A New Record of Sea Snail Cochlespira Travancorica Travancorica (E. A. Smith, 1896) (Family: Cochlespiridae) (Mollusca: Gastropoda: Turridae) off Thoothukudi Coast of Gulf of Mannar, Southeast Coast of India (08° 53.6’N 78° 16’E and 08° 53.8’N 78° 32’E) (310 M)

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Abstract A new record of sea snail off Thoothukudi coast of Gulf of Mannar, southeast coast of India and reported. Cochlespira travancoria travancoria (E. A. Smith, 1896) (Family: Turridae) were newly recorded from Thoothukudi coast of Gulf of Mannar, Southeast coast of India. Only one specimen were reported in depth of 310 mts as an incidental by-catch in the fisheries. They are found in tropical waters from about 08° 53.6’N 78° and 08° 53.8’N 78° 32’E/310 Mts from Thoothukudi fishing harbour, southeast coast of India.

Keywords Turridae; Cochlespira travancoria travancoria; First Record; Thoothukudi coast of Gulf of Mannar; new record

1 Introduction
Turridae Swainson, 1840 is one of the most significant families of marine gastropods in number of species, with over 670 genera (Bouchet, 1990). According to the traditional classification of gastropods, Turridae constitutes the superfamily Conoidea Rafinesque, 1815, together with the families Conidae and Terebridae. The family Turridae was first divided into three subfamilies (Turritinae, Clavatulinae and Defranciinae) by H. and A. Adams (1858). Since then this subdi-vision has been revised and discussed repeatedly, and many other subfamilies have been proposed. Rosen-berg (2005) mentioned 12 subfamilies within Turridae, Powell (1966) recognized only 9, and Bouchet and Warén (1980) disregarded this separation altogether. Although the classification of the Turridae at the subfamily level is still very much debated and some of the taxa may be artificial, we agree with Kilburn (1983) that “in a family as large and complex as Turridae, virtually any practical subdivision is better than none”.

Taxonomical studies on the sea snails of India are dealt with by Alcock and Anderson (1898), Powell, (1969) and Schepman, (1913). While examining the by-catches landed by larger trawlers, which operated in deeper waters off Thoothukudi, one species of sea snail were noticed. On closer examination, they were identified as Cochlespira travancoria travancoria (E. A. Smith, 1896) were new to Thoothukudi coast of Gulf of Mannar. The present specimen Cochlespira travancoria travancoria is recorded from Gulf of Mannar for the first time, though it has been reported earlier from southwest coast of India by Powell (1969).

Superfamily: Cochlespirinae Powell, 1942
Family: Cochlespiridae (Powell, 1942)
Genus: Cochlespira Conrad, 1865
Species: Cochlespira travancoria travancoria (E. A. Smith, 1896)
Type species: Pleurotoma cristata Conrad, 1847 (monotypy)
Cochlespira travancoria (E. A. Smith, 1896) Fig. 25
Pleurotoma (Ancistrosyrix) travancoria E. A. Smith, 1896, p.368; 1906, p. 163;
Alcock & Anderson, 1898, pi. 7, figs 1.1a.
Pleurotoma (Ancistrosyrix) travancoria var. granulate E. A. Smith, 1904, p. 459.
Ancistrosyrinx travancorica var. granulata (E. A. Smith, 1904) - Schepman, 1913, p. 420.
Cochlespira travancorica travancorica (E. A. Smith) & C. travancorica travancorica forma granulata (E. A. Smith) - Powell, 1969, p. 396-397, pi. 307.

1 Material: 1 shell measuring 3.9 cm total length (Figure 1).
2 Locality: 08° 53.6’N 78° 16’E and 08° 53.8’N 78° 32’E off Thoothukudi coast of Gulf of Mannar, Southeast coast of India; depth at trawling 310 m.
3 Colour: Dull White under a thin greyish periostracum.

Figure 1 Cochlespira travancorica travancorica

4 Description
The shell is small, light-brown, with glossy surface, rather solid, fusiform, consisting of 6.5 preserved whorls. The whorls are angled below the periphery and concave upper and below the angulation; the position of the angulation on the spire whorls shifts upward towards the body whorl. The sutures are straight and very shallowly impressed. The sculpture consists only of a strong median keel with rounded, pointed tubercles (16 on the body and penultimate whorls) and a low ridge on the upper part of the shell base. The ridge is hard to trace above the suture on last spire whorls. The growth lines are very thin. The shell base is angled in its upper part, where the ridge is situated, and slightly and evenly concave below the angulation; it smoothly passes into the canal. The aperture is narrow, with the inner lip weakly and evenly curved.

5 Distribution
This species has been recorded earlier from off Travancore sea, South-West of India, 460 fathoms (Powell, 1969). The present record from Thoothukudi coast in Gulf of Mannar extends its distribution to the southeast coast of India. This characteristic species has a wide distribution in the Indo-West Pacific region extending from the southeast coast of India to East Africa, Indonesia, and Zanzibar region.

6 Remarks
The description given by described by Powell (1969) as Cochlespira travancoria travancoria forma granulate, agree with the present specimen. C. t. travancoria which are distinguished by shell narrowly fusiform, of moderate size 1 5/8 inches in height, with a tall pagodaform spire and long straight anterior whorl height, are sharply angulated and coronated by a thin lamella which is produced into somewhat irregular upward concave but from the carina to the lower suture the outlines are straight but inclined inward below. The body-whorl tapers gradually to a long straight anterior canal. The shell surface is smooth except for weak spiral cords over the lower base and rostrum. The sinus is broad and rather deep, extending from the suture almost to the peripheral carina. (Figure 1). The present specimen of Cochlespira travancoria travancoria (E. A. Smith, 1896) were recorded from the Thoothukudi coast of Gulf of Mannar, Southeast coast of India.

Author’s Contribution
Vaiitheeswaran Thiruvengadam have been collected and identification of specimen and took photograph of specimen and reference collection. V. K. Venkataramani, Former Dean and Principal Investigator of the Scheme, FC&RI, and N. Jayakumar, Co-Principal Investigator of the scheme, DFB&FB., TNFU, conceived of the study, help and support and encouragements.

References
Alcock A., and Anderson A.R.S., 1898, Natural history notes from H.M. Royal Indian Marine Survey Steamer “Investigator”, commander C.F. Oldham, R.N., commanding. – Series II, No. 14. An account of a recent collection of deepsea Crustacea from the Bay of Bengal and Laccadive Sea. J. Asiatic Soc. Bengal (2) (Natural History). 63: 165
Adams H., and Adams A., 1858, The genera of recent Mollusca. Vol. I. Woodfall and Kinder, London.
Bouchet P., and Warén A., 1980, Revision of the Northeast Atlantic bathyal and abyssal Turridae (Mollusca, Gastropoda). J. Molluscan Stud., Suppl, 8: 1-119
Bouchet, P., 1990, Turrid genera and mode of development: the use and abuse of protoconch morphology. Malacologia, 32(1): 69-77

http://dx.doi.org/10.1093/mollus/46.Supplement_8.1
Kilburn, R.N., 1983, Turridae (Mollusca: Gastropoda) of southern Africa and Mozambique. Part 1. Subfamily Turrinae. *Ann. Natal Mus.*, 25(2): 549-585

Powell, A. W. B., 1966, The molluscan families Speightiidae and Turridae. An evaluation of the valid taxa, both recent and fossil, with lists of characteristic species. *Bull. Auckl. Inst. Mus.*, 5: 1-184

Powell, A.W.B., 1969, The family Turridae in the Indo-Pacific. Part 2. The subfamily Turriculinae. *Indo-Pacific Mollusca*, 2(10): 207-415

Rosenberg, G., 2005, Malacolog 4.1.0: A Database of Western Atlantic Marine Mollusca. [WWW database (version 4.1.0)] URL http://www.-malacolog.org/.  

Schepman, M.M., 1913, The Prosobranchia of the Siboga-Expedition. Part 5, Toxoglossa. *Siboga. Exped.* 32(64): 365-452, pls., 25-30, 1 text fig.