
Research Article**Check List of Indian Gorgonians Wwith A New Report of *Melithaea variabilis*
(Family : Melithaeidae) From Andaman and Nicobar Island, India****J. S. Yogesh Kumar*, C. Raghunathan**

Zoological Survey of India, Port Blair 744102, Andaman and Nicobar Islands

***Corresponding author**

J. S. Yogesh Kumar

Email: coralyogesh@yahoo.co.in

Abstract: The present checklist provides 171 species belonging to 36 genera, 12 families of gorgonian reported from Indian waters based on through literature compilation. In addition, the morphological feature of newly recorded *Melithaea variabilis* (Hickson, 1905) from Andaman and Nicobar Islands has been presented.**Keywords:** Gorgonian, Melithaeidae, *Melithaea variabilis*, Check List, Andaman, India.

INTRODUCTION

The order Gorgonacea is commonly called as a seafans; it is divided into three suborders namely Calcaxonia, Holaxonia and Scleraxonia. The taxonomic studies on gorgonians species along the seacoast of India and its adjacent waters have been studied by Pratt [1,2]. According to Thomas *et al.*[3] in India 27 species of gorgonians belonging to 8 families and 19 genera have been reported. Among them, 15 species of gorgonian belonging to 15 genera and 5 families reported from the Gulf of Mannar, 14 species under 5 families and 10 genera from the Palk Pay region, 12 species of gorgonians from 4 families and 9 genera have been reported from the northeast coast of India, 10 species, 6 genera and 2 families from Arabian coast and 8 species under 7 genera and 5 families were reported from Lakshadweep. Only 3 species of gorgonians reported from the Gulf of Kachchh [4-10]. However, in the Andaman and Nicobar Islands, 59 species belonging to 26 genera, 8 families and 3 suborders of gorgonian were reported, among them 44 species belonging to 24 genera and 7 families are new to India⁹. The present study detailed one newly recorded gorgonian species from North Andaman and an updated checklist of gorgonian species found in India water based on published literatures [11, 12, 3, 13, 14, 9].

MATERIALS AND METHODS

The samples were collected during the survey by SCUBA diving at Landfall Island, North Andaman and preserved in 70% ethanol following Breedy [15]. The specimen was identified based on the morphological characteristics of the colony and sclerites structure. Sclerites were extracted by 5% Sodium Hypochlorite [16] and examined under the compound and stereo microscope (Labovision AXR 20; Leica – DFC 500) and underwater pictures were taken with the

on Canon G15 camera. The identified sample was deposited in the National Zoological Collection of ZSI, Port Blair.

RESULT AND DISCUSSTION

In India, a aggregate of 171 species, belonging to 36 genera and 12 families have been recorded, of which *Melithaea variabilis* gorgonian octocoral was new distribution record to Andaman and Nicobar Islands. The species identification was made based on the variations in sclerites and morphological characters. A detail observation and careful examination in the morphological character and sclerites presented with a description given below.

Phylum: Cnidaria Hatschek, 1888**Class:** Anthozoa Ehrenberg, 1831**Order :** Gorgonacea Lamouroux, 1816**Family:** Melithaeidae Gray, 1859**Species:** *Melithaea variabilis* (Hickson, 1905) (Figure 1&2)*Melithaea variabilis* (Hickson, 1905) BT. Reijnen *et al.*, 2014, p395, T4*Acabaria variabilis* (Hickson, 1905) Anita Mary *et al.* (2014), P14, P16*Acabaria variabilis* (Hickson, 1905) Anita Mary *et al.* (2011), P4, Fig.5*Melitodes variabilis* Thomson and Simpson, 1909; pl69, Fig. 11*Melitodes variabilis* Hickson, 1905; 809, pl67, Fig.11.**Material Examined:** ZSI/ANRC: 10854, Live specimen: 6.2 cm length, 5.5 cm width; depth 12; Landfall Island (Lat. 13°38.501 N; Long. 093°59.812 E), North Andaman; live specimen under overhang in caves, reef slope environment.

Description: Colony white and nodes are pink in colour when live and dried. The sample “Y” shaped or dichotomously branched. The polyps are pink or red in colour and distinct, present all around the branches.

Sclerites: Colourless in the cortex, internode creamy or white and pink colours in the nodes. The size of the sclerites range between 0.04mm to 0.129mm. In the cortex spindle are lump or leaf like and leaf clubs are in the calyx walls.

Depth range and Habitat: 10 to 60 m; mostly reef crest, shaded areas, caves, current swept slopes and calm environment.

Distribution: Red Sea, Maldives, Indo-Pacific, Indian Ocean, India: Andaman Islands.

Remarks: *Melithaea variabilis* is a new distribution record to Andaman coast.

The genus *Acabaria* was identified based on the morphological character, coloured nodes [17] and reported in a depth range between 55 – 60 m from Maldives and Lakshadweep¹⁸, after that the sample observed at 11 meters depth at Muttom, Arabian sea and Minicoy Atoll, Lakshadweep by Anita Mary *et al.* [19,20]. Reijnen *et al.* [21] synonymise four genera (*Acabaria*, *Clathraria*, *Mopsella* and *Wrightella*) belongs to genus *Melithaea* and family Melithaeidae based on the molecular taxonomy. The present study observed distribution of *Melithaea variabilis* in 12m depth at Landfall Island, North Andaman. Nearly 171 species of Gorgonian octocorals are known from the seas around the India, of which about 30 species belonging to 18 genera reported from different places in India by Thomas *et al.* [11,12,3], from southeast coast total 121 species under 34 genera were identified by Antony Fernando [11]. In Andaman and Nicobar Islands, 56 species under 26 genera are reported by YogeshKumar *et al.* [9]. The present study indicates the addition to the diversity index of this marine ecosystem. It is anticipated that several extensive studies are needed in the near future to reveal addition of species content of this Archipelago.

ACKNOWLEDGEMENTS

The authors are thankful to the Department of Science and Technology (DST) and Science and Engineering Research Board (SERB) for financial support to undertake the survey and the Director, Zoological Survey of India and Ministry of Environment Forest and Climate Change (MoEFCC) for faculties provided.

REFERENCE

1. Pratt EM; Alcyonaria of Maldives. Part II. The genera Sarcophytum, Lobophytum, Sclerophytum and Alcyonium. In Gardiner J.S. (ed.) The fauna and geography of the Maldives and Laccadive

archipelagos. Cambridge: Cambridge University Press, 1903;503-539.

2. Thomson JA, Simpson JJ; An account of the alcyonarians collected by the R.I.M.S.S. investigator in the Indian Ocean II. The alcyonarians of the littoral area. Calcutta: The India Museum. 1909; Xii+319.
3. Thomas PA, Rani Mary George, Lazarus S; Distribution of gorgonids in the Northeast coast of India with particular reference to *Heterogorgia flabellum* (Pallas). Journal of Marine Biological Association of India, 1995;37(1&2): pp.134-142.
4. Thomas PA, Rani Mary George; Gorgonid Resources of India. Marine Fisheries Information Service, Technical and Extension Series, CMFRI, Cochin, 1987; 74; 1-14.
5. Usha Bhagirathan SK, Panda, Madhu VR, Meenakumari B; Occurrence of live octocorals in the trawling grounds of Veraval coast of Gujarat, Arabian Sea. Turkish Journal of Fisheries and Aquatic Sciences, 2008; 8:369-372.
6. YogeshKumar JS, Raghunathan C, Venkataraman K; Studies on new findings of Gorgoniidae from Ritchie's Archipelago Andaman and Nicobar Islands. International Journal of Science and Nature, 2012; 3(2):395-405.
7. YogeshKumar JS, Geetha S, Satyanarayana Ch, Venkataraman K, Kamboj RD; New Species of soft corals (Octocorallia) on the reef of Marine National Park, Gulf of Kachchh. Journal of Pharmaceutical and Biological Research , 2014; 2(1):50-55.
8. YogeshKumar JS, Raghunathan C, Venkataraman K; Abundance of shallow water octocorals in the Andaman and Nicobar Archipelago, India. "Marine Faunal Diversity in India, Taxonomy, Ecology and Conservation", Krishnamoorthy Venkataraman and Chandrakasan Sivaperuman (Eds.). Elsevier's Science and Technology Rights Department in Oxford, UK. DOI, Chapter – 2, 2014;15 – 33.
9. YogeshKumar JS, Raghunathan C, Raghuraman R, Sreeraj CR, Venkataraman K; Handbook on Gorgonians (Octocorallia) of Andaman and Nicobar Islands. Published by the Director, Zoological Survey of India, Kolkata, 2014;1-119.
10. Geetha S, YogeshKumar JS, Sornaraj R; Status of Gorgoniidae (Octocorallia) from the Gulf of Mannar Biosphere Reserve, Tamil Nadu, South India. American Journal of Pharmacy and Health Research , 2014;2 (6): 88 – 97.
11. Thomas PA, Rani Mary George; A systematic appraisal of the commercially important gorgonids of the Indian Seas. Journal of the Marine Biological Association of India, 1986;28:96-112.
12. Thomas PA, Rani Mary George; Discovery of a deep water gorgonid off Bombay and Its qualitative appraisal. Proceeding of the first workshop on scientific results of Forv Sagar Sampada, 5-7 June, 1989, Cochin, , 1990; 417-425.
13. Venkataraman K.R, Jeyabaskaran KP, Raghuram, Alfred JRB; Bibliography and checklist of coral

- associated organisms of India. Records of Zoological Survey of India, occasional paper, 2004;226:1-468.
14. Antony Fernando S; Monograph on gorgonids (Sea fans) of India. Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai, Tamil Nadu India, 2011;1-145 (1-95 plates).
 15. Breedy O; A new species of Pacificgorgia from the eastern Pacific. Bull.of the Bio.Soc. Washington, 2001;10:181-187.
 16. Bayer FM; The Shallow water octocorallia of the West Indian region. Stud. Fauna Curacao, 1961;12: 1-373.
 17. Fabricius K, Alderslade P; Soft corals and sea fans – a comprehensive guide to the tropical shallow water genera of the central west Pacific, India Ocean and Red Sea. Townsville, Queensland: Australian Institute of Marine Science. 2001;1-264.
 18. Ofwegen van LP; Melithaeidae (Coelenterata: Anthozoa) from the Indian Ocean and the Malay Archipelago. Zoologische Verhandelingen, Leiden , 1987; 239: 3-57.
 19. Anita Mary G, Robert Sluka D, Lazarus S; Octocoral diversity and distribution on the south-west Indian coast. Marine Biodiversity Records., 2011; 4; e16; pp.1-11.
 20. Anita Mary G, Robert Sluka D; Biodiversity and distribution of octocorals of Minicoy Atoll, Lakshadweep. Atoll Research Bulletin, 2014; 602: 1-17.
 21. Reijnen BT, McFadden CS, Hermanlimianto YT, Ofwegen van LP; A molecular and morphological exploration of the generic boundaries in the family Melithaeidae (Coelenterata: Octocorallia) and its taxonomic consequences. Molecular Phylogenetics and Evolution, 2014; 70:383-401.

TABLE 1 Check list of Gorgonians from India

S.No	SYSTEMATIC POSITION	T & A	AF	KV	YK
	Subclass : Octocorallia Order : Gorgonacea Lamouroux, 1816 Sub Order : Calcaxonia Grasshoff, 2000				
	Family : Ellisellidae Gray, 1859				
	Genus : <i>Dichotella</i> Gray, 1870				
1.	<i>Dichotella gemmacea</i> (Milne Edwards & Haime, 1857)	-	-	-	*
	Genus : <i>Ellisella</i> Gray, 1858				
2.	<i>Ellisella andamanensis</i> Nutting, 1910	*	*	*	*
3.	<i>Ellisella bayeri</i> (Antony Fernando, 2011)	-	*	-	-
4.	<i>Ellisella ceylonensis</i> (Simpson, 1910)	-	*	-	-
5.	<i>Ellisella eustala</i> (Grasshoff, 1999)	-	-	-	*
6.	<i>Ellisella grasshoffi</i> (Antony Fernando, 2011)	-	*	-	-
7.	<i>Ellisella azilia</i> (Grasshoff, 1999)	-	-	-	*
8.	<i>Ellisella cercidia</i> (Grasshoff, 1999)	-	-	-	*
9.	<i>Ellisella filiformis</i> Toeplitz, 1889	*	-	-	-
10.	<i>Ellisella maculate</i> Studer, 1878	*	-	-	-
11.	<i>Ellisella marisrubri</i> (Stiasny, 1938)	-	-	-	*
12.	<i>Ellisella nuctenea</i> (Grasshoff, 1999)	-	-	-	*
	Genus : <i>Junceella</i> Valenciennes, 1855				
13.	<i>Junceella delicate</i> (Grasshoff, 1999)	-	-	-	*
14.	<i>Junceella eunicelloides</i> (Grasshoff, 1999)	-	-	-	*
15.	<i>Juncella juncea</i> (Pallas, 1766)	*	*	*	*
16.	<i>Juncella Miniacea</i> (Thompson & Henderson, 1906)	-	-	*	*
	Genus : <i>Heliania</i>				
17.	<i>Heliania spinescens</i> Gray, 1860	-	*	-	-
	Genus : <i>Viminella</i> Gray, 1870				
18.	<i>Viminella dissimilis</i> (Antony Fernando, 2011)	-	*	-	-
19.	<i>Viminella crassa</i> (Grasshoff, 1999)	-	-	-	*
20.	<i>Viminella junceelloides</i> (Stiasny, 1938)	-	-	-	*
	Genus : <i>Nicella</i> Gray, 1870				
21.	<i>Nicella carinata</i> , Nutting, 1910	-	*	-	-
22.	<i>Nicella cuddlorensis</i> (Antony Fernando, 2011)	-	*	-	-

23.	<i>Nicella dichotoma</i> (Gray, 1860)	*	-	*	*
24.	<i>Nicella gemmacea</i> (Valenciennes, 1855)	-	*	-	-
25.	<i>Nicella gracilis</i> (Antony Fernando, 2011)	-	*	-	-
26.	<i>Nicella laevis</i> (Nutting, 1910)	-	*	-	-
27.	<i>Nicella magna</i> Grasshoff, 1999	-	*	-	-
28.	<i>Nicella rarus</i> (Antony Fernando, 2011)	-	*	-	-
29.	<i>Nicella rubra</i> (Nutting, 1910)	*	*	-	-
30.	<i>Nicella flabellata</i> (Whitelegge, 1897)	-	*	-	*
31.	<i>Nicella laxa</i> Whitelegge, 1897	-	-	-	*
	Genus: <i>Verrucella</i> Milne Edwards & Haime, 1858				
32.	<i>Verrucella balasubramaniani</i> (Antony Fernando, 2011)	-	*	-	-
33.	<i>Verrucella bicolor</i> (Antony Fernando, 2011)	-	*	-	-
34.	<i>Verrucella flexuosa</i> (Klunzinger, 1877)	-	*	*	-
35.	<i>Verrucella ixoboloides</i> (Antony Fernando, 2011)	-	*	-	-
36.	<i>Verrucella pambanensis</i> (Antony Fernando, 2011)	-	*	-	-
37.	<i>Verrucella pinnata</i> (Antony Fernando, 2011)	-	*	-	-
38.	<i>Verrucella pondicheriensis</i> (Antony Fernando, 2011)	-	*	-	-
39.	<i>Verrucella umbraculum</i> (Ellis and Solander, 1786)	*	*	*	-
40.	<i>Verrucella umbella</i> (Esper, 1798)	*	-	-	-
41.	<i>Verrucella cerasina</i> (Grasshoff, 1999)	-	-	-	*
42.	<i>Verrucella corona</i> (Grasshoff, 1999)	-	-	-	*
43.	<i>Verrucella diadema</i> (Grasshoff, 1999)	-	*	-	*
44.	<i>Verrucella gubalensis</i> Grasshoff, 2000	-	*	-	*
45.	<i>Verrucella klunzingeri</i> Grasshoff, 2000	-	-	-	*
	Family : Primnoidae				
	Genus: Pterostenella				
46.	<i>Pterostenella plumatilis</i> (Milne Edwards and Haime, 1857)	-	*	-	-
	Genus: Callogorgia				
47.	<i>Callogorgia versluysi</i> (Thomson, 1905)	-	*	-	-
	Family: Isididae Lamouroux, 1812				
	Genus : Isis Linnaeus, 1758				
48.	<i>Isis hippuris</i> Linnaeus, 1758	*	*	-	*
	Sub Order : Holaxonia Gray, 1859				
	Family: Acanthogorgiidae Gray, 1859				
	Genus : Muricella Verrill, 1868				
49.	<i>Muricella dubia</i> Nutting 1910	*	-	-	-
50.	<i>Muricella paraplectana</i> (Grasshoff, 1999)	-	-	-	*
51.	<i>Muricella rubra</i> (Thompson & Henderson, 1906)	-	-	*	*
52.	<i>Muricella ramose</i> (Thompson & Henderson, 1906)	-	*	*	*
53.	<i>Muricella complanata</i> Wright and Studer, 1889	*	*	-	-
54.	<i>Muricella nitida</i> (Verrill, 1868)	*	*	-	-
55.	<i>Muricella umbraticoides</i> (Studer, 1878)	*	-	-	-
	Family: Acanthogorgiidae Gray, 1859				
	Genus : Acanthogorgia Gray, 1857				
56.	<i>Acanthogorgia breviflora</i> Whitelegge, 1897	-	-	-	*

57.	<i>Acanthogorgia spinosa</i> Hiles, 1899	-	-	-	*
58.	<i>Acanthogorgia cuddalorensis</i> (Antony Fernando, 2011)	-	*	-	-
59.	<i>Acanthogorgia cylindricus</i> (Antony Fernando, 2011)	-	*	-	-
60.	<i>Acanthogorgia ceylonensis</i> Thomson & Henderson, 1905	*	-	-	-
61.	<i>Acanthogorgia delicate</i> (Antony Fernando, 2011)	-	*	-	-
62.	<i>Acanthogorgia macrospiculata</i> (Antony Fernando, 2011)	-	*	-	-
63.	<i>Acanthogorgia muricata</i> Verrill, 1883	-	*	-	-
64.	<i>Acanthogorgia turgia</i> Nutting 1911	*	-	-	-
	Genus: <i>Anthogorgia</i> Verrill, 1868				
65.	<i>Anthogorgia ochracea</i> (Grasshoff, 1999)	-	-	-	*
66.	<i>Anthogorgia glomerata</i> Thomson & Simpson, 1909	-	*	-	-
67.	<i>Anthogorgia racemosa</i> Thomson & Simpson, 1909	-	*	-	-
68.	<i>Anthogorgia ramamoorthii</i> (Antony Fernando, 2011)	-	*	-	-
69.	<i>Anthogorgia virrili</i> Thomson and Henderson, 1906	-	*	-	-
	Family: Gorgoniidae Lamouroux, 1812				
	Genus: <i>Pseudopterogorgia</i>				
70.	<i>Pseudopterogorgia anastomosan</i> (Antony Fernando, 2011)	-	*	-	-
71.	<i>Pseudopterogorgia australiensis</i> (Rideley, 1884)	*	*	-	-
72.	<i>Pseudopterogorgia balasubramanii</i> (Antony Fernando, 2011)	-	*	-	-
73.	<i>Pseudopterogorgia filiformis</i> (Antony Fernando, 2011)	-	*	-	-
74.	<i>Pseudopterogorgia flexibilis</i> (Antony Fernando, 2011)	-	*	-	-
75.	<i>Pseudopterogorgia formosa</i> (Nutting, 1910)	-	*	-	-
76.	<i>Pseudopterogorgia frederickii</i> (Williams and Vennam, 2001)	-	*	-	-
77.	<i>Pseudopterogorgia kodiakaraiensis</i> (Antony Fernando, 2011)	-	*	-	-
78.	<i>Pseudopterogorgia kotapatnamensis</i> (Antony Fernando, 2011)	-	*	-	-
79.	<i>Pseudopterogorgia mandabamensis</i> (Antony Fernando, 2011)	-	*	-	-
80.	<i>Pseudopterogorgia mangalorensis</i> (Antony Fernando, 2011)	-	*	-	-
81.	<i>Pseudopterogorgia oliviae</i> (Antony Fernando, 2011)	-	*	-	-
82.	<i>Pseudopterogorgia oppositipinna</i> (Ridley, 1888)	-	*	-	-
83.	<i>Pseudopterogorgia pandiani</i> (Antony Fernando, 2011)	-	*	-	-
84.	<i>Pseudopterogorgia philippi</i> (Antony Fernando, 2011)	-	*	-	-
85.	<i>Pseudopterogorgia rubra</i> (Antony Fernando, 2011)	-	*	-	-
86.	<i>Pseudopterogorgia rubrotincta</i> (Thomson	-	*	-	-

	and Henderson, 1905)				
87.	<i>Pseudopterogorgia thomassini</i> Tixier-Durivault, 1972	-	*	-	-
88.	<i>Pseudopterogorgia undulata</i> (Antony Fernando, 2011)	-	*	-	-
89.	<i>Pseudopterogorgia vedalaiensis</i> (Antony Fernando, 2011)	-	*	-	-
90.	<i>Pseudopterogorgia williamsi</i> (Antony Fernando, 2011)	-	*	-	-
	Genus: Guaiagorgia				
91.	<i>Guaiagorgia anas</i> (Grasshoff and Alderslade, 1997)	-	*	-	-
	Genus: <i>Rumphella</i> Bayer, 1955				
92.	<i>Rumphella aggregate</i> (Nutting, 1910)	-	-	-	*
93.	<i>Rumphella torta</i> Klunzinger, 1877	-	-	-	*
	Genus : <i>Hicksonella</i> Nutting, 1910				
94.	<i>Hicksonella princeps</i> Nutting, 1910	-	-	-	*
	Family: Plexauridae Gray, 1859				
	Genus: <i>Heterogorgia</i> Verrill, 1868				
95.	<i>Heterogorgia flabellum</i> (Pallas, 1766)	*	-	-	-
	Genus: <i>Thesea</i> Duchassaing & Michelothi, 1860				
96.	<i>Thesea flava</i> Nutting, 1910	*	-	*	-
	Genus : <i>Menella</i> Gray, 1870				
97.	<i>Menella indica</i> Gray, 1870	-	-	-	*
98.	<i>Menella kanisa</i> Grasshoff, 2000	-	-	-	*
99.	<i>Menella kouare</i> Grasshoff, 1999	-	-	-	*
100.	<i>Menella woodin</i> Grasshoff, 1999	-	-	-	*
101.	<i>Menella flora</i> (Nutting, 1910)	*	*	-	*
102.	<i>Menella idinthakaraiensis</i> (Antony Fernando, 2011)	-	*	-	-
103.	<i>Menella praelonga</i> (Ridley, 1884)	*	-	-	-
	Genus: <i>Bebryce</i> Philippi, 1841				
104.	<i>Bebryce sirene</i> (Grasshoff, 1999)	-	-	-	*
105.	<i>Bebryce studeri</i> Whitelegge, 1897	-	*	-	*
106.	<i>Bebryce indica</i> Thomson, 1905	-	*	-	-
107.	<i>Bebryce thomsoni</i> Nutting, 1910	-	*	-	-
	Genus: <i>Echinogorgia</i> Kolliker, 1865				
108.	<i>Echinogorgia toombo</i> (Grasshoff, 1999)	-	*	-	*
109.	<i>Echinogorgia complexa</i> Nutting, 1910	*	*	-	-
110.	<i>Echinogorgia disimilis</i> (Antony Fernando, 2011)	-	*	-	-
111.	<i>Echinogorgia longisspinosa</i> (Antony Fernando, 2011)	-	*	-	-
112.	<i>Echinogorgia macrospiculata</i> Thomson and Simpson, 1909	*	*	-	-
113.	<i>Echinogorgia reticulate</i> (Esper, 1799)	*	*	-	-
114.	<i>Echinogorgia seshaiyai</i> (Antony Fernando, 2011)	-	*	-	-
	Genus: <i>Paraplexaura</i>				
115.	<i>Paraplexaura mannarensis</i> (Antony Fernando, 2011)	-	*	-	-
116.	<i>Paraplexaura maxima</i> (Antony Fernando, 2011)	-	*	-	-
117.	<i>Paraplexaura multiplanar</i> (Antony Fernando, 2011)	-	*	-	-
118.	<i>Paraplexaura platysclera</i> (Antony Fernando, 2011)	-	*	-	-

	Genus: Astrogorgia				
119.	<i>Astrogorgia anastomosan</i> (Antony Fernando, 2011)	-	*	-	-
120.	<i>Astrogorgia bicolor</i> (Antony Fernando, 2011)	-	*	-	-
121.	<i>Astrogorgia cuddalorensis</i> (Antony Fernando, 2011)	-	*	-	-
122.	<i>Astrogorgia krusadaiensis</i> (Antony Fernando, 2011)	-	*	-	-
123.	<i>Astrogorgia macrosclera</i> (Antony Fernando, 2011)	-	*		
124.	<i>Astrogorgia nagapainamensis</i> (Antony Fernando, 2011)	-	*	-	-
125.	<i>Astrogorgia seshaiyai</i> (Antony Fernando, 2011)	-	*	-	-
126.	<i>Astrogorgia sinensis</i> (Antony Fernando, 2011)	-	*	-	-
127.	<i>Astrogorgia wvariensis</i> (Antony Fernando, 2011)	-	*	-	-
23	Genus: Acanthomuricea				
128.	<i>Acanthomuricea arborea</i> (Antony Fernando, 2011)	-	*		
129.	<i>Acanthomuricea nagapatinamensis</i> (Antony Fernando, 2011)	-	*	-	-
130.	<i>Acanthomuricea tuticorinensis</i> (Antony Fernando, 2011)	-	*	-	-
	Genus: Echinomuricea Verrill, 1869				
131.	<i>Echinomuricea indica</i> Thomson & Simpson, 1909	*	-	-	*
132.	<i>Echinomuricea indomalaccensis</i> Ridley, 1884	*	*	-	*
133.	<i>Echinomuricea cuddalorensis</i> (Antony Fernando, 2011)	-	*	-	-
	Genus: Euplexaura Verrill, 1869				
134.	<i>Euplexaura amerea</i> (Grasshoff, 1999)	-	-	-	*
135.	<i>Euplexaura rhipidalis</i> Studer, 1895	-	-	-	*
136.	<i>Euplexaura albida</i> Kukenthal, 1908	-	*	-	-
137.	<i>Euplexaura koothankuliensis</i> (Antony Fernando, 2011)	-	*	-	-
138.	<i>Euplexaura thomsoni</i> (Kukenthal, 1924)	-	*	-	-
	Genus: Discogorgia				
139.	<i>Discogorgia squamata</i> (Nutting, 1910)	-	*	-	-
140.	<i>Discogorgia companulifera</i> (Nutting, 1910)	*	-	-	-
	Genus: Trimuricea Gordon, 1926				
141.	<i>Trimuricea caledonica</i> (Grasshoff, 1999)	-	-	-	*
142.	<i>Trimuricea cuddalorensis</i> (Antony Fernando, 2011)	-	*	-	-
143.	<i>Trimuricea indica</i> (Antony Fernando, 2011)	-	*	-	-
144.	<i>Trimuricea longispinosa</i> (Antony Fernando, 2011)	-	*	-	-
145.	<i>Trimuricea reticulate</i> (Thomson and Simpson, 1909)	-	*	-	-
146.	<i>Trimuricea robusta</i> (Antony Fernando, 2011)	-	*	-	-
	Genus: Paracis				
147.	<i>Paracis ceylonensis</i> (Thomson and	-	*	-	-

	Henderson, 1905)				
148.	<i>Paracis rigida</i> Thomson and Simpson, 1909	-	*	-	-
149.	<i>Paracis spinosa</i> (Thomson and Henderson, 1906)	-	*	-	-
	Genus: <i>Villogorgia</i> Duchassaing & Michelloti, 1862				
150.	<i>Villogorgia tenuis</i> (Nutting, 1908)	-	*	-	*
151.	<i>Villogorgia ceylonensis</i> (Thomson and Henderson, 1905)	-	*	-	-
	Sub Order: Scleraxonia Studer, 1887				
	Family: Melithaeidae Gray, 1870				
	Genus : <i>Melithaea</i> Milne-Edwards, 1857				
152.	<i>Melithaea andamanensis</i> Ofwegen, 1987	-	*	-	-
153.	<i>Melithaea biserialis</i> Kukenthal, 1908	-	*	-	-
154.	<i>Melithaea variabilis</i> (Hickson, 1905)	-	-	-	*
155.	<i>Melithaea cinquemiglia</i> (Grasshoff, 1999)	-	-	-	*
156.	<i>Melithaea ouvea</i> (Grasshoff, 1999)	-	-	-	*
157.	<i>Melithaea caledonica</i> (Grasshoff, 1999)	-	-	-	*
158.	<i>Melithaea ochracea</i> (Linnaeus, 1785)	-	-	-	*
159.	<i>Melithaea squamata</i> (Nutting, 1911)	-	*	-	-
160.	<i>Melithaea rubeola</i> (Wright & Studer, 1889)	-	*	-	*
161.	<i>Melithaea braueri</i> Kükenthal, 1919	-	-	-	*
	Family : Parisididae				
	Genus: <i>Parisis</i>				
162.	<i>Parisis fruticosa</i> Verril, 1864	*	*	-	-
	Family: Keroeides				
	Genus: <i>Keroeides</i>				
163.	<i>Keroeidos gracilis</i> Whitelegge, 1897	-	*	-	-
164.	<i>Keroeides koreni</i> Wright and Studer, 1889	-	*	-	-
	Family: Anthothelidae				
	Genus: <i>Solenocaulon</i>				
165.	<i>Solenocaulon sterroclonium</i> Germanos, 1896	-	*	-	-
166.	<i>Solenocaulon tortuosum</i> Gray, 1862	*	*	-	-
	Genus: <i>Erythropodium</i>				
167.	<i>Erythropodium pambanensis</i> (Antony Fernando, 2011)	-	*	-	-
	Family: Subergorgiidae Gray, 1859				
	Genus : <i>Annella</i> Gray, 1858				
168.	<i>Annella mollis</i> , Nutting, 1910	-	*	-	*
169.	<i>Annella reticulata</i> (Ellis & Solander, 1786)	*	*	*	*
	Genus: <i>Subergorgia</i> Gray, 1857				
170.	<i>Subergorgia rubra</i> Thomson, 1905	-	*	-	*
171.	<i>Subergorgia suberosa</i> (Pallas, 1766)	*	*	*	*
	Total	30	111	21	56

*present, - absent, T& A - Thomas Ranimary George [11, 12, 9]; AF - Antony Fernando [14]; KV - Venkataraman *et al.*[13]; YK - YogeshKumar *et al.*[9].

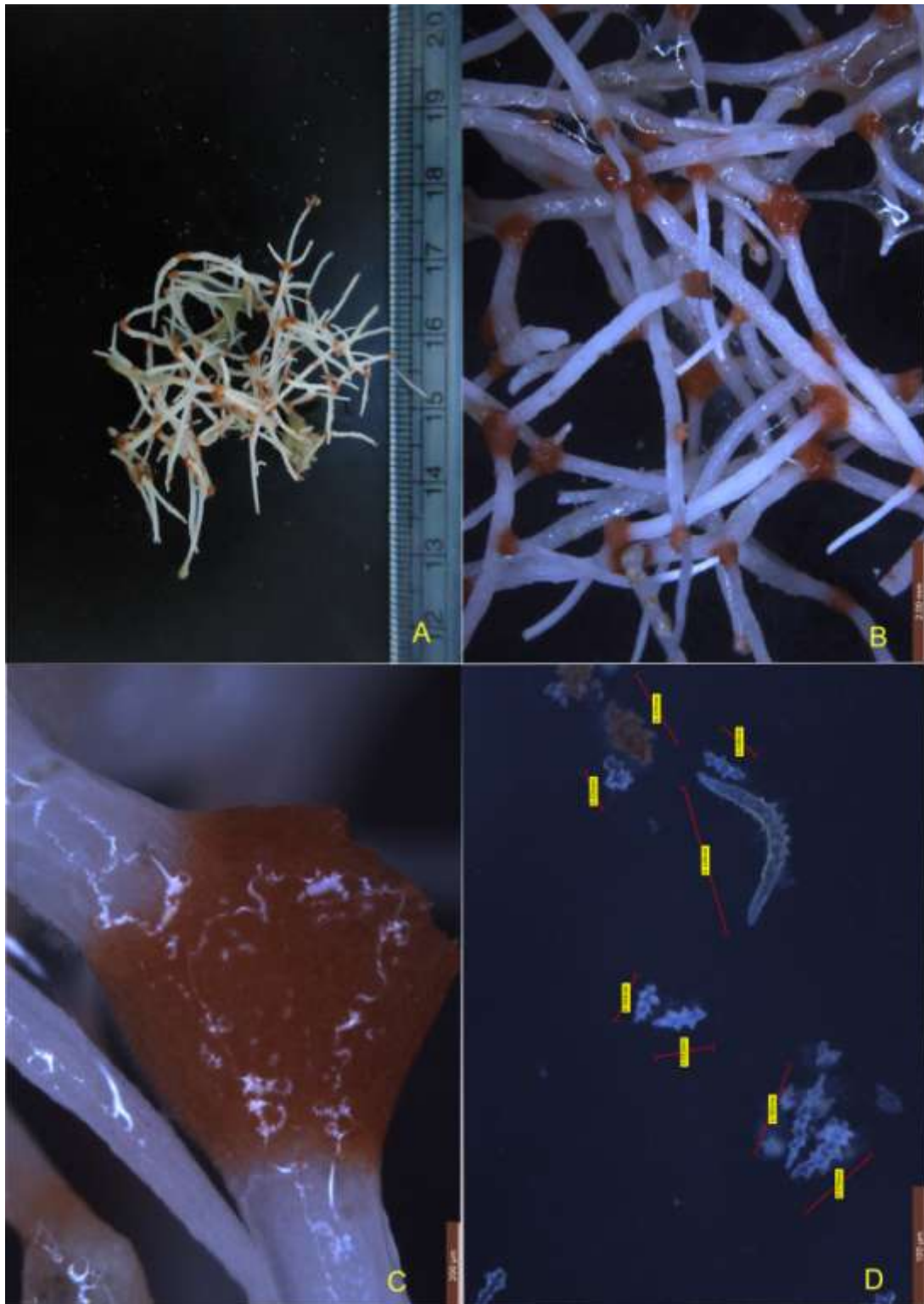


FIG-1: A & B - *Melithaea variabilis* (Hickson, 1905) specimen, C – Node and Internode structure, D – Sclerites examination under the Licka DFC 500 microscope.

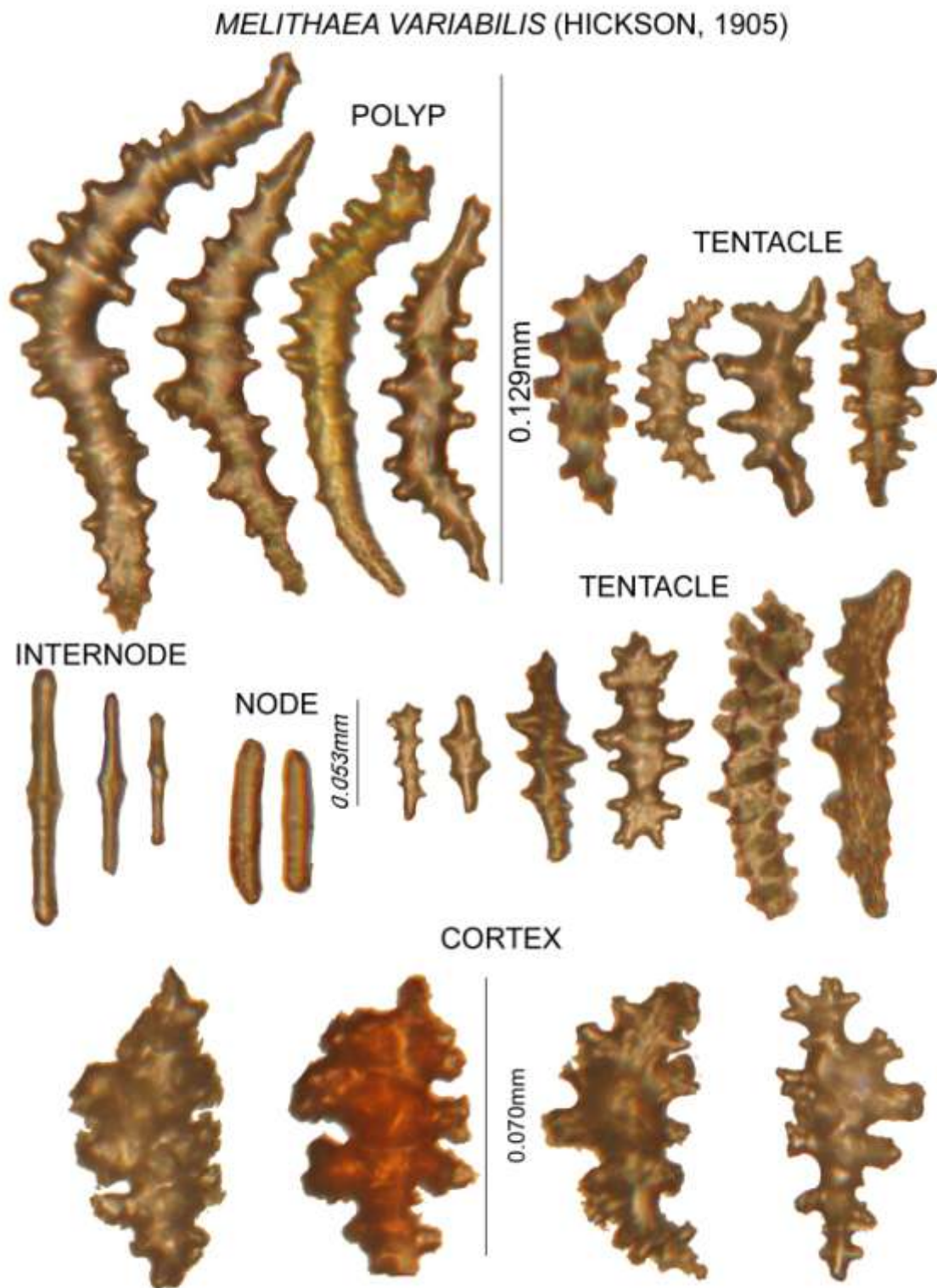


FIG-2 :Different type of sclerites in the specimen of *Melithaea variabilis* species.