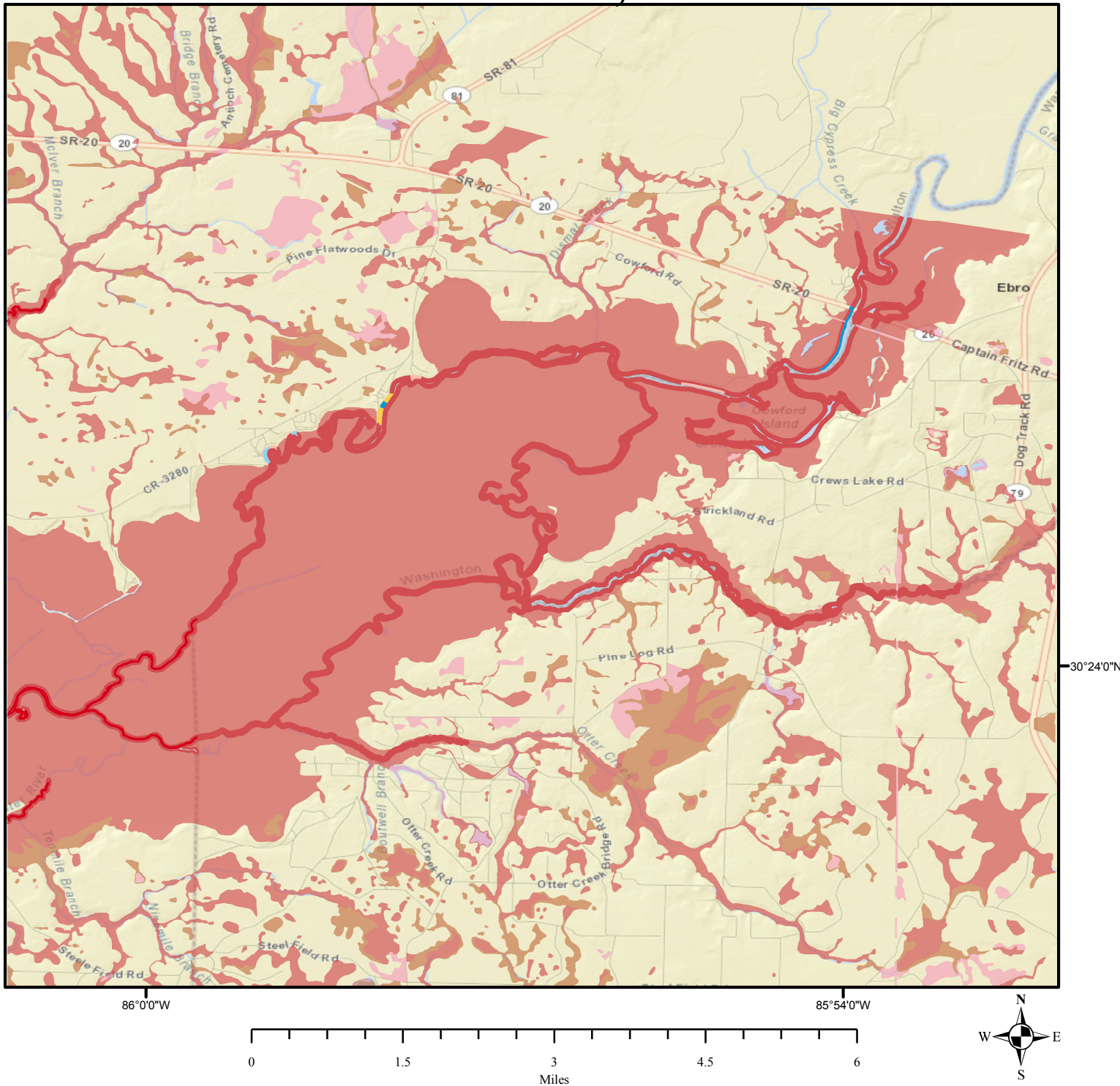
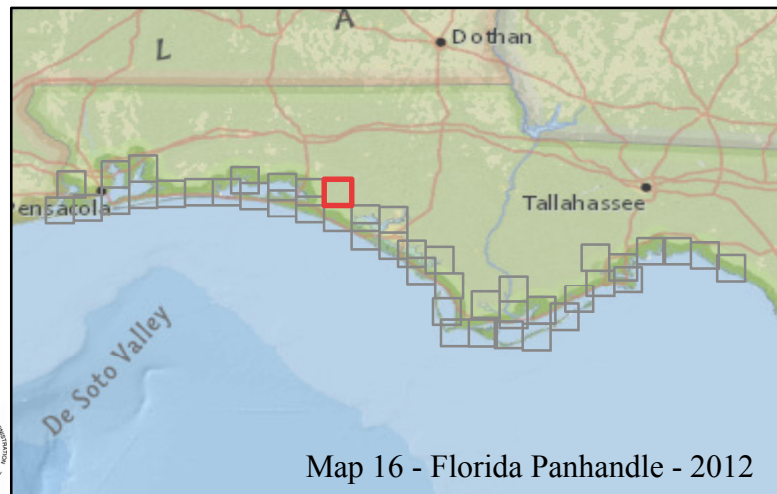


# Cowford Island, Florida



## ESI Shoreline Habitats on Map






- 10A Salt- and brackish-water marshes
- 10B Freshwater marshes
- 10C Swamps
- 10D Scrub-shrub wetlands
- 8B Sheltered, solid man-made structures
- 8C Sheltered riprap
- 4 Coarse-grained sand beaches
- 3A Fine- to medium-grained sand beaches
- 3B Scarps and steep slopes in sand




# Cowford Island, Florida

## BIOLOGICAL RESOURCES



### Fish

| Subelement   | Species           | S | F | Concentration | J | F | M | A | M | J | J | A | S | O | N | D | SPAWNING                      | EGGS                          | LARVAE                        | JUVENILE | ADULT   |
|--|-------------------|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|-------------------------------|-------------------------------|-------------------------------|----------|---|
|  Diadromous         | Alabama shad      |   | C | COMMON        |   | X | X | X | X | X | X |   |   |   |   |   | Mar-Aug<br>Mar-May            | Mar-Aug<br>Mar-May            | Mar-Sep<br>Apr-Jul            | May-Jul  | Feb-May   |
|  | Gizzard shad      |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  | Jan-Dec   |
|  | Gulf sturgeon     | T | T | ABUNDANT      |   |   | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Mar-Nov  | Mar-Nov   |
|  Estuarine Nursery  | Atlantic croaker  |   |   | COMMON        |   |   | X | X | X | X | X | X | X |   |   |   | Apr-Oct<br>Jan-Dec            | Apr-Oct<br>Jan-Dec            | Apr-Jun<br>Jan-Dec            | Mar-Sep  | Jan-Dec<br>Jan-Dec<br>Jan-Dec<br>Mar-Nov<br>Jan-Dec<br>Jan-Dec<br>Jan-Dec<br>Jul-Dec<br>Jan-Dec<br>Mar-Nov<br>Jan-Dec<br>Mar-Oct<br>Feb-Nov<br>Apr-Sep<br>Jan-Dec |
|  | Bay anchovy       |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Bull shark        |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Gulf menhaden     |   |   | COMMON        |   |   | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Mar-Nov  |   |
|  | Hardhead catfish  |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Hogchoker         |   |   | ABUNDANT      | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Ladyfish          |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Mojarras          |   |   | COMMON        |   |   |   |   |   |   | X | X | X | X | X | X |                               |                               |                               | Jul-Dec  |   |
|  | Red drum          |   |   | RARE          | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Sand seatrout     |   |   | COMMON        |   |   | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Mar-Nov  |   |
|  | Sheepshead        |   |   | COMMON        | 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  |   |
|  | Spot              |   |   | RARE          | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  | Striped mullet    |   |   | COMMON        |   |   |   | X | X | X | X | X | X |   |   |   |                               |                               |                               | Apr-Sep  |   |
|  | Tarpon            |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  |   |
|  Estuarine Resident | Code goby         |   |   | RARE          | X | X | X | X | X | X | X | X | X | X | X | X | Mar-Sep<br>Apr-Nov<br>Mar-Sep | Mar-Sep<br>Apr-Nov<br>Mar-Sep | Apr-Oct<br>Apr-Nov<br>Mar-Oct | Jan-Dec  | Jan-Dec   |
|  | Gulf killifish    |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | May-Feb  | Jan-Dec   |
|  | Sheepshead minnow |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | May-Feb  | Jan-Dec   |
|  | Silversides       |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  | Jan-Dec   |
|  Freshwater         | Bluenose shiner   | C |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               |          |   |
|  Marine Benthic   | Rays              |   |   | COMMON        | X | X | X | X | X | X | X | X | X | X | X | X |                               |                               |                               | Jan-Dec  | Jan-Dec   |


### Habitats and Rare Plants

| Subelement  | Species                | S | F | Concentration | J | F | M | A | M | J | J | A | S | O | N | D |
|---|------------------------|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|
|  Plant | Cooley's meadowrue     | E | E | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | Florida flame azalea   | E |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | Hummingbird flower     | E |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | Panhandle meadowbeauty | T |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | Spoon-leaved sundew    | T |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | White-top pitcherplant | E |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |
|   | Wiregrass gentian      | E |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |

### Marine Mammals










| Subelement  | Species             | S | F | Concentration | J | F | M | A | M | J | J | A | S | O | N | D | MATING | CALVING | PUPPING | MOLTING |
|---|---------------------|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|---------|---------|
|  Dolphin | Bottlenose dolphin  |   |   | -             | X | X | X | X | X | X | X | X | X | X | X | X |        |         |         |         |
|  Manatee | West Indian manatee | E | E | LOW           |   |   | X | X | X | X | X | X | X | X | X | X |        |         |         |         |

### Reptiles and Amphibians

| Subelement   | Species                  | S | F | Concentration | J | F | M | A | M | J | J | A | S | O | N | D | NESTING | HATCHING | INTERESTING | JUVENILE | ADULT   |
|--|--------------------------|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|----------|-------------|----------|---------|
|  Turtle | Green sea turtle         | E | E | RARE          | X | X | X | X | X | X | X | X | X | X | X | X |         |          |             | Jan-Dec  | Jan-Dec |
|  | Hawksbill sea turtle     | E | E | RARE          | X | X | X | X | X | X | X | X | X | X | X | X |         |          |             | Jan-Dec  | Jan-Dec |
|  | Kemp's ridley sea turtle | E | E | PRESENT       | X | X | X | X | X | X | X | X | X | X | X | X |         |          |             | Jan-Dec  | Jan-Dec |
|  | Leatherback sea turtle   | E | E | RARE          | X | X | X | X | X | X | X | X | X | X | X | X |         |          |             | Jan-Dec  | Jan-Dec |
|  | Loggerhead sea turtle    | T | T | PRESENT       | X | X | X | X | X | X | X | X | X | X | X | X |         |          | Apr-Sep     | Jan-Dec  | Jan-Dec |

## Cowford Island, Florida (continued)

### Human Use Resources








| Icon   | Type             | Name                             | Contact                | Phone        |
|--|------------------|----------------------------------|------------------------|--------------|
|  | Management Area  | Choctawatchee Bay Swim           | NWFWMD SWIM            | 850/539-5999 |
|  | Management Area  | Choctawatchee River Water Ma     |                        | 850/539-5999 |
|  | Management Area  | Pine Log State Forest            | KEITH CULLEN, FORESTER | 850/535-2888 |
|  | Management Area  | St. Andrew Bay Watershed Swim    | NWFWMD SWIM            | 850/539-5999 |
|  | Historical Site  | Historic Property                | FL SHPO                | 850/245-6440 |
|  | Critical Habitat | Gulf Sturgeon Critical Habitat   | FWRI                   |              |
|  | Critical Habitat | Reticulated Flatwoods Salamander | USFWS                  |              |
|  | Boat Ramp        | Big Cedar                        |                        |              |
|  | Boat Ramp        | Crews Lake Ramp                  |                        |              |
|  | Boat Ramp        | Pine Log Landing                 |                        |              |
|  | Boat Ramp        | Savage Landing                   |                        |              |
|  | Boat Ramp        | Wma-nw-03                        |                        |              |

### SHORELINE RESOURCES:

#### ESI Polygon Habitats

| Pattern  | ESI Rank | Habitat              | Area (meters <sup>2</sup> ) |
|--|----------|----------------------|-----------------------------|
|    | 10B      | Freshwater marshes   | 4,078,161                   |
|    | 10C      | Swamps               | 71,117,460                  |
|  | 10D      | Scrub-shrub wetlands | 7,278,735                   |

#### Shoreline Types (Length of ESI Shoreline on Map = 135,733 meters ; Length of Shoreline on Map = 145,590 meters)

| Color  | ESI Rank | Shoreline Habitat                    | Length (meters) | % of ESI Shoreline |
|--|----------|--------------------------------------|-----------------|--------------------|
|  | 10A      | Salt- and brackish-water marshes     | 17,829          | 13                 |
|  | 10B      | Freshwater marshes                   | 121             | <1                 |
|  | 10C      | Swamps                               | 134,469         | 99                 |
|  | 8B       | Sheltered, solid man-made structures | 879             | <1                 |
|  | 8C       | Sheltered riprap                     | 437             | <1                 |
|  | 4        | Coarse-grained sand beaches          | 361             | <1                 |
|  | 3A       | Fine- to medium-grained sand beaches | 1,111           | <1                 |
|  | 3B       | Scarps and steep slopes in sand      | 106             | <1                 |

**Note:** A shoreline segment may include multiple shoreline habitats. If any segments include multiple habitats, the combined length of all habitats will exceed the length of the mapped ESI shoreline, and the percent of ESI shoreline values will sum to greater than 100%.



Content from Florida Panhandle - 2012 ESI Atlas