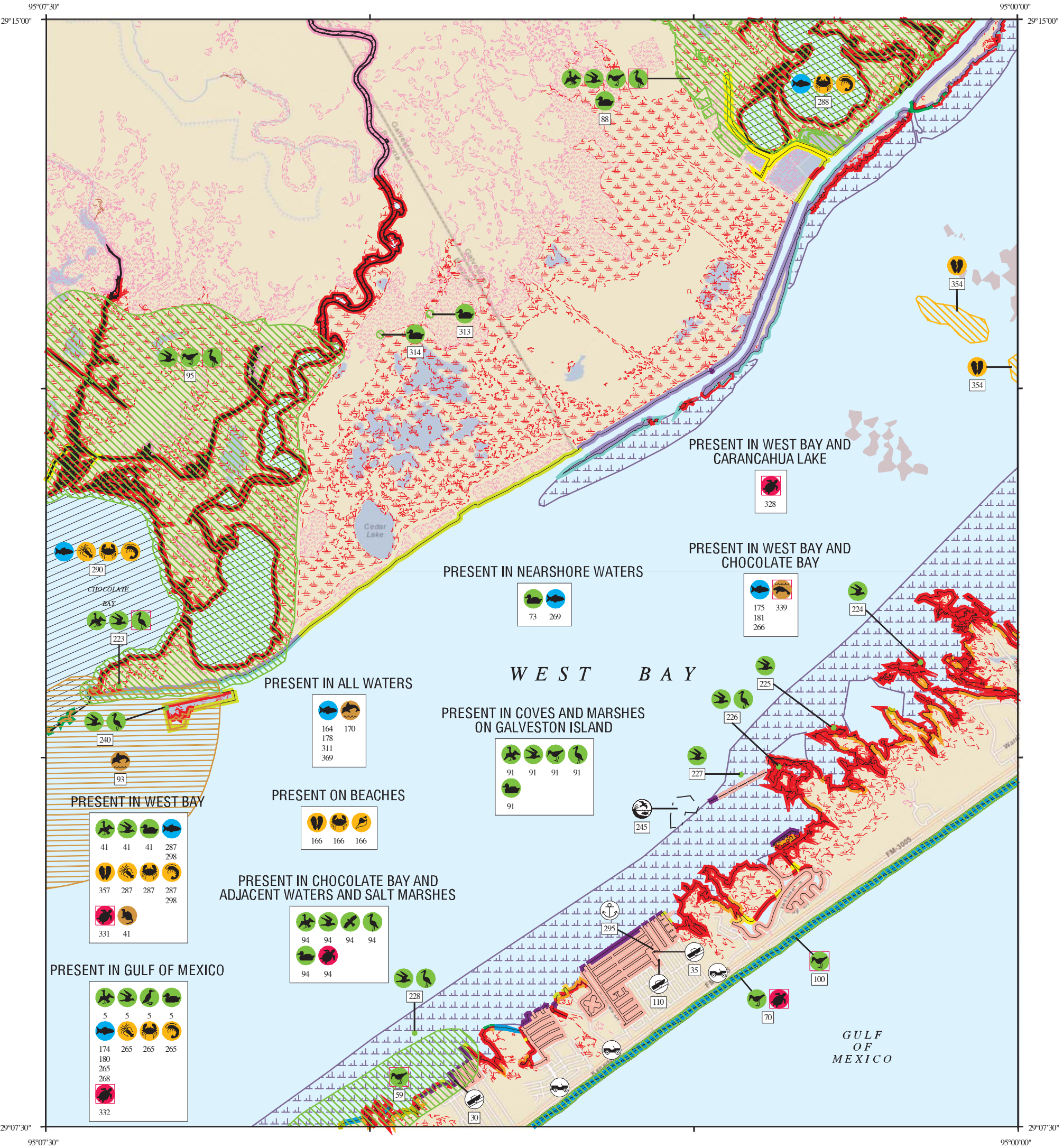


ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

1B EXPOSED, SOLID MAN-MADE STRUCTURES	
2A EXPOSED WAVE-CUT PLATFORMS IN CLAY	
2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY	
3A FINE- TO MEDIUM-GRAINED SAND BEACHES	
3B SCARPS AND STEEP SLOPES IN SAND	
5 MIXED SAND AND GRAVEL (SHELL) BEACHES	
6A GRAVEL BEACHES	
6B RIPRAP	
7 EXPOSED TIDAL FLATS	
8A SHELTERED SCARPS IN CLAY OR BEDROCK	
8B SHELTERED, SOLID MAN-MADE STRUCTURES	
8C SHELTERED RIPRAP	
9A SHELTERED TIDAL FLATS	
10A SALT-AND BRACKISH-WATER MARSHES	
10B FRESHWATER MARSHES	
10C SWAMPS	
10D SCRUB-SHRUB WETLANDS	

Not For Navigation
Published: June 2013

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Emergency Response Division

SCALE 1:50000

1 KILOMETER

1 MILE

1 NAUTICAL MILE

TEXAS

GULF OF MEXICO

Upper Texas Coast: ESIMAP 46

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting
5	American white pelican	COMMON	X X X X X X X X X X	-	-	-
	Brown pelican	COMMON	X X X X X X X X X X	-	-	-
	Bufflehead	UNCOMMON	X X X X X	-	-	-
	Canvasback	UNCOMMON	X X X X X	-	-	-
	Cormorants	COMMON	X X X X X X X X X X	-	-	-
	Diving birds		X X X X X X X X X X	-	-	-
	Diving ducks		X X X X X X X	-	-	-
	Greater scaup	UNCOMMON	X X X X X	-	-	-
	Grebes	UNCOMMON	X X X X X X X X X X	-	-	-
	Gulls	COMMON-ABUNDANT	X X X X X X X X X X	-	-	-
	Lesser scaup	COMMON	X X X X X X X	-	-	-
	Loons		X X X X X X X	-	-	-
	Magnificent frigatebird	COMMON	X X X X X X X	-	-	-
	Masked booby	UNCOMMON	X X X X X X X	-	-	-
	Northern gannet	COMMON	X X X X X X X	-	-	-
	Scoters	RARE	X X X X X X	-	-	-
	Shearwaters	UNCOMMON	X X X X X	-	-	-
	Storm-petrels	RARE	X X X	-	-	-
	Terns	COMMON-ABUNDANT	X X X X X X X X X X	-	-	-
41	Black skimmer		X X X X X X X X X X	-	-	-
	Cormorants		X X X X X X X X X X	-	-	-
	Diving birds		X X X X X X X X X X	-	-	-
	Diving ducks		X X X X X X X	-	-	-
	Grebes		X X X X X X X X X X	-	-	-
	Gulls		X X X X X X X X X X	-	-	-
	Loons		X X X X X X X	-	-	-
	Pelicans		X X X X X X X X X X	-	-	-
	Terns		X X X X X X X X X X	-	-	-
59	Piping plover	T T 3 INDIV	X X X X X X X X X X	-	-	-
70	Black-bellied plover	100S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
	Sanderling	100S	X X X X X X X X X X	-	APR-MAY AUG-AUG	-
	Shorebirds	100S	X X X X X X X X X X	-	-	-
	Wilson's plover		X X X X X X	-	-	-
73	Redhead	100-7000 BIRDS	X X X X X X	-	-	-
88	American avocet	1000S	X X X X X X X X X X	-	MAR-APR JUL-NOV	-
	American oystercatcher	PRESENT	X X X X X X X X X X	-	-	-
	Black skimmer	100S	X X X X X X X X X X	-	-	-
	Black-bellied plover	100S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
	Dowitchers	1000S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
	Dunlin	1000S	X X X X X X X X X	-	-	-
	Gulls		X X X X X X X X X X	-	-	-
	Killdeer	10S	X X X X X X X X X X	-	DEC-MAR	-
	Long-billed curlew	PRESENT	X X X X X X X X X X	-	FEB-APR JUN-NOV	-
	Marbled godwit	100S	X X X X X X X X X X	-	MAR-APR JUL-NOV	-
	Marsh birds		X X X X X X X X X X	-	-	-
	Pelicans		X X X X X X X X X X	-	-	-
	Reddish egret	T PRESENT	X X X X X X X X X X	-	-	-
	Ruddy turnstone	PRESENT	X X X X X X X X X X	-	-	-
	Shorebirds	10000S	X X X X X X X X X X	-	-	-
	Terns		X X X X X X X X X X	-	-	-
	Wading birds		X X X X X X X X X X	-	-	-
	Waterfowl		X X X X X X X X X X	-	-	-
	Western sandpiper	1000S	X X X X X X X X X X	-	FEB-MAY JUL-NOV	-
	Willet	100S	X X X X X X X X X X	-	APR-APR AUG-AUG	-
	Yellowlegs	100S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
91	Black skimmer		X X X X X X X X X X	-	-	-
	Forster's tern		X X X X X X X X X X	-	-	-
	Gulls		X X X X X X X X X X	-	-	-
	Laughing gull		X X X X X X X X X X	-	-	-
	Marsh birds		X X X X X X X X X X	-	-	-
	Mottled duck		X X X X X X X X X X	FEB-AUG	-	JUN-AUG
	Pelicans		X X X X X X X X X X	-	-	-
	Plovers		X X X X X X X X X X	-	-	-
	Shorebirds		X X X X X X X X X X	-	-	-
	Terns		X X X X X X X X X X	-	-	-
	Wading birds		X X X X X X X X X X	-	-	-
	Waterfowl		X X X X X X X X X X	-	-	-
94	American white pelican		X X X X X X X X X	-	-	-
	Brown pelican		X X X X X X X X X X	-	-	-
	Dabbling ducks		X X X X X X X X X	-	-	-
	Gulls		X X X X X X X X X X	-	-	-
	Marsh birds		X X X X X X X X X X	-	-	-
	Raptors		X X X X X X X X X X	-	-	-
	Terns		X X X X X X X X X X	-	-	-
	Wading birds		X X X X X X X X X X	-	-	-
	Waterfowl		X X X X X X X X X X	-	-	-
95	American avocet	100S	X X X X X X X X X X	-	MAR-APR JUL-NOV	-
	American oystercatcher	PRESENT	X X X X X X X X X X	-	-	-
	Black skimmer	100S	X X X X X X X X X X	-	-	-
	Black-bellied plover	100S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
	Dowitchers	100S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
	Dunlin	1000S	X X X X X X X X X	-	-	-
	Killdeer	PRESENT	X X X X X X X X X X	-	DEC-MAR	-
	Long-billed curlew	PRESENT	X X X X X X X X X X	-	FEB-APR JUN-NOV	-
	Marbled godwit	10S	X X X X X X X X X	-	MAR-APR JUL-NOV	-
	Reddish egret	T PRESENT	X X X X X X X X X X	-	-	-
	Ruddy turnstone	PRESENT	X X X X X X X X X X	-	-	-
	Shorebirds	1000S	X X X X X X X X X X	-	-	-
	Western sandpiper	1000S	X X X X X X X X X X	-	FEB-MAY JUL-NOV	-
	Willet	10S	X X X X X X X X X X	-	APR-APR AUG-AUG	-
	Yellowlegs	10S	X X X X X X X X X X	-	MAR-MAY JUL-NOV	-
100	Piping plover	T T 41 INDIV	X X X X X X X X X X	-	-	-
223	Black skimmer	37-94 PAIRS	X X X X X X X X X X	APR-SEP	-	-
	Black-crowned night-heron	1 PAIR	X X X X X X X X X X	APR-AUG	APR-MAY	-

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Upper Texas Coast: ESIMAP 46 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting
223	Brown pelican	45-150 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
	Caspian tern	72-1020 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Cattle egret	5-22 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Great blue heron	1-6 PAIRS	X X X X X X X X X X X	FEB-JUN	-	-
	Great egret	54-166 PAIRS	X X X X X X X X X X X	MAR-JUL	MAR-APR	-
	Gull-billed tern	45-210 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Laughing gull	396-1980 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Reddish egret	T 6 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Roseate spoonbill	6-20 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
	Royal tern	400-1890 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Sandwich tern	42-70 PAIRS	X X X X X X X X X X	MAR-AUG	-	-
	Snowy egret	32-92 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Tricolored heron	40-280 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
	White ibis	5 PAIRS	X X X X X X X X X X X	FEB-JUL	-	-
224	Forster's tern	11-46 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Laughing gull	1-24 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Least tern	4-51 PAIRS	X X X X X X X X	APR-SEP	-	-
225	Black skimmer	1 PAIR	X X X X X X X X X X X	APR-SEP	-	-
	Forster's tern	24-51 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Laughing gull	1-45 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Least tern	116 PAIRS	X X X X X X X	APR-SEP	-	-
226	Black skimmer	12 PAIRS	X X X X X X X X X X X	APR-SEP	-	-
	Forster's tern	32-77 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Laughing gull	1-40 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Tricolored heron	4 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
227	Least tern	4 PAIRS	X X X X X X X X	APR-SEP	-	-
228	Black skimmer	4-185 PAIRS	X X X X X X X X X X X	APR-SEP	-	-
	Forster's tern	14-95 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Gull-billed tern	4-5 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Laughing gull	13-225 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Royal tern	2 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Tricolored heron	1-8 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
240	Black skimmer	11-300 PAIRS	X X X X X X X X X X X	APR-SEP	-	-
	Caspian tern	26 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Forster's tern	24-75 PAIRS	X X X X X X X X X X X	MAR-AUG	-	-
	Gull-billed tern	5-60 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Laughing gull	12-600 PAIRS	X X X X X X X X X X X	FEB-AUG	-	-
	Least tern	17-84 PAIRS	X X X X X X X	APR-SEP	-	-
	Little blue heron	3 PAIRS	X X X X X X X X X X X	APR-JUL	-	-
	Tricolored heron	6 PAIRS	X X X X X X X X X X X	APR-AUG	-	-
313	Greater white-fronted goose	10S	X X X X	X X X	-	-
	Ross's goose	100S	X X X	X X X	-	-
	Snow goose	100S	X X X	X X X	-	-
314	Greater white-fronted goose	100S	X X X X	X X X	-	-
	Ross's goose	100S	X X X	X X X	-	-
	Snow goose	100S	X X X	X X X	-	-

FISH:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
164	Atlantic sharpnose shark		X X X X X X X	-	-	-	APR-OCT	-
174	Bonnethead shark		X X	X X X X	-	SEP-NOV	FEB-MAR	-
							NOV-DEC	
	Tarpon	RARE	X X X X X	-	-	-	-	JUN-OCT
175	Bonnethead shark		X X X X X X X	-	SEP-NOV	-	APR-NOV	-
178	Bull shark	ABUNDANT	X X X X X X X X X X	-	MAY-AUG	MAY-AUG	APR-NOV	JAN-DEC
180	Blacktip shark		X X X X X X X X X	-	-	-	MAR-DEC	MAR-DEC
181	Blacktip shark		X X X X X X X X	MAY-JUN	MAY-JUN	MAY-NOV	MAR-NOV	MAY-JUN
265	Atlantic bumper		X X X X X X	-	-	-	-	MAY-NOV
	Atlantic croaker	HIGHLY ABUNDANT	X X X X X X X X X X	AUG-APR	-	-	APR-NOV	JAN-DEC
	Atlantic spadefish		X X X X X X X X X X	-	-	-	APR-NOV	JAN-DEC
	Atlantic tripletail		X X X X X X X X X X	-	-	-	-	-
	Banded drum		X X X X X X	-	-	-	-	-
	Bay anchovy		X X X X X X X X X X X	MAR-NOV	MAR-NOV	MAR-NOV	JAN-DEC	JAN-DEC
	Black drum		X X X X X X X X X X X	FEB-JUL	-	MAR-JUL	AUG-JAN	JAN-DEC
	Blackfin tuna		X X X X X	-	-	-	-	MAY-OCT
	Cobia		X X X X	-	-	-	-	-
	Crevalle jack		X X X X X X X X X X X	-	-	MAR-NOV	-	JAN-DEC
	Florida pompano		X X X X X X X X X X X	-	-	MAY-AUG	MAY-DEC	JAN-DEC
	Gafftopsail catfish		X X X X X	-	-	-	-	-
	Gray snapper		X X X X X X X X X X X	-	-	APR-NOV	JAN-DEC	JAN-DEC
	Gray triggerfish	ABUNDANT	X X X X X X X X X X X	-	-	-	-	JAN-DEC
	Greater amberjack		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Gulf butterflyfish	HIGHLY ABUNDANT	X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Gulf menhaden		X X X X X X X X	JUL-OCT	-	-	-	MAR-OCT
	Hardhead catfish		X X X X X X X X X X X	MAY-SEP	-	-	-	JAN-DEC
	King mackerel		X X X X X X	-	-	-	-	MAY-OCT
	Lane snapper		X X X X X X X X X X X	-	-	-	-	-
	Pinfish		X X X X X X X X X X X	AUG-APR	-	-	-	JAN-DEC
	Red drum		X X X X X X X X X X X	AUG-OCT	-	-	-	JAN-DEC
	Red snapper		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Sand seatrout	ABUNDANT	X X X X X X X X X X X	MAR-SEP	MAR-SEP	MAR-SEP	-	SEP-FEB
	Sheepshead		X X X X X X X X X X X	-	-	JAN-MAY	-	JAN-DEC
	Silver perch		X X	X	-	-	-	DEC-FEB
	Silver seatrout	HIGHLY ABUNDANT	X X X X X X X X X X X	-	-	-	-	-
	Southern flounder		X X	X X X X	SEP-FEB	-	OCT-DEC	SEP-FEB
	Southern kingfish		X X X X X	-	-	-	-	JUN-OCT
	Spanish mackerel	ABUNDANT	X X X X X X X X X	MAY-SEP	MAY-SEP	-	MAR-NOV	MAR-NOV
	Spot		X X X X X X X X X	DEC-APR	-	-	-	DEC-SEP
	Spotted seatrout		X X	X X X X	-	-	-	SEP-FEB
	Star drum	COMMON	X X X X X X X X X X X	-	-	-	-	JAN-DEC
266	Tarpon	RARE	X X X X X X X X	-	-	-	MAR-NOV	-
268	Striped mullet	ABUNDANT	X X	X X X X	OCT-DEC	-	-	SEP-FEB
269	Striped mullet	HIGHLY ABUNDANT	X X X X X X X	-	-	-	-	MAY-NOV
287	Atlantic bumper	COMMON	X	-	-	-	-	SEP-SEP
	Atlantic spadefish	RARE	X X X X	-	-	-	JUL-NOV	-
	Bay anchovy	ABUNDANT	X X X X X X X X X X X	MAR-NOV	MAR-NOV	MAR-NOV	APR-NOV	JAN-DEC
	Bay whiff	COMMON	X X X X X X X X X X X	-	-	-	MAR-SEP	JAN-DEC
	Crevalle jack	COMMON	X X X X X X X X	-	-	-	MAR-NOV	-
	Gafftopsail catfish	COMMON	X X X X X X X X X	APR-MAY	-	-	APR-NOV	MAR-NOV
	Gizzard shad	RARE	X X X X X X X X X X X	-	-	-	-	JAN-DEC
	Gray snapper	COMMON	X X X X X X X X X X X	-	-	-	AUG-OCT	JAN-DEC
	Gulf butterflyfish	RARE	X X X	-	-	-	-	-
	Gulf killifish	ABUNDANT	X X X X X X X X X X X	MAR-SEP	MAR-SEP	MAR-OCT	JAN-DEC	JAN-DEC
	Gulf menhaden	ABUNDANT	X X X X X X X X X X X	-	-	-	JAN-DEC	FEB-DEC
	Hardhead catfish	ABUNDANT	X X X X X X X X X X X	MAY-AUG	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC
	Pinfish	ABUNDANT	X X X X X X X X X X X	-	-	-	MAR-NOV	JAN-DEC
	Sand seatrout	COMMON	X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	ABUNDANT	X X X X X X X X X X X	-	-	-	NOV-AUG	JAN-DEC

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Upper Texas Coast: ESIMAP 46 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
287	Silver perch	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	FEB-DEC	JAN-DEC
	Silversides	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Southern kingfish	COMMON						X	X	X	X				-	-	-	JUL-NOV	-
	Spanish mackerel	COMMON					X	X	X	X	X	X			-	-	-	MAY-NOV	MAY-NOV
	Spotfin mojarra	COMMON						X	X	X	X				-	-	-	-	-
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White mullet	COMMON					X	X	X	X	X	X			-	-	-	MAY-NOV	-
288	Alligator gar	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-JUN	JAN-DEC	JAN-DEC
	Bay anchovy	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	MAR-NOV	MAR-NOV	MAR-DEC	JAN-DEC
	Bay whiff	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-SEP	JAN-DEC
	Black drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Crevalle jack	COMMON			X	X	X	X	X	X	X				-	-	-	MAR-NOV	SEP-NOV
	Gafftopsail catfish	COMMON			X	X	X	X	X	X	X				APR-MAY	-	-	APR-NOV	APR-NOV
	Gizzard shad	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Gulf killifish	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-OCT	JAN-DEC	JAN-DEC
	Gulf menhaden	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-NOV
	Hardhead catfish	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC
	Pinfish	ABUNDANT		X	X	X	X	X	X	X	X				-	-	-	MAR-NOV	MAR-NOV
	Red drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Sand seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	NOV-AUG	JAN-DEC
	Silversides	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Southern flounder	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-NOV	JAN-DEC
	Spotfin mojarra	COMMON						X	X	X					-	-	-	-	-
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	SEP-NOV	JAN-DEC
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White mullet	COMMON					X	X	X	X	X	X			-	-	-	MAY-NOV	-
290	Alligator gar	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-JUN	JAN-DEC	JAN-DEC
	Atlantic spadefish	RARE			X	X	X	X	X	X	X				-	-	-	APR-NOV	-
	Bay anchovy	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	MAR-NOV	MAR-NOV	MAR-NOV	JAN-DEC
	Bay whiff	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	APR-DEC	JAN-DEC
	Black drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Crevalle jack	COMMON			X	X	X	X	X	X	X	X			-	-	-	MAR-NOV	-
	Gafftopsail catfish	COMMON			X	X	X	X	X	X					APR-MAY	-	-	APR-OCT	APR-OCT
	Gizzard shad	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Gulf killifish	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-OCT	JAN-DEC	JAN-DEC
	Gulf menhaden	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-DEC
	Hardhead catfish	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	MAY-SEP	MAY-SEP	APR-NOV	JAN-DEC
	Pinfish	COMMON		X	X	X	X	X	X	X	X	X			-	-	-	FEB-OCT	APR-DEC
	Red drum	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Sand seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUN-JUN	JAN-DEC
																		DEC-MAR	
	Silver perch	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Silversides	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Southern flounder	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Southern kingfish	RARE						X	X	X					-	-	-	AUG-OCT	-
	Spanish mackerel	RARE						X	X						-	-	-	SEP-OCT	SEP-OCT
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-NOV	JAN-DEC
	Spotfin mojarra	COMMON					X	X	X	X					-	-	-	-	-
	Spotted gar	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	APR-MAY	-	JAN-DEC	JAN-DEC
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	AUG-NOV	JAN-DEC
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White mullet	ABUNDANT			X	X	X	X	X	X	X	X			-	-	-	MAR-NOV	-
298	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-JUN	JAN-DEC	JAN-DEC
	Black drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Red drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Southern flounder	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-NOV	JAN-DEC
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JUL-NOV	JAN-DEC
311	Finetooth shark				X	X	X	X	X						-	MAY-JUN	MAY-OCT	-	MAY-JUN
369	Spinner shark				X	X	X	X	X						MAY-JUN	MAY-JUN	MAY-JUL	MAY-OCT	MAY-OCT

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
166	Atlantic ghost crab		X	X	X	X	X	X	X	X	X	X	X	X	APR-APR AUG-AUG	-	-	-	JAN-DEC
	Atlantic surfclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY SEP-NOV	-	-	-	JAN-DEC
	Lettered olive		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
	Mole crab		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	-	JAN-DEC
	Speckled swimming crab	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
265	Atlantic seabob shrimp		X					X	X	X					-	-	-	-	OCT-JAN
	Blue crab	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	-	-
	Brief squid		X	X	X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			X	X	X	X	X	X	X					-	-	-	-	MAR-OCT
	Lesser blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	-	-
	White shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	-	JAN-DEC
287	Blue crab	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	MAR-OCT	MAR-NOV	JAN-DEC	JAN-DEC
	Brief squid	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	MAR-DEC	JAN-DEC	JAN-DEC
	Grass shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Gulf stone crab	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	MAR-NOV	MAR-DEC	JAN-DEC	JAN-DEC
	Lesser blue crab	COMMON		X	X	X	X	X	X						-	-	-	APR-OCT	APR-OCT
288	Blue crab	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	MAR-OCT	MAR-NOV	JAN-DEC	JAN-DEC
	Brown shrimp	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-APR	JAN-DEC	-
	Grass shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Gulf stone crab	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	MAR-NOV	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-OCT	JUN-JAN	JAN-DEC
290	Blue crab	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	MAR-OCT	MAR-NOV	JAN-DEC	JAN-DEC
	Brief squid	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp	HIGHLY ABUNDANT		X	X	X	X	X	X	X	X				-	-	FEB-APR	MAR-DEC	-
	Grass shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Gulf stone crab	RARE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Lesser blue crab	COMMON		X	X					X					-	-	-	APR-MAY	-
																		OCT-OCT	
298	White shrimp	HIGHLY ABUNDANT		X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-OCT	JUN-DEC	MAR-DEC
	Brown shrimp	ABUNDANT		X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-APR	MAR-NOV	-
	White shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-OCT	JUN-DEC	JAN-DEC
354	Eastern oyster	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	-	-	JAN-DEC
357	Eastern oyster	REEF	X	X	X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	-	-	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
93	Bottlenose dolphin	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	-
170	Bottlenose dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	-
339	West Indian manatee	E E VERY RARE					X	X	X						-	-	-	-

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Upper Texas Coast: ESIMAP 46 (cont.)

BIOLOGICAL RESOURCES: (cont.)

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
70	Kemp's ridley sea turtle	E E 7-15 NESTS	X X X X X X X	MAR-JUL	APR-SEP	-	APR-SEP	MAR-JUL
94	Diamondback terrapin		X X X X X X X X X X X	APR-MAY	JUN-SEP	-	JAN-DEC	JAN-DEC
328	Diamondback terrapin		X X X X X X X X X X X	APR-MAY	JUN-SEP	-	JAN-DEC	JAN-DEC
	Green sea turtle	T T OCCASIONAL	X X X X X X X X	-	-	-	MAR-NOV	-
331	Kemp's ridley sea turtle	E E COMMON	X X X X X X X	-	-	-	APR-NOV	-
332	Green sea turtle	T T OCCASIONAL	X X X X X X X X	-	-	-	MAR-NOV	-
	Hawksbill sea turtle	E E OCCASIONAL	X X X X X X X	-	-	-	MAR-OCT	-
	Kemp's ridley sea turtle	E E COMMON	X X X X X X X	-	-	-	APR-NOV	APR-NOV
	Loggerhead sea turtle	T T OCCASIONAL	X X X X X X X X X X X	-	-	-	JAN-DEC	-

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
41	Northern river otter		X X X X X X X X X X X

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name	Contact	Phone
30	BAY HARBOR RAMP		
35	BAYVIEW MARINA RAMP		
110	SEA LSLE RAMP		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
245	SNAKE ISLAND	HOUSTON AUDUBON (RICAHRD GIBBONS)	713/932-1639

MARINA:

HUN#	Name	Contact	Phone
295	WEST BAY MARINA	DAVID WILSON	409/497-4148