

Appendix

GORGONIAN SKELETAL MINERALOGY

SPECIES	LOCALITY/DEPTH	HOLDFAST	AXIS
Plexauridae			
<i>Eunicea tourneforti</i> 50275	Florida/reef	aragonite	no mineral
<i>Muriceopsis flavida</i> 14374	Nassau/reef	aragonite	no mineral
<i>Plexaura flexuosa</i> 51769	Yucatan/reef	aragonite	no mineral
<i>Plexaura homomalla</i> 50689	Andros/reef	aragonite	no mineral
<i>Plexaurella grisea</i> 6917	Florida/reef	aragonite	calcite 15.7 mol% Mg
<i>Plexaurella nutans</i>	Florida/reef	aragonite	calcite 15.7 mol% Mg
<i>Pseudoplexaura porosa</i> 1629	Florida/reef	aragonite	no mineral
Gorgoniidae			
<i>Eugorgia</i> sp. 12518	Tepic, Mexico/shallow	CHAp ¹	CHAp
<i>Eugorgia</i> sp. 52317	California/shallow	CHAp	CHAp
<i>Eugorgia ampla</i> 8967	Baja California/shallow	CHAp	CHAp
<i>Eugorgia aurantiaca</i> 33729	Baja California/shallow	not analyzed ²	CHAp
<i>Eugorgia aurantiaca</i> a/c 16679	Panama/shallow	CHAp	CHAp
<i>Eugorgia rubens</i> 50032	LaJolla, CA./31-37m	CHAp	CHAp
<i>Eunicella cavolini</i> 89285	Genoa/39m	no mineral	no mineral
<i>Eunicella filiformis</i> 82909	Mauretania/35-50m	no holdfast	no mineral
<i>Gorgonia mariae</i> 93965	Grenada/13m	CHAp	CHAp
<i>Gorgonia ventalina</i> 55027	Dominican Rep./17-22m	not analyzed ²	CHAp
<i>Leptogorgia cardinalis</i> 50052	Off Captiva/80m	not analyzed ²	CHAp
<i>Leptogorgia cardinalis</i> 49711	Off Palm Beach/37m	calcite 11.4 mol% Mg ⁴	CHAp
<i>Leptogorgia lemasti</i> 52730	W. Mexico/shallow	not analyzed ²	CHAp
<i>Leptogorgia riodouroi</i> 82910	Mauretania/35-50m	no holdfast ³	CHAp

<i>Leptogorgia setacea</i> 43245	Virginia/24m	no holdfast ³	CHAp
<i>Leptogorgia stheno</i> (white) 49781	Off Louisiana/64m	no holdfast ³	CHAp
<i>Leptogorgia stheno</i> (pink) 49782	Off Louisiana/49m	no holdfast ³	CHAp
<i>Leptogorgia stheno</i> (pink) 50033	Off Louisiana/55-70m	no holdfast ³	CHAp
<i>Leptogorgia virgulata</i> 49690	Apalachee Bay/6m	CHAp	CHAp
<i>Leptogorgia</i> n. sp. 98800	NE of Clipperton I/1900m	CHAp	CHAp
<i>Leptogorgia</i> sp. 59824	Mozambique/55m	CHAp	CHAp
<i>Olindagorgia marcgravii</i> 73426	Brazil/3m	aragonite	CHAp
<i>Pacificogorgia stenobrochis</i> 49366	Panama/shallow	not analyzed ²	CHAp
<i>Phycogorgia fucata</i> 56886	Chile/45m	CHAp	CHAp
<i>Phyllogorgia quercifolia</i> 5247	Brazil/shallow	CHAp	CHAp
<i>Pseudopterogorgia americana</i> 53582	Belize/4-5m	not analyzed ²	CHAp
<i>Pseudopter. australiensis</i> 82139	W.Australia/8m	not analyzed ²	CHAp
<i>Pseudopterogorgia bipinnata</i> 96216	Eleuthera/7.63m	aragonite	CHAp
<i>Pterogorgia anceps</i> 50057	Sarasota/2m	aragonite	no mineral
<i>Pterogorgia citrina</i> 51028	Anegada/1m	aragonite	no mineral
<i>Rumphella antipathes</i> 86004	Gilbert Is./2-5m	calcite 12.7 mol% Mg	no mineral
Ellisellidae			
<i>Junceella gemmacea</i> not cat.	Philippines/shallow	calcite 13.8 mol% Mg	calcite 14.0 mol% Mg
<i>Ellisella barbadensis</i> 50610	Off Pensacola/75m	calcite 11.2 mol% Mg	calcite 11.1 mol% Mg
Ifalukellidae			
<i>Ifalukella yanii</i> 50142	Caroline Is./3m	aragonite calcite 11.2 mol% Mg ⁴	aragonite
<i>Plumigorgia hydroides</i> 59811	Cuyo Ids, Sulu Sea/15 m	aragonite calcite 12.3 mol% Mg ⁴	aragonite
Chrysogorgiidae			
<i>Chrysogorgia spiculosa</i> 52851	Key West/1281m	calcite 6.4 mol% Mg	calcite 11.7 mol% Mg
<i>Radicipes gracilis</i> 11913	Georges Bank/3259m	calcite 8.3 mol% Mg	calcite 8.3 mol% Mg

Primnoidae

<i>Ainigmaptilon edisto</i> 54491	Ross Sea/611m	calcite 6.4 mol% Mg	calcite 10 mol% Mg
<i>Ainigmaptilon antarcticum</i> 82871	S.Shetland Is./88-112m	calcite 5.9 mol% Mg	calcite 9.8 mol% Mg
<i>Candidella</i> sp. 56774	Hawaii/374m	aragonite	aragonite
<i>Fanellia tuberculata</i> 30029	Japan/187m	calcite 9.9 mol% Mg	calcite 13.8 mol% Mg
<i>Fannyella rossii</i> 77360	Antarctic Peninsula/110m	calcite 6.3 mol% Mg	calcite 7.9 mol% Mg
<i>Narella</i> n. sp. a/c 272779	Hawaii/ca. 250m	aragonite	aragonite
<i>Primnoella scotiae</i> 77370	Argentina/ca. 400m	calcite 6.9 mol% Mg	calcite 7.9 mol% Mg

¹ CHAP is the abbreviation for carbonate hydroxylapatite

² Not analyzed because holdfast not preserved, or could not be separated from substrate.

³ Colonies lie prone on soft substrate, not forming a holdfast.

⁴ Probably contamination from substrate.