



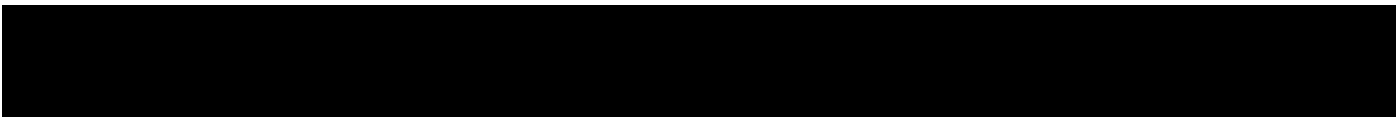
# VISAYA

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**THE *PLICOLIVA* COMPLEX IN THE ATLANTIC**

Guido T. Poppe  
January 10, 2003



# THE *PLICOLIVA* COMPLEX IN THE ATLANTIC

*Guido T. Poppe*

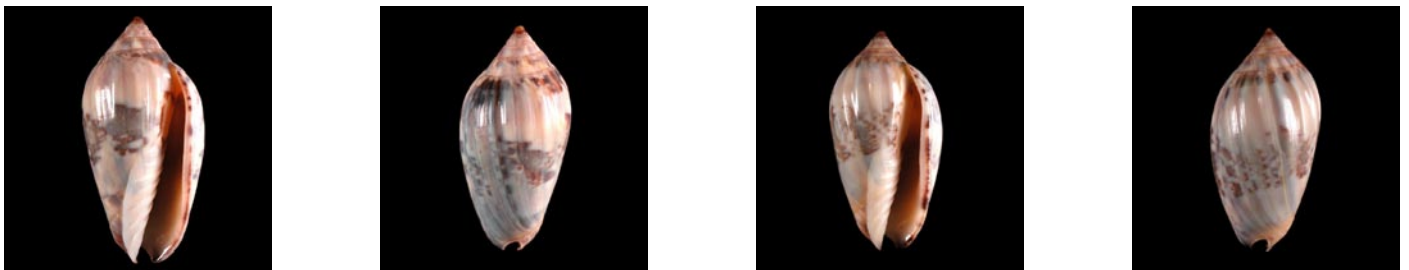
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In 1979 Petuch described an Olive-shaped shell in the family OLIVIDAE and created for its particular characteristics the subgenus *Plicoliva*. It was soon clear that it concerns a new Volute and Bouchet, at the description of a second species elevated the subgenus to genus rank and suggested the creation of new subfamily in the VOLUTIDAE to house *Plicoliva*: PLICOLIVINAE Bouchet, 1989.

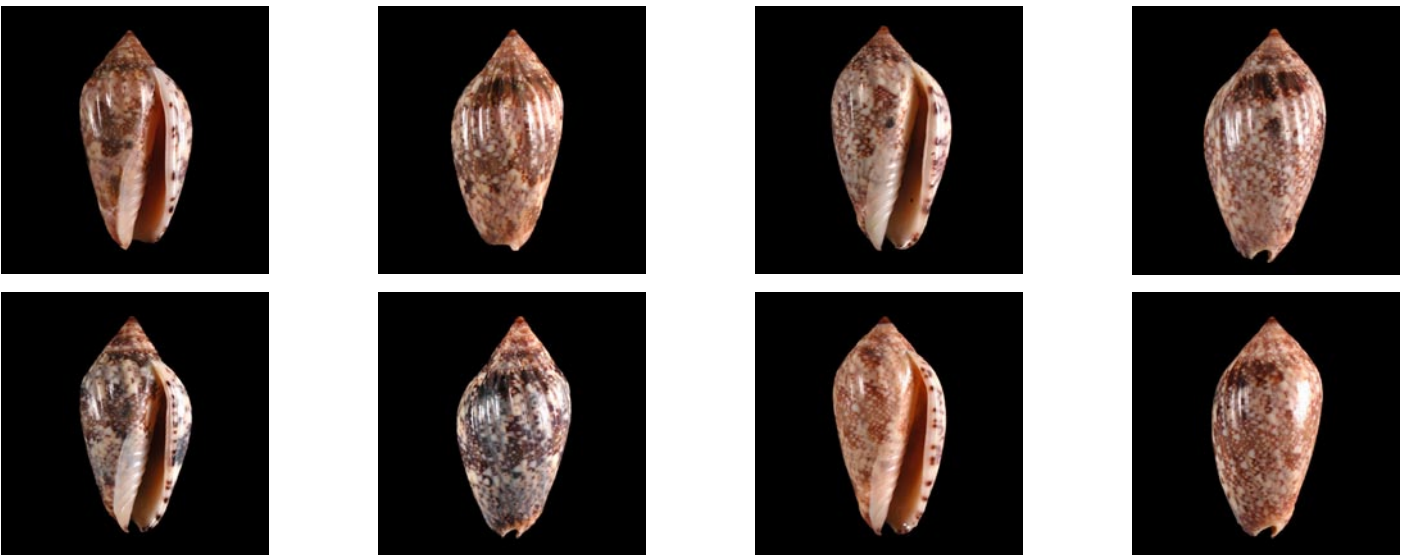
This status is maintained up until today. The genus *Plicoliva* contains two species: *Plicoliva ryalli* Bouchet, 1989 and the type species *P. zelindae* (Petuch, 1979).

Both species are hard to find, from hence their late discovery. We recently received more well documented material of the Brazilian *P. zelindae*. This is figured and discussed here.

It first concerns a series of 6 specimens of *Plicoliva zelindae* from Itamaraju, Bahia Sate, Brazil, taken at a depth of 15 to 20 m. All these shells are more axially ribbed than the shells we obtained earlier. While 3 specimens have the classic brown-red coloration, one tends to chocolate brown. Two shells stand out by their grey colour and very cloudy pattern, and they have slightly wider spaced axial ribs. This Itamaraju material is of the classic size and measures between 29 and 31.7 mm.



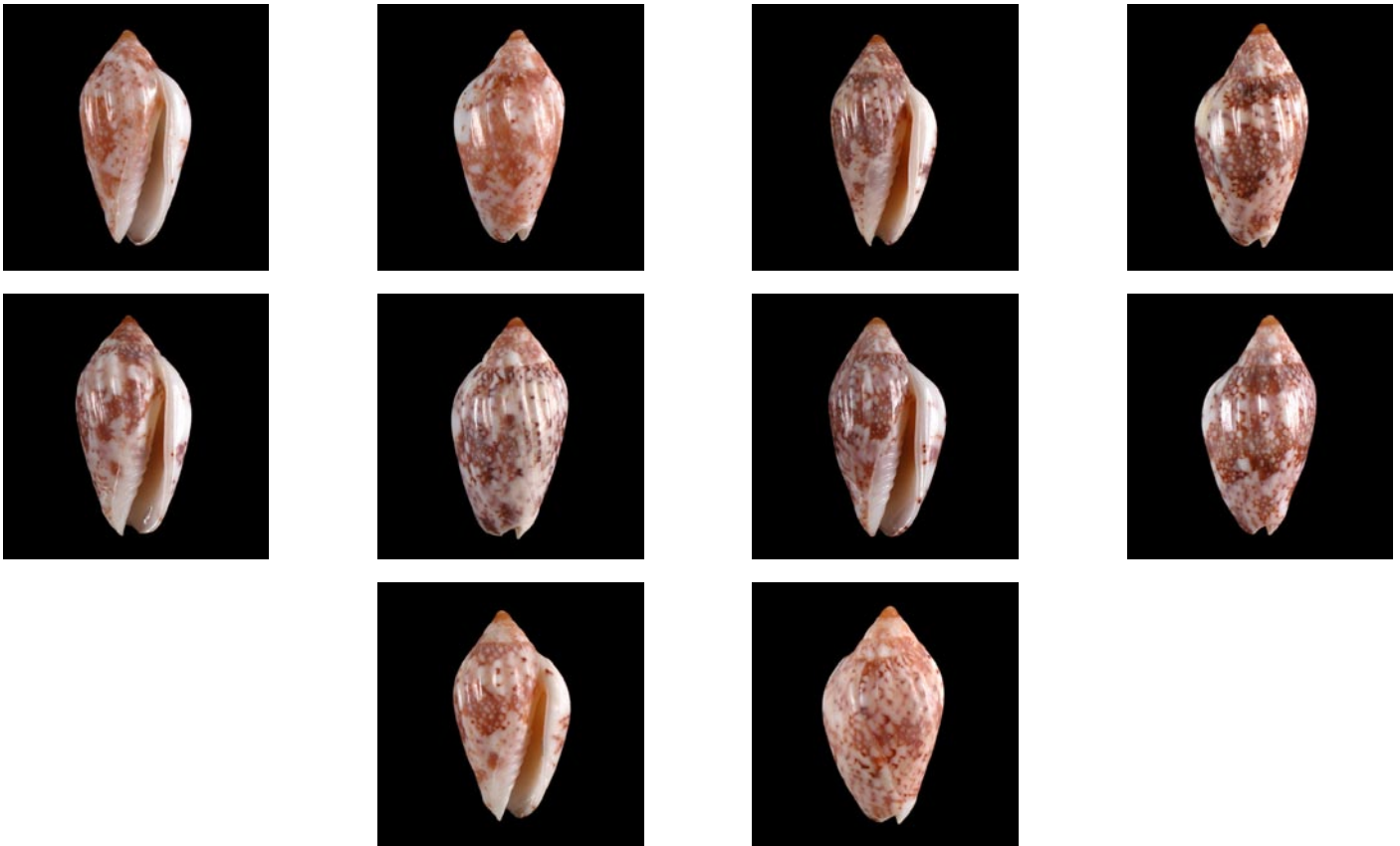
*Plicoliva zelindae*, cloudy form of Itamaraju.



*Plicoliva zelindae*, cloudy form of Itamaraju.

Apart from these, there is a set of 5 very small shells (between 18,4 and 19.1 mm), the size of *P. ryalli*, that have been collected on the Abrolhos Islands, offshore the south Bahia State. At first glance, we thought to deal with a new species, but close examination of their conchological characteristics does not allow any separation. We do not know with certainty if large *P. zelindae* are also found on the Abrolhos Islands, so a description as a subspecies is not advised until more material from offshore Brazilian localities is found.

However, we want to attract attention on their great similarity to the African *P. ryalli*.



*Plicoliva zelindae*, Abrolhos Islands form.

For comparison, we here figure a smooth *P. zelindae* and *P. ryalli*.



*Plicoliva zelindae* (After Poppe & Goto, 1992)



*Plicoliva ryalli* (After Poppe & Goto, 1992)

The different species and forms as known today are shown next to each other:



*P. zelindae*  
smooth form  
(after Poppe &  
Goto, 1992)



*P. zelindae*  
axially ribbed



*P. zelindae*  
cloudy form



*P. zelindae*  
Abrolhos



*P. ryalli*  
Ghana  
(after Poppe &  
Goto, 1992)

*P. ryalli* is only known from the Takoradi region in Ghana. *P. zelindae* has been recorded only from Brazil, from the south of Bahia State to Vitoria, Espirito Santo State, including the Abrolhos Archipelago. It is apparent that it has populated the shallow plateau that extends far in the ocean, between Belmonte, Bahia, and Vitoria, Espirito Santo.

Between *P. ryalli* and *P. zelindae* there are no radular differences. Shells of *P. ryalli* are almost identical with the Abrolhos Island form of *P. zelindae*. However, here is no explanation for an amphi-atlantic range of any volute due to the large size of the juvenile shell and the barrier formed by the mid-atlantic ridge.

But is interesting to know that the Takoradi region in Ghana, first occupied by the Portugueses, was one of the main centres of slave trade to the Americas in the 17th and 18th century. We also know that there were direct, intensively used routes between Ghana and Bahia State in Brazil (several thousands of travels). An accidental introduction on the coast of Ghana via the hull of gallions sailing between both continents is not to exclude. A similar case occurred on the coast of Portugal with *Chaetopleura angulata* (Spengler, 1797) around the same period. Workers in ship repairs observed, while cleaning the hulls of some ships that arrived from South America, those chitons crawling out of the accumulated marine growth on the hull back into the water leaving creeping traces in the sand.

On the other hand, further studies may reveal *P. ryalli* to be a good species. So, in the meantime, we maintain this status.

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