



# Gulf of Mexico

## Origin, Waters, and Biota

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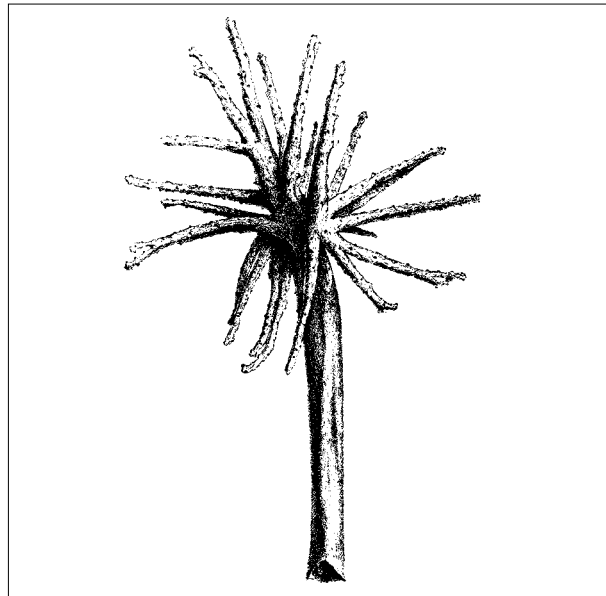
## Octocorallia (Cnidaria) of the Gulf of Mexico

*Stephen D. Cairns and Frederick M. Bayer*

Members of the subclass Octocorallia, sometimes referred to as the subclass Alcyonaria, are sedentary, colonial, exclusively polypoid Anthozoa, each with feeding polyps bearing 8 unpaired, pinnate tentacles and 8 gastric mesenteries. All species have numerous, usually microscopic, calcareous (calcareous) skeletal elements called sclerites in their tissue; most arborescent species also have a calcified (aragonitic or calcitic) or collagenous skeleton that provides axial support for the colony. In the vernacular, octocorals are known as gorgonians, soft corals, sea fans, sea whips, sea feathers, sea pens, bamboo corals, and precious corals (Cairns et al. 2002).

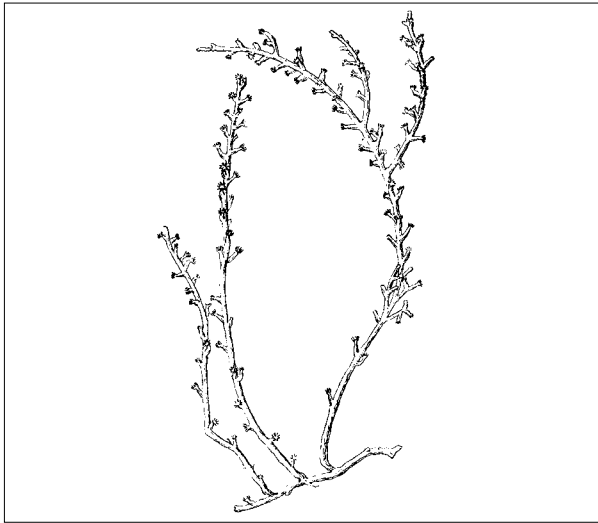
An illustrated synthesis of the classification, morphology, biology, and methods of study of this subclass was published by Bayer (1956) just 2 years after the first edition of the Gulf checklist, and remains the modern starting point for serious study of the group. Other seminal works on this subclass include an illustrated key to all genera (exclusive of the pennatulids; Bayer 1981b); a bibliography of over 1400 octocoral references (Bayer 1981a), which includes 110 references to octocorals of the western Atlantic; an illustrated trilingual glossary of morphological terms applied to octocorals (Bayer, Grasshoff, and Verseveldt 1983); and a key and descriptions of the higher taxa of the order Pennatulacea (Williams 1995).

Bayer (1954: 279) prefaced his account of the Gulf of Mexico octocorals by saying: “The Alcyonaria of the Gulf of Mexico are little known.” Despite an addition of 71 species to that checklist herein, this statement is still true. There has never been a concerted effort to study and syn-

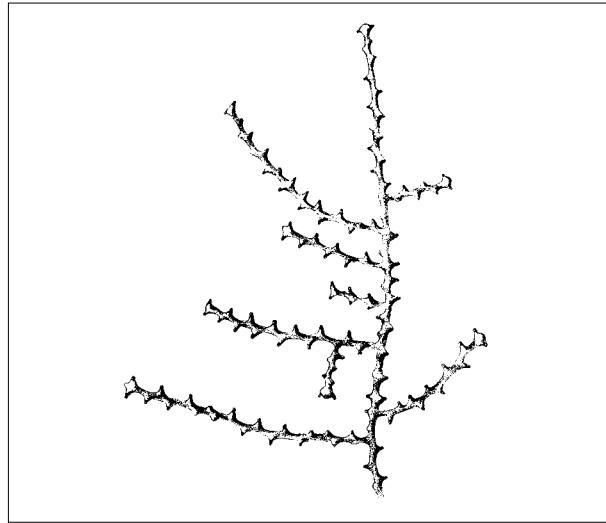


Octocorallia. After Wright and Studer 1889.

thesize information on the octocorals of the Gulf, most of the new information since 1954 having resulted from incidental reports from studies of other regions (see checklist, references). Nonetheless, one of the richest sources of post-1954 records for the Gulf is Bayer (1958), who listed many species collected by the M/V *Oregon* from relatively deep water of the northern and eastern coasts of the Gulf. Bayer’s (1961) revision of the shallow-water octocorals of the West Indian region is also a rich source of additional records of most of the shallow-water spe-



Octocorallia. After Hargit &amp; Rogers in Bowers 1902.



Octocorallia. After Wright and Studer 1889.

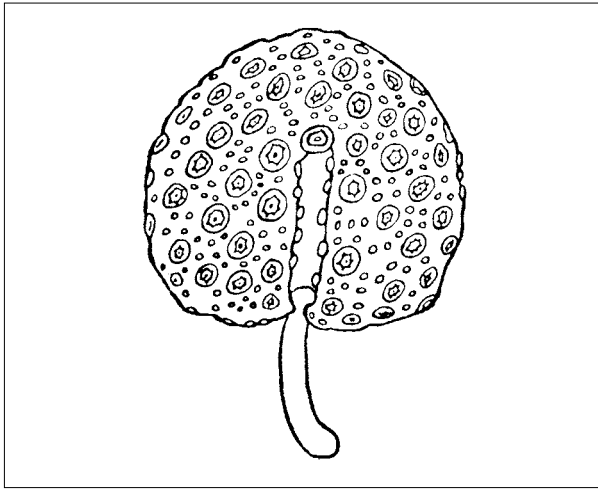
cies known to occur in the Gulf of Mexico. A field guide to the commoner shallow-water species of the Gulf and Caribbean was published by Cairns (1977), and a listing of the 121 shallow-water (less than 200 m) North American species was published by Cairns et al. (2002). Grimm and Hopkins (1977) listed 13 shallow-water species from the Florida Middle Grounds (northeastern quadrant), and Rezak, Bright, and McGrail (1985) listed 20 species from the outer continental shelf of the northwest quadrant, including 5 new records for the Gulf. Cairns (2001), Bayer (2001), and Cairns and Bayer (2002, 2003, 2004a, b) are now engaged in revising the deepwater western Atlantic octocorals, including records from the Gulf.

The most comprehensive analysis of Gulf octocorals to date, however, was the dissertation of Charles (“Chuck”) P. Giammona (1978). This work includes a complete history of all octocorals reported from the Gulf to that date and a listing of all 151 species (his table 6), a number that reduces to 135 once junior synonyms, unidentified species, and non-Gulf records are subtracted. Giammona included additional Gulf records of 58 species, vouchers of which are at Texas A&M University, many of which were illustrated by Giammona and are acknowledged in the checklist herein. He also analyzed octocoral distribution patterns, using cluster analysis, resulting in 6 major faunistic regions. Unfortunately this dissertation is quite obscure and largely unavailable; only a small part of this work was ever published—a report on the fossil octocorals from Stone City, Texas (Giammona and Stanton 1980). Nonetheless, it stands as the most comprehensive and

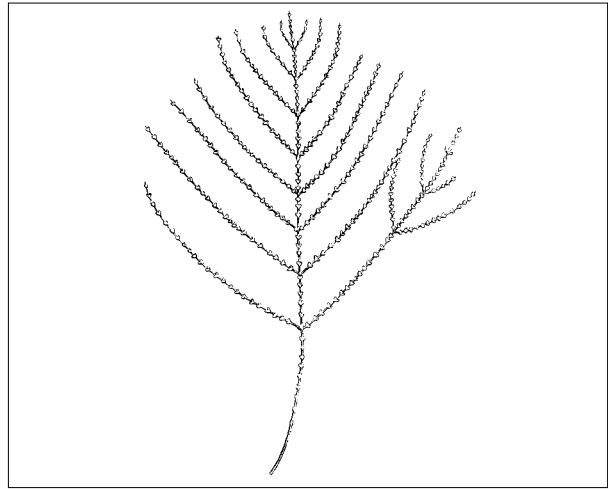
well-documented account of the octocorals of the Gulf of Mexico.

Octocorals are exclusively marine and are ubiquitous in that environment, occurring from the Arctic to the Antarctic and at depths from the intertidal to over 6000 m deep. They are a highly diverse group, estimated to consist of about 2900 species, 278 of which are known to occur in the western Atlantic. Of the 278 species, 162 (and an additional 2 subspecies or varieties) are reported herein from the Gulf of Mexico, an addition of 71 species from the 91 reported in 1954 (Bayer 1954), constituting 58% of the western Atlantic and 5.6% of the world fauna. Although octocorals are common in shallow reef environments, and dead colonies can occasionally be seen washed up on beaches, 77 of the Gulf taxa (48%) live in deep water, occurring below 200 m.

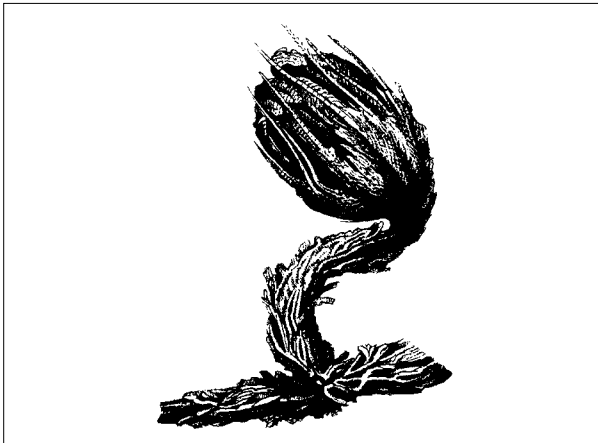
Among the 4 quadrants or sectors of the Gulf (southeastern, northeastern, northwestern, and southwestern), octocorals are most diverse in the geographically smallest southeastern sector (115 species, 71%). This sector includes the Florida Keys, the northwestern coast of Cuba, and the eastern Campeche Bank, which together provide a variety of shallow- and deepwater habitats, as well as constituting a confluence of tropical elements from the Caribbean and warm temperate elements from the north. Thus, the octocoral species found here include tropical species as well as southern range extensions of usually more northern species. Eighty-two species are known from the northeastern quadrant, 58 from the northwestern quadrant, and only 15 from the southwestern quadrant. The small number from the western Gulf



Octocorallia. After Pratt 1916.



Octocorallia. After Wright and Studer 1889.



Octocorallia. After Wright and Studer 1889.

probably reflects a poor collecting effort in the 2 western regions. Only 3 species are known from all 4 sectors, the deepwater species *Chrysogorgia elegans*, *C. spiculosa*, and *Callogorgia americana*, which is probably also an underrepresentation due to a poor collecting effort. Seventeen species (10.4%) are thus far known only from the Gulf, but more collecting efforts will likely show that in fact more species are shared between the Gulf and Caribbean.

### Abbreviations

The sequence of taxonomic orders and families in the checklist is phylogenetic, following the arrangement by Bayer (1956, 1981b). The genera and species are arranged alphabetically. Under the heading of Habitat-Biology, the following depth indicators are used: itd = intertidal (0–2 m); bns = bay/inshore (0–50 m); crr = coral reef

(0–50 m); ocs = outer continental shelf (50–200 m); and slp = slope (200–3000 m). Other abbreviations in the Habitat-Biology column include: ben = benthic; hsb = hard substrate; sft = soft substrate; and end = endemic. Depth ranges set in roman are for Gulf records only, those numbers set in italic refer to the entire western Atlantic range. Under the heading of overall geographic range, the following designations are used: EA = Eastern Atlantic; NEUS = northeast United States (cold temperate waters north of Cape Hatteras); SEUS = southeast United States (warm temperate waters south of Cape Hatteras to Key Largo); Be = Bermuda; Ba = Bahamas; C = Caribbean; SA = South America. Under the References heading, post-1954 reports are favored unless none exist, in which case pre-1954 records are posted. New, hitherto unpublished museum records are also footnoted in the checklist under References/Endnotes. The following abbreviations are also used in the checklist: GMx = Gulf of Mexico; USNM = United States National Museum, Smithsonian Institution, Washington, D.C.

### Acknowledgments

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## Checklist of the subclass Octocorallia from the Gulf of Mexico.

Taxon	Habitat-Biology	Depth (m)	Overall geographic range	GMx range	References/ Endnotes
<b>Phylum: Cnidaria</b>					
<b>Class: Anthozoa</b>					
<b>Subclass: Octocorallia</b>					
<b>Order: Helioporacea</b>					
<b>Family: Lithotelestidae</b>					
<i>Epiphaxum breve</i> Bayer, 1992	ben, hsb, ocs	76–107	Ba	ne	12
<b>Order: Alcyonacea</b>					
<b>Suborder: Stolonifera</b>					
<b>Family: Clavulariidae</b>					
<i>Carijoa operculata</i> (Bayer, 1961)	ben, hsb, ocs-slp, end	76–298	Gulf of Mexico endemic	se	7
<i>Carijoa riisei</i> (Duchassaing & Michelotti, 1860)	ben, hsb, bns	0–55	C, SA	se, nw	7, 28
<i>Scleranthelia rugosa</i> var. <i>rugosa</i> (Pourtalès, 1867)	ben, hsb, slp	494	SEUS, Ba, C	se, ne	11, 28
<i>Scleranthelia rugosa</i> var. <i>musiva</i> Studer, 1878	ben, hsb, ocs	110–188	SEUS, Ba, C, SA	ne	<sup>1</sup>
<i>Stereotelesto corallina</i> (Duchassaing, 1870)	ben, hsb, ocs	8–183	C	nw	28
<i>Telesto flavula</i> Deichmann, 1936	ben, hsb, bns, end	49–64	Gulf of Mexico endemic	se, ne	7, 28
<i>Telesto fruticulosa</i> Dana, 1846	ben, hsb, bns	33–183	SEUS	nw	28
<i>Telesto nelleae</i> Bayer, 1961	ben, hsb, bns-slp	27–298	SEUS	se	7
<i>Telesto sanguinea</i> Deichmann, 1936	ben, hsb, bns-ocs	24–110	SEUS	se, ne	7, 28
<i>Telestula tubaria</i> Wright & Studer, 1889	ben, hsb, slp	1281–1464	EA, NEUS, C	se	<sup>2</sup>
<b>Suborder: Alcyoniina</b>					
<b>Family: Alcyoniidae</b>					
<i>Anthomastus (Bathyalcyon) robustus delta</i> Bayer, 1993	ben, hsb, slp, end	68–274	Gulf of Mexico endemic	nw	14, 28 <sup>3</sup>
<b>Family: Nidaliidae</b>					
<i>Chironophthya agassizii</i> (Deichmann, 1936)	ben, hsb, bns-ocs	14–185	C, SA	se, ne, nw	27, 28, 31, 32
<i>Chironophthya caribaea</i> (Deichmann, 1936)	ben, hsb, bns-ocs	16–183	C	nw	<sup>4</sup>
<i>Nidalia deichmannae</i> Utinomi, 1954	ben, hsb, slp	201–421	C	se, nw	33
<i>Nidalia dissidens</i> Verseveldt & Bayer, 1988	ben, hsb, slp	274	SEUS, Ba, C	nw	<sup>5</sup>
<i>Nidalia occidentalis</i> Gray, 1835	ben, hsb, bns-slp	30–311	SEUS, Be, C	se, ne, nw	7, 28, 31, 32, 33
<b>Family: Nephtheidae</b>					
<i>Eunephtya nigra</i> (Pourtalès, 1868)	ben, hsb, slp	183–804	SEUS, C	se	27
<i>Stereonephtya portoricensis</i> (Hargitt, 1901)	ben, hsb, slp	223	C	se	7
<b>Order: Gorgonacea</b>					
<b>Suborder: Scleraxonia</b>					
<b>Family: Anthothelidae</b>					
<i>Anthopodium rubens</i> Verrill, 1872	ben, hsb, bns	9–92	SEUS	ne, nw	7, 28
<i>Anthothela tropicalis</i> Bayer, 1961	ben, hsb, slp, end	165–823	Gulf of Mexico endemic	nw	7,
<i>Diodogorgia nodulifera</i> (Hargitt, 1901)	ben, hsb, bns-ocs	30–183	SEUS, C, SA	se, ne	7, 30
<i>Erythropodium caribaeorum</i> (Duchassaing & Michelotti, 1860)	ben, hsb, itd	1–3	Ba, C	sw	<sup>6</sup>
<i>Iciligorgia schrammi</i> Duchassaing, 1870	ben, hsb, bns-slp	11–366	SEUS, C, SA	se	7
<i>Titanideum frauenfeldii</i> (Kölliker, 1865)	ben, hsb, bns-slp	13–237	SEUS	se	7
<b>Family: Briareidae</b>					
<i>Briareum asbestinum</i> (Pallas, 1766)	ben, hsb, itd-bns	1–55	SEUS, Ba, C	se	7, 28
<i>Briareum polyanthes</i> (Duchassaing & Michelotti, 1860)	ben, hsb, itd-bns	Shallow	Be, C	se	27

## Checklist of the subclass Octocorallia from the Gulf of Mexico. (continued)

Taxon	Habitat-Biology	Depth (m)	Overall geographic range	GMx range	References/ Endnotes
<b>Suborder: Holaxonia</b>					
<b>Family: Keroeidae</b>					
<i>Thelogorgia studeri</i> Bayer, 1992	ben, hsb, ocs	62	Ba, C	se	13
<b>Family: Acanthogorgiidae</b>					
<i>Acanthogorgia aspera</i> Pourtalès, 1867	ben, hsb, ocs-slp	56–729	SEUS, C	se, nw	27, 28
<i>Acanthogorgia schrammi</i> (Duchassaing & Michelotti, 1864)	ben, hsb, bns-slp	37–475	SA	sw	5, 28
<b>Family: Plexauridae</b>					
<i>Bebryce cinerea</i> Deichmann, 1936	ben, hsb, ocs-slp	64–274	Ba, C	se, nw	5, 28, 32
<i>Bebryce grandis</i> Deichmann, 1936	ben, hsb, ocs-slp	91–100	C	ne, nw	5
<i>Bebryce parastellata</i> Deichmann, 1936	ben, hsb, ocs-slp	40–514	C	se, ne	27 <sup>7</sup>
<i>Caliacis nutans</i> (Duchassaing & Michelotti, 1864)	ben, hsb, ocs	37–188	C	se, ne, nw	28, 32 <sup>8</sup>
<i>Echinomuricea atlantica</i> (Johnson, 1862)	ben, hsb, ocs	183–530	C	se, ne, nw	5 <sup>9</sup>
<i>Eunicea asperula</i> Milne Edwards & Haime, 1857	ben, hsb, crr	13–27	C	se	7
<i>Eunicea calyculata</i> (Ellis & Solander, 1786)	ben, hsb, crr	4–33	Be, C	se, ne, sw	7, 30
<i>Eunicea clavigera</i> Bayer, 1961	ben, hsb, crr	27	Ba, Be, C	se	10
<i>Eunicea fusca</i> Duchassaing & Michelotti, 1860	ben, hsb, crr	6–27	SEUS, Be, C	sw	7
<i>Eunicea knighti</i> Bayer, 1961	ben, hsb, crr, end	14–27	Gulf of Mexico endemic	se, ne	7, 30
<i>Eunicea laciniata</i> Duchassaing & Michelotti, 1860	ben, hsb, crr	14–19	SEUS, Be, C	se, sw	7
<i>Eunicea mammosa</i> Lamouroux, 1816	ben, hsb, crr	1–5	SEUS, C	se	7
<i>Eunicea palmeri</i> Bayer, 1961	ben, hsb, crr	1–27	SEUS	se	7
<i>Eunicea succinea</i> (Pallas, 1766)	ben, hsb, crr	1–3	SEUS, Be, C	se, ne, sw	7
<i>Eunicea tourneforti</i> Milne Edwards & Haime, 1857	ben, hsb, crr	3–17	Be, Ba, C	se	7
<i>Hypnogorgia pendula</i> Duchassaing & Michelotti, 1864	ben, hsb, ocs	60–86	C	ne	11
<i>Lytreia plana</i> (Deichmann, 1936)	ben, hsb, bns-ocs, end	18–77	Gulf of Mexico endemic	se, ne, nw	5, 10, 27, 28
<i>Muricea atlantica</i> (Riess, 1919)	ben, hsb, crr	10–18	SEUS, Be, C, SA	se	7
<i>Muricea elongata</i> Lamouroux, 1821	ben, hsb, crr	3–33	Ba, C	se, ne	7, 30
<i>Muricea laxa</i> Verrill, 1864	ben, hsb, bns-ocs	18–128	SEUS, Be, Ba, C	se, ne	7, 30
<i>Muricea muricata</i> (Pallas, 1766)	ben, hsb, crr	1–4	SEUS, Be, C	se	7
<i>Muricea pendula</i> Verrill, 1864	ben, hsb, bns-ocs	13–125	SEUS	ne, nw	7, 28
<i>Muricea pinnata</i> Bayer, 1961	ben, hsb, crr	16–27	C	se, ne	12
<i>Muricea spicifera</i> Lamouroux, 1821	ben, hsb, crr	Shallow	C	se	27
<i>Muriceides hirta</i> (Pourtalès, 1868)	ben, hsb, ocs-slp	53–592	C	se, ne, nw	5, 27, 28
<i>Muriceides kuekenthali</i> (Broch, 1912)	ben, hsb, ocs-slp	53–1300	EA, NEUS	ne	5
<i>Paramuricea multispina</i> Deichmann, 1936	ben, hsb, slp	527	C	nw	13
<i>Placogorgia mirabilis</i> Deichmann, 1936	ben, hsb, ocs	53–185	C	se, ne	5
<i>Placogorgia rudis</i> Deichmann, 1936	ben, hsb, ocs	127	C, SA	ne, nw	32 <sup>14</sup>
<i>Placogorgia tenuis</i> (Verrill, 1883)	ben, hsb, ocs-slp	76–479	C	se, ne	5, 27, 28
<i>Placogorgia tribuloides</i> Bayer, 1959	ben, hsb, ocs-slp, end	51–373	Gulf of Mexico endemic	se	6
<i>Plexaura dubia</i> Kolliler, 1864	ben, hsb, crr	13	SEUS, Be, C	ne	2
<i>Plexaura flexuosa</i> Lamouroux, 1821	ben, hsb, crr	1–27	SEUS, Be, C	se, ne, sw	7, 30
<i>Plexaura homomalla</i> (Esper, 1792)	ben, hsb, crr	1–15	SEUS, Be, Ba, C	se	7, 8
<i>Plexaura nina</i> Bayer & Deichmann, 1958	ben, hsb, crr	20–66	Ba	se	15
<i>Plexaura porosa</i> (Müller, 1775)	ben, hsb, crr	Shallow	Ba, C	se, ne	5
<i>Plexaurella dichotoma</i> (Esper, 1791)	ben, hsb, crr	1–27	SEUS, Be, C, SA	se	7
<i>Plexaurella fusifera</i> Kunze, 1916	ben, hsb, crr	10–27	C	se, ne	7, 30
<i>Plexaurella grisea</i> Kunze, 1916	ben, hsb, crr	27	C	se, ne	16

(continued)



## Checklist of the subclass Octocorallia from the Gulf of Mexico. (continued)

Taxon	Habitat-Biology	Depth (m)	Overall geographic range	GMx range	References/ Endnotes
<i>Plexaurella nutans</i> (Duchassaing & Michelotti, 1860)	ben, hsb, crr	13–27	SEUS, Be, C	se, ne	5, 7
<i>Plexaurella pumila</i> Verrill, 1912	ben, hsb, crr	13–16	SA	ne	17
<i>Pseudoplexaura crucis</i> Bayer, 1961	ben, hsb, crr	6–27	C	se	18
<i>Pseudoplexaura flagellosa</i> (Houttuyn, 1772)	ben, hsb, crr	9–27	SEUS, Be, C	se, ne	7 <sup>19</sup>
<i>Pseudoplexaura porosa</i> (Houttuyn, 1772)	ben, hsb, bns-slp	3–283	SEUS, Be, Ba, C	se	7
<i>Pseudoplexaura wagenari</i> (Stiasny, 1935)	ben, hsb, crr	2–27	SEUS, Be, C	se, ne	7, 30
<i>Scleracis guadelupensis</i> (Duchassaing & Michelotti, 1860)	ben, hsb, ocs	51–120	C	se, ne, nw	5, 28, 32
<i>Scleracis petrosa</i> Deichmann, 1936	ben, hsb, ocs-slp	62–1604	C	se, ne	5
<i>Swiftia casta</i> (Verrill, 1883)	ben, hsb, ocs-slp	53–616	SEUS	se, nw	2
<i>Swiftia exserta</i> (Ellis & Solander, 1786)	ben, hsb, ocs-slp	21–494	SEUS, C	se, ne, nw	5, 28, 32
<i>Swiftia koreni</i> (Studer, 1889)	ben, hsb, slp	221–985	SEUS, C	ne	27
<i>Thesea grandiflora</i> Deichmann, 1936	ben, hsb, ocs	101–260	C	se, ne, nw	5, 28, 32
<i>Thesea granulosa</i> Deichmann, 1936	beb, hsb, ocs	298	C	nw	32
<i>Thesea guadalupensis</i> Duchassaing & Michelotti, 1860	ben, hsb, ocs	115–159	C	ne, nw	32 <sup>20</sup>
<i>Thesea hebes</i> Deichmann, 1936	ben, hsb, ocs-slp	116–377	C	se	5
<i>Thesea nivea</i> Deichmann, 1936	ben, hsb, ocs	65–120	C	se, ne, nw	28 <sup>21</sup>
<i>Thesea parviflora</i> Deichmann, 1936	ben, hsb, ocs	77–216	C	se, nw	5, 28
<i>Thesea rubra</i> Deichmann, 1936	ben, hsb, ocs-slp	120–837	C	ne, nw	31 <sup>22</sup>
<i>Thesea rugosa</i> Deichmann, 1936	ben, hsb, slp	90–301	C	se, ne, nw	5, 28, 32
<i>Thesea solitaria</i> (Pourtalès, 1868)	ben, hsb, slp	185–318	SEUS	se, ne	5
<i>Villogorgia nigrescens</i> Duchassaing & Michelotti, 1860	ben, hsb, ocs	101–478	C	se, ne	5, 31
<b>Family: Gorgoniidae</b>					
<i>Gorgonia flabellum</i> Linnaeus, 1758	ben, hsb, itd-crr	1–2	Be, Ba, C	se	7
<i>Gorgonia ventalina</i> Linnaeus, 1758	ben, hsb, itd-crr	0–3	SEUS, Be, C	se	7
<i>Leptogorgia barbadensis</i> (Bayer, 1961)	ben, hsb, ocs	27–76	C	se	23
<i>Leptogorgia cardinalis</i> (Bayer, 1961)	ben, hsb, bns-slp	19–309	SEUS	se, ne	7, 30
<i>Leptogorgia euryale</i> (Bayer, 1952)	ben, hsb, ocs, end	5–77	Gulf of Mexico endemic	ne, nw	7, 28
<i>Leptogorgia hebes</i> Verrill, 1869	ben, hsb, bns	9–37	SEUS, C	se, ne, nw	7, 30
<i>Leptogorgia medusa</i> (Bayer, 1952)	ben, hsb, bns, end	13–77	Gulf of Mexico endemic	ne	7, 28
<i>Leptogorgia punicea</i> (Milne Edwards & Haime, 1857)	ben, hsb, bns	18–27	SEUS, SA	se, ne, nw	7, 28, <sup>24</sup>
<i>Leptogorgia setacea</i> (Pallas, 1766)	ben, hsb, bns	2–58	NEUS, SEUS, C, SA	ne, nw	7, 28
<i>Leptogorgia stheno</i> (Bayer, 1952)	ben, hsb, bns-ocs	26–183	SEUS, SA	ne, nw	7, 28
<i>Leptogorgia virgulata</i> (Lamarck, 1815)	ben, hsb, bns	3–82	NEUS, SEUS, SA	ne, nw	7, 28
<i>Pseudopterogorgia acerosa</i> (Pallas, 1766)	ben, hsb, crr	1–37	SEUS, Be, Ba, C	se, ne, sw	5, 7, 30
<i>Pseudopterogorgia americana</i> (Gmelin, 1791)	ben, hsb, crr	7	SEUS, Be, C	se, ne, sw	7
<i>Pseudopterogorgia bipinnata</i> (Verrill, 1864)	ben, hsb, crr	3	Ba, C, SA	se	7
<i>Pseudopterogorgia blanquillensis</i> (Stiasny, 1935)	ben, hsb, crr, end	4	Gulf of Mexico endemic	sw	7
<i>Pseudopterogorgia elisabethae</i> Bayer, 1961	ben, hsb, crr	2–23	SEUS, Ba	se	7
<i>Pseudopterogorgia rigida</i> (Bielschowsky, 1929)	ben, hsb, crr	6–20	SEUS, C	se, ne	5, 7, 30
<i>Pterogorgia anceps</i> (Pallas, 1766)	ben, hsb, crr	1–9	SEUS, Ba, C	se, ne, sw	7
<i>Pterogorgia citrina</i> (Esper, 1792)	ben, hsb, crr	1–27	SEUS, Be, C	se	7

## Checklist of the subclass Octocorallia from the Gulf of Mexico. (continued)

Taxon	Habitat-Biology	Depth (m)	Overall geographic range	GMx range	References/ Endnotes
<i>Pterogorgia guadelupensis</i> Duchassaing & Michelotti, 1864	ben, hsb, crr	13–27	C	se, ne	7, 30
<b>Suborder: Calcaxonia</b>					
<b>Family: Ellisellidae</b>					
<i>Ctenocella (Ellisella) elongata</i> (Pallas, 1766)	ben, hsb, ocs	24–219	C, SA	se, ne, nw	7, 32
<i>Ctenocella (Ellisella) grandis</i> (Verrill, 1901)	ben, hsb, ocs	66	SEUS, Be, C	se	5
<i>Ctenocella (Ellisella) schmitti</i> (Bayer, 1961)	ben, hsb, crr-ocs	27–92	Ba, C	se, nw	17, 32
<i>Ctenocella (Viminella) atlantica</i> Toeplitz, 1929	ben, hsb, ocs, end	24–214	Gulf of Mexico endemic	nw	5, 28, 32
<i>Ctenocella (Viminella) barbadensis</i> (Duchassaing & Michelotti, 1864)	ben, hsb, crr-ocs	20–479	SEUS, Be, C, SA	se, ne, nw	7, 28, 32
<i>Ctenocella (Viminella) funiculina</i> (Duchassaing & Michelotti, 1864)	ben, hsb, ocs-slp	49–481	C	se, ne, nw	5, 28, 32
<i>Nicella flagellum</i> (Studer, 1901)	ben, hsb, ocs	68–100	EA	nw	28, 32
<i>Nicella guadalupensis</i> (Duchassaing & Michelotti, 1860)	ben, hsb, ocs-slp	62–311	SEUS, C	se, ne, nw	16, 28 <sup>25</sup> , 31
<i>Riisea paniculata</i> Duchassaing & Michelotti, 1860	ben, hsb, ocs	93–188	SEUS, C, SA	nw, ne	28, 31, 32 <sup>26</sup>
<b>Family: Chrysogorgiidae</b>					
<i>Chalcogorgia pellucida</i> Bayer, 1949	ben, hsb, slp, end	708	Gulf of Mexico endemic	se	1
<i>Chrysogorgia desbonni</i> Duchassaing & Michelotti, 1864	ben, hsb, slp	155–595	Ba, C	se	21
<i>Chrysogorgia elegans</i> (Verrill, 1883)	ben, hsb, ocs-slp	128–1716	C, SA	entire	21, 28
<i>Chrysogorgia fewkesii</i> Verrill, 1883	ben, hsb, slp	430–1200	Ba, C, SA	se	21
<i>Chrysogorgia multiflora</i> Deichmann, 1936	ben, hsb, slp	1021–1200	SEUS, Ba, C, SA	se	21
<i>Chrysogorgia spiculosa</i> (Verrill, 1883)	ben, hsb, slp	914–2265	C	entire	21
<i>Chrysogorgia thyriformis</i> Deichmann, 1936	ben, hsb, ocs-slp	146–526	SEUS, C	se	21, 28
<i>Trichogorgia viola</i> Deichmann, 1936	ben, hsb, ocs, end	79	Gulf of Mexico endemic	se	5
<b>Family: Primnoidae</b>					
<i>Acanthoprimnoa goesi</i> (Aurivillius, 1931)	ben, hsb, ocs-slp	137–595	Ba, C	se	26
<i>Acanthoprimnoa pectinata</i> Cairns & Bayer, 2004	ben, hsb, ocs-slp	164–476	Ba, C	se	26
<i>Callogorgia americana americana</i> Cairns & Bayer, 2002	ben, hsb, slp	183–732	Ba, C	se, sw	22
<i>Callogorgia americana delta</i> Cairns & Bayer, 2002	ben, hsb, slp, end	366–570	Gulf of Mexico endemic	ne, nw	22
<i>Callogorgia gracilis</i> (Milne Edwards & Haime, 1857)	ben, hsb, ocs-slp	82–514	Ba, C	nw	22, 28 <sup>27</sup> , 32 <sup>28</sup>
<i>Callogorgia linguimaris</i> Cairns & Bayer, 2003	ben, hsb, slp	506	Ba	nw	29
<i>Calyptrophora trilepis</i> (Pourtalès, 1868)	ben, hsb, slp	593–911	SEUS	se	15
<i>Candidella imbricata</i> (Johnson, 1862)	ben, hsb, slp	514–2063	NEUS, SEUS, Ba, C	se, ne	25
<i>Narella pauciflora</i> Deichmann, 1936	ben, hsb, slp	738–1473	Ba, C	se	23
<i>Paracalyptrophora carinatus</i> Cairns & Bayer, 2004	ben, hsb, slp	530	C	nw	30
<i>Paracalyptrophora duplex</i> Cairns & Bayer, 2004	ben, hsb, slp	374–555	SEUS, C	se	24
<i>Paracalyptrophora simplex</i> Cairns & Bayer, 2004	ben, hsb, ocs-slp	165–706	Ba, C	se	24
<i>Plumarella aurea</i> (Deichmann, 1936)	ben, hsb, slp	567	SEUS, Ba	se	25
<i>Plumarella dichotoma</i> Cairns & Bayer, 2004	ben, hsb, slp	1065	SEUS	se	25
<i>Plumarella pellucida</i> Cairns & Bayer, 2004	ben, hsb, slp	1160	SEUS, Ba	se	25
<i>Plumarella pourtalesii</i> (Verrill, 1983)	ben, hsb, slp	198–882	SEUS, Ba	se	25

(continued)

## Checklist of the subclass Octocorallia from the Gulf of Mexico. (continued)

Taxon	Habitat-Biology	Depth (m)	Overall geographic range	GMx range	References/ Endnotes
<b>Family: Isididae</b>					
<i>Acanella arbuscula</i> (Johnson, 1862)	ben, hsb, slp	475–2390	EA, NEUS, SEUS	ne, nw	28, <sup>31</sup>
<i>Acanella eburnea</i> (Pourtalès, 1868)	ben, hsb, slp	309–2834	C, SA	se, ne	5
<i>Chelidonisis aurantiaca mexicana</i> Bayer & Stefani, 1987	ben, hsb, slp, end	426	Gulf of Mexico endemic	nw	19
<i>Isidella longiflora</i> (Verrill, 1883)	ben, hsb, slp	958–1160	EA, NEUS, C	se	27
<i>Keratoisis flexibilis</i> (Pourtalès, 1868)	ben, hsb, ocs-slp	170–592	EA, C	se	27
<i>Lepidisis caryophyllia</i> Verrill, 1883	ben, hsb, slp	1003–1064	NEUS, SEUS, C	se	32
<i>Lepidisis simplex</i> (Verrill, 1883)	ben, hsb, slp	611–1160	C	se	27
<i>Stenisis humilis</i> (Deichmann, 1936)	ben, hsb, ocs	180–222	Ba, C	ne	5, 19
<b>Order: Pennatulacea</b>					
<b>Suborder: Sessiliflorae</b>					
<b>Family: Anthoptilidae</b>					
<i>Anthoptilum grandiflorum</i> (Verrill, 1879)	ben, sft, slp	2400	EA, NEUS, C, SA	ne	33
<b>Family: Funiculinidae</b>					
<i>Funiculina quadrangularis</i> (Pallas, 1766)	ben, sft, ocs-slp	55–2866	EA, NEUS, SEUS, C	ne, nw	2, 28
<b>Family: Protoptilidae</b>					
<i>Protoptilum thomsoni</i> Kölliker, 1872	ben, sft, slp	357–512	NEUS	ne, nw	5
<b>Family: Renillidae</b>					
<i>Renilla muelleri</i> Kölliker, 1872	ben, sft, bns	4–51	C, SA	ne, nw	7, 28
<b>Family: Umbellulidae</b>					
<i>Umbellula guentheri</i> Kölliker, 1880	ben, sft, slp	1342	EA, NEUS, C	ne	2
<i>Umbellula lindahlii</i> Kölliker, 1874	ben, sft, slp	2067–2866	NEUS, C	se, sw	27, 28
<b>Suborder: Subselliflorae</b>					
<b>Family: Virgulariidae</b>					
<i>Acanthoptilum agassizii</i> Kölliker, 1872	ben, sft, ocs, end	64–183	Gulf of Mexico endemic	se, ne	5
<i>Acanthoptilum oligacis</i> Bayer, 1958	ben, sft, ocs, end	183	Gulf of Mexico endemic	ne	5
<i>Acanthoptilum pourtalesii</i> Kölliker, 1872	ben, sft, bns, end	22–80	Gulf of Mexico endemic	se	27
<i>Stylatula antillarum</i> Kölliker, 1872	ben, sft, ocs	100–183	C	ne	5
<i>Stylatula elegans</i> (Danielssen, 1860)	ben, sft, bns-slp	27–1005	EA, NEUS, SEUS	se	5
<i>Virgularia mirabilis</i> (Linnaeus, 1758)	ben, sft, bns-slp	36–366	EA, NEUS	ne, nw	2
<i>Virgularia presbytes</i> Bayer, 1955	ben, sft, ocs	9–110	SEUS, C, SA	ne, nw	7, 28

<sup>1</sup> New record for nw GMx from Green Canyon, Louisiana: USNM 89392.<sup>2</sup> New records for GMx from off Havana, Cuba: USNM 53941, 53942.<sup>3</sup> Probably *Anthomastus agassizii* of Giamonna (1978).<sup>4</sup> New record for GMx from Flower Garden Banks, Texas: USNM 1025683.<sup>5</sup> New records for GMx from off Louisiana & Panama City, Florida: USNM 89113–89115.<sup>6</sup> New records for GMx from off La Blanquilla Reef, Veracruz, Mexico: USNM 55669, 81337, 100243.<sup>7</sup> New record for northeast GMx from off Mississippi at 60 m: USNM 1005841.<sup>8</sup> Fourteen additional records for GMx from the Florida Keys & off Louisiana: USNM 49936, 51589, 73530–73537, 86739–86740, 89386.<sup>9</sup> New record for northwestern GMx (Green Canyon, Louisiana): USNM 50515.<sup>10</sup> New records for the GMx from the Florida Keys: USNM 87081, 87123, 87133.<sup>11</sup> Eight new records for GMx from off Mississippi: USNM 1005402, 1005686, 1005749, 1005751, 1005760, 1005825, 1005833, 1005835.

**Checklist of the subclass Octocorallia from the Gulf of Mexico. (continued)**

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- <sup>12</sup> New records for GMx from the Florida Keys and off Naples, Florida: USNM 86997, 86998, 86999, 87113.
- <sup>13</sup> New record for GMx (JSL-I-4743) from Green Canyon, Louisiana: USNM 1071988.
- <sup>14</sup> Additional record for GMx from west of Cape Sable, Florida: USNM 73565.
- <sup>15</sup> New record for GMx from Alligator Key, Florida: USNM 56543.
- <sup>16</sup> New records for GMx from Florida Keys and off Tampa, Florida: USNM 50535, 87053.
- <sup>17</sup> New records for GMx from west of Cape Sable, Florida: USNM 87058, 87059.
- <sup>18</sup> New record from GMx from Florida Keys: USNM 87037.
- <sup>19</sup> Eleven new records for northeast GMx from off west coast of Florida: USNM 50372, 51909, 51910, 84117–84120, 86027, 87045, 87127.
- <sup>20</sup> Additional records for GMx from west of Cape Sable, Florida: USNM 50810, 74846.
- <sup>21</sup> New records for GMx from south of Dry Tortugas, Florida: USNM 50583, 50601.
- <sup>22</sup> Additional records for GMx from Mississippi Canyon, Louisiana, and Flower Garden Banks, Texas: USNM 75676, 1025685.
- <sup>23</sup> New records for GMx from off Dry Tortugas, Florida: USNM 73621, 73622, 86988.
- <sup>24</sup> New records for northeast GMx from west of Cape Sable, Florida: USNM 52444, 86986.
- <sup>25</sup> Probably *N. americana* of Giammona (1978).
- <sup>26</sup> Additional records for GMx from Green Canyon, Louisiana: USNM 51591, 89385.
- <sup>27</sup> Reported as *C. verticillata*.
- <sup>28</sup> Reported as *Callogorgia verticillata* by Rezak, Bright, and McGrail (1985).
- <sup>29</sup> New record for GMx (Green Canyon, Louisiana): USNM 1071990.
- <sup>30</sup> New record for GMx (Green Canyon, Louisiana): USNM 1071917.
- <sup>31</sup> New records for GMx from off Louisiana and off Panama City, Florida: USNM 89113–89115.
- <sup>32</sup> New records for GMx from the western Straits of Florida: USNM 57443, 94679.
- <sup>33</sup> New record for GMx from off Grand Isle, Louisiana: USNM 89123.