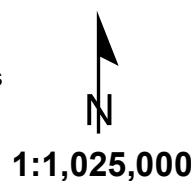
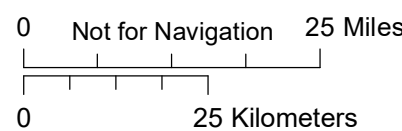
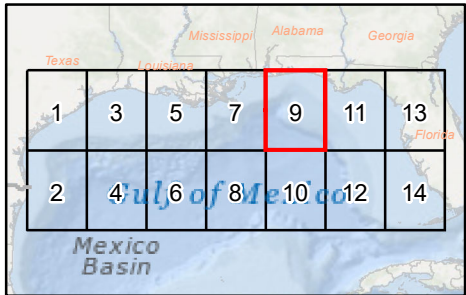


Biology Map 9 Gulf of Mexico Offshore ESI



Bureau of Safety and
Environmental Enforcement

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



Gulf of Mexico Offshore ESI: Biology Map 9 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BENTHIC (cont.):

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)											
168	Deep sea coral			>6 To 8 Genera	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			
229	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	-	-	-	-		
	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
4	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
	Blue marlin			-	General Distribution					M	J	J	A	S	O	N		May-Nov	-	May-Nov	May-Nov	-	-
	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
	Greater amberjack			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-May	-	-	-	Jan-Dec	Jan-Dec
	Menhaden			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Apr	-	-	-	Oct-Apr	Oct-Apr
	Night shark			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N		-	-	-	-	-	-
	Red drum			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Aug-Nov	-	Aug-Oct	-	-	Jan-Dec
	Red grouper			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	Jan-Dec	May-Jul	-	Jan-Dec
	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

Species Threatened/Endangered

Gulf of Mexico Offshore ESI: Biology Map 9 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):																						
RAR#	Species	S F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)						Spawning	Eggs	Larvae	Juveniles	Adults							
	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	
	Spinner shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	Jan-Dec	
	Tilefish spp.		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Sep	-	-	-	Jan-Dec	Jan-Dec
	Vermilion snapper		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	Jun-Nov	Jun-Nov	-	Jan-Dec
	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	Feb-Nov	-	-	-	-	Jan-Dec
6	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	-	-	-	-	Jan-Dec	Jan-Dec
	Blue marlin		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Nov	-	May-Nov	May-Nov	Jan-Dec	Jan-Dec
	Bluefin tuna		-	General Distribution	J	F	M	A	M	J						D	-	-	-	-	-	Dec-Jun
	Dusky shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	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	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	Mar-Oct
	Scalloped hammerhead		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Shortfin mako		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	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	Apr-May	-	-	Jun-Oct	Jan-Dec	Jan-Dec
	Snowy grouper		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Oct	-	-	-	-	Jan-Dec
	Swordfish		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
	Tiger shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Tilefish spp.		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Sep	-	-	-	Jan-Dec	Jan-Dec
	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	Jun-Jun	-	-	-	Jan-Dec	Jan-Dec
	Yellowedge grouper		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Nov	-	-	-	-	Jan-Dec
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	May-Sep	May-Sep	Jan-Dec	Jan-Dec
8	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	-	-	-	Mar-Oct	Jan-Dec	Jan-Dec
	Bull 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
	Goliath grouper		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jun-Oct	-	-	-	-	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	Oct-Apr
	Red drum		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Aug-Nov	-	Aug-Oct	-	-	Jan-Dec
	Red grouper		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	Jan-Dec	May-Jul	-	Jan-Dec
	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			-	-	-	-	Mar-Oct	
	Sandbar shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Apr-Jul	Jan-Dec	Jan-Dec
	Scalloped hammerhead		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	May-Jun	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
	Spanish mackerel		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Apr-Sep	-	-	May-Oct	Mar-Nov	Jan-Dec
	Spinner shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Tiger shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jul-Aug	Jan-Dec	Jan-Dec
	Vermilion snapper		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	Jun-Nov	Jun-Nov	-	Jan-Dec
	Whale shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-
10	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	-	-	-	-	Jan-Dec	Jan-Dec
	Blue marlin		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Nov	-	May-Nov	May-Nov	Jan-Dec	Jan-Dec
	Bluefin tuna		-	General Distribution	J	F	M	A	M	J						D	-	-	-	-	-	Dec-Jun
	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	-	-	-	-	-	-
	Sailfish		-	General Distribution			M	A	M	J	J	A	S	O			May-Sep	-	May-Sep	Mar-Oct	Mar-Oct	Mar-Oct
	Shortfin mako		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	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	Apr-May	-	-	Jun-Oct	Jan-Dec	Jan-Dec
	Swordfish		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
	White marlin		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jun-Jun	-	-	-	Jan-Dec	Jan-Dec
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	May-Sep	May-Sep	Jan-Dec	Jan-Dec
19	Bluefin tuna		Bluefin Tuna Hapc	Spawning Area				A	M	J							Apr-Jun	-	Apr-Jun	Apr-Jun	-	-
174	Bigeye tuna		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Blue marlin		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Nov	-	May-Nov	May-Nov	Jan-Dec	Jan-Dec
	Bluefin tuna		-	General Distribution	J	F	M	A	M	J						D	-	-	-	-	-	Dec-Jun
	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	-	-	-	-	-	-
	Night shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N		-	-	-	-	-	-
	Sailfish		-	General Distribution			M	A	M	J	J	A	S	O			May-Sep	-	May-Sep	Mar-Oct	-	-
	Shortfin mako		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	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	Apr-May	-	-	Jun-Oct	Jan-Dec	Jan-Dec
	Swordfish		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
	White marlin		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jun-Jun	-	-	-	Jan-Dec	Jan-Dec
	Yellowfin tuna		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	May-Sep	May-Sep	-	Jan-Dec
175	Gag		-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Apr	Aug-Oct	-	-	-	-
	Red grouper		-	Spawning Area			F	M	A	M	J						Feb-Jun	-	-	-	-	-
	Scamp		-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Jun	-	-	-	-	-
	Yellowmouth grouper		-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	-	-
184	Gulf sturgeon	T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
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	-	-	-	-	-	-
202	Atlantic sharpnose shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Blackfin snapper		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	-	-	Mar-May	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
	Blue marlin		-	General Distribution					M	J	J	A	S	O	N		May-Nov	-	May-Nov	May-Nov	-	-
	Gag		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Dec-May	-	Dec-Apr	Feb-May	-	Jan-Dec
	Greater amberjack		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-May	-	-	-	Jan-Dec	Jan-Dec
	Red grouper		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	Jan-Dec	May-Jul	-	Jan-Dec
	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	-	-
	Sandbar shark		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Scamp		Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Jun	-	Mar-May	Mar-May		

Gulf of Mexico Offshore ESI: Biology Map 9 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
	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	Apr-May	-	-	Jun-Oct	Jan-Dec	Jan-Dec
	Swordfish			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Jan-Dec	-	Jan-Dec	Jan-Dec	Jan-Dec	Jan-Dec
	Tilefish spp.			Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Sep	-	-	-	Jan-Dec	Jan-Dec
	Yellowedge grouper			Common	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Nov	-	-	-	-	Jan-Dec
	Yellowfin tuna			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Sep	-	May-Sep	May-Sep	-	Jan-Dec
217	Oceanic whitetip shark		T	High Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
218	Oceanic whitetip shark		T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
256	Whale shark			Aggregation Area	Concentration Area						J	J	A					-	-	-	-	Jun-Aug	-

HERPETOFAUNA:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Nesting	Hatching	Internest	Juveniles	Adults
161	Loggerhead sea turtle		T	High	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	-
180	Green sea turtle		T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
	Kemp's ridley sea turtle		E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
	Loggerhead sea turtle		T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
182	Green sea turtle		T	High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
183	Green sea turtle		T	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
185	Kemp's ridley sea turtle		E	High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
186	Kemp's ridley sea turtle		E	Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec
195	Leatherback sea turtle		E	High Use Area	Concentration Area	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
198	Loggerhead sea turtle		T	High Use Area	Concentration Area	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
5	Brown shrimp			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-May	Sep-Nov	-	Jan-Dec	-	Mar-Nov
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
9	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	-
203	Blue crab			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Mar-Nov	Mar-Nov	Mar-Nov

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	-	-	-	-
12	Beaked whales			High Use Area	Concentration Area	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	-	-	-	-
163	Clymene dolphin			Low Use Area	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
187	Kogia spp.			High Use Area	Concentration Area	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	-	-	-	-
219	Pantropical spotted dolphin			High Use Area	Concentration Area	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	-	-	-	-
239	Spinner dolphin			High Use Area	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
244	Striped dolphin			High Use Area	Concentration Area	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	-	-	-	-