

AFRICA'S RAREST COWRIES.

By LLOYD E. BERRY, LOS ANGELES, U.S.A.

There are places in the world where collectors of marine shells may find a greater number of species than is provided by the African coast, but the "Dark Continent" has the distinction of providing some of the most interesting and rarest shells.

Many shell enthusiasts collect all groups or families of shells; others concentrate on certain families such as the *Cypraeidae*, more commonly called Cowries.

Cowries are considered to be the "aristocrats" of all shells, for in their natural state they are found with a high glossy polish and need no human means of bringing forth their beauty.

The east coast of Africa offers over 45 species of cowries for collectors who know where and when to search. The south-east coast from Mozambique to the Cape offers a large number of these, among them some of the rarest.

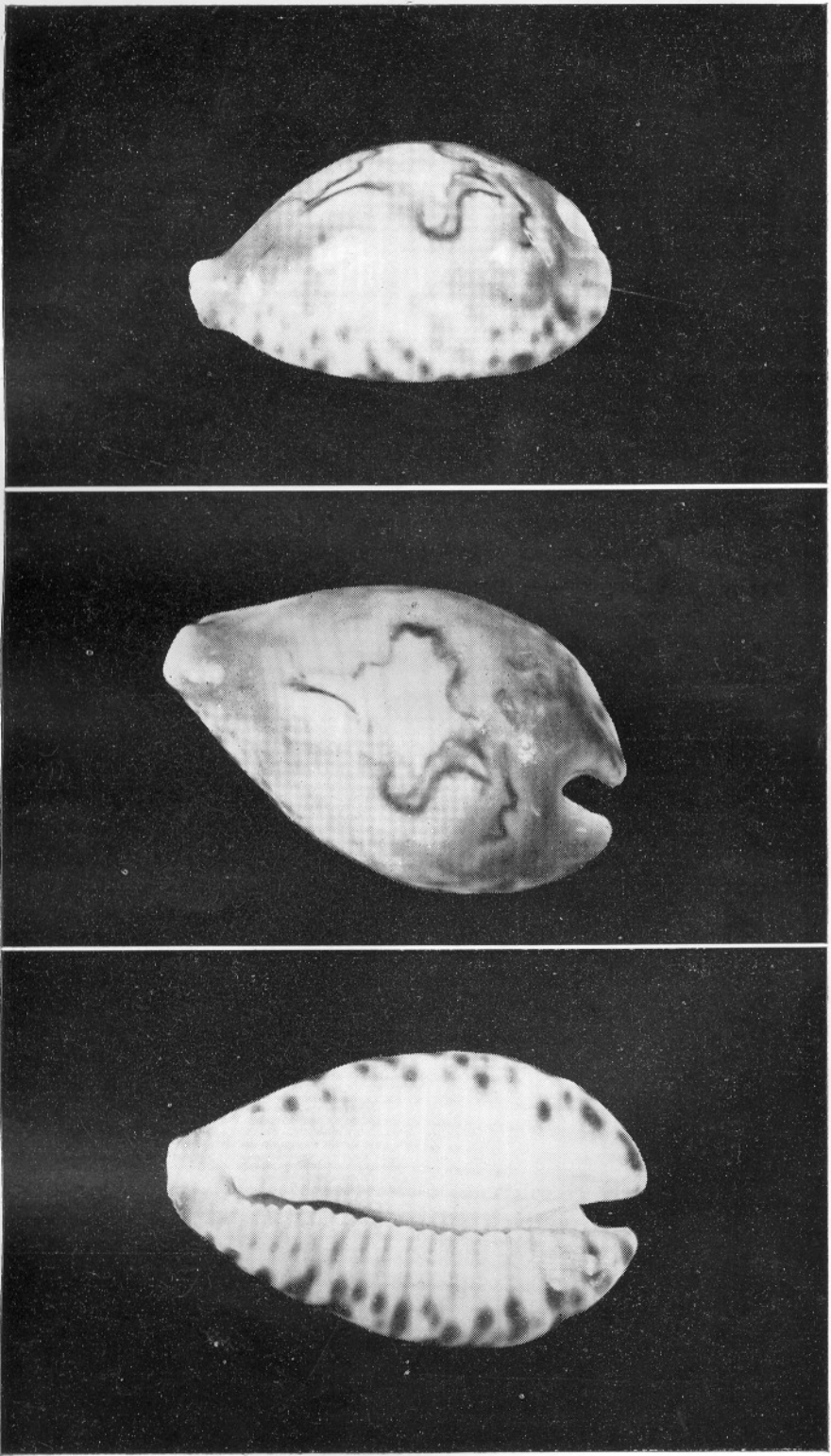
As many of the East African cowries are quite common over the whole of the Indian Ocean, east to Australia thence north into the Pacific Ocean, we will attempt to list only those considered rare or semi-rare. The names as given are first the genus, then the species followed by the name of the authority or person's name who described the particular species.

The East African cowrie that seems to be number one on all collectors' lists is the one known as *Bernaya fultoni* Sowerby. The exact number of this species in collections is not known, but it is certainly very few. However, it is not a cowrie to be had by combing the beaches unless perchance a dead specimen has been washed ashore by storms. (See figure)

It is a deep water shell, usually obtained by dredging or trawling. Another source is the stomach of a fish commonly called the "mussel-cracker" which seems to prefer molluscs of various sorts for its food instead of small fishes.

The collector who is acquainted with fishermen or with people working in the canneries should have a better opportunity of obtaining this species if he is not already equipped with a boat for dredging or trawling. If fishermen would only realize it, the value of this shell is greater than the fish within which it is found!

Bernaya fultoni is easy to identify for it is among the larger cowries, the average size being from 55mm to 70mm in length and 35mm to 40mm in width and height. It can be called pear-shaped with the top being quite humped. The dorsal or top markings are irregular and scattered,



One of Africa's Rare Cowries, *Bernaya fultoni* Sowerby. The specimen illustrated above is in the collection of Mrs. H. Boswell of Johannesburg, to whom the Society is indebted for the photographs. (x 0.9)

of a reddish-brown or chestnut colour on a light background. The lateral or side markings become a series of large dark spots which carry part way over on the base, which is white. The teeth on both columellar and outer or labial lips are coarse and red in colour. The known locality for this shell is around the Natal coast, and specimens have been collected in St. Francis Bay.

Cypraeovula amphithales Melvill is also a South East African cowrie ranging from Durban to Port Elizabeth. It is considered rare. To the beginner or unobserving collector this shell may be and has been mistaken for the more common *Cypraeovula capensis*. However, its average size is 24 to 27mm which is 3 or 4 mm shorter than *capensis* in length. The dorsum or top of *amphithales* is smooth whereas the ribs or ridges and grooves on *capensis* continue over the top from side to side. The sides or lateral zones of *amphithales* are spotted and on the few shells I have observed the left side was spotted so densely that they became almost a solid dark pattern or wide line along the full length of the shell. This never occurs in *capensis*.

Both of these species have a pale brownish to yellow background with an irregular dorsal blotch of a darker brown. The dorsal blotch on *amphithales* is weak and irregular and could be called just a group of irregular markings whereas the dorsal blotch on *capensis* is solid or just one marking.

As I have never seen a fresh specimen of *Cypraeovula fuscovulva* Shaw I can only give the minor details of it from drawings and photographs which I have seen. It is sometimes known as *C. similis* Gray. It occurs around the Cape Hope region and my one dead specimen is from Cape Agulhas. Schilder's book on the Cypraeas lists this shell as common but I have found it difficult to obtain, even from collectors who live where it occurs.

I presume it to be a deep water shell and dead specimens are washed ashore by storms. The dead specimen at hand measures 41mm in length. The columellar teeth are short and do not extend over the inner lip. The teeth on the labial or outer lip are also short but more coarse and extend the full length of the lip. The aperture is wide, especially so at the anterior end. The shell is gibbous or swollen and inflated. The left side is round and full with a convex base, whereas the right side has a rather heavy margin which continues the full length of the shell and over both terminals. The base in fresh specimens is a pale rust colour and the teeth are white. The dorsum or top is of a dark rust colour, darker than the base and has no spots on the top or sides. This shell is not to be confused with the common *Cypraeovula fuscotentata* which appears in numbers around Port Elizabeth and Port Alfred.

I am sure that most collectors in the area of Algoa Bay, Port Alfred and East London are familiar with the little *Cypraeovula edentula* Gray

which is about $\frac{5}{8}$ to $\frac{7}{8}$ of an inch in length or approximately 22mm. This cowrie is rated as common in its area and has a pale tan background with an irregular dorsal pattern of darker tan or brown with dark brown spots on both sides; the right side has a heavy margin while the left side is smooth and rounded or inflated. The teeth in *edentula* are almost obsolete.

I mention *edentula* only for comparison with the little *Cypraeovula algoensis* Gray, which appears much the same in shape, size and colour until one observes the base. In *algoensis* the dorsal colour may be more light in shade but both lips are adorned with teeth. The occurrence of *algoensis* compared to *edentula* is in the ratio of about 1 to 200, therefore I place it in the class of being rare.

Palmadusta contaminata distans Schilder can be classed as very rare for there are very few of these in collections. It is considered large if over $\frac{1}{2}$ inch or about 13mm. The teeth are small to obsolete, the right side is margined. The colour of the top is pale yellow or cream with faint brown spots, the spots being more numerous on the sides. The teeth and base are white.

The South East African *Palmadusta ziczac* is called variety or subspecies *misella* Perry. Its average size is slightly larger than *Palmadusta contaminata* and is from 16mm to 18mm in length. The colour is an off-white with a series of zigzag or arrow markings of pale brown or chestnut. The base and teeth are yellowish. This shell is not to be confused with *Palmadusta diluculum* Reeve; *diluculum* is large, very dark and much more common than *ziczac*, although at one time it was called by that name due to its pattern.

Erosaria marginalis Dillwyn. Although this cowrie is most uncommon its range extends from northern Kenya to the northern Cape Hope area. Its average size is about 1 inch or 26 mm and it cannot be confused with any other cowrie in this area. Its ground colour is a pale rust with a trace of lavender throughout. The terminals and base are lavender in colour. The columellar teeth are numerous but short while those on the labial or outer lip are slightly larger and coarser but less in number. The pale rust coloured dorsum is marked with numerous dark brown spots interspaced with pure white spots about one half the size of the brown ones.

The only shell that comes close to *marginalis* in appearance is *Erosaria helvola* but *helvola* lacks the lavender colour on the base. *Helvola* is also a much heavier and solid shell. Its average size is also smaller.

Africa offers many other rare cowries on its northern coast. There are also several on the west coast rated from common to rare but there seem to be few collectors around Cape Verde where they occur, consequently there are few of these in collections.

Collectors searching for cowries will be wise to confine their hunting to rocky shores and coral reefs. Many cowries prefer to remain under rocks and are inclined to avoid sandy beaches for the grains of sand get under the mantle and cause irritation. However, a few in the Phillippines do bury themselves in coarse sand, like members of the olive family.

With the latest improvements in the aqua-lung, skin divers are able to go to greater depths (over 100 feet) and many cowries are now being collected from reefs and rocky bottoms that before were not obtainable except as dead specimens washed ashore.

For the benefit of those who are not familiar with the curing and cleaning of cowries, it is well to know that these shells can be ruined by improper cleaning methods. Many believe that boiling will blister or crack the shell but I have had very good luck with this method but only by placing the shells in cold water and bringing it to a boil for not more than two minutes, then allowing to cool slowly.

Blistering and cracking is caused by dropping the shell in water that is already boiling or dipping them in cold water while still very hot, causing too sudden contraction or expansion.

A slower method is to place the shells in cold water and let the meat decay. The water should be changed every 48 hours for a week or ten days.

Some good results have been obtained by placing the shells overnight in the ice compartment of an ice box or refrigerator as this causes the meat to shrink.

In all cases, a small knife and bent wire are handy tools for removing the animal.

To make a collection more interesting and of greater value, always label every specimen as to locality, date found and the name of the collector. Other information may be written on the label but these three items are essential. In the event of exchange other collectors will request exact data with specimens.

Some families of shells are seldom found alive but whenever possible it is better to collect live specimens. Dead shells have little value unless very rare.

Experienced collectors avoid specimens which have been dipped in varnish or lacquer to make them shine or look pretty. Cowries have a natural polish and do not need any help from mankind to make them look beautiful.