

IV. PRELIMINARY LIST OF STONY CORALS FROM ADDU ATOLL

by

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During the course of the quadrat transect surveys on the lagoon reef at Gan (see p. 28) a collection of corals was assembled. The method adopted was as follows: Each coral specimen removed and recorded from each quadrat was given a number to form the nucleus of a type collection. Subsequent corals were then compared with the types and assigned the relevant number. Any showing morphological differences from the type were given a new number and incorporated in the collection; this involved some duplication and the assemblage of a number of what later turned out to be growth forms and varieties of the same species. In this way it was possible to pinpoint the distribution of all corals collected along transects from the shore to the base of the lagoon slope. Collections were also made in a non-systematic manner whenever any corals were recognized as being not represented in the type collection. The collection therefore includes a few species which were collected on a shoal in Addu lagoon (no. 4, fig. 19) and on the seaward reef slope of the reefs to the north of the atoll.

Distribution has been related in the list to the reef terminology adopted by Tracey et al. (1955). On the lagoon reef flat, the area of living coral (which commences approximately one-third of the distance to the reef margin from the shore) has been divided into three arbitrary zones, viz.: inner, mid and outer. These have no ecological significance and are used solely to give greater precision in describing distribution.

Subclass ZOANTHARIA
Order SCLERACTINIA
Suborder ASTROCOENIINA
Family ASTROCOENIIDAE
Subfamily Astrocoeniinae

Genus STYLOCOENIELLA

- 1) Stylocoeniella guentheri (Bassett-Smith)
Lagoon slope, Gan. 20 to 80 ft. depth

Family THAMNASTERIIDAE

Genus PSAMMOCORA

- 1) Psammocora nierstraszi v.d. Horst
Outer zone of lagoon reef flat, Gan.
- 2) P. (Stephanaria) folium Umbgrove
Outer zone of lagoon reef flat, Gan.

- 3) P. (Stephanaria) togianensis Umbgrove
Lagoon slope, Gan. 20-70 ft. depth
- 4) P. (Stephanaria) sp. cf. P. (S). digitata M.E. & H.
Lagoon reef flat, Gan.
- 5) P. (Plesioseris) haimeana M.E. & H.
Outer zone, lagoon reef flat, Gan. Common.

Family POCILLOPORIDAE

Genus STYLOPHORA

- 1) Stylophora pistillata (Esper)
Mid to outer zone, lagoon reef flat, Gan.
- 2) Stylophora mordax (Dana)
Seaward reef slope, off Bushy Island, N. Addu. Depth 20 ft.
- 3) Stylophora subseriata (Ehrenberg)
Lagoon slope, Gan. Depth 70-80 ft.

Genus SERIATOPORA

- 1) Seriatopora angulata Klunzinger
Seaward reef slope off Bushy Island, N. Addu. Depth 20 ft.
Not recorded from reefs at Gan.

Genus POCILLOPORA

- 1) Pocillopora eydouxi M.E. & H.
Lagoon reef margin, Gan. Common.
- 2) Pocillopora meandrina Dana var. ncbilis Verrill
Outer zone of lagoon reef flat and lagoon slope to 60 ft.,
Gan. Very common.
- 3) Pocillopora damicornis (Linn.)
Very common over whole of lagoon reef flat, Gan. One of
the first corals found on the landward margin of growing
coral on the reef flat.
P. sp. cf. P. damicornis (Linn.) - Stunted growth form.
Inner zone of lagoon reef flat, Gan.
- 4) Pocillopora ligulata Dana
Lagoon slope, Gan. Depth 10-90 ft.
- 5) Pocillopora acuta Lamarck
Lagoon slope, Gan. Depth 40-90 ft.

Family ACROPORIDAE

Genus ACROPORA

- 1) Acropora convexa (Dana)
Found over whole surface of lagoon reef flat, Gan.
Particularly abundant at lagoon reef margin.
A. sp. cf. A. convexa (Dana)
mid zone of lagoon reef flat, Gan.
- 2) Acropora intermedia (Brook)
Mid zone lagoon reef flat, Gan.
- 3) Acropora humilis (Dana)
Very common on whole of lagoon reef flat and to 15 ft.
on lagoon slope, Gan. Also found in shallow pools
behind algal pavement seaward reef flat, Gan and Hitaddu.
- 4) Acropora hemprichi (Ehrenberg)
Lagoon reef margin and to depth of 20 ft on lagoon slope,
Gan. Common at depths of 20 ft on seaward reef slope of
Northern reefs, Addu.
- 4a) Acropora abrotanoides (Lamarck)
Outer zone of lagoon reef flat, Gan.
- 5) Acropora formosa (Dana)
Very common. Forms a distinct zone between mid and outer
zone of lagoon reef flat. A similar species, tentatively
identified as Acropora sp. cf. A. formosa is dominant over
large areas of the lagoon slope, between 20 and 70 ft. Gan.
- 6) Acropora hyacinthus (Dana) "cytherea" form
Lagoon reef margin, Gan.
- 7) Acropora forskali (Ehrenberg)
Lagoon reef margin, Gan.
- 8) Acropora palifera (Lamarck)
Not recorded on Gan reefs but abundant, in places dominant,
on reef top and seaward margins of Northern reefs, Addu.
- 9) Acropora eurystoma (Klunzinger)
Mid zone, lagoon reef flat, Gan.
- 10) Acropora variabilis (Klunzinger)
Lagoon slope, Gan. Depth 50-80 ft.
- 11) Acropora corymbosa (Lamarck)
Lagoon reef margin and lagoon slope to 50 ft. Gan.
- 12) Acropora syringodes (Brook)
Lagoon reef margin and lagoon slope to 80 ft. Gan.

- 13) Acropora sp. cf. A. conigera (Dana)
Outer zone, lagoon reef flat, Gan.
- 14) Acropora rotumana (Gardiner)
Outer zone, lagoon reef flat, Gan.
- 15) Acropora hystrix (Dana)
Lagoon slope, Gan. Depth 80 ft.
- 16) Acropora squarrosa (Ehrenberg)
Lagoon slope, Gan. Depth 30 ft.
- 17) Acropora n. sp. ?
"Five Fathom Shoal", Addu Lagoon. Depth 70 ft.

Genus ASTREOPORA

- 1) Astreopora myriophthalma (Lamarck)
Lagoon reef flat and lagoon slope to 35 ft, Gan. Also recorded from "Five Fathom Shoal", Addu Lagoon. Depth 50 ft.
- 2) Astreopora ocellata Bernard
Lagoon reef flat, mid zone to reef margin and to depth of 20 ft on lagoon slope. Gan.
- 3) Astreopora listeri Bernard
Lagoon slope, Gan. Depth 15 ft.
- 4) Astreopora sp. cf. A. gracilis Bernard
Lagoon slope, Gan. Depth 65 ft.
- 5) Astreopora sp. cf. A. incrustans Bernard
Lagoon slope, Gan. Depth 40 ft.

Genus MONTIPORA

- 1) Montipora sinensis Bernard
Lagoon reef margin, Gan.
- 2) Montipora danae M.E. & H.
Lagoon slope, Gan. Depth 90 ft.
- 3) Montipora pulcherrima Bernard
Lagoon slope, Gan. Depth 90 ft.
- 4) Montipora sp. cf. M. foliosa (Pallas)
Lagoon slope, Gan. Depth 50 ft.

Suborder	FUNGINA
Superfamily	AGARICIICAE
Family	AGARICIIDAE

Genus PAVONA

- 1) Pavona gardineri v.d. Horst
Lagoon slope, Gan. Depth 15 ft.
- 2) Pavona clavus (Dana)
Lagoon slope, Gan. Depth 20-60 ft.
- 3) Pavona varians Verrill
Widely distributed. Mid to outer lagoon reef flat and lagoon slope to depth of 80 ft. Gan.
var. "repens"
Lagoon slope, Gan. Depth 60-80 ft.
- 4) Pavona (Polyastra?) acuticarinata (Umbgrove)
Lagoon slope, Gan. Depth 50 ft.
- 5) Pavona (Polyastra) sp. cf. P. (P.) planulata (Dana)
Lagoon reef margin to 80 ft on lagoon slope, Gan.
- 6) Pavona (Polyastra?) ponderosa (Gardiner)
Seaward reef slope, Bushy Island. Depth 30 ft.
- 7) Pavona (Polyastra?) n. sp.
Lagoon slope, Gan. Depth 50 ft.
- 8) Pavona (Polyastra) sp.
Lagoon slope, Gan. Depth 60 ft.
- 9) Pavona (Pseudocolumnastraea) sp. cf. P. maldivensis Gardiner
Lagoon slope, Gan. Depth 60 ft.

Genus LEPTOSERIS

- 1) Leptoseris gardineri v.d. Horst
Forms large colonies in sand at base of lagoon slope, Gan.
Depth 90-100 ft.
- 2) Leptoseris incrustans (Quelch)
Lagoon slope, Gan. Depth 60 ft.

Genus PACHYSERIS

- 1) Pachyseris speciosa (Dana)
Lagoon reef margin and lagoon slope to 60 ft. Gan.
- 2) Pachyseris levicollis (Dana)
Lagoon slope Gan. Depth 40-70 ft.
- 3) Pachyseris valenciennesi M.E. & H.
Lagoon reef margin and lagoon slope to 30 ft. Gan.

Family SIDERASTREIDAE

Genus COSCINARAEA

- 1) Coscinaraea monile (Forskaal)
"Five Fathom Shoal", Addu Lagoon. Depth 50 ft.
Mid zone, lagoon reef flat, Gan.

Superfamily FUNGIICAE
Family FUNGIIDAE

Genus FUNGIA

- 1) Fungia scutaria Lamarck
Lagoon reef margin to 50 ft on lagoon slope, Gan.
- 2) Fungia repanda Dana
Lagoon reef margin to 90 ft on lagoon slope. Gan. Common.
- 3) Fungia echinata (Pallas)
Lagoon slope, Gan. Depth 70-90 ft.
- 4) Fungia fungites (Linnaeus)
Very common on whole of lagoon reef flat, Gan, attached stage commonly on Acropora formosa. Not recorded from lagoon slope.

Genus HERPOLITHA

- 1) Herpolitha limax (Esper)
Lagoon reef margin to 60 ft on lagoon slope, Gan. Common.

Genus POLYPHYLLIA

- 1) Polyphyllia talpina (Lamarck)
Lagoon floor at base of lagoon slope, depth 80-100 ft.
Gan and Northern reefs, Addu. Tentacles extended during day.

Genus HALOMITRA

- 1) Halomitra philippinensis Studer
Lagoon slope, Gan. Depth 50-90 ft. Common.

Superfamily PORITICAE
Family PORITIDAE

Genus GONIOPORA

- 1) Goniopora minor Crossland
Lagoon reef margin to 80 ft on lagoon slope, Gan.

- 2) Goniopora sp. aff. G. planulata (Ehrenberg) cf. Klunzinger
Seaward reef slope, Bushy Island. Depth 30 ft.

Genus PORITES

- 1) Porites solida (Forskaal)
No distribution data available.
- 2) Porites lutea M.E. & H.
Lagoon slope, Gan. Depth 10-100 ft.
- 3) Porites lichen Dana
Lagoon slope, Gan. Depth 90 ft.
- 4) Porites sp. cf. P. alveolata
Outer zone, lagoon reef flat, Gan.
- 5) Porites (Synaraea) monticulosa (Dana)
Lagoon slope, Gan. Depth 15-90 ft.
- 6) Porites (Synaraea) n. sp.? aff. P. (S.) horizontalata Hoffmeister
Lagoon slope, Gan. Depth 70 ft.
- 7) Porites sp. (cf. "P. mauritius 5" Bernard)
Seaward reef edge, Gan.

Genus ALVEOPORA

- 1) Alveopora sp. cf. A. viridis (Quoy & Gaimard)
Lagoon slope, Gan. Depth 70 ft.

Suborder FAVIINA
Superfamily FAVIICAE
Family FAVIIDAE
Subfamily Faviinae

Genus CAULASTREA

- 1) Caulastrea furcata Dana
Mid zone of lagoon reef flat, Gan.
- 2) Caulastrea tumida (Matthai)?
"Five Fathom Shoal", Addu Lagoon. Depth 50 ft.

Genus PLESIASTREA

- 1) Plesiastrea versipora (Lamarck)
Lagoon slope, Gan. Depth 80 ft. "Five Fathom Shoal",
Addu Lagoon. Depth 70 ft.

Genus FAVIA

- 1) Favia valenciennesi (M.E. & H.)
Lagoon reef flat, Gan.
- 2) Favia rotumana (Gardiner)
Lagoon reef flat, Gan.
- 3) Favia stelligera (Dana)
Lagoon reef margin, Gan.
- 4) Favia favius (Forsk.)
Inner zone of lagoon reef flat to 40 ft on lagoon slope,
Gan. Also mid zone, lagoon reef flat, Gan.
- 5) Favia pallida (Dana)
Mid zone of lagoon reef flat to 30 ft on lagoon slope, Gan.
- 6) Favia hululensis Gardiner
Mid zone, lagoon reef flat, Gan.
- 7) Favia speciosa (Dana)
Lagoon reef flat, mid zone, to 80 ft on lagoon slope, Gan.
Also at depth of 60 ft on "Five Fathom Shoal", Addu Lagoon.
F. speciosa Dana "clouei" form
Lagoon slope 80 ft, Gan.
F. sp. cf. F. speciosa Dana
"Five Fathom Shoal", Addu Lagoon. Depth 60 ft.

Genus FAVITES

- 1) Favites melicerum (Ehrenberg)
Mid zone of lagoon reef flat, Gan.
- 2) Favites halicora (Ehrenberg)
Lagoon slope, Gan. Depth 50-80 ft.
F. sp. cf. F. halicora (Ehrenberg)
Lagoon reef margin and to 80 ft on lagoon slope, Gan.
- 3) Favites ehrenbergi (Klunzinger)
Lagoon slope, Gan. Depth 50-60 ft.
- 4) Favites hemprichi (Ehrenberg)
Mid zone of lagoon reef flat, Gan.
- 5) Favites complanata (Ehrenberg)
Lagoon reef margin, Gan.
- 6) Favites pentagona (Esper)
Lagoon slope, Gan. Depth 80 ft.
- 7) Favites abdita (Ellis & Solander)
Mid and outer zone of lagoon reef flat and to 70 ft on
lagoon slope, Gan.

- 8) Favites flexuosa (Dana)
Lagoon slope, Gan. Depth 15-90 ft.

Genus OULOPHYLLIA

- 1) Culophyllia crispa (Lamarck)
Lagoon reef margin, Gan.

Genus GONIASTREA

- 1) Goniastrea retiformis (Lamarck)
Middle to outer zone, and reef margin of lagoon reef flat, Gan.
One of the commonest massive corals on this reef.
G. retiformis (Lamarck) var. parvistella (Dana)
Mid to outer lagoon reef flat and to 20 ft on lagoon slope, Gan.
- 2) Goniastrea pectinata (Ehrenberg)
Lagoon slope, Gan. Depth 15-80 ft. Also recorded from
"Five Fathom Shoal", Addu Lagoon. Depth 50 ft.

Genus PLATYGYRA

- 1) Platygyra lamellina Ehrenberg
Outer zone, lagoon reef flat, Gan.
P. lamellina Ehrenberg forma sinensis (M.E. & H.)
Outer zone of lagoon reef flat, Gan.
P. lamellina Ehrenberg forma rustica (Dana)
Mid to outer zone of lagoon reef flat, Gan.
P. lamellina Ehrenberg forma astreiformis (M.E. & H.)
Outer zone of lagoon reef flat, Gan.

Genus LEPTORIA

- 1) Leptoria phrygia (Ellis & Solander)
Mid zone to reef margin of lagoon reef flat, Gan. Very common.

Genus HYDNOPHORA

- 1) Hydnophora exesa (Pallas)
Mid zone, lagoon reef flat, Gan.
- 2) Hydnophora microconos (Lamarck)
Outer zone, lagoon reef flat, Gan.

Subfamily Montastreinae

Genus DIPLOASTREA

- 1) Diploastrea helipora (Lamarck)
Lagoon slope 60 to 100 ft, Gan and Fedu. Forms massive sheets
at base of lagoon slope. One such mass measured approximately
15 x 20 ft.

Genus LEPTASTREA

- 1) Leptastrea transversa Klunzinger
Mid zone, lagoon reef flat, Gan.
- 2) Leptastrea purpurea (Dana)
Mid zone, lagoon reef flat to 30 ft on lagoon slope, Gan.

Genus CYPHASTREA

- 1) Cyphastrea microphthalma (Lamarck)
Mid zone, lagoon reef flat to reef margin and to depth of 90 ft on lagoon slope, Gan.

Genus ECHINOPORA

- 1) Echinopora lamellosa (Esper)
Outer zone of lagoon reef flat to 40 ft on lagoon slope.
Dominant coral in places at lagoon reef margin at Gan;
less frequent at Fedu.

Family OCULINIDAE
Subfamily Galaxeinae

Genus GALAXEA

- 1) Galaxea fascicularis (Lamarck)
Mid to outer zone, lagoon reef flat, Gan. "Five Fathom Shoal",
Addu Lagoon, depth 40 ft.
- 2) Galaxea clavus (Dana)
Mid zone of lagoon reef flat, reef margin and lagoon slope to
80 ft, Gan. Very common.

Genus MERULINA

- 1) Merulina ampliata (E. & S.)
Outer zone of lagoon reef flat and to 90 ft on lagoon slope, Gan.
M. sp. cf. M. ampliata (E. & S.) (M. regalis Dana?)
Lagoon reef margin to 40 ft on lagoon slope, Gan.

Family MUSSIDAE

Genus ACANTHASTREA

- 1) Acanthastrea echinata (Dana)
Lagoon slope, Gan. Depth 60 ft.

Genus CYNARINA

- 1) Cynarina lacrymalis (M.E. & H.)
Lagoon slope 80-100 ft, Gan.

Genus LOBOPHYLLIA

- 1) Lobophyllia corymbosa (Forskaal)
Outer zone of lagoon reef flat to 20 ft on lagoon slope, Gan.
- 2) Lobophyllia costata (Dana)
Lagoon reef flat and to 30 ft on lagoon slope, Gan.
- 3) Lobophyllia sp. cf. L. hemprichi (Ehrenberg)
Lagoon slope, Gan. Depth 100 ft.
- 4) Lobophyllia sp. cf. L. fistulosa (M.E. & H.)

Genus SYMPHYLLIA

- 1) Symphyllia radians M.E. & H.
Mid to outer zones of lagoon reef flat and to 80 ft on lagoon slope, Gan.
- 2) Symphyllia sp. cf. S. nobilis (Dana)
Mid zone of lagoon reef flat and to 40 ft on lagoon slope, Gan.
- 3) Symphyllia valenciennesi M.E. & H.
Lagoon slope, Gan. Depth 90 ft.

Family PECTINIIDAE

Genus ECHINOPHYLLIA

- 1) Echinophyllia aspera (E. & S.)
Lagoon slope, Gan. Depth 20-90 ft.

Genus PECTINIA

- 1) Pectinia alvicornis (Saville Kent)
Lagoon slope, Gan. Depth 60-80 ft.

Genus OXYPORA

- 1) Oxypora lacera (Verrill)
Lagoon slope, Gan. Depth 15-80 ft.

Genus MYCEDIUM

- 1) Mycedium tubifex (Dana)
Lagoon slope, Gan. Depth 50-80 ft.

Suborder CARYOPHYLLIINA
Superfamily CARYOPHYLLIICAE
Family CARYOPHYLLIIDAE
Subfamily Eusmiliinae

Genus EUPHYLLIA

- 1) Euphyllia glabrescens (Chamisso & Eysenhardt)
Mid to outer zone, lagoon reef flat, Gan.

- 2) Euphyllia fimbriata (Spengler)
Lagoon slope, Gan. Depth 60 ft.

Genus PLEROGYRA

- 1) Plerogyra sinuosa (Dana)
Lagoon slope, Gan. Depth 30-90 ft.

Suborder DENDROPHYLLIINA
Family DENDROPHYLLIIDAE

Genus DENDROPHYLLIA

- 1) Dendrophyllia micrantha (Ehrenberg)
In sand at base of lagoon slope, Gan. Depth 100-110 ft.

Genus TUBASTRAEA

- 1) Tubastraea aurea (Quoy & Gaimard)
Beneath overhangs, in shade on dead boulders, lagoon
reef margin, Gan.

- 2) Tubastraea diaphana (Dana)
Similar distribution to T. aurea.

Genus TURBINARIA

- 1) Turbinaria peltata (Esper)
From wrecked ship, Addu Lagoon. Depth 110 ft.
"Five Fathom Shoal", Addu Lagoon. Depth 90 ft.

- 2) Turbinaria n. sp. ?
Lagoon slope, Gan. Depth 50 ft.

Subclass ALCYONARIA
Order COENOTHECALIA
Family HELIOPORIDAE

Genus HELIOPORA

- 1) Heliopora coerulea (Pallas) var. meandrina Dana
Inner reef zone, lagoon reef flat, Gan.

Class HYDROZOA
Order MILLEPORINA
Family MILLEPORIDAE

Genus MILLEPORA

- 1) Millepora latifolia Boschma
Outer zone of lagoon reef flat, and to 20 ft on lagoon slope, Gan.

2) Millepora tenera Boschma

Lagoon reef margin and to 80 ft on lagoon slope, Gan.

Order	STYLASTERINA
Family	STYLASTERIDAE
Subfamily	Distichoporinae

Genus DISTICHOPORA

1) Distichopora fisheri Broch

In shaded areas on dead coral boulders, lagoon reef margin, Gan.

The species was first described by Broch (1939) from the lagoon reef margin of the island of Gan. It was first collected by Broch in 1937 and it was during this period that he made notes on the vegetation of the island which he subsequently published on his return to France (Broch, 1939). His references to the vegetation were, however, confined to describing plants that he had collected either in cultivation or being put to some domestic use.

The first collection of plants, albeit somewhat fragmentary and few in number, was made by R. S. S. Hill, a Captain Royal Naval Reserve, during the first of his visits to the island (the capital of the Maldives) in 1879. The few specimens he brought back from this trip were examined by W. J. Hooker of Cambridge. Hill incorporated Hooker's observations along with other of his observations on plants and animals (including insects) in his excellent journal of the island and its people which was published by the Royal Geographical Society a few years later (Hill, 1883).

Capt. A. C. Christy, serving in the Royal Naval Reserve, visited the island in 1881 making a collection of flowering plants (which were not included in Hill's journal) amounting to 73 species of which 40 were new to Hill's previous list. A few more specimens were discovered later in a sketchy way at the time of the visit of the British Museum, starting the year 1881. Both collections were recorded in the journal of the island, which was published by the Royal Geographical Society in 1883. Christy's collection was made while he was in the Maldives, despatched to the island to collect plants and animals. There he had made of some 175 species of plants and collected species. These he had collected probably all from the island of Gan, which on this visit was included in the list of species. Some further notes relate to the same island were made during the visit.

1/ Capt. A. C. Christy, British Museum (Natural History), London

2) Milipora foveata Hoshino
Lagoon reef margin and to 80 ft on lagoon slope, Can.

Order
Family
Subfamily
DICTYOPORINAE

Genus DICTYOPORA
1) Dictyopora (Lisbert) Brock
In shaded areas on head coral boulders, lagoon reef margin, Can.

(continued)
at 100-110 ft.

Genus DICTYOPORA
Genus DICTYOPORA

at 110 ft.
at 90 ft.

Genus DICTYOPORA
Genus DICTYOPORA

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