RECENT REEF-BUILDING CORALS FROM JAPAN AND THE SOUTH SEA ISLANDS UNDER THE JAPANESE MANDATE. II

By

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With 45 Plates

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I. INTRODUCTION

Since the publication of Part I of the present work in the Special Volume I, about five years have already elapsed, during which time many additional material of the living reef corals have accumulated owing to the efforts of the members of the Institute of Geology and Palaeontology, Tōhoku Imperial University, chiefly from the South Sea Islands under the Japanese Mandate. The publication of the present paper has been delayed owing to the large accumulation of material and to the urgent need of other works.

In Part I, the writers enumerated and figured 120 species and subspecies in 50 genera and subgenera of the living reef corals chiefly collected from the Japanese seas. Of previously listed genera, *Agaricia* should be replaced with *Polystrostra Ehrenberg*, as Wells\(^1\) recently pointed out that all its Pacific species belong to *Polystrostra*.

Collecting grounds of reef corals are already given in Part I and there is need to enumerate below the additional ones only. Among the material lately acquired, there are a number of species belonging to the genera previously published in the Special Volume I and new to the collection of the Institute, these are enumerated at the beginning of this volume as supplementary to the first volume.

II. LIST OF ADDITIONAL COLLECTION GROUNDS OF REEF CORALS

Honsyū (本州) (the main island of Japan).

1. Sagami-wan (相模湾), Kanagawa-ken.

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Ryūkyū Islands (琉球諸島) (Loo-choo).

Osima Subgroup (大島総合).
2. Nase (名瀬), Amami-Ō-sima. Lat. 28° 25' N., Long. 129° 30' E.

Okinawa Subgroup (沖繩諸島).
3. Tinen-zaki (辺念崎), Okinawa-zima, Lat. 26° 10' N., Long. 127° 50' E.

South China Sea.
4. Pratas Islands. Lat. 20° 30' N., Long. 116° 50' E.

Palau Islands.
5. Iwayama-wan, Korol. Lat. 7° 20' N., Long. 134° 30' E.
6. Kajangal (Kazyanguru), Lat. 8° 20' N., Long. 134° 4' E.
7. Perelit Island. Lat. 7° N., Long. 134° 14' E.

Permit Island, Lat. 6° 54' N., Long. 134° 10' E.
8. Barabatto, Yap Islands. Lat. 9° 30' N., Long. 138° 5' E.

New Caledonia.
9. Goro. Lat. 22° 20' S., Long. 167° E.

Solomon Islands.
10. Kleta, Bougainville. Lat. 6° S., Long. 156° E.
11. Arawa, Bougainville. Lat. 6° S., Long. 156° E.

New Guinea.
12. Samarai. Lat. 10° 30' S., Long. 151° E.
13. Salamaua. Lat. 7° S., Long. 147° E.

III. SYSTEMATIC DESCRIPTION

Family Seriatoporidae M. Edwards et HAMME, 1848

Genus Seriatopora LAMARCK, 1816

Seriatopora crassa QUELCH

Pl. LX, Figs. 3-3c.


Locality: Truk Islands. (Reg. No. 64161).

Distribution: Philippines and Caroline Islands.

Seriatopora straeleni THEEL

Pl. LX, Figs. 2-2a.


Locality: Truk Islands. (Reg. No. 64160).

Distribution: Banda and East Caroline Islands.

Genus Pocillopora LAMARCK, 1816

Pocillopora paucistellata QUELCH

Pl. LX, Fig. 1.

1885. Pocillopora paucistellata QUELCH, Op. cit., p. 65, pl. 1, figs. 3-3a.
Recent Reef-Building Corals from Japan and the South Sea Islands. II

Locality: Kajangal Atoll. (Reg. No. 65576).
Distribution: Palau Islands, Ternate.

Genus **Madracis** M. Edwards et Haime, 1849


Genotype: *Madracis asperula* M. Edwards et Haime

**Madracis asperula** Yabe et Sugiyama

Pl. LXI, Fig. 4; Pl. LXII, Fig. 2.


Locality: Between Angaur and Pereliu Islands: 100 fathoms. (Reg. No. 60632).
Distribution: Palau Islands.

**Madracis palauensis** Yabe et Sugiyama

Pl. LXII, Figs. 1, 1a.


Locality: Between Angaur and Pereliu Islands: 100 fathoms. (Reg. No. 60634).
Distribution: Palau Islands.

Genus **Palauastrea**, gen. nov.

Genotype: *Palauastrea ramosa*, sp. nov.

Corallum dichotomously branching, calices round, shallow, septa in hexameral cycles, with upper ends more or less granular, coenenchyma subcompact and granular at upper surface, columella styliform.

This new genus bears many characters of the corallum common to the genus *Madracis*, but differs from it by having calices without any definite bounding ridges of granules of coenenchyma, and septa arranged in regular hexameral plan. In the latter character, Palauastrea closely approaches and is hardly distinguishable from the genus *Stylophora*, but has no other essential characters of corallites in common with it.

The following two new forms are distinguished among the material now at hand.

**Palauastrea ramosa**, sp. nov.

Pl. LXI, Figs. 3, 3a.

Corallum dichotomously branching, branches slender, subcircular or subelliptical in cross-section, up to 10 mm in diameter at basal part, their tips more or less flattened, as broad as 5 mm; angle of bifurcation of branches very variable, mostly from 30° to almost 120°.

Calices round, very shallow, 1–1.5 mm in diameter, particularly crowded on very tips of young branches, more apart on older portion, but never as broad as diameter of calices, occa-
sionally tending to serial arrangement. Septa six in total, extending to columella, never exsert, bearing two or three minute granules at upper ends. Columella styliform, not large, pointed at tops. Coenenchyma rather narrow, covered by minute pointed granules.

Only a single specimen of this species is now at hand, it is 11.5 mm long.
Locality: Palau Islands. (Reg. No. 41996).

**Palauastrea ramosa iwayamaensis**, subsp. nov.

Pl. LX, Figs. 4-4b.

This new subspecies differs from the type by 1) branches being mostly round in cross-section, never flattened even on tips of younger portion; smaller angles of bifurcation, mostly 45°-100°, 2) somewhat broader calices (1.5 mm in diameter on an average), and usually narrower interspaces occupied by coenenchyma, 3) septa in two cycles, those of the second cycle extend to only half the length of those of the first.

Of the few fragmental specimens now at hand, the largest measures 8.5 mm in length.
Locality: Palau Islands. (Reg. No. 64329).

Family **Montastracidae**, nov. nom.

(=**Orbicellidae** Vaughan, 1901)

**Orbicella** Dana (1846), a genus long accepted as the type of the family **Orbicellidae** Vaughan (1901), is, according to J. W. Wells, a synonym of the genus **Montastraea** de Blainville (1830). Since **Montastraea** should be taken as the type of this family, a new family name, **Montastraeidae** is here proposed in substitution for **Orbicellidae**.

Genus **Barabattoia**, gen. nov.

Genotype: **Barabattoia mirabilis**, sp. nov.

Corallum massive or hemispherical; corallites usually much exsert, round, intervals unequal, showing tendency of building short series in arrangement. Costae crenulated, surfaces covered by very minute granules. Pill-like structure absent or feebly developed. Growth mono- or distomodacal, intercalcular budding in association. Columella spongy, composed of filiform fibers of septal origin. Dissepiments well-developed, horizontal.

By many characters of corallites **Barabattoia** is surely referable to the family **Montastracidae**. Among many genera of this family, **Montastraea** is most closely related to the present genus, but their distinctive features are: 1) in **Barabattoia** intra- and intercalcular budding prevail, while in **Montastraea** intercalcular budding is characteristic, 2) corallites of the former are much exsert, not uniformly distributed, and show a tendency of arranging in short series, while in the latter these features are unknown, 3) pill-like structure is absent or feebly in the former, and usually distinct in the latter. Further, both septa and costae are covered by very minute granules in **Barabattoia** but not in **Montastraea**.

**Barabattoia** is now represented by the following two new species.

**Barabattoia mirabilis**, sp. nov.

Pl. LXI, Figs. 1-1c.

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Recent Reef-Building Corals from Japan and the South Sea Islands. II

Coralium massive, up to 140 mm long, with a broad base of attachment, upper surface considerably convex. Epithea distinct, thick, covering almost whole under-surface.

Corallites exsert, as long as 15 mm, up to 10 mm in diameter, mostly round, intervals variable, about 10 mm apart at places and at times leaving almost no intervals, rarely with a tendency of building short series in arrangement. Septa in five cycles, usually as many as 50-70, alternately larger and smaller, all particularly thickened at wall, the former well-developed and the majority extending to columnella, the latter quite rudimentary; upper margin abruptly inclined downwards near wall to form broad fossa of calices which is about 5 mm deep; crenulated, crenules rounded at tops, innermost one rarely more marked than others and thus appearing somewhat pali-like. Costae alternately large and small, connected with corresponding ones of adjoining corallites; smaller ones unlike the larger regularly crenulated at margins; all surfaces covered by minute granules. Columnella round, about 1/4 diameter of corallites, rather deeply seated.

Locality: Barabatto in the Yap Islands. (Reg. No. 64330).
Distribution: Yap Islands.

Barabattoia goroeensis, sp. nov.
Pl. LXI, Figs. 2-2a.

Coralium more or less hemispherical, 48 mm in longer diameter, with a broad base of attachment; epithea uncertain owing to unsatisfactory preservation.

Corallites mostly round, exsert, about 10 mm long, up to 10 mm broad, with a tendency to form short series along margin of corallium. Septa in four cycles, 30 in total, mostly subequal and extending to columnella, occasionally with a few rudimentary ones, all considerably thickened at wall and their surfaces covered by very minute granules; pali-like structures absent. Costae prominent, provided with distinct crenules. Columnella small, about 1/5 diameter of corallites.

Locality: Goro on the South-eastern coast of New Caledonia. (Reg. No. 64331).
Distribution: New Caledonia.

Family Agaricidae Verrill

Genus Leptoseris M. Edwards et Haime, 1849

Leptoseris cf. hawaiiensis Vaughan
Pl. LXII, Figs. 3-3d.

Compare with:


Locality: West channel of Palau Islands; 60 fathoms. (Reg. No. 60635).
Distribution: Palau and Hawaiian Islands.

Leptoseris gardineri van der Horst
Pl. LXIII, Figs. 1-1c.

1906. Leptoseris papyracea Dana, Gardner. The Fauna and Geography of the Maldives and Laccadive Archipelagoes, p. 94, pl. 22, fig. 23.

Locality: Palau Islands. (Reg. No. 64332).
Distribution: Palau Islands, Java, Laccadive Islands.
Hisakazu Yabe and Toshio Sugiyama

Leptoseris tenuis van der Horst

Pl. LXII, Figs. 4-5a.

1921. Leptoseris tenuis Van der Horst, Op. cit., p. 31, pl. 5, figs. 9, 10.

In the large collection of reef-corals now stored in the Institute of Geology and Palaeontology, there is an interesting specimen of Leptoseris, which was collected by M. Yosi from Kieta, Bougainville in the Solomon Islands. After a careful study of this specimen, many characters of its corallum were found to be quite identical to or at least hardly distinguishable from those of Leptoseris tenuis van der Horst from the Paternoster Islands. The original description of this species is as follows:

"This species is attached firmly to the substratum and forms on it a very thin layer (1 mm thick), so that all roughness of the substratum (a worn piece of coral) are to be seen. The edge is also not free from the substratum. This species has certain resemblances to Leptoseris incrustans, but it has a finer structure. A central calice is entirely filled up by the columella. The secondary calices are very indistinct, and are scarcely distinguishable by the naked eye, because they are so narrow and not sunken in nor prominent as in the other Leptoseris species. They are strongly elliptical with the long axis perpendicular to the direction of the septo-costae. The secondary calices are irregularly scattered, now far from each other i.e. about 10 mm and now close to each other; sometimes they even fuse where there arise calices with long axes (2 mm), while the single calices are at most 1 mm long.

The columella is formed at a compressed style over the whole length of the calice or by separate papillae standing in a row. All the septa are equal and at least twice as thick as the space between them. By this character this species can be at once distinguished from L. incrustans. The sides of the septa are strongly granulated; there are no teeth along the edge."

In the Kieta form, the colony is at first encrusting, but soon afterwards rises up from the substratum with beginning incision, and finally in its adult growth-stage. It is provided with a number of irregularly fan-shaped lobes. Consequently, the holotype specimen from Paternoster may be a form in a very early (immature) stage of growth and the Kieta form in the adult.

The revised diagnosis of Leptoseris tenuis is as follows:

Corallum in very early stage of growth encrusting, caliciform in adult, with edges divided into separate lobes irregularly turned out. Epitheca absent.

Under-surface striated; striae very fine, hardly discernible by naked eyes, granular under high magnification, separated by wider interspaces, covered by very fine granules. Upper surface with two kinds of calices, principal and secondary; the principal one not much distinct from the secondary, about 1 mm or less broad, surrounded by about 25 septa, with trabecular columella occupying nearly the whole fossa. Secondary calices indistinct, barely distinguishable by naked eye, in general irregularly placed, but usually a few and occasionally many of them arranged in variable length with 4-5 mm intervals and elongated perpendicular to septo-costae; those in a common row usually close to each other, rarely up to about 10 mm apart, elliptical in outline, with longer axis also perpendicular to septo-costae, 1 mm or less in longer diameter, with septa of two or three cycles. Septa and septo-costae equal in characters, at least twice as thick as the inter-space, lateral sides strongly granulated, but upper edges apparently smooth. Columella styliform, compressed, almost occupying almost whole of calicular fossa.

Locality: Kieta, Bougainville, Solomon Islands. (Reg. No. 6226).

Distribution: Solomon and Paternoster Islands.
Leptoseris columnaria, sp. nov.
Pl. LXIII, Figs. 2-2d.

Corallum explanate, 10 cm in longer diameter, about 15 mm thick at proximal portion, gradually thining towards margin, with a narrow base of attachment; epitheca absent.

Under-surface uneven, with weak depressions and prominences running parallel to septo-costae; ribs finely striated, subequal, somewhat distinct towards margin, covered by very minute granules, 7 of them in 2 mm on an average. Calicular surface uneven, with calices of two kinds, larger and smaller; larger ones mostly elevated into nodulous masses in central part and irregularly scattered; septa in two or three cycles, unequal, close, margins of older septa irregularly denticulated, those of younger ones carinate; fossa rather deep, 0.7–1.5 mm broad; columella composed of twisted, flattened trabeculae; smaller calices chiefly distributed in periphery, with septa of one or two cycles, all never so marked nor prominent as in the larger calices; fossa indistinct, shallow; columella small, trabecular. Septo-costae in many parts nearly straight, especially so near margin of corallum, those in central part often with projections of columnar aspect; alternately large and small, occasionally specially divided into distinct teeth at central part, this feature particularly marked in the projections; irregularly thickened, sinuous, contorted and unevenly prominent, so as to give a rather rough aspect to projections. Projections 3–5 mm in height and width, rounded at top, irregularly scattered, perpendicular to surface of corallum and in general distinctly isolated. Larger septo-costae irregularly crenulated, the smaller ones carinate. Septa and septo-costae rarely perforated, pores small, round. Synapticulae fused throughout, usually conspicuous, arranged parallel to general surface of corallum.

In the general characters of corallum, particularly in having the calices elevated into nodulous masses in the central part of corallum, the present form is hardly distinguishable from Domoseris solidula Quelch from the Tahiti Islands, which is a species now generally accepted as belonging to the genus Leptoseris. The former, differs from the latter by having two kinds of calices, larger and smaller, and perforated septa and septo-costae; according to Quelch, the septa and septo-costae are solid in the latter. So far as the available literature is concerned there is no species recorded of Leptoseris with two kinds of calices like the present new form. By this character and by the projections of septo-costate, this new form is easily distinguishable from all the known species of Leptoseris.

Locality: Palau Islands. (Reg. No. 64933).

Leptoseris explanata, sp. nov.
Pl. LXIII, Figs. 3-3c.

Corallum broad, explanate, nearly flattened, thin, 5–6 mm thick at a distance of about 5 mm from margin, and very thin along periphery; mode of attachment unknown; epitheca absent.

Under-surface even; ribs finely striated, nearly uniform in central part, but alternately thick and thin though indistinct in periphery, provided with minute granules on margins, 7 of them in 2 mm on an average. Upper surface also even, with irregularly scattered calices mostly elevated up to 1 or 2 mm, elliptical in outline, as large as 10 mm in longer diameter. Septa in three or four cycles, alternately large and small; larger ones, distinctly granulated, the smaller rather carinate on their upper margins. Fossa not deep, 2–3 broad. Columella composed of

2) Gardner, Vaughan, Van der Horst and Hofmeister all agree that the genus Domoseris Quelch (1886) is probably not generically distinct from the genus Leptoseris. The present writers also came to the same conclusion as these workers, after the detailed study of the present new form from the Palau Islands.
twisted trabeculae, never distinct. Septo-costae parallel and straight, but more or less situated or contorted at or near calices, alternately large and small, margin divided here and there into rather unequal, blunt teeth; larger septo-costae minutely granulated on and smaller ones rather carinate on upper margin. Septa and septo-costae rarely perforated, pores small, round. Synapticleae well developed, fused, arranged parallel to general surface of coralium.

The present new form more or less resembles *Leptoseris fragilis* M. Edwards et Haimé from the Laccadive Islands and *Leptoseris regularis* (Quelch) from the Tahiti Islands, but is easily distinguishable from the former by the septa and septo-costae being broader and divided into teeth, and from the latter by the septa and septo-costae which are less divided into teeth and less perforated, and the fused synapticleae.

In the characters of septa, septo-costae and synapticleae, the present new form greatly resembles *Leptoseris columnae*, but is easily distinguishable from it by the calices never being elevated into nodular masses and columnar processes of the septo-costae.

Locality: Palau Islands. (Reg. No. 64354).

Family Fungiidae Dana, 1846

Genus *Fungia* Lamarck, 1801


Genotype: *Madrepora fungites* Linne

Cycloseris Form

(=Patella Form)

*Fungia eosa* Döderlein

Pl. LXV, Figs. 4-4d.


Locality: Hama-zima. (Reg. No. 50580).

Distribution: Japan, Timor.

*Fungia cyclolites* Lamarck

Pl. LXIV, Figs. 2-4e, 8-9d; Pl. LXV, Figs. 1-3a.

1902. *Fungia cyclolites* Lamarck, Döderlein, Op. cit., p. 77, pl. 4, figs. 7-9; pl. 5, figs. 5, 5a (with synonymy).
Recent Reef-Building Corals from Japan and the South Sea Islands. II

Localities: Tateyama-wan (Reg. No. 39904), Enoura-wan (Reg. No. 40824), Kitadaitō-zima (Reg. No. 47809), Kagosima-wan (Reg. No. 63948), Amami-Ō-sima (Reg. No. 63949), Iwayama-wan (Reg. No. 64358).

Distribution: Maldives and Laccadive Archipelagoes, Ambon, Tizard-bank, Philippines, Great Barrier Reef, Palau Islands, Japan.

**Fungia döderleini, nom. nov.**

Pl. LXVI, Figs. 9-9d.

1902. *Fungia costulata* ORTMANN. DÖDERLEIN, Op. cit., p. 81, pl. 4, figs. 2, 2a; pl. 5, figs. 7, 7a.

A specimen from Iwayama-wan, Palau Islands shows the characters of corallum quite identical with *F. costulata* described by DÖDERLEIN from New Britain, but differs from *F. costulata* described by ORTMANN from Ceylon and by GARDNER from the Maldives and Laccadive Archipelagoes. As noted by GARDNER, DÖDERLEIN's specimens of *F. costulata* do not seem to be specifically identical with ORTMANN's species, and the new specific name, *döderleini*, is here proposed for the present as well as DÖDERLEIN's specimens, taking the latter figured by him in the Pl. IV, Figs. 2 and 2a as the type.

DÖDERLEIN's description of this species is good and there is no need of repetition at this place.

Locality: Iwayama-wan. (Reg. No. 41347).

Distribution: Palau Islands and New Britain.

**Actiniformis Form**

**Fungia actiniformis palauensis** DÖDERLEIN

Pl. LXVI, Figs. 1-7.


Locality: Iwayama-wan. (Reg. Nos. 53035, 58251).

Distribution: Palau Islands.

**Scutaria Form**

**Fungia paumotensis** STUCHBURY

Pl. LXVII, Figs. 1-2a.


Localities: Amami-Ō-sima (Reg. No. 47387), Iwayama-wan (Reg. Nos. 41340 and 41350), Telok Betong, Sumatra (Reg. No. 37897), Namotok (Reg.-No. 52202), Filalap (Reg. No. 50723), Wotje (Reg. No. 49410), Ponape (Reg. No. 64025), Samarai (Reg. Nos. 62278 and 62502), Salamaua, North-eastern New Guinea (Reg. No. 62250).

Distribution: Andamans, New Guinea, Bougainville Islands, New Britain, Viti Islands, Tahiti, Fiji Islands, Marshall Islands, Caroline Islands, Palau Islands, Japan.
Fungia scutaria LAMARCK


As clearly shown in the specimens (Pl. LXVII, Figs. 1–5; Pl. LXX, Figs. 3–3d; Pl. LXVI, Fig. 5) from Haha-zima, Ogasawara Islands, the lobation of the tentacle lobes is more distinct in the larger specimens than in the smaller ones.

Echinata Form

Fungia echinata PALLAS

Localities: Amami-Ō-sima (Reg. No. 47375), Okinawa-zima (Reg. No. 59363), Yap Islands (Reg. Nos. 49570, 64339), Helen Islands (Reg. No. 50749), Perellu Island (Reg. No. 58212), Iwayama-wan (Reg. Nos. 41342, 41349, 53013, 58211), Ponape (Reg. No. 64027), Arawa (Reg. No. 62271), Keta (Reg. No. 62511).

Distribution: Red Sea, French Somaliland, Marabout-reef, Djeddah, Ceylon, Mergui Archipelagoes, Andamans, Singapore, Borneo, Strait of Moluccas, Billiton, Samau Islands (Timor), Rotti Islands, Banda Island, Celebes, Ternate. Philippines, China Sea, New Guinea, Solomon Islands, New Caledonia, Fiji Islands, Tahiti, Hawaiian Islands, Caroline Islands, Palau Islands, Japan.

Repanda Form

Fungia repanda DANA

Recent Reef-Building Corals from Japan and the South Sea Islands. II

Distribution: French Somaliland, Zanzibar, Seychelles, Mayotte Islands, Red Sea, Ceylon, Amboina, Banda, Laranuka, Molucca, Strait of Macassar, Celebes, Ternate, Philippines, Salawati, China Sea, Billiton, Solor Islands, Borneo, Rotti Islands, New Britain, Paternoster Islands, Murray Islands, Samoa, Marshall Islands, Caroline Islands, Pratas Islands, Japan.

**Fungia concinna** VERHILL

Pl. LXXIII, Figs. 1-1c; Pl. LXXIV, Fig. 3; Pl. LXXV, Figs. 1-2d.

1902. *Fungia concinna* VERHILL, DÖDERLEIN, Op. cit., p. 115, pl. 12, figs. 1-3; pl. 13, fig. 4 (with synonymy).

Localities: Amami-Ö-sima (Reg. No. 47391), Okinawa-zima (Reg. No. 64340).
Distribution: Singapore, Sulu Sea, Banda Sea, Zanzibar, Batavia, Celebes, Samoa, New Britain, Marshall Islands, Caroline Islands, Japan.

**Fungia fieldi** GARDINER

Pl. LXXVII, Figs. 1-1c.

1909. *Fungia fieldi* GARDINER, op. cit., p. 277, pl. 33, figs. 3, 4; pl. 34, fig. 7.

Locality: Pratas Islands. (Reg. No. 64348).
Distribution: Pratas Islands, Chagos Archipelago.

**Danai Form**

**Fungi danai** M. EDWARDS et HAIMÉ

Pl. LXXIV, Figs. 1-1d.

1902. *Fungi danai* EDWARDS et HAIMÉ, DÖDERLEIN, Op. cit., p. 129, pl. 14, figs. 3, 3a; pl. 15, figs. 3, 4a; pl. 16, figs. 5, 5a; pl. 18, figs. 1-4a (with synonymy).

Locality: Singapore. (Reg. No. 64335).
Distribution: Ceylon, Singapore, Sumatra, Amboina, Viti Islands.

**Fungia subrepanda** DÖDERLEIN

Pl. LXXVI, Figs. 2-2d.


Locality: Iwayama-wan, Palau Islands' (Reg. No. 64349).
Distribution: Singapore, Batavia, Palau Islands.

**Fungia scruposa** KLUINZINGER

Pl. LXXV, Figs. 4, 4a; Pl. LXXVI, Figs. 1-1b.

1879. *Fungia scruposa* KLUINZINGER, Die Korallentiere des Rothen Meeres, vol. 3, p. 63, pl. 7, fig. 2; pl. 8, fig. 1 (cited after DÖDERLEIN).
Hisakatsu Yabe and Toshio Sugiyama

Distribution: Red Sea, Ternate Islands, Ryūkyū Islands.

**Fungites**

*Fungia fungites* (LINNÉ)
PL. LXXXVII, Figs. 2-3b; PL. LXXXVIII.


Distribution: Red Sea, French Somaliland, Seychelles, Chago Archipelago, Andamans, Mergui Archipelago, Singapore, Strait of Malacca, Siam (Thai), Minikoi, Huleu, Java, Banda Islands, Amboina, Pooto Weh, Billiton, Sagir Islands, Kwandang Bay, Doalahant, Binongka Islands, Santa Cruz Islands, Timor, Rotti Island, Port Maria, Molucca, Marabout-Reef, Philippines, Murray Islands, Samoa, Marshall Islands, Palau Islands, Caroline Islands, Japan.

**Genus Herpolitha**

*Herpolitha* ESCHSCHOLTZ, 1825


Genotype: *Madrepora limax* ESPER

**Herpolitha limax** (ESPER)
PL. LXXXIX, LXXX.


Localities: Nase in Amami-Ō-sima (Reg. Nos. 59357, 59358), Pratas Islands (Reg. No. 59127), Iwayama-wan (Reg. Nos. 57478, 57477, 57480, 58208, 58209, 60824), Gamirisuy Islands (Reg. No. 57479), Samarai (Reg. No. 62281), Jaluit (Reg. No. 49307).


**Herpolitha weberi** (VAN DER HORST)
PL. LXXXI, Figs. 2-2d.

A specimen from Iwayama-wan, Palau Islands shows many features of corallum hardly distinguishable from those of *Herpolitha weberi* (VAN DER HÖST) from the Paternoster Islands, differing from it only by the less regularly arranged ribs, such difference, however, do not seem worthy for specific distinction. In the present specimen, the secondary calices with 2–5 septa are occasionally recognizable, but these are never marked as in those of the species of *Herpolitha* cited above. An U-shaped worm tube occurs in the central part of the calicular side, where the secondary calices are more defined than elsewhere; but such a feature is of secondary origin.

BOSCHMA included this species in *Herpolitha*, and recognized an intermediate form between *Herpolitha simplex* and *H. limax*. He said:

"In the description of this species, based on two broken specimens from Stat. 315 of the Siboga Expedition, VAN DER HÖST already states that in several points of the original axial fossa two opposite septa have fused across it. This process of fusion is quite the same as in young specimens of *Herpolitha limax* and results in the formation of secondary calices. A comparison of GARDINER’s figure of *Herpolitha foliosa* (1909, pl. 36, fig. 5) shows at first sight that fusion of the opposite septa in each of the two species leads to a similar formation of secondary calices.

In this species there is a strong growth-tendency in the direction of the long axis; nearest to the anterior (or posterior) septum of the first cycle a great many septa of higher cycles have been added which have not yet developed in the lateral parts of the corallum. The number of cycles cannot be determined, for each of the two specimens has regenerated from less than a half of a broken corallum which may be concluded from the direction of the septa. In the regenerated parts new mouths have developed each with a number of septa the central parts of which are more or less radially arranged round their center.

In the longer specimen of *H. weberi* there are, besides the calices in the axial fossa, the first traces of secondary calices in the lateral parts of the corallum. In some places one of the more prominent septa has a notch in which two neighbouring septa of less prominence have fused and in this way the center of a new calicle is formed. In *Herpolitha limax* the new calices originate in quite the same way. Some of these very young calices are clearly visible in VAN DER HÖST’s fig. 5."

As stated in detail by BOSCHMA, *Herpolitha weberi* shows many characters of corallites better referable to *Herpolitha* than to *Fungia*. In almost all the species of *Fungia* previously described the septa of older cycles as a rule extend to the margin, while in *Herpolitha* this is not the case. *H. weberi* differs from *Fungia* in this respect, and evidently belongs to *Herpolitha*.

**Locality**: Iwayama-wan. (Reg. No. 58210).

**Distribution**: Palau Islands, Paternoster Islands.

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**Genus Polyphyllia** QUY et GAARD, 1833


**Polyphyllia tulpina** (LAMARCK)

Pl. LXXXVI, Figs. 1–2c; Pl. LXXXVII, Fig. 3.


Localities: Amami-Ō-sima (Reg. No. 59355), Ponape (Reg. No. 50224), Iwayama-wan (Reg. No. 57476).

Distribution: Mergui Archipelago, Malay—Philippines Region, Boston Islands, Murray Islands, New Caledonia, Palau Islands, Java, Caroline Islands, Japan.

Genus **Halomitra** DANA, 1848


Genotype: *Zoopilus echinate* DANA.

**Halomitra philippinensis** STUDER

Pl. LXXXI, Figs. 1–1c; Pl. LXXXII, LXXXIII


Distribution: Indian Ocean, Malay Archipelago, Hawaiian Islands, Palau Islands, Philippines, Marshall Islands.

**Halomitra robusta** QUELCH

Pl. LXXXI, Figs. 8, 3a, Pl. LXXXIV, LXXXV, Pl. LXXXVI, Fig. 3.

1932. Halomitra robusta QUELCH. THIEL, Op. cit., p. 84, pl. 11, figs. 1, 2 (with synonymy).


Distribution: Malay Archipelago, Philippines, Pratas Islands, New Guinea, Palau Islands.

**Family Acroporidae** VERRILL

Genus **Astreopora** DE BLAINVILLE


Genotype: *Astrea myriophthalma* LAMARCK.
**Astreopora gracilis** BERNARD

Pl. LXXXVIII, Figs. 3-4a, Pl. XCII, Figs. 2-3a.


Distribution: Solomon Islands, Caroline Islands, Japan.

**Astreopora incrustans** BERNARD

Pl. LXXXIX, Figs. 1-1f.


Localities: Amami-Ō-sima (Reg. No. 48282), Titi-zima (Reg. Nos. 44672, 44849, 44974), Haha-zima (Reg. Nos. 44671, 44848, 44972).

Distribution: Japan.

**Astreopora myriophthalma** (LAMARCK)

Pl. LXXXIX, Figs. 2-2c; Pl. XCII, Figs. 1-2a.


1879. *Astreopora myriophthalma* LAMARCK. KLEINZIÈRE, Die Korallentiere des Rothen Meeres, pt. 2, p. 52, pl. 5, fig. 31 (cited after Vaughan).


Localities: Usibuka (Reg. No. 47888), Nugol (Reg. No. 53051), Kajangal Atoll (Reg. No. 63570).

Distribution: Red Sea and the western Indian Ocean to the Fanning Islands; Japan.

**Astreopora ocellata** BERNARD

Pl. LXXXVIII, Figs. 1-2b.

1895. *Astreopora ocellata* BERNARD, Op. cit., p. 95, pl. 29; pl. 33, fig. 16.


Localities: Kusai (Reg. No. 49731), Guloo (Reg. No. 53065), Kwajalein (Reg. No. 48751), Ailuk (Reg. No. 48753).

Distribution: Palau, Caroline and Marshall Islands, Murray Island.

**Astreopora profunda** VERBIL

Pl. XC, Figs. 2-2c.

1866. *Astreopora pulvinaria* DANA (non LAMARCK), Op. cit., p. 72, pl. 29, figs. 3-3c.

1875. *Astreopora profunda* VERBIL, Appendix to Dana's Corals and Corals Islands (cited after BERNARD).


Locality: Namotik (Reg. No. 53067).

Distribution: Fiji Islands, Banda, Great Barrier Reef, Caroline Islands.
Astreopora punctifera (Lamarck)

Pl. XC, Figs. 1-1f.


Locality: Nugol. (Reg. No. 53066).
Distribution: Great Barrier Reef, Caroline Islands.

**Astreopora elliptica**, sp. nov.

Pl. XCI, Figs. 1-1c.

Corallum pillow-like, 19×10×7 cm in size, with broad base; epitheca well developed, covering almost whole under-surface. Calices very deep, of two kinds, large and small; larger ones with more or less prominent margins, elliptical, 2 mm in longer and 1.5 mm in shorter diameter on average; smaller one usually with margins less prominent, round, 1–1.5 mm in diameter. Intervals between corallites usually 2 to 5 mm. Septa in 2 cycles, those of second cycle often incomplete in rounded calices; those of first cycle well developed, gradually broaden from calicular margin downwards, never reaching center; margins jagged. Septa of second cycle extremely short, usually indicated by ridge-like processes. Tabulæ gently arched upwards, placed in irregular intervals, 6–7 in 5 mm. Coenenchyma apparently compact, composed of perforated platforms supported by short trabeculae ending in variously shaped prominences, which are short, mostly longitudinally striated, often truncated at tops, and sometimes branches or provided with a few accessory points; when very short trabeculae appear as single spines.

In vertical section, coenenchyma show a reticulated structure, as if being composed of two kinds of elements, vertical and horizontal; the former is somewhat more prominent than the latter.

No recorded species of *Astreopora* carrying calices like those of the present form are known. In the characters of coenenchyma the latter is more or less similar to *Astreopora myriophthalma* (Lamarck).

Locality: Pokaku. (Reg. No. 48752).
Distribution: Marshall Islands.

**Astreopora tayamai**, sp. nov.

Pl. XCI, Figs. 2–2c.

Corallum massive or round, more than 30 cm broad; base unknown.

Calices deep, distant in some parts and rather close at others; at least two types distinguishable; in one type, calices relatively large in size, mostly elliptical, elevated up to about 3 mm, and the largest one measuring 6 mm in longer diameter; septa in four cycles. 7–9 prominent, gradually broaden from calicular margins downwards, often meet at center and then building pseudolumella; those of third and fourth cycles merely ridge-like, and those of the last incomplete. In the second type, calices usually round, smaller, 2–3 in diameter, many occasionally immersed in depressed portions of corallum; septa in three cycles, those of the first cycle prominent, nearly extending to center and fused together, their inner edges irregularly jagged; septa of other cycles rudimentary, and some of the last cycle often lacking. Tabulæ slender, usually horizontal, with unequal intervals, 5–6 in 5 mm on average. Coenenchyma rather loose, composed of platforms and trabeculae; the former perforated by pores elliptical in outline, the latter mostly flattened at their tops, with 2–6 spines, their tops occasionally smooth or narrowed to a single spine.
In vertical section, coenenchyma appear as if composed of reticulated fibers; vertical elements of trabeculae are distinct and usually broader than platforms.

This form may easily be distinguished from any previously recorded of the genus by its calices being very irregular in arrangement; it is more or less similar to Astreopora ocellata by having the broad septa fused at center.

Locality: Wotje. (Reg. No. 48754).
Distribution: Marshall Islands.

Genus Turbinaria Oken, 1815


Genotype: Madrepora cratere PALLAS.

Turbinaria auricularis BERNARD
Pl. XCVI, Figs. 4–4b; Pl. XCVI, Figs. 2–3d; Pl. CI, Fig. 4; Pl. CIV, Fig. 2.

Localities: Tanabe-wan (Reg. No. 64502), Amami-Ō-sima (Reg. No. 48602).
Distribution: Ponape, Japan.

Turbinaria bifrons BRUGGEMANN
Pl. XCV, Figs. 1–1b.

Locality: Misaki. (Reg. No. 40379).
Distribution: West Australia, Japan.

Turbinaria brueggenmanni BERNARD
Pl. XCIX, Figs. 3–4.

Localities: Tanabe-wan (Reg. No. 40245), Misaki (Reg. No. 36985), Udo (Reg. No. 40915), Kita-Ōura (Reg. No. 40245), Uimi (Reg. No. 40316), Kataura (Reg. No. 36986), Tailrika, Giran-gun (Reg. No. 38310), near Šimanoura (Reg. No. 49209).
Distribution: Taiwan, Japan.

Turbinaria contorta BERNARD
Pl. XCVI, Figs. 5, 5a; Pl. CII, Figs. 3–4.
1896. Turbinaria contorta BERNARD, Op. cit., p. 74, pl. 24; pl. 33, fig. 5.

Localities: Kusimoto (Reg. No. 40209), Kataura (Reg. No. 40204), Udo (Reg. No. 40205), Garambi (Reg. No. 49208).
Distribution: South China Seas, Taiwan, Japan.
Hisakatsu Yabe and Toshio Sugiyama

**Turbinaria crater** (PALLAS)

Pl. CI, Figs. 1-2.


**Locality**: Meitu (Reg. No. 40580), Near Simanoura (Reg. No. 45118).

**Distribution**: Australia, Philippines, Japan.

**Turbinaria elegans** BERNARD

Pl. XCIV, Figs. 3-3c; Pl. CI, Figs. 5-5b; Pl. CIV, Figs. 1-1b.


**Locality**: Okinorabu-zima (Reg. No. 47187), Susaki (Reg. Nos. 40474, 40363), Koeikizima (Reg. Nos. 47830, 48206), Haha-zima (Reg. No. 44482).

**Distribution**: Tongatabu, Great Barrier Reef, Japan.

**Turbinaria foliosa** BERNARD

Pl. C, Figs. 3-3d.


**Locality**: Garanbi. (Reg. No. 49210).

**Distribution**: Taiwan.

**Turbinaria globularis** BERNARD

Pl. XCV, Figs. 3-3a.


**Locality**: Pratas Islands. (Reg. No. 63958).

**Distribution**: Diego Garcia, Great Barrier Reef, Pratas Island.

**Turbinaria irregularis** BERNARD

Pl. XCV, Figs. 2-2b.


**Locality**: Iwayama-awan (Reg. Nos. 40367 and 59349), Palao-kô (Reg. No. 59348).

**Distribution**: Mauritius and Palau Islands.

**Turbinaria mesenteriana** (LAMARCK)

Pl. XCVI, Figs. 1-1b.


This species is questionably identified by BERNARD with *Turbinaria elegans* BERNARD. Bu, according to the study of the present material, *mesenteriâna* is easily distinguishable from *elegans* by having corallites of larger size and the wedge shaped septa. Further the corallites of the former are more sparsely placed than those of the latter.

**Locality**: Ponape. (Reg. No. 51099).

**Distribution**: Red Sea, India, Caroline Islands.

**Turbinaria cf. mollis** BERNARD

Pl. CI, Figs. 3-3b.

Compare with:

The original description of *Turbinaria mollis*:

"Corallum a delicate cup, so thin that the polyp-cavities within its surface wrinkle its exterior much further down than usual. The delicate rim tends to bend inwards towards the axis of the cup. Cup irregularly contorted. The graceful stalk characteristic of young specimens thickens in such a manner that the cup stands like an inverted cone. Calices not crowded, projecting as short, blunt cones, 2 mm high. The aperture occupies the whole top of the cone, oval (2 mm maximum long diameter). Septa (14–18) granular, irregular, continuing the ridges of the coenenchyma, projecting (seen from above) beyond the half-radius cycle, bending round gradually from the margin to descend vertically, limiting a clear, small elliptical fossa; a well-marked columella rises as a directive plate, which is thickened in the center with granules. The interseptal loculi are long gashes in the margin very irregularly bounded peripherally by the coenenchyma, often continued into the furrows. The surface of the coenenchyma of the inside is marked by a very pronounced ridge-and-furrow system, the latter being still further deepened by the long slit-like pores opening in their depths. On the outside, the ridge-and-furrow system is well marked, especially towards the base."

The present specimen differs from the type by having a more or less greater number of septa (up to 20) and the interseptal loculi well bounded at the periphery by the coenenchyma.

Locality: Saru-sima and Tori-sima (Reg. No. 40215).

Distribution: Singapore, Japan.

*Turbinaria peltata* (Esper)

Pl. XCIII; Pl. XCIV, Figs. 1-2.


Distribution: Singapore, Australia, Tonga, Mauritius, Malay Archipelago, Ambon, Batavia, Palau Islands, Japan.

*Turbinaria reniformis* Bernard

Pl. XC VIII, Figs. 4; Pl. XCIX, Figs. 1–25.


The original description of *Turbinaria reniformis*:

"Corallum a flat expanse, symmetrically reniform in outline, with margin gently curved upwards; outer margin slightly wavy, inner slightly notched or lobed.

Calices on hemispherical protuberances, apertures circular (2 mm. in diameter), numerous without excessive crowding, septa 16 to 18, more granular projections from the margin, but descend as thin ridges vertically round a large cylindrical fossa ca 1.5 mm. deep. Columella flat, conspicuous, more coarsely granular than lamellate. Interseptal loculi mere notches in the rough granular margin of the calice."
Hisakatsu Yabe and Toshio Sugiyama

The coenenchyma granular, round the edges like rusty iron, changing on the under surface to a coarse, and on the upper to a fine echinulation. On the under surface developing marked furrows.”

The four specimens now under consideration from Titi-zima show many characters of corallum and corallites common to Turbinaria reniformis, but differ from it in having as many as 12–20 septa or wider range in their number, and less distinct columella, and by the more or less smaller size of calices (1.5–2 mm in diameter).

**Locality:** Titi-zima. (Reg. No. 44843).

**Distribution:** Great Barrier Reef, Japan.

**Turbinaria rugosa** BERNARD

Pl. CIII.


**Localities:** Okinosima in Tateyama-wan (Reg. No. 40211), Muroto-zaki (Reg. No. 40582), Tei (Reg. No. 40817), Susaki (Reg. No. 40591, 40389), Misaki (Reg. No. 40381, 40431, 50587), Hukusima (Reg. No. 35302), Tomioka (Reg. No. 45116), Usibuka (Reg. No. 44976, 45117), Kita-Ōura (Reg. No. 42006), Udo (Reg. No. 40208), Meitu (Reg. No. 40250), Kosiki-zima (Reg. No. 48205), Kataura (Reg. No. 40385), Kusu (Reg. No. 40219), Makurazaki (Reg. No. 40237, 40240), Bōnotu (Reg. No. 40218), Satanomisaki (Reg. No. 40588), Konesima (Reg. No. 40207), Wakinoura (Reg. Nos. 40309, 40478).

**Distribution:** Japan.

**Turbinaria cf. stellulata** (LAMARCK)

Pl. C, Fig. 5; Pl. CI, Figs. 2–2a.


BERNARD’s description of *Turbinaria stellulata* is as follows:

“Corallum a solid mass, the thick margin growing downwards, seldom turning outwards as a distinct ridge. Calices, with margins only protruding, or else quite immersed; apertures irregularly round, diameter 2.5 mm and under. Septa (24 to 30) very unequal, not reaching the half-radius circle, but sloping down from the margin to form a deep, almost cylindrical, or shallower funnel-shaped, fossa. Columella protuberant, irregularly round or oval, rather compactly foliate, not visible in contact with the septa. Interseptal loculi narrow, in some specimens sharply marked off from the coenenchyma. Coenenchyma, as a rule, finely reticulate but showing great variations.”

The present specimen is hardly distinguishable from *Turbinaria stellulata* (LAMARCK) described by BERNARD, though somewhat differing from it in the smaller size of corallites (1.5–2 mm in diameter in most cases).

**Locality:** Saipan. (Reg. No. 49589).

**Distribution:** Tongatabu, Fiji Islands, Tizard Bank, Chinese Seas; Mariana Islands.

**Turbinaria tubifera** BERNARD

Pl. XCVIII, Figs. 3–3b.

Localties: Tanabe-wan (Reg. No. 40203), Kusimoto (Reg. No. 40216), Susaki (Reg. No. 40214), Meitu (Reg. No. 40238), Misaki (Reg. No. 40515), Udo (Reg. No. 30202), Kosikizima (Reg. No. 40212), Nekimura (Reg. Nos. 44912 and 44989), Okinoerabu-zima (Reg. No. 47188), Haha-zima (Reg. Nos. 44845, 44968).

Distribution: Taiwan, Japan.

**Turbinaria undata** BERNARD

Pl. XCVI, Figs. 2-3.

1896. *Turbinaria undata* BERNARD, Op. cit., p. 31, pl. 4; pl. 31, Fig. 7.

Locality: Tanabe-wan. (Reg. No. 39111).

Distribution: West Australia, Japan.

**Turbinaria immera**, sp. nov.

Pl. XCVIII, Figs. 1, 1a.

Corallum expanded, with broad base of attachment, up to 150 mm broad; upper surface considerably convex; marginally thin, 3-5 mm in average thickness, and gently folded.

Calices usually immersed, round, 1.5-2 mm in diameter, rather densely placed, occasionally in irregular rows. Septa 16-20 thin, apparently smooth in free ends, gradually sloping downward, and extending to more than half radius of calices in length. Interseptal loculi broad, quadrangular. Coenenchyma finely echinulate. Columella spongy, round in outline, composed of thin filiform fibers.

The present new form resembles *Turbinaria plicata* BERNARD than any other recorded species of the genus in having the immersed calices, but differs from it, in many other characters of corallum.

Locality: Titi-zima. (Reg. No. 44844).

Distribution: Japan.

**Turbinaria ramosa**, sp. nov.

Pl. C, Figs. 2-3b.

Corallum ramos?, composed of four main branches coalesced with one another; branches erect upwards at basal part, more or less elliptical in cross section; over 110 mm long and the broadest part 90 mm wide.

Corallites very long, cylindrical, attenuated and erect, generally becoming shorter upwards in length; the longest up to 30 mm, the shortest as long as 5 mm, 5-7 mm in average breadth of base; apertures round or elliptical, 2-2.5 mm broad. Septa granular, thick, wedge-shaped, separated by narrow intervals, 14-16 in most cases, but rarely as many as 20 in abnormal ones; extending beyond the half-radius of calices in length, gradually sloping downwards and then descend vertically around columella; outer margins never marked from surrounding coenenchyma. Columella composed of single granular plate in smaller calices, but reticulate and with often prominent directive keel in larger ones. Coenenchyma granular, finely echinulate, with a well developed but delicate ridge and furrow system, such features become more and more manifest upwards.

The present new form is easily distinguished from the known species of the genus by having ramos? habit of corallum and longer corallites. In the character of columella it con-

1) **BERNARD**: Op. cit., p. 30, pl. 4; pl. 31, fig. 5.
siderably resembles \textit{T. robusta} \textsc{Bernard},\textsuperscript{1)} while in the thick and wedge shaped features of septa, it is on the contrary hardly distinguishable from \textit{T. mesenteriana} (\textsc{Lamarck}).

\textbf{Locality:} Meitu. (Reg. No. 40909).
\textbf{Distribution:} Japan proper.

\textit{Turbinaria tayamai}, sp. nov.
\textit{Pl. XCVII, Figs. 1-1e.}

Form of corallum unknown, probably crateriform \textsuperscript{?}, over 40 cm broad; provided with secondary small funnels (more than 70 mm broad) within the original cup.

Calices round in aperture, in two kinds, one projected and the other immersed; projected ones directed upwards, cylindrical, gradually becoming longer from bottom toward periphery, 2-3 mm in diameter, elevated as much as 6 mm, and arranged in rows parallel to upper margins of corallum; immersed ones found only in bottom, small, distantly placed, 1 mm in diameter on average. Septa 12-18, margins crenulated; short in projected calices, never extending to half the radius of calices, descend almost vertically around columella, thus building deep cylindrical fossa; long in immersed calices, attaining more than half the radius of calices in length, with inner margin almost vertically sloping down to columella. Coenenchyma coarsely echinulate, echinulae arranged in irregular rows and jagged at free ends. Columella spongy, small, composed of slender filiform fibers.

This new form is easily distinguishable from the previously described species by having a different mode of growth of corallum and corallites.

\textbf{Distribution:} Marshall Islands.

\textit{Turbinaria titizimaensis}, sp. nov.
\textit{Pl. XCVII, Fig. 3; Pl. XCVIII, Figs. 2-2e.}

Corallum expanded, with broad base of attachment, up to 180 mm broad; surface considerably folded, often with erect fronds which occasionally form cylinders or funnels as long as 50 mm; margin thin, 2 mm in average thickness, usually flexuous in irregular manner.

Calices round in apertures, crowded, mostly projecting, particularly so on erected fronds or calices, but occasionally immersed in depressed portion; projected calices almost hemispherical in outline, 2-3 mm in diameter, while immersed ones usually smaller, 1.5-2 mm in diameter. Septa 24 on average, not thin, with upper margins gradually sloping down to columella, as long as half the radius of calices, with apparently smooth free ends; in very young calices, the six primary septa particularly stout and more prominent than others. Interseptal loculi narrow. Coenenchyma composed of fine vermicular echinulae. Columella spongy, large, round or elliptical in outline, composed of thick trabeculae, thus apparently looking like a compact mass.

The present new form is closely related to \textit{T. imersa}, but may be easily distinguished from it by the calices having more elevated septa, and columella composed of thick trabeculae.

\textbf{Locality:} Titi-zima. (Reg. No. 40239).
\textbf{Distribution:} Japan.

\textit{Turbinaria}, sp. nov. ?
\textit{Pl. XCIX, Figs. 5-5a; Pl. C, Fig. 1.}

\textbf{Localities:} Okino-sima (Reg. Nos. 40211, 40213, 64504), Kusimoto (Reg. No. 40461).

\textsuperscript{1)} \textsc{Bernard}: Op. cit., p. 51, pl. 11; pl. 32, fig. 5.
Recent Reef-Building Corals from Japan and the South Sea Islands. II

Misaki (Reg. Nos. 40432, 40461), Sarusima and Torisima (Reg. No. 40442).
Distribution: Japan.

Genus *Anacropora* Ridley, 1884


Genotype: *Anacropora forbesi* Ridley.

Previously known species of this genus are four in total, namely *A. forbesi* Ridley, *A. gracilis* Quelch, *A. solida* Quelch, and *A. spinosa* Ridley; of these the first three are closely related to one another in the general characters of corallites, and the characters by which *solida* and *gracilis* are distinguished by Quelch from *forbesi* are probably not of specific value.

*A. forbesi* Ridley

Pl. CIV, Figs. 3–3b.


Locality: Palau Islands. (Reg. No. 41999).
Distribution: Palau Islands, Banda, Kandavu, Keeling Islands.

*A. spinosa* Rehberg

Pl. CIV, Figs. 4–4b.


Locality: Palau Islands. (Reg. No. 42000).
Distribution: Palau Islands.