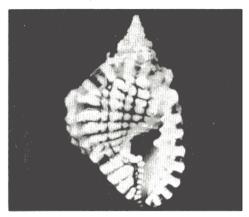
VOL. XXI NO. 4

APRIL, 1973

NEW SERIES NO. 160

NEW DISTORSIO

by RUTH FAIR



Distorsio burgessi Lewis, 1972

We in Hawaii have had the feeling for many years that we had a *Distorsio* which might not be simply a color variation of *D. anus.* Now we are delighted to announce that this unusually beautiful and uncommon *Distorsio* has been named in honor of Dr. C. M. "Pat" Burgess, *Distorsio burgessi* by Hal Lewis, Research Associate of the Department of Malacology of the Academy of Natural Sciences of Philadelphia.

D. burgessi joins the list of endemic Hawaiian shells, according to Lewis. This species was called to Mr. Lewis' attention through a frontpage article in HSN by Pat Burgess in 1963.

The species is, according to Lewis, quite similar in appearance to *Distorsio anus* but can be easily separated by the straight anterior siphonal canal (*D. anus'* canal always is angled to the left), the ruffled edge restricted to the outer lip and stained between the sculptured ruffles and the parietal shield which covers approximately $1\frac{1}{2}$ the preceding whorls, and the rich dark brown staining between the nodules on the parietal shield which gives the apertural side a distinct checkerboard effect.

Lewis states, in his article in The Nautilus Vol. 86 (2-4) p. 46: "in spite of the rich pigmentation present on the parietal shield of burgessi, it is lacking in the rich body whorl pigmentation typical of Distorsio anus."

SIX TEREBRA LOOK-ALIKES

by TWILA BRATCHER

Terebra commaculata (Gmelin, 1791) is one of a confusing group of long slender Terebra with brown markings. Most of them have double subsutural bands and more or less cancellate sculpture. Most of them are rare. This article is an effort to straighten out this complex for Terebra collectors.

T. commaculata, originally described from the Andaman Islands, has been showing up on dealers' lists recently under the erroneous name of T. myuros Lamarck, 1822. Walter Cernohorsky has pointed out that T. myuros is synonym of T. anilis (Roding, 1798), the holotype of which is a shell less slender than T. commaculata with no brown markings at all. While color may vary greatly within the Terebra species, patterns of spots, dots, blotches or stripes usually are dependable.

At any rate, whether *T. myuros* is a synonym for *T. anilis* or for *T. commaculata*, the name would have to go. Both of the alternate names predate it.

An example of the general confusion surrounding the *Terebra* was the response to a picture appearing in the October 1972 issue of Hawaiian Shell News, with a request for help in identification. The shell, a *Terebra*, had been trawled in about 100 feet of water in Tayabas, Philippines.

I responded, identifying the species as T. fujitai Kuroda & Habe, 1925; someone identified it as T. pretiosa Reeve, 1849. Obviously, the confusion needed to be straightened out, but I procrastinated until Franz Steiner sent me a collection of Terebra trawled off Madras, India including specimens of T. commaculata.

Here are the facts on this confusing group: Terebra commaculata (Gmelin, 1791). Long, slender and flat in outline; beige with brown blotches forming axial stripes, sometimes in line with stripes on adjoining whorls, sometimes offset.

The double subsutural band is almost flat in later whorls. Nucleus of $1\frac{1}{2}$ smooth, extremely inflated whorls; early whorls are concave with double subsutural band consisting of beaded nodes, the upper or posterior band being slightly more prominent. The sculpture of the spiral



Photos: Bratcher

Terebra commaculata (Gmelin, 1791). Note flat outline, cancellate sculpture with spiral cords predominating; no cancellate sculpture on presutural band; brown stripe, like blotches.

cords predominates in early whorls although crossed by less strong axial ribs, causing a cancellate look (lattice-like). In later whorls the outline flattens out, and subsutural bands become flatter, not marked with cancellate sculpture. The remaining whorl does contain cancellate sculpture, with spiral cords remaining stronger; the outer lip is elongate and somewhat flared at lower or anterior end.

Terebra pretiosa Reeve, 1849. This species is not so flat in outline nor as slender at T. commaculata. It also has concave early whorls with a double subsutural band, but here the axial sculpture predominates. In later whorls the band becomes broad and flat with the second

(Cont'd on Page 3)



HAWAIIAN MALACOLOGICAL SOCIETY

2777 Kalakaua Ave. Honolulu, Hawaii 96815

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Annual dues (January through December) are \$7. Additional members of a family, \$1. The Society meets the first Wednesday of each month at the First United Methodist Church, Honolulu at 7:30 p.m.

VISITORS WELCOME!

Hawaiian Shell News

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Articles of interest to shell collectors are solicited.

Advertisements are accepted at the rate of \$10 per column inch per issue. Special rates are available for six and twelve insertions.

A member has written to ask if we know a good way to remove the India-ink catalogue numbers from specimen shells, particularly the non-glossy ones. The answer is No. Can anyone help us on that one?

HMS March Meeting

About 100 members attended the Hawaiian Malacological Society's March meeting at the First United Methodist Church in Honolulu. The program included two unusual films, a brief slide show and a shell identification clinic.

E. R. Cross, professional diver and past president of the society, showed a set of slides taken off Barbers Point, Oahu over a period of about two months. In January he found a large Triton's Trumpet (*Charonia tritonis* Linne, 1758) sitting on egg masses in a hole in the reef, and photographed it. Subsequently, a second triton moved and added to the egg mass. In time they were joined by a disagreeable looking moray eel and a lobster — the latter eventually providing a meal for the Crosses.

At the time of the March meeting, the eggs had not hatched yet. Cross promised to watch developments and report.

The slides were followed by an early film on skin diving in Mexican waters. Cross explained that the photography was one of the first attempts at amateur-style color photography under water. Most members agreed that, while the story line was simple, the photography was not much inferior to the current high-priced productions.

The third feature was the film, "The Search for the Periplicata", produced by the Delaware Museum of Natural History. It recorded an expedition to the Great Barrier Reef in the midsixties, seeking a live specimen of the rare Voluta periplicata Hedley, 1902. Sponsored by John duPont, the expedition produced some beautiful pictures of its efforts, the outcome of which we will not reveal. The Malacological Society is grateful to the Delaware Museum for making the film available.

An unexpected treat was the sight of longtime HMS member Tom Neilson of Yeppoon, Queensland, who participated in the Search. And as an extra dividend, Alan Tiedeman, who was aboard as a marine biologist and Scuba diver, attended the meeting and spoke briefly at the conclusion of the film. (Al now is a resident of Honolulu.)

Editorial Tidings

In our enthusiasm over the finding of live specimens of *Cypraea ostergaardi* Dall, 1921 recently, we gave credit for the discovery to both Jim Barker (Windward Oahu) and Reg Gage (Kauai). HMS member Mabel Manion wrote in to ask simply: "Who did find the first live *C. ostergaardi*?" A good question.

Dr. C.M. Burgess, our resident expert on the living cowries, says the credit undoubtedly belongs to Reg Gage. The editors ask forgiveness on the grounds that, while Reg found his shell first, news of Jim's discovery reached us sooner.

On Hawaiian Shelling

Visitors, beware! For all its beauty and its Aloha spirit, Hawaii is not usually overwhelmingly productive for the malahini shell collector. All shells are scarce and good ones are particularly hard to find. A measure of local knowledge is essential for successful collecting.

Competition to find shells is intense on all easily accessible reefs and beaches of Hawaii. On the North Shore of Oahu, for example — especially after the big winter storms that wash in the most shells — collectors are often out with lights long before dawn. By daylight, everything of value is long gone. Convenient reefs like Ala Moana and Fort Kamehameha are minutely searched almost daily. Unless one knows how and where to search he can easily be "skunked."

This situation sadly disappoints and greatly mystifies many visitors. Before they arrive, they are under the impression that Hawaii has large numbers of shells just waiting to be picked up, as is the case in some other areas of the Pacific. It's not so, alas!

While most common species can be found—with luck— in relatively shallow water, the numbers are limited. Most of us expect to get little more than a sunburned neck from a morning on the reef. For the more interesting specimens, you must be prepared to work in snorkeling depths or to use Scuba.

The truly rare shells, such as Cypraea tessellata, C. rashleighana, C. tigris schilderiana, C. gaskoini, Strombus hawaiensis, Murex pele and others for which Hawaii is famous, are normally found at depths of fifty to 150 feet. Even our most experienced and diligent divers work long and hard to find these elusive beauties.

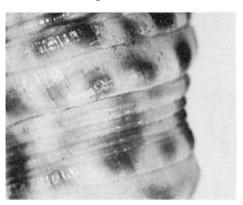
The rare species are not rare for lack of hunting; they are found in specific limited areas. Even when he knows the right general region, the inexperienced diver can move coral and fan the sand to total exhaustion, finding little or nothing.

In these circumstances, we advise collectors to make some advance arrangements to assure a productive as well as pleasant visit. Write to HMS Corresponding Secretary Ibby Harrison who will send you sketch maps of the principal shelling spots on Oahu (or the other islands, if you ask for them). Get some information on the tides; the tidal range is modest here, but there is little point in exploring a coral reef covered by even a couple of feet of surf.

Many HMS members are in a position to take a few hours off to guide a visitor to good shelling spots. Plan to be here for the regular HMS meeting (the first Wednesday of each month) and pass the word that you want help. Or write ahead, asking Mrs. Harrison to find someone.

But whatever you do, keep your expectations small.

TEREBRA PROBLEMS (Cont'd from Page 1)



T. stearnsi Pils., 1891. Note concave outline; sculpture of strong spiral cords not cancellate.

band, anterior to or lower than the first, becoming only a slight swelling. The feature that most easily separates this species from *T. commaculata* is that the blotches of this species are arranged as a broken brown spiral stripe with a light stripe above it in the area of the second subsutural band. This stripe varies with individuals. There is also a light stripe on the periphery of the body whorl.

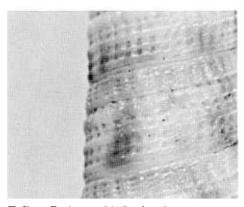
Terebra fujitai Kuroda & Habe, 1925 could easily be confused with T. pretiosa. The color markings are similar, and only by careful examination can one see the differences. The greatest difference is that T. fujitai has one broad subsutural band with the ends of the axial ribs swollen just beneath the band but not cut through by a spiral groove. T. pretiosa has a double subsutural band, the posterior being broader and more pronounced.

T. fujitai is more turreted, regularly stepped and less flat in outline. The sculpture consists of strong, quite regular axial ribs about the same width as the interspaces. The numerous spiral cords rarely cross the ribs, so the sculpture does not look cancellate. The sculpture of T. pretiosa cuts the ribs more and therefore looks more cancellate.

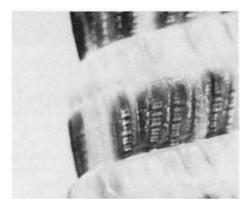
Terebra stearnsi Pilsbry, 1891 has irregular brown splotches. The outline of the shell is of concave whorls with a broad convex subsutural band bordered by narrow convex bands on each side, the lower or anterior being narrower. The remainder of the sculpture is not cancellate, being of heavy spiral cords.

Terebra lima Deshayes, 1857 resembles T. commaculata but has shorter whorls, a short body whorl and somewhat less fine sculpture. The aperture is quadrate rather than elongate, and the columella is curved rather than recurved. The most easily noted difference in these two species is that cancellate sculpture appears on the subsutural bands of T. lima but not on T. commaculata.

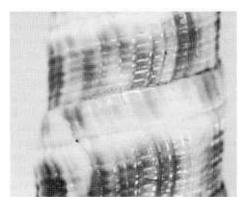
Terebra fortunei Deshayes, 1857 is also long, slender and marked with brown bands on



T. lima Deshayes, 1857. Note flat outline; extremely cancellate sculpture with both axial and spiral nearly equal on subsutural band and whorl.



T. fujitai Kuroda & Habe, 1925. Turreted outline, sculpture not cancellate, strong axial ribs weakly spirally sculptured, single broad subsutural band.



T. pretiosa Reeve, 1849. Flat outline; cancellate sculpture with axial ribs predominating; double subsutural band.

the whorls. But it is easily separated from the others because it has no subsutural band at all.

A common misconception about the family Terebridae is that all terebrids have a poison gland and barbed radula similar to cone shells. Only a small percentage of *Terebra* have these. As far back as 1880 Hutton, in his Manual of New Zealand Mollusca, stated that in the family of Terebridae the radula is rudimentary. In 1885 Tryon, in his Manual of Conchology, mentioned three types of *Terebra*: Those with

mouth mass at the end of the proboscis furnished with arrow-like teeth, and a poison gland; those with no teeth, no venom gland; and those with mouth containing a true radula but no poison gland.

Maxwell Smith in 1937 and Joyce Allan in 1950 stated that some species of *Terebra* have been found to possess a poison gland. In 1966, Cernohorsky in The Terebridae of Fiji, The Veliger, vol. 9, no. 1, said, "Examination of almost forty specimens of more common species of *Terebra* failed to disclose a radular ribbon."

Australian Shell Convention

The Western Australia Shell Club at Perth will be host to the next Australian Shell Convention, according to word from HMS member Barry Hargreaves of that city. The last two conventions were held in Yeppoon, Queensland.

The gathering will be in late August-early September of 1974. The convention itself, plus related activities before and after the meeting, will occupy approximately three weeks, writes Hargreaves.

The convention has the backing of the Malacological Society of Australia.

"Organized collecting trips are planned for a few days before the convention proper," says Hargreaves. "The convention — including a shell exhibit and social activities — will occupy approximately one week. A dredging-collecting excursion to the Abrolhos Islands, 300 miles north of Perth, is proposed for after the convention."

The arrangement committee promises additional information on the schedule as the planning progresses.

Oahu Observations

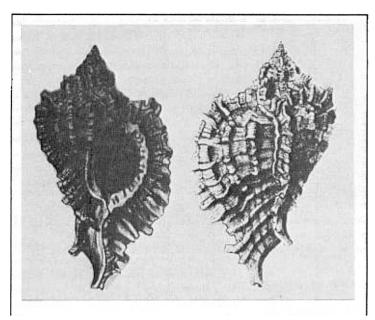
Pierre, the patient gourmet, came to live at my house early in 1972. He made himself quite at home in my twenty-gallon aquarium. You could always find him hanging out in a large chunk of porous coral that had about a dozen small oysters clinging to it.

George Campbell found Pierre under a slab of coral in about twenty feet of water, off Kahe Point, Leeward Oahu. After we got ashore and looked through our goodies, George handed me this fine little *Cymatium pileare*, saying, "Here's one for your aquarium."

It wasn't long before I found out about Pierre's gourmet appetite. One morning I saw him sitting on the lip of an oyster's valve. That evening, he was in the same place. By next morning, his patience had been rewarded. The oyster was gaping, and Pierre had his proboscis inside, collecting a delicious meal.

Yes sir. A real gourmet. Raw oyster on the half shell and never mind the dash of lemon!

Bob Purtyman



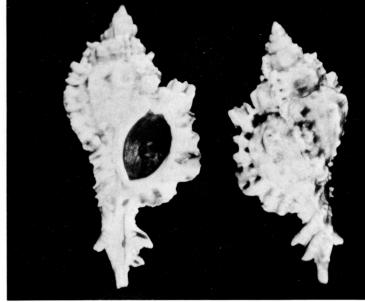


Fig. 1. Reproduction of Sowerby's original drawing of Murex barclayi.

Fig. 2. Type specimen of Murex barclayi from Tomlin collection.

More on Murex barclayi

by JERRY HARASEWYCH

I hope that the following will help clarify some of the problems relating to *Murex barclayi* Reeve as put forth by Elmer Leehman in the January, 1973 HSN (p. 8).

The figure in that article, and an additional photo of the same specimen sent me by Bob Morrison of Sarasota, Fla., match almost perfectly the type figure of *Pterynotus annandalei* Preston, 1910 (Rec. Indian Mus. 5: 118, fig. 3). Some authors consider this a different species than *P. barclayi* Reeve, 1858. I have my doubts on this score, however.

Dance does not indicate that the two *M. barclayi* he discusses were the first two ever found. A narrow form of *M. barclayi* (or *M. annandalei*, depending on which authority you believe) was first named *M. trigonulus* by Lamarck in 1822 and was figured by Sowerby in Conchological Illustrations (1841) pl. 195, fig. 102, and the Thesaurus Conchyliorum (1879) Vol. 4, pl. 391, fig. 120, as well as by other authors.

The name *M. trigonulus*, however, was preoccupied by *M. trigonulus* Lamarck 1816 = *M. triqueter* Born 1778. For details, see E. H. Vokes' 1968 article "On the Identity of *Murex trigonulus* of Authors," in J. Conch. 26:300-304.

This narrow form continued to be known as *M. trigonulus* Lamarck until Preston described *M. annandalei* in 1910. In her paper, Dr. Vokes said: "Preston described *Pterynotus annandalei* with no reference to *Murex trigonulus*, although both the Sowerby and Dunker illustrations are excellent. This species

apparently is rare but widespread as it has been reported now from the northern Bay of Bengal and the Red Sea to Durban, South Africa.... in addition a closely related species, *Murex barclayi* Reeve, is known only from the Mauritius.

Sowerby wrote of *Murex barclayi*: "Although of a different form, this species has strong affinities with *M. trigonulus*, the characters being the same in the two species except that one is broad and ventricose while the other is narrow and fusiform."

These seem to be the major arguments for differentiating *M. barclayi* from *M. annandalei*. I feel that these arguments are no longer valid.

As more specimens have come to light in the past few years we now know that *M. barclayi* is not limited to the Mauritius. I think there is general agreement that the Australian specimen figured by Dr. Barry Wilson (Australian Shells, p. 83, and HSN, May, 1971, p. 5) is *Murex barclayi*. This specimen was collected off Cape Moreton.

As to Sowerby's point relative to "broad and ventricose" vs. "narrow and fusiform," the characters are the same as he points out. The type is an extremely wide and squat specimen (reproduced figure 1) while the one figured in Leehman's HSN article is narrow and fusiform. Yet they have the same aperature, the same foliation, the same number of intervarical chords, etc. The only differences are those of degree, i.e., wider, taller, etc.

Differences in degree are not valid taxonomical characters unless they are statistically proven to be consistent and not overlapping. In

the case of *M. barclayi-M. annandalei* there are intergrades, illustrated by the type which is wide, through the Australian specimen (slightly narrower) to Sowerby's figured specimen (still narrower) and the specimen figured in Leehman's article (narrower yet).

As Dance writes in Rare Shells, there were two specimens collected by Barclay. Reeve chose for the type the "better" specimen which, compared to all other known specimens, is typically wide. The other specimen, in the Tomlin collection (Photo fig. 2) is much narrower and compares favorably with the Australian specimen.

Anatomical data may ultimately prove me wrong but on the basis of what is known today I do not think two species are justified for this shell. *Pterynotus barclayi* and *Pterynotus annandalei* are the same species, or forms of the same species. *M. barclayi*, being the older name, is therefore the valid name for this species.

Perhaps a brief caveat is also in order. A number of species have been represented to be *Murex barclayi* by various sources in the past. The most often encountered imposters seem to be *Murex triqueter* Born (often as *M. trigonalis* or *trigonulus* Lamarck) and *Murex superbus* Sowerby.

These two are figured in Habe's Shells of the Western Pacific, Vol. II, Plate 25, figs. 13 and 14.

I am grateful to Bob Morrison for his collaboration and assistance.

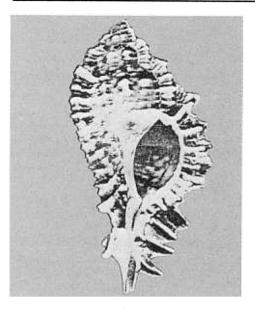


Fig. 3. Reproduction of photo of M. annandalei from Jour. Conch. v. 26 by E. Vokes.

And From

Dr. Emily Vokes...

I have just seen your article on *Murex barclayi*. First, may I say that the shell you have figured is "*Pteronotus*" annandalei Preston, described from the Bay of Bengal, and not (in my opinion) the same species as *M. barclayi*. The shell that Dance figures is the holotype, and so far as I know it is still unique. (i.e. the two specimens in the type lot are unique.) I have not seen the Wilson book and so I cannot comment on his specimen, but from your description it sounds like a different species. The Japanese specimens that are sold as *M. barclayi* are not the same either but are either a new species or an extreme variant of *M. superbus*.

The only thing that the three species have in common is that they all belong to the same subgenus, which is Naquetia. (I assume your Latirus is a lapsus.) There has been some discussion as to whether Naquetia should be a subgenus of Pterynotus or of Chicoreus. Although I formerly held to the first, I now believe it is the second; that is, Chicoreus (Naquetia). I have a paper on this subject to appear, probably, in the Jan. issue of the Veliger.

For a picture of N. annandalei I refer you to my paper in the Journal of Conchology, 1968, v. 26, pp. 300-304 (reproduced, fig. 3). The species is appearing in some numbers from the Red Sea, apparently.

An explanation for the 1857-1858 date lies in the fact that the Proc. of the Zool. Soc. for 1857 were published the following year, as was the usual case for that society. All dates from that journal are subject to confusion. Thus, 1858 is correct.

Emily H. Vokes (Tulane University)

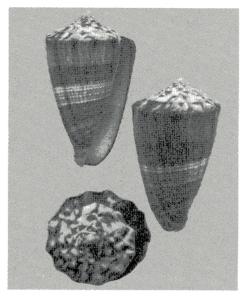


Photo by Debant

It is interesting to note that this particular controversy has been going on for 116 years. In the Proceedings of the Zoological Society of London, part 25, p. 209, pl. 38,f2 in an article entitled "Descriptions of Seven New Shells from the Collection of the Hon. Sir David Barclay, of Port Louis. Mauritius" Lovell Reeve comments on Murex barclayi: "This very beautiful species is very closely allied to a shell in Mr. Cumming's collection, which has been attributed by Mr. Sowerby, in his 'Conchological Illustrations,' to M. trigonulus, Lamarck. It is also as closely allied to a shell in the collection of the King of Denmark, which was figured for that species by myself in the 'Conchologia Iconica.' From both, however, it is sufficiently distinct to establish its claim to rank as a new species."

Further, *M. annandalei*, is not confined to the Indian Ocean. I recently examined a specimen in the possession of Victor Dan of Manila, trawled in the Philippines.

R.H.F.

CONUS KINAI?

Only a few HMS members live farther from Hawaii than do J. and P. Debant, who make their home in the Comores Islands in the Indian Ocean off Tanzania. Mr. Debant has written to question the identity given previously to a "Little Stranger" shown in the April 1972 issue of Hawaiian Shell News.

The owner of the shell, Charles Spradling of DeRidder, La., suggested Conus kinai, but without much conviction. Subsequently, Rear Admiral W. S. Bitler, of Annapolis, proposed C. vexillum or C. trigonus, both of which have several forms.

Mr. Debant now writes that he has received a beautiful dredged specimen (left) of the Spradling conus from HMS member Muangman in Bangkok, and "it is very different indeed from C. vexillum and C. trigonus."

He gives the following detailed description of the specimen:

"Light brown with last half of spire dark brown. Ornamented with very light colored band at center and other lightness at shoulder. Body whorl entirely ornamented with spiral threads, deeply granulated. Apex acuminate. Spire is concave, striated and tuberculated, with light brown spots. Shoulder coronate and angular. Base with projecting bulge. Aperture wide, large and indented on top. A heavy shell. Length $2\frac{1}{2}$ inches (66mm). Dredged near Bangkok by fishermen."

Can anyone else suggest an identification? Mr. Debant adds that he would welcome more information about *Conus kinai*, on which he has no published material. Can anyone help him? His address: Box 203, Moroni, Comores, Indian Ocean

INFORMATION PLEASE

A request for information regarding books on Korean seashells has come to us from Capt. Alex Roth, Jr., Tucor Services Inc., P.O. Box 2361, Seoul, Korea. He states that Shells of Sagami Bay lists shells also found in Korea, but would appreciate knowing of anything specifically on shells of Korea. Can anyone help?

SPECIAL SHELL SALE

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BOOK REVIEW

SHELLS OF NEW GUINEA AND THE CENTRAL INDO-PACIFIC. Alan Hinton. (Milton, Qlnd: The Jacaranda Press. Austr. \$4.50)

Alan Hinton, a long-time resident of New Guinea where he was an official of the Fisheries Research and Surveys Division, and the Jacaranda Press of Australia have done a genuine service to shell collectors everywhere by producing this volume. The coverage is extensive, the color illustrations are superb, and - mirabile dictu — the price is reasonable.

Hinton's book covers the heart land of Pacific shelling — the tropical seas from the Great Barrier Reef to New Ireland and Bougainville, and from the Louisiade Archipelago to the Admiralty Group. Many of the world's finest shells come from there.

Shells of New Guinea in some degree overlaps W. O. Cernohorsky's two fine volumes on Marine Shells of the Pacific, and Wilson and Gillett's formidable Australian Shells. In fact, however, it supplements them. Hinton is particularly at home among the cones, and that section of his book is truly outstanding.

The author notes two printing errors: on Plate 20, the numbering sequence should be 2, 1, 3, 4, etc.; and the drawing on page 60 should have appeared on page 63.

A note of caution: Hinton does not appear to be entirely up to date on nomenclature, which is in a state of flux as researchers delve into the literature of early conchologists. Seek confirmation of the name elsewhere after you have identified a specimen in Shells of New Guinea.

But add the book to your shell library!

Stuart Lillico

RECENT FINDS

by LYMAN HIGA

A Maui member, Moses Timball, recently came up with five large, perfect Terebra guttata, one T. maculata, one T. dimidiata, one Hastula penicillata, and a Cypraea schilderorum — all in one snorkeling expedition!

Francis Shibata, diving off Diamond Head in about fifty feet, came upon a fresh-dead Tonna perdix measuring 192mm. This may be a record. Van Nostrand lists the largest as 155mm. Francis also found a dead-but-nice Strombus hawaiensis.

Recent cowrie finds include a live C. cernica by Ron McOmber in sixty-five feet of water off Kaneohe, Windward Oahu; a couple of good C. tessellata by Lonnie Jordan at his old shelling ground at Makua, Leeward Oahu; and three live C. rashleighana from a hole in the coral at sixty-five feet off Kaneohe by Steve Quirk.

While diving in 100 feet off Maile, Leeward Oahu, Jim Spradling came upon a live Conus spiceri. And while working on the

NOVICE NOOK

by RUTH FAIR

Two recent Novice Nooks, one written by myself and the other by Elmer Leehman, appeared to be at odds, regarding the desirability of crabbed, dead or beach-collected specimens. Mr. Leehman seemed to rule them out in exchanges; I noted with approval the recent award of Shell of the Show honors to a large Tonna melanostoma found crabbed.

Mr. Leehman and I are not really at odds. I believe he was trying to get across the point that when you offer to trade shells that include beach specimens, you should state, clearly, which specimens are beach and their approximate condition. Some fresh-dead shells can hardly be distinguished from live-taken ones; other beach specimens will have broken lips, faded colors or other obvious defects. In the case of very rare shells this may be quite acceptable to your trade friends, provided you describe them, along with any defects, so that the recipients will not expect live-taken shells and be disappointed to find that they are beach or dead shells.

I, for one, would be quite content to have a beach specimen of Conus bengalensis. I haven't much hope of ever having the truly rare shells which would be necessary for a trade for a live-taken one. I'm sure many novices would feel the same way about this.

I certainly would never throw away a beach specimen of Cypraea martini, simply because it was not alive ... and, in Hawaii, we are extremely happy to find C. semiplota in the beach

The question of live-taken versus dead or beach shells is one which should be of concern to all of us. As fresh specimens become scarcer in many areas around the world, and with the growing number of collectors, it is up to us to be conservative in our collecting, and to welcome the good beach specimen in our collections. Besides, they are a lot easier to clean!

Little Stranger Follow-Up

A note from Dr. Harald A. Rehder, Senior Zoologist at the Smithsonian Institution, identifies one of our recent Little Strangers. He writes: "The Harpa figured on pg. 2 of your February 1973 issue is Harpa ventricosaLamarck, 1816, a species found only in the western Indian Ocean. My monographic treatment of the Harpidae is now in the hands of the editor of Indo-Pacific Mollusca, and should be out this summer."

sea bottom off Barbers Point, Ellis Cross was attacked — he insists — by two vicious C. spiceri, which he was forced to put into his "goody bag" so that he could complete his pipeline inspection.

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Okinawan Night Dive

by EDWARD T. SCHELLING

With two Scuba diving companions — Phil Whitelock and Don Frantz — I drove to our normal daytime shelling grounds in the channel between the main island of Okinawa and a small coral island off Torii Station, for a hastily organized night dive. The road was poor — soft sand, broken coral chunks and occasional deep ruts — but we finally reached a patch of firm ground where we could park and turn around.

To help us find our way back to the car in the pitch dark, we wired a "peanut" flash light to the antenna and turned it on.

Access to the water is one of the easiest on the island — a walk of about 300 yards on top a concrete sewer pipe which extends across the coral to where the reef drops off into the sea. The pipe has a three-foot-wide flat top, which makes walking easy.

"Make sure your mask is on tight, put your regulator in your mouth before you enter the water, and hold your breath as long as you can," are the instructions as we prepare to enter the polluted water. We follow the rules and finally reach clear, clean water, where the shelling can begin.

Diving will be shallow tonight — 15 to 45 feet — as we are searching for the elusive Horned Helmet, Cassis cornuta Linne, 1758. I had recently picked up several nice specimens, completely buried in sand in mid-channel, but Phil and Don had yet to find one. From a distance of twenty-five feet, you get the impression that the Helmet actually screwed itself into the sand, as the three-foot depressions have a spiral appearance.

Phil makes the first find of the evening, a beautiful live Cypraea stolida Linne, 1758 under a coral slab in fifteen feet of water. In a few minutes, three more are taken. Checking a small red sea fan, I find a jewel-like Primovula coarctata Adams and Reeve, 1848. Meanwhile, Phil has found a lovely Strombus vomer vomer Roding, 1798 crawling across the broken-coral-and-sand bottom. Swimming on, we finally hit smooth white sand, marking the channel where the search begins in earnest.

There are *Terebra* trails everywhere, and a four-and-a-half-inch *Mitra papalis* Linne, 1758 crawling across the bottom. A quick sweep of the area reveals several more of these extra large specimens. Two of the largest go into the goodie bag.

A big lump just at the edge of my light is a medium-size Cassis cornuta. A rapid banging on my tank with my crowbar and a waving of my flashlight bring my friends to join the hunt. More tank banging. This time Phil has found a Helmet, bigger than the first. The dive is a success.

Swimming about twenty feet off the bottom to increase my range of vision, I encounter a large sea snake, an Australian Brown, swimming right up my flashlight beam! There is some mad back-paddling, which doesn't seem to help. He's determined to check out that light source. I turn off the light and swim away vigorously. After a minute or two I turn on my light again. My visitor is no longer with me.

As I look around to get my bearings, my light falls on a *Murex tribulus* L., 1758 crawling across the sand. This is the first I have found in a year and a half of diving at Okinawa. Then I spot another Helmet "humping" across the sand. The animal moves by lifting its shell, lurching forward, then dropping its shell again, giving the process a distinct "humping" motion. I watched it for several minutes, taking several photos. It's a very large specimen and I hate to leave it, but I can't risk breaking my *Murex* with this large shell.

There's a flash of light to my left. It's Don. I haul the Helmet over to him. He takes it and releases the smaller of his two finds. No use being greedy!

It's time to be heading back to shore. I surface briefly to get a bearing on the red lights of the tall radio towers off Torii Station, then start us back along the bottom. But the dive isn't over. Another lump in the sand. This time it is a live *Harpa major* Roding, 1798, the first I've found exposed like this. Usually they are buried.

Entering the reef area again, where the bottom is broken coral and sand, we find a *Strombus thersites* Swainson, 1823, an uncommon species in Okinawa. It's lying on its back, alive but without an "operc." That's why it can't turn itself over. Then another one, "crabbed," but too good to leave.

Finally, as we snorkel in across the reef, we spot a beautiful *Conus tulipa* Linne, 1758. It's alive and another first for me.

Taking our flippers off, we can walk in from here. Our "peanut" light shows we did not miss the car by much, after all.

Comparing notes, we find that we have five Cassis cornuta, Casmaria ponderosa, C. nodulosa, Gmelin, C. erinaceus Linne, Phalium glaucum Linne, Mitra stictica Link, 1807, Nebularia monachialis Roding, 1798 (ed note: a synonym for Mitra cardinalis Gmel., 1791), N. puncticulata Lamarck, 1811, Conus quercinus Lightfoot, 1786, C. retifer Menke, 1829, and Strombus bulla Roding, 1798, plus the others I mentioned earlier. Altogether, a successful dive.

Now, all we have to do is drive across the soft sand without getting stuck, and across the dump without getting a flat tire.

AROUND THE WORLD

West Australia contacts report one of the worst seasons for seafood production in modern history. Many of the specialized vessels which seek lobsters, prawns, shrimps and fish have been returning to port with only small portions of their normal catches. Since most rare deep water shells are collected by these ships, arrivals of shells have been correspondingly short, also.

Observers state that the ocean has been unusually smooth this season and that for some reason the underwater life has not been moving. Some skippers have returned to sea for a second extended voyage in hope of recouping.

"One small comment: I do wish there were less emphasis in Hawaiian Shell News on dealers, rarities, and dollar values of shells.... Let's face it — emphasis on dollar values is one of the problems that leads to over collecting. Seldom is this over-collecting done by serious collectors who have a true interest in the study of shells and the animals that build them. Dealers and eager amateurs with an eye to picking up a spare buck are usually the offenders."

We won't identify the author of this "small comment," which sums up feelings frequently expressed at shellers' meetings. At least one of the editors doesn't agree. An appropriate rebuttal might be a remark heard recently in Honolulu: "A conservationist is a collector who has all the shells he wants."

Mr. and Mrs. A. G. Hamlyn-Harris, who contributed an interesting article on dredging for shells in the New Hebrides (HSN, June 1972), write that their operations in Havannah Harbor are ended for the time being. They have moved to Queensland. They report, incidentally, that one shell illustrated in the dredging article was misidentified. What HSN called *Conus granifer* was *C. mucronatus* Reeve, 1843, they say.

Twila Bratcher continues her excellent series on various shell families in SKIN DIVER magazine with an article on *Murex* in the January issue.

Congratulations to Don (past HMS treasurer) and Helen Hemmes on the birth of their son, Kimo. Also, recently they have moved their shell collecting headquarters from Switzerland to Riverside, California — a little closer to Hawaii!

Speaking of rare live cowries, HMS President Charles Wolfe has a live-taken *C. semiplota* Mighels, 1845. The specimen was found by a Honolulu diver "in the ocean, under a rock." He won't say which ocean!

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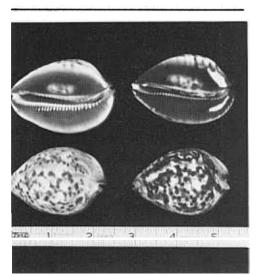


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RARE COWRY

Shown left are two specimens of the rare Cypraea jeaniana Cate, 1968. Both were trawled in about 100 fathoms off Quabba Light, West Australia.

One specimen is light colored, the other is dark. The lighter shell shows several shades of blue on the dorsum, with chocolate-brown spotting. The second is dark brown also, with brown spotting on a white base. The bases of both have white columellar blotches, which seem to be typical of this species.

There is uncertainty whether *C. jeaniana* is a valid new species. It is sometimes regarded as a subspecies of *C. friendii* Gray, 1831. Dr. C. M. Burgess completed work on his Living Cowries before *C. jeaniana* was proposed as a new species. He does not mention it. Nor is it in Van Nostrand's Standard Catalog of Shells Second Edition.

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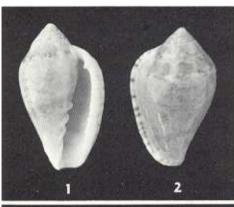
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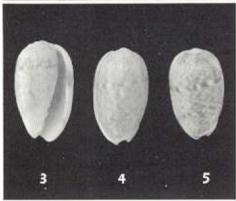
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Down in the Dumps by WILLIAM BRUCE WELLS

Shells are indeed where you find them: Visiting American Samoa from Hawaii, my wife and I picked up bag after bag of a great variety of shells during a walk around the Pago Pago harbor. I identified over 100 species — Terebra, cones, cowries, olives, miters, C. turbos, conchs, bubbles, Bulla, Cassis, tellins and Terrebellum — before I gave up.

Although mostly of moderate size, 90 per cent of those we picked up were in excellent condition. A few, taken at the water's edge or in the shallow water, were still alive or only recently dead. They ranged from common to uncommon to rare (by our Hawaiian standards). One specimen looked mighty like a *Strombus vomer hawaiensis!*

All this frenzied collecting took place in approximately 1,000 feet of shoreline. The collecting went on for about three back-breaking hours in the hot afternoon sun one day in September 1971. Then, sensing the approach of permanent spinal and marital dislocation, we halted, planning to return after a visit to Western Samoa.

Returning to American Samoa and the town dump in eager anticipation, however, we found to our dismay almost no shells at all! Few tourists — even the occasional shellers — spend much time on that stretch of beach, and the Samoans have better things to do. But what had happened to the shells? Only then did we realize the significance of the large dredge anchored in

the middle of the long bay!

The dredge had been operating prior to (and during) our first visit, deepening the lower harbor and dumping the "spoil" in shallow water near shore. Tidal action and waves had brought shells to the beach. They also removed them after the dredging stopped!

The channel near which the dredge was working approached 200 feet, and the depth increased toward the harbor entrance.

Humble with our newly acquired wisdom, we subsequently boarded a local bus running along the picturesque southwestern shore of Tutuila island. When we alighted at the village of Faga'itua, we were delighted to see a large, abandoned and rusted commercial dredge in the lagoon, joined to the shore by a peninsula of its own making. Forgetting our original plan to spend the day sightseeing, we headed for the spot.

Exploring the spoil heaps we found a fair number and variety of shells, although they were mostly in poor condition, faded and eroded. But we persisted and after some digging along the water's edge we turned up some very good specimens.

So, shell collectors, get wise. Before starting off on an expedition, inquire whether any lagoon, harbor or channel dredging is in progress or scheduled. That's where you find the action!

NEW MARGINELLA SPECIES

Two new species of Marginellidae from West Africa were described by HMS member Phillip W. Clover in a paper read before the Conchological Society of Great Britain and Ireland late in 1972. He named them Marginella hubertifigs 1 & 2, left, and Persicula canaryensis figs 3 & 5, left.

Clover described M. huberti as follows:

'Shell medium sized, ovate-pear shaped; bluish ash color with numerous gray dots forming axial and waved lines over entire shell; with two distinct spiral bands of darker gray color, one extending from suture to shoulder on body whorl, the second on the anterior lower third of body whorl; spire moderately elevated, pointed and consisting of four and one-half whorls; aperture wide, white within, about three-fourths total length of shell, slightly constricted at anterior end; outer lip flaring at shoulder and reflected outward with a sharp outer edge, spotted with 10-15 gray dashes, finely dentate within, with one large tooth near posterior end; four oblique folds on anterior half of columella; small white callus pad high on parietal wall."

Clover gave the dimensions of the holotype as 18.8mm long and 10.6mm wide, and the type locality as Baia Dos Elephantes, south of Lobito. Angola. West Africa. It was trawled in 90

feet of water with coral rubble.

The author noted that *M. huberti* is "quite distinct from other West African *Marginellidae* but comparable to *M. helmatina* Rang, 1832."

The second new species, *Persicula canary*ensis, was described as:

"Shell medium sized, elongate-ovate; pattern of orange and white color composed of small oblong dots that form 20-30 wavy spiral bands around the body whorl, with two bands more prominent and darker in color, forming two parallel lines (equally spaced apart) on body whorl; spire depressed and just visible, of four whorls (the last one occupies the whole height of the shell); aperture narrow, extending almost full length of the shell, quite flared anteriorly, flesh color within; outer lip thickened, curved in toward base, reflected the smooth externally, lirate within, white with two evenly spaced orange bands (connecting from the parallel lines on the body whorl); columella with seven widely spaced folds visible, upper ones almost obsolete.'

He listed the dimensions as 20.3mm long, and 11.8mm wide. The species is known from six fresh-dead and fourteen worn specimens dredged in thirty to sixty fathoms off Tarfaya, Morocco.

SHELL STANDARDS: A DEALER'S VIEW

by BOB MORRISON

The recent article in Hawaiian Shell News proposing uniform standards for grading shells is an excellent start (HSN March 73). The development and publication of such a system should represent a major step in the maturing of shell buying/trading/selling. The system, as eventually refined and adopted, should be known as the HMS International Shell Conditions Standards.

The logical next step is to get the active public support of international shell dealers — as many as possible. Perhaps HSN periodically could run a list of dealers who agree to use the standards, and the dealers for their part might use in their advertising a line such as: "Specimen shells offered for sale in this list have been graded according to the HMS ISCS."

I think it is safe to say that 90 per cent of all specimen shells bought, sold and traded these days are dealt with by mail, without being seen prior to the transaction. A rough check on my own 1972 business showed that about 84 per cent was by mail — even though we operate a busy shop.

Three other active dealers — Elsie Malone, Dick Kurz and Kirk Anders — have mentioned comparable figures. So the value of the grading system is evident.

It would be healthy, I feel, if these standards could become the keystone of a more complete set of "rules" for shell dealers. This should cover approvals, return privileges, payments and the whole spectrum of dealer-collector relationships.

On some of the specifics of the standards you proposed, I have a few quibbles. I question the wisdom of using words (though I use them myself) like "Gem," "Fine," etc., even with detailed specifications. Words have different meanings to different people. I would prefer "Grade A," "Grade B," etc., or "Grade 1," "Grade 2."

Little can be done, I fear, to make data uniformly meaningful. For one thing, much of the shell data is phony, particularly in the case of specimens that reach us through Taiwan. Secondly, collection information does not relate directly to the quality of the shell itself. And, thirdly, how complete is "complete" data?

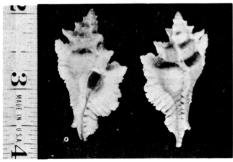


Photo by Chapman

As an example, I have just received the finest *Harpa doris* I have ever seen. The "data" with it merely said "W. Africa." Certainly that is incomplete. But does it justify downgrading an otherwise Gem Quality specimen to Good?

Similarly, the operculum is a sticky area. Probably half the *Strombus gallus* sold "with operc" actually have a *S. alatus* operc. On the other hand, the nicest *Lambis violacea* I've ever seen had no operculum, but it was a gem, nevertheless. I fear that a requirement for a Gem shell to have an operculum would aggravate the already bad practice of "counterfeit" opercs.

Repaired shells (a filed-lip Conus or a Pecten nodosus with a mended knob, for example) should not qualify for either of the top two grades, regardless of how good they may be otherwise. The proposed requirement for a statement of the degree and extent of any repairs is sound.

The proposed definition of "Giant" has an inherent difficulty, since we all recognize that quite a few of the sizes listed in Van Nostrand are wide of the mark. For Cypraea and Voluta, of course, there is no problem, since Burgess and du Pont & Weaver in their volumes cover sizes nicely. But other genera are not so easy to handle. I would prefer to wait on that aspect of the standards.

We probably can never solve all the problems of shell quality control merely by printing standards. Let us recognize that our dealings presuppose a certain degree of knowledge on the part of the buyer, also.

But perhaps a caveat such as the following should be incorporated into the proposed standards to alert beginners and protect dealers:

"Specimens of certain shells will seldom be offered in Gem condition. Some species (Conus zonatus, for example) are prone to heavy growth lines and scars. Others (such as Cypraea capensis, C. citrina and C. fultoni) are known only from ex pisces or beach specimens. Specimens found only by deep-water dredging normally show some damage from the dredging process."

LITTLE STRANGER

The small Murex shown in the photo (left) was obtained recently by Chien Chih-chen of the Chien Shen Co., Kaohsiung. It was trawled in the Taiwan Straits. The shell has not been identified so far.

The base color is creamish with profuse dark brown incised lines all over the shell body. Dark brown stripes are present on the flared extremities, as well as at the bases of the axial ribs on the spire.

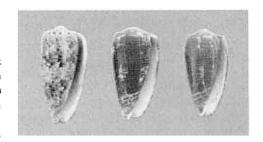


Photo by P. Debant

Conus nimbosustwo forms?

by J. and P. DEBANT

Readers may recall that W. O. Cernohorsky in HSN for January 1968 described a specimen of *Conus nimbosus* Hwass in Brugiere, 1792, collected at Espirito Santo Island, New Hebrides, by M. J. Bollard. I spent some time in the New Hebrides, and collected a number of beach specimens of *C. nimbosus* on Tanna Island, but did not find a live one until the eve of our departure from the New Hebrides in December 1970.

Although I believe that it is a deep water cone, my wife and I, with our friends J. Pierson and R. Collardeau, found specimens in only twenty feet of water on Efate Island.

The colors of the shells proved to be very different. The first is light in color and identical with Cernohorsky's description (length: 43mm). The other two are darker, one of them so much so that the spots, bands and blotches have almost disappeared. The latter form appears to be far rarer. (Dark juvenile specimens are found, however.)

In considering the existence of two forms of *C. nimbosus*, keep in mind that this is the case with *C. marchionatus*, also.

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