Abstract

Hexacorals (Scleractinia), collected by the Japanese Antarctic Research Expedition in the sea off Prince Harald Coast near the Syowa Station during the 1957-1958 cruises, were studied and the following 9 species were identified by the author.

Bathyactis symmetrica (POURTALÈS)
Caryophyllia antarctica VON MARENZELLER
Caryophyllia sp.
Ceratotrochus? sp.
Desmophyllum pseudoseptata EGUCHI, n. sp.
Desmophyllum? sp.
Flabellum distinctum M. EDW. et H.
Fl. transversale conicum YABE et EGUCHI
Fl. ongulense EGUCHI, n. sp.

All the above genera are known as cosmopolitan and deep-sea corals. Three of them, *Caryophyllia* sp., *Ceratotrochus*? sp., and *Desmophyllum*? sp., are rather worn and even their generic identification is doubtful. Other two, *D. pseudoseptata* n. sp. and *Fl. ongulense* n. sp., are new to science. Cosmopolitan species are *Bathyactis symmetrica* and *Flabellum distinctum; Fl. transversale conicum* is common in the Japanese waters. *Caryophyllia antarctica* is an antarctic species known in other parts of the Antarctic Sea.

I. INTRODUCTION

Occurrence ot corals was recorded in my previous paper on Stylasterina in this series[1),2)]. Later the writer has described the Scleractia, dredged from the deep sea bottom, off the Cape Cook of the Prince Harald Coast, Antarctica. The materials examined by the writer came partly from the SOYA collection of the Japanese Antarctic Research Expedition in 1958, and partly from the UMITAKA-MARU of the Tokyo University of Fisheries during her observation cruise to the Antarctic Sea, 1957. The latter material was figured by Dr. H. NIINO in 1958[7)]. Both materials are systematically revised on this occasion.

Before proceeding further, the writer express his cordial thanks to Prof. T. TOKIOKA and Prof. F. UTINOMI of the Seto Marine Biological Laboratory, Kyoto University, and Dr. R. YOSII of Yoshida College, Kyoto University, for their kind offer of material. Thanks are also due to Dr. H. NIINO of the Tokyo University of Fisheries. The corals were photographed partly by the Late Ju SATO and partly by T. NARASAKA, and drafted by K. KODAIRA of the Department of Mining Engineering, Faculty of Engineering, Tohoku University, Sendai. A part of the expenses of this work was defrayed by the Scientific Research Fund, Ministry of Education, Japanese Government.

II. ECOLOGICAL CONDITION OF THE LOCALITIES

The Syowa Station of the Japanese Antarctic Research Expedition is situated on the Ongul Islands lying near the eastern entrance to Lützow-Holm Bay of the Crownprince Olav and Prince Harald Coast. Cape Cook is extending northward into the shallow submarine ridge, less than 2,000 m in depth, until lat. 66°N (Fig. 1).

According to Dr. H. NIINO[7)], the temperature of the sea water deeper than 400 m rise to $+0.22° \sim +0.35°$ and the Cl content ranges from 19.13 to 19.21‰. The coral-bearing bottom diposit is characterized by breccia or angular pebbles and coarse sand (Fig. 2).

Bathymetric distribution of corals in the localities is as follows:

500 m deep — *Caryophyllia antarctica* VON MARENZELLER
Caryophyllia sp.

	Bathyactis symmetrica (POURTALÈS)
530-670 m deep	*Flabellum ongulense* EGUCHI, n. sp.
650 m deep	*Caryophyllia* sp.
	Flabellum sp.
	Caryophyllia sp.
639-689 m deep	*Flabellum distinctum* M. EDW. et H.
	Desmophyllum pseudocostata EGUCHI, n. sp.
	Desmophyllum sp.
	Ceratotrochus? sp.
790 m deep	*Flabellum* sp.
970 m deep	*Flabellum transversale conicum* YABE et EGUCHI

Data of the stations where the corals were trawled by the Japanese Antarctic Research Expedition in 1957 and 1958 are given below.

Table 1. SOYA stations, with coral.

Specimen No.	SOYA St. No.	Date	Location	Depth (m)	Species
3		Feb. 21, 1958	Off Cape Cook	970	*Flabellum transversale conicum* Y. et EG.
1	6	Jan. 27, 1958	Gunnerus Bank	650	*Caryophyllia* sp.
7	6	〃 〃	〃	〃	*Caryophyllia*? sp.
6	6	〃 〃	〃	〃	*Flabellum* sp.
2	3	Jan. 28, 1958	Off Cape Cook	500	*Caryophyllia*? sp.
4	3	〃 〃	〃	〃	*C. antarctica* MAR.
5	3	〃 〃	〃	〃	*Bathyactis symmetrica* (POURT.)

Table 2. UMITAKA-MARU stations, with coral.

Specimen No.	UMITAKA-MARU St. No.	Date	Location	Depth (m)	Species
6	4	Feb. 7, 1957	Off Cape Cook 67°48.5′S, 33°41.0′E	790	*Flabellum* sp.
10	6	〃 〃	Off Cape Cook 67°51.5′S, 33°13.5′E	639-689	*Ceratotrochus*? sp.
40	6	〃 〃	〃 〃	〃	*Desmophyllum pseudocostata* n.
50	6	〃 〃	〃 〃	〃	*Desmophyllum*? sp.
20	6	〃 〃	〃 〃	〃	*Flabellum distinctum* M. E. et H.
30	7	Feb. 12, 1957	Off Cape Cook 68°07.0′S, 32°00.0′E 68°05.0′S, 32°00.0′E	530-670	*Flabellum ongulense* n.

Species without specific name are mostly damaged or poorly preserved, unabling specific identification.

The nine species discriminated are all of the cosmopolitan genera, of which six species are well preserved and may have been in the living state, with their fresh soft parts still retained. Among them two new species are fully described here for the first time. *Caryophyllia antarctica* was formerly known from the Ross Sea. Other three species are all known from the continental shelf of Japan. *Bathyactis symmetrica* and *Flabellum distinctum* are cosmopolitan species, but this is the first record of their occurrence in the Prince Harald Coast, Antarctica. As already stated, other corels are poorly preserved or damaged, so more specimens are required for specific identification.

III. SYSTEMATIC DESCRIPTION OF THE SPECIES

Order SCLERACTINIA BOURNE, 1900
Suborder FUNGIINA VERRILL, 1865
Family FUNGIIDAE DANA, 1846
Genus *Bathyactis* MOSELEY, 1881 Genotype : *Fungia symmetrica* POURTALÉS
Tert.-Recent, depth range 58-5868 m.

According to VAUGHAN and WELLS (1943), Genus *Bathyactis* MOSELEY is synonymous with *Fungiacyathus* SARS 1872. However the present writer has had no opportunity to refer to the report by G. O. SARS.*

Bathyactis symmetrica (POURTALES) 1871 (Pl. I, Figs. 4a, 4b, 4c)

Synonym :

Fungia symmetrica POURTALES, L. E. de, 1871, Deep Sea corals, Harvard Call. Mus. Comp. Zool,. Illus. Cat. No. 4, p. 46, Pl. 7, Figs. 5-6.

Fungiacyathus symmetrica (POURTALES) SARS, M., 1872, Remarkable forms of animal life from the great deeps off the Norwegian coast. Univ. Christiania, Progr. 1st half 1869. m. s. (Posthumous publication by G. O. SARS. After VAUGHAN and WELLS, 1943).

Bathyactis symmetrica MOSELEY, H. N., 1881, Rep. Challenger, Zool., Vol. 7, p. 186, Pl. 11, Figs. 1-13a.

Bathyactis symmetrica JOURDAN, E., 1895, Zoanthaires provenant des campagnes du yacht "Hirondelle", Monaco., p. 26.

Bathyactis symmetrica ALCOCK, A., 1898, Deep-Sea Madreporaria "Investigator", p. 26.

Bathyactis symmetrica ALCOCK, A., 1902, Siboga Exped., Monograph. Vol. 16a, p. 37.

Bathyactis symmetrica FAUSTINO, L. A., 1927, Philippine Bur. Sci., Monogr. Vol. 22, p. 213.

Bathyactis symmetrica YABE and EGUCHI, 1932, Proc. Imp. Acad., Japan, Vol. 8, No. 8, p. 387.

* Remarkable forms of animal life from great deeps off the Norwegian coast. Univ. Christiania Progr. 1st half 1869, M. S.

Bathyactis symmetrica YABE and EGUCHI, 1942, Fossil and Recent Simple Corals from Japan, Sci. Rep. Tohoku Imp. Univ. Sendai, Japan, Vol. 22, No. 2, p. 137.

? *Fungiacyathus symmetrica* (POURTALES), VAUGHAN and WELLS, 1943, Geol. Soc. Am. Sp. Paper, No. 44, p. 144, Pl. 34, Figs. 1, 4.

Fungiacyathus symmetrica (POURTALES), WELLS, J. W., 1956, Scleractinia, in Treatise on Invertebrate Paleontology, (F), p. 390, Text-fig. 281, 3a, 3b.

Corallum simple, cupoloid, 20 mm in diameter, 5 mm high; wall almost horizontal, thin, and slightly concave, with well-developed radial costae, excepting near the central scar, more distinct marginally. Septa very thin, 48 in number, six of the first cycle extending to centre, and end free; six of the second cycle develope as the former, and twelve of the third cycle join the former near the centre, and 24 of the fourth cycle join the former at about half way of the third cycle. Thus forming six regular deltoid groups; calinae well developed, thin but broad, numbering some 22 on a larger septum with lateral teeth; upper margin of septa seems to be dentate, due to the upper margin of calinae. Synapticulae present, columella rudimentary.

Remarks: Above is the description of our specimen from the sea off Cape Cook, 500 m deep and agrees fairly well with the type species. Only slight differences from the type are the larger size of corallum and prominent calinae.

Bathyactis MOSELEY[6], 1881 is well established. However, as to the taxonomic value of this genus, according to VAUGHAN and WELLS (1943), *Fungiacyathus* SARS 1872, based on *Fungiacyathus fragilis* SARS is conspecific with *Bathyactis symmetrica* (POURTALES) and still remained doubtful.

According to MOSELEY**, "This species has been proved by dredgings to be one of the most constantly recurring of deep-sea animals, with a world-wide distribution. It occurred in the North and South Atlantic, near the Ice barrier in the Southern Sea, off the West Indies, in the North and South Pacific Oceans, and among the Moluccas. It has a more extended range in depth than almost any other animal, having been obtained by us in 30 fathoms off Bermuda and at all intermediate depths down to 2,900 fathoms. It occurs on all kinds of bottom. It sustains a range of temperature from 1° to 20°C."

Locality: Off Cape Cock, 68°14.7'S, 33°37.0'E, 500 m deep. Jan. 28, 1958. 1 dead specimen.

Distribution: Cosmopolitan, occurring in all ocean floors of the world, at depths 32-2900 fathoms.

Suborder CARYOPHYLLIINA VAUGHAN et WELLS, 1943
Family CARYOPHYLLIIDAE GRAY, 1847
Subfamily CARYOPHYLLIINAE GRAY, 1847
Genus *Caryophyllia* LAMARCK, 1801 Genotype: *Madrepora cyathus* ELLIS et SOLANDER, 1786.

Up. Jura-Recent, depth range 0-2743 m.

** Sir Wyville THOMSON, The Voyage of the Challenger, ii, p. 150-151, 1877.

Table 3. Distribution of Bathyactis symmetrica.

Dredged by	Locality	Depth (fathoms)
Michael Sars	North Sea	191
Ingolf	Off Iceland	450–1135
U. S. Fish Commission	Off Martha's Vineyard	225– 252
Bache	Off Florida	350– 450
Hassler	Off Barbados	110
Princess Alice	Off Azores	660–1950
Challenger	Off Azores and Bermuda	32–1075
〃	South Atlantic	1900–2650
〃	Southern Indian Ocean	1600–1950
Valdivia	Zanzibar Channel	235
Investigator	Off Maldives	719
〃	Off Coromandel Coast	690– 920
Challenger	Malay Archipelago	360–2240
Siboga	Malay Archipelago	145– 945
Challenger	Off East of Japan	2300–2900
〃	Off Valparaiso	1375
Mabahiss	Gulf of Aden	328–1000
〃	Off southern Arabian Coast	523– 974
l'Hirondelle	Mediterranean	— (meters)
Soyo-Maru st. 259	Mouth of Suruga Bay, Japan.	188
〃 st. 283	Seno-umi, Suruga Bay, Japan	177
〃 st. 293	Off W. of Tanega-sima, Japan	203
〃 st. 420	Off W. of Nomano-saki, Japan,	132
Dr. Wells	Off Wristan de Cunha	3700
Soya 1958	Off Cape Cook	500

Caryophyllia antarctica von Marenzeller, 1904 (Pl. I, Figs. 1a, 1b)

Synonym:

Caryophyllia antarctica von Marenzeller, 1904, Steinkorallen, Wiss. Erg. d. Deut. Tiefsee-Exped. 'Valdevia', 1898-1899, Vol. 7, p. 293, Pl. 16, Figs. 7a-d.

Corallum simple, bell-shaped, with a short stalk of 4 mm in diameter. Calice circular, 14.6 mm in diameter, and 19 mm high. Costae distinct at upper margin, corresponding to the septa; numbering to the 48, of which septa of the first and second cycles are equally developed and exert above the calicular margin; each 12 septa of the third cycles has palus before the inner margin. All the septa are laterally granulated. Columella parietal, spongy. Costae are finely granulated at the outer surface, especially near the calicular margin. Septal formula, according to sizes; 12+12+24, in regular hexameral plan. Number (Septa) of each chambers $\frac{3.3.3.3.3.3}{3.3.3.3.3.3}$.

Remarks: Above described corallum agrees fairly well with the type, only slight differences not serve specific distinction are smaller size and not geniculate or curved corallum.

Locality: Off Cape Cook, 500 m deep, Jan. 28, 1958, SOYA station.

Distribution: 71°09′S, 89°15′W; 70°23′S, 82°47′W, East of Bouvet Island, 567 m deep, and off Prince Harald Coast, 500 m deep.

Caryophyllia sp. (Pl. I, Figs. 2a, 2b).

Corallum simple, delicate in texture, elongate conical, straight, with rather large stalk, base extended widely. Costae straight subequal, minutely granulated, interspaces narrow. Septa thin, sinuous, some 38 in number, 6+6+12+14, according to their sizes. Although originally arranged in a hexameral plan, the arrangement is not so regular. Calice 10×7 mm in size; 18 mm high; diameter of pedicle 3 mm. Columella spongy, well developed; pali broad, well developed.

Remarks: A single specimen more or less worn at calicular margin is described and figured; it shows some resemblance with certain species of *Flabellum*, especially its young form, but essentially differs by having columella and pali. It may probably be representing a new species, although more material is needed for specific identifications.

Locality: Gunnerus Bank, 630 m deep, Jan. 27, 1958, SOYA station.

Genus *Ceratotrochus* MILNE EDWARD et HAIME, 1848 Genotype: *Turbinolia multiserialis* MICHELOTTI, 1838.

M. Cret.-Recent, depth range 27-732 m.

Ceratotrochus? sp. (Pl. II, Figs. 1a, 1b)

Corallum conical, short with a stalk, calice circular, 31 mm in diameter, and 20 mm high; pedicle rather large, some 6 mm in diameter and slightly curved in one direction. Septa rather thin, alternating in size; 88 in number, arranged in three sizes, the formula according to sizes, 22+22+44; 22 are the longest, and 22 of the next size are slightly shorter than the former, and 44 of the smaller septa are rudimentary. Costae distinct only near the margin of calice; lateral side of corallum longitudinally striated and also transversely rugose annulations of epitheca present. Columella and pali not observed.

Remarks: NIINO[7] has illustrated the specimen as *Ceratotrochus parahispidus* YABE and EGUCHI. However, it can be easily distinguised from the Japanese species by having more irregular arrangement of septa as described above. It bears some resemblance to *Gardineria lili* GARDINER, but is easily distinguished from the latter by different arrangement of septa. For a full study of the specimen, more material is needed.

Locality: Off Cape Cook, 67°51.5′S, 33°13.5′E, 630-680 m deep, Feb. 7, 1957, UMITAKA-MARU st. 6.

Subfamily DESMOPHYLLIDAE VAUGHAN et WELLS, 1943.

Genus *Desmophyllum* EHRENBERG, 1834 Genotype: *Desmophyllum dianthus* EHRENBERG, 1834.

M. Cret.—Recent, depth range 0-2286 m.

Desmophyllum pseudoseptata EGUCHI, n. sp. (Pl. II, Figs. 3a, 3b, 3c)

Corallum simple, subcylindrical, like a flower of the morning-glory, but more or less compressed laterally; calice 55×38 mm in size, 52 mm high, basal scar 15×12 mm. Septa well developed, 89 in number, larger septa (number 11) extending to the rudimentary columella, and the second sized 10 are nearly reaching the centre; third sized reach halfway to the centre with thinner inner margin, on both sides of the latter with further small and thinner septa; thus fifth incomplete hexameral cycles are developed. Septal formula, according to the chambers, 7.7.7.7.7 .
7.7.7.7.7.7

Septal faces with granules and septa are very sinuous in younger one. Pseudocostae are represented by well-developed septal grooves corresponding exactly to the septa in the calice. Columella rudimentary or absent, however, at deeper bottom, some trabecles of the inner and lower margin of septa are fused to form pseudo-columella. Epitheca thin and faint, transverse rings showing the growth lines.

Remarks: The above described specimen is a detached one; the concave septal grooves on the lateral face of the corallum are very peculiar, so that this species is easily distinguished from all the known species of the genus. It bears some resemblance to *D. delicatum* YABE & EGUCHI from the Japanese deep waters, but can be easily distinguished from the latter by having larger corallites and the above-descrived characteristics. *D. crista-galli* M. EDW. et H. is another similar form, but easily distinguishable from this species by the absence of pseudocostae.

Locality: Off Cook Cook, 67°51.5′S, 33°13.5′E, 630-680 m deep. Feb., 7, 1957, UMITAKA-MARU st. 6.

Desmophyllum? sp. (Pl. II, Fig. 4)

A single worn specimen having a somewhat dendritic aspect; largest corallite measures 25 mm in diameter, 44 mm high, with a rootlike projection at the base, laterally it is provided with small buds, 10 mm in diameter and geniculate upwards, as shown in Fig. 4. Two more small corallites but at the lateral side of the parents corallite, the margin of which is also badly damaged. Number of septa and other inner structures are not known, as the specimen is badly damaged. Outer surface smooth, calicular fossa deep, looking like a cylindrical tube with narrow septal ridges at the inner side of the tube.

Whether it is originally a colonial form or an aggregate of simple forms cannot be ascertained, hence the generic identification is still questionable. However, the general form agrees fairly well with the aggregated form of *D. dianthus* (ESPER).

More material is needed for further study.

Locality: Off Cope Cook, 67°51.5′S, 33°13.5′E, 630-680 m deep., Feb. 7, 1957, UMITAKA-MARU st. 6.

Family FLABELLIDAE BOURNE, 1905

Genus *Flabellum* LESSON, 1881 Genotype: *Flabellum pavoninum* LESSON, 1831

Eoc.-Recent, depth range 3-3183 m.

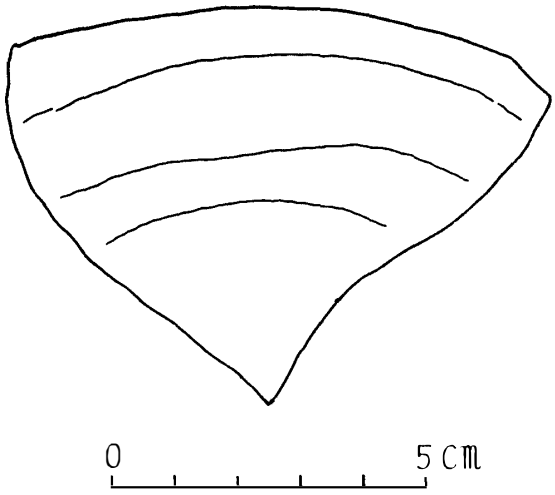

Fig. 3. Flabellum distinctum M. Edw. et H.
Lateral view.

Flabellum distinctum M. Edw. et H. (Fig. 3)

Synonym:

Flabellum distinctum Milne Edwards et Haime, 1848, Ann. Sci. Nat., Ser. 3, Zool., p. 262.

Flabellum laticostatum Tenison-Woods, 1880, Palaeont. New Zealand, Pt. 4, p. 14, Fig. 11.

Flabellum australe Moseley, 1881, Rep. Challenger, Zool., Vol. 7, p. 173, Pl. 7, Figs. 4, 4a, 5, 5a.

Flabellum patens Moseley, 1881, *ibid*, p. 172, Pl. 6, Figs. 4, 4a, 5, 5a.

Flabellum chunii von Marenzeller, 1904, *loc. cit.*, p. 274, Pl. 18, Figs. 14a-b.

Flabellum medioplicatum Dennant, 1904, Trans, Roy. Soc. S. Aust., 28, p. 52, Pl. 22, Fig. 2.

Flabellum pavoninum var. *distinctum* Vaughan, 1907, Bull. U.S. Nat. Mus. 59, p. 56, Pl. 2, Figs. 5, 5a.

Flabellum pavoninum var. *distinctum* Felix, 1920, Jungtert. u. quart. Anth. von Timor u. Obi, II, p. 31.

Flabellum pavoninum var. *distinctum* Gravier, 1920, Madreporaires provennant des Campagnes des Yachts Princesse-Alice et Hirondelle, p. 67.

Flabellum pavoninum var. *distinctum* Umbgrove, 1924, Rep. on Pleistocene and Pliocene corals from Ceram, p. 5.

Flabellum distinctum Yabe and Eguchi, 1932, *loc. cit.*, p. 443.

Flabellum distinctum Yabe and Eguchi, 1942, Fossil and Recent *Flabellum* from Japan, p. 93, pl. 5, Figs. 3-6, Pl. 6, Eigs. 3-4, 9-10, Pl. 7, Eig. 5.

Flabellum distinctum Yabe and Eguchi, 1942, Fossil and Recent Simple Corals from Japan, p. 130, Pl. II, Fig. 10-12.

Flabellum pavoninum distinctum Milne Edwards et Haime, Squires, D. F., 1958, N. Z. Geol. Survey, Pal. Bull. 29, p. 65, Pl. 13, Figs. 1-12.

A large specimen 95 mm broad and 71 mm high, with pointed pedicle is assigned to the present species. The lateral angle is 90° at the base, but more

opened upward, being 120°. NIINO reported it as *Fl. marmeri* GARDINER in his paper in 1958[7]. In the shape of corallum and other characteristics it agrees fairly well with *Fl. distinctum*. So far as the pedicle is concerned, it agrees fairly well with *Fl. curvatum* MOSELEY, but the lateral angle is larger. In this respect *Fl. thouarsii* M. EDW. et H. also falls in the variation of the present species.

Locality: Off Cope Cook, 67°51.5′S, 33°13.5′E, 630-680 m deep, Feb. 7, 1957, UMITAKA-MARU st. 6.

Distribution: East Indies, 204-289 m; Australian Sea, 120 fathoms; Red Sea; Mediterranean Sea, 304-994 fathoms; Atlantic Ocean, 454-914 m; near the Hawaiian Islands, 7-143 fathoms; Japan, 77-658 m; Antarctic Sea, 630-680 m. Miocene — Recent.

Flabellum transversale conicum YARE et EGUCHI, 1942 (Pl. I, Figs. 3a, 3b)

Synonym:

Flabellum transversale conicum YABE et EGUCHI, 1942, Fossil and Recent *Flabellum* from Japan, *loc. cit.*, p. 100, Pl. 7, Figs. 8a-c.

Flabellum transversale conicum YABE et EGUCHI, 1942, Fossil and Recent simple corals from Japan, *loc. cit.*, p. 135, Pl. 11, Figs. 18a-c.

Flabellum transversale conicum MORI, 1964, Trans. Proc. Pal. Soc. Japan, N. S. No. 56, p. 313, Pl. 46, Figs. 3a-3c.

Corallum turbinate, with a long cylindrical stalk; calice oval, 10×8.6 mm, and 16 mm high. Pedicle large, 4 mm in diameter, 7.7 mm long, cylindrical. Epitheca well developed, with rugosities, concentric annual rings indicating the growth. Septa thin, sinuous, 48 in number, arranged in three regular hexameral plans; septal formula according to its sizes, 6+6+12+24, of which the first two cycles are subequal and extending near the centre of calice, dividing it into 12 regular chambers, each having three small septa.

The above-described specimen agrees well with the typical *conicum* from the shelf bordering Japan.

Locality: Off Cape Cook, 920 m deep, Feb. 21, 1958, SOYA station.

Distribution: Japan, Philippines, Antarctic sea. Fossil: Plio-Pleistocene (Japan), Tertiary (Australia, New Zealand).

Flabellum ongulense EGUCHI n. sp. (Pl. II, Figs. 2a, 2b, 2c, 2d)

Corallum subcylindrical, high (51 mm high) with cylindrical pedicle. Base 4 mm in diameter, angle between lateral edges 20° at upper half and 25° at the lower part, angle between the faces less than 18°, generally 15°. Calice oval, 21 ×17 mm; septa thin, 76 in number, some 12 septa are extending almost to the centre of calice, and 12 of the third cycle are mostly extending to the centre some 2/3 of the former, yet a few of them are more developed, nearly reaching the principal septa. Septa of the fourth (4th) cycle numbering 24, extending a little, some 1/3 of the largest one, excepting a few chambers; further, eleven small septa of the next cycle appeared. On the lateral faces some irregularly spaced annual rings of growth lines are visible, developed better at the deeper part. Septal formula $\frac{3.3.3.3.3.3.3.3.3.3.3.3}{3.3.1.3.3.1.3.3.3.3}$, numbers according sizes $12+12+24+\alpha$.

Remarks: The above-described specimen is easily distinguished from *Fl. transversale conicum* YABE & EGUCHI by having more elongated, slender corallum. It is illustrated by NIINO[7] as *Fl. curvatum*, but can easily be distinguished from the named species by a smaller angle between the lateral edges and more compressed corallum. Besides, the pedicle of the present species is persistent and large.

Locality: Off Cape Cook, 68°07′S, 32°00′E~68°05′S, 32°01′E, 570 m deep. UMITAKA-MARU st. 7.

Distribution: Off Cape Cook, 570 m, Antarctic.

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(*Manuscript received July 17, 1965*)