Synonyms

Porphyria bulbosa  Röding, 1798
Porphyria tuberosa  Röding, 1798
Oliva bicincta  Lamarck, 1811
Oliva fabagina  Lamarck, 1811
Oliva inflata  Lamarck, 1811
Oliva undata  Lamarck, 1811
Voluta ventricosa  Dillwyn, 1817
Oliva bicincta  Lamarck, 1822
Oliva lacertina  Quoy & Gaimard, 1825
Oliva ovum-ralli  Ford, 1889
Oliva bulbosa  var. alba  Johnson, 1915
Oliva bulbosa  var. immaculata  Vanatta, 1915

Introduction

Named by Röding in 1798, *Oliva bulbosa* is a shell well known and easily identifiable in spite of its great variability in design, color and size. Not by chance among the collectors, *Oliva bulbosa* is a synonym of variability. It is therefore questionable whether this species represents the ultimate in
diversity among species which belong to the genus *Oliva* (Plate 1). The answer is no. This general perception is the result of the conduct of the dealers who offer mainly the most striking specimens for evident commercial purposes. As we can see from the photographs in this card, *Oliva bulbosa* shows little variability within each colony, where individuals are genetically related. Obviously, among different colonies we can notice a significant difference, however, no greater than between other species belonging to this genus. Furthermore many colonies are composed by specimens which have a design rather modest, while others are made up by quite small individuals.

**Live mollusk**

![Live mollusk](Plate 2. *Oliva bulbosa* (Röding, 1798) at Unguja Island, Zanzibar Archipelago. (by G.Centomo)

**Habitat at Unguja Island (Zanzibar Archipelago, East Africa)**

Here *Oliva bulbosa* was found active in the day time at low tide. The substrate consists of not compact coarse white sand quite clean.

![Habitat](Plate 3. Nungwi (left) and Pwani Mchangani (right) at Unguja Island, Zanzibar Archipelago. (by G.Centomo)}
Key Discriminators

Among these the most obvious are: 1) A very prominent ridge ("B" in pl. 4) presents on the columella. 2) A brown patch ("D" in pl. 4) presents in the lower part of the columella.

Plate 4. *Oliva bulbosa* (Röding, 1798). “A” Very large high callus. “B” Very prominent ridge. “C” The body whorl pattern continues in the upper zone of the anterior band who is partially covered by the broad columella. The lower zone shows a fine irregular design. “D” A brown patch is present on the lower part of columella. “E” Usually there are only 2-3 parietal plications on the columella.

Plate 5. *Oliva bulbosa* (Röding, 1798). The filament channel is moderately narrow and mostly open.
Range and Size

*Oliva bulbosa* lives in the Indian Ocean along the East coast of Africa from Madagascar to Red Sea, and from Persian Gulf to Sri Lanka. The adult size is very variable among the different colonies, anyway it is between 25mm to 50mm. (Plate 6.)

Plate 6. *Oliva bulbosa* (Röding, 1798) Adult specimens: “A” (CMAP 0270, 45.80mm), Tanzania. “B” (CMAP 0720, 36.74mm), Madagascar. “C” (CMAP 2389, 49.30mm), Mozambique. “D” (CMAP 1853, 40.00mm), Madagascar. “E” (CMAP 0717, 28.42mm), Kenya. “F” (CMAP 2228, 39.00mm), Unguja. “G” (CMAP 2566, 24.15mm), Somalia. “H” (CMAP 2397, 24.00mm), Tanzania.

Iconography

I chose to represent a significant sample of the population of *Oliva bulbosa*. Indeed, in this a short space it is not possible to represent all the variability of this species. In the following plates there are specimens from Sri Lanka (Plate 9), United Arab Emirates (Plate 10), Dahalak Archipelago (Plate 11), Mozambique (two different colonies, Plate 12 and 13), Saudi Arabia (Plate 14) and Zanzibar Archipelago (Plate 15). Even if I have a lot of *Oliva bulbosa* from Madagascar I chose not to portray them because I do not know the exact location of origin.

Plate 8. *Oliva bulbosa* (Röding, 1798). Adult specimens. In this plate you can see joined together the first one shell showed in the following plates from number 9 to 15. So it is possible to evaluate that the intraspecific variability among individuals belonging to different colonies is greater than among the specimens that belong to the same colony.

Plate 10. *Oliva bulbosa* (Röding, 1798). (CMAP 4097, average 34.81mm) Collected by A.B. on May 2004, at Khor Fakkan, Fujairah, Guf of Oman, United Arab Emirates.
Plate 111. *Oliva bulbosa* (Röding, 1798). (CMAP 4119, average 28.61mm), Collected by M.G. in April 2007 at Harmil island, Dahalak Archipelago, Eritrea, Red Sea.


Plate 15. *Oliva bulbosa* (Röding, 1798). (CMAP 2842, average 35.50mm) Zanzibar Archipelago.

Plate 16. *Oliva bulbosa* (Röding, 1798). Juvenile specimens from Tanzania, average 15.55mm.