



## *PLEUROBRANCHUS FORSKALII* (RUPPELL & LEUCKART, 1828) – A NEW RECORD FOR INDIAN COASTAL WATERS

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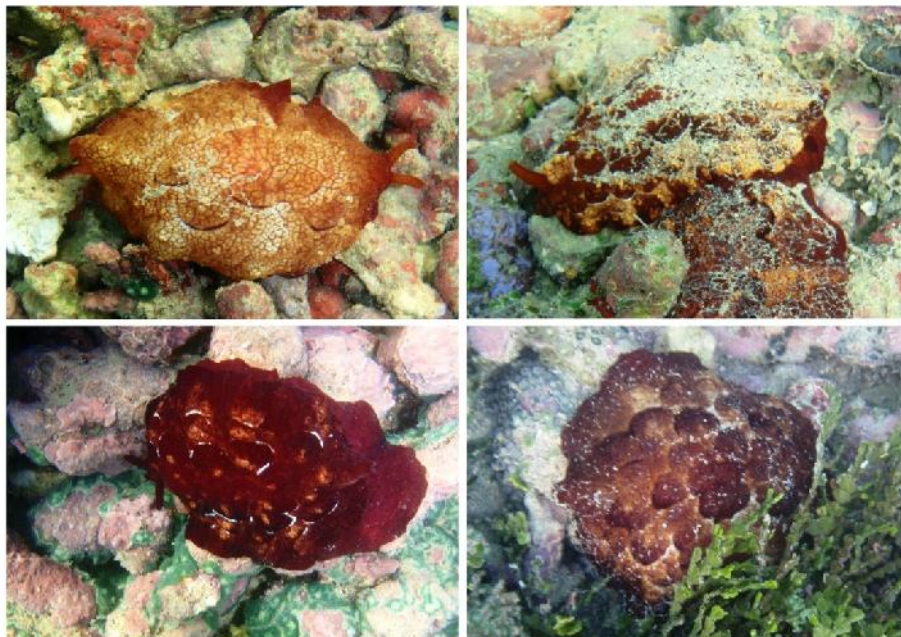
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Ophisthobranchs are brightly coloured Marine Molluscs, with high species diversity, wide distribution range, occurring on coral reefs, seagrass beds, mangroves, sandy, muddy and rocky habitats (Nithyanandan, 2012). There are more than 6000 species of Opisthobranchs distributed worldwide (McDonald, 2006). In India studies on Opisthobranch have received much attention only during recent times. So far 61 species of nudibranchs have been reported from Gulf of Mannar Marine Biosphere Reserve, which is poor representation of this highly diversified group in Indo West Pacific realm (Yogesh Kumar *et al.*, 2011). While conducting regular underwater faunistic surveys in Gulf of Mannar Marine Biosphere Reserve, Southern India by snorkeling an Ophisthobranch was observed in Shingle Island (09°14'27.25"N and 79°13'54.41"E) during 30<sup>th</sup> December 2012, 0930hrs. A *Pleurobranchus forskalii* was seen laying eggs (5nos) at 2-3 m depth on the rubble substrata. Maximum number of (26) egg strands were observed during spawning. Two specimens were collected and preserved in 4% formaldehyde which was later identified using taxonomic keys using taxonomic keys by Coleman (2001). The identified specimens were deposited in National Zoological collections of Marine Biology Regional Centre, Zoological Survey of India, Chennai (Register No M. 668).

### Diagnostic characteristics

Side gilled slug belonging order Notaspidea which are medium or large oblong-shaped slugs having two well developed cylindrical Rhinophores on the head and two oral tentacles attached to either side of an oral veil. The gills are housed along the right side of the body between the well developed foot and overlapping mantle (Coleman,

2001). It is known to occur in relatively large numbers in shallow lagoons, reef crests and pools, as well as seagrass beds (Rudman, 1999). *Pleurobranchus forskalii* is found to be nocturnal in habit and has been observed to feed on Ascidiars. They are distributed all along tropical Indo-Pacific region (Gofas *et al.*, 2003).





*Pleurobranchus forskalii* with different colour morph



Spawning of *Pleurobranchus forskalii*



Egg strands of *Pleurobranchus forskalii*

The two specimens collected for identification were 7cm and 7.8cm in length respectively. The mantle was large, convex with two series of discontinuous white semi-lunar lines marking unevenly distributed tubercles and a siphon in the posterior region. Rhinophores are hollow and cylindrical. The foot is little larger than mantle with dark spots in the ventral side. It was dark purple in colour, whereas, other individuals from the sampled area showed much colour variation, from peach to dark brown or purple. *Pleurobranchus forskalii* was first described by Rüppell & Leuckart during 1828 based on the specimen deposited in the Frankfurt Museum collected from Red sea. The specimens examined closely resembles with the description of Rao and Alagarwami (1960) which was up to genus level collected from the same area. The present observation corroborate as *Pleurobranchus forskalii* and found as new record for Indian coastal waters.

#### REFERENCES

- Coleman, N. (2001) *1001 Nudibranchs, catalogue of the Indo-Pacific sea slugs*. Neville Coleman's Underwater Geographic Pty. pp. 144.
- Gofas, S., Carrada, G. C., Templado, J, Zenetos, A. and Gollino, V. (2003) *Pleurobranchus forskalii*. CIESM. The

Mediterranean Science Commission. [http:// www. ciesm. org/atlas/Pleurobranchusforskalii.html](http://www.ciesm.org/atlas/Pleurobranchusforskalii.html)

McDonald, G. R. (2006) Nudibranch Systematic Index. Institute of Marine Sciences. Paper Nudibranch\_Systematic\_Index.[http://repositories.cdlib.org/ims/Nudibranch\\_Systematic\\_Index](http://repositories.cdlib.org/ims/Nudibranch_Systematic_Index). Online Internet Identification Sources: [www.Nudipixel.net](http://www.Nudipixel.net) ,[www.seaslug forum.net](http://www.seaslugforum.net)

Nithyanandan , N. (2012)New and rare nudibranch records from Kuwait, Arabian Gulf (Mollusca: Opisthobranchia). *Marine Biodiversity Records*, Vol.5:1-7.

Rao, K.V. and Alagarwami, K. (1960) *External morphology and early development of Pleurobranchus (Oscanius) sp. from Gulf of Mannar*. *Journal of the Marine Biological Association of India*, 3 (1 & 2): 256-258.

Rudman, B. (1999) *Pleurobranchus forskalii (Rüppell & Leuckart, 1828)*. *Sea Slug Forum*. Australian Museum, Sydney. [http://www. seaslugforum.net/factsheet/pleufors](http://www.seaslugforum.net/factsheet/pleufors).

Ruppell, E. and Leuckart, F.S. (1828) *Neue wirbellose Thiere des Rothen Meeres. Atlas zu der Reise im nordlichen Afrika von Eduard Ruppell*: 1-22.