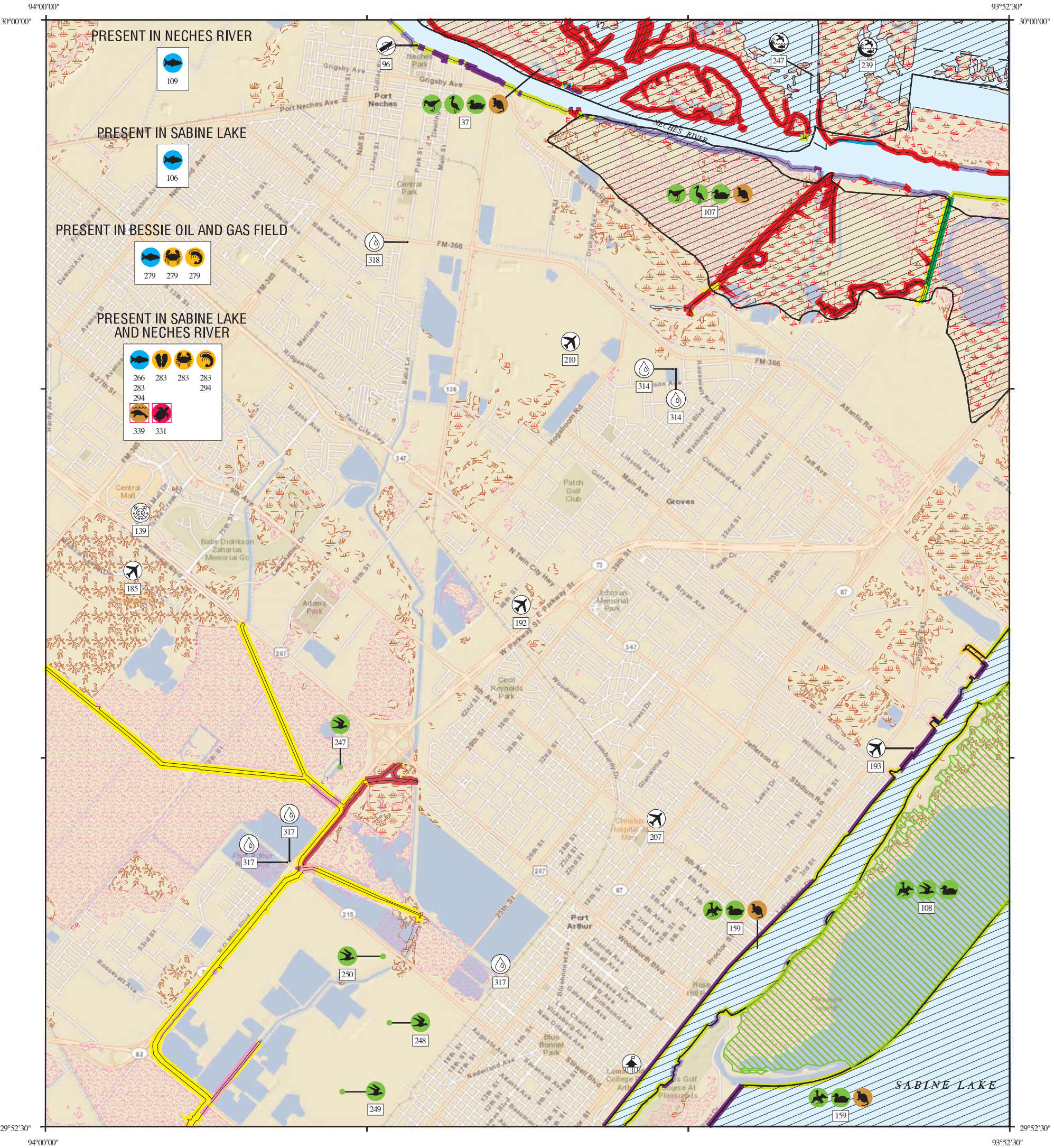
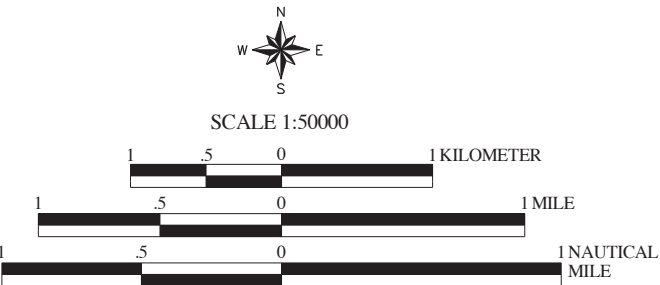


ENVIRONMENTAL SENSITIVITY INDEX MAP



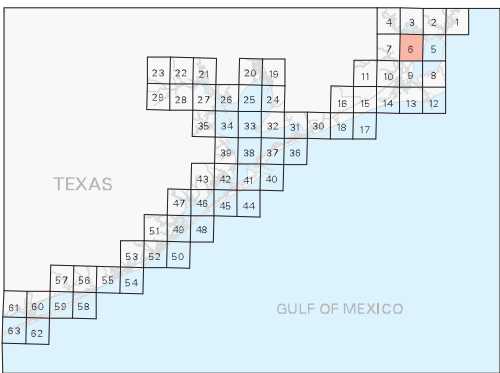
SHORELINE HABITATS (ESI)

- 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



Upper Texas Coast: ESIMAP 6

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Nesting | Migrating | Molting |
|------|------------------------|-------------|-------------------------|---------|--------------------|---------|
| 37 | Black-necked stilt | 10S | X X X X X X X X X | - | - | - |
| | Dowitchers | 100S | X X X X X X X X X X X | - | MAR-MAY JUL-NOV | - |
| | Dunlin | 100S | X X X X X X X X X X | - | - | - |
| | Killdeer | 100S | X X X X X X X X X X X | - | DEC-MAR | - |
| | Marsh birds | | X X X X X X X X X X X | - | - | - |
| | Mottled duck | | X X X X X X X X X X X | FEB-AUG | - | JUN-AUG |
| | Shorebirds | 100S | X X X X X X X X X X X | - | - | - |
| | Wading birds | | X X X X X X X X X X X | - | - | - |
| | Waterfowl | | X X X X X X X X X X X | - | - | - |
| | Western sandpiper | 100S | X 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 X X | - | APR-APR AUG-AUG | - |
| | Yellowlegs | 10S | X X X X X X X X X X X | - | MAR-MAY JUL-NOV | - |
| 107 | Mottled duck | | X X X X X X X X X X X X | FEB-AUG | - | JUN-AUG |
| | Shorebirds | | 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 | - | - | - |
| 108 | American white pelican | | X X X X X X X X X | - | - | - |
| | Bufflehead | | X X X X X X X | - | - | - |
| | Canvasback | | X X X X X X X X | - | - | - |
| | Common goldeneye | | X X X X X X X X | - | - | - |
| | Common loon | HIGH | X X X X X X X X | - | - | - |
| | Dabbling ducks | | X X X X X X X X X X | - | - | - |
| | Diving ducks | | X X X X X X X X X | - | - | - |
| | Scaup | | X X X X X X X X X | - | - | - |
| | Terns | | X X X X X X X X X X X X | - | - | - |
| 159 | Diving birds | | X X X X X X X X X X X X | - | - | - |
| | Diving ducks | | X X X X X X X X X | - | - | - |
| 247 | Black skimmer | 380 PAIRS | X X X X X X X X X X X X | APR-SEP | - | - |
| | Gull-billed tern | 25 PAIRS | X X X X X X X X X X X X | APR-JUL | - | - |
| | Least tern | 30 PAIRS | X X X X X X X X X | APR-SEP | - | - |
| 248 | Black skimmer | 1 PAIR | X X X X X X X X X X X X | APR-SEP | - | - |
| | Least tern | 8-444 PAIRS | X X X X X X X X X | APR-SEP | - | - |
| 249 | Least tern | 9-25 PAIRS | X X X X X X X X X | APR-SEP | - | - |
| 250 | Black skimmer | 1-46 PAIRS | X X X X X X X X X X X X | APR-SEP | - | - |
| | Least tern | 6-100 PAIRS | X X X X X X X X X | APR-SEP | - | - |

FISH:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|---------------------|-----------------|-------------------------|----------|---------|---------|-----------|---------|
| 106 | Bull shark | COMMON | X X X X X X X X X X X X | - | MAY-AUG | MAY-AUG | APR-NOV | JAN-DEC |
| 109 | Bull shark | RARE | X X X X X X X X X X X X | - | MAY-AUG | MAY-AUG | APR-NOV | JAN-DEC |
| 266 | Tarpon | RARE | X X X X X X X X X | - | - | - | MAR-NOV | - |
| 279 | 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 |
| | Black drum | COMMON | X X X X X X X X X X X X | - | - | - | JAN-DEC | - |
| | Blue catfish | RARE | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Gafftopsail catfish | COMMON | X X X X X X X X X | APR-MAY | - | - | APR-OCT | APR-OCT |
| | Gizzard shad | ABUNDANT | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Gulf menhaden | ABUNDANT | X X X X X X X X X X X X | - | - | - | JAN-DEC | SEP-OCT |
| | Hardhead catfish | ABUNDANT | X X X X X X X X X X X X | MAY-AUG | MAY-SEP | MAY-SEP | MAR-NOV | JAN-DEC |
| | Longnose gar | COMMON | X X X X X X X X X X X X | - | - | - | - | - |
| | Red drum | ABUNDANT | X 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 X | - | - | - | JAN-DEC | JAN-DEC |
| | Smallmouth buffalo | | X X X X X X X X X X X X | - | - | - | - | JAN-DEC |
| | Southern flounder | COMMON | 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 | - | - | - | JAN-DEC | MAR-NOV |
| | Spotted gar | ABUNDANT | 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 | - | - | APR-OCT | SEP-NOV | APR-OCT |
| | Striped mullet | COMMON | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| 283 | Alligator gar | COMMON | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Atlantic bumper | RARE | X X X X X X X | - | - | - | - | AUG-SEP |
| | Atlantic spadefish | RARE | X X X X X X X | - | - | - | JUL-OCT | - |
| | Bay anchovy | COMMON | X X X X X X X X X X X X | MAR-NOV | MAR-NOV | MAR-NOV | JAN-DEC | JAN-DEC |
| | Bay whiff | RARE | X X X X X X X X X X X X | - | - | - | JUL-AUG | JAN-DEC |
| | Crevalle jack | COMMON | X X X X X X X | - | - | - | JUN-AUG | - |
| | Gafftopsail catfish | ABUNDANT | X X X X X X X X X | APR-MAY | - | - | APR-OCT | APR-OCT |
| | Gizzard shad | ABUNDANT | 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 | ABUNDANT | X X X X X X X X X X X X | - | - | - | JAN-DEC | APR-DEC |
| | Hardhead catfish | ABUNDANT | X X X X X X X X X X X X | MAY-AUG | MAY-SEP | MAY-SEP | JUN-SEP | JAN-DEC |
| | Pinfish | RARE | X X X X X X X | - | - | - | APR-OCT | APR-OCT |
| | Sand seatrout | COMMON | X 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 X | - | - | - | DEC-FEB | JAN-DEC |
| | Silver perch | RARE | X X X X X X X X X X X X | MAY-SEP | MAY-SEP | MAY-SEP | OCT-NOV | 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 |
| | Spanish mackerel | COMMON | X X X X X X X X | - | - | - | SEP-OCT | SEP-OCT |
| | Spotfin mojarra | RARE | X X X X X X X | - | - | - | - | - |
| | Spotted gar | ABUNDANT | X X X X X X X X X X X X | APR-MAY | APR-MAY | - | JAN-DEC | JAN-DEC |
| | Star drum | | X X X X X X X X 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 X X | - | - | - | JUN-SEP | - |
| 294 | 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 | - | - | - | JAN-DEC | JAN-DEC |
| | Southern flounder | COMMON | 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 | - | - | - | MAR-OCT | MAR-NOV |
| | Spotted seatrout | COMMON | X X X X X X X X X X X X | APR-OCT | APR-OCT | APR-OCT | OCT-NOV | JAN-DEC |

INVERTEBRATE:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-----------------|-----------------|-------------------------|----------|---------|---------|-----------|---------|
| 279 | Blue crab | HIGHLY ABUNDANT | X X X X X X X X X X X X | MAR-NOV | - | MAR-NOV | JAN-DEC | JAN-DEC |
| | Brown shrimp | COMMON | X X X X X X X X X X X | - | - | MAR-APR | APR-DEC | - |
| | Grass shrimp | COMMON | X X X X X X X X X X X X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC |
| | White shrimp | COMMON | X X X X X X X X X X X X | - | - | MAY-JUN | APR-DEC | MAR-JAN |
| 283 | Atlantic rangia | ABUNDANT | X X X X X X X X X X X X | MAR-OCT | - | MAR-OCT | JAN-DEC | JAN-DEC |
| | Blue crab | ABUNDANT | X X X X X X X X X X X X | MAR-NOV | - | MAR-NOV | JAN-DEC | JAN-DEC |
| | Grass shrimp | COMMON | X X X X X X X X X X X X | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC | JAN-DEC |
| 294 | Brown shrimp | ABUNDANT | X X X X X X X X X X X | - | - | MAR-APR | APR-DEC | - |
| | White shrimp | HIGHLY ABUNDANT | X X X X X X X X X X X X | - | - | MAY-JUN | APR-DEC | MAR-JAN |

MARINE MAMMAL:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Mating | Calving | Pupping | Molting |
|------|---------------------|---------------|-------------------------|--------|---------|---------|---------|
| 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 6 (cont.)

BIOLOGICAL RESOURCES: (cont.)

REPTILE:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Nesting | Hatching | Internesting | Juveniles | Adults |
|------|--------------------------|------------|-------------------------|---------|----------|--------------|-----------|--------|
| 331 | Kemp's ridley sea turtle | E E COMMON | X 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 |
|------|----------------------|-----------|-------------------------|
| 37 | Northern river otter | | X X X X X X X X X X |
| 107 | Northern river otter | | X X X X X X X X X X |
| 159 | Northern river otter | | X X X X X X X X X X |

HUMAN USE RESOURCES:

BOAT RAMP:

| HUN# | Name | Contact | Phone |
|------|------------------|---------|-------|
| 96 | PORT NECHES PARK | | |

COAST GUARD:

| HUN# | Name | Contact | Phone |
|------|----------------------|---------|--------------|
| 139 | USCG MSO PORT ARTHUR | | 409/723-6500 |

HELIPORT:

| HUN# | Name | Contact | Phone |
|------|-----------------------------------|---------|-------|
| 185 | MEDICAL CENTER OF SOUTHEAST TEXAS | | |
| 192 | P P H | | |
| 193 | PATCO | | |
| 207 | ST MARY HOSPITAL OF PORT ARTHUR | | |
| 210 | TEXACO CHEMICAL COMPANY-EAST | | |

MANAGEMENT AREA:

| HUN# | Name | Contact | Phone |
|------|--------------------------|---------|-------|
| 239 | LOWER NECHES WMA | TPWD | |
| 247 | THERMAL GAME FISH REFUGE | TPWD | |

WATER INTAKE:

| HUN# | Name | Contact | Phone |
|------|---------------------|---------|-------|
| 314 | CITY OF GROVES | | |
| 317 | CITY OF PORT ARTHUR | | |
| 318 | CITY OF PORT NECHES | | |