



First record of the blue sea slug (*Glaucus atlanticus*) from Andhra Pradesh – India

The blue sea slug *Glaucus atlanticus* Forster, 1777 (Gastropoda, Glaucidae) is a nudibranch that occurs in temperate and tropical oceans throughout the world. It is characterized by a silvery white dorsal surface and dark blue ventral surface. The body is elongate measuring up to 3 cm and is flattened. The head is small and blunt with a pair of small oral tentacles near the mouth. The cerata or papillae are wing-like and extend laterally from three distinct pairs of peduncles. The papillae are placed in a single row (uniseriate) and may be 84 in total (Forster, 1777). A similar looking glaucid nudibranch, *Glaucus marginata* (Bergh, 1860), is a bluish-brown nudibranch with bluish underside, and differs from *Glaucus atlanticus* in bearing four pairs of clusters of papillae that are arranged in more than one row (multiseriate) and may be 139 or more in number (Bergh, 1860). The latter species has been included by some authorities under the genus *Glaucilla* Bergh, 1860. Presently, both species are listed under *Glaucus* Poli, 1795 (Burn, 2006; Gofas *et al.*, 2001).

Glaucus atlanticus is rarely seen on shore as it is pelagic except during periods of on-shore winds when they can be found floating in coastal waters and sometimes washed on to beaches. They float partially by means of an air bubble that they have swallowed and stored in their gastric cavity and are able to move toward prey or mates by using their cerata to make slow swimming movements. They eat a variety of drifting prey including the siphonophore *Physalia utriculus* (Portuguese man-of-war) as well as the chondrophores *Velevella velevella* and *Porpita pacifica* (Bayer, 1963; Lalli & Gilmer, 1989; Thompson & Bennett, 1969, 1970).

In a recent field survey along the coast of Visakhapatnam District, Andhra Pradesh, India, we observed washed up specimens of *Glaucus atlanticus*. No vouchers have been collected, but the

photo vouchers (NHM.OU.MOLL.PV.1-2012 & NHM.OU.MOLL.PV.2-2012) (Fig. 1) have been deposited at the Natural History Museum of the Osmania University, Hyderabad, India.



Figure 1: *Glaucus atlanticus* from Visakhapatnam, Andhra Pradesh, India

This species has been reported from many places (Thompson & McFarlane, 2008) in tropical and temperate regions, mostly encountered as washed-up specimens and sometimes in the seas from 31 marine ecoregions of ten marine realms: Southern Vietnam, Lord Howe and Norfolk Islands (Central Indo-Pacific); Southern Cook/Austral Islands, Hawaii (Eastern Indo-Pacific); Andaman & Nicobar Islands, Eastern India, South India & Sri Lanka, Gulf of Aden, East African Coral Coast, Seychelles, Western & Northern Madagascar (Western Indo-Pacific); Nicoya, Northern Galapagos Island,

Eastern Galapagos Island (Tropical Eastern Pacific); Central Kurushio Current (Temperate Northern Pacific); Tweed-Moreton, Manning-Hawkesbury, Cape Howe, Northeastern New Zealand (Temperate Australasia); Bermuda, Florida, Southern Gulf of Mexico (Tropical Atlantic); Western Mediterranean, Azores Canaries Madeira, Virginia, North Carolina, Northern Gulf of Mexico (Temperate Northern Atlantic); Uruguay - Buenos Aires Shelf (Temperate South America); Natal, Agulhas Bank, Namaqua (Temperate Southern Africa).

In Indian seas, *Glaucus atlanticus* has previously been documented from Bay of Bengal and off the coast of Nagapattinam, Tamil Nadu, India (GBIF, 2012; Kamalakannan *et al.*, 2010). The presence of the species further north along the coast of Andhra Pradesh reveals that the populations of this species may have moved further in to the Bay of Bengal with more possibilities of the species moving further north of Andhra Pradesh.

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