

Biology Map 3

Gulf of Mexico

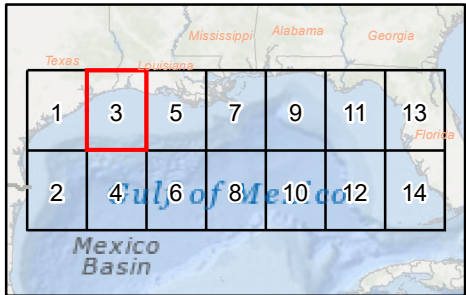
Offshore ESI



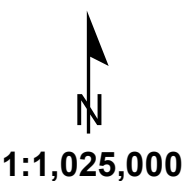
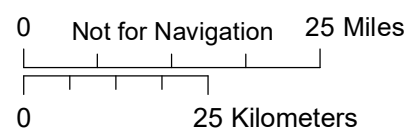
Bureau of Safety and Environmental Enforcement

- Benthic
- Birds
- Fish
- Herpetofauna
- Invertebrates
- Marine Mammals

- Benthic Points
- USCG Captain Of The Port Zones
- Bathymetry (Meters)
- US Exclusive Economic Zone
- AOI



SEE MAP DATA TABLE
for Status, Seasonality, and Breed
information about mapped species.
Published: February 2023



Gulf of Mexico Offshore ESI: Biology Map 3

BIOLOGICAL RESOURCES:

BENTHIC:

RAR#	Species	S F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)											
20	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
21	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
23	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
25	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
28	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
30	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
33	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
34	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
37	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
38	Sea pens		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
41	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
42	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Sea pens		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
43	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
44	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
46	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
48	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
56	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
57	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
58	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
59	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
63	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
65	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
69	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
72	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
73	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
85	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
87	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
90	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
94	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony branching coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
125	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
126	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Soft coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
159	Black coral		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Deep sea sponge		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Gorgonian corals		Structure-Forming	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
	Stony cup coral		Solitary	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
164	Deep sea coral		0 To 1 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
165	Deep sea coral		>1 To 2 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
166	Deep sea coral		>2 To 4 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
167	Deep sea coral		>4 To 6 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
168	Deep sea coral		>6 To 8 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
169	Deep sea coral		>8 Genera	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
170	Shallow coral community		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
171	Boulder star coral	T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
	Elkhorn coral	T	Rare	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
	Lobed star coral	T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
	Mountainous star coral	T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
	Shallow coral community		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D
228	Sargassum		-	General Distribution			M	A	M	J	J	A	S			

BIRD:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Nesting	Migrating			Molting
1	Audubon's shearwater			-	General Distribution			M	A	M	J	J	A	S	O	N		-	-	-	-	
	Band-rumped storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N		-	-	-	-	
	Black tern			-	General Distribution			M	A	M	J	J	A	S	O	N		-	-	-	-	
	Bonaparte's gull			-	General Distribution	J	F	M	A	M							D	-	-	-	-	
	Bridled tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	
	Brown booby			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	
	Brown noddy			-	General Distribution						J	J	A	S	O	N		-	-	-	-	
	Brown pelican			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	

Species Threatened/Endangered

Gulf of Mexico Offshore ESI: Biology Map 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD (cont.):																			
RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)								Nesting	Migrating		Molting		
	Common loon			-	General Distribution	J	F	M	A	M					D	-	-	-	-
	Common tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Cory's shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Great shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Herring gull			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Laughing gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Magnificent frigatebird			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Masked booby			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Northern gannet			-	General Distribution	J	F	M	A	M						D	-	-	-
	Parasitic jaeger			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Pomarine jaeger			-	General Distribution	J	F	M	A	M	J	J	A				D	-	-
	Royal tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sandwich tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Seabirds			High-Vessel Srvy Ppo	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sooty tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Wilson's storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
2	Audubon's shearwater			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Band-rumped storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Black tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Bonaparte's gull			-	General Distribution	J	F	M	A	M						D	-	-	-
	Bridled tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Brown booby			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Brown noddy			-	General Distribution						J	J	A	S	O	N	-	-	-
	Brown pelican			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Common loon			-	General Distribution	J	F	M	A	M						D	-	-	-
	Common tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Cory's shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Great shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Herring gull			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Laughing gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Magnificent frigatebird			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Masked booby			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Northern gannet			-	General Distribution	J	F	M	A	M						D	-	-	-
	Parasitic jaeger			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Pomarine jaeger			-	General Distribution	J	F	M	A	M	J	J	A				D	-	-
	Royal tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sandwich tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Seabirds			Low-Vessel Srvy Ppo	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sooty tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Wilson's storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
3	Audubon's shearwater			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Band-rumped storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Black tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Bonaparte's gull			-	General Distribution	J	F	M	A	M						D	-	-	-
	Bridled tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Brown booby			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Brown noddy			-	General Distribution						J	J	A	S	O	N	-	-	-
	Brown pelican			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Common loon			-	General Distribution	J	F	M	A	M						D	-	-	-
	Common tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Cory's shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Great shearwater			-	General Distribution						J	J	A	S	O	N	-	-	-
	Herring gull			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Laughing gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Magnificent frigatebird			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Masked booby			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Northern gannet			-	General Distribution	J	F	M	A	M						D	-	-	-
	Parasitic jaeger			-	General Distribution	J	F	M	A	M				S	O	N	D	-	-
	Pomarine jaeger			-	General Distribution	J	F	M	A	M	J	J	A				D	-	-
	Royal tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sandwich tern			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
	Seabirds			Med-Vessel Srvy Ppo	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Sooty tern			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-
	Wilson's storm-petrel			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-
16	Black-capped petrel			High-Vessel Srvy Ppo	Concentration Area			F	M	A	M	J	J	A	S	O	N	-	-
17	Black-capped petrel			Low-Vessel Srvy Ppo	General Distribution			F	M	A	M	J	J	A	S	O	N	-	-
18	Black-capped petrel			Med-Vessel Srvy Ppo	General Distribution			F	M	A	M	J	J	A	S	O	N	-	-
249	Marine birds			High-Aerial Survey	Concentration Area						J	J	A				-	-	
250	Marine birds			Low-Aerial Survey	General Distribution						J	J	A				-	-	
251	Marine birds			Medium-Aerial Survey	General Distribution						J	J	A				-	-	
253	Marine birds			High-Aerial Survey	Concentration Area	J	F										D	-	
254	Marine birds			Low-Aerial Survey	General Distribution	J	F										D	-	
255	Marine birds			Medium-Aerial Survey	General Distribution	J	F										D	-	

FISH:																							
RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)								Spawning		Eggs	Larvae	Juveniles	Adults				
19	Bluefin tuna			Bluefin Tuna Hapc	Spawning Area				A	M	J					Apr-Jun	-	Apr-Jun	Apr-Jun	-	-		
176	Reef fish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	-	
177	Giant manta		T	-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-	
	Reef fish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	-	
	Scamp			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Sep	-	-	-	-	
	Wahoo			Aggregation Area	Concentration Area	J	F	M									-	-	-	-	Jan-Mar		
178	Marbled grouper			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Sep-Nov	-	-	-	-	
	Reef fish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	-	
	Wahoo			Aggregation Area	Concentration Area	J	F	M									-	-	-	-	Jan-Mar		
181	Giant manta		T	-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-	
	Reef fish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	-	
	Wahoo			Aggregation Area	Concentration Area	J	F	M									-	-	-	-	Jan-Mar		
189	Atlantic sharpnose shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Oct	Jan-Dec	Jan-Dec
	Blacknose shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Blacktip shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Bluefin tuna			-	General Distribution	J	F	M	A	M	J					D	-	-	-	-	-	Dec-Jun	
	Bull shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Dusky shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Gag			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Dec-May	-	Dec-Apr	Feb-May	-	Jan-Dec
	Gray snapper			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jun-Nov	-	-	Jun-Nov	-	Jan-Dec
	Greater amberjack			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-May	-	-	-	Jan-Dec	Jan-Dec
	King mackerel			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Oct	-	May-Oct	May-Oct	May-Oct	Jan-Dec
	Menhaden			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Apr	-	-	-	-	Oct-Apr
	Red snapper			Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Apr-Oct	-	Jul-Nov	Jul-Nov	Jan-Dec	Jan-Dec
	Sailfish			-	General Distribution			M	A	M	J	J	A	S	O		May-Sep	-	May-Sep	Mar-Oct	-	Mar-Oct	
	Sandbar shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Scalloped hammerhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Scamp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Jun	-	Mar-May	Mar-May	Jan-Dec	Jan-Dec
	Silky shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-
	Skipjack tuna			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Spinner shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec

Species Threatened/Endangered

Gulf of Mexico Offshore ESI: Biology Map 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):												
RAR#	Species	S F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)							
	Vermilion snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowedge grouper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
191	Albacore		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bigeye thresher		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bigeye tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blue marlin		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bluefin tuna		-	General Distribution	J	F	M	A	M	J		
	Dusky shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Longbill spearfish		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Longfin mako		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Sailfish		-	General Distribution			M	A	M	J	J	A S O
	Scamp		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Shortfin mako		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Silky shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Skipjack tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Swordfish		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Tiger shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Tilefish spp.		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Vermilion snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	White marlin		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowedge grouper		Common	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
192	Atlantic sharpnose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacknose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacktip shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bonnethead		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bull shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Gray snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Greater amberjack		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	King mackerel		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Menhaden		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red drum		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Scalloped hammerhead		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Spanish mackerel		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Spinner shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
200	Giant manta	T	High Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
201	Giant manta	T	-	General Distribution	J	F	M	A	M	J	J	A S O N D
209	Atlantic sharpnose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacknose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacktip shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Cobia		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Dusky shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Greater amberjack		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	King mackerel		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red snapper		Common	General Distribution	J	F	M	A	M	J	J	A S O N D
	Sailfish		-	General Distribution			M	A	M	J	J	A S O
	Sandbar shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Scamp		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Silky shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Spinner shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Vermilion snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowedge grouper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
211	Atlantic sharpnose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacknose shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blacktip shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bonnethead		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bull shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Cobia		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Greater amberjack		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	King mackerel		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Menhaden		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red snapper		Common	General Distribution	J	F	M	A	M	J	J	A S O N D
	Sailfish		-	General Distribution			M	A	M	J	J	A S O
	Sandbar shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Scalloped hammerhead		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Spanish mackerel		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Spinner shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Vermilion snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
217	Oceanic whitetip shark	T	High Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
218	Oceanic whitetip shark	T	-	General Distribution	J	F	M	A	M	J	J	A S O N D
252	Albacore		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bigeye thresher		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bigeye tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Blue marlin		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Bluefin tuna		-	General Distribution	J	F	M	A	M	J		
	Dusky shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Longbill spearfish		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Red snapper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Sailfish		-	General Distribution			M	A	M	J	J	A S O
	Skipjack tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Swordfish		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Tilefish spp.		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	White marlin		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowedge grouper		-	General Distribution	J	F	M	A	M	J	J	A S O N D
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A S O N D
256	Whale shark		Aggregation Area	Concentration Area						J	J	A

HERPETOFAUNA:

RAR#	Species	S F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)							
172	Loggerhead sea turtle	T	Resident Subadults	Concentration Area	J	F	M	A	M	J	J	A S O N D
173	Hawksbill sea turtle	E	Rare	General Distribution	J	F	M	A	M	J	J	A S O N D
180	Green sea turtle	T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
	Kemp's ridley sea turtle	E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
	Loggerhead sea turtle	T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
182	Green sea turtle	T	High Use Area	Concentration Area	J	F	M	A	M	J	J	A S O N D
183	Green sea turtle	T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
185	Kemp's ridley sea turtle	E	High Use Area	Concentration Area	J	F	M	A	M	J	J	A S O N D
186	Kemp's ridley sea turtle	E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A S O N D
195	Leatherback sea turtle	E	High Use Area	Concentration Area	J	F	M	A	M	J	J	A S O N D

Species Threatened/Endangered

Gulf of Mexico Offshore ESI: Biology Map 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

HERPETOFAUNA (cont.):

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Nesting	Hatching	Internest	Juveniles	Adults
196	Leatherback sea turtle		E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
197	Leatherback sea turtle		E	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
199	Loggerhead sea turtle		T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
243	Green sea turtle		T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-
	Kemp's ridley sea turtle		E	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-
	Leatherback sea turtle		E	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-
	Loggerhead sea turtle		T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-

INVERTEBRATE:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
7	Royal red shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
190	Blue crab			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Nov	Mar-Nov	Mar-Nov
	Brown shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-May	Sep-Nov	-	Jan-Dec	Mar-Nov	Mar-Nov
	White shrimp			-	General Distribution					M	J	J	A	S	O	N		-	-	-	May-Nov	Jul-Nov	
193	Blue crab			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Nov	Mar-Nov	Mar-Nov
	Brown shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-May	Sep-Nov	-	Jan-Dec	Mar-Nov	Mar-Nov
	Pink shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	-
	White shrimp			-	General Distribution					M	J	J	A	S	O	N		-	-	-	May-Nov	Jul-Nov	
210	Blue crab			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Nov	Mar-Nov	Mar-Nov
	Brown shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-May	Sep-Nov	-	Jan-Dec	-	Mar-Nov
212	Blue crab			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Nov	Mar-Nov	Mar-Nov
	Brown shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-May	Sep-Nov	-	Jan-Dec	Mar-Nov	Mar-Nov
	Pink shrimp			-	General Distribution			M	A	M	J	J	A	S	O	N		-	-	-	-	Mar-Nov	-
	White shrimp			-	General Distribution					M	J	J	A	S	O	N		-	-	-	May-Nov	Jul-Nov	
236	Caribbean spiny lobster			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Queen conch			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec

MARINE MAMMAL:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Mating	Calving	Pupping	Molting
11	Atlantic spotted dolphin			Present	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Bottlenose dolphin			Present	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
13	Beaked whales			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
14	Blackfish			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
15	Blackfish			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
162	Clymene dolphin			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
163	Clymene dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
188	Kogia spp.			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
213	Atlantic spotted dolphin			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
214	Atlantic spotted dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
215	Bottlenose dolphin			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
216	Bottlenose dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
220	Pantropical spotted dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
221	Pilot whales			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
222	Pilot whales			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
225	Rice's Whale		E	Present	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
226	Risso's dolphin			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
227	Risso's dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
237	Sperm whale		E	High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
238	Sperm whale		E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
240	Spinner dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
245	Striped dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-