types of cabinets, and several ways of keeping these together. Here an extensive set of photographs.



Poppe, Guido – Belgium, Philippines.

Information from the author: While my very big collections are kept in the “Modern Way” and computer managed until they are published and later sold, the close to my heart shells are a rather small collection. Few of the shells are kept in plastic boxes, as shown here. It concerns merely some paratypes I keep, *Calliostoma* and *Clanculus*.

My “sentimental” shells are gift shells from friends and relatives and some very special items. Only a few. I keep a set of each one of the *Pleurotomaria* and some *Volutes*. Mainly all old loves. The latter are all kept in some stylish cabinets we designed for the purpose in the meeting room of Conchology, Inc. During a severe earthquake (7.8), my *Pleurotomaria charlestonensis* danced off the shelf and broke off the lower part of the lip. An expensive affair, but this was the only shell broken in the company out of many hundred thousands. We therefore designed a special additional glass, thin, which we glued on each glass tablet. In the more detailed photo of the shelves, you can see this thick glass glued. Best copy the system if you live in earth-quake prone countries.



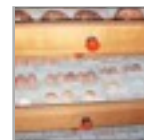
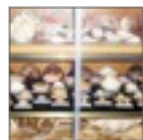
Reekie, Mark – USA, Oregon.

Information from the author: Mark is a fellow from our compagnie and his lovely wife Eljie has build a shell museum in Siquijor. Here a few on his stylish cabinets in Oregon, and as I noticed, Eljie has build similar beautiful cabinets for the museum.



Russo, Salvatore – Italy, Piano di Sorrento.

Information from the author: Salvatore is visibly a fan of classic families. His shells are well arranged with the labels on shelves, and in the drawers, the cowries keep well in place because place on cotton. One can also use cotton wool as used for the aquarium filters.



Schavelzon, Marta – Argentinian, Buenos Aires.

Information from the author: Marta constructed mainly an aesthetic collection. Her husband Kurt was very supportive, and while building a new residence, Marta build a superb professional location for her treasures. Here some photos she send us.



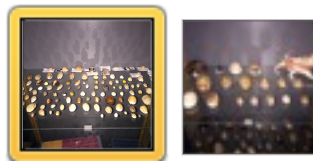
Swinnen, Frank – Belgium, Lommel.

Information from the author: Frank has build, over 4 decades and with powerful means and lots of energy, what I think is the most extensive and complete European seashells collection ever. His two shell rooms are very full, and so are his drawers. Frank is soon to move to a bigger space, especially designed also for the purpose. Here during a visit to his house and collection, not so long ago. Larger shells are displayed on glass shelves, the rest is in hundreds of drawers, protected from dust by doors.



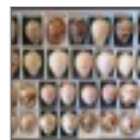
van den Berg, Alexander – Netherlands, Schagen.

Information from the author: I hope you like my personal touch. I'm collecting for about three years and like the cowries as main topic. I send you some screenshots and feel free to use them. I'm using Filemaker to make my database.



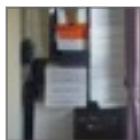
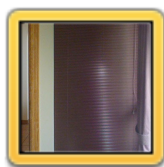
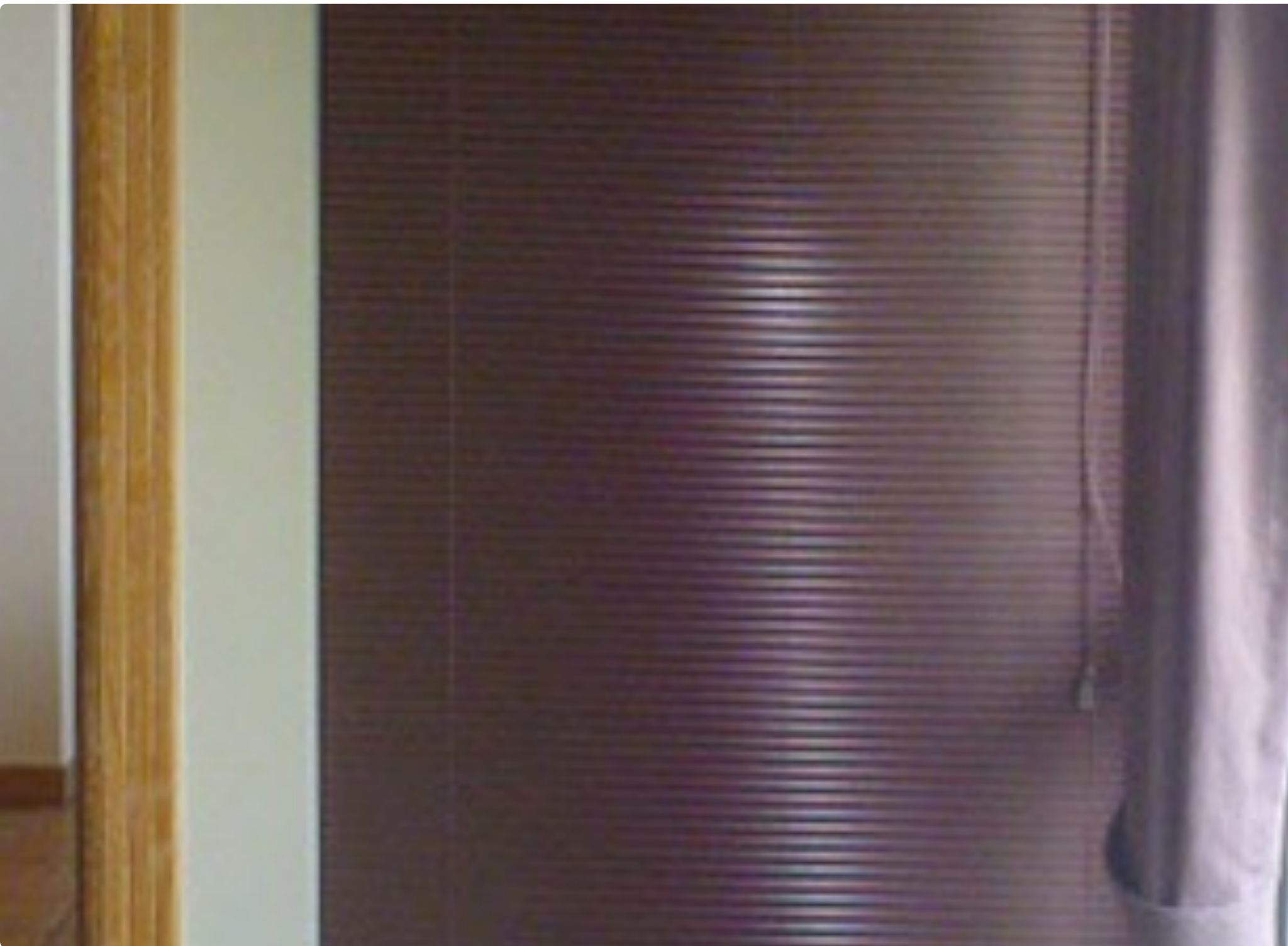
Vandenbergh, Philippe – Belgium, Berchem.

Information from the author: Philippe is a fanatic collector of cowries which he handles with much love. He stores his collection piece by piece in a separate box, all small boxes arranged per species in larger boxes, which are stored on shelves. Very easy to handle and to study. One speaks about a species and in a glimpse Philippe will make appear boxes of them in front of you to study, touch and admire. An example to follow. Philippe has also a fine collection of antique carved *Nautilus*, all stored on a shelf only “for these”.



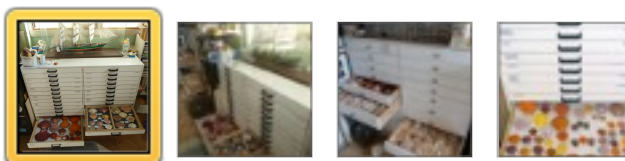
Vos, Chris – Belgium, Scherpenheuvel.

Information from Chris, free translated from Dutch: In brief: The space I have at my disposal is very limited. My house office is even not 3 x 3 m and contains, apart from the collection, also the necessary furniture and hardware. But, a corner of 80 cm large and 1.2 m deep revealed it selves ideal to store boxes on each other. In this place is the collection FICIDAE (+/- 500 pieces) and TONNIDAE (+/- 1500 pieces), with a still very active collection *Cymbium* (100 pieces). The TURRITEL-LIDAE (4000+ pieces) are also in such boxes, but are stored right behind me, be-



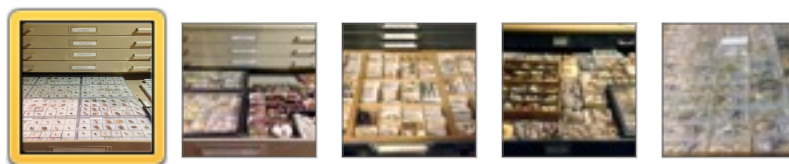
Ward, John – Australia, South Australia.

Information from the author: The Pecten cabinet is just that family only, the rest have to share. I have not pictured the other side of the room as it is currently under renovation with additional drawers being added to an existing cabinet. I need more space for specimens that I already have.



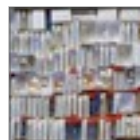
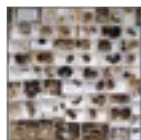
Winters, Robert – USA, Tennessee.

Information from Robert: Dear Guido, as per your request here are five photos of my shell cabinet drawers. I use mostly metal flat file drawers. I try to enclose delicate or glossy shells in plastic containers. Each lot is grouped separately with identification. Currently, I am housing 45,000 plus specimens in 8,972 lots of 7,237 species. Metal cabinets are the best way to house a collection. Plastic containers and non acetic cardboard trays also keep down the chances of Byne's Disease



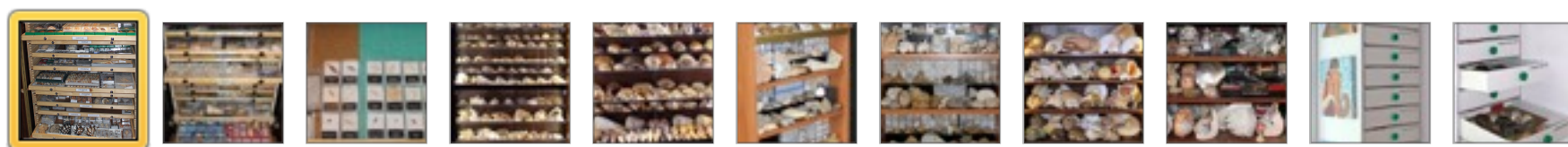
Wotton, Mary Agnes – New Zealand, Wellington.

Information from Mary Agnes: Hello Guido, just received your email on the above topic. I find your emails very interesting especially the photos. I have been collecting shells since I was about 12 years old in Jamaica and will be celebrating my 80th birthday in 2016! I have specialized in all families of limpets and micro species for the last 30 years or more, since I emigrated to New Zealand so the photos attached relate to these. I hope they will be of some use. The MARGINELLIDAE photo shows how I keep my micro species in glass tubes.



Zychowicz, Jacek – Poland, Cracow.

Information from Jacek: I am Jacek Żychowicz, I live in Poland, in Cracow, the city of kings. I have been collecting shells for nearly 40 years now. My collection is carefully stored in many drawers and display cases, most of them hand crafted by myself. I'm sending some pictures that will show other collectors how to store their precious collections.



CHAPTER 22

EPILOGUE

You now visited, browsed or read entirely the first version of “Collecting Shells in times of internet”. We wish you to have the book on your iPad as a companion.

If this work succeeds to help one collector finding a way of life which is ameliorated for 40 years through conchological activities, then the effort of writing and creating it was worthwhile for the main author and all the ones working on it and supporting it.

The native language of the author is Dutch. As a consequence the English is far from perfect. We hope to bring to you a better - corrected - version in the near future.

This book has the advantage of being an eBook – which means that new versions will be produced, likely each year, and also each year, the work is to become more complete and better.

This will go easier with your input. Please contact the author directly at:
guido@conchology.be

with ideas, opinions and ameliorations.

Sincerely Yours,

Guido Poppe
Mactan, November 2016.