

Preliminary Study on Aquatic Snail Species of *Bulinus globosus* (Morelet, 1866) (Mollusca: Gastropoda: Planorbidae) from Nankumba Peninsula, Cape Maclear Island, South-East Arm of Lake Malawi

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Abstract

The present investigation of shallow-water gastropod *Bulinus globosus* is reported on nearshore sites in and around Cape Maclear on the northwestern part of the Nankumba Peninsula, Lake Malawi (part of Lake Malawi National Park) at a depth of 10 M. The present remark focuses on the geographical distribution and habitats of this group and sample have observed in Cape Maclear Island, Republic of Malawi, and Central Africa.

Keywords: Mollusca, Gastropod, *Bulinus globosus*, freshwater snail, Cape Maclear Island, Malawi

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Introduction

Malawi have unique and rich biodiversity fauna and flora and different ecosystems which are attributed to its diversified environment, loams and topograph, hitherto little is known of their disseminations or habitat relationships. According to Enviromental Affairs Departmant (2006) was estimated that the fourty seven species of the one hundred and seventy two species of molluscs, twelve species of reptles, seventeen species of amphibians, exclusively frogs, are endemic to Malawi. Louda *et al.* (1983) has reviewed the Lake Malawi were estimated 19 number of species of shallow-water gastropods in which have a marked vertical distribution pattern. Brown (1994) have highlighting the members of the genus *Bulinus* are hermaphroditic planorbid snails and its genus includes 37 recognized species distributed in the trophic/sub-trophbic regions fo the world including Africa, Meiterranean and parts of the Middle East countries. Microhabitat studies on the gastropods variations in abundance has been linked with physico-chemical parameters, including pH, dissolved salt concentrations, turbidity, O₂, temperature, substrate type and depth-wise of Lake Malawi are dealt with by Appleton (1978), Brown (1994), Michel (1994), Stothard *et al.* (2002). Madsen *et al.* (2006) has reviewed that the important intermediate host snail, *B. globosus* primarily is originate and spread cape Maclear Island. Interesting

note that, in mid-1980's, he suggested that the lake started to appear. The present investigation focuses on the geographical distribution and habitats of this group and sample have observed in Cape Maclear Island, Republic of Malawi, and Central Africa.

Study Area

The occurrence of the present specimen *Bulinus globosus* (Fig. 1) was made on nearshore sites in and around Cape Maclear on the northwestern part of the Nankumba Peninsula, Lake Malawi (part of Lake Malawi National Park). The second deepest lake in Africa. It is third largest lake in the world by volume and the ninth largest by surface area. The lake is bordered by western Mozambique, eastern Malawi, and Tanzania. Five shoreline villages, Chembe, Chiphamba, Mvunguti, Zambo and Chidzale, are included within enclaves in the park. According to Centers for Disease Control (2005) has been reported to in and around of Cape Maclear is a World Heritage site and is visited by many tourists every year. Inappropriately, many visitors were infected with schistosomes were reported by United States Centers for Disease Control and Prevention (CDC) to warn against visiting Lake Malawi.

Family: Planorbidae

Class: Gastropoda

Genus: *Bulinus*

Species: *globosus*

Bulinus globosus (Morelet, 1866)

Bulinus globosus Madsen *et al.* (2006);

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Figure 1: *Bulinus globosus*

Distribution

The total length of specimen was 10 cm and weighing about 40 gm. Malawi, South of the Sahara, Southeast Asia, Middle East, Africa, and South America (Madsen *et al.*, 2006). The present specimen spread might also occur in Kenya and Tanzanian coastal regions adjacent.

Description

More or less pronounced spiral sculpture; full-grown shells 15-20 mm high; columella as a rule with a distinct truncation. Clean and fresh shells usually glossy and of a light brownish colour.

Conclusion

The new investigation data are required about the geographical dispersal and show the status of potential gastropods in Cape Maclear island in order to a fully empathetic of the distribution of species. Further research is essential into its population dynamics and stock assessment of gastropods and bivalves, ecology (especially in temperature) and latent conservation actions also essential of Cape Maclear Island, Malawi.

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