

## GEO OBJECT CLASSES

Object Class: **Coral Reef**

Acronym: **crhref**

Code: 31400

Set Attribute\_A: catref, crlcov, strctr, COLOUR, NATSUR, NATQUA; NOBJNM; OBJNAM

Set Attribute\_B: INFORM; NINFOM; NTXTDS; SCAMAX; SCAMIN; TXTDSC;

Set Attribute\_C: RECDAT; RECIND; SORDAT; SORIND;

### Definition:

**reef (general)** - A mass of rock or coral which either reaches close to the sea surface or is exposed at low tide, posing a hazard to navigation. (IHO Dictionary, S-32, 5th Edition)

**Coral reef** - A reef, often of large extent, composed chiefly of coral and its derivatives. (IHO Dictionary, S-32, 5th Edition)

### References.

INT 1:

M-4:

### Remarks:

Distinction: caution area; marine farm/culture; military practice area; restricted area

## FEATURE OBJECT ATTRIBUTES

Attribute: **Category of Reef**

Acronym: **catref**

Code: 31400

Attribute type: E

Expected input:

ID :	Meaning
1 :	fringing reef
2 :	barrier reef
3 :	patch reef
4 :	uplifted reef
5 :	lagoon
6 :	atoll

Definitions: \*

**fringing reef** - A reef closely attached to a shore, as contrasted with a barrier reef which is separated from the shore by a lagoon.

**barrier reef** - A coral reef fronting the shore, at some distance from it, and separated from it by a lagoon or a navigable channel of moderate depth.

**patch reef** – Coral formations that are isolated from other coral reef formations by sand, seagrass, or other habitats and that have no organized structural axis relative to the contours of the shore or shelf edge.

**uplifted reef** - A coral reef exposed above water level.

**lagoon** - An enclosed area of salt or brackish water separated from the open by some more or less effective, but not complete, obstacle such as low sand bank. The name most commonly used for the area of water enclosed by a barrier or atoll.

**atoll** - A coral island consisting of a ring-shaped reef nearly or entirely surrounding a central lagoon.

\* Source: IHO Dictionary, S-32, 5<sup>th</sup> Edition, 1995

## FEATURE OBJECT ATTRIBUTES

Attribute: **Live Coral Coverage**

Acronym: **crlcov**

Code: 31401

Attribute type: E

Expected input:

ID :	Meaning
1 :	Live Coral Sparse (10% – 50%)
2 :	Live Coral Patchy (50% – 90%)
3 :	Live Coral Continuous (90% – 100%)

**Sparse Coral** - Discontinuous live coral with breaks in coverage that are very diffuse or irregular, resulting in sparse patches of coral. Overall live coral cover is estimated at 10% - 50% of the bottom substrate area.

**Patchy Coral** - Discontinuous live coral with breaks in coverage that result in isolated patches of coral. Overall live coral cover is 50% - 90% of the bottom substrate area.

**Continuous Coral** - Live coral covering > 90% substrate area.

**Unknown** – not assessed

## FEATURE OBJECT ATTRIBUTES

Attribute: **Structure Type**

Acronym: **strctr**

Code: 31402

Attribute type: E

Expected input:

ID :	Meaning
1 :	Spur and Groove
2 :	Scattered Coral/Rock
3 :	Rock/Boulder (Volcanic and Carbonate)
4 :	Reef Rubble
5 :	Pavement
6 :	Pavement with Sand Channels
7 :	Artificial
8 :	Patch Reef

Definitions: \*

**Spur and Groove** - Habitat having alternating sand and coral formations that are oriented perpendicular to the shore or bank/shelf escarpment. The coral formations (spurs) of this feature typically have a high vertical relief relative to pavement with sand channels (see below) and are separated from each other by 1-5 meters of sand or hardbottom (grooves), although the height and width of these elements may vary considerably. This habitat type typically occurs in the fore reef or bank/shelf escarpment zone.

**Scattered Coral/Rock** - Primarily sand or seagrass bottom with scattered rocks or small, isolated coral heads that are too small to be delineated individually (i.e. smaller than individual patch reef).

**Rock/Boulder** - Solid carbonate blocks and/or boulders or volcanic rock.

**Reef Rubble** - Dead, unstable coral rubble often colonized with filamentous or other macroalgae. This habitat often occurs landward of well-developed reef formations in the reef crest or back reef zone.

**Pavement** - Flat, low-relief, solid carbonate rock with coverage of macroalgae, hard coral, zoanths, and other sessile invertebrates that are dense enough to begin to obscure the underlying surface.

**Pavement with Sand Channels** - Habitats of pavement with alternating sand/surge channel formations that are oriented perpendicular to the shore or bank/shelf escarpment. The sand/surge channels of this feature have low vertical relief relative to spur and groove formations and are typically erosional in origin. This habitat type occurs in areas exposed to moderate wave surge such as the bank/shelf zone.

**Artificial** - Man-made habitats such as submerged wrecks, large piers, submerged portions of rip-rap jetties, and the shoreline of islands created from dredge spoil. Includes active and remnant fish ponds walled off from the open ocean along the shoreline, often along a reef crest.

**Unknown** - No classification performed.

\* Source: Shallow-Water Benthic Habitats of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands Manual.