



*Marine Studies*

The University of the South Pacific

# Technical Report

**CHECKLIST OF CORAL SPECIES  
GREAT ASTROLABE REEFS, FIJI**

by

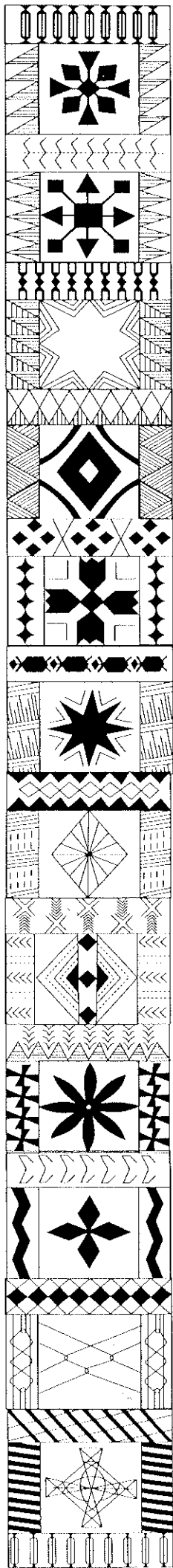
**Joan F Koven  
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## INTRODUCTION:

A photographic survey of invertebrates on the Astrolabe Reefs was begun in 1988 and has continued through March, 1997. Its purpose is to add to baseline data on these reefs for the benefit of researchers at the Dravuni Field Research Station operated by the Marine Studies Programme of the University of the South Pacific.

Photographs were taken with 15mm, 20mm and 28mm lenses on Nikonos cameras. Additional photos were taken with extension tubes on 28mm and 35mm lenses in ratios of 1:3, 1:2 and 1:1.

Identifications were made referencing J. E. Veron & Michel Pichon, Scleractinia of Eastern Australia, Parts 1-5, Australian Institute of Marine Sciences Monograph Series, Australian Government Publishing Service.

Members of the Fungiidae family were identified following the taxonomy of B.W. Hoeksema, Taxonomy, Phylogeny and Biogeography of Mushroom Corals (Scleractinia: Fungiidae), Zool. Verh Rijksmus Nat. Hist. Leiden 254:1:95, 1989.

Specimens of Fungiidae were collected for comparison with those in the collections of the National Museum of Natural History of the Smithsonian Institution.

The family Acroporidae is particularly difficult to identify from photographs and thus many species are tentative.

Other Alcyonacea, the Corallimorpharia and Actinaria have been identified but are not included here. This list includes 174 species belonging to 72 genera.

The Astrolabe Reefs are located between S18° 36.20 and S19°00.00; E178° 26.40 and E178° 35.80.

Phylum : COELENTERATA  
Subphylum : ANTHOZOA  
Order : SCLERACTINIA  
Suborder : ASTROCOENIINA  
Family : Astrocoeniidae

*Stylocoeniella armata* Ehrenberg, 1834

Family : Pocilloporidae

*Pocillopora damicornis* Linne, 1758  
*Pocillopora eydouxi* Edwards & Haime, 1860  
*Pocillopora meandrina* Dana 1846  
*Pocillopora verrucosa* Ellis & Solander, 1786

*Stylophora pistillata* Esper, 1797

*Seriatopora ? caliendrum* Ehrenberg, 1834  
*Seriatopora hystrix* Dana 1846

Family : Acroporidae

*Montipora aequituberculata* Bernard, 1897  
*Montipora crassi tuberculata* Bernard, 1897  
*Montipora danae* Edwards & Haime 1851  
*Montipora ? foveolata* Dana 1846  
*Montipora grisea* Bernard, 1897  
*Montipora ? hoffmeisteri* Wells, 1956  
*Montipora ? informas* Bernard, 1897  
*Montipora ? millepora* Crossland, 1952  
*Montipora spongodes* Bernard, 1897  
*Montipora ? spumosa* Lamarck, 1816  
*Montipora verrucosa* Lamarck, 1826  
*Montipora* spp.

*Anacropora* spp.

*Acropora clathrata* Brook, 1891  
*Acropora cuneata*, Dana, 1846  
*Acropora ? cytherea* Dana 1846  
*Acropora digitifera* Dana, 1846

*Acropora hyacinthus* Dana, 1846  
*Acropora nobilis* Dana, 1846  
*Acropora paniculata* Verrill, 1902  
*Acropora robusta* Dana, 1846  
*Acropora sarmentosa* Brook, 1892  
*Acropora valeniciennesi* Edwards & Haime, 1860  
*Acropora palifera* Lamarck, 1816  
*Acropora* spp.

*Astreopora ? cucullata* Lamberts, 1980  
*Astreopora gracilis* Bernard, 1896  
*Astreopora moretonensis* Veron & Wallace, 1984  
*Astreopora myriophthalma* Lamarck 1816

**Suborder** : **FUNGIINA**  
**Family** : **Poritidae**

*Porites cylindrica* Dana, 1846  
*Porites nigrescens* Dana, 1848  
*Porites solida* Forskal, 1775  
*Porites vaughani* Crossland, 1952  
*Porites* spp.  
*Goniopora djiboutiensis* Vaughan, 1907  
*Goniopora ? lobata* Edwards & Haime, 1860  
*Goniopora* spp.

*Alveopora marionensis* Veron & Pichon, 1982  
*Alveopora ? spongiosa* Dana 1846  
*Alveopora* spp.

**Family** : **Siderastreidae**

*Psammocora digitata* Edwards & Haime, 1851  
*Psammocora profundacella* Gardiner, 1898  
*Psammocora superficialis* Gardiner, 1898  
*Psammocora* spp.

*Coscinaraea columna* Dana, 1846  
*Coscinaraea exesa* Dana, 1846  
*Coscinaraea wellsii* Veron & Pichon, 1980

**Family** : **Agariciidae**

*Pavona annae* Crossland, 1952

*Pavona clavus* Dana, 1846  
*Pavona decussata* Dana, 1846  
*Pavona explanulata* Lamarck, 1816  
*Pavona maldivensis* Gardiner, 1905  
*Pavona varians* Verrill, 1864  
*Pavona ? venosa* Ehrenberg, 1834  
*Pavona* spp.

*Leptoseris explanata* Yabe & Sugiyama, 1941  
*Leptoseris foliosa* Dinesen, 1980  
*Leptoseris incrustans* Quelch, 1886  
*Leptoseris mycetoseroides* Wells, 1954  
*Leptoseris scabra* Vaughan, 1907  
*Leptoseris yabei* Pillai & Scheer, 1976

*Pachyseris speciosa* Dana 1846  
*Pachyseris rugosa* Lamarck 1801

*Gardineroseris planulata* Dana, 1846

**Family : Fungiidae**

*Ctenactis albitenticulata* Hoeksema  
*Ctenactis crassa* Dana, 1846  
*Ctenactis echinata* Pallis, 1766  
*Fungia (Cycloseris) costulata* Ortmann, 1889  
*Fungia (Cycloseris) cyclolites* Lamarck, 1801  
*Fungia (Cycloseris) distorta* Michelin, 1842  
*Fungia (Cycloseris) tenuis* Dana, 1864  
*Fungia (Danafungia) horrida* Dana, 1846  
*Fungia (Danafungia) scruposa* Klunzinger, 1879  
*Fungia (Fungia) fungites* Linnaeus, 1758  
*Fungia (Pleuractis) scutaria* Lamarck, 1816  
*Fungia (Pleuractis) gravis* Nemenzo, 1955  
*Fungia (Pleuractis) paumotensis* Stutchbury, 1833  
*Fungia (Verrillofungia) concinna* Verrill, 1864  
*Fungia (Verrillofungia) repanda* Wells, 1966  
*Fungia (Verrillofungia) sp.*  
*Fungia (Wellsofungia) granulosa* Klunzinger, 1879  
*Fungia (Ctenactis) simplex* Gardiner, 1905  
*Herpolitha limax* Houttuyn, 1772  
*Halomitra pileus* Linne, 1758

*Zoopilus echinatus* Dana, 1846

*Polyphyllia talpina* Lamarck 1801

*Heliofungia actiniformis* Wells, 1966

*Sandalolitha dentata* Quelch, 1884

*Sandalolitha robusta* Quelch, 1886

*Lithophyllon mokai* Hoeksema, 1989

*Lithophyllon edwardsii* Rousseau, 1854

*Podobacia crustacea* Pallas, 1766

**Suborder** : **FAVIINA**  
**Family** : **Oculinidae**

*Galaxea astreata* Lamarck, 1816

*Galaxea fascicularis* Linnaeus, 1767

*Acrhelia horrescens* Dana, 1846

**Family** : **Pectiniidae**

*Mycedium elephantotus* Pallas, 1766

*Pectinia paeonia* Dana, 1846

*Echinophyllia aspera* Ellis & Solander, 1786

*Echinophyllia echinata* Saville-Kent, 1871

*Oxypora lacera* Verrill, 1864

*Oxypora glabra* Nmeuzo, 1959

**Family** : **Mussidae**

*Cynarina lacrymalis* Edwards & Haime, 1848

*Scolymia vitiensis* Bruggeman, 1877

*Scolymia? australis* Edwards & Haime, 1849

*Scolymia* sp.

*Blasstomussa merleti* Wells, 1961

*Blasstomussa wellsi* Wijsman-Best, 1973

*Acanthastrea echinata* Dana, 1846  
*Acanthastrea hillae* Wells, 1955  
*Acanthastrea* sp.

*Lobophyllia corymbosa* Forskäl, 1775  
*Lobophyllia* ? *hataii* Yabe, Sugiyama & Egochi, 1936  
*Lobophyllia hemprichii* Ehrenberg, 1834  
*Lobophyllia pachysepta* Chevalier, 1975  
*Lobophyllia* sp. (p).

*Symphyllia valenciennesii* Edwards & Haime, 1849  
*Symphyllia radians* Edwards & Haime 1849  
*Symphyllia recta* Dana, 1846  
*Symphyllia* sp

**Family : Merulinidae**

*Merulina?* *ampliata* Ellis & Solander, 1786  
*Merulina?* *scabricula* Dana, 1846

*Scapophyllia cylindrica* Edwards & Haime, 1848

*Hydnophora excesa* Pallas, 1766  
*Hydnophora rigida* Dana, 1846  
*Hydnophora microconus* Lamarck, 1816

*Barabattoia amicorum* Yabe & Sugiyama, 1941

**Family : Faviidae**

*Caulastrea furcata*, Dana, 1846

*Favia stelligera* Dana, 1846  
*Favia* ? *favus* Forskal 1775  
*Favia* ? *laxa* Klunzinger, 1879  
*Favia maritima* Nemenzo, 1971  
*Favia* ? *matthaii* Vaughan, 1918  
*Favia maxima* Veron, Pichon & Wijsman-Best, 1977  
*Favia palida* Dana, 1846  
*Favia rotumana* Gardiner 1899  
*Favia* ? *rotundata* Veron, Pichon & Wijsman-Best, 1977  
*Favia* sp.

*Favites?* *abdita* Ellis & Solander, 1786



*Favites complanata* Ehrenberg, 1834  
*Favites? flexuosa* Dana, 1846  
*Favites halicora* Ehrenberg, 1874  
*Favites russelli* Ellis & Solander, 1786  
*Favites* sp

*Goniastrea? aspera* Verril, 1905  
*Goniastrea? retiformis* Gardiner, 1899  
*Goniastrea edwardsii* Chevalier, 1971  
*Goniastrea? pectinata* Ehrenberg 1834  
*Goniastrea australensis* Edwards & Haime, 1849  
*Goniastrea favulus* Dana, 1846

*Leptoria phrygia* Ellis & Solander, 1786

*Platygyra pini* Chevalier, 1975  
*Platygyra? lamellina* Ehrenberg, 1834  
*Platygyra? daedelea* Ellis & Solander, 1786  
*Platygyra? sinensis* Edwards & Haime, 1849

*Oulophyllia crispera* Lamarck, 1816  
*Oulophyllia bennettiae* Veron, Pichon, Wijsman-Best, 1977

*Montastrea curta* Dana, 1846  
*Montastrea? magnistellata* Chevalier, 1971

*Oulastrea crispata* Lamarck, 1816

*Diploastrea heliopora* Lamarck, 1816

*Leptastrea purpurea* Dana, 1846  
*Leptastrea? transversa* Klunzinger, 1879

*Cyphastrea serailia* Forskal, 1775  
*Cyphastrea? chalcidium* Forskal, 1775

*Echinopora lamellosa* Esper, 1795  
*Echinopora gemmacea* Lamarck, 1816  
*Echinopora mammiformis* Nemenzo, 1959  
*Echinopora* sp.

*Moseleya latistellata* Quelch, 1884

**Family** : **CARYOPHYLLIINA**  
**Family** : **Cariophyllidae**

*Plerogyra sinuosa* Dana, 1846

*Euphyllia glabrescens* Chamisso & Eysenhardt, 1821

*Euphyllia divisa* Veron & Pichon, 1980

*Euphyllia cristata* Chevalier, 1971

*Physogyra* sp.

**Suborder** : **DENDROPHYLLIINA**  
**Family** : **Dendrophyllidae**

*Turbinaria reniformis* Bernard, 1896

*Turbinaria peltata* Esper, 1794

*Turbinaria stellulata* Lamarck, 1816

*Turbinaria frondens* Dana, 1846

*Turbinaria patula* Dana, 1846

*Turbinaria mesenterina* Lamarck, 1816

*Turbinaria* sp.

*Tubastrea micrantha* Ehrenberg, 1834

*Tubastrea* sp.

*Dendrophyllia gracilis* Milne Edwards & Haime

*Balanophyllia* sp.

## **ANTHOZOA**

### **CERIANTIPATHARIA**

#### **ANITPATHARIA**

*Antipathidae*

*Antipathes* sp (p)

*Cirripathes anguina* Dana

### **ALCYONACEA**

#### **STOLONIFERA**

*Tubiporidae*

*Tubipora musica* Linne, 1758

*Clavularidae*  
*Clavularia sp.*

**SUBPHYLUM:** MEDUSOZA  
**Order** : ATHECATA  
**Suborder** : CAPITATA  
**Family** : Milleporidae

*Millepora dichotoma* Bennett  
*Millepora tuberosa*  
*Millepora platyphylla*

**Family** : Stylasteridae

*Distichopora borealis*  
*Distichopora violacea* Pallus, 1766  
*Stylaster elegans*  
*Stylaster sp.*