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Les numéros 1 à 456 de cette série ont été publiés à titre de Rapports techniques de l'Office des recherches sur les pêcheries du Canada. Les numéros 457 à 714 sont parus à titre de Rapports techniques de la Direction générale de la recherche et du développement, Service des pêches et de la mer, ministère de l'Environnement. Les numéros 715 à 924 ont été publiés à titre de Rapports techniques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 925.
Field Guide to Corals of British Columbia, Canada, Alaska, USA, and the eastern North Pacific Ocean
(Anthozoa: Octocorallia and Hexacorallia)
(Hydrozoa: Anthoathecata)
A complete compilation of coral identification for the eastern North Pacific Ocean

by

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Abstract


This field guide consolidates the current resources for deep-sea coral taxonomic identification. The field guide covers corals distributed in the eastern North Pacific Ocean including species and taxonomic groups from Alaska, British Columbia and international waters managed by the North Pacific Fisheries Commission. The guide is meant to be used by field biologists, fisheries observers and fisher-people working in the deep-sea. The guide includes five Orders, 31 Families and 153 Species of corals that have been documented from the eastern North Pacific waters. It provides links to common database identification numbers (e.g. World Register of Marine Species, GFBio Database, and the RACE bottom trawl survey database). Pictures of specimens, spatial and depth distributions, notes on sample collections and general morphological descriptions are provided for each species or taxonomic grouping.

Résumé


British Columbia and Alaska Coral Guide

Regions: British Columbia, Aleutian Islands, Bering Sea, Gulf of Alaska, Seamounts of British Columbia and Gulf of Alaska, Beaufort and Chukchi Seas

This guide encompasses corals and hydrocorals found in the waters surrounding British Columbia and Alaska, including international waters. Distribution designations found in this document include: British Columbia (BC), Aleutian Islands (AI), Beaufort Sea, Bering Sea (BS), Chukchi Sea, Gulf of Alaska (GOA), eastern GOA (EGOA), western GOA (WGOA), and international waters managed by the North Pacific Fisheries Commission. In addition, seamount names are provided in the text, where appropriate.
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Illustrations were used by permission of Malcolm M. Wilborn II. The illustrations are artistic interpretations of various coral species, and do not represent actual specimens. For information about permission to reproduce or modify these illustrations, contact M. M. Willborn at: wilborn.mick@yahoo.com
**User Guide**

This document is an attempt to consolidate the scope of coral identification information that is available in the literature and relevant to the waters off British Columbia, Canada and Alaska, USA. This guide is a component of a larger international collaboration that intends to incorporate deep-sea coral species from southern California through the Arctic. It is not a comprehensive microscopic lab or genetics guide, but rather a macroscopic field/image guide to improve standardization of coral identification. Keys in this guide were largely modified from the most recent taxonomic literature and restricted to the north Pacific Ocean (NPO) region.

The layout of this guide is divided into colored sections by Order. Keys to Families in each order are typically at the start of each section, unless the Order is further subdivided into Suborder. Identification keys will guide the reader to the appropriate page based on key descriptors of Families and example images. Each species is described in its own species descriptor box (see example below) and supporting images are provided on the facing page. Words highlighted in **TEAL** have definitions found in the glossary (pg. 113-114).

Scientific name is provided as the most up-to-date version found in WoRMS. Common names were the product of various sources, including WoRMS, taxonomic literature, and seeking the latin meanings to words. Coral characteristics were compiled from original and updated taxonomic records of each species. Lastly, geographic and depth distributions are currently understood estimates, but can be expanded or retracted based on future specimen analysis.

Hyperlinks are provided in the digital version of this guide to the [WoRMS Aphia ID](https://wims.pwms.ac.uk/aphia/) database for any validated species. Species codes for British Columbia (GF Bio) and [Alaska](https://aphia.com) (RACE) are also included. Many specimens used to verify presence/absence for this guide can be found in museum collections; including the [Smithsonian National Museum of Natural History Invertebrate Collection](https://wtm.nmnh.si.edu/wtm/), [California Academy of Sciences Institute for Biodiversity Science and Sustainability Invertebrate Collections Catalogue](https://collections.calacademy.org) (CAS), and the [Royal British Columbia Museum](https://collections.rBCM.ca) (RBCM).

### How to Use This Guide

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* *latin for "confer", used in taxonomy to incidate "compare with"*
Coral Branching Patterns

- **Dichotomous**
- **Irregular**
- **Unbranched**

- **Uniserial**
- **Alternate Pinnate**
- **Pinnate**
Coral Morphology Types

- **Arborescent**
- **Capitate** (Toadstool, Mushroom)
- **Encrusting**
- **Digitiform** (Finger-like, Lumpy)
- **Bushy**
- **Funnel**
- **Planar (Uniplanar, Fan-Shaped)**
- **Stick (Whip)**
Identification Key to Phylum Cnidaria

- Sedentary, marine cnidarians; can be solitary or colonial; polyps have a central mouth surrounded by tentacles containing nematocysts (stinging cells)
  **Class Anthozoa (stony and soft corals)** ................................................................. pg. 7

- Solitary or colonial; most with a medusa phase in life cycle; no nematocysts (stinging cells); can resemble true corals or jellyfish
  **Class Hydrozoa (hydrocorals, lace corals)** ............................................................. pg. 98

Examples of Hydrocorals/Lace Corals

Examples of Stony and Soft Corals
Identification Key to Class Anthozoa (Stony and Soft Corals)

**Subclass Octocorallia** .......................................................................................................................................................... polyps have 8 tentacles

- Colonies vary from encrusting to upright; unbranched to highly **arborescent**; typically attached to substrate with a **basal disc**/holdfast; have a central mostly-calcified axis surrounded by a fleshy “rind”
  Order Alcyonacea (ex. soft corals, sea fans, bamboo corals, stoloniferans)........................................ pg. 8

- Colonies frequently whip- or stick-like in shape, but not branching or encrusting; sometimes with leaf-like structures on the rachis; often with a basal muscular peduncle for anchoring in soft substrate
  Order Pennatulacea (ex. sea pens/whips, sea pansies)........................................................................................................ pg. 64

**Subclass Hexacorallia** .......................................................................................................................................................... 6, 8, or 10-fold symmetry

- Colonies can be unbranched to complexly **arborescent** (41 Opresko, 1972); with a spiny, strong, proteinaceous skeleton; typically black to dark in color; polyps have 6-fold symmetry
  Order Antipatharia (black corals)............................................................................................................................................. pg. 78

- Colonies can be colonial or solitary; have a solid calcareous skeleton (external to the soft tissues) which forms cone- to funnel-shaped calices subdivided by septa (42 Cairns, 1999)
  Order Scleractinia (stony corals)............................................................................................................................................. pg. 88
Subclass OCTOCORALLIA

**Order ALCYONACEA**

### Identification Key to Order Alcyonacea

- Colonies with polyps united within a fleshy mass of **coenenchyme**
  **Suborder Alcyoniina** .................................................................................................................................................... **pg. 9**

- Colonies with axis of non-scleritic calcite or aragonite; nodes of **gorgonin** interspersed; hollow, cross-chambered central core is absent
  **Suborder Calcaxonia** .................................................................................................................................................... **pg. 16**

- Colonies with axis consisting primarily of **gorgonin**; often with small amounts of embedded non-scleritic calcite, hollow, cross-chambered central core is present
  **Suborder Holaxonia.** .................................................................................................................................................... **pg. 42**

- Colonies with axis or internal axial-like layer composed predominantly of sclerites that may be either unfused or fused with calcite or **gorgonin**; often covered in knobby protrusions
  **Suborder Scleraxonia** .................................................................................................................................................. **pg. 52**

- Colonies with polyps united basally by **stolons** that may fuse to form ribbons or thin membranes
  **Suborder Stolonifera** ................................................................................................................................................... **pg. 58**
Illustration Key to Suborder Alcyoniina

- Colonies encrusting or erect; often producing **digitiform** or toadstool-shaped colonies; polyps widely distributed and can be **retractile** or non-**retractile**, **dimorphic** or **monomorphic**
  
  **Family Alcyoniidae** .......................................................................................................................................................... pg 10

- Colonies **arborescent**, sometimes encrusting; with finger-like extensions; non-**retractile** polyp clusters on terminal lobes
  
  **Family Nephtheidae** .......................................................................................................................................................... pg 14

List of species of Suborder Alcyoniina

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<td><em>Thrombophyton trachydermum</em></td>
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<tr>
<td>Unidentified Alcyoniidae</td>
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</tbody>
</table>

Illustration: Anatomy of an Alcyoniid coral
**Alcyonium pacificum**[^1][^2][^3][^4]

**Pacific Soft Coral**

**COLOR:** Bright reddish-orange  
**SHAPE:** *Capitate*, mushroom-shaped with a distinct cap and short stalk  
**SIZE:** Height to 2 cm  
**DIAGNOSTIC FEATURES:** Cap diameter to 4 cm; cap height to 2 cm; polyp length up to 1 cm  
**POLYP DESCRIPTION:** Retractile, large, and evenly distributed on cap only; monomorphic  

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 5-40 m  

**WoRMS Aphia ID:** [287373](https://www.worms.org/aphia.php?p=taxdetails&id=287373)  
**GFBio Code:** 5B3  
**RACE Code:** 41102

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**Alcyonium spp.**[^1][^40][^47][^51]

**Unidentified Soft Corals**

**COLOR:** Pink and orange  
**SHAPE:** *Capitate*, mushroom-shaped or irregular and lumpy  
**SIZE:** NA  
**DIAGNOSTIC FEATURES:** NA  
**POLYP DESCRIPTION:** Polyps usually retractile; monomorphic  

**REPORTED DISTRIBUTION:** AI, BS, Beaufort Sea, Chukchi Sea, WGOA, BC  
**REPORTED DEPTH:** 18-160 m  

**WoRMS Aphia ID:** [125284](https://www.worms.org/aphia.php?p=taxdetails&id=125284)  
**GFBio Code:** 5B3  
**RACE Code:** 41102

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**Discophyton rudyi**[^3][^66]

**White Disc Soft Coral**

**COLOR:** White to light salmon pink  
**SHAPE:** Encrusting  
**SIZE:** Height to 5 mm (when polyps extended)  
**DIAGNOSTIC FEATURES:** Colony 5-15 mm diameter  
**POLYP DESCRIPTION:** Evenly distributed over colony; fully retractile; calices absent  

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** Intertidal  

**WoRMS Aphia ID:** [289828](https://www.worms.org/aphia.php?p=taxdetails&id=289828)  
**GFBio Code:** 5B8  
**RACE Code:**

---

**Heteropolypus japonicus**[^1][^5][^19][^40]

**Japan’s Toadstool Coral**

**COLOR:** Dark red to bright scarlet; polyps slightly darker  
**SHAPE:** *Capitate*, toadstool-shaped; rounded cap with extended stalk  
**SIZE:** Height to 7 cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Typically found along cap edge; less dense on upper surface; up to 12 mm long; dimorphic  

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 424-603 m  

**WoRMS Aphia ID:** [724714](https://www.worms.org/aphia.php?p=taxdetails&id=724714)  
**GFBio Code:** 5B4 (genus)  
**RACE Code:** 41333
Subclass OCTOCORALLIA

Order ALCYONACEA

Suborder ALCYONIIINA

Family ALCYONIIDAE

No Images On Record With DFO or AFSC

Alcyonium pacificum

Credit: Gustav Paulay, FMNH, Invert. Zool. Collection, CC0
Credit: The Smithsonian Institute, UC-BY-NC-SA

Alcyonium spp.

Discophyton rudyi

Credit: Nutting, 1912

Heteropolypus japonicus

Credit: Nutting, 1912
**Subclass OCTOCORALLIA**

**Order ALCYONACEA**

**Suborder ALCYONIINA**

**Family ALCYONIIDAE**

---

**Heteropolypus ritteri**[^1,5,51]  
**Ritter’s Toadstool Coral**

- **COLOR**: Red to white  
- **SHAPE**: Capitate, toadstool-shaped with short, stout stalk; cap is large and hemispherical  
- **SIZE**: Height to 10 cm  
- **DIAGNOSTIC FEATURES**: NA  
- **POLYP DESCRIPTION**: Cap has several very large polyps; dimorphic  

- **REPORTED DISTRIBUTION**: AI  
- **REPORTED DEPTH**: 241-801 m

---

**Pseudoanthomastus sp.**[^1,5,40]  
**Unidentified Toadstool Coral**

- **COLOR**: Rust to dark red cap; stalk is light brown  
- **SHAPE**: Capitate, toadstool-shaped; dome-shaped cap, with conspicuous stalk  
- **SIZE**: None provided, but likely similar to other toadstool corals  
- **DIAGNOSTIC FEATURES**: Large and retractile; often remain extruded after collection; monomorphic  

- **REPORTED DISTRIBUTION**: GOA Seamounts (Denson and Welker)  
- **REPORTED DEPTH**: 1122-1535 m

---

**Thrombophyton trachydermum**[^3]  
**Rough-Skinned Soft Coral**

- **COLOR**: Yellowish-orange  
- **SHAPE**: Colonies encrusting; membranous and irregularly shaped  
- **SIZE**: Height to 4 mm  
- **DIAGNOSTIC FEATURES**: NA  
- **POLYP DESCRIPTION**: Monomorphic and fully retractile; can form small raised clusters like Discophyton sp.  

- **REPORTED DISTRIBUTION**: BC  
- **REPORTED DEPTH**: Inter- and subtidal to 28 m

---

**Unidentified Alcyoniidae**[^17]  
**Purple Encrusting Soft Coral**

- **COLOR**: Dark pink, fuschia, purple  
- **SHAPE**: Encrusting; very small  
- **SIZE**: Height to 2 cm  
- **DIAGNOSTIC FEATURES**: NA  
- **POLYP DESCRIPTION**: Polyps relatively large  

- **REPORTED DISTRIBUTION**: AI  
- **REPORTED DEPTH**: 25-352 m

[^1]: WoRMS Aphia ID: 724715  
[^2]: GFBio Code: 5BP  
[^3]: RACE Code:

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[^1]: WoRMS Aphia ID: 267770  
[^2]: GFBio Code:  
[^3]: RACE Code:

---

[^1]: WoRMS Aphia ID: 291219  
[^2]: GFBio Code: 5BH  
[^3]: RACE Code:

---

[^1]: WoRMS Aphia ID: 125269  
[^2]: GFBio Code:  
[^3]: RACE Code:
Subclass OCTOCORALLIA

Order ALCYONACEA

Suborder ALCYONIINA

Family ALCYONIIDAE

Unidentified Alcyoniidae

Pseudoanthomastus sp.

Heteropolypus ritteri

Examples ONLY! Not actual specimen

Thrombophyton trachydermum

Unidentified Alcyoniidae
Gersemia cf. juliepackardae $^{1,43}$

**Carnation Coral Unid**

**COLOR:** White to pale pink/orange  
**SHAPE:** Erect and *arborescent* in situ; small and lumpy out of water  
**SIZE:** Height to 9 cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Tubular and non-*retractile*; 4.5-5.5 mm long  
**REPORTED DISTRIBUTION:** GOA Seamounts, BC  
**REPORTED DEPTH:** 520-2034 m

Gersemia cf. *lambi* $^{2,6}$

**Carnation Coral**

**COLOR:** Pink to reddish  
**SHAPE:** Erect and *arborescent* in situ; small and lumpy out of water  
**SIZE:** Height to 5.5 cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Congested, densely packed, tubular-shaped, curved, non-*retractile* and large (4-8 mm length)  
**REPORTED DISTRIBUTION:** EGOA, BC  
**REPORTED DEPTH:** 6-20 m

Gersemia *rubiformis* $^{1,2,6,69,79}$

**Strawberry Carnation Coral**

**COLOR:** Pink, red, peach  
**SHAPE:** Erect and *arborescent* in situ; small and lumpy out of water  
**SIZE:** Height to 10 cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Numerous; fully *retractile*; highly expandable  
**REPORTED DISTRIBUTION:** AI, BS, Beaufort Sea, Chukchi Sea, GOA, BC  
**REPORTED DEPTH:** 10-200 m
Gersemia cf. juliepackardae

Gersemia cf. lambi

Gersemia rubiformis
### Identification Key to Suborder Calcaxonia

- Colonies can be branched or unbranched; holdfast is calcified; axis is solid, smooth, and metallically iridescent; made of concentrically-layered proteinaceous material; polyps are not retractile; arranged in rows of 1, 2, or multiples; never in whorls

**Family Chrysogorgiidae**

- Colonies whip-like to profusely branched, bushy or fan-shaped; axis is segmented between black (gorgonin) nodes and white (calcareous) internodes; branching occurs at or between the nodes, depending on genus; polyps can be retractile or non-retractile

**Family Isididae (RACE Code: 44084)**

- Colonies fan-shaped, bushy, or arborescent; axis is not segmented; polyps are non-retractile and arranged in whorls or randomly on all sides of branches

**Family Primnoidae**

### List of species of Suborder Calcaxonia

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<thead>
<tr>
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<th>Family Primnoidae</th>
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**Family Isididae**

- **Bathygorgia** profunda
- **Isidella** spp.
- **Isidella tentaculum**
- **Keratoisis** spp.
- **Lepidisis** spp.

**Family Primnoidae**

- **Callogorgia compressa**
- **Callogorgia frasera**
- **Callogorgia** cf. kinoshitai
- **Calyptrophora laevispinosa**
- **Narella** abyssalis
- **Narella** alaskensis
- **Narella** arbuscula
- **Narella** bayeri
- **Narella** bowersi
- **Narella** cristata
- **Parastenella** doederleini
- **Parastenella** gymnogaster
- **Parastenella** pacifica
- **Parastenella** ramosa
- **Plumarella** aleutiana
- **Plumarella** echinata
- **Plumarella** hapala
- **Plumarella** nuttingi
- **Plumarella** profunda
- **Plumarella** robusta
- **Plumarella** spicata
- **Plumarella** superba
- **Primnoa** pacifica
- **Primnoa** pacifica var. willeyi
- **Primnoa** wingi
- **Thouarella** cristata
- **Thouarella** trilineata

Examples of Calcaxonia corals (top row- Plumarella spp.; bottom row, left to right- Isidella sp., Arthropogorgia sp., Primnoa sp.)
Illustration: Anatomy of a Calcaxonian coral
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA

Family CHRYSOGORGIIIDAE (Golden Corals)

**Chrysogorgia sp. B**  
**Golden Coral B Unid.**  
**WoRMS Aphia ID:**  
**GFBio Code:** 3TU (genus)  
**RACE Code:** 

**COLOR:**  
**SHAPE:** Sympodial; branching **dichotomous** in spiral around main stem  
**SIZE:**  
**DIAGNOSTIC FEATURES:** Skeleton has metallic luster; differs from *Chrysogorgia* sp. C in location and depth  
**POLYP DESCRIPTION:**  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 1359-2163 m

**Chrysogorgia sp. C**  
**Golden Coral C Unid.**  
**WoRMS Aphia ID:**  
**GFBio Code:** 3TU (genus)  
**RACE Code:** 

**COLOR:**  
**SHAPE:**  
**SIZE:**  
**DIAGNOSTIC FEATURES:** differs from *Chrysogorgia* sp. B in location and depth  
**POLYP DESCRIPTION:**  
**REPORTED DISTRIBUTION:** GOA Seamounts (Welker, Derickson)  
**REPORTED DEPTH:** 3385-4328 m

**Pseudochrysogorgia sp.**  
**False Golden Coral Unid.**  
**WoRMS Aphia ID:** 882825  
**GFBio Code:**  
**RACE Code:** 

**COLOR:**  
**SHAPE:** Bushy, bottlebrush- shaped; axis is monopodial and zig zags  
**SIZE:**  
**DIAGNOSTIC FEATURES:** Space between branches is < 2 cm  
**POLYP DESCRIPTION:** Have ornamental sclerites  
**REPORTED DISTRIBUTION:** GOA Seamounts (Derickson, Pratt)  
**REPORTED DEPTH:** 1854-4167 m

**Radicipes stonei**  
**Bob’s Golden Pigtail Coral**  
**WoRMS Aphia ID:** 1034980  
**GFBio Code:** 3TV (genus)  
**RACE Code:** 

**COLOR:** White  
**SHAPE:** Unbranched; elongate coiling/spiraling; root-like holdfast  
**SIZE:** Height to 1 m  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Arranged uniserially on one axis; are perpendicular to axis; up to ~1.3 mm length; 1-5 polyps/cm; 2-5 mm between polyps  
**REPORTED DISTRIBUTION:** AI, GOA Seamounts (Derickson)  
**REPORTED DEPTH:** 1207-3580 m
Subclass OCTOCORALLIA  Order ALCYONACEA  Suborder CALCAXONIA
Family CHRYSOGORGIIIDAE (Golden Corals)

Chrysogorgia sp. B
Chrysogorgia sp. C
Pseudochrysogorgia sp.

↓Examples ONLY! Not actual specimens↓

Radicipes stonei

No Images On Record
With DFO or AFSC

Credit: SNMNH, CC0 License
Credit: DER, NOAA
Credit: Stone, 2014
### Alcyonacea

#### Isidella spp.  
**Bamboo Coral Unid.**

| **COLOR**: White, orange, pink
| **SHAPE**: Arborescent, branching; can appear uniplanar; branching occurs from the brown/black nodes
| **SIZE**: Height to >1 m, but frequently are broken when seen on deck
| **DIAGNOSTIC FEATURES**: Black and white skeleton
| **POLYP DESCRIPTION**: Large; translucent membrane between polyps
| **REPORTED DISTRIBUTION**: AI, BS, GOA Seamounts (Pratt, Giacomini, Derickson, Dickens, Patton), BC
| **REPORTED DEPTH**: 287-4575 m

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#### Isidella tentaculum  
**Tentacled Bamboo Coral**

| **COLOR**: White, peach, orange
| **SHAPE**: Large, branching with black/dull brown nodes and white internodes; branching occurs from the nodes
| **SIZE**: Height to 2 m, but frequently are broken when seen on deck
| **DIAGNOSTIC FEATURES**: Sweeper tentacles occur along base of colony
| **POLYP DESCRIPTION**: Large, crowded, and dull orange
| **REPORTED DISTRIBUTION**: AI, BS, EGOA, GOA Seamounts, BC
| **REPORTED DEPTH**: 340-1468 m

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#### Bathygorgia profunda  
**Deep-sea Bamboo Coral**

| **COLOR**: Orange-brown; polyps are dark brown
| **SHAPE**: Arborescent; can appear uniplanar; jointed with square-ish white internodes and small black nodes
| **SIZE**: Height to 10 cm long; diameter to ~1 mm; only small specimens described
| **DIAGNOSTIC FEATURES**: Very thin axis, no large needle-shaped sclerites
| **POLYP DESCRIPTION**: Large (up to 4 mm), club-shaped, and uni-serially distributed on branch; non-retractile
| **REPORTED DISTRIBUTION**: AI
| **REPORTED DEPTH**: 3230-4206 m
Subclass OCTOCORALLIA Order ALCYONACEA Suborder CALCAXONIA Family ISIDIDAE (Bamboo Corals)

Bathygorgia profunda

Isidella spp.

Isidella tentaculum

Credit: Wright & Studer, 1889
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA  
Family ISIDIDAE (Bamboo Corals)

---

### Keratoisis spp. 1,40

**Unidentified Bamboo Coral**

| COLOR: | White, beige, orange |
| SHAPE: | Frequently branching; branching occurs at the white internodes |
| SIZE: | Height to 1+ m |
| DIAGNOSTIC FEATURES: | Branches at the internodes |
| POLYP DESCRIPTION: | Not retractile; large and easily visible; fairly widely spaced |

**REPORTED DISTRIBUTION:** AI, BS, GOA, GOA Seamounts (Denson, Giacomini, Walker, Pratt, Derickson), BC

**REPORTED DEPTH:** 454-4097 m

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### Lepidisis spp. 1,40,47

**Whip Bamboo Coral Unid.**

| COLOR: | Cream to beige in situ; polyp tips/tentacles slightly darker than polyp stalk |
| SHAPE: | Whip-like; rarely branching; often has kinks or curls in shape |
| SIZE: | Unknown |
| DIAGNOSTIC FEATURES: | |
| POLYP DESCRIPTION: | Large, not retractile, and widely spaced |

**REPORTED DISTRIBUTION:** GOA and BC Seamounts (Derickson, Walker, Giacomini, Pratt, Bowie)

**REPORTED DEPTH:** 1130-4784 m
**Subclass OCTOCORALLIA**  
**Order ALCYONACEA**  
**Suborder CALCAXONIA**  
**Family ISIDIDAE (Bamboo Corals)**

*Keratoisis* spp.

*Lepidisis* spp.
### Arthrogorgia kinoshitai \textsuperscript{1,2,10,11,12}
#### Kinoshita's Armored Sea Fan

**COLOR:** Pale orange to pink  
**SHAPE:** Large; uniplanar; dichotomous branching  
**SIZE:** Height to 40 cm  
**DIAGNOSTIC FEATURES:** Branch length 9-30 cm; axis is round  
**POLYP DESCRIPTION:** Large (3-3.5 mm); point towards base; form whorls; 6-9 polyps/whorl; 7-8 whorls per 3 cm; sharp spines  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 150-1309 m

### Arthrogorgia otsukai \textsuperscript{1,2,10,11,12}
#### Otsuka's Armored Sea Fan

**SHAPE:** Moderate-size; uniplanar; uneven dichotomous branching  
**SIZE:** Height to 20 cm  
**DIAGNOSTIC FEATURES:** Branch length 4-15 cm; axis is round  
**POLYP DESCRIPTION:** Large (2.3-2.8 mm); point towards base; form whorls; 5-7 polyps/whorl; 11-13 whorls per 3 cm; no projecting spines  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 1300-1400 m

### Arthrogorgia utinomii \textsuperscript{1,2,10,11}
#### Utinomi's Armored Sea Fan

**SHAPE:** Moderate-size; uniplanar; uneven dichotomous branching  
**SIZE:** Height to 35 cm  
**DIAGNOSTIC FEATURES:** Branch length to 30 cm  
**POLYP DESCRIPTION:** Large (3-3.5 mm); point towards base; form whorls; 7-10 polyps/whorl; 7-9 whorls per 3 cm; long, broad, rounded spines  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 163-882 m
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA  
Family PRIMNOIDAE

No Images On Record
With DFO or AFSC

Acanthoprimnoa sp.

Arthrogorgia kinoshitai

Arthrogorgia otsukai

Arthrogorgia utinomii
Subclass OCTOCORALLIA
Order ALCYONACEA
Suborder CALCAXONIA
Family PRIMNOIDAE

**Callogorgia compressa** 1,2,9
**Compressed Sea Feather**
(formerly *Fanellia compressa*)

- **COLOR:** Orange, pink-orange
- **SHAPE:** Large; uniplanar; dichotomous branching
- **SIZE:** Height to 1 m
- **DIAGNOSTIC FEATURES:** Branching occurs every 3-5 cm; distal branches longer (up to 50 cm) and straight
- **POLYP DESCRIPTION:** Length 1.6-2.0 mm; form whorls; 8-12 polyps/whorl distally; up to 25 polyps/whorl near base; 4-6 whorls/cm
- **REPORTED DISTRIBUTION:** AI, GOA, BC
- **REPORTED DEPTH:** 80-1400 m

**Callogorgia fraseri** 1,2,9
**Dry Sea Feather**
(formerly *Fanellia fraseri*)

- **COLOR:** Light orange, pink-orange
- **SHAPE:** Medium-sized; uniplanar; alternate pinnate branching
- **SIZE:** Height to 35 cm
- **DIAGNOSTIC FEATURES:** Branching occurs every 6-15 mm; short end branches (<15 cm)
- **POLYP DESCRIPTION:** Length 1.1-1.5 mm; form whorls; 5-8 polyps/whorl distally; up to 12/whorl near base; 6-7 whorls/cm
- **REPORTED DISTRIBUTION:** AI, WGOA
- **REPORTED DEPTH:** 50-1340 m

**Callogorgia cf. kinoshitai** 48,53,71
**Kinoshitai’s Sea Feather**

- **COLOR:** White, slight pinkish hue
- **SHAPE:** Uniplanar; taller than broad; alternate pinnate branching
- **SIZE:** Height to 50 cm
- **DIAGNOSTIC FEATURES:** Terminal branchlets up to 13 cm long and unbranched
- **POLYP DESCRIPTION:** Length 1.5-2.0 mm; curved out and upward; form whorls; 5-6 polyps/whorl, 4-5 whorls/cm
- **REPORTED DISTRIBUTION:** BC
- **REPORTED DEPTH:** 219-2472 m

**Calyptrophora laevispinosa** 1,2,9,13
**Smooth-spined Tree Coral**

- **COLOR:** White
- **SHAPE:** Medium-sized; dichotomous branching
- **SIZE:** Height to 40 cm
- **DIAGNOSTIC FEATURES:** Distinct spacing between whorls
- **POLYP DESCRIPTION:** Length 1.5-2 mm; point distally; form whorls; 3-4 polyps/whorl; 10-12 whorls per 3 cm; 4 (rarely 6) buccal spines
- **REPORTED DISTRIBUTION:** GOA Seamounts
- **REPORTED DEPTH:** 1800-3100 m
**Subclass OCTOCORALLIA**  
**Order ALCYONACEA**  
**Suborder CALCAXONIA**  
**Family PRIMNOIDAE**

*Callogorgia compressa*

*Callogorgia fraseri*

*Callogorgia cf. kinoshitai*

*Calyptrophora laevispinosa*
**Subclass OCTOCORALLIA**  
Order ALCYONACEA  
Suborder CALCAXONIA

### ALCYONACEA

**Family PRIMNOIDAE**

#### Narella abyssalis
**Deepwater Sea Coral**

- **WoRMS Aphia ID:** 409560
- **GFBio Code:**
- **RACE Code:**

**COLOR:** Axis is golden yellow  
**SHAPE:** Uniplanar; **dichotomous** sparse branching  
**SIZE:** Unknown  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Length 1.9-2.4 mm and spaced 1.3-2.3 mm apart; form whorls; 2-4 polyps/whorl; 9 whorls per 3 cm  
**REPORTED DISTRIBUTION:** GOA Seamounts (Derickson)  
**REPORTED DEPTH:** 4594 m

#### Narella alaskensis
**Alaska Sea Coral**

- **WoRMS Aphia ID:** 409561
- **GFBio Code:** 3QP (genus)  
- **RACE Code:**

**COLOR:** Light orange, pink-orange  
**SHAPE:** Uniplanar; **dichotomous** sparse branching  
**SIZE:** Unknown  
**DIAGNOSTIC FEATURES:** Terminal branches long; prominent spines  
**POLYP DESCRIPTION:** Length is 2.7-3.2 mm; form whorls; 7-9 polyps/whorl; 10.5 whorls per 3 cm  
**REPORTED DISTRIBUTION:** GOA Seamounts (Welker)  
**REPORTED DEPTH:** 2092-3100 m

#### Narella arbuscula
**Small Tree Sea Coral**

- **WoRMS Aphia ID:** 409558
- **GFBio Code:**
- **RACE Code:**

**COLOR:** Unknown  
**SHAPE:** Bushy; **dichotomous** sparse branching  
**SIZE:** Unknown  
**DIAGNOSTIC FEATURES:** Terminal branches long (up to 12 cm); polyps larger than other *Narella* sp.  
**POLYP DESCRIPTION:** Length is 3.4-4.7 mm; form whorls; 6-7 polyps/whorl; 6-8 whorls per 3 cm  
**REPORTED DISTRIBUTION:** GOA Seamounts (Derickson)  
**REPORTED DEPTH:** 2775-3500 m

#### Narella bayeri
**Bayer’s Sea Coral**

- **WoRMS Aphia ID:** 409557
- **GFBio Code:**
- **RACE Code:**

**COLOR:** Unknown  
**SHAPE:** Uniplanar; **dichotomous** sparse branching  
**SIZE:** Height to 29+ cm  
**DIAGNOSTIC FEATURES:** Branching occurs every 13-25 mm; terminal branches long (up to 17 cm)  
**POLYP DESCRIPTION:** Length is 2.2-3.4 mm; form whorls; 5-7 polyps/whorl; 11-12 whorls per 3 cm  
**REPORTED DISTRIBUTION:** GOA Seamounts  
**REPORTED DEPTH:** 3200-4100 m
**Subclass OCTOCORALLIA**

**Order ALCYONACEA**

**Suborder CALCAXONIA**

**Family PRIMNIOIDEAE**

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**Narella abyssalis**

No Images On Record
With DFO or AFSC

Credit: M. Everett, NOAA

**Narella alaskensis**

No Images On Record
With DFO or AFSC

**Narella arbuscula**

No Images On Record
With DFO or AFSC

**Narella bayeri**

No Images On Record
With DFO or AFSC
**Subclass OCTOCORALLIA**  
**Order ALCYONACEA**  
**Suborder CALCAXONIA**  

**Family PRIMNOIDAE**

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### Narella bowersi

**Bower’s Sea Coral**

**WoRMS Aphia ID:** 286512  
**GFBio Code:** 3QP (genus)  
**RACE Code:**

**COLOR:** White  
**SHAPE:** Uniplanar; **dichotomous** branching  
**SIZE:** Height to 23+ cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Length 2.5-3.2 mm and spaced 0.6-1.5 mm apart; form whorls; 3-4 polyps/whorl  
**REPORTED DISTRIBUTION:** BC Seamounts  
**REPORTED DEPTH:** 1218-2600 m

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### Narella cristata

**Crested or Ridged Sea Coral**

**WoRMS Aphia ID:** 409559  
**GFBio Code:**  
**RACE Code:**

**COLOR:** Unknown  
**SHAPE:** Uniplanar; **dichotomous** sparse branching  
**SIZE:** Unknown  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Length is 2.1-3.0 mm; bend toward base; 2-4 polyps/whorl; 8-10 whorls per 3 cm; whorls are 1.3-2.2 mm apart  
**REPORTED DISTRIBUTION:** GOA Seamounts  
**REPORTED DEPTH:** 3385 m
Subclass OCTOCORALLIA  Order ALCYONACEA  Suborder CALCAXONIA  Family PRIMNOIDAE

Narella bowersi

Narella cristata

↓Examples ONLY! Not actual specimens↓

Narella Examples
*Genus *Parastenella* needs genetics or microscope to identify to species

### *Parastenella doederleini*[^1,^9,^13]  
**Doederlein's Tree Coral**

**COLOR:** Axis dark brown; visible through a thin white layer; faint pinkish hue on large specimens  
**SHAPE:** Uniplanar to slightly bushy; *dichotomous* branching; small  
**SIZE:** Height to at least 70 cm  
**DIAGNOSTIC FEATURES:** Similar to *P. ramosa*  
**POLYP DESCRIPTION:** Occur singly, in pairs, and occasionally in whorls of 3-4; project perpendicular to branch; length is 2.1-2.5 mm

**REPORTED DISTRIBUTION:** AI, BC  
**REPORTED DEPTH:** 400-4594 m

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### *Parastenella gymnogaster*[^1,^13]  
**Bare-bellied Tree Coral**

**COLOR:** Axis is bronze  
**SHAPE:** Uniplanar; *dichotomous*, irregular branching  
**SIZE:** Height to 28 cm  
**DIAGNOSTIC FEATURES:** Branching every 12-15 mm; terminal branches are straight and rarely > 4 cm  
**POLYP DESCRIPTION:** Occur singly, in pairs, and occasionally in whorls of 3; spaced ~ 0.4-0.6 mm apart; strongly directed basally; length is 2.2-3.0 mm

**REPORTED DISTRIBUTION:** AI, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 1527-2773 m

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### *Parastenella pacifica*[^13,^71]  
**Pacific Tree Coral**

**COLOR:** Axis is light brown; polyps pale yellow to white  
**SHAPE:** Uniplanar and flabellate; *dichotomous*, irregular branching  
**SIZE:** Height to 30 cm  
**DIAGNOSTIC FEATURES:** Branching every 10-15 mm; terminal branches are short and rarely > 10 cm  
**POLYP DESCRIPTION:** Occur singly, in pairs, and in whorls of 3; spaced ~0.5-1.5 mm apart; usually oriented perpendicular to base; length is 2.1-3.0 mm; flared shape

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 2775-3500 m

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### *Parastenella ramosa*[^1,^13,^71]  
**Branched Tree Coral**

**COLOR:** Axis dark bronze; easily seen beneath a single layer of white, translucent *coenenchyme*  
**SHAPE:** Usually uniplanar, rarely bushy; *dichotomous*, irregular branching  
**SIZE:** Height to 50 cm  
**DIAGNOSTIC FEATURES:** Similar to *P. doederleini*; branching every 9-11 mm; terminal branches are straight and rarely > 3 cm  
**POLYP DESCRIPTION:** Occur singly, in pairs, and occasionally in whorls of 3; spaced ~1-1.5 mm apart; usually directed basally; length is 2.5-3.3 mm

**REPORTED DISTRIBUTION:** AI, EGOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 665-2000 m

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[^1]: WoRMS Aphia ID: 290683  
[^9]: GFBio Code: 3QS  
[^13]: RACE Code: **

[^1]: WoRMS Aphia ID: 409580  
[^13]: GFBio Code: 3QT  
[^71]: RACE Code: **

[^1]: WoRMS Aphia ID: 409581  
[^13]: GFBio Code: 3QU  
[^71]: RACE Code: **

[^1]: WoRMS Aphia ID: 290684  
[^13]: GFBio Code: 3QS  
[^71]: RACE Code: **
*Genus *Parastenella* needs genetics or microscope to identify to species

*Parastenella doederleini*

*Parastenella gymnogaster*

*Parastenella pacifica*

*Parastenella ramosa*
### Plumarella aleutiana 1,2,9
#### Aleutian Tree Coral

**COLOR:** Pale orange  
**SHAPE:** Uniplanar; few main branches; alternating *pinnate* branchlets  
**SIZE:** Height to 50 cm  
**DIAGNOSTIC FEATURES:** Branchlets 4-9 cm length; rarely branch secondarily  
**POLYP DESCRIPTION:** Small; length is 0.9-1.2 mm; 20-35 polyps/cm distally; turned upward  
**REPORTED DISTRIBUTION:** AI, BS, GOA Seamounts  
**REPORTED DEPTH:** 79-517 m  

### Plumarella echinata 1,2,9
#### Spiny Tree Coral

**COLOR:** White  
**SHAPE:** Uniplanar; moderate number of main branches; alternating *pinnate* branchlets  
**SIZE:** Height to 25 cm  
**DIAGNOSTIC FEATURES:** Branchlets short (2.0-6.0 cm) and infrequently re-branch in parallel every 3-4 mm  
**POLYP DESCRIPTION:** Length is 1.1-1.4 mm; slightly flared/curving upward; 20-30 polyps/cm distally; distinct elongate marginal spines  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 150-1692 m  

### Plumarella hapala 1,2,9
#### Delicate Tree Coral

**COLOR:**  
**SHAPE:** Uniplanar; few main branches; alternating *pinnate* branchlets  
**SIZE:** Height to 30 cm  
**DIAGNOSTIC FEATURES:** Branchlets 4-5 cm in length with occasional secondary branching  
**POLYP DESCRIPTION:** Large; length is 2-2.4 mm; tilted upward; 18-25 polyps/cm distally  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 120-402 m  

### Plumarella nuttingi 1,2,9
#### Nutting’s Tree Coral

**COLOR:** Pale yellow, white  
**SHAPE:** Uniplanar to bushy; few main branches; branchlets on all sides in a compressed bottlebrush form  
**SIZE:** Height to 19 cm  
**DIAGNOSTIC FEATURES:** Branchlets up to 7 cm long; usually not subdivided  
**POLYP DESCRIPTION:** Large; length is 3.0-3.6 mm; fleshy and slightly upturned at ends; 9-14 polyps/cmDistally  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 492-888 m
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA  
Family PRIMNOIDAE

Plumarella aleutiana

Plumarella echinata

Plumarella hapala

Plumarella nuttingi
Plumarella profunda 1,2,9
Deep-sea Tree Coral

**COLOR:** Pale yellow
**SHAPE:** Uniplanar and flabellate; few main branches; alternating *pinnate* branchlets
**SIZE:** Height to 18 cm

**DIAGNOSTIC FEATURES:** Branchlets up to 9 cm long
**POLYP DESCRIPTION:** Length is 1.5-1.9 mm; slightly turned upward and universally distributed; 10-14 polyps/cm

**REPORTED DISTRIBUTION:** AI
**REPORTED DEPTH:** 712-1061 m

Plumarella robusta 1,2,9
Robust Deep-sea Tree Coral

**COLOR:** Pale yellow
**SHAPE:** Uniplanar and flabellate; typically 1 main branch; alternating *pinnate* branchlets
**SIZE:** Height to 25 cm

**DIAGNOSTIC FEATURES:** Species co-occurs with *P. spicata*; branchlets 7-8 cm long basally, longer medially, ~ 4 cm long distally
**POLYP DESCRIPTION:** Length is 1.4-1.8 mm; tilted upwards and universally distributed; ~20 polyps/cm distally, elongate spines

**REPORTED DISTRIBUTION:** AI
**REPORTED DEPTH:** 712-1061 m

Plumarella spicata 1,2,9
Spiny Deep-sea Tree Coral

**COLOR:** Straw yellow
**SHAPE:** Uniplanar and flabellate; delicate; quasi-*dichotomous* branchlets
**SIZE:** Height to 14 cm

**DIAGNOSTIC FEATURES:** Species co-occurs with *P. robusta*
**POLYP DESCRIPTION:** Length is 1.4-1.6 mm; alternating, biserial arrangement; 12-14 polyps/cm; have spines

**REPORTED DISTRIBUTION:** AI
**REPORTED DEPTH:** 712-1912 m

Plumarella superba 1,2,9
Superb Bushy Tree Coral

**COLOR:** Pale orange
**SHAPE:** Uniplanar to bushy; few main branches; numerous modified bottlebrush branchlets
**SIZE:** Height to 60 cm

**DIAGNOSTIC FEATURES:** Branchlets rigid and wiry; universally distributed and rebranching; length is 1.5-2 cm
**POLYP DESCRIPTION:** Length is 1.0-1.3 mm; universally distributed and turned slightly upward; 30-35 polyps/cm

**REPORTED DISTRIBUTION:** AI
**REPORTED DEPTH:** 29-1258 m
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA  
Family PRIMNOIDAE

**Plumarella profunda**

**Plumarella robusta**

No Images On Record  
With DFO or AFSC

**Plumarella spicata**

**Plumarella superba**
### Primnoa pacifica 1,2,15,71
#### Pacific Red Tree Coral

**COLOR:** Pink, orange, and possibly a white variant  
**SHAPE:** Planar to slightly bushy; stiff, rigid axis; **dichotomous** branching  
**SIZE:** Height to 2.5 m  
**DIAGNOSTIC FEATURES:** A varietal of *P. pacifica*  
**POLYP DESCRIPTION:** Length is 5.0-6.5 mm; universally distributed; stout and straight; slightly flared distally; curve towards base; 1-2 small spines  
**REPORTED DISTRIBUTION:** AI, BS, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 6-573 m

### Primnoa pacifica var. willeyi 1,2,15
#### Willey’s Red Tree Coral

**COLOR:** Scarlet orange  
**SHAPE:** Planar to slightly bushy; stiff, rigid axis; **dichotomous** branching  
**SIZE:**  
**DIAGNOSTIC FEATURES:** Twisted polyps with a narrow midsection and a bulbous distal end  
**REPORTED DISTRIBUTION:** AI, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 27-863 m

### Primnoa wingi 1,2,15
#### Wing’s Red Tree Coral

**COLOR:** Reddish-orange in situ and live, pale yellow to cream when preserved  
**SHAPE:** Roughly planar; sparsely **dichotomous** branching  
**SIZE:** Height to 5 m  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Length is 8.0-12.0 mm; universally and densely distributed; fleshy and expanded distally; elongate and flaccid; curving or twisting towards base  
**REPORTED DISTRIBUTION:** AI, BS  
**REPORTED DEPTH:** 110-1280 m
Subclass OCTOCORALLIA
Order ALCYONACEA
Suborder CALCAXONIA
Family PRIMNOIDAE

Primnoa pacifica

No Images On Record
With DFO or AFSC

Primnoa pacifica var. willeyi

Primnoa wingi
**Thouarella cristata** 1,2,9

**Crested Bottlebrush Coral**

**COLOR:** Dull orange; axis pale yellow to brown-black

**SHAPE:** Bushy to bottlebrush appearance; primary branches are uniplanar; irregularly pinnate branchlets are both uniplanar and perpendicular to main branches

**SIZE:** Height to 50 cm

**DIAGNOSTIC FEATURES:** Branchlets to 8 cm in length; not subdivided

**POLYP DESCRIPTION:** Length is 1.7-2.5 mm; flared distally and curved upward; universally distributed and crowded; 24-26 polyps/cm increasing distally

**REPORTED DISTRIBUTION:** AI

**REPORTED DEPTH:** 94-768 m

**WoRMS Aphia ID:** 574232

**GFBio Code:**

**RACE Code:** 44106

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**Thouarella trilineata** 1,2,9

**Three-lined Bottlebrush Coral**

**COLOR:** Pale yellow, axis pale yellow

**SHAPE:** Bushy to bottlebrush appearance; primary branches are uniplanar; few main branches; pinnately arranged branchlets occur in 3 directions

**SIZE:** Height to 25 cm

**DIAGNOSTIC FEATURES:** Branchlet length < 6 cm; not further subdivided; differs from *T. cristata* by having smaller polyps; no spines

**POLYP DESCRIPTION:** Length is 1.4-1.7 mm; 35-40 polyps/cm

**REPORTED DISTRIBUTION:** AI

**REPORTED DEPTH:** REPORTED DEPTH: 97-642 m

**WoRMS Aphia ID:** 574233

**GFBio Code:**

**RACE Code:** 44070
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder CALCAXONIA  
Family PRIMNOIDAE

Thouarella cristata

Thouarella trilineata
Identification Key to Suborder Holaxonia

- Colonies fan-shaped to occasionally bushy; axis has a wide, cross-chambered central chord; polyps not retractile and very prominent; no spine-like sclerites projecting out beyond polyps
  Family Acanthogorgiidae (RACE Code: 44116) ................................................................. pg. 44

- Colonies largely planar to slightly bushy; branching into open fans; polyps are usually retractile; axis is horny, hollow, and flexible; rind usually thick
  Family Plexauridae (RACE Code: 41584) ........................................................................ pg. 46

List of species of Holaxonia

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</table>
Illustration: Example of Holaxonia coral
**Acanthogorgia cf. spissa** ¹,16,17,40

**Thick Glass-Shard Gorgonian**

**COLOR:** Light or bright yellow to brown; axis dark yellow to brown  
**SHAPE:** Generally uniplanar; branching is irregular and wavy  
**SIZE:** Height to at least 10-15 cm  
**DIAGNOSTIC FEATURES:** Length to 2.5 mm; non-retractile; universally distributed  
**POLYP DESCRIPTION:** Length to 2.5 mm; universally distributed; ~2 mm apart  
**REPORTED DISTRIBUTION:** AI, BC  
**REPORTED DEPTH:** 843-2087 m  

**Calcigorgia beringi** ¹,2,18,19

**Bering Sea Fan Coral**

**COLOR:** Light yellow, cream, light pink; axis is dark brown proximally  
**SHAPE:** Roughly planar; irregular branching with subdivisions  
**SIZE:** Height to at least 10 cm  
**DIAGNOSTIC FEATURES:** Similar to *C. matua* (pg. 46); overlapping in AI; branches relatively thin and flexible  
**POLYP DESCRIPTION:** Length to 2.5 mm; universally distributed; ~2 mm apart  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 39-1900 m  

**Calcigorgia gigantea** ¹,18

**Giant Polyp Fan Coral**

**COLOR:** Roughly planar; irregular branching  
**SHAPE:** Roughly planar; irregular branching  
**SIZE:** Height to 10 cm  
**DIAGNOSTIC FEATURES:** Length is ~9-10 mm; width is 5-6 mm  
**POLYP DESCRIPTION:** Length is ~9-10 mm; width is 5-6 mm  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 128-391 m  

**Calcigorgia japonica** ¹,2,18

**Japanese Fan Coral**

**COLOR:** Axis is black-brown proximally  
**SHAPE:** Roughly planar; irregular branching with subdivisions  
**SIZE:** Branches relatively thin and flexible  
**DIAGNOSTIC FEATURES:** Length to 5 mm; universally distributed; not retractile  
**REPORTED DISTRIBUTION:** AI, BC  
**REPORTED DEPTH:** 395-2180 m  

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**WoRMS Aphia ID:** 286087  
**GFBio Code:** 3TD (genus)  
**RACE Code:** 44100  

**WoRMS Aphia ID:** 520678  
**GFBio Code:** 3UI  
**RACE Code:** 41573  

**WoRMS Aphia ID:** 1337212  
**GFBio Code:**  
**RACE Code:** 41700 (genus)  

**WoRMS Aphia ID:** 517641  
**GFBio Code:**  
**RACE Code:** 41700 (genus)
Subclass OCTOCORALLIA  Order ALCYONACEA  Suborder HOLAXONIA  Family ACANTHOGORGIIDAE

Acanthogorgia cf. spissa

Calcigorgia beringi

Calcigorgia gigantea

Calcigorgia japonica

No Images On Record
With DFO or AFSC
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder HOLAXONIA

Family ACANTHOGORGIIDAE

**Calcigorgia matua** 1,18,20  
*Matua Fan Coral*

**COLOR:** Axis is black-brown proximally  
**SHAPE:** Roughly planar; irregular branching with subdivisions  
**SIZE:** Height to at least 10 cm  
**DIAGNOSTIC FEATURES:** Similar to *C. beringi* (pg. 44), overlapping in AI; branches relatively thin and flexible  
**POLYP DESCRIPTION:** Length is 2-3 mm; universally distributed and arranged spirally around branches; not retractile

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 300-900 m

**Calcigorgia spiculifera** 1,2,18  
*Spiculated Fan Coral*

**COLOR:** Pink, pale orange, white  
**SHAPE:** Roughly planar to bushy; irregular **dichotomous** branching  
**SIZE:** Height to 35 cm  
**DIAGNOSTIC FEATURES:** Branches thick, flexible, blunt; numerous, crowded knobs  
**POLYP DESCRIPTION:** Length is to 3 mm

**REPORTED DISTRIBUTION:** AI, GOA, BC  
**REPORTED DEPTH:** 18-512 m

Family PLEXAURIDAE

**Alaskagorgia aleutiana** 1,2,21  
*Aleutian Gorgonian*

**COLOR:** Pale yellow, cream, brown  
**SHAPE:** Large (tall); somewhat planar to **arborescent**; branches are sparse; similar to *Cryogorgia koolsae* (pg. 48)  
**SIZE:** Height to 1 m  
**DIAGNOSTIC FEATURES:** Branch length < 60 cm; diameter is 12-15 mm; distally expanded up to 17 mm  
**POLYP DESCRIPTION:** Universally distributed; fully retractile with a slightly raised rim

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 100-550 m

**Alaskagorgia splendidicitrina** 1,22  
*Lemon-yellow Squat Gorgonian*

**COLOR:** Colony is yellow; axis is dark reddish-brown to black  
**SHAPE:** Fan-like to bushy; irregular branching extensive; convoluted; curving slightly back towards base  
**SIZE:** Height to 12 cm  
**DIAGNOSTIC FEATURES:** Branch diameter expands distally to ~10 cm (in holotype)  
**POLYP DESCRIPTION:** Large; universally distributed and numerous except on stem and holdfast; fully retractile; area around polyps is raised

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 150-200 m
Subclass OCTOCORALLIA  Order ALCYONACEA  Suborder HOLAXONIA

Family ACANTHOGORGIIDAE

Calcigorgia matua

Calcigorgia spiculifera

Family PLEXAURIDAE

Alaskagorgia aleutiana

Alaskagorgia splendictrina

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**Swiftia pacifica**¹,¹⁹,⁵⁰,⁷¹

**Pacific Red Gorgonian**

**COLOR:** Polyps deep red to grey/green-red; colony color is red  
**SHAPE:** Somewhat planar; moderate branching in an alternating pattern  
**SIZE:** Height to 19 cm  
**DIAGNOSTIC FEATURES:** Branches flabellate; form net-like reticulations  
**POLYP DESCRIPTION:** Arise from small, prominent mounds  

**REPORTED DISTRIBUTION:** AI, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 89-2904 m

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**Muriceides nigrá**¹,²,¹⁹

**Purple Gorgonian**

**COLOR:** Olive-brown branches and stem; black to purple polyps  
**SHAPE:** Moderate size; fan- or tree-shaped; branches irregular  
**SIZE:** Height to 30 cm  
**DIAGNOSTIC FEATURES:** Branches flexible; often found with brittle stars attached  
**POLYP DESCRIPTION:** Universally distributed; not retractile

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 50-400 m

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**Cryogorgia koolsae**¹,²,²³

**Kool’s Coldwater Gorgonian**

**COLOR:** Pale orange to pink-orange; axis is dark brown to black  
**SHAPE:** Candelabrum-shaped; branching is irregular, planar, and sparse; stem is typically lengthy; before first branch occurs; similar to *Alaskagorgia aleutiana* (pg. 48)  
**SIZE:** Height to 40 cm  
**DIAGNOSTIC FEATURES:** Branch length 30-100 mm; ~8-10 mm thick and blunt  
**POLYP DESCRIPTION:** Length is < 2 mm; retractile into polyp mounds or flush with branch

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 25-400 m

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**Muriceides cylindríca**¹,²,¹⁹

**Long-polyp Gorgonian**

**COLOR:** Dull yellow, brown  
**SHAPE:** Fan-shaped; soft and flexible; irregular branching and re-branching  
**SIZE:** Height to 30 cm  
**DIAGNOSTIC FEATURES:** Length is to 2 mm; universally distributed; ~2 mm apart; not retractile

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 170-900 m

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**Subclass OCTOCORALLIA**  
**Order ALCYONACEA**  
**Suborder HOLAXONIA**  
**Family PLEXAURIDAE**
Subclass OCTOCORALLIA
Order ALCYONACEA
Suborder HOLAXONIA
Family PLEXAURIDAE

Cryogorgia koolsae

Muriceides cylindrica

Muriceides nigra

Swiftia pacifica
### Swiftia simplex 1,2,28,52,71
#### Red Licorice Gorgonian

- **COLOR:** Salmon, pinkish-red, coral red
- **SHAPE:** Moderate-sized; whip-like
- **SIZE:** Height to 45 cm
- **DIAGNOSTIC FEATURES:** Branches few, long, slender, and flexible
- **POLYP DESCRIPTION:** Uniformly distributed; mounds not prominently raised

**REPORTED DISTRIBUTION:** AI, GOA, GOA Seamounts (Denson, Dickins, Welker, Pratt), BC, BC Seamounts

**REPORTED DEPTH:** 497-1285 m

- **WoRMS Aphia ID:** 1036547
- **GFBio Code:** 3UL
- **RACE Code:** 41570

### Swiftia spauldingi 47,50,52,71
#### Spaulding’s Gorgonian

- **COLOR:** Bright coral, salmon-orange, purple
- **SHAPE:** Short; moderately bushy to uniplanar; flabellate; sparse, irregularly **dichotomous** branching
- **SIZE:** Height to at least 12 cm
- **DIAGNOSTIC FEATURES:** Branches can be stout and 5-10 cm long
- **POLYP DESCRIPTION:** Closely packed on all sides of branches; resemble raised warts

**REPORTED DISTRIBUTION:** BC

**REPORTED DEPTH:** 38-453m

- **WoRMS Aphia ID:** 286420
- **GFBio Code:** 3UM
- **RACE Code:**

### Swiftia torreyi 47,52,71
#### Dwarf Red Gorgonian

- **COLOR:** Maroon, brick red, black
- **SHAPE:** Bushy to uniplanar; flabellate; branches dense and closely spaced
- **SIZE:** Height to 30 cm
- **DIAGNOSTIC FEATURES:** Branches commonly **anastomose** (merge where two branches touch)
- **POLYP DESCRIPTION:** Mounds ~1mm high; **retractile**

**REPORTED DISTRIBUTION:** BC

**REPORTED DEPTH:** 201-2200 m

- **WoRMS Aphia ID:** 1036552
- **GFBio Code:** 3UN
- **RACE Code:**
Subclass OCTOCORALLIA
Order ALCYONACEA
Suborder HOLAXONIA
Family PLEXAURIDAE

**Swiftia simplex**

**Swiftia spauldingi**

**Swiftia torreyi**
Identification Key to Suborder Scleraxonia

- Colonies encrusting, bushy or fan-shaped; if branching, then branches are slender, flattened or hollow; polyps are protruding
  
  **Family Anthothelidae** ................................................................. pg. 54

- Colonies branching on all sides of stem; deep red, orange, dark pink, color; polyps are retractile but mounding; axis is solid calcium carbonate
  
  **Family Coralliidae** .......................................................................................................................... pg. 54

- Colonies robust and branching with slight expansion at tips of branches; polyps widely separated and retractile; colonies brightly colored in pink, orange, purple, white and red
  
  **Family Paragorgiidae (RACE Code: 41581)** .......................................................... pg. 54

List of species of Suborder Scleraxonia

- **Family Anthothelidae**
  - *Anthothela pacifica*

- **Family Coralliidae**
  - *Hemicorallium regale*

- **Family Paragorgiidae**
  - *Paragorgia pacifica*
  - *Paragorgia sp. A*
  - *Paragorgia stephencairnsi* species complex
  - *Paragorgia yutlinux*
  - *Sibogagorgia cauliflora*
Illustration: Example of Scleraxonian coral with inset illustration showing closeup of knobby protrusions and polyps retracted and extended.
### Family ANTHOTHELIDAE

**Anthothela pacifica** 24,72,73  
**Pacific Flowerbud Coral**  
- **COLOR:** Light yellow, straw, grayish white  
- **SHAPE:** Thin, flattened branches; irregularly branched with no main large stem  
- **Size:**  
- **DiAGnostic Features:** Has thin and membranous coenenchyme  
- **Polyp Description:** Calices are prominent (2.5 - 3 mm tall); polyps retractile  
- **Reported Distribution:** BC  
- **Reported Depth:** 350 m  

### Family CORALLIIDAE

**Hemicorallium regale** 1,2,24,29  
**Regal Red Coral**  
- **Color:** Pink  
- **Shape:** Irregularly branching; axis is round, smooth, and solid  
- **Size:** Height to 30 cm  
- **Diagnostic Features:** Branches flexible, thick, and fleshy; terminus of branches often with large autozooid clumps  
- **Polyp Description:** Retractile into star-shaped pores  
- **Reported Distribution:** GOA Seamounts (Patton)  
- **Reported Depth:** 708-1806 m  

### Family PARAGORGIIDAE

**Paragorgia pacifica** 1,24,45  
**Pacific Bubblegum Coral**  
- **Color:** Colony red, orange, pink, white, or yellow; polyps red or white  
- **Shape:** Large, massive, tree-like corals; branching is irregular  
- **Size:** Height to 2 m  
- **Diagnostic Features:** Branches flexible, thick, and fleshy; terminus of branches often with large autozooid clumps  
- **Polyp Description:** Retractile into star-shaped pores  
- **Reported Distribution:** AI, GOA, GOA Seamounts, BC  
- **Reported Depth:** 15-1600 m
Subclass OCTOCORALLIA  
Order ALCYONACEA  
Suborder SCLERAXONIA  

Family ANTHOTHELIDAE

No Images On Record  
With DFO or AFSC

*Anthothela pacifica*

Family CORALLIIDAE

*Hemicorallium regale*

Family PARAGORGIIDAE

*Paragorgia pacifica*
ALCYONACEA

**Paragorgia stephencairnsi** spp. complex

*Stephen’s Bubblegum Coral*

- **COLOR**: Colony white, pink, red, or purple; polyps/pores usually darker than the cortex
- **SHAPE**: Tree-like corals with sparse, robust branches; shallower specimens have flattened branches
- **SIZE**: Large colonies; height to ~60 cm
- **DIAGNOSTIC FEATURES**: Two species (*P. stephencairnsi* and *P. jamesi*) separated by genetic analysis; also similar to *P. yutlinux* and requires sclerite analysis to differentiate; resembles *S. cauliflora* but shallower depths
- **POLYP DESCRIPTION**: Retractable into star-shaped pores
- **REPORTED DISTRIBUTION**: EGOA, GOA Seamounts, BC
- **REPORTED DEPTH**: 350-1195 m

*Yutlinux Bubblegum Coral*

- **COLOR**: Colony white; polyps pink to purple
- **SHAPE**: Tree-like; arborescent and robust
- **SIZE**: Height to ~10+ cm; branch diameter <1 cm
- **DIAGNOSTIC FEATURES**: Branches are robust; similar to *P. stephencairnsi* spp. complex and requires sclerite analysis to differentiate
- **POLYP DESCRIPTION**: Retractable into star-shaped pores
- **REPORTED DISTRIBUTION**: BC
- **REPORTED DEPTH**: 503-1000 m

*Unknown Paragorgiid*

- **COLOR**: Light to dark pink; sometimes darker near the branch tips
- **SHAPE**: Fan-shaped and uniplanar; dense branching; slightly curved
- **SIZE**: Width to ~30cm; branch diameter <1 cm at the widest point (near the base)
- **DIAGNOSTIC FEATURES**: Branches are robust; similar to *P. stephencairnsi* spp. complex and requires sclerite analysis to differentiate
- **POLYP DESCRIPTION**: Retractable into star-shaped pores
- **REPORTED DISTRIBUTION**: BC Seamounts
- **REPORTED DEPTH**: 1165 m

*Sibagorgoria cauliflora*

*Cauliflower Coral*

- **COLOR**: Beige, pink, red
- **SHAPE**: Uniplanar and branching
- **SIZE**: Height to 1.5 m
- **DIAGNOSTIC FEATURES**: Resembles *P. stephencairnsi* spp. complex, but at greater depths; main branches are thicker than terminals
- **POLYP DESCRIPTION**: Universally distributed
- **REPORTED DISTRIBUTION**: GOA Seamounts (Derickson)
- **REPORTED DEPTH**: 2050-2766 m
Paragorgia stephencairnsi species complex

No Images On Record
With DFO or AFSC

Paragorgia yutlinux

Paragorgiidae

Sibogagorgia cauliflora
Identification Key to Suborder Stolonifera

- Colonies either encrusting and connected at the base by stolons (illustration next page) or bushy with terminal polyps; polyps are long, cylindrical and retractile

Family Clavulariidae

List of species of Suborder Stolonifera

Family Clavulariidae

- *Clavularia armata*
- *Clavularia eburnea*
- *Clavularia moresbii*
- *Clavularia rigida*
- *Clavularia spp.*
- *Sarcodictyon incrustans*
Illustration: Anatomy of a Clavulariidae
**Subclass OCTOCORALLIA**  
**Order ALCYONACEA**  
**Suborder STOLONIFERA**  
**Family CLAVULARIIDAE**

**Alcyonacea**

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<th>WoRMS Aphia ID</th>
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<th>Distribution</th>
<th>Depth</th>
<th>Notes</th>
</tr>
</thead>
</table>
| **Clavularia armata**  
**Armed Star Polyps** | 517651 | - | 41750 (genus) | GOA Seamounts | 1153-2730 m | COLOR: Blue-ish  
SHAPE: Membranous colonies; encrusting on various types of substrate (including Keratoisis spp.)  
SIZE: Calyx height to 4mm  
DIAGNOSTIC FEATURES: Spines that extend beyond polyps  
POLYP DESCRIPTION: Retractile into calyx |
| **Clavularia eburnea**  
**Ivory Star Polyps** | 517663 | - | 41750 (genus) | AI | 600-1200 m | COLOR: White  
SHAPE: Membranous colonies; encrusting on various types of substrate (including alcyonacean corals)  
SIZE: Height up to 12 mm  
DIAGNOSTIC FEATURES: Calyx has a coarse wall and 8 well-defined longitudinal furrows; upper part is cup-shaped |
| **Clavularia moresbii**  
**Moresbii’s Star Polyps** | 286026 | - | 41750 (genus) | BC | 183 m | COLOR: Whitish, possibly pink  
SHAPE: Membranous colonies; encrusting on various types of substrate (including Primnoa)  
SIZE: Height up to 10 mm  
DIAGNOSTIC FEATURES: Calyx 2 mm in diameter  
POLYP DESCRIPTION: Body wall smooth and cylindrical |
| **Clavularia rigida**  
**Rigid Star Polyps** | 759934 | - | 41750 (genus) | AI | 3277 m | COLOR: Unknown  
SHAPE: Membranous colonies; encrusting on various types of substrate  
SIZE: Height to ~8 mm  
DIAGNOSTIC FEATURES: Each calyx has 8 well-defined longitudinal rows, break off from the stolon easily  
POLYP DESCRIPTION: Cylindrical to slightly club-shaped |

---

1. **Clavularia** has been variously named as **Clavularella**, **Clavularia** spp., **Clavularella rigida**, **Armed Star Polyps**, **Ivory Star Polyps**, **Moresbii’s Star Polyps**, and **Rigid Star Polyps**.
2. **Clavularia** spp. also go by the names **Moresbii’s Star Polyps**, **Armed Star Polyps**, and **Ivory Star Polyps**.
3. **Clavularia** spp. are classified within the **Order ALCYONACEA** and **Family CLAVULARIIDAE**.
4. **Clavularia** spp. are reported to have a **COLOR** ranging from **White** to **Blue-ish**, **SHAPE** ranging from **Membranous colonies** to **Cylindrical to slightly club-shaped**, and **SIZE** ranging from **Height to 4mm** to **Height up to 12 mm**.
5. **Clavularia** spp. are commonly found in **AI** (Alcyonacean) habitats at a **REPORTED DEPTH** ranging from **1153-2730 m** to **600-1200 m**.
**Clavularia armata**

No Images On Record With DFO or AFSC

**Clavularia eburnea**

Credit: Hickson, 1915

**Clavularia moresbii**

Credit: M. Everett, NOAA

**Clavularia rigida**
**Clavularia spp.**

**Unidentified Star Polyps**

**COLOR:**

**SHAPE:** Membranous colonies; encrusting on various types of substrate

**SIZE:**

**DIAGNOSTIC FEATURES:**

**POLYP DESCRIPTION:**

**REPORTED DISTRIBUTION:** AI, BS, BC

**REPORTED DEPTH:** 50-200 m

---

**Sarcodictyon incrustans**

**Encrusting Star Polyps**

**COLOR:** Light orange or pink

**SHAPE:** Thin, encrusting colonies

**SIZE:** Height up to 6 mm

**DIAGNOSTIC FEATURES:** Stolon narrow and ribbon-like; rarely membranous

**POLYP DESCRIPTION:** Large and well spaced; length up to 6 mm and width up to 3 mm; universally distributed

**REPORTED DISTRIBUTION:** AI, BS, EGOA

**REPORTED DEPTH:** 15-397 m
Subclass OCTOCORALLIA
Order ALCYONACEA
Suborder STOLONIFERA
Family CLAVULARIIDAE

Clavularia spp.

Sarcodictyon incrustans
Identification Key to Order Pennatulacea

Order Pennatulacea ................................................................. sea pens, sea whips, sea pansies

- Colonies pen- or whip-like; polyps large and spread out along axis
  **Family Anthoptilidae** .............................................................. pg. 66

- Colonies elongated and slender; polyps attached to **rachis** laterally; axis is quadrangular in cross-section
  **Family Funiculinidae** .............................................................. pg. 66

- Colonies stick- or whip-like; polyps encased in bifurcated (2 tooth) **calices**
  **Family Halipteridae** .............................................................. pg. 68

- Colonies unbranching (stick- or club-like); polyps occur along **rachis** biserially; **rachis** is naked along one axis
  **Family Kophobelemnidae** .............................................................. pg. 70

- Colonies stout and fleshy; pen- or quill-shaped; polyp leaves connect to stalk and host tubular polyps; **calices** form 1, 2, or 8 terminal teeth
  **Family Pennatulidae** .............................................................. pg. 70

- Colonies stick- or whip-like, **rachis** is long and slender; polyps in a single irregular series on each side
  **Family Protoptilidae** .............................................................. pg. 72

- Colonies stout and either club-like or slender; **rachis** lack polyps on dorsal and ventral sides; polyps occur bi-serially
  **Family Stachyptilidae** .............................................................. pg. 72

- Colonies with large and localized polyps situated at the end of the **rachis** making it look like a lily flower
  **Family Umbellulidae** .............................................................. pg. 74

- Colonies squat and toadstool or stick-shaped; polyps are **retractile** and evenly distributed
  **Family Veretillidae** .............................................................. pg. 74

- Colonies pen- or whip-like with distinct axis; polyps arranged in a bilaterally symmetrical form with polyp leaves emanating from both sides
  **Family Virgularidae (RACE Code: 42003)** .............................................................. pg. 74

List of species of Order Pennatulacea

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<th>Family Kophobelemnidae</th>
<th>Family Umbellulidae</th>
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<td><em>Kophobelemnon affine</em></td>
<td><em>Umbellula lindahli</em></td>
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<td><em>Anthoptilum cf. lithophilum</em></td>
<td><em>Kophobelemnon sp.</em></td>
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<td><em>Halipteris willemoesi</em></td>
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<td><strong>Family Stachyptilidae</strong></td>
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<td><em>Acanthoptilum gracile</em></td>
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<td><em>Stylatula elongata</em></td>
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<td><em>Virgularia bromleyi</em></td>
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<td><em>Virgularia spp.</em></td>
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<tr>
<td></td>
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<td><em>Stachyptilum superbum</em></td>
</tr>
</tbody>
</table>
Subclass OCTOCORALLIA  Order PENNATULACEA

Examples of Pennatulaceans

Illustration: Anatomy of a Pennatulacean
**Family ANTHOPTILIDAE**

_**Anthoptilum grandiflorum**_[^1,2,55,56,74]  
**Full-flowered Sea Pen**

- **COLOR:** Reddish-brown  
- **SHAPE:** Large fleshy, question mark-shaped sea pen  
- **SIZE:** Height to 50 cm  
- **DIAGNOSTIC FEATURES:** Colony thick  
- **POLYP DESCRIPTION:** Rachis densely covered with long, thick, fleshy polyps  

**REPORTED DISTRIBUTION:** AI, BS, BC  
**REPORTED DEPTH:** 402-2511 m

---

_**Anthoptilum cf. lithophilum**[^55]  
**Stone-Loving Sea Pen**

- **COLOR:** Reddish-brown  
- **SHAPE:** Large fleshy, question mark-shaped sea pen with suction cup peduncle (base)  
- **SIZE:** 12 cm  
- **DIAGNOSTIC FEATURES:** Modified peduncle to adhere to rocks  
- **POLYP DESCRIPTION:** Length is 10-15 mm; 2-4 mm wide; closely packed  

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 669-700 m

---

_**Anthoptilum murrayi**[^1,2,12,19,56,72]  
**Murray’s Sea Pen**

- **COLOR:** Colony is pale yellow to brown-ish; polyps are red/purple-ish brown  
- **SHAPE:** Medium-sized; question mark-shaped sea pen  
- **SIZE:** Height to 44 cm  
- **DIAGNOSTIC FEATURES:** Colony slender  
- **POLYP DESCRIPTION:** Unilinear; large (up to 6 mm), fleshy and widely spaced (~5 mm)  

**REPORTED DISTRIBUTION:** AI, BC  
**REPORTED DEPTH:** 1068-2226 m

---

**Family FUNICULINIDAE**

_**Funiculina parkeri**[^47,57,72]  
**Parker’s Sea Pen**

- **COLOR:** Colony is light brown; polyps are dark brown  
- **SHAPE:** Stick- or whip-shaped sea pen; flexible and slightly curled at the top  
- **SIZE:** Height to 50 cm  
- **DIAGNOSTIC FEATURES:** Stem is ⅓ the polyp length  
- **POLYP DESCRIPTION:** Length up to 8 mm; irregularly-spaced; smaller polyps and zooids between the main polyps  

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 200-1409 m

[^1]: WoRMS Aphia ID: 128504  
[^2]: GFBio Code: 3Z4  
[^3]: RACE Code: 42020

[^55]: WoRMS Aphia ID: 955841  
[^56]: GFBio Code: 3Z9  
[^57]: RACE Code: 42020
Subclass OCTOCORALLIA
Order PENNATULACEA

Family ANTHOPTILIDAE

Anthoptilum grandiflorum

Anthoptilum cf. lithophilum

Anthoptilum murrayi

Family FUNICULINIDAE

Funiculina parkeri

Credit: M. Everett, NOAA
Credit: Kölliker, 1880
**Subclass OCTOCORALLIA**

**Order PENNATULACEA**

**Family HALIPTERIDAE**

---

**Halipteris californica** 1,64,72,76

**California Sea Pen**

**Color:** Polyps are chocolate brown; bulb is reddish brown  
**Shape:** Medium-sized, thick sea whip  
**Size:** Height up to 100 cm  
**Diagnostic Features:** Rachis very long compared to stem  
**Polyp Description:** Not retractile; 2-5 polyps/leaf and closely packed; rows 5-8 mm apart; 2 thorny spines thorny spines  

**Reported Distribution:** AI, GOA, BC  
**Reported Depth:** 46-2780 m  

**WoRMS Aphia ID:** 286623  
**GFBio Code:** 3XD  
**RACE Code:** 42013

---

**Halipteris sp. A** 1

**Sea Whip A**

**Color:** Reddish-brown to purple-ish  
**Shape:** Large, slender sea whip  
**Size:** Height to 1 m  
**Diagnostic Features:** Rachis very long, slender and smooth; leaves short and in oblique lateral rows  
**Polyp Description:**  

**Reported Distribution:** AI, BS  
**Reported Depth:** 284-1381 m  

**WoRMS Aphia ID:** 286623  
**GFBio Code:** 3XD  
**RACE Code:** 42009

---

**Halipteris sp. B** 1

**Sea Whip B**

**Color:**  
**Shape:**  
**Size:**  
**Diagnostic Features:**  
**Polyp Description:**  

**Reported Distribution:** AI  
**Reported Depth:** 1667-2707 m  

**WoRMS Aphia ID:** 286623  
**GFBio Code:** 3XF  
**RACE Code:** 42009 ( genus )

---

**Halipteris willemoesi** 1,56,72,76

**Willemoe’s White Sea Pen**

**Color:** Tan to white-ish  
**Shape:** Very large, thick sea whips  
**Size:** Height to 2.5 m  
**Diagnostic Features:** Rachis very long; leaves very short  
**Polyp Description:** Polyps are in oblique rows with 2 broad teeth surrounding them  

**Reported Distribution:** AI, BS, GOA, BC  
**Reported Depth:** 21-488 m  

**WoRMS Aphia ID:** 286626  
**GFBio Code:** 3XF  
**RACE Code:** 42012
Subclass OCTOCORALLIA  
Order PENNATULACEA  
Family HALIPTERIDAE

*Halipteris californica*

*Halipteris sp. A*

No Images On Record 
With DFO or AFSC

*Halipteris sp. B*

*Halipteris willemoesi*
**Subclass OCTOCORALLIA**  
**Order PENNATULACEA**

**Family KOPHOBELEMNIDAE**

*Kophobelemnon affine*  
**Affine Sea Pen**

| COLOR: | SHAPE: Elongated and cylindrical; bilateral symmetry |
| SIZE: | DIAGNOSTIC FEATURES: Longitudinally arranged; not in rows; rising directing from the rachis |

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 2430-2710 m

*Kophobelemnon sp.*  
**Hairy Sea Pen**

| COLOR: | SHAPE: Small, slender sea pens |
| SIZE: | DIAGNOSTIC FEATURES: Rachis slender; leaves long, slender and in two lateral rows |

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 2800 m

**Family PENNATULIDAE**

*Pennatula phosphorea*  
**Phosphorescent Sea Pen**

| COLOR: Reddish-brown to purple leaves; stalk is orange to white |
| SHAPE: Small, slender sea pens |
| SIZE: Height to 20 cm |
| DIAGNOSTIC FEATURES: Rachis slender; leaves long, slender and in two lateral rows |

**REPORTED DISTRIBUTION:** EGOA, BC  
**REPORTED DEPTH:** 800-3000 m

*Pennatula spp.*  
**Unidentified Sea Pens**

| COLOR: | SHAPE: Quill pen-shaped |
| SIZE: | DIAGNOSTIC FEATURES: |
| POLYP DESCRIPTION: | |

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 3-135 m
Subclass OCTOCORALLIA
Order PENNATULACEA

Family KOPHOBELEMNIDAE

No Images On Record
With DFO or AFSC

*Kophobelemnon affine*

No Images On Record
With DFO or AFSC

*Kophobelemnon hispidum*

Family PENNATULIDAE

*Pennatula phosphorea*

*Pennatula spp.*
Subclass OCTOCORALLIA
Order PENNATULACEA

Family PENNATULIDAE

*Ptilosarcus gurneyi* 1,2,47,67,72,76
**Gurney’s Sea Pen**

**COLOR:** Orange  
**SHAPE:** Large, thick sea pen; body very stout  
**SIZE:** Height to 60 cm  
**DIAGNOSTIC FEATURES:** Leaves large, broad, fleshy and in two lateral rows  
**POLYP DESCRIPTION:**

**REPORTED DISTRIBUTION:** AI, GOA, BC  
**REPORTED DEPTH:** 3-135 m

---

**Family PROTOPTILIDAE**

*Distichoptilum spp.* 47
**Sea Pen Unid.**

**COLOR:** Golden brown; *rachis* lighter; *calices* darker  
**SHAPE:** Axis stiff; whip-like  
**SIZE:** Reported height up to 21 cm  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:** Form 2 alternate rows; two spines project up to 2 mm past the polyp; 2.3 mm between polyps

**REPORTED DISTRIBUTION:** GOA, BC  
**REPORTED DEPTH:** 1862-1937 m

---

*Protoptilum spp.* 1,40,47,51
**Unidentified Sea Pens**

**COLOR:** Beige to off white  
**SHAPE:** Stick-shaped  
**SIZE:**

**DIAGNOSTIC FEATURES:** Spines extending beyond *calices* holding the polyps  
**POLYP DESCRIPTION:**

**REPORTED DISTRIBUTION:** BS, GOA, BC  
**REPORTED DEPTH:** 86-3306 m

---

**Family STACHYPTILIDAE**

*Stachyptilum superbum* 1,47,57,64,72
**Exquisite Sea Pen**

**COLOR:**  
**SHAPE:** Whip-like  
**SIZE:** Height up 25 cm  
**DIAGNOSTIC FEATURES:** Terminal bulb is soft, slender and wrinkled  
**POLYP DESCRIPTION:** Length is 3.5-5 mm; rows of 4 on each side of the stem, tapering in form; slender; conspicuous spines (usually 4)

**REPORTED DISTRIBUTION:** AI, BC  
**REPORTED DEPTH:** 388-1244 m
Subclass OCTOCORALLIA  Order PENNATULACEA

Family PENNATULIDAE

Family PROTOPTILIDAE

Family STACHYPTILIDAE

Ptilosarcus gurneyi

Distichoptilum spp.

Protoptilum spp.

Stachyptilum superbum

By Stan Sheehy, CC BY-SA 3.0
**Subclass OCTOCORALLIA**

**Order PENNATULACEA**

**Family UMBELLULIDAE**

**Umbellula lindahlia** \(^{1,2,47,72,76}\)

*Lindahl’s Droopy Sea Pen*

**COLOR:** Tan to reddish-brown  
**SHAPE:** Medium-sized, slender sea pen with a terminal cluster of polyps  
**SIZE:** Height to 35 cm  
**DIAGNOSTIC FEATURES:** Looks like a lily or a long stalk with a flower on the end  
**POLYP DESCRIPTION:** Cluster at the distal end of the slender *rachis*  

**REPORTED DISTRIBUTION:** AI, BS, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 840-4656 m

**WoRMS Aphia ID:** 128531  
**GFBio Code:** 3ZP  
**RACE Code:** 42014

**Family VERGULARIIDAE**

**Cavernularia vansyoci** \(^{1,23}\)

*Bob’s Mushroom Coral*

**COLOR:** Orange  
**SHAPE:** Small, elongate, mushroom-like coral  
**SIZE:** Height to 4 cm  
**DIAGNOSTIC FEATURES:** Stalk relatively long; cylindrical cap is small and sub-spherical  
**POLYP DESCRIPTION:** Relatively large and well-spaced  

**REPORTED DISTRIBUTION:** AI, GOA Seamounts  
**REPORTED DEPTH:** 86-93 m

**WoRMS Aphia ID:** 286684  
**GFBio Code:**  
**RACE Code:** 41106

**Family VIRGULARIIDAE**

**Acanthoptilum gracile** \(^{47,57,64,72,76}\)

*Delicate Sea Pen*

**COLOR:**  
**SHAPE:** Slender with short branchlets  
**SIZE:**  
**DIAGNOSTIC FEATURES:** Branchlets < 8 mm in length  
**POLYP DESCRIPTION:** *Retractile*, although most stay extended; up to 18 polyps/branchlet  

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 5-2707 m

**WoRMS Aphia ID:** 289324  
**GFBio Code:** 3U9  
**RACE Code:**
Subclass OCTOCORALLIA
Order PENNATULACEA

Family UMBELLULIDAE

Umbellula lindahli

Family VERETILLIDAE

Cavernularia vansyoci

Family VIRGULARIIDAE

Acanthoptilum gracile
Subclass OCTOCORALLIA  
Order PENNATULACEA

Family VIRGULARIIDAE

**Stylatula elongata** 47,57,64,72,76  
**Slender Sea Pen**

COLOR: Rachis is light grey-brown; polyps are white  
SHAPE: Stick- or whip-like; single stalked and slender colony  
SIZE: Height to ~30 cm  
DIAGNOSTIC FEATURES: Length is ~2 mm; vertically oriented on distal edges of branchlets; ~4 polyps leaves/cm; 20-24 POLYPS/LEAF  
REPORTED DISTRIBUTION: BC  
REPORTED DEPTH: 30-100 m

**Virgularia bromleyi** 1,40,56,64,72,76  
**Bromley’s Sea Pen**

COLOR:  
SHAPE: Stick-shaped  
SIZE: Height reported up to 12 cm  
DIAGNOSTIC FEATURES: Peduncle bladder-like; round to oval; ventral side of stalk has groove  
POLYP DESCRIPTION: Leaves are closely packed, crescent-shaped, and short; 4-5 polyps/leaf  
REPORTED DISTRIBUTION: AI, BC  
REPORTED DEPTH: 1889 m

**Virgularia glacialis** 1,57,76,77  
**Glacial Sea Pen**

COLOR: Rachis is light brown; polyps light yellow  
SHAPE: Stick-shaped; stalk slender; elongate  
SIZE:  
DIAGNOSTIC FEATURES: Polyp leaves are thick and fleshy; branching alternately from rachis  
POLYP DESCRIPTION: 6-10 polyps/leaf  
REPORTED DISTRIBUTION: AI  
REPORTED DEPTH: 115-185 m

**Virgularia spp.** 1,40  
**Unidentified Stick Sea Pen**

COLOR: White  
SHAPE: Stick- or pen-shaped  
SIZE:  
DIAGNOSTIC FEATURES: Polyp leaves bilaterally arranged on rachis; see image (next page)  
POLYP DESCRIPTION:  
REPORTED DISTRIBUTION: AI, GOA  
REPORTED DEPTH: 20-187 m
Subclass OCTOCORALLIA
Order PENNATULACEA
Family VIRGULARIIDAE

Virgularia bromleyi

Stylatula elongata

Virgularia glacilis

Virgularia spp.
### Identification Key to Order Antipatharia

- Colonies branched or unbranched; although currently only unbranched species identified in BC/AK waters; can be fan-shaped to bushy or whip-like; polyps are large with long tentacles
  
  **Family Antipathidae** ................................................................. pg. 80

- Colonies are **monopodial** or branched and **pinnulate** (branching); polyps are ≥ 2 mm transverse diameter (31 Opresko, 2003)
  
  **Family Cladopathidae** ................................................................. pg. 80

- Colonies **monopodial** or branched; bushy to **pinnulate**; pinnules simple or complexly subpinnulate; polyps elongated transversely (≥ 2 mm) (33 Opresko, 2002)
  
  **Family Schizopathidae (GFBio Code: 5H1)** ..................................... pg. 82

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### List of species of Order Antipatharia

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<td><em>Umbellapathes sp. A</em></td>
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Antipatharia Examples: Clockwise starting top left. *Parantipathes* sp., *Bathypathes* spp., *Bathypathes* sp., *Stichopathes spiessi*, *Chrysopathes* sp., close up of spines on antipatharian.
Illustration: Antipatharian Morphotypes (not comprehensive)

Illustration: Anatomy of an Antipatharian
**Stichopathes spiessi**[^58][^78]

**Spiess’ Stick Coral**

**COLOR:** Fresh or in situ bright to light orange; white to light brown preserved

**SHAPE:** Unbranched; whip-like; curving slightly in loose irregular spirals

**SIZE:** Height to 1.5+ m

**DIAGNOSTIC FEATURES:** Axis diameter is 2-2.5 mm

**POLYP DESCRIPTION:** Unilinear arrangement with 3-5 polyps/cm; 1.2-1.8 mm in diameter

**REPORTED DISTRIBUTION:** BC

**REPORTED DEPTH:** 630 m

---

**Chrysopathes formosa**[^1][^31][^72]

**Handsome Shiny Coral**

**COLOR:** Colony is white/cream; skeleton is shiny dark brown/black

**SHAPE:** Uniplanar to secondarily bushy; primary pinnules straight, stiff and in 6 rows; often subpinnulate

**SIZE:** Height to 53 cm

**DIAGNOSTIC FEATURES:** Branches bi-serially arranged in up to 6 rows of 2-3 pinnules each; lateral primary pinnules are < 2.0 cm in length

**POLYP DESCRIPTION:** Diameter is 1.8-3.0 mm

**REPORTED DISTRIBUTION:** EG0A, BC

**REPORTED DEPTH:** 417-800 m

---

**Chrysopathes speciosa**[^1][^2][^31][^47][^72]

**Beautiful Shiny Coral**

**COLOR:** Skeleton shiny black; polyps cream to tan

**SHAPE:** Uniplanar to secondarily bushy; branching is pinnulate to highly subpinnulate

**SIZE:** Height to 25+ cm

**DIAGNOSTIC FEATURES:** Primary pinnules in 4 rows distally (6 rows proximally); 18-27 pinnules/cm; primary pinnules usually < 1.0 cm long

**POLYP DESCRIPTION:** Diameter is 2.0-3.3 mm; 3-4 polyps/cm

**REPORTED DISTRIBUTION:** EGOA, BC

**REPORTED DEPTH:** 626-914 m
Subclass HEXACORALLIA
Order ANTIPATHARIA
Family ANTIPATHIDAE

*Stichopathes spiessi*

Family CLADOPATHIDAE

*Chrysopathes formosa*

*Chrysopathes speciosa*
**Heteropathes pacifica** 1,30

**Pacific Tree Coral**

**COLOR:** Light brown to reddish-brown  
**SHAPE:** Largely planar; branching occurs to the 4th order or more  
**SIZE:** Height to 22 cm  
**DIAGNOSTIC FEATURES:** Pinnules arranged in 2 lateral rows and 1-2 irregular anterior rows  
**POLYP DESCRIPTION:** Diameter is 4-6 mm; highly modified with reduced or absent tentacles  

**REPORTED DISTRIBUTION:** GOA Seamounts  
**REPORTED DEPTH:** 3263-4511 m

---

**Trissopathes pseudotristicha** 1,31,72

**False 3-Branched Tree Coral**

**COLOR:** Pale orange  
**SHAPE:** Planar to secondarily bushy; branches *pinnulate* to subpinnulate; primary pinnules in 4 rows  
**SIZE:** Height to 34 cm  
**DIAGNOSTIC FEATURES:** Secondary pinnules 0.5-1.5 cm in length  
**POLYP DESCRIPTION:** Diameter is 2-4 mm; arranged uniserially on the upper and lateral sides of the pinnules and subpinnules; 3-4 polyps/cm  

**REPORTED DISTRIBUTION:** AI, GOA Seamounts, BC  
**REPORTED DEPTH:** 2828-4477 m

---

**Alternatipathes cf. alternata** 1,2,32

**Alternating Quill Pen Coral**

**COLOR:** Skeleton black; polyps peach to white  
**SHAPE:** Monopodial; pinnules simple and in 2 rows; not further subdivided; bilateral and alternately arranged  
**SIZE:** Height to 30 cm  
**DIAGNOSTIC FEATURES:** Pinnules create *ovate* shape (longest pinnules nearest to base of frond) and recurve basally; pinnules 10-12 cm in length; 10-11 pinnules per 3 cm, increasing distally  
**POLYP DESCRIPTION:** Diameter is 3-4 mm; 7-8 polyps per 3 cm  

**REPORTED DISTRIBUTION:** GOA Seamounts  
**REPORTED DEPTH:** 2670-5089 m

---

**Bathypathes patula** 1,2,33,72

**Common Quill Pen Coral**

**COLOR:** Skeleton shiny black; polyps cream to tan  
**SHAPE:** Monopodial; pinnules simple and in 2 rows; bilateral arrangement; pinnules are recurved  
**SIZE:** Height to 45 cm  
**DIAGNOSTIC FEATURES:** Pinnules create *elliptical* shape (longest pinnules midway between base and distal end of frond); pinnules ~ 9mm apart  
**POLYP DESCRIPTION:** Diameter is 2.0-3.3 mm; 3-4 polyps/cm  

**REPORTED DISTRIBUTION:** GOA, BC  
**REPORTED DEPTH:** 401-4492 m
Subclass HEXACORALLIA
Order ANTIPATHARIA

Family CLADOPATHIDAE

Heteropathes pacifica

Family SCHIZOPATHIDAE

Trissopathes pseudotristicha

Alternatipathes cf. alternata

Bathypathes patula
**Class HEXACORALLIA**  
Order **ANTIPATHARIA**  
Family **SCHIZOPATHIDAE**

---

**Bathypathes spp.**  
**Quill Pen Corals Unid.**

**COLOR:**  
**SHAPE:**  
**SIZE:**  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:**  
**REPORTED DISTRIBUTION:**  
**REPORTED DEPTH:**

---

**Dendrobathypathes boutillieri**  
**Jim’s Quill Pen**

**COLOR:**  
**SHAPE:**  
**SIZE:**  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:**  
**REPORTED DISTRIBUTION:**  
**REPORTED DEPTH:**

---

**Lillipathes wingi**  
**Short-branched Black Coral**

**COLOR:**  
**SHAPE:**  
**SIZE:**  
**DIAGNOSTIC FEATURES:**  
**POLYP DESCRIPTION:**  
**REPORTED DISTRIBUTION:**  
**REPORTED DEPTH:**
Subclass HEXACORALLIA
Order ANTIPATHARIA
Family SCHIZOPATHIDAE

Bathypathes spp.

Dendrobathypathes boutillieri

Lillipathes wingi
**Parantipathes euantha**[^59]  
**Flowering Black Coral**

**WoRMS Aphia ID:** 472933  
**GFBio Code:** 5H1 (genus)  
**RACE Code:** 41550 (genus)

- **COLOR:** Colony is reddish-brown to black; pinnules are pale brown and semi-transparent  
- **SHAPE:** Monopodial and pinnulate; shaped like an ostrich plume  
- **SIZE:** Height to 32 cm  
- **DIAGNOSTIC FEATURES:** Pinnules simple; arranged bilaterally in 4-6 rows; spines are simple, smooth and rounded (0.07-0.1 mm tall)  
- **POLYP DESCRIPTION:** Diameter is 1.9-2.7 mm; elongated; ~2.5-3.5 polyps/cm

**REPORTED DISTRIBUTION:** GOA Seamounts (Pratt)  
**REPORTED DEPTH:** 862-2761 m

---

**Parantipathes spp.**[^33][^72]  
**Black Corals Unid.**

**WoRMS Aphia ID:** 103306  
**GFBio Code:** 5H1  
**RACE Code:** 41550

- **COLOR:**  
- **SHAPE:** Monopodial to branching and pinnulate; primary pinnules in 6 or more rows  
- **SIZE:** Height to 1 m  
- **DIAGNOSTIC FEATURES:**  
- **POLYP DESCRIPTION:**

**REPORTED DISTRIBUTION:** GOA Seamounts (Giacomini), BC  
**REPORTED DEPTH:** 854-2819 m

---

**Umbellapathes sp. A**[^72]  
**Parasol Coral Unid.**

**WoRMS Aphia ID:**  
**GFBio Code:** 5IM  
**RACE Code:**

- **COLOR:**  
- **SHAPE:** Monopodial and complexly pinnulate with long stalk  
- **SIZE:** Height to 35 cm  
- **DIAGNOSTIC FEATURES:** Pinnules arranged alternately; subpinnules arranged uni- to bi-serially  
- **POLYP DESCRIPTION:** Diameter is 3-4 mm; 2-3 polyps/cm

**REPORTED DISTRIBUTION:** BC  
**REPORTED DEPTH:** 1205-1383 m

[^59]: [Antipatharia](https://www.marinebio.org/antipatharia)
[^33]: [Parantipathes](https://www.marinebio.org/parantipathes)
[^72]: [Umbellapathes](https://www.marinebio.org/umbellapathes)
Subclass HEXACORALLIA  
Order ANTIPATHARIA  
Family SCHIZOPATHIDAE

Parantipathes euantha

Parantipathes spp.

No Images On Record With DFO or AFSC

Umbellapthes sp. A
Identification Key to Order Scleractinia

- Corallum solitary; cylindrical, trochoid, or ceratoid in shape; calyx is circular, elliptical, or compressed; septa are hexamerally symmetrical with 4 cycles; common in deep water
  Family Caryophylliidae (RACE Code: 44004) ................................................................. pg. 90

- Corallum solitary; turbinate to trochoid in shape, septa arrange in a Pourtales plan; wide ranging depth distribution
  Family Dendrophylliidae ........................................................................................................ pg. 92

- Corallum solitary; ceratoid, calceoloid, or compressed in shape
  Family Flabellidae (RACE Code: 44009) ............................................................................. pg. 94

- Corallum solitary; discoidal in shape
  Family Fungiacyathidae ........................................................................................................ pg. 96

- Corallum solitary; discoidal in shape; extremely fragile; found in deep water
  Family Micrabaciidae ............................................................................................................. pg. 96

List of species of Order Scleractinia

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<th>Family Dendrophylliidae</th>
<th>Family Fungiacyathidae</th>
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</thead>
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<td>Caryophyllia alaskensis</td>
<td>Balanophyllia elegans</td>
<td>Fungiacyathus marenzelleri</td>
</tr>
<tr>
<td>Caryophyllia arnoldi</td>
<td>Family Flabellidae</td>
<td>Family Micrabaciidae</td>
</tr>
<tr>
<td>Crispatochrobus foxi</td>
<td>Flabellum sp. A sensu</td>
<td>Leptopenus discus</td>
</tr>
<tr>
<td>Desmophyllum dianthus</td>
<td>Javania borealis</td>
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</tr>
<tr>
<td>Desmophyllum pertusum</td>
<td>Javania cailleti</td>
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<tr>
<td>Labyrinthocyathus quaylei</td>
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<td></td>
</tr>
<tr>
<td>Paracyathus stearnsii</td>
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</tr>
</tbody>
</table>

Discoid  
Trochoid  
Turbinata
Calceoloid  
Cylindrical  
Ceratoid
Illustrated version of Cairns, 1994: Anatomy of a Scleractinian
Subclass HEXACORALLIA  
Order SCLERACTINIA  
Family CARYOPHYLLIIDAE

---

**Caryophyllia alaskensis**  
1,2,34,47,72  
**Alaska Stony Coral**

**COLOR:** White to pale pink  
**SHAPE:** Small and solitary; ceratoid to trochoid-shaped  
**SIZE:** Diameter to 2.5 cm; height to 1.8 cm  
**SEPTA ARRANGEMENT:** Septa hexamerally arranged in 4 or 5 cycles  
**OTHER CHARACTERISTICS:** Fascicular columella fairly large and twisted  

**REPORTED DISTRIBUTION:** AI, BS, GOA, BC  
**REPORTED DEPTH:** 27-960 m  

---

**Caryophyllia arnoldi**  
1,2,35,47,72  
**Arnold’s Stony Coral**

**COLOR:** Theca white or pale pink; tissue reddish-brown  
**SHAPE:** Small and solitary; ceratoid to trochoid-shaped; pedicel robust; calyx is circular to elliptical  
**SIZE:** Diameter to 1.8 cm; height to 1.7 cm  
**SEPTA ARRANGEMENT:** Septa project slightly above coral wall; 48 septa in 4 cycles (12 join the columella)  
**OTHER CHARACTERISTICS:** Similar to L. quaylei (pg 92); pali absent  

**REPORTED DISTRIBUTION:** AI, GOA, GOA Seamounts, BC  
**REPORTED DEPTH:** 17-1702 m  

---

**Cripsa trochos foxi**  
1,2,36,37  
**Earl’s Stony Coral**

**COLOR:** Theca white to pale pink; tissue orange  
**SHAPE:** Small and solitary; trochoid-shaped; calyx relatively thin and circular; pedicel stout  
**SIZE:** Diameter to 1.5 cm; height to 1.9 cm  
**SEPTA ARRANGEMENT:** 96 septa arranged hexamerally in 5 cycles (smaller septa not obvious)  
**OTHER CHARACTERISTICS:** Similar to L. quaylei (pg 92); pali absent  

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 82-702 m  

---

**Desmophyllum dianthus**  
1,2,37,38,47,72  
**Cockscomb Stony Coral**

**COLOR:** Theca pale tan to light brown; tissue pale orange to light brown  
**SHAPE:** Very large; solitary or colonial; funnel- or trumpet-shaped; calyx elliptical-shaped  
**SIZE:** Diameter to 6 cm; height to 5 cm  
**SEPTA ARRANGEMENT:** ~192 septa hexamerally arranged in 5-6 cycles  
**OTHER CHARACTERISTICS:** Pali and fascicular columnella usually absent  

**REPORTED DISTRIBUTION:** EGOA, BC  
**REPORTED DEPTH:** 35-2460 m  

---
Subclass HEXACORALLIA
Order SCLERACTINIA
Family CARYOPHYLLIIDAE

*Caryophyllia alaskensis*

*Caryophyllia arnoldi*

*Crispatotrochus foxi*

*Desmophyllum dianthus*
<table>
<thead>
<tr>
<th><strong>Balanophyllia elegans</strong></th>
<th><strong>Orange Stony Coral</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COLOR:</strong> Polyps are vivid red-orange or bright red; <strong>theca</strong> is white</td>
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</tr>
<tr>
<td><strong>SHAPE:</strong> Solitary; cylindrical- to trochoid-shaped; sometimes calceoloid; robust <strong>pedicel</strong></td>
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</tr>
<tr>
<td><strong>SIZE:</strong> Diameter to 1.7 cm; height to 1.7 cm</td>
<td><strong>SIZE:</strong> Diameter to 1.7 cm; height to 1.7 cm</td>
</tr>
<tr>
<td><strong>SEPTA ARRANGEMENT:</strong> <strong>Septa</strong> in a stellate pattern; ~48 arranged hexamerally in 4-5 incomplete cycles</td>
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</tr>
<tr>
<td><strong>OTHER CHARACTERISTICS:</strong></td>
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</tr>
<tr>
<td><strong>REPORTED DISTRIBUTION:</strong> AI, GOA, BC</td>
<td><strong>REPORTED DISTRIBUTION:</strong> AI, GOA, BC</td>
</tr>
<tr>
<td><strong>REPORTED DEPTH:</strong> 22-1553 m</td>
<td><strong>REPORTED DEPTH:</strong> 22-1553 m</td>
</tr>
</tbody>
</table>

### Paracyathus stearnsii

**Brown Stony Coral**

- **COLOR:** Light to dark brown
- **SHAPE:** Corallum trochoid; robust **pedicel**; **calyx** elliptical
- **SIZE:** Diameter to 2.7 cm; height to 1.8 cm
- **SEPTA ARRANGEMENT:** **Septa** hexamerally arranged in 5 cycles
- **OTHER CHARACTERISTICS:** Similar to *C. foxi* (pg 90)
- **REPORTED DISTRIBUTION:** BC
- **REPORTED DEPTH:** 6-835 m

### Desmophyllum pertusum

**White Stony Coral**

- **COLOR:** White
- **SHAPE:** Colonial; irregularly-shaped branching colony; corallites ceratoid
- **SIZE:** Colonial height to 25 cm
- **SEPTA ARRANGEMENT:** **Septa** are irregularly arranged with 6-12 primary **septa**
- **OTHER CHARACTERISTICS:** Profuse and dense budding
- **REPORTED DISTRIBUTION:** BC
- **REPORTED DEPTH:** 39-2775 m

### Labyrinthocyathus quaylei

- **COLOR:** White
- **SHAPE:** Solitary or colonial; ceratoid- to cylindrical-shaped; **calyx** is circular to elliptical; slender **pedicel**
- **SIZE:** Diameter to 1.6 cm; height to 2.1 cm
- **SEPTA ARRANGEMENT:** **Septa** hexamerally arranged in 5 cycles
- **OTHER CHARACTERISTICS:** Similar to *C. foxi* (pg 90)
- **REPORTED DISTRIBUTION:** BC
- **REPORTED DEPTH:** 37-293 m
Subclass HEXACORALLIA  
Order SCLERACTINIA  

Family CARYOPHYLLIIDAE

Desmophyllum pertusum

Labyrinthocyathus quaylei

Paracyathus stearnsii

Family DENDROPHYLLIIDAE

Balanophyllia elegans
Subclass HEXACORALLIA  
Order SCLERACTINIA  
Family FLABELLIDAE

**Flabellum sp. A sensu** 1,2,37  
**Tan Trumpet Coral**  
COLOR: Light to dark brown  
SHAPE: Ceratoid-shaped solitary coral; pedicel thin and narrow; calyx is elliptical-shaped  
SIZE: Diameter to 2.6 cm; height to 38.5 mm  
SEPTA ARRANGEMENT: Septa arranged hexamerally in 5 cycles  
OTHER CHARACTERISTICS: Fascicular columella absent or rudimentary  
REPORTED DISTRIBUTION: AI  
REPORTED DEPTH: 55-507 m

**Javania borealis** 1,2,37  
**Northern Trumpet Coral**  
COLOR: Theca white; tissue pale orange  
SHAPE: Large and solitary; trochoid-shaped; pedicel slender; calyx is elliptical-shaped  
SIZE: Diameter 3.6 cm; height to 3.5 cm  
SEPTA ARRANGEMENT: Septa arranged hexamerally in 5 cycles  
REPORTED DISTRIBUTION: AI  
REPORTED DEPTH: 17-348 m

**Javania cailleti** 1,2,39,47,72  
**Caillet’s Trumpet Coral**  
COLOR: Theca white to pale pink; tissue pale orange to pink  
SHAPE: Small, solitary; ceratoid-shaped; pedicel stout; calyx circular to oval-shaped  
SIZE: Diameter to 3.1 cm; height to 2.9 cm  
SEPTA ARRANGEMENT: Septa arranged hexamerally in 4 cycles  
OTHER CHARACTERISTICS: Pali and fascicular columella absent  
REPORTED DISTRIBUTION: AI, GOA Seamounts (Giacomini), BC  
REPORTED DEPTH: 30-2165 m
Subclass HEXACORALLIA
Order SCLERACTINIA
Family FLABELLIDAE

*Flabellum* sp. *A* sensu

*Javania borealis*

*Javania cailleti*

Credit: M. Everett, NOAA
**Subclass HEXACORALLIA**  
**Order SCLERACTINIA**

### Family FUNGIACYATHIDAE

**Fungiacyathus marenzelleri**  
**Marenzeller’s Stony Coral**

**COLOR:** White to light brown  
**SHAPE:** Large and solitary; discoidal-shaped  
**SIZE:** Diameter to 2.7 cm  
**SEPTA ARRANGEMENT:** 48 septa with few ridges and in 4 cycles  
**OTHER CHARACTERISTICS:** Pali absent; fragile with delicate base

**REPORTED DISTRIBUTION:** AI, GOA Seamounts, BC  
**REPORTED DEPTH:** 300-6328 m

---

**Leptopenus discus**

**Discoid Delicate Web Coral**

**COLOR:**

**SHAPE:** Large and solitary; discoidal-shaped  
**SIZE:** Diameter to 2.5 cm; height to 0.4 cm  
**SEPTA ARRANGEMENT:** Costae and 72 septa alternate in position; septa arranged hexamernally  
**OTHER CHARACTERISTICS:** Six major costae subdivide twice; fragile

**REPORTED DISTRIBUTION:** AI, GOA  
**REPORTED DEPTH:** 2842-5000 m

---

### Family MICRABACIIDAE

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---
Subclass HEXACORALLIA
Order SCLERACTINIA
Family FUNGLACYATHIDAE

*Fungiacyathus marenzelleri*

Family MICRABACIIDAE

*Leptopenus discus*

No Images On Record
With DFO or AFSC
Identification Key to Class Hydrozoa (Order Anthoathecata)

- Colonies uniplanar to slightly arborescent; usually small and fragile; form calcium carbonate skeletons that are frequently pigmented orange, red, blue, or violet

**Family Stylasteridae (RACE Code: 44028)**

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<td>Errinopora pourtalesii</td>
<td>Stylaster parageus parageus</td>
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<td>Stylaster repandus</td>
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<td>Errinopora zarhyncha</td>
<td>Stylaster stejnegeri</td>
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<tr>
<td>Stylantheca papillosa</td>
<td>Stylaster trachystomus</td>
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<tr>
<td></td>
<td>Stylaster venustus</td>
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<tr>
<td></td>
<td>Stylaster verrillii</td>
</tr>
</tbody>
</table>

Illustration: Stylasteridae Morphotypes (not comprehensive)
Order ANTHOATHECATA

Family STYLASTERIDAE

Anatomy of a Hydrocoral

- **a** = **ampullae** (reproductive structure—may or may not be present)
- **c** = **cyclosystems**
- **d** = **dactylopores**
**Order ANTHOATHECATA**

Family STYLASTERIDAE

**Crypthelia trophostega** 1,2,60  
**Capped Hydrocoral**

- **COLOR:** White
- **SHAPE:** Usually uniplanar to bushy; branching is irregularly *dichotomous*
- **SIZE:** Height to 20 cm
- **CYCLOSYSTEMS:** Large and evenly spaced; abundant on front of colony; have cap-like lids
- **NEMATO/DACTYLO-PORES:** Common on branches and *cyclosystem* lids; typically flush or with very low rim

**REPORTED DISTRIBUTION:** AI, BS  
**REPORTED DEPTH:** 146-1913 m

**WoRMS Aphia ID:** 285799  
**GFBio Code:**  
**RACE Code:** 44036

---

**Cyclohelia lamellata** 1,2,61  
**Undulating Plate Hydrocoral**

- **COLOR:** Rose to pink-orange
- **SHAPE:** Lamellate and undulated, but some observations of a digitate form
- **SIZE:** Height to 10 cm
- **CYCLOSYSTEMS:** Disassociated
- **NEMATO/DACTYLO-PORES:** Nematopores are absent; 2-4 *dactylopores* near each gastropore

**REPORTED DISTRIBUTION:** AI, BS  
**REPORTED DEPTH:** 27-691 m

**WoRMS Aphia ID:** 289768  
**GFBio Code:**  
**RACE Code:** 44040

---

**Distichopora borealis** 1,2,60  
**Grooved Hydrocoral**

- **COLOR:** White to light orange
- **SHAPE:** Uniplanar to *arborescent*; branching irregularly *dichotomous*; terminal branches flattened-looking; branch tips blunt and rounded
- **SIZE:** Height to 15 cm
- **CYCLOSYSTEMS:** Located in narrow groove along edges of branches
- **NEMATO/DACTYLO-PORES:**

**REPORTED DISTRIBUTION:** AI, EGOA  
**REPORTED DEPTH:** 143-1361 m

**WoRMS Aphia ID:** 288320  
**GFBio Code:**  
**RACE Code:** 44061

---

**Errinopora dichotoma** 1,2,60  
**Branching Hydrocoral**

- **COLOR:** Orange
- **SHAPE:** Upright; *arborescent*; sparsely *dichotomous* branching; branches do not *anastomose* (reconnect); branches circular to *elliptical* in cross-section ending in thick, blunt tips; wide “U” shape between branches
- **SIZE:** Height to 12 cm
- **CYCLOSYSTEMS:**
- **NEMATO/DACTYLO-PORES:** *Dactylopore* spines occur on all surfaces and are compound

**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 178-217 m

**WoRMS Aphia ID:** 592149  
**GFBio Code:**  
**RACE Code:** 44121
Order ANTHOATHECATA

Family STYLASTERIDAE

Crypthelia trophostega

Cyclohelia lamellata

Distichopora borealis

Errinopora dichotoma
Order ANTHOATHECATA

Family STYLASTERIDAE

Errinopora disticha 1,2,60
Blunt-tipped Hydrocoral

COLOR: Light orange to orange
SHAPE: Upright; uniplanar; dichotomous branching and ending in blunt tips; branches flattened in cross section; narrow “U” shape between branches
SIZE: Height to 25 cm

CyClosystems:
NEMATO/DACTYLO-PORES: Dactylopore spines arranged in long bi-lateral rows flanking a gastropore row

REPORTED DISTRIBUTION: AI
REPORTED DEPTH: 178-536 m

Errinopora fisheri 1,2,60
Walter’s Hydrocoral

COLOR: Light orange
SHAPE: Upright; uniplanar; irregularly dichotomous branching; circular to elliptical in cross-section
SIZE: Height to 9 cm

CyClosystems:
NEMATO/DACTYLO-PORES: Dactylopore spines oriented horizontally and on one side of colony with crescent-shaped terraces

REPORTED DISTRIBUTION: AI
REPORTED DEPTH: 455-458 m

Errinopora nanneca 1,2,60
Warty Hydrocoral

COLOR: Light orange to light pink
SHAPE: Uniplanar, lobate, or multiplanar colonies; dichotomous branching looks large and flat or slender
SIZE: Height to 21 cm

CyClosystems:
NEMATO/DACTYLO-PORES: Dactylopores on 1 side of colony; scoop-like projections arranged in rows on distal branches; ampullae universally distributed when present

REPORTED DISTRIBUTION: AI
REPORTED DEPTH: 21-517 m

Errinopora pourtalesii 47,63,72
Pourtales’s Lace Hydrocoral

COLOR: Pinkish orange; except tips are white
SHAPE: Lamellate to bushy; rigid; branches robust and round in cross section; typically w/encrusting base
SIZE: Height to 18 cm

CyClosystems:
NEMATO/DACTYLO-PORES: Dactylopore spines up to 1.2mm; fused and grooved towards the nearest gastropore

REPORTED DISTRIBUTION: BC
REPORTED DEPTH: 49-183 m
Order ANTHOATHECATA
Family STYLASTERIDAE

Errinopora disticha

Errinopora fisheri

Errinopora nanneca

Errinopora pourtalesii
**Errinopora undulata** 1,2,60

**Wavy Hydrocoral**

| COLOR: Pale orange |
| SHAPE: Undulate or sinusoidal; fan-shaped |
| SIZE: Height to 25 cm |
| CYCLOSYSTEMS: |
| NEMATO/DACTYLO-PORES: Dactylopores on both sides of branches; reduced abundance proximally; 3-5 dactylopores near each gastropore |

**REPORTED DISTRIBUTION:** AI

**REPORTED DEPTH:** 350-640 m

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**Errinopora zarhyncha** 1,2,60

**Rough Hydrocoral**

| COLOR: Orange |
| SHAPE: Upright and uniplanar to multiplanar; abundant dichotomous branching; branches circular to slightly flattened in cross-section with thick blunt tips |
| SIZE: Height to 30 cm |
| CYCLOSYSTEMS: Crowded |
| NEMATO/DACTYLO-PORES: Colony rough; dactylopore spines on all surfaces; dactylopore scoops profuse and long |

**REPORTED DISTRIBUTION:** AI

**REPORTED DEPTH:** 207-658 m

---

**Stylantheca papillosa** 1,2,60,72

**Corrugated Lace Hydrocoral**

(formerly *S. petrograptata*)

| COLOR: Purple, pink, red, and occasionally white with faded branch tips |
| SHAPE: Encrusting to upright with knobby, digitiform protrusions |
| SIZE: Height to 2 cm |
| CYCLOSYSTEMS: Diameters are 0.9-1.2 mm; uniformly arranged on all surfaces of colony |
| NEMATO/DACTYLO-PORES: Dactylopores range 2-12 per cyclosystem (4-8 most common) |

**REPORTED DISTRIBUTION:** GOA, BC

**REPORTED DEPTH:** 11-18 m

---

**Stylaster alaskanus** 1,2,60

**Alaska Hydrocoral**

| COLOR: Light orange, pink or white |
| SHAPE: Upright and uniplanar to multiplanar; branches anastomose creating a sieve-like matrix; distal branches are circular to rectangular in cross-section |
| SIZE: Height to 30 cm |
| CYCLOSYSTEMS: Diameters are 0.9-1.3 mm; found exclusively on branch edges |
| NEMATO/DACTYLO-PORES: Ampullae diameter up to 0.9 mm with prominent warts; 7-14 dactylopores/cyclosystem |

**REPORTED DISTRIBUTION:** AI

**REPORTED DEPTH:** 146-582 m
Order ANTHOATHECATA

Family STYLASTEROIDEAE

Errinopora undulata

Errinopora zarhyncha

Stylantheca papillosa

Stylaster alaskanus

Credit: SNMNH, CC0
Credit: M. Everett, NOAA
Credit: Chad King, NOAA/MBNMS
Order ANTHOATHECATA

Family STYLASTERIDAE

Stylaster brochi 1,2,60

**Rough Orange Hydrocoral**

**WoRMS Aphia ID:** 285858  
**GFBio Code:** 3S2  
**RACE Code:** 44032

**COLOR:** Pale orange  
**SHAPE:** Upright and planar to multiplanar (bushy); branches blunt and circular to slightly flattened in cross-section; branch anastomosis (reconnecting) not uncommon; often found with spionid polychaetes  
**SIZE:** Height to 28 cm  
**CYCLOSYSTEMS:** On all surfaces and slightly raised creating a rough surface  
**NEMATO/DACTYLO-PORES:** Dactylopores range 6-13 per cyclosystem  
**REPORTED DISTRIBUTION:** AI, GOA  
**REPORTED DEPTH:** 75-351 m

Stylaster campylecus 1,2,60,72

**Common Hydrocoral**

**WoRMS Aphia ID:** 346433  
**GFBio Code:** 3SH  
**RACE Code:** 44037

**COLOR:** White, pale orange, and pale pink  
**SHAPE:** Upright and uniplanar to multiplanar; branches large, thick, somewhat flattened, and anastomosis common  
**SIZE:** Height to 50 cm  
**CYCLOSYSTEMS:** Linearly arranged; diameters are 1.0-1.3 mm; slightly protruding  
**NEMATO/DACTYLO-PORES:** Ampullae diameters are 1.0-1.1 mm; 7-17 dactylopores/cyclosystem  
**REPORTED DISTRIBUTION:** AI, GOA, BC  
**REPORTED DEPTH:** 82-1011 m

Stylaster crassiseptum 1,2,60

**Thick-walled Hydrocoral**

**WoRMS Aphia ID:** 592254  
**GFBio Code:**  
**RACE Code:** 44122

**COLOR:** Pale orange  
**SHAPE:** Upright and uniplanar; branches circular in cross-section; branches do not anastomose  
**SIZE:** Height to 24 cm  
**CYCLOSYSTEMS:** Diameters are 0.7-1.0 mm; circular and well-spaced; protrude slightly on branch edges  
**NEMATO/DACTYLO-PORES:** Ampullae are smooth and diameters are 0.9-1.1 mm; 6-12 dactylopores/cyclosystem  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 291-531 m

Stylaster elassotomus 1,2,60

**Smooth-tube Hydrocoral**

**WoRMS Aphia ID:** 285874  
**GFBio Code:**  
**RACE Code:** 44034

**COLOR:** White to cream  
**SHAPE:** Upright and bushy; branches are circular in cross-section  
**SIZE:** Height to 6 cm  
**CYCLOSYSTEMS:** Diameters are 1.0-1.2 mm; located on branch edges; projecting perpendicular to branch  
**NEMATO/DACTYLO-PORES:** Ampullae are unknown; 11-17 dactylopores/cyclosystem  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 882 m
Order ANTHOATHECATA

Family STYLASTERIDAE

Stylaster brochi

Stylaster campylecus

Stylaster crassiseptum

Stylaster elassotomus
### Order ANTHOATHECATA

#### Family STYLASTERIDAE

<table>
<thead>
<tr>
<th><strong>Stylaster leptostylus</strong>&lt;sup&gt;1,2,60&lt;/sup&gt;</th>
<th><strong>Thin Pen Hydrocoral</strong></th>
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<tbody>
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<td><strong>COLOR:</strong> White</td>
<td><strong>WoRMS Aphia ID:</strong> 592248</td>
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<td><strong>SHAPE:</strong> Upright and uniplanar; branching equal and dichotomous; circular in cross-section; no anastomosis</td>
<td><strong>GFBio Code:</strong></td>
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<tr>
<td><strong>SIZE:</strong> Height to 7 cm</td>
<td><strong>RACE Code:</strong></td>
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<tr>
<td><strong>CYCLOSYSTEMS:</strong> Diameters are 1.0-1.1 mm; on branch edges and anterior surface; rarely on posterior; raised slightly</td>
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<tr>
<td><strong>NEMATO/DACTYLO-PORES:</strong> Ampullae diameters are 0.9-1.1 mm; evenly distributed on front and back of colonies; 7-12 dactylopores/cyclosystem</td>
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<td><strong>REPORTED DISTRIBUTION:</strong> AI</td>
<td><strong>REPORTED DEPTH:</strong> 518 m</td>
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| **Stylaster parageus columbiaensis**<sup>1,2,60</sup> | |
| **COLOR:** White, light orange | **WoRMS Aphia ID:** 592251 |
| **SHAPE:** Upright and bushy or flattened with delicate terminal branches | **GFBio Code:** |
| **SIZE:** Height to 7 cm | **RACE Code:** 44049 (species) |
| **CYCLOSYSTEMS:** Diameters are 1.1-1.5 mm; on distal branch edges and anterior of large diameter branches; slightly raised | |
| **NEMATO/DACTYLO-PORES:** Ampullae diameters are 0.9-1.0 mm; 6-13 dactylopores/cyclosystem | |
| **REPORTED DISTRIBUTION:** EGOA, BC | **REPORTED DEPTH:** 23-401 m |

| **Stylaster parageus parageus**<sup>1,2,60</sup> | |
| **COLOR:** White, light orange | **WoRMS Aphia ID:** 592252 |
| **SHAPE:** Upright and branching; prickly; main branches large and thick; branchlets irregular, twig-like and growing on several planes | **GFBio Code:** |
| **SIZE:** Height to 13 cm | **RACE Code:** 44049 (species) |
| **CYCLOSYSTEMS:** Diameters are 0.9-1.0 mm; on branch edges and anterior face, rarely on posterior; slightly raised | |
| **NEMATO/DACTYLO-PORES:** Ampullae diameters are 0.8-1.0 mm; 5-11 dactylopores/cyclosystem | |
| **REPORTED DISTRIBUTION:** GOA, BC | **REPORTED DEPTH:** 23-401 m |

<table>
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<tr>
<th><strong>Stylaster repandus</strong>&lt;sup&gt;1,2,60&lt;/sup&gt;</th>
<th><strong>Folded Hydrocoral</strong></th>
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<td><strong>SHAPE:</strong> Undulate; branching into 2-3 lamellar sheets</td>
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<td><strong>SIZE:</strong> Height to 23 cm</td>
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<td><strong>CYCLOSYSTEMS:</strong> Diameters are 1.0-1.15 m; occur on both sides of colony; not protruding</td>
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<tr>
<td><strong>NEMATO/DACTYLO-PORES:</strong> Dactylopores ~1-11 per cyclosystem; ampullae are present and slightly raised</td>
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<tr>
<td><strong>REPORTED DISTRIBUTION:</strong> AI</td>
<td><strong>REPORTED DEPTH:</strong> 375-475 m</td>
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Order ANTHOATHECATA
Family STYLASTERVERIDAE

No Images On Record
With DFO or AFSC

*Stylaster leptostylus*

*Stylaster parageus columbiensis*

*Stylaster parageus parageus*

*Stylaster repandus*
**Family STYLASTERIDAE**

**Order ANTHOATHECATA**

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**Stylaster stejnegeri**

**Stejneger’s Hydrocoral**

**COLOR:** Light orange to pink  
**SHAPE:** Upright and branching with blunt tips  
**SIZE:** Height to 6 cm  
**CYCLOSYSTEMS:** Located on all surfaces and fairly flush  
**NEMATO/DACTYLO-PORES:** Dactylopores ~5-11 per cyclosystem; ampullae present and slightly raised with low ridges radiating from center  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 79-90 m

**Stylaster trachystomus**

**Rough Hydrocoral**

**COLOR:** Pale pink-orange  
**SHAPE:** Upright and largely uniplanar; large basal branches sometimes anastomose; distal branches circular to slightly flattened in cross-section  
**SIZE:** Height to 12 cm  
**CYCLOSYSTEMS:** Uniformly distributed on branches and anterior surfaces; a few on posterior surfaces  
**NEMATO/DACTYLO-PORES:** Dactylopores ~8-18 per cyclosystem; ampullae 1.0-1.3 mm in diameter and warty  
**REPORTED DISTRIBUTION:** AI  
**REPORTED DEPTH:** 115-366 m

**Stylaster venustus**

**Fuschia Lace Hydrocoral**

**COLOR:** Violet to pink  
**SHAPE:** Upright and planar to slightly bushy; branches thick and blunt-tipped  
**SIZE:**  
**CYCLOSYSTEMS:** Occur on all sides of branches; 0.7-0.9 mm in diameter; slightly raised  
**NEMATO/DACTYLO-PORES:** Dactylopores range 4-8 per cyclosystem; ampullae not visible  
**REPORTED DISTRIBUTION:** EGOA, BC  
**REPORTED DEPTH:** 20 m

**Stylaster verrillii**

**Pink Branching Lace Hydrocoral**

**COLOR:** Light orange to pink  
**SHAPE:** Upright and branching in three dimensions; branch tips blunt  
**SIZE:** Height to 5 cm  
**CYCLOSYSTEMS:** Occur on all surfaces; 1.0-1.2 mm in diameter; generally not protruding  
**NEMATO/DACTYLO-PORES:** Dactylopores ~5-10 per cyclosystem; ampullae not typically visible  
**REPORTED DISTRIBUTION:** AI, EGOA, BC  
**REPORTED DEPTH:** 21-393 m
Order ANTHOATHECATA

Family STYLASTERIDAE

Stylaster stejnegeri

Stylaster trachystomus

Stylaster venustus

Stylaster verrillii
Acknowledgments

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Glossary of Terms

A
Ampullae — warty reproductive bumps on stylasterid hydrocorals
Anastomosis (Anastomose) — union or joining of individual branches creating an interconnected mesh
Arborescent — resembling a tree in growth or appearance

B
Basal Disc — an expanded base portion by which certain stalked sessile organisms are attached to the substrate

C
Calyx (plural Calices) — a cuplike cavity or structure, the rigid part of a polyp stiffened by sclerites
Capitate — ending in a distinct compact head
Coenenchyme (“see nin kim”) — common tissue that surrounds and links polyps of an octocoral
Costa (plural Costae) — one of the vertical plates lying outside the corallite wall, a continuation of a septum (plural septa) which lies inside the wall
Cyclosystem — the opening from which a hydroid polyp opens on a hydrocoral; polyp orifice

D
Dactylopore — the pores of a hydrocoral that surround the cyclosystem (polyp orifice)
Dichotomous — branching in which 2 branches divide off of stem (axis)
Digitiform — formed, shaped like or having the function of a finger
Dimorphic — colonies are composed of 2 types of polyps: autozooids (8 septa) and siphonozoooids (reduced size and rudimentary tentacles)

E
Elliptical — oval- or ellipse-shaped leaf, twice as long as broad, with the widest part of the leaf at the middle

F
Fascicular Columella — central structure of the calyx formed by the fusion of all the lower elements of the septa
G
Gorgonin — complex protein that makes up the horny skeleton of several suborders of Alcyonacean corals

L
Lobate — having lobes or divisions extending less than halfway to the middle of the base

M
Monomorphic — colonies are composed of 1 type of polyp
Monopodial — growing upward with a single main stem or axis

O
Ovate — an egg-shaped leaf with the broader end at the base

P
Pali — vertical pillars developed along the inner edges of the septa, structurally distinct
Peduncle — a stalk-like part by which an organism is attached to a substrate
Pedicel — a small stalk bearing a solitary coral
Pinnate — having branches, tentacles on each side of an axis, like the vanes of a feather
Pinnule (Pinnulate) — secondary division of a branch; subdivided

R
Rachis — the stem of a sea pen, sometimes bearing leaf-like structures.
Retractile — refers to the ability of coral polyps to deflate in size by pulling all the soft body parts of a polyp flush with the body wall of the colony

S
Sclerite — mineralized spicules of silica or calcium carbonate that are of importance structurally and in defense
Septa — a dividing wall, membrane, or the like, in a plant or animal structure
Stolon — the branched stem-like structure of some colonial hydroid coelenterates, attaching the colony to the substrate

T
Theca — corallite wall
Tubercle — a small rounded projection or protuberance
References

6 Williams, G.C. 2013. New taxa and revisionary systematics of alcyonacean octocorals from the Pacific coast of North America (Cnidaria, Anthozoa). Zookeys 283: 15-42., available online at https://doi.org/10.3897/zook.eys.283.4803


## Appendix

### Table 1. WoRMS Aphia ID, DFO GFBio and NMFS RACE Codes

<table>
<thead>
<tr>
<th>Order</th>
<th>Family</th>
<th>Genus Species</th>
<th>WoRMS Aphia ID</th>
<th>GFBio Code</th>
<th>RACE Code</th>
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