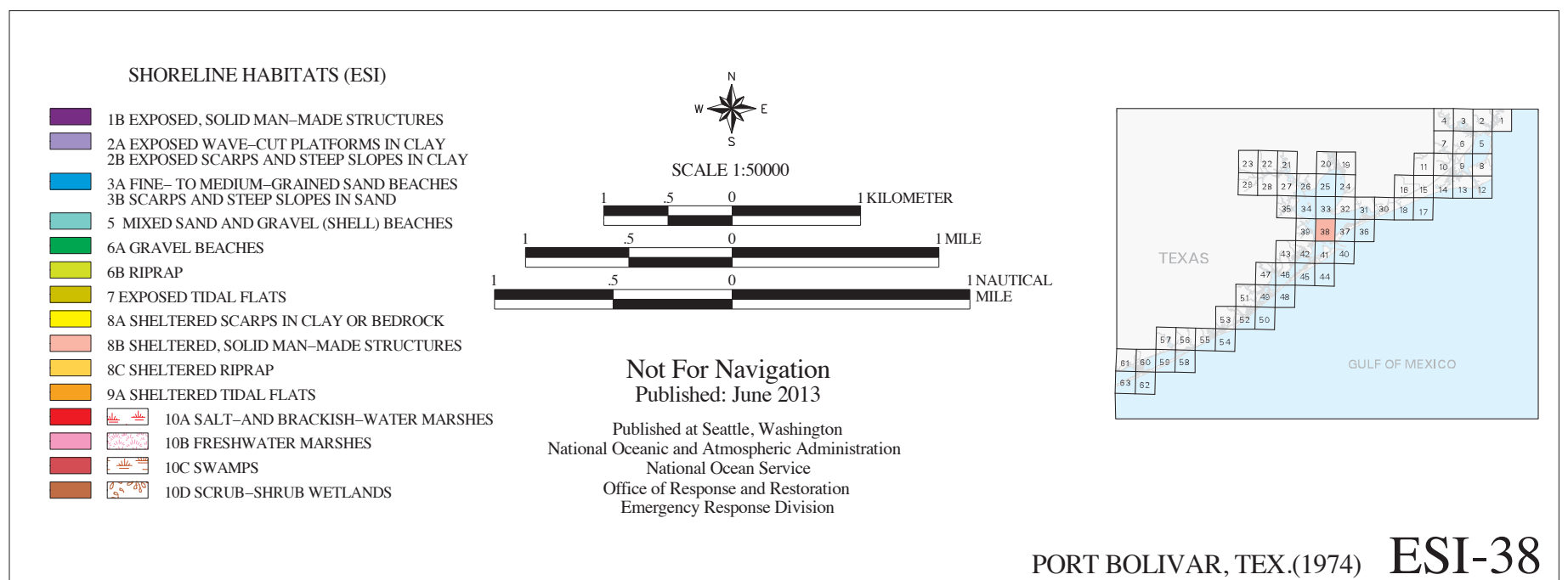
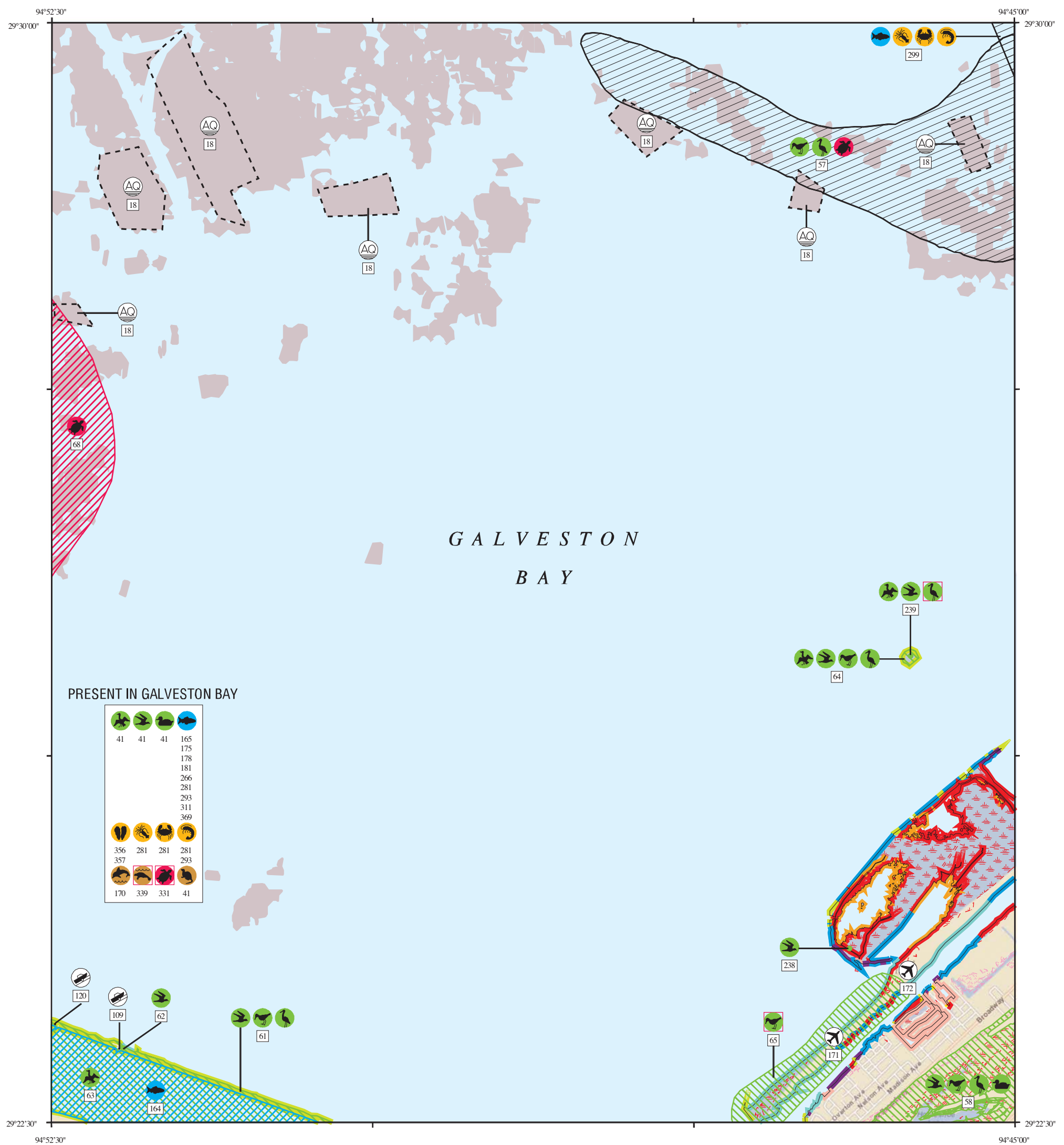


ENVIRONMENTAL SENSITIVITY INDEX MAP



Upper Texas Coast: ESIMAP 38

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
41	Black skimmer		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Diving birds		X	X	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		-	-	-
	Gulls		X	X	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	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
57	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
58	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Marsh birds		X	X	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	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
61	Gulls		X	X	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	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
62	Black skimmer		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
63	Grebes	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	Loons	HIGH	X	X	X	X					X	X	X	X	-	-	-
64	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pelicans		X	X	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	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
65	Piping plover	T T 1 INDIV	X	X	X	X			X	X	X	X	X	X	-	-	-
238	Forster's tern	5-24 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Least tern	45-130 PAIRS		X	X	X	X	X	X	X					APR-SEP	-	-
	Sandwich tern	24 PAIRS		X	X	X	X	X	X	X	X	X			MAR-AUG	-	-
239	Black skimmer	20-217 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
	Black-crowned night-heron	2-9 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-MAY	-
	Brown pelican	30-800 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Cattle egret	6 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Great blue heron	2-7 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-
	Great egret	3-74 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-APR	-
	Gull-billed tern	24-35 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Laughing gull	1350-5850 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Little blue heron	1 PAIR	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Reddish egret	T 1-18 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Roseate spoonbill	2-27 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Royal tern	150-3000 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Sandwich tern	20-2415 PAIRS		X	X	X	X	X	X	X	X	X			MAR-AUG	-	-
	Snowy egret	45-183 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Tricolored heron	86-264 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-

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	-
165	Atlantic sharpnose shark					X	X	X	X	X	X				JUN-JUN	MAY-JUN	JUN-OCT	-	APR-OCT
175	Bonnethead shark					X	X	X	X	X	X				-	SEP-NOV	-	APR-NOV	-
178	Bull shark	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		-	MAY-AUG	MAY-AUG	APR-NOV	JAN-DEC
181	Blacktip shark					X	X	X	X	X	X	X			MAY-JUN	MAY-JUN	MAY-NOV	MAR-NOV	MAY-JUN
266	Tarpon	RARE				X	X	X	X	X	X	X			-	-	-	MAR-NOV	-
281	Atlantic bumper	ABUNDANT							X	X	X				-	-	-	-	JUN-OCT
	Atlantic spadefish	RARE								X	X				-	-	-	AUG-SEP	-
	Bay anchovy	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		MAR-NOV	MAR-NOV	MAR-NOV	JAN-DEC	JAN-DEC
	Bay whiff	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	APR-MAY	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				APR-MAY	-	-	APR-OCT	APR-OCT
	Gizzard shad	RARE	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-	JAN-DEC
	Gulf butterflyfish	RARE	X	X	X	X							X		-	-	-	-	-
	Gulf killifish	COMMON	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		-	-	-	JAN-DEC	JAN-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	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	FEB-OCT	JUN-FEB
	Sand seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	DEC-MAR	JAN-DEC
	Silver perch	COMMON	X	X	X	X	X	X	X	X	X	X	X		MAY-SEP	MAY-SEP	MAY-SEP	MAR-JUN	JAN-DEC
																		OCT-DEC	
	Silversides	COMMON	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	X	X	X			-	-	-	APR-NOV	-
	Spanish mackerel	COMMON				X	X	X	X	X	X	X			-	-	-	APR-NOV	APR-NOV
	Spotfin mojarra	RARE								X	X	X			-	-	-	-	-
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	White mullet	ABUNDANT				X	X	X	X	X					-	-	-	MAY-OCT	-
293	Atlantic croaker	HIGHLY ABUNDANT	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		APR-MAY	APR-MAY	APR-MAY	JAN-DEC	JAN-DEC
	Red drum	COMMON	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		-	-	-	JAN-DEC	JAN-DEC
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		-	-	-	MAR-OCT	JAN-DEC
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X		APR-OCT	APR-OCT	APR-OCT	AUG-NOV	JAN-DEC
299	Alligator gar	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Atlantic bumper	RARE							X						-	-	-	-	SEP-SEP
	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		-	-	JAN-JUN	JAN-DEC	MAR-DEC
	Atlantic spadefish	RARE				X	X	X	X	X	X	X			-	-	-	JUL-SEP	-
	Bay anchovy	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		MAR-NOV	MAR-NOV	MAR-NOV	FEB-DEC	JAN-DEC
	Bay whiff	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	APR-SEP	JAN-DEC
	Black drum	COMMON	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	-
	Gafftopsail catfish	ABUNDANT				X	X	X	X	X	X	X			APR-MAY	-	-	MAR-NOV	MAR-NOV
	Gizzard shad	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-	JAN-DEC
	Gulf butterflyfish	RARE				X	X	X	X	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	MAR-NOV
	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	COMMON				X	X	X	X	X	X	X			-	-	-	MAR-OCT	JUL-NOV
	Red drum	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Sand seatrout	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	COMMON	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JUN-JUN	JAN-DEC
																		DEC-MAR	
	Silver perch	RARE	X	X	X	X	X	X	X	X	X	X	X		MAY-SEP	MAY-SEP	MAY-SEP	SEP-NOV	JAN-DEC
	Silversides	COMMON	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		-	-	-	JAN-DEC	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 38 (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
299	Southern kingfish	RARE	X X X X X X	-	-	-	JUN-NOV	-
	Spanish mackerel	COMMON	X X	-	-	-	SEP-OCT	SEP-OCT
	Spot	HIGHLY ABUNDANT	X X X X X X X X X X	-	-	-	MAR-OCT	JAN-DEC
	Spotfin mojarra	RARE	X X X	-	-	-	-	-
	Spotted seatrout	COMMON	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	-	-	-	JAN-DEC	JAN-DEC
	White mullet	COMMON	X X X X X X	-	-	-	MAY-OCT	-
311	Finetooth shark		X X X X X X	-	MAY-JUN	MAY-OCT	-	MAY-JUN
369	Spinner shark		X 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
281	Atlantic seabob shrimp	RARE	X X X X	-	-	-	-	JUN-SEP
	Blue crab	ABUNDANT	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	MAR-DEC	MAR-DEC	MAR-DEC	JAN-DEC	JAN-DEC
	Grass shrimp	ABUNDANT	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	NOV-MAR	MAR-NOV	MAR-DEC	JAN-DEC	JAN-DEC
	Lesser blue crab	ABUNDANT	X X X X X X X	-	-	-	APR-NOV	APR-NOV
293	Brown shrimp	ABUNDANT	X X X X X X X X X X	-	-	FEB-APR	APR-DEC	-
	White shrimp	ABUNDANT	X X X X X X X X X X	-	-	JUN-OCT	JUN-DEC	JAN-DEC
299	Atlantic seabob shrimp	RARE	X X	-	-	-	-	SEP-OCT
	Blue crab	HIGHLY ABUNDANT	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	MAR-DEC	MAR-DEC	MAR-DEC	MAR-DEC	MAR-DEC
	Brown shrimp	ABUNDANT	X X X X X X X X	-	-	FEB-APR	APR-NOV	-
	Grass shrimp	ABUNDANT	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	-	-	-	JAN-DEC	JAN-DEC
	Lesser blue crab	COMMON	X X X X X X X	-	-	-	APR-OCT	APR-NOV
	White shrimp	HIGHLY ABUNDANT	X X X X X X X X X X	-	-	MAY-OCT	MAY-DEC	JAN-DEC
356	Eastern oyster	UNCONSOLIDATED	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	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
170	Bottlenose dolphin		X X X X X X X X X X	-	JAN-DEC	-	-
339	West Indian manatee	E E VERY RARE	X X X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Internesting	Juveniles	Adults
57	Diamondback terrapin		X X X X X X X X X X	APR-MAY	JUN-SEP	-	JAN-DEC	JAN-DEC
68	Diamondback terrapin		X X X X X X X X X X	APR-MAY	JUN-SEP	-	JAN-DEC	JAN-DEC
331	Kemp's ridley sea turtle	E E COMMON	X X X X X X X	-	-	-	APR-NOV	-

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

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
18	OYSTER LEASES		

BOAT RAMP:

HUN#	Name	Contact	Phone
109	SCHAPER PUBLIC RAMP		
120	TEXAS CITY DIKE PUBLIC RAMP		

HELIPORT:

HUN#	Name	Contact	Phone
171	HOUSTON OIL & MINERALS PORT BOLIVAR		
172	HOUSTON OIL & MINERALS PORT BOLIVAR NR 2		