Identification Guide for corals and sponges

for use by sea-going observers in the SEAFO Convention Area

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INTRODUCTION

This is a simple pictorial guide to corals and sponges for use by sea-going observers in the SEAFO Convention Area (CA). The aim is to enable observers to identify general types of corals and sponges as it is rarely possible at sea to identify specimens to the species level (this often requires microscopic analysis ashore). The key is a first edition and will be improved on the basis of feedback from observers and also as more information on corals and sponges becomes available in the CA

GUIDE STRUCTURE

The Identification key comprises separate sheets for each of the main taxonomic groups and highlights certain morphological features to allow identification by with the naked eye.

The taxa considered are those included in lists of vulnerable marine ecosystems (VMEs) published by the United Nations (AGNU, 2007; FAO, 2008; EU, 2009. They are also cited in Annex II of the CITES (2009)

Each sheet includes the following information:-

- Heading with taxonomic categories
- Category and name of the group
- Common name, if known.
- A brief and simple description
- Pictures of typical specimens highlighting in some cases morphological details.
- Some examples are from the Walvis Ridge (these have a black background).
- Others are of specimens obtained in deep-water surveys carried out on the continental shelf and slopes of West Africa (these have a white background)

AUTHORS

This work has been accomplished by the African deep-sea benthos team from the Spanish Oceanography Institute (IEO) and the Marine Science Faculty at the University of Vigo (Galicia, Spain).

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LIST OF MAIN TAXA

(SEAFO Identification Guide for corals and sponges

Phylum PORIFERA

- **Class Hexactinellida* (glass sponges) (Sheet 1)**
- **Class Demospongia (Sheet 2)**

Phylum Cnidaria

- Class Hydrozoa
  - **Orders Anthoathecata and Leptothecata (hydroids) (Sheet 3)**
  - Order Anthoathecata
    - **Family Stylasteridae (hydrocorals) (Sheet 3)**

- Class Anthozoa
  - Subclass Octocoralia
    - **Order Alcyonacea* (soft corals) (Sheet 4)**
    - **Order Pennatulacea (sea pen) (Sheet 4)**
    - **Order Gorgonacea (sea fans) (Sheet 5)**
      - **Family Isidiidae* (bamboo corals) (Sheet 5)**
      - **Family Chrisogorgidae* (golden corals) (Sheet 5)**
  - Subclass Hexacorallia
    - **Order Antipatharia (black corals) (Sheet 6)**
    - **Order Scleractinia (stony corals) (Sheet 7)**

Phylum **Porifera**

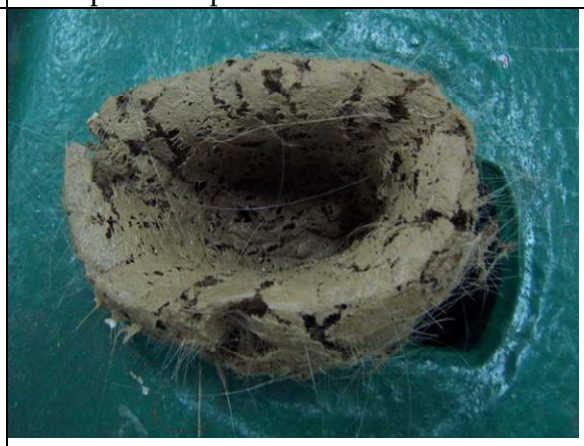
SHEET 1

Class **Hexactinellida**
(**Glass sponges)**

- Variable body form with tendency to radial symmetry: tubes, cups, funnels, caps, clubs, blades.

- Attached to hard substrates by cementation or to soft bottoms by long rooting spicules.
- Deep water species

Deep hexactinellids from African Atlantic



Phylum **Porifera**

SHEET 2

Clase **Demospongia**

- Body form highly variable (often indeterminate)
- Some times with specific forms (spheres, funnels or arborescent)

- Consistency either firm or delicate with all intermediate stages.
- Colour in life: brown orange, red, yellow, white, blue or black

Pachimastia monilifera

Other deep demospongs from African Atlantic

Phylum **Cnidaria** - Class **Hydrozoa**

SHEET 3

Orders **Anthoathecata** and **Leptothecata** **(Hydroids)**

-Benthic hydroids mostly colonial and sessile.
-Colonies erect, main stem simple or branched, bearing side branches.
-Branching pattern regular or irregular.
-On hard or soft bottoms, attached to objects (cables, gear,..).

Family **Stylasteridae** **(Hydrocorals)**

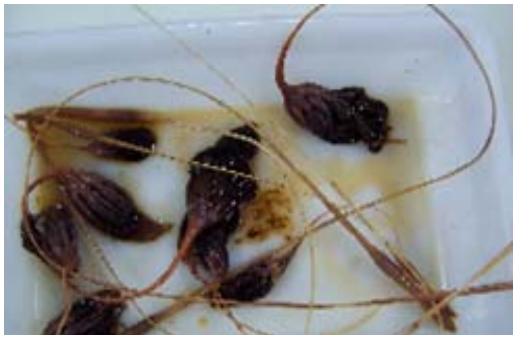
-Colonial benthic hydroids with a thick calcareous exoskeleton.
-Colonies generally erect, branched, usually flabellate.

Phylum **Cnidaria** – Class **Anthozoa** – Subclass **Octocorallia**

SHEET 4

Order **Alcyonacea**
(Soft corals)

-Colonies forming encrusting sheets or erect fleshy masses
-Polyps embedded in a more or less extensive common matter, with sclerites.
-Without supporting internal axis.



Order **Pennatulacea**
(Sea pens)

-Colony form rather variable: lobate, with short branches or ridges, massive, carrot-like, mushroom shaped, etc.

Other deep pennatulids from African Atlantic

Phylum **Cnidaria** - Class **Anthozoa** - Subclass **Octocorallia** – Order **Gorgonacea** **SHEET 5**

Order **Gorgonacea**
(sea fans)

-Arborescent, fan-shaped, bushy or unbranched (whip-like) colonies.
-Attached usually to a solid substrata by a basal plate.
-Most of species with a solid internal axis covered by a thin layer of coenenchyme with polyps.

Family **Isididae**
(Bamboo corals)

-Colonies profusely branched, bushy, fan-shaped or whip-like.
-Segmented axis with a succession of calcareous internodes separated by horny nodes.
-Base root-like, non fixed to hard substrata.

Family **Chrysogorgiidae**
(Golden corals)

-Internal axis iridescent or metallic.
-Generally branched, with a quite regular pattern: dichotomous with branches in zig-zag, spiral or unilateral; or whip-like .
-Base mostly root-like.

Phylum **Cnidaria –** Class **Anthozoa –** Subclass **Hexacorallia**

SHEET 6

Order **Antipatharia**
(Black corals)

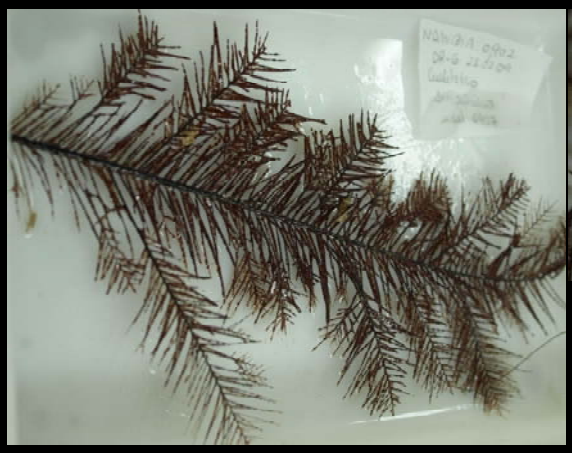
-Colonies normally slender and ramified: pinnate, bushy, bottle-shaped or even unbranched (whip-like).

-A black horny axial skeleton with spines
-Polyps small and mostly with 6 tentacles.











Phylum **Cnidaria** – Class **Anthozoa** – Subclass **Hexacorallia** **SHEET 7**

Order **Scleractinia**

(Madreporarians, stony corals)

-Solitary or colonial with an calcareous exoskeleton (corallum).

-The calices (concavities of the corallum which contains the polyps) regularly subdivided by calcareous radial septa.

Dead coral

Dead coral