

# Cowry shells of East Africa

**From notes made over the years by C J (Kit) Metcalfe- these have been collated and updated by his son, Shaun Metcalfe, who was also involved in the collection.**

C J (Kit) Metcalfe's great hobby was shell collecting. He specialised in cowry shells and later on worked on cone shells. He became a well-known local expert on cowry shells.

I was lucky enough (with Chris Chaney and my sisters Alison and Christine) to be involved in "shelling". Many happy hours were spent looking for shells at low tide.

He travelled all over the Kenya Coast in his efforts. We worked the mud flats of Tudor and Port Reitz, mangrove swamps, the inner coral reefs (especially Ras Serani, below the Mombasa Golf Course) and most of the outer reefs.

The outer reefs extended from Shimoni in the South, to Diani, Tiwi and Shelly and then up to Nyali, Bumburi, Shanzu, Kikambala, Shimo la Tewa, Takaungu and up to Kiunga. I have also obtained information on Tanzanian shells- see References.

In those days many people collected shells. There was a full collection of cowries in the then Coryndon Museum, some of these donated by Kit Metcalfe. No licence was required to collect shells in the 50s and 60s. These days a licence is required. Shell collecting is now illegal as most of the reef areas of Kenya are National Parks. So, collect shells at your peril.

Cowry shells are very recognisable, colourful and highly polished. Cowry shells are "gastropods", that is, single footed animals. In living shells the animal lives inside the shell and a mantle, or part of the body, has two side flaps that extend over and meet on the top of the shell- this results in the high polish so characteristic of the family. The sexes are separate but the shells are identical. Female cowries lay eggs and sit over them or nearby until hatching.

C J Metcalfe's collection was started in 1954; he continued his interest in his cowry collection until he passed away in the 1986.

The general name for cowries is "Cypraea" (from the family "Cypraeidae"), and there are a number of subfamilies. Some collectors just use "Cypraea" as the nomenclature and drop the subfamily genus (tribe) names. For ease here I have used both.

"**Cypraea**", for the cowry family.

And, as an example- "**Staphylea**" for the genus.

And then- "**staphylea**" for the actual cowry name.

Cowry names in English are also shown.

There are 50 true cowry types on the East African Coast. This area extends from Dar es Salaam in Tanzania and Zanzibar to Kiunga on the Kenya-Somali border.

We hope that you can use this guide to identify any shells that you have. All 50 true cowries are shown.

1- *Cypraea Staphylea staphylea* (subspecies *laevigata*). **Grooved cowry.**

Length: 1.7-2 cm

Rare. This cowry seems to be more frequent in Dar es Salaam, Tanzania.



2- *Cypraea Staphylea limacina* (subspecies *interstincta*). **False grooved cowry.**

Length: 2-2.7 cm

Frequent to rare. Colouring can be pale brown with orange brown ends. Similar to the smooth form of *C. staphylea* above.



3- *Cypraea Staphylea nucleus* (subsp *madagascariensis*). **Wrinkled cowry.**

Length: 2.4-2.6 cm

Rare. The colour of the base varies from cream to white.



4- *Cypraea Erosaria gangranosa* (subsp reentsii). **Gangrene cowry.**

Length: 1.2-1.6 cm

Extremely rare. The shell can be yellowish brown to greyish, sometimes with a few obscure brown spots.



5- *Cypraea Erosaria helvola* (both subsp argella and mascarena). **Star cowry.**

Length: 1.8-3.2 cm

Common. This cowry can be very variable in colouring and size.



6- *Cypraea Erosaria caput-serpentis*. **Snake's head cowry.**

Length: 2.7-3.6 cm

Frequent. Margins on this cowry can be dark brown to a rich chestnut colour. Common in Seychelles.



7- *Cypraea Erosaria* **erosa**. (includes subsp **similis**). **Margined cowry**.

Length: 2.1-4 cm

Frequent. Colouring varies from grey-brown to a pale greenish-grey with some specimens having no side blotches.



8- *Cypraea Erosaria* **poraria** (also *Ravitrona poraria poraria*). **Porous cowry**.

Length: 1.4-1.7 cm

Extremely rare. Sometimes the white spots shown below are less pronounced.



9- *Cypraea Erosaria* **nebrites** (subsp **mozambicana**). **False margined cowry**.

Length: 2.2-3 cm

Very rare



10- *Cypraea Erosaria marginalis*. Rare margined cowry.

Length: 2.4-2.6 cm  
Extremely rare



11- *Cypraea Erosaria lamarkii*. (includes subsp lamarkii and sharoni). Lamark's cowry.

Length: 3.5-4 cm  
Frequent to rare. This species prefers thick grey mud and mangrove swamps as its habitat.



12- *Cypraea Erosaria turdus*. Thrush cowry.

Length: 2.7-4 cm  
Very rare. There is also a subspecies *turdus zanzibarica*. This looks very similar but has thickened margins and is bigger in size, length 3.8-4 cm. This "*zanzibarica*" shell is extremely rare.



13- *Cypraea Monetaria annulus* (subsp *camelorum*). Ringed cowry.

Length: 2-2.7 cm

Extremely common, abundant



14- *Cypraea Monetaria moneta* (subsp *icterina*). Money cowry.

Length: 1.5-2 cm

Common. Smaller shells are creamy white, but there is a larger variety of crome-orange with heavily margined yellow lemon base.



15- *Cypraea Erronea erronea*. Wandering cowry.

Length: 2-3.2 cm

Extremely rare





16- *Cypraea Erronea onyx* (subsp *adusta*). **Dark onyx cowry.**

Length: 3.5-4 cm

Rare. This cowry prefers thick mud and mangrove swamps.



17- *Cypraea Erronea caurica* (both subsp *elongata* and *dracaena*). **Thick-edged cowry.**

Length: 1.8-3.5 cm

Very common. The colour varies from a dark khaki to a flesh coloured pink,



18- *Cypraea Palmadusta clandestina* (subsp *passerina*). **False three-banded cowry.**

Length: 1.6-1.8 cm

Rare in Kenya, but considered “uncommon” in Dar es Salaam, Tanzania.



19- *Cypraea Palmadusta asellus* (subsp *asellus*). **Three-banded cowry.**

Length: 1.3-2 cm  
Very rare



20- *Cypraea Palmadusta ziczac* (subsp *misella*). **Pale zigzag cowry.**

Length: 1.2-1.4 cm  
Very rare



21- *Cypraea Palmadusta diliculum* (both subsp *diliculum* and *virginalis*?). **Dark zigzag cowry.**

Length: 1.6-3.0 cm  
Rare





22- *Cypraea Palmadusta felina* (subsp *felina*). **Cat cowry.**

Length: 1.8-2.2 cm  
Frequent to rare



23- *Cypraea Palmadusta fimbriata* (subsp *durbanensis*). **Small-toothed cowry.**

Length: 1.4-1.7 cm  
Rare. This shell is considered frequent in Dar es Salaam.



24- *Cypraea Palmadusta microdon* (subsp *chrysalis*). **Small toothed cowry.**

Length: 1.3-1.5 cm  
Extremely rare and very similar to **fimbriata**



25- *Cypraea Palmadusta punctata* (subsp *punctata*). **Brown spotted cowry.**

Length; 1.4-1.9 cm  
Very rare



26- *Cypraea Blasicrura kieneri* (subsp *kieneri*). **False swallow cowry.**

Length: 1.2-1.4 cm  
Frequent



27- *Cypraea Blasicrura hirundo* (subsp *francisca*). **True swallow cowry.**

Length: 1.5-1.7cm  
Extremely rare



28- *Cypraea Blasicrura owenii*. Owen's cowry.

Length: 1.6-1.8 cm  
Extremely rare



29- *Cypraea Blasicrura stolidia* (subsp diauges). Square-spotted cowry.

Length: 2.7-3 cm  
Very rare. This shell varies considerably in background colour, size and number of blotches.



30- *Cypraea Cribraria teres* (subsp alveolus). Long cowry.

Length; 2.3-3.0 cm  
Frequent to rare



31- *Cypraea Cribraria chinensis* (subsp *violacea* and *variolaria* in Seychelles). **Violet-spotted cowry, also known as Chinese cowry.** Some experts call this by a later name, ***C. cruenta***.

Length: 2.8-3.2 cm  
Frequent to rare



32- *Cypraea Cribraria cribraria* (subsp *comma*). **Spotted cowry.**

Length: 1.6-2.2 cm  
Rare. See notes below for ***C. esontropia***.



33- *Cypraea Luria isabella* (subsp *isabella*). **Isabelline cowry.**

Length: 2.5-3.5 cm  
Common. Some shells do not have the black striations.



34- *Cypraea Callistocypraea testudinaria* (subsp *ingens*). **Tortoise cowry.**

Length: 10-11 cm

Rare. This is a rather ugly cowry with a worn look.



35- *Cypraea Talparia argus* (subsp *contrastriata*). **Pheasant or Eyed cowry.**

Length: 7-8.5 cm

Very rare

This is an unbelievably beautiful shell. It is unique.



36- *Cypraea Talparia talpa* (subsp *imperialis*). **Mole cowry.**

Length: 5.5-8.5 cm

Frequent to rare. This has a lovely polished shell.



37- *Cypraea Mauritia mappa* (subsp *alga*). **Map cowry.**

Length: 6-8 cm

Extremely rare



38- *Cypraea Mauritia scurra* (subsp *scurra*). **Jester cowry.**

Length: 4-4.5 cm

Rare. The shell is widely distributed throughout the East African coast.





39- *Cypraea Mauritia arabica* (subsp *immanis*). (Giant) Arabian cowry.

Length: 7-9 cm

Frequent. See Notes for comments on *C. grayana*.



40- *Cypraea Mauritia histrio*. Harlequin cowry.

Length: 4.0-7.5 cm

Common to frequent. Background colour ivory to eggshell blue.



41- *Cypraea Mauritia depressa* (subsp *dispera*). Flattened harlequin cowry.

Length: 4-4.5 cm

Extremely rare. This species is very similar to *histrio* above, but much more compact and flattened.



42- *Cypraea Mauritiana mauritiana* (subsp mauritiana). **Black humped cowry.**

Length: 7.5-10 cm

Frequent to rare. An extremely beautiful cowry.



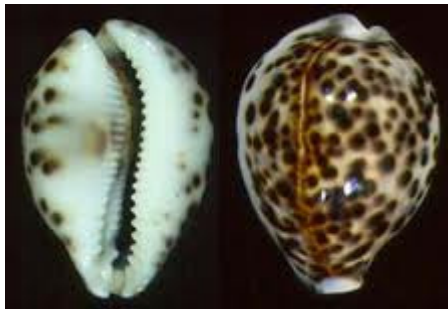
43- *Cypraea tigris* (subsp tigris). **Tiger cowry.**

Length: 6.5-10.5 cm

Common

The size and colours of this very common cowry are very variable.

Tiger cowries found on inshore reefs or sandy areas with sea grass tend to be smaller in size and have a much whiter base and background.



44- *Cypraea pantherina* (subsp *pantherina*). **Panther cowry.**

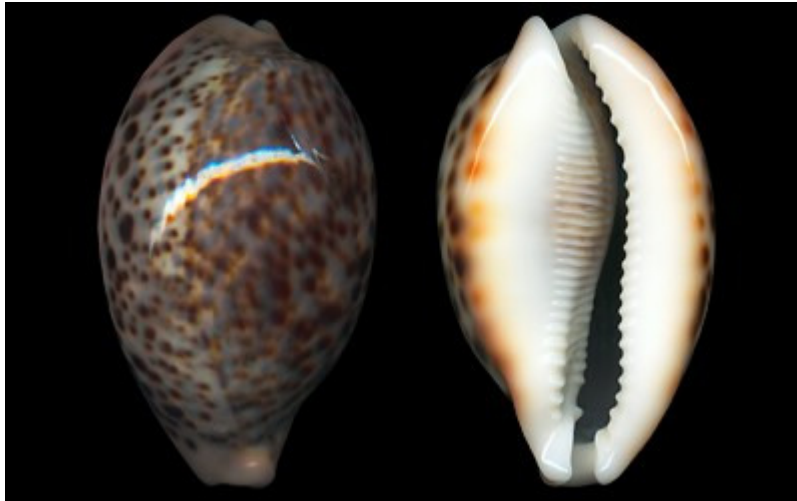
Length: 7-8 cm  
Extremely rare

This cowry is very common in the Red Sea.

There are very few specimens that are known in Kenya or Tanzania.

The cowry cannot be confused with *C.tigris*- photographs do not do this *C. pantherina* shell justice.

*C. pantherina* has a much more oval and elongated shell and the spots are smaller and more numerous in the East African shell as compared with *C. tigris*.



45- *Cypraea lynx* (subsp *lynx*). **Lynx cowry.**

Length: 3-4.8 cm

Common to abundant. The shell is very variable in colour.



46- *Cypraea vitellus* (subsp dama). **Fallow deer cowry.**

Length; 2.5-6.0 cm

Frequent to rather common. The white spots shown can be bluish in colour.



47- *Cypraea carneola* (subsp sowerbyi). **Flesh coloured cowry.**

Length: 2.5-6 cm

Common



48- *Cypraea Pustalaria globulus* (subsp brevirostris). **Globular cowry.**

Length: 1.4-2.1 cm

Very rare



**49- Cypraea Purpuradusta gracilis. Graceful cowry.**

Length: 1.6-1.7 cm  
Extremely rare



**50- Cypraea Pustalaria cicercula (subsp lienardi). Chick-pea cowry.**

Length: 1.4-2.1 cm  
Extremely rare. This race is known in Seychelles, Madagascar, Mauritius, Aden and the Gulf of Suez. It has now appeared in Tanzania and Northern Kenya. Only 3 or 4 examples exist in East Africa to our knowledge. This cowry is very similar to **C. globulus** and the shells can be easily confused.



**A legend on nomenclature- “Cypraea”.**

We would like to think that cowries (Cypraeidae) are named after supposedly the most beautiful and desirable woman in the world of fable. Cowries are, indeed, the most beautiful of shells.

“Venus (Aphrodite) was born in the foam of the sea, was wafted to the isle of “Cyprus” by a soft breeze. She was received by the “Seasons” who attired her and then led her to the assembled Gods. This multitude admired her beauty and each one desired her for a wife. Jupiter, father of the gods and men, gave Venus to Vulcan, the forger of thunderbolts”

As a point of interest, Cupid was the son of Venus.



## Notes-

We believe that there are no other cowry species living on the coast of East Africa. The cowries that are shown above were all found as live specimens.

However, there are unconfirmed reports of four other types of cowry that may exist. These are:

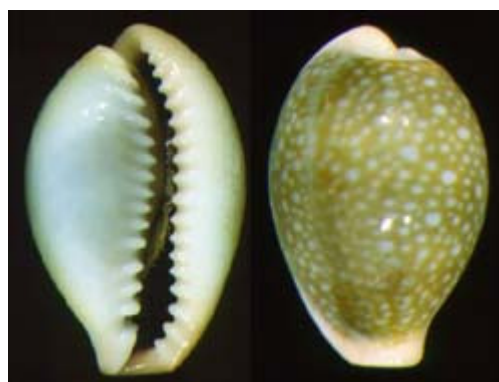
\*\* **Cypraeaovula edentula**. Schilder reports it in South Africa, Port Elizabeth to Fish River. A dead worn specimen was found in Tanzania- existence of this cowry would be extremely surprising.

\*\* **Cypraea Erosaria miliaris (or inocellata)**. A local fisherman in Zanzibar provided a specimen of this cowry. Again, Schilder does not record this for East Africa; it is a North Australia/Japanese shell. In our opinion there may have been some confusion with **C. lamarkii** (Number 11 above). Verification required.

**Cypraeaovula edentula**, Toothless Cowry.



**Cypraea Erosaria miliaris**, Millet cowry.



\*\* **Cypraea Mauritia grayana**. This shell is extremely similar to **C. Arabica** (Number 39 above). One shell in the collection has all of the characteristics of **C. grayana**, with a much smaller shell (4.4 cm in length) than **C. arabica**. **C. grayana** is known in the Seychelles. It is not believed that **C. grayana** is found on the East African coast.

\*\* **Cypraea Cribraria esontropia**. **Keeled cowry**. This shell is very similar to **C. cribraria**, Number 32 above, There are unconfirmed reports of this shell being found in Tanzania. We cannot verify this. **C. esontropia** has Mauritius and Reunion Islands as its home.

Most cowry collecting was done at low tide. Spring tides were the best to work with. We worked both over and under the coral. We did not dive with SCUBA tanks for shells but we did snorkel in water up to around 3-5 metres in depth. For the rarer shells the outer reefs were the most productive.

It was interesting to find that two shells that were once considered extremely rare, *Cypraea Onyx* and *C. Lamarkii* had niche areas. Many *C. Onyx* were found at very low spring tides in mud and opposite mangrove swamps. *C. Lamarkii* were found on jetty posts in the same areas as *C. Onyx*.

C J Metcalfe corresponded with a number of people over the years. It is worth mentioning these people as they were especially helpful in shell identification. There was no Internet in those days and colour photography was extremely limited and expensive. Schilder and Verdcourt were the bibles!

Those co-collectors involved were-

Mr S. Rawlins, Mr R.S. Benton, Mr J.M. Nightingale, Mr Penn, Mr Sargent, Mr Knight, Mr A.H.B. Childs, Mr R. Morgan, Mrs Bentley-Buckle, Mr Barton, Mrs Barton, Mr Barradell, Mr Wiley, Mr Chance, Mr J. Tucker, Miss Bainbridge, Mr J. Williams, Miss R Morgan, Mr Poppleton, Mr Rawlins, Mr E.T. Haywood, Mrs C.D. Knight, Mr J.H. Liversidge, Mr Davison, Mr. W. Old, Miss G. Benton, Miss A. Benton, Mr M. A. Kirkby, Mrs Hatfield, Mrs Dalton, Mr Ostheimer, Mr J.F. Spry, Mr D. Reid, Mr C.Chaney and others.



Dr. Bernard Verdcourt of the East African Agriculture and Forestry Research Organisation was the focal point for nearly all of the collectors.

**51- Ovula ovum. Egg cowry.**

This is not a true cowry

Size- 6 cm to 10 cm X 3 to 5 cm

Frequent



**References:**

C J Metcalfe- Notes on East African Cowry Shells (Cypraeidae)  
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SCHILDER: Living Cypraeidae  
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The Sea Shells of Dar es Salaam, GASTROPODS, J. F. Spry  
Van Nostrand's Standard Catalogue of Shells, 1<sup>st</sup> Edition  
The Hamlyn Guide to Shells of the World, A. P. H. Oliver  
The Illustrated Encyclopedia of Shells, Kenneth R. Wye

**Photos of cowry images are courtesy of:**

- \* Eddie Hardy, [www.gastropods.com](http://www.gastropods.com)
- \* Felix Lorenz, [www.cowries.info](http://www.cowries.info)
- \* Pasquale Fazzini, [www.Cypraea.net](http://www.Cypraea.net)
- \* Femorale, [www.femorale.com](http://www.femorale.com)
- \* Philippe & Guido Poppe, [www.poppe-images.com](http://www.poppe-images.com)
- \* E.G.de Suduiraut, [www.eurasiashells.net](http://www.eurasiashells.net)

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