

# A note on the button shells fishery in Kakinada Bay

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*Umbonium* species commonly called as 'button shells' are the smallest gastropod shells under the family Trochidae and subfamily Umboninae. They are also known as 'button top shells' or 'button snails'. They come in vast array of colours, in shades of grey, brown, olive green, pink, red, yellow or even white, almost uniform or with different axial and/or spiral patterns. Even in single species various colour and patterns can be seen. They are distributed in the Indo-West Pacific regions where they lie burrowed in the shallow, soft and sandy bottoms. They occur in high densities and the individuals are usually very active. They feed on detritus and algae, sometimes depending on filter feeding unlike other snails. When confronted by predators they bury into the sandy bottom using their long foot or float into the water column to escape. They are non-edible ornamental gastropods that have high demand in the ornamental shellcraft industry.

The fishery for *Umbonium* sp. landed at Chollangi, Yetimoga, Dumulapeta, Pedavalasa villages and also at Kakinada Fisheries Harbour is described below. *Umbonium vestiarium* (Vesta's button top shell) is the commonly landed species. Ladies are mainly involved in the harvesting of these shells by handpicking and using small scoop nets.

Local crafts such as the shoe *dhoni*, Kakinada *Nava* and fibre boats (*teppa*) are used to reach the fishing ground. Usually the fishermen families of about 2-6 members go for fishing. They use gillnet, dragnets, stake nets, hook and line for fishing while hand picking of shells is done mostly by the women and children. The fishing method adopted is based on tide as during low tides collection of shells by hand are carried out while gillnetting, stake netting and drag netting are done during the high tide. During full moon and new-moon periods when the low tides are very low, catch is more. The fishing ground is about 4-8 km from the shore around the Hope Island which has about 4 km<sup>2</sup> area. Fishing is done for about 26-28 days per month if favourable conditions exist. The estimated total landings of the species during the study period 2013-2016 was 319.35 tonnes (t)

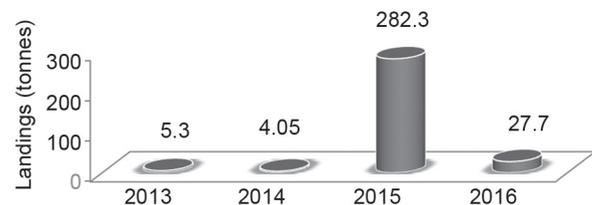


Fig. 1. Annual landings of *Umbonium* sp. in Kakinada Bay during 2013-2016

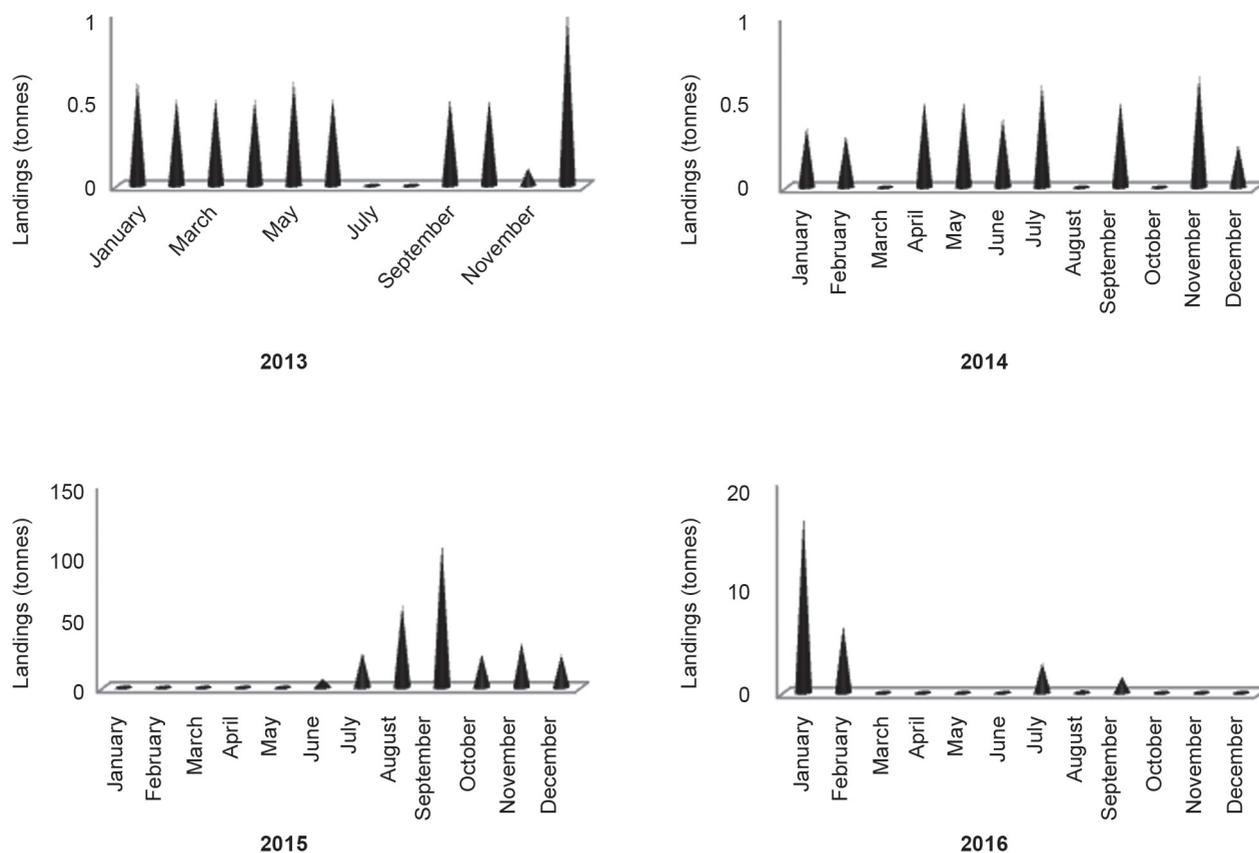


Fig. 2. Monthly landings of the button shells in the Kakinada Bay during 2013-2016

which is about 11.8% of the total gastropod landings. The landing peaked during 2015 (34.72% of the total gastropod production) due to increase in the demand for ornamental purposes and lime powder industries. But during 2016 it suddenly decreased due to lack of demand and most of the women labourforce shifted from shell collection to processing sectors such as peeling, packing etc. Not much seasonal variation in landings was observed during the period.

The marketing of these shells is done in neighbouring states like Tamil Nadu, Odisha, Maharashtra and Telengana. The small scale exporters from Kakinada, Yanam, Guntur and other regions of Andhra Pradesh participate actively. The agents collect shells from the fishers and sell to the different buyers, based on demand. The marketing is mainly done at Chollangi Landing Centre from where the dead shells are transported



Crafts made of *Umbonium* spp.

by lorries. The shells are sold in baskets with small plastic baskets weighing about 40-50 kg each costing ₹ 800-1200 depending on the size of the shell (grade). The fishers are getting only about ₹ 7-8 per kg. The small scale industries are selling both the cleaned shells as well as lime powder to the

dealers. From these shells various attractive craft items are prepared like windows or door curtains, mirror or photo frames, clock, lamp shades, flower vases, trays, candle stands, wall hangings,

jewelleries and other crafted pieces are prepared. These shells are also used for making lime by small scale kilns located near Kakinada, which is widely used in aquaculture ponds in Andhra Pradesh.