

Hawaiian Shell News

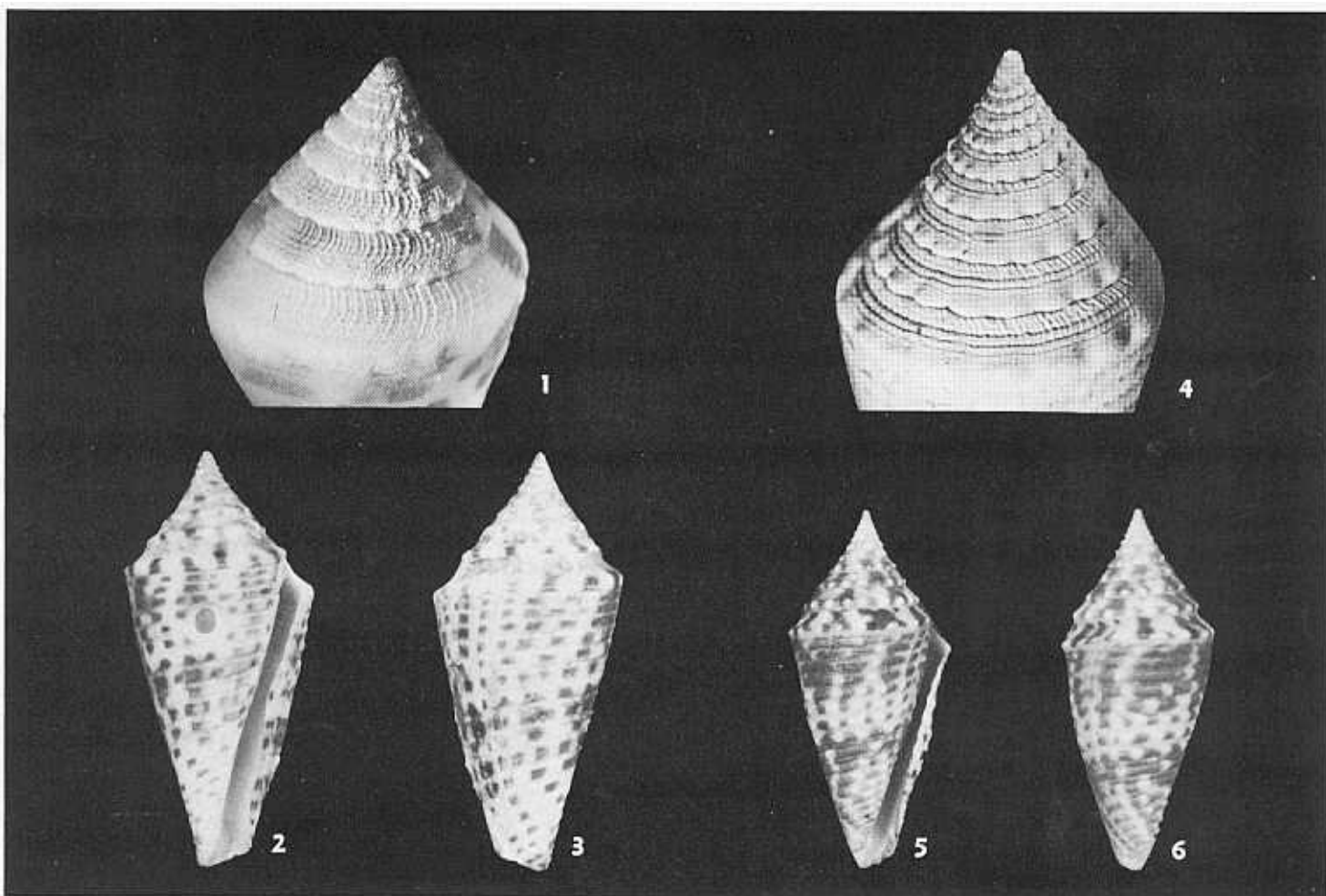
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NEW SERIES NO. 69

COMPARING TWO SIMILAR BUT DISTINCT CONUS SPECIES FROM HAWAII -- by CLIFF WEAVER

(Conus eugrammatus Bartsch & Rehder, 1943 vs. Conus acutangulus Lamarck, 1810)



See Caption for Photographic Credits

Figs. 1: Enlarged spire of Conus eugrammatus Bartsch & Rehder dredged during 1959 Pele Expedition off Keehi Lagoon, Oahu, from 75 fathoms. Measurements 21.5 x 10 mm. Figs. 2 & 3: Freshly dead C. eugrammatus dredged by 1964 Pele Expedition from 115 fathoms off Keehi Lagoon, Oahu. Note hole drilled by predator and portions of periostracum. Measurements 30 x 13.5 mm. Figs. 4-6:

All Figures Enlarged

Live-collected Conus acutangulus Lamarck dredged by 1959 Pele Expedition off Keehi Lagoon from 35 fathoms. Note extremely thin periostracum. Measurements 24 x 11 1/4 mm.

In Figs. 1 & 4 the magnified spires have been treated with NH₄CL (Glaessner, 1947) to bring out sculptural details. These two photographs were made by Dr. Alan J. Kohn, the rest by C. Weaver.

For many years Hawaiian shell collectors have been confusing the two species of Conus illustrated above. So few specimens of our endemic deep water C. eugrammatus Bartsch & Rehder were available for study that a recent report (Kohn, 1959) incorrectly but understandably listed

eugrammatus as a junior synonym of the less rare but similar looking C. acutangulus Lamarck.

During Mrs. Mary Eleanor King's series of expeditions in Hawaiian waters (1959-1962) several additional Conus species were collected as well as a live specimen

of C. eugrammatus. The latter was brought up from a depth of 200 fathoms.

As a result of this new material, Dr. Alan Kohn and I published a paper in Pacific Science (Kohn & Weaver, 1962) in which, among other things, we gave a
(Continued on page 2)

Hawaiian Shell News

Official Publication of the
Hawaiian Malacological Society
(Founded in 1941)

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Items of interest to shell collectors are solicited for publication in the Shell News. Deadline 10th of month preceding publication.

TWO SOCIETY MEMBERS MOURNED

It is with a feeling of shock and sadness that we announce the tragic death of fellow Hawaiian shell collector and HMS member Donald M. Johnson who was killed in a motor-cycle accident on July 30 at Kapiolani Park, Honolulu.

Thirty-two year old Don had been an active member of the HMS for the past four years and, with his wife Sally, owned and operated a successful business called "Skin Diving Hawaii". He was an expert SCUBA instructor and had found many of Hawaii's rarest shells in a very short space of time.

Don appeared in the HSN at least twice; The reader is referred to page 2 of the August, 1963 issue and to page 7 of the December issue of that same year. In the latter issue Don's name was incorrectly given as Bob Johnson.

All of us extend our sympathies to Don's family.

We just received word of the death of HMS member Frank K. Hadley who passed away in his sleep on July 24 at his home, 48 Adella Avenue, West Newton, Massachusetts. Mr. Hadley was 75 years old.

Both he and his wife Esther, were collectors and dealers in shells and were noted for the high standards they always maintained.

We wish to extend our sincerest sympathies to Mrs. Esther Hadley and to other members of the family.

MR. & MRS. NEAL SEAMON MOVE TO NEW YORK



Our very able Corresponding Secretaries, Mr. and Mrs. Seamon, have been unexpectedly transferred to the New York Office of Neal's company. Both hate to leave the Islands but the transfer included a promotion which was simply too good to turn down. When their tour of duty in New York expires the Seamons hope to return to Hawaii permanently. That day cannot come too soon for their many friends. Aloha and Mahalo to Neal and Eve.

Mr. and Mrs. Alexander Ross have graciously offered their services as the Society's new Corresponding Secretaries. Already they are performing a very competent job for which we all are very grateful. To Alex and Tinka we say "Happy to have you aboard!"

COMPARING TWO SIMILAR BUT DISTINCT CONUS SPECIES FROM HAWAII (Continued from page 1)

detailed comparison between *C. eugrammatus* and *C. acutangulus*, demonstrating their valid separation. It is from this report that I have taken some of the conchological descriptions which follow.

I hope that this article will focus attention on one of the world's rarer cones and alert workers in the Conidae to the existence of *C. eugrammatus*.

Conus acutangulus Lamarck, 1810 compared to

Conus eugrammatus Bartsch & Rehder, 1943
Live specimens of *C. eugrammatus* have never been collected in water shallower than 100 fathoms. On the other hand, the vertical distribution of *C. acutangulus* ranges between 5 and 75 fathoms and does not seem to overlap that of *eugrammatus*.

Four (4) physical features which most readily distinguish *acutangulus* from *eugrammatus* follow.

1. Height of spire in relation to total length of shell: "15 specimens of *C. acutangulus* ranged from 29% to 45% of the total length and averaged 37%. The range in 10 specimens of *C. eugrammatus* was 20% to 33% and the average was 29%. The difference is significant at the .01 level of probability (Wilcoxon test; Tate and Clelland, 1957)" (Kohn & Weaver, 1962).

2. Spire differences: "In *C. acutangulus* the sculpture of the spire consists of >-shaped axial riblets intersected by a spiral stria at the point of the > and one or two others toward the shoulder (Fig. 4). All whorls are nodulose or subcoronate, although coronation of the last whorl may be obsolete (Figs. 4-6). In *C. eugrammatus* the spiral sculpture is weaker. Most prominent are slender, protraxially curved axial riblets (Fig. 1). The first 4-6 early whorls are subcoronate; the last whorls are smooth (Figs. 1-3)" (Kohn & Weaver, 1962). This lack of shoulder nodules on adult whorls of *eugrammatus* seems to be a constant species differentiating characteristic.

3. Body whorl sculpturing: The spiral grooves engraved on the body whorls of both species differ markedly. In *C. acutan-*

gulus the body whorl grooves (clearly visible in Figs. 5 & 6) and intervening ridges are of about equal width while in *C. eugrammatus* (Figs. 2 & 3) the raised flat ridges are much broader than the grooves which separate them.

4. Color differences. "The ground color of the shells of both species is white. ... Freshly collected specimens of *C. acutangulus* (Figs. 5 & 6) in general are more darkly colored and show less of the white ground color than do those of *C. eugrammatus* (Figs. 2 & 3)" (Kohn & Weaver, 1962).

Two other species similar in form to *eugrammatus* are *C. praecellens* Adams, 1853 (= *C. sowerbii* Reeve, 1849) and *Asprella wakayamensis* Kuroda, 1956.

LITERATURE CITED

- ADAMS, A., 1853. Descriptions of new species of the genus *Conus*, from the collection of Hugh Cumings, Esq. *Proc. Zool. Soc. Lond.* 1853 (pt. 21) : 116-119.
- BARTSCH, P. and H. A. REHDER, 1943. New Cones from the Hawaiian Islands. *Proc. Biol. Soc. Wash.* 56:85-88.
- GLAESSNER, M. F., 1947. *Principles of Micropaleontology*. Wiley, New York. 296 pp.
- KOHN, A. J., 1959. The Hawaiian Species of *Conus* (Mollusca: Gastropoda). *Pacific Science* 13 (4) : 368-401.
- KOHN, A. J. and CLIFTON S. WEAVER, 1962. Additional Records and Notes on *Conus* (Mollusca: Gastropoda) in Hawaii. *Pacific Science* 16 (4) : 349-358; 5 text. figs.
- KURODA, 1956. *Venus*, *Jap. Jour. Malac.* 19:9, pl. 1, fig. 2.
- LAMARCK, J. B. P., 1810. *Ann. Mus. Hist. Nat., Paris*, 15:286.
- TATE, M. W. and R. C. CLELLAND, 1957. *Nonparametric and Shortcut Statistics*. Interstate, Danville, Ill. 171 pp.

Attention: HMS Members

Following changes to the By-Laws of the Hawaiian Malacological Society have been proposed and will be acted upon by the membership present at the October meeting.

1. That the dues for active members be raised to \$5.00 per year.

2. That the right to vote, hold elective office and serve on committees be vested in active, family and honorary members.



Readers interested in obtaining some of the 40 odd species of cowries found in E. Africa can do so by offering cowries of equal rarity to Dr. Claude C. Woltz, Box 616, Dar es Salaam, Tanzania, East Africa. He will send his list of shells on request.

This gentleman offers perfect live-collected cowries from New South Wales as well as volutes, bivalves, cones, miters, and tritons. Write to Mr. Harry Prosser, 5 Knox Court, Kingscliff via Tweed River, N.S.W., Australia.

Mr. Geoff Emerson, c/o Torquay P.O., Victoria, Australia, would like to exchange shells with someone from Hawaii.

South African collector Adeline Gillmer would like to trade shells of good quality with an interested party. Her address is Mrs. A. Gillmer, 16 Pompei's Pillar Road, Rosemount, East London, South Africa.

NEWS FROM KAUAI

by LUCAS CALVES*

On July 5, 1965 my diving companion Jaime Tolbe found what we believe is a *Cyp. cernica marielae*. It was live-taken at 150' off the Old-Koloa Landing at Koloa, Kauai.

Jaime has since then gone back to the same reef to search for more but none were found.

On last week's dive he came up with some *Cyp. helvola*. These were very bright maroon colored and we compared them with a *helvola* we found in shallower water that day and they sure look different. But I guess depth has a lot to do with color in any shell.

The *cernica* was found under the first flat stone he turned over.

I hope this bit of news is of interest.

* Kaumakani, Kauai 96747

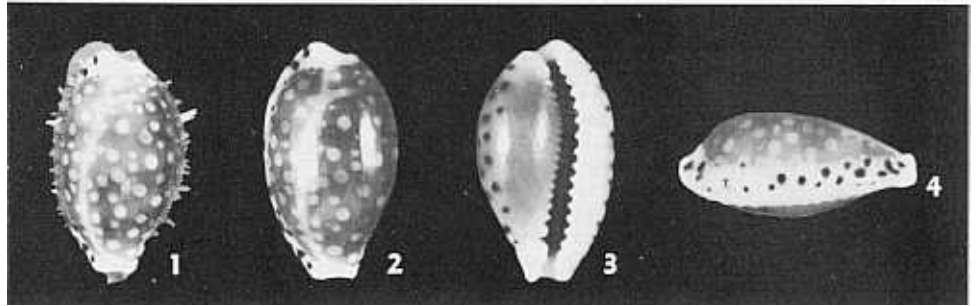
Editor: This is the kind of "outer-island reporting" we want. Thanks Lucas.

Gypraea leucodon Found

In a letter from Fernando Dayrit comes news of the discovery of a specimen of *Gypraea leucodon* in the Philippines. We expect to receive further information on this important discovery at which time the HSN will print the full story. Join the HMS and keep UP-TO-DATE on Shell News throughout the world.

A NEW GEOGRAPHICAL RECORD FROM FIJI

Cribraria gaskoini (Reeve) -- by WALTER CERNOHORSKY



Photos - Cernohorsky

Fig. 1: Shell with animal of *C. gaskoini* (Reeve) from the Fiji Islands. Figs. 2-4: Three views of same specimen. Mag. x 2.5

A specimen of *C. gaskoini* has been collected by Mr. F. Freitag on the main Suva reef; the reef was exposed at low tide, and the shell was found on the underside of a coral boulder in one-foot of water.

The shell is small, elongate-subpyriform and rather depressed. The dorsum is rusty-brown with a faint tinge of orange, and ornamented with round whitish spots, some larger than others. A clear dorsal line connects the extremities, and is slightly offset towards the labial margin. Sides are white and profusely spotted with moderately large blackish-brown spots, 22 on the labial side and 19 on the columellar side; the columellar spots extend partly onto the base. The labial side is angulately margined, columellar side rounded, base convex; both lips are bent to the right posteriorly, and the hind end of the labial lip is produced and calloused. Aperture only moderately narrow, almost uniform in width; labial teeth coarse, extending half-way towards the margin, columellar teeth are finer and confined to the aperture. Fossula steep, columella ribbed and denticulate. Length: 11.4mm, Width: 6.3mm, Lab.T: 18, Col.T: 17 (formula 11.4/55, 23:22, reduced).

The animal's sole of the foot is reddish-orange, dorsum of foot orange with a pattern of close-set darker orange spots. Mantle is orange, streaked and spotted with black in between papillae, which are short and simple, and composed of small wart-like clusters; while the majority of papillae are orange, four papillae are creamy-white. Tentacles long and slender, orange in color, siphon light orange, with short triangular serrations at the distal end.

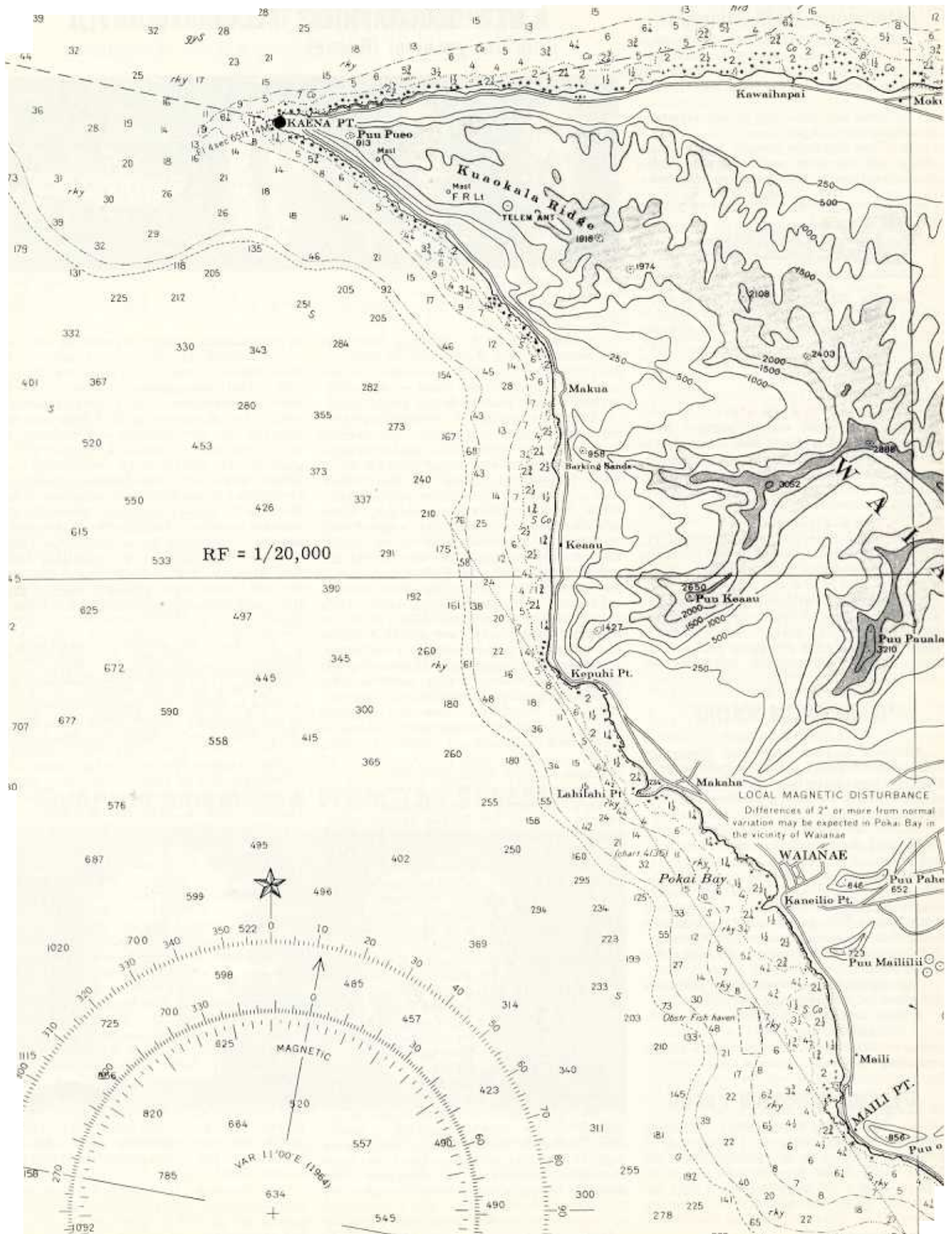
Vayssi re (1910, Journ. Conchyl., 58:302, 307, pl. 13, Figs. 1-3) described a *C. gaskoini fischeri* from Eastern Melanesia, and the holotype from Upolu, Samoa (L: 13mm, W: 61% of L.) was illustrated in fig. 3 on plate 13; figures 1 and 2 depict a shell from the Dautzenberg collection. Schilder & Schilder (1952, Ph. Dautzenberg's coll. Cypraeidae), point out, that the Dautzenberg shell was erroneously placed in the same box with specimens of *C. gaskoini* from Hawaii, bearing a shell-label "C te de Haiku, Maui"; the authors suggest that this particular label may have prompted Vayssi re to designate "Ile Maurice" (Mauritius), as type-locality, and the authors further note, that 2 paratypes of *C. gaskoini fischeri* were worn *Erosaria labrolineata* (Gaskoin). The only records

of *C. gaskoini fischeri* appear to be from Lifu, Loyalty Islands (Leg. Goubin, coll. Dautzenberg), the holotype from Upolu, Samoa (coll. Vayssi re), and a worn specimen from unknown locality in coll. Dautzenberg. Dr. Burgess (in litt.) informed me that the late D. Thaanum was supposed to have collected a small specimen of *C. gaskoini* in Fiji in 1940, but no further details were available; if this specimen can be located in the Thaanum collection at the Bernice P. Bishop Museum, Honolulu, the present specimen would be the sixth specimen of *C. gaskoini* from Melanesia. The records of *fischeri* by F.A. Schilder from New Britain (1933, Zool. Anz., 102:300, fig. 10, and 1937, 119:187) are in fact *Cribraria catholicorum* Schilder & Schilder, 1938.

The somewhat confused description of *fischeri* by Vayssi re, and the lack of substantiated records of *C. gaskoini* from outside the Hawaiian Islands, led some writers to believe the species to be endemic to the Hawaiian Islands (Kay, 1961, Proc. Mal. Soc. Lond., 34(4):188, and Kay & Weaver, 1963, HSN, 2(23):88). Schilder (1965, Veliger, 7(3):183) in his latest distributional list of Cypraeidae, also shows *C. gaskoini* to be endemic to the Hawaiian Islands, with a note on an artificially introduced record from the Marshall Islands.

The lack of further material of the Melanesian *C. gaskoini* does not permit a tabulation of morphological differences between the Hawaiian race and the race from Melanesia. The Fiji shell, however, is not ovate but elongate-subpyriform, with a lower more depressed dorsum (resembling *C. cumingi* Sowerby in outline), and larger lateral spots; the species *C. cumingi*, however, has far more numerous teeth (formula 40:34). The Fiji specimen is appreciably more slender than the Hawaiian *gaskoini* (55% of L and 62% of L respectively); both labial and columellar teeth are as numerous as in Hawaiian specimens, but more numerous than either the holotype of *fischeri* (formula 13/61, 21:18), the specimen from Lifu (12/57, 20:20) or the specimen from unknown locality in the Dautzenberg collection (11/64, 22:17).

In contrast to *Cribraria cribraria* (Linnaeus) and *C. esontropia* (Duclos), the siphon of the Fijian *gaskoini* is serrated and not smooth.



SHELLING AREAS ON OAHU

Part IX

by ELLIS CROSS

If any one word could describe the collecting possibilities in the area of this month's diving and collecting chart it would be "terrific". Habitat characteristics range from shallow sand-covered bottom, through coral reefs and ledges with spectacular caves, to lava outcroppings that soar toward the surface out of deep water.

With deep water very close to the shore it is not surprising that strong ocean currents are also found near shore. Usually, when the trades are blowing, currents flow the strongest toward Kaena Point. But the currents are tidal in character and, therefore, flow in either direction. The strongest current will be found at the top of the drop-off in about ten fathoms (60 foot) when the water is moving toward Kaena Point. Estimated velocities of up to three knots have been reported in this area. This is about three times faster than an average skin or scuba diver can swim. The watch word for this area is "be careful".

Along the north shore to the east of Kaena Point there are a great many rocks and coral boulders at or just below the surface of the water. Whenever there is any wave activity diving along the shore is very difficult and sometimes hazardous. Several shoal areas will be noted rising from depths of 40 to 60 feet. The tops of these are sometimes productive for *Cypraea tigris*. Other species found along this section of the north shore include *Conus ebraeus* and *pennaceus* in shallow water near shore. In deeper water *Cypraea leviathan*, *talpa*, *tessellata*, and *sulcidentata* have been collected many times. The cowries collected have all been found in coral heads according to the records.

At Kaena Point, on both the north and west shores, a number of shells have been reported. Several divers from the Pearl Divers Club have reported collecting *Cypraea tigris*, *sulcidentata*, *tessellata*, *isabella*, and all of the more common cowries, from this area. Among the cones, *ebraeus*, *flavidus*, *lividus*, *miliaris*, *spiceri*, and *chaldaeus* have all been reported.

The Kaena Point area is also a wonderful place for a diver to collect lobster as a fringe benefit to his shell collecting. In addition the caves are quite heavily populated with several varieties of fish, including the moray eel and several lesser known species of eel. Sharks are seen in this area only occasionally.

Off shore from Makua valley underwater activity has, in the past, far exceeded that presently found on shore for the filming of the motion picture HAWAII. At least it would appear to have from the number and species of shells reported collected in this area. The impressive list of shells, many of them considered rare, starts with a 4-1/2" specimen of *Charonia tritonis*. In the *Conus* seven species have been reported; *capitaneus*, *obscurus*, *leopardus*, *lividus*, *bandanus*, *pertusus*, and *striatus*. Several specimens

of *Cypraea arenosa*, *chinensis*, *gaskoini*, *granulata*, *isabella*, *rashleighana*, *scurra*, *sulcidentata*, and *tessellata* have been reported, to mention only the more rare or uncommon species. I have collected *fimbriata*, *poraria*, *teres*, *schildorum*, and *helvola*. *Mitra incompta*, *Murex pele*, *Nasarrius papillosus*, *Peristernia thaunumi*, *Strombus dentatus*, and *hawaiiensis*, *Terebra lanceata* and *pertusa*, have all been reported in previous years. In addition, hundreds of other shells have been collected in more recent times. One really rare shells, for Hawaiian waters, collected in this area was *Murex elongatus*.

Farther down the coast at Pokai Bay many shells have been collected but only a few species reported in writing to the Shell News. *Conus leopardus* seems to be quite common in the area, as does *Cypraea mauritiana*. *Murex pele* is also found occasionally both in deep water and washed up on the beach. *Cypraea talpa* and *tigris* have both been reported from Pokai Bay.

In this same general area at Waianae reef diving at night during low tides, has produced some excellent shelling. Those reported and published previously in the HSN were *Conus pertusus*, *retifer*, and *textile*. *Cypraea semiplota*, *Modulus tectum*, *Thais aperta*, and *Turbo intercostalis* were also reported. In more recent verbal reports nearly all *Cypraea* have been reported from this area, as have *Murex insularium*, most *Mitra* and *Terebra* species, *Cassis cornuta*, and

Harpa coinadalis.

The area a little north and west of Maili marked "Obstr. Fish Haven" is an artificial reef made by the Hawaii State Department of Fish and Game, by dumping old automobiles, broken concrete pipes, and other large objects into the water. In a future issue a short article will be prepared for HSN readers on the construction and results of such artificial reefs.

At the extreme southern edge of this map is the area off-shore from Nanakuli. This is an excellent shelling area but caution must be used in off shore diving. Strong currents have been encountered here and the largest shark ever caught in Hawaii was captured in a net off Nanakuli. It was about 18 feet long and weighed over 2,000 pounds. Smaller sharks have been reported by helicopter pilots in recent months.

Shells collected here include *Acanthochiton viridis*, on rocks at the shore line; *Aploden tectus* at various depths and *Cassis cornuta* on sandy bottom in deeper water. *Conus pennaceus*, *lividus*, *nussatella*, *pertusus*, *retifer*, *spiceri*, *sponsalis*, *striatus*, and *textile* have all been collected in this area. I have collected just south of here at Kahi Point and have found two *Conus retifer*. *Cymatium clandestinum*, a very rare shell in Hawaiian waters, has also been collected in the Nanakuli area. A number of *Cypraea* species have been collected here. Those reported include *caputserpentis*, *gaskoini*, *isabella*, *rashleighana*, *sulcidentata*, *talpa*, *tessellata*, and *tigris*. *Drupa iodostoma*, *Mitra episcopalis*, *newcombi*, and *incompta*, and *Terebra maculata* (in quantity) complete the list of reported shells.

Most of the area covered in this month's map is safe to work from shore except in Kona weather. When the trades are blowing this area is in the lee of the mountain ranges and waves are small, except occasionally in late spring when wind generated waves from the SOUTH PACIFIC ocean cause tremendous surf along the south, and sometimes the west, shore.

There are a number of places where the cliff at Nanakuli can be negotiated safely to reach the rocky shore. Small coves permit entry into the water, which is quite shallow for some distance out in most areas. The shallow waters will produce mostly coral dwellers and some *Cypraea* that live in the coral heads.

Alex and Tinka Ross, newly elected Corresponding Secretaries, lived at Waianae for two years and have shelled the area extensively. For complete information on specific spots within the area call them. They will be glad to help.

This is the last shelling area for the Island of Oahu. I would like to thank Evelyn Gage for her considerable help in researching past issues of HSN for lists of shells reported collected from each area. Also my thanks go to the many people who have called in to tell me of their finds in certain areas.

I would like to prepare a similar collectors atlas for other of the Hawaiian Islands. To do this I will need reports from collectors giving the names of shells, type of bottom, and depth from which collected. You may send to me direct - E. R. CROSS, 1758-A Mikahala Way, Honolulu, Hawaii 96816. Mahalo and Aloha.

"HAMMER-HEAD" OYSTER



Photo - Weaver

Slightly Reduced

Almost all black coral trees brought up from Hawaiian waters have specimens of *Pteria laciniata* Dall, Bartsch and Rehder, 1938 attached to their branches.

The young specimen shown above was attached to a gorgonian taken from 215 feet of water by Cliff Weaver off Mokumanu Id., North Shore, Oahu. Length of hinge line (including posterior wing) 62 mm.; height 28 mm. In adult specimens the wing becomes less pronounced (shorter) and the valves more inflated.

This species is closely related to *Pteria reticulata* Reeve from Australia, according to Dall, Bartsch and Rehder.

THE MEANING OF LATIN COWRY NAMES

by F.A. SCHILDER

Collectors who do not understand Latin and Greek will possibly be interested in the meaning of the scientific names of some well known cowry species. Most scientific names are Latin, but a few are Greek (marked by an asterisk *) or even other languages (marked by two asterisks **). Most names can easily be understood, but a few need further explanation. These have been put in brackets. If we restrict the explanations to living species and well recognizable subspecies of true cowries (Cypraeidae), and omit the hundreds of lateral names and synonyms of minor importance, we can arrange the scientific names according to their meaning as follows.

1. Most names refer to the characters of the shells:

There are some general designations, as gracilis - graceful, pericalles* - very beautiful, pulchella - rather beautiful (not: small pulchra!), pulchra - beautiful, stolid* - foolish, vasta - coarse, and venusta - charming like Venus.

Far more names refer to the size: immanis - very large, or are descriptions of the general shape: angustata - narrowed, coloba - stunted, cylindrica - cylindrical, depressa - depressed, latior - broader, pyriformis - pear shaped, teres - oblong, fortirostris - with a tortuous beak. Some names recall peculiarities in morphology: acicularis - needle shaped (referring to the lateral pittings), edentula - not denticulate, erosa - eroded (at the margins), esontropia* - keeled within, eunota* - with solid dorsum (more probably than badly compounded by eu* - well and notus - known), granulata - granulate, marginalis and marginata - margined, microdon* - small tooth (with small teeth), minoridens - smaller tooth (with smaller teeth), obvelata - surrounded by a sail, semitota - half . . . (not intelligible,

possibly misspelled for semipolita - rather polished), serrulifera - bearing a small saw (in front of the columella), sulcidentata - with furrow-like teeth.

Most names, however, refer to the color of shells: the general aspect is indicated by the names adusta - burned (brown), albuginosa - whitish, cinerea - ash gray, citrina - lemon colored, exusta - burned ("scorched" according to Reeve, brown), fuscobrunna - brownish red, helvola - yellowish red, isabella - isabel-yellow, lurida - lurid (pale), lutea - saffron, pallida - pale, pallidula - rather pale (pallid, as Gaskoin said), sanguinolenta - blood red (referring to the lateral spots), spadicea - chestnut, spurca - dirty, subviridis - rather green, viridicolor - green colored.

Details in markings have been described by the names bicolor - two-colored, bistrinotata - with two times three spots, contaminata - distained, dorsalis - (with a) dorsal (blotch), fimbriata - fringed (by spots), fuscodentata - with brown teeth, fuscomaculata - with a brown blotch (at the dorsum), guttata - spotted, interrupta - (zones) interrupted, labrolineata - with (chestnut) lines on the lip, leucodon - white tooth, maculifera - bearing a blotch (on the inner lip), nigropunctata - black spotted, ocellata - eye-spotted, picta - painted, punctata - dotted, quadrimaculata - four-spotted, tessellata - checkerboard, xanthodon - yellow tooth, ziczac** - (barbarous word for) zigzag, zonaria - zoned.

Some similar names point to various objects which are said to recall the markings, as amphithales* - surrounded by flowers (spots), comma - (with) comma - (like spots), cribraria - sieve-like, gangranosa* - gangrenous (at the extremities), irrorata - bedewed (the spots recall irroration), lentiginosa - scurvy, miliaris - (finely spotted in a) millet-like (way),

nivosa - (with) snow-white (spots), piperita - peppered (at the margins), poraria - porous (spots recall pores), redimita - coronated (by lateral spots).

Other names remind the resemblance to non-conchological objects still more expressly: the adjectives achateida* - agate-like, arabica - (not coming from Arabia, but marked by) Arabian (letters), armeniaca - (not coming from Armenia, but colored like the) apricot (Prunus armeniaca), carneola - carnelian, eburnea - ivory-white, eglantina** - eglantine (wild rose, or possibly a misprint for elegantina - elegant), geographica - (with markings like in a) geographical (map), staphylaea - grape-like, stercoraria - dung-like.

Many such supposed similarities are expressed by substantive nouns: alga - sea-grass, annulus - ring, aurantium - the orange, cicerula - small chickpea (cicer), diluculum - morning twilight ("day breaking cowry" of Reeve, why?), fabula - small bean ("feverolle"), globulus - small sphere, mappa - (with markings like in a geographical) map, margarita - pearl, nucleus - kernel, onyx* - onyx, ovum - egg, pyrum - pear, ventriculus - ventricle, vitellus - yolk (not little calf, as Reeve suggested, which is spelled vitulus).

Other specific names refer to supposed resemblance with animals chiefly in color: so the adjectives felina - cat-like, limacina - like a slug (limax), pantherina - panther-like, pulicaria - (with) flea-like (spots), and testudinaria - tortoise-shell like; and the nouns asellus - small ass (carrying three dark bags), camelopardalis - giraffe, caputdraconis - head of dragon, caputserpentis - head of snake, cervus - stag, chrysalis* - pupa (chrysalid), hirundo - swallow, lynx - lynx, mus - mouse, nebrites - hind-calf, scarabaeus - scarab beetle, talpa - mole, tigris - tiger, turdus - thrush, ursellus - small bear, zebra - zebra.

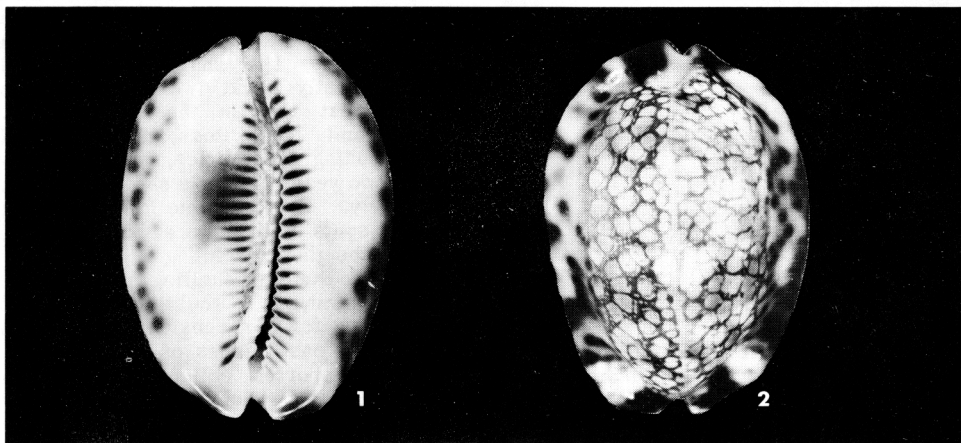
Comparisons with human beings are less frequent, as casta - chaste (immaculate), histrion - harlequin, scurra - jester, virginalis - virgin; or with mythological beings: argus* - Greek Argos with hundred eyes, leviathan** - a Hebrew mythical giant dragon, thersites* - a hump-backed Greek hero, titan - a mighty Greek deity of mythology.

Some names indicate similarity to other cowry species: arabica - small arabica, cervinetta - small cervus, cribellum - small cribraria (incorrect diminutive), subteres - allied to teres (not "rather cylindrical"); other names express general terms of affinity or facts concerning history of naming: cernica - separated (from spurca, badly formed adjective from cernare), clandestina - hidden (among Linnaeus' shells), decipiens - deceiving (to be confounded with thersites), episema* - conspicuous, errones (misprint for erronea?) - erroneus (confounded with stolida), hesitata (incorrectly spelled instead of haesitata) - hesitated (in re-christening), maturata - matured (why?).

The name moneta (coin) refers to the former use of the cowry as coin in Africa, and caurica** is a badly latinized "cowry"; this word comes from the Hindoostanee language in which it means small coins, as moneta and annulus have been used as money in ancient India too: they have been called Kaparda in Sanscrit, and Kavari by

(Continued on page 7)

Cypraea maculifera From The Seychelles



Photos - Trostel

Slightly Enlarged

Figs. 1 & 2 illustrate two views of Mauritia maculifera Schilder from the Seychelles. Length 46.2 mm.

This illustration should have accompanied an article by Dr. Schilder entitled "A Surprising Range Extension of a Cowry Species", p. 4, HSN for June, 1965. At that time lack of space prevented its inclusion.

The above shell, presently in the collection of W. Cernohorsky, was collected by Mrs. Maureen Forster on Frigate Island, in the Seychelles.

LATIN COWRY NAMES

(Continued from page 6)

the Mahrats; the word cowry may, however, also derivate from Kori which means tax in the language of Gujarat in India.

2. Many names derive from the habitat of the holotype: from countries *chinensis* - China, *gambiensis* - Gambia, *indica* - (East) India, *melanesiae* - Melanesia, *mexicana* - Mexico, *surinamensis* - Surinam, (*Guiana*), *westralis* - West Australia (incorrectly contracted word); from seas: *erythraeensis* - from the Erythraean (Red) Sea; from islands: *luchuana* - Lu-chu (Ryu-kyu) Islands, *mauritiana* - Mauritius, *novae-britanniae* - New Britain, *ogasawarensis* - Ogasawara (Bonin) Islands; from cities: *euclia* - Euclia, West Australia; or from bays, capes, etc.: *algoensis* - Algoa Bay, *capensis* - Cape of Good Hope. Some geographical names indicate the habitat relative to that of allied species, as *aequinoctialis* - equatorial, *hesperina* and *occidentalis* - western; *superstes* - survivor (of the fossil *martini*).

3. Specific names established in honor of a male scientist have been spelled by affixing one i to his surname: *artuffeli*, *barclayi*, *catei*, *childreni* (emended), *coxeni*, *dillwyni*, *fultoni*, *gaskoini*, *hirasei*, *hungerfordi*, *kieneri*, *kuroharai*, *landeri*, *langfordi*, *listeri*, *martini*, *moelleri* (emended), *ostergaardi*, *reevei*, *robertsi*, *rosselli*, *summersi*, *teramachii*, *teulerei*, *tomlini*, *vredenburgi*, *walkeri*, *wilkinsi*; if two i have been affixed originally, as in *beckii*, *boivinii*, *broderipii*, *comptonii*, *cumingii*, *friendii*, *godallii*, *humphreysii*, *lamarckii*, *owenii*, the second i should be suppressed according to the International Rules of Zoological Nomenclature (1958), whereas *valentia* (named after Lord Valentia) should be called *valentiae* in future. Compound names must be written in one word, as *depriesteri* and *macandrewi*, as well as names containing both the christian name and the surname: *raysummersi* (Ray Summers).

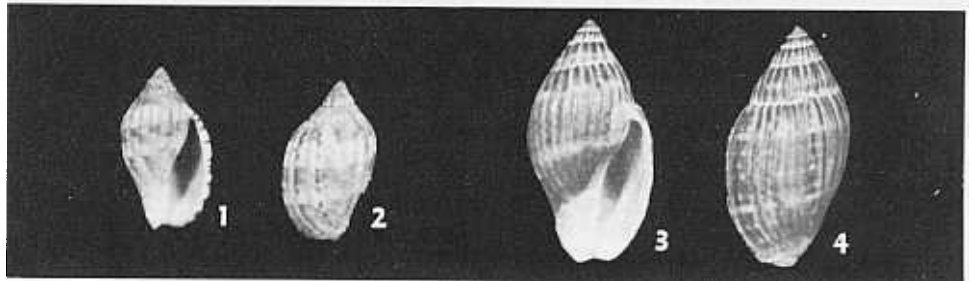
Names of scientists also may be used as adjectives, affixing ana as in *grayana*, *rashleighana*, and *sowerbyana*, or affixing iana as in *bregeriana*, *dayritiana*, *petitiana*, *schilderiana*.

Species dedicated to a woman will be named by affixing ae to the surname as *hammondae* and *saulae*, or to the Christian name: *annetae*, *katsuae*, *mariae*, *mariae*; *schilderorum* expresses dedication to both Schilders, and *catholicorum* to the German Catholic missionaries in New Britain who sent us several thousands of cowries.

4. The generic name *Cypraea* is to be derivated from the Greek *Kyprios* (i.e. living in the island Cyprus), a surname of Aphrodite or Venus, the ancient deity of beauty.

VOLUTE PROBLEMS

Three Geographical Forms of *Lyria nucleus* by CLIFF WEAVER



Photos - Weaver

Actual Size

Figs. 1 & 2 illustrate typical *Lyria nucleus* Lamarck, 1811 from Norfolk Id., about 800 miles off Australia's central east coast. Measurements 22 x 12 mm. Figs. 4 & 5 show a larger form from New Zealand's Kermadec Islands some 700 miles due east of Norfolk Island. Measurement 31 x 16 mm. Iredale gave this form the name *insignata* in 1930.

Not illustrated here is another geographical form from New South Wales, also with strong longitudinal plications on the body whorls, which was named *peroniana* by Iredale in 1940. The names *peroniana* and *pattersonia* Perry, 1811 are both considered synonyms of Lamarck's *nucleus*. However, the possibility of racial status exists due to the distance and isolation involved. Therefore, for the time being, it would not be improper to designate the three populations involved as (1) Norfolk Id. = *Lyria nucleus nucleus* Lamarck, 1811. (2) Kermadec Ids. = *L. nucleus insignata* Iredale, 1930. (3) New South Wales = *L. nucleus peroniana* Iredale, 1940.

SHELL AWARDS FOR JULY AND AUGUST

During the past two months 34 HMS members have sponsored nearly 100 new members and have been awarded, or are being awarded, shells of their choice. Below is a list of members and the new members they have sponsored with shells that have been awarded. If no shell is listed it is because the sponsoring member failed to designate a desired shell. If those members would like to receive a shell please let us know as soon as possible.

All shells listed will have been mailed by August 20. If, after a reasonable time, you do not receive your shell, let us know so we can send out a tracer on the parcel. Your co-operation, interest, and dedication to your society in sponsoring new members, is appreciated by all of us.

HMS MEMBER	NEW MEMBER	SHELL AWARDED
Capt. C. D. Boatwright	R. W. Barringer - - - - -	<i>Murex pele</i> *
Mrs. Jean Bromley	Capt. and Mrs. Cowell - - - - -	None
	Barney Owen - - - - -	None
Mr. Lucas Calves	Mr. L. Yokoi, Mr. F. Akaji - - - - -	None
	Mr. J. Tolbe - - - - -	None
	H. Roswell - - - - -	None
Dr. Austin W. Cheever	Leland Miyano - - - - -	<i>Murex pele</i> *
W. H. Christensen	H. M. Burkitt - - - - -	None
Mrs. Jean Couacaud	Sgt. and Mrs. Gassett - - - - -	<i>Cypraea teres</i>
Capt. W. C. Cowell	Lt. and Mrs. Loring - - - - -	<i>Conus vexillum</i>
	Sgt. Ridgeway - - - - -	<i>Cypraea poraria</i>
	Air. Terry Palmore - - - - -	<i>Conus leopardus</i>
	Cary Barrett, David Bean - - - - -	None
Mr. Jack Cramer	Mr. Ian Gower - - - - -	<i>Cypraea fimbriata</i>
Mrs. John D' Aiuto	Mrs. George Torrence - - - - -	<i>Mitra incompta</i>
Sgt. DuVaul	Col. MacGregor - - - - -	<i>Cypraea fimbriata</i>
Marjorie Furlong	L. G. Livingston - - - - -	<i>Cypraea teres</i>
Bill and Cathy Gassett	Mrs. E. J. Trexler - - - - -	<i>Murex pele</i> *
	(Mike Trexler is Assoc. Mem.)	
Mrs. G. M. Hansen	Mrs. P. Van Der Poll - - - - -	<i>Cypraea granulata</i>
Mrs. Jean K. Harriger	W. Hays - - - - -	None
Mr. Lyman Higa	Robert Hiraoka, A. Lincoln - - - - -	None
N. J. Kinbacher	F. Davis - - - - -	<i>Cypraea maculifera</i>
Mr. Dale Lent	Lauren Peterson, Robert - - - - -	One <i>Cypraea scurra</i> for the three members
	Russell, D. R. Watts - - - - -	None
Miss Ginger Letterly	S. E. Streets - - - - -	None
Lt. John M. Loring, Jr.	Capt. H. B. Conley, Jr. - - - - -	<i>Cypraea vitellus</i> #
	W. Shilling - - - - -	None
Mr. Floyd Miller	R. C. Bernardi - - - - -	<i>Latirus nodus</i>
Elsie Malone	C. Joyner - - - - -	None
Mrs. Virginia Morton	Mr. and Mrs. Knight - - - - -	None
Edith Mugridge	Mary Beaver - - - - -	<i>Cypraea teres</i>

(Continued on page 8)

Helpful Hints For Shell Hunters

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SHELL AWARDS FOR JULY AND AUGUST (Cont'd from page 7)

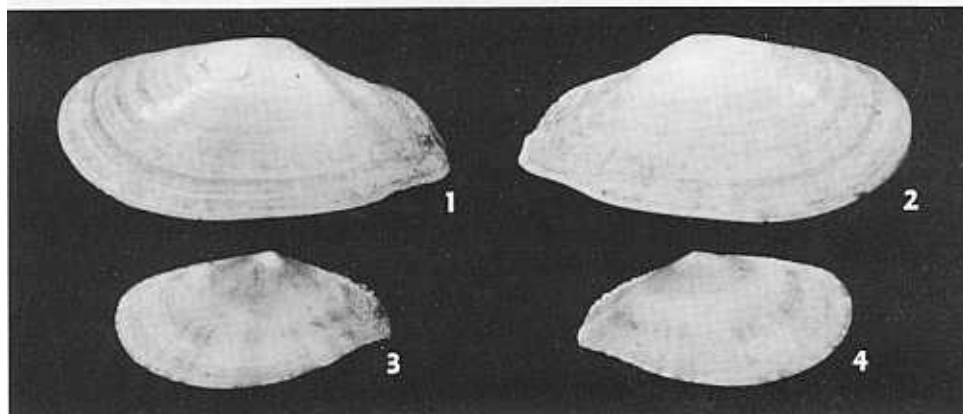
<u>HMS MEMBER</u>	<u>NEW MEMBER</u>	<u>SHELL AWARDED</u>
Mr. J. Ortelt	Mr. and Mrs. Carole Glickman -	<u>Conus textile</u>
	Laura G. Schafer - - - - -	<u>Cypraea granulata</u>
	Joanne Coon - - - - -	<u>Cypraea teres</u>
	Edward Dunham - - - - -	<u>Conus bandanus</u>
Mr. B. Owens	Mr. Vrzonca Wladyslaw - - - -	<u>Latirus nodus</u>
Lt. (jg) J. J. Patek	Lt. James T. Berry - - - - -	<u>Any Cypraea</u>
E. C. Pinkerton	Mr. Dale Stroud, Mr. John P. - -	None
	Brunner, Mr. John Saxby - - - -	None
	Ginger Letterly - - - - -	None
	Coastal Bend Shell Club - - - -	None
Mr. Richard Prince	Mrs. Marjorie Furlong - - - - -	<u>Conus ebraeus</u>
Mr. Kenneth Rhein	Mrs. A. R. Cox - - - - -	None
Mr. Neal Seamon	Howard Graves, Mrs. D. C. - - -	None
	Sorrells, H. L. Kingston - - - -	None
	Miss Esther Bowan, Mr. L. Adams -	None
	W. E. Viney, Mrs. Kay Lawrence -	None
	Norman Sandburg - - - - -	<u>Murex pele*</u>
	Mrs. Adelaide Davis, Mr. Max - - -	None
	Waxman, Mr. Wil Janssen - - - -	None
	V. John, Mrs. Sylvia Warshaw - - -	None
	M. Smith, Albert Hirsch, Sr. - - -	None
	Mrs. Wm. Ptolemy, Alice Burke - -	None
	Gladys Coils, Helmut Meier - - -	None
	Carmen Trapani, Adaline - - - -	None
	Westerfield, Esther Tomaso - - -	None
E. Trexler	Sue Angell - - - - -	<u>Cypraea teres</u>
W. E. Viney	Mr. S. Edward Tomaso - - - - -	<u>Murex pele*</u>
Mr. C. Withrow	Mr. C. G. Bennett - - - - -	<u>Distorsio anus</u>
	Mr. Taffy Hook - - - - -	<u>Latirus nodus</u>
	Mrs. Elizabeth Mathews - - - - -	<u>Bursa afinis</u>
	F.V. Descroizilles, Lee Pequignot,	<u>Conus pertusus</u> for the
	R. Fleming Jones - - - - -	three new members
	Dr. John H. Ferguson - - - - -	<u>Strombus helli*</u> for the
	K.L. Johnson, W.G. Brown - - - -	three new members
	Paul Jennewein - - - - -	<u>Cypraea sulcidentata</u> for
	W. R. McLean - - - - -	the two new members
Mr. Harold Williams	Mrs. Howard Moore - - - - -	<u>Conus obscurus</u>

NOTE: * Indicates shells that were not live collected but they will be good specimens and not beach worn.

Indicates shells that are not Hawaiian but were requested by sponsoring member.

Shells will be mailed by parcel post and may take two to four weeks to reach the address.

HAWAII'S DELICATE BIVALVE Tellina crassiplicata



Photos - Weaver

Mag. x 1.5

To find a complete living specimen of this beautiful and delicate bivalve, the collector in Hawaii must use a sand dredge. The water need not be deep, 20 - 30 feet being sufficient.

Figs. 1 - 4 (left valves to the left) illustrate two views of two specimens of Tellina (Tellinella) crassiplicata Sowerby, 1848 dredged off Waikiki, Oahu, in 5 - 10 fathoms, sandy bottom. Measurements 34 x 16.5 mm. and 23.6 x 12 mm.

The shell is yellowish in color variously rayed with rusty red. Surface of shell is sculptured with fine concentric thread-like ridges.

The most prominent characteristic is the beaked posterior end which is twisted to the right, with a fold in the right valve and a corresponding furrow in the left. These valves fit as if molded to one another.

Pilsbry named this shell Tellina exulta hawaiiensis, Proc. Acad. Nat. Sci., Phil., 1917. D., B. & R. consider this to be a synonym of crassiplicata Sowerby, 1848.

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