

## NEW RECORDS OF DEEP-WATER CNIDARIA (SCLERACTINIA & ANTIPATHARIA) FROM THE GULF OF MEXICO

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**ABSTRACT:** Sixty-three species of azooxanthellate scleractinians and 26 species of antipatharians are recorded from the Gulf of Mexico. This report constitutes the first inventory of Antipatharia within the geographic boundaries of the Gulf of Mexico whose southern limits are the Yucatan Straits to the south and the Florida Straits to the east. Thirteen range extensions of azooxanthellate species of the Order Scleractinia, and 28 species of the Order Antipatharia are reported. With respect to new records, we report four new records of azooxanthellate scleractinians and six new records of antipatharians from the outer continental shelf. One of the species, *Sibopathes macrospina* Opresko, 1993, represents a new species in the western Atlantic region and appears related to *Sibopathes gephura* Van Pesch, 1914. The Gulf scleractinian fauna constitutes 54% of those known from the western Atlantic; the antipatharian fauna constitutes 93% of the western Atlantic fauna. These two groups are most diverse (55-56 species) in the regions of the Gulf adjacent to the Caribbean Sea and Atlantic Ocean (subdivisions I and VI). Diversity gradually decreases towards the western Gulf. Only six species are known from subdivision IV (east Mexico shelf and slope) and 23 species are recorded from subdivision V (Campeche Bank, Mexico).

As the deep water regions of the Gulf of Mexico have become better known through dredging and submersible collections, there has been a steady increase in the number of benthic cnidarians recorded from this region. The number of azooxanthellate Scleractinia (ahermatypes) known from the Gulf has risen from 36 (Cairns, 1977), to 58 (Viada and Cairns, 1987), to 63 (this paper). By including the 42 species of zooxanthellate (hermatypic) Scleractinia known from the Gulf (Grimm and Hopkins, 1977; Zlatarski and Estalella, 1982; Castañares

and Soto, 1982; Rezak, et al., 1985; Tunnell, 1989), a total of 105 scleractinian species is now recorded from the Gulf of Mexico. This figure accounts for 54% of the approximately 195 species of Scleractinia known from the western Atlantic (Cairns, 1979). Thirteen range extensions of azooxanthellate Scleractinia within the Gulf are reported herein (Table 1). They include four new records for the Gulf: *Madracis pharensis pharensis*, *Caryophyllia barbadensis*, *Polycyathus senegalensis*, and *Asterosmilia marchadi*.

Twenty-six species of Antipatharia are recorded from the Gulf of Mexico, and they constitute about 93% of the western Atlantic fauna. The following six species are new records for the Gulf: *Antipathes columnaris*, *Antipathes desbonni*, *Antipathes gracilis*, *Antipathes hirta*, *Bathypathes patula*, and *Sibopathes macrospina*. Twenty-eight subdivisional range extensions are also reported (Table 1).

## MATERIALS AND METHODS

Abbreviations used in the text include: ACSESS, Alabama Coastal Shelf Environmental Science Study, Dauphin Island, AL; CSA, Continental Shelf Associates, Jupiter, Florida; JSL, *Johnson-Sea-Link I* research submersible, Harbor Branch Oceanographic Institution, Ft. Pierce, Florida; SIO, Scripps Institution of Oceanography; SOFLA, Southwest Florida Shelf Ecosystem Study, Mineral Management Services; UA-DISL, University of Alabama, Dauphin Island Sea Lab, Alabama; and USNM, United States National Museum (now NMNH, National Museum of Natural History).

The specimens that form the basis of the range extensions originate primarily from three sources: 1) a *Johnson-Sea-Link* submersible cruise south of Louisiana in September 1989, the specimens of which are deposited at the USNM, 2) UA-DISL specimens collected south of Alabama and northwest Florida, from the ACSESS program and two JSL cruises (1987, 1991), and 3) *R/V Oregon*, *R/V Pelican*, *R/V Silver Bay*, *R/V Verrill*, and other miscellaneous collections such as Continental Shelf Associates (CSA), Minerals Management Service (SOFLA), Texas A&M (TAMU), and materials deposited at the USNM.

The southeastern limits of the Gulf of Mexico are defined as a line

connecting Key West, Florida to the closest point on the Cuban coast (approximately 81°48'W) and the shortest line between western Cuba and northeastern Yucatan, Mexico (See Cairns, 1978a). The Gulf is further subdivided into six areas (Figure 1) to facilitate geographic categorization: I) from the Florida Keys to Apalachee Bay, Florida, II) from Apalachee Bay to the Mississippi River Delta, III) from the Delta to the Texas-Mexico border, IV) from that border to the Tabasco-Campeche, Mexico border, V) the Campeche Bank, and VI) the Yucatan Channel and off northwest Cuba to 81°48'W.

Regarding azooxanthellate Scleractinia, the following check list (Table 1) is an update of Cairns (1978a). In many cases, revised nomenclature has been provided. Records previously documented in Cairns (1978a) are designated with an X in Table 1. All additions to Table 1 are indicated by a number keyed to the following sources: 1) Ludwick and Walton (1957), a previously overlooked paper having several early records for area I. These are: a) *Madracis mirabilis* (= *M. asperula*); b) *Bathycyathus* sp. (= *Pourtalesmilia conferta*); and c) *Oculina disticha* (= *Madrepora carolina*); 2) Moore (1958), in a previously overlooked paper reported *Astrangia brasiliensis* (= *A. solitaria*) from Blanquilla Reef, southwestern Gulf, area IV; 3) Weisbord (1974), in a previously overlooked paper provided a range extension of *Phyllangia americana* in area IV; 4) Cairns (1978b); 5) Cairns (1979); 6) Zlatarski and Estalella (1982), area VI; 7) Rezak, et al. (1985), area III; 8) Viada and Cairns (1987), area III; 9) Tunnell (1989); and 10) this paper: 10a-*Johnson-Sea-Link I* 1989 cruise off Louisiana; 10b-UA-DISL specimens; 10c-*Silver Bay* station 1125; and 10d-USNM general collections. Annotated records are given below for category 10, which constitute the subdivisional range exten-

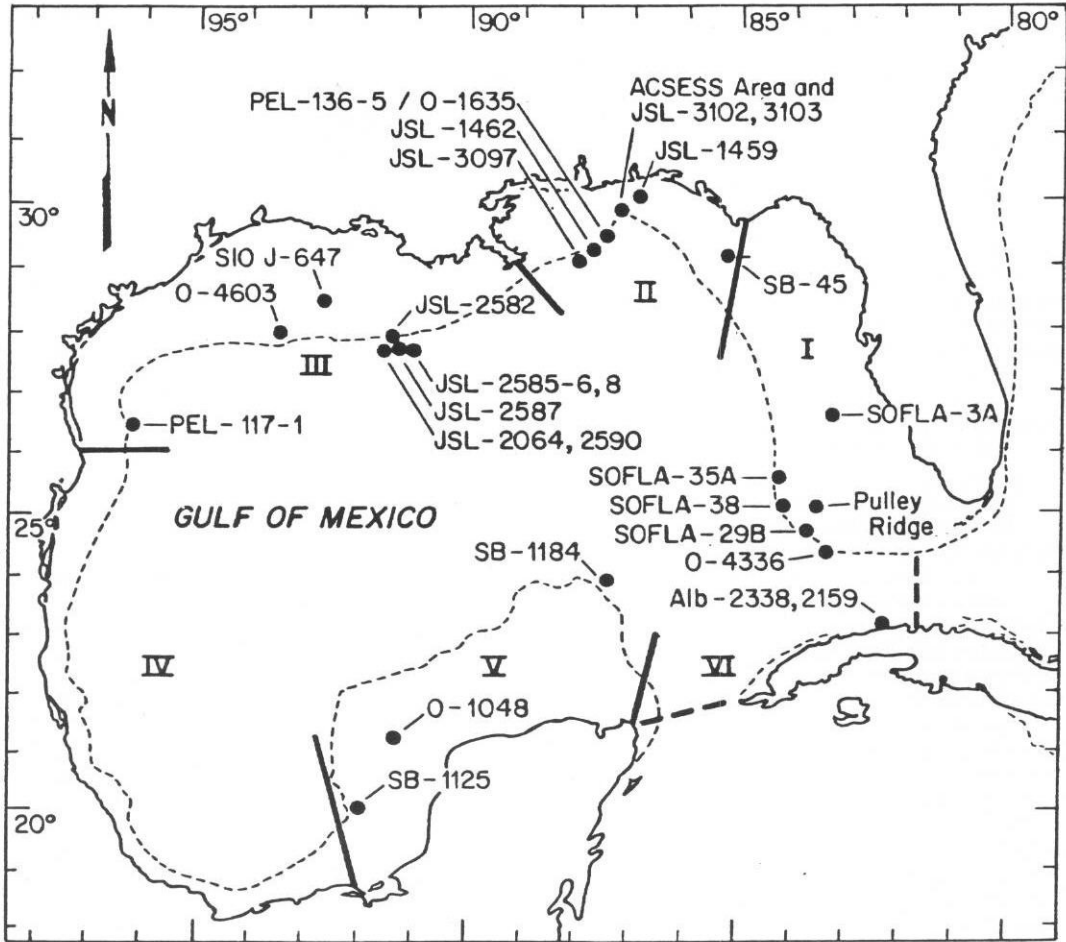


Figure 1.

Map of the Gulf of Mexico showing the six geographic subdivisions (Roman numerals) used in this paper and most of the stations (Cardinal numerals) from which specimens were collected. The 100 fathom (183 m) isobath is indicated. Abbreviations: ACSESS (see text); Alb, U.S.F.C.S. *Albatross*; JSL (see text); O, *R/V Oregon*; Pel, *R/V Pelican*; SB, *R/V Silver Bay*; SOFLA (see text).

sions with the Gulf.

Sources of all antipatharian records are indicated in Table 1 in the following manner: A, Opresko (1971); B, Opresko (1974); C, Rezak et al. (1985); D, *Johnson-Sea-Link* 1989 cruise off Louisiana; E, USNM collections; F, CSA, (unpublished data); G, UA-DISL; and H, Opresko and Cairns (1992). Annotated records are given below only for sources D-G, which constitute the subdivisional range extensions within the Gulf.

#### Range Extensions

#### Subdivision I: Florida Keys to Apalachee Bay, Florida

##### Antipatharia

*Antipathes atlantica* Gray, 1857: Previously known from the West Indies and the northwestern Gulf of Mexico, 30-115 m (Brook, 1889; Warner, 1981; Rezak, et al., 1985). Unpublished records at the University of Miami indicate a broad distribution throughout the Caribbean, 10-30 m. This species is difficult to distinguish from *Antipathes gracilis* (see Warner, 1981). — New Record: CSA, 25°15'N, 83°40'W (Pulley Ridge,

**Table 1.** Checklist and distribution of azooxanthellate Scleractinia and Antipatharia known from the Gulf of Mexico. An asterisk denotes a new record for the Gulf. See preceding text for meaning of letters and numbers.

	Geographic Subdivision					
	I	II	III	IV	V	VI
<b>Anthozoa</b>						
<b>Order Scleractinia</b>						
<b>Family Pocilloporidae</b>						
<i>Madracis myriaster</i> (Milne Edwards & Haime, 1849)	X	X	X			X
<i>Madracis brueggemanni</i> (Ridley, 1881)			7			
* <i>Madracis pharensis pharensis</i> (Heller, 1868)		10b				
<i>Madracis asperula</i> Milne Edwards & Haime, 1849	X	7	X			X
<b>Family Fungiacyathidae</b>						
<i>Fungiacyathus crispus</i> (Pourtalés, 1871)	X	X				
<b>Family Favitidae</b>						
<i>Cladocora debilis</i> Milne Edwards & Haime, 1849	X	10b				X
<b>Family Rhizangiidae</b>						
<i>Astrangia poculata</i> (Ellis & Solander, 1786)	X	X	X			
<i>Astrangia solitaria</i> (Lesueur, 1817)	X	X		2	10c	6
<b>Family Oculinidae</b>						
<i>Oculina tenella</i> Pourtalés, 1871	X					X
<i>Madrepora oculata</i> Linnaeus, 1758			X	X		X
<i>Madrepora carollina</i> (Portalés, 1871)	X	X	X			X
<i>Caryophyllia ambrosia caribbeana</i> Cairns, 1979	X	X	X	X	X	X
<i>Caryophyllia cornuformis</i> Pourtalés, 1868	X					X
<i>Caryophyllia berteriana</i> Duchassaing, 1850	X	X	8		X	X
<i>Caryophyllia polygona</i> Pourtalés, 1878					X	X
<i>Caryophyllia horologium</i> Cairns, 1977	X		X			
<i>Caryophyllia parvula</i> Cairns, 1979		10b	7			4
* <i>Caryophyllia barbadensis</i> Pourtalés, 1879			10a			
<i>Rhizosmilia gerdae</i> Cairns, 1978						4
<i>Rhizosmilia maculata</i> (Portalés, 1874)	X					6
<i>Oxysmilia rotundifolia</i> (Milne Edwards & Haime, 1849)		10b	X			X
<i>Phacelocyathus flos</i> (Portalés, 1878)	X					X
<i>Trochocyathus rawsonii</i> Pourtalés, 1874	X				X	X
<i>Paracyathus pulchellus</i> (Philippi, 1842)	X	X	X		X	X
* <i>Polycyathus senegalensis</i> Chevalier, 1966		10b				
<i>Thecocyathus laevigatus</i> Pourtalés, 1871	X					X
<i>Deltocyathus italicus</i> (Michelotti, 1838)	X	X	8	X		X
<i>Deltocyathus calcar</i> Pourtalés, 1874	X	X	8		X	X
<i>Deltocyathus eccentricus</i> Cairns, 1979	X	X			X	X
<i>Stephanocyathus diadema</i> (Moseley, 1876)	5	X	X		X	X
<i>Stephanocyathus paliferus</i> Cairns, 1979	X				X	X
<i>Odontocyathus coronatus</i> (Portalés, 1867)		X			X	X
<i>Trematotrochus corbicula</i> (Portalés, 1878)						X
<i>Peponocyathus australiensis</i> (Duncan, 1870)	X		8		X	X
<i>Sphenotrochus</i> sp.	X					
<i>Lophelia prolifera</i> (Pallas, 1766)		X	8			X
<i>Thalamophyllia riisei</i> (Duchassaing & Michelotti, 1860)			8		10c	
<i>Anomocora fecunda</i> (Portalés, 1871)	X	1			X	X
<i>Coenosmilia arbuscula</i> Pourtalés, 1874	X		7		X	X
<i>Dasmosmilia variegata</i> (Portalés, 1871)	X					
<i>Dasmosmilia lymani</i> (Portalés, 1871)	5	X				X
<i>Phyllangia americana</i> Milne Edwards & Haime, 1849	X	X	10d	9	3	6
<i>Solenosmilia variabilis</i> Duncan, 1873						X
<i>Asterosmilia prolifera</i> (Portalés, 1871)	5	X			X	

	Geographic Subdivision					
	I	II	III	IV	V	VI
* <i>Asterosmilia marchadi</i> (Chevalier, 1966)		10b				
<i>Pourtalesmilia conferta</i> Cairns, 1978		1	10a			
<b>Family Flabellidae</b>						
<i>Flabellum moseleyi</i> Pourtalés, 1880	X	X				X
<i>Flabellum floridanum</i> Cairns, 1991	X	5			X	
<i>Javana cailleti</i>	X	X	7		X	X
(Duchassaing & Michelotti, 1864)						
<i>Polymyces fragilis</i> (Portalés, 1868)	X	5	10a		X	X
<i>Gardineria simplex</i> (Portalés, 1878)						X
<i>Gardineria minor</i> Wells, 1973						6
<b>Family Guyniidae</b>						
<i>Guynia annulata</i> Duncan, 1872	X	X	X		X	X
<i>Schizocyathus fissilis</i> Portalés, 1874	X	X	8			X
<i>Stenocyathus vermiformis</i> (Portalés, 1868)	X		10a			X
<b>Family Dendrophyllidae</b>						
<i>Balanophyllia floridana</i> Portalés, 1868	X	X				X
<i>Balanophyllia palifera</i> Portalés, 1878			8			X
<i>Balanophyllia cornucopia</i> Portalés, 1871	X	8				X
<i>Dendrophyllia alternata</i> Portalés, 1880			X			
<i>Enallopsammia profunda</i> (Portalés, 1867)	X					X
<i>Bathypsammia tintinnabulum</i>	X					X
(Portalés, 1868)						
<i>Rhizopsammia manuelensis</i> Chevalier, 1966		X	X			
<i>Trochopsammia infundibulum</i>						X
Portalés, 1878						
<b>Subtotals</b>	<b>41</b>	<b>35</b>	<b>30</b>	<b>5</b>	<b>21</b>	<b>47</b>
<b>Order Antipatharia</b>						
<b>Family Antipathidae</b>						
<i>Antipathes</i> sp. cf. <i>A. americana</i>					A	
Duchassaing & Michelotti, 1860						
<i>Antipathes atlantica</i> Gray, 1857	F	EFG		C		
<i>Antipathes barbadensis</i> (Brook, 1889)			C			
* <i>Antipathes columnaris</i> (Duchassaing, 1870)	E		DE			E
* <i>Antipathes desbonni</i>			D			
(Duchassaing & Michelotti, 1863)						
<i>Antipathes furcata</i> Gray, 1857		FG	C			
* <i>Antipathes gracilis</i> Gray, 1860	E	EFG				
* <i>Antipathes hirta</i> Gray, 1857			E			E
<i>Antipathes lenta</i> Portalés, 1871	A	A				
<i>Antipathes pedata</i> Gray, 1857	E	G	C			
<i>Antipathes</i> sp. cf. <i>A. pennacea</i> Pallas, 1766			B			
<i>Antipathes rigida</i> Portalés, 1880			D			A
<i>Antipathes salix</i> Portalés, 1880	A	F	D			
<i>Antipathes tanacetum</i> Portalés, 1880	E	E	C			
<i>Antipathes expansa</i> Opresko & Cairns, 1992			H			
<i>Aphanipathes abietina</i> (Portalés, 1874)	E		AC			A
<i>Aphanipathes filix</i> (Portalés, 1867)			E			A
<i>Aphanipathes humilis</i> (Portalés, 1867)	A		D			A
<i>Aphanipathes thyoidea</i> (Portalés, 1880)			A			A
<i>Stichopathes lutkeni</i> Brook, 1889	E	G	C			
<i>Parantipathes tetrasticha</i> (Portalés, 1868)	A		D			A
<i>Leiopathes glaberrima</i> (Esper, 1786)	B	B	D		E	
<i>Bathypathes alternata</i> Brook, 1889	B					
* <i>Bathypathes patula</i> Brook, 1889	E					
<i>Bathypathes</i> sp.						B
* <i>Sibopathes macrospina</i> Opresko, 1993		G				
<b>Subtotals</b>	<b>14</b>	<b>10</b>	<b>18</b>	<b>1</b>	<b>2</b>	<b>9</b>
<b>Totals</b>	<b>55</b>	<b>45</b>	<b>48</b>	<b>6</b>	<b>23</b>	<b>56</b>

northwest of Dry Tortugas), 71-76 m.

*Antipathes columnaris* Duchassaing, 1870: Previously known from off the northeastern coast of South America (Surinam), off the Dominican Republic, the Lesser Antilles, Virgin Islands, and the Bahamas, and northwestern Caribbean Sea, 73-567 m (Opresko, 1974). — New Record: SOFLA station 35A, 25°44'N, 84°21'W (off southwestern Florida), 159 m, USNM 74824.

*Antipathes gracilis* Gray, 1860: Previously known from the West Indies, 30 m (Brook, 1889; Warner, 1981). — New Record: SOFLA station 29B, 24°47'N, 83°41'W (off southwestern Florida), 63 m, USNM 74833.

*Antipathes pedata* Gray, 1857: Previously known from the northeastern coast of South America (off Surinam and Venezuela), off Nicaragua and Mexico (Yucatan Peninsula), and from the northwestern Gulf of Mexico, 60-308 m (Opresko, 1974; Rezak et al, 1985). — New Record: SOFLA station 38, 25°16'N, 84°14'W (off southwestern Florida), 159 m, USNM 74819.

*Antipathes tanacetum* Pourtalès, 1880: Previously known from the northeastern coast of South America (off Brazil, Surinam, Venezuela, and Colombia), the Lesser Antilles, Bahamas, the Straits of Florida, and northwestern Gulf of Mexico, 46-915 m (Opresko, 1972; Rezak et al, 1985). — New Record: W. Schmitt - Sta. 64-32, South of Dry Tortugas, 101-106 m, USNM 53465.

*Aphanipathes abietina* (Portalès, 1874): Previously known from off the coast of Nicaragua, from the Lesser Antilles and Bahamas, and from the Gulf of Mexico off the northwestern coast of Cuba and the southeastern coast of Louisiana, 31-310 m (Opresko, 1971; Rezak et al, 1985). — New Record: SOFLA station 35A, 25°44'N, 84°21'W (off southwestern Florida), 159 m, USNM 74799.

*Stichopathes lutkeni* Brook, 1889: Previously known from the West Indies and the northwestern Gulf of Mexico (Brook, 1889; Rezak et al., 1985, as *Cirrhopathes lutkeni*). Unpublished records at the University of Miami indicate a broad distribution throughout the Caribbean, 20-60 m. — New Record: SOFLA station 3A, 26°45'N, 83°21'W (off southwestern Florida), 50 m, USNM 74835.

*Bathypathes patula* Brook, 1889: Cosmopolitan, 100-5000 m (Brook, 1889; van Pesch, 1914; Opresko, 1974). — New Record: Oregon station 4336, 24°29'N, 83°29'W (off southwestern Florida), 348 m, USNM 53446.

## Subdivision II: Apalachee Bay to Mississippi River Delta

### Scleractinia

*Madracis pharensis pharensis* (Heller, 1868): Previously known from the Mediterranean, eastern Atlantic islands, Caribbean, and off Brazil, 6-150 m (Zibrowius, 1980). — New Record: ACSESS, 29°50'N, 87°12'W (western rim of De Soto Canyon), 79-95 m, UA-DISL.

*Cladocora debilis* Milne Edwards and Haime, 1849: Previously known from the Mediterranean, eastern Atlantic islands, off Brazil, Straits of Florida, and southeast Gulf of Mexico, 28-180 m (Zibrowius, 1980). — New Record: ACSESS, 29°56'N, 87°08'W (western rim of De Soto Canyon), 81-97 m, UA-DISL.

*Caryophyllia parvula* Cairns, 1979: Previously known from the Greater and Lesser Antilles, off Venezuela, southeast Brazil, Jamaica, and northwest Gulf of Mexico, 97-399 m (Cairns, 1979; Rezak et al, 1985). — New Record: JSL-1462, 29°20'N, 87°46'W (off Alabama), 97m, UA-DISL.

*Oxysmilia rotundifolia* (Milne Edwards and Haime, 1849): Previously

known from throughout the Caribbean, and off the Bahamas, North Carolina, Surinam, and northwestern Gulf of Mexico, 46-640 M (Cairns, 1979). — New Record: ACSESS, 29°49'N, 87°11'W (western rim of De Soto Canyon), 80-90 m, UA-DISL.

*Polycyathus senegalensis* Chevalier, 1966: Previously known from off Senegal, Surinam, Trinidad, and eastern Florida, 12-82 m (Hubbard and Wells, 1986). — New Records: ACSESS, 29°50'N, 87°12'W (western rim of De Soto Canyon), 79-95 m, UA-DISL; JSL-1459, 30°07'N, 86°55'W (head of De Soto Canyon), 45 m, UA-DISL.

*Asterosmilia marchadi* (Chevalier, 1966): Previously known from off Spanish Sahara to Gabon, eastern Florida, and off northern South America, 32-229 m (Cairns, 1979). — New Record: *R/V Verrill*, 29°27'N, 87°31'W (off Alabama/northwest Florida), 72-75 m, UA-DISL.

### Antipatharia

*Antipathes atlantica* Gray, 1857: Previously known distribution (see above). — New Records: Pelican station 136-5, 29°35'N, 87°35'W (off Alabama/northwest Florida), 55 m, USNM 53459; CSA, 29°52'N, 87°14'W (western rim of De Soto Canyon), 68 m; CSA, 29°56'N, 87°04'W (western rim of De Soto Canyon), 73 m; ACSESS, 29°49'N, 87°11'W (western rim of De Soto Canyon), 76-91 m, UA-DISL; JSL-3102, 29°51'N, 87°17'W (western rim of De Soto Canyon), 67 m, UA-DISL.

*Antipathes furcata* Gray, 1857: Previously known from the eastern Atlantic, throughout the Caribbean from Barbados to the Bahamas, and from the northwestern Gulf of Mexico, 30-72 m (Opresko 1974; Rezak et al., 1985). — New Records: ACSESS, 29°50'N, 87°11'W (western rim of De Soto Canyon), 78-88 m; UA-DISL; CSA,

29°20'N, 87°46'W (off Alabama), 106 m.

*Antipathes gracilis* Gray, 1860: Previously known distribution (see above). — New Records: ACSESS, 29°50'N, 87°11'W (western rim of De Soto Canyon), 78-88 m, UA-DISL; *Silver Bay* station 45, 29°09'N, 85°17'W (off Cape San Blas, Florida), 31-35 m, USNM 88349 CSA, 29°20'N, 87°46'W (off Alabama), 106 m; CSA, 29°52'N, 87°14'W (western rim of De Soto Canyon), 68 m.

*Antipathes pedata* Gray, 1857: Previously known distribution (see above). — New Record: JSL-1462, 29°20'N, 87°46'W (off Alabama), 97 m, UA-DISL; ACSESS, 29°49'N, 87°11'W (western rim of De Soto Canyon), 76-91 m, UA-DISL.

*Antipathes salix* Pourtalès, 1880: Previously known from the Lesser Antilles and from the Gulf of Mexico off the west coast of Florida, at 107-333 m (Opresko, 1972). — New Record: CSA, 29°20'N, 87°46'W (off Alabama), 106 m.

*Antipathes tanacetum* Pourtalès, 1880: Previous known distribution (see above). — New Record: *Oregon* station 1635, 29°26'N, 87°36'W (off Alabama), no depth recorded, USNM 77113.

*Stichopathes lutkeni* Brook, 1889: Previously known distribution (see above). — New Record: JSL-3103, 29°51'N, 87°16'W (western rim of De Soto Canyon), 67 m, UA-DISL.

*Sibopathes macrospina* Opresko, 1993: The monotypic genus *Sibopathes* was established by Van Pesch (1914) for a single species having transversely elongated polyps with only six mesenteries and no actinopharynx. *Sibopathes macrospina* is the second species assigned to the genus *Sibopathes* and constitutes a new record for the genus in the waters of the Atlantic Ocean. New Record: JSL-3096, 29°10'N, 88°01'W (Off Alabama) 448 m, UA-DISL: USNM 91417.

**Subdivision III: West of Mississippi River  
Delta to Texas-Mexico border**

**Scleractinia**

*Caryophyllia barbadensis* Pourtalès, 1879: Previously known only from off Barbados, 183-249 m. — New Record: JSL-2585, 27°45'N, 91°08'W (off southeastern Louisiana), 129-144 m, USNM 89359.

*Phyllangia americana* Milne Edwards and Haime, 1849: Previously known from off North Carolina to Brazil, including the Caribbean and eastern and southwestern Gulf of Mexico, 0.3-48 m (Weisbord, 1974; Tunnell, 1989). — New Records: Pelican station 117-1, 26°30'N, 96°26'W (off Padre Island, Texas), 91 m, USNM 87780; TAMU, 27°55'N, 93°27'W (28 Fathom Bank, near East Flower Garden Bank), 100 m (*Coenocyathus* n. sp. of Rezak, et al., 1985), USNM 87781. Specimens from these two stations (as well as from 29°20'N, 87°46'W, 112 m, USNM 75656) differ from "typical" *P. americana* in having white coralla with speckles of dark brown on the costae and septa of the first two cycles; taller, narrower corallites with abundant endothecal dissepiments; and consistently with 48 septa. These specimens are also known from a greater depth (91-112 m) than typical *P. americana*.

*Pourtalosmilia conferta* Cairns, 1978: Previously known from Cape Hatteras to Rio de Janeiro, including the eastern Gulf of Mexico off Mississippi, 55-191 m (Cairns, 1978a). — New Record: JSL-2586, 27°44'N, 91°07'W (off southeastern Louisiana), 183 m, USNM 89357.

*Polymyces fragilis* (Portalès, 1868): Previously known from off North Carolina to Brazil, including the Caribbean and eastern Gulf of Mexico, 75-796 m (Cairns, 1979). — New Record: JSL-2585, 27°45'N, 91°08'W (off southeastern Louisiana), 129-144 m, USNM

87790.

*Stenocyathus vermiformis* (Portalès, 1868): Cosmopolitan, including eastern Gulf of Mexico, 110-1229 m (Cairns, 1979). — New Records: JSL-2587, 27°51'N, 91°23'W (off southeastern Louisiana), 274 m, USNM 87793; JSL-2590, 27°48'N, 91°345'W (off southeastern Louisiana), 252-263 m, USNM 87794.

**Antipatharia**

*Antipathes columnaris* (Duchassaing, 1870): Previously known distribution (see above). — New Records: JSL-2586, 27°44'N, 91°07'W (off southeastern Louisiana), 183 m, USNM 88334; JSL-2587, 27°51'N, 91°23'W (off southeastern Louisiana), 274, USNM 88333; Oregon station 4603, 28°00'N, 93°30'W (off Galveston), 91 m, USNM 53439.

*Antipathes hirta* Gray, 1857: Previously known from the northeastern coast of South America (off Guyana and Venezuela), off Trinidad, Jamaica, Puerto Rico, and Mexico (Yucatan Peninsula), from the Lesser Antilles, and from the Straits of Florida, 13-357 m (Opresko, 1972; Warner, 1981). — New Record: SIO station J647, 28°30'N, 82°46'W (off southwestern Louisiana), 51-65 m, USNM 51595.

*Antipathes rigida* Portalès, 1880: Previously known from the northeastern coast of South America (off Colombia and Venezuela), from the Lesser Antilles and Bahamas, and from the Gulf of Mexico off the northwestern coast of Cuba, 64-640 m (Opresko, 1972). — New Records: JSL-2586, 27°44'N, 91°07'W (off southeastern Louisiana), 183 m, USNM 88332; JSL-2587, 27°51'N, 91°23'W (off southeastern Louisiana), 274 m, USNM 88335.

*Antipathes desbonni* (Duchassaing and Michelotti, 1864): Previously known



from off Guadalupe and Montserrat, at 161 m. — New Record: JSL-2585, 27°45'N, 91°08'W (off southeastern Louisiana), 129-144 m, USNM 88237.

*Antipathes salix* Pourtalès, 1880: Previously known distribution (see above). — New Record: JSL-2590, 27°48'N, 91°34'W (off southeastern Louisiana), 252-263 m, USNM 88338.

*Aphanipathes filix* Pourtalès, 1867: Previously known from the Lesser Antilles, Bahamas, and Straits of Florida, and from the Gulf of Mexico off the northwestern coast of Cuba, 159-531 m (Opresko, 1972). — New Record: SIO station J647, 28°00'N, 92°46'W (off southwestern Louisiana), 51-65 m, USNM 51590.

*Aphanipathes humilis* (Portalès, 1867): Previously known from the Lesser Antilles, from the Gulf of Mexico off Dry Tortugas, and off the northwestern coast of Cuba, 138-491 m (Opresko, 1972). — New Records: JSL-2582, 27°55'N, 91°29'W (off southeastern Louisiana), 188 m, USNM 88331; JSL-2585, 27°45'N, 91°08'W (off southeastern Louisiana), 129-144 m, USNM 88329.

*Parantipathes tetrasticha* (Portalès, 1868): Previously known from off the northeastern coast of South America (off Guyana), off Puerto Rico, Mexico (Yucatan Peninsula), and the Florida Keys, and from the Gulf of Mexico off Dry Tortugas, 175-428 m (Opresko, 1972). — New Record: JSL-2587, 27°51'N, 91°23'W (off southeastern Louisiana), 174 m, USNM 88336.

*Leiopathes glaberrima* (Esper, 1786): Previously known from the Mediterranean, eastern Atlantic, Bahamas, Florida Keys, and from the northeastern Gulf of Mexico (off Mississippi), 176-549 m (Opresko, 1974). — New Records: JSL-2064, 27°47'N, 91°33'W (Green Canyon, off southeastern Louisiana), 366 m, USNM 91372; JSL-2588, 27°43'N, 91°08'W (off southeastern Louisiana),

368 m, USNM 88337.

## Subdivision V: Campeche Bank

### Scleractinia

*Astrangia solitaria* (Lesueur, 1817): Previously known from Bermuda to Brazil, including the southwestern and eastern Gulf of Mexico, 0.3-43 m (Moore, 1958; Weisbord, 1974). — New Record: *Silver Bay* station 1125, 20°02'N, 91°58'W (Cayos Arcas, Bay of Campeche), 48 m, USNM 87773.

*Thalamophyllia riisei* (Duchassaing and Michelotti, 1860): Previously known from throughout the Antilles, western Straits of Florida, and off Louisiana, 18-1317 m (Viada and Cairns, 1987). — New Record: *Silver Bay* station 1125 (see above), USNM 87774.

### Antipatharia

*Leiopathes glaberrima* (Esper, 1786): Previously known distribution (see above). — New Records: *Oregon* station 1048, 21°17'N, 91°18'W (off Yucatan), 36 m, USNM 77112; 23°56'N, 87°32'W (off Yucatan), 273 m, USNM 76959; *Silver Bay* station 1184, 23°56'N, 87°32'W (off Yucatan), 273 m, USNM 77097.

## Subdivision IV: Yucatan Channel and northwestern coast of Cuba to 81°48'W

### Antipatharia

*Antipathes columnaris* (Duchassaing, 1870): Previously known distribution (see above). — New Record: *Albatross* station 2338, 23°11'N, 82°20'W (off Havana), 346 m, USNM 10224.

*Antipathes hirta* Gray, 1857: Previously known distribution (see above). — New Record: *Albatross* station 2159, 23°, 11'N, 82°20'W (off Havana), 179 m, USNM 7203.

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