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**Docket:** All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically through <http://www.regulations.gov> or in hard copy at the EPA Docket Center (2822T), EPA West Building, Room 3444, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For further information, contact Mr. Randy McDonald, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Coatings and Chemicals Group (E143-01), Environmental Protection Agency, Research Triangle Park, NC 27711; telephone number: (919) 541-5402; fax number: (919) 541-0246; e-mail address: [mcdonald.randy@epa.gov](mailto:mcdonald.randy@epa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **General Information**

##### *Extension of Public Comment Period*

We proposed the national emission standards for hazardous air pollutants (NESHAP) as part of our effort to comply with a court-ordered deadline that requires EPA to issue final standards for 10 area source categories listed pursuant to Clean Air Act sections

112(c)(3) and (k) by December 15, 2008 (*Sierra Club v. Johnson*, no. 01-1537, D.D.C., March 2006). To meet this deadline, we proposed NESHAP for nine area source categories in the chemical manufacturing sector. The proposal was published in the **Federal Register** on October 6, 2008 (73 FR 58352).

We received several requests to extend the public comment period by up to 55 days. Commenters requested more time to review the information in the docket and prepare in-depth comments. We agree that the comment period should be extended to allow more time for interested parties to prepare comprehensive comments. At the request of EPA, the Court has extended EPA's deadline for the nine area source categories at issue in the proposed rule from December 15, 2008, to May 15, 2009. Therefore, the public comment period will now end on January 5, 2009, rather than November 20, 2008. (The public comment period is currently scheduled to end on November 20, 2008, instead of November 5, 2008, because a public hearing was requested and held on October 21, 2008.)

*What should I consider as I prepare my comments for EPA?*

##### 1. Submitting CBI

Do not submit information that you consider to be CBI electronically through <http://www.regulations.gov> or e-mail. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404-02), Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711, Attention Docket ID EPA-HQ-OAR-2008-0334. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

##### 2. Availability of Related Information

The proposed rule for the National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources was published in the **Federal Register** on October 6, 2008 (73 FR 58352). EPA has established the official public docket for the proposed rulemaking under Docket ID No. EPA-HQ-OAR-2008-0334. Information on how to access the docket is presented above in the **ADDRESSES** section. In addition to being available in the docket, an electronic copy of the proposed rule is available on the World Wide Web through the Technology Transfer Network (TTN) at <http://www.epa.gov/ttn/oarpg>.

Dated: November 14, 2008.

**Robert J. Meyers,**

*Principal Deputy Assistant Administrator for Air and Radiation.*

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## **DEPARTMENT OF COMMERCE**

### **National Oceanic and Atmospheric Administration**

#### **50 CFR Part 226**

[Docket No. 070717355-8030-01]

RIN 0648-AV74

#### **Endangered and Threatened Species; Critical Habitat for the Endangered Distinct Population Segment of Smalltooth Sawfish**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** We, the National Marine Fisheries Service (NMFS), propose to designate critical habitat for the U.S. DPS of smalltooth sawfish (*Pristis pectinata*), which was listed as endangered on April 1, 2003, under the Endangered Species Act (ESA). The proposed critical habitat consists of two units: the Charlotte Harbor Estuary Unit, which comprises approximately 221,459 acres of coastal habitat; and the Ten Thousand Islands/Everglades Unit (TTI/E), which comprises approximately 619,013 acres of coastal habitat. The two units are located along the southwestern coast of Florida between Charlotte Harbor and Florida Bay.

**DATES:** Comments on this proposed rule must be received by January 20, 2009.

**ADDRESSES:** You may submit comments, identified by the Regulatory Information Number (RIN) 0648-AV74, by any of the following methods:

Mail: Assistant Regional Administrator, Protected Resources Division, NMFS, Southeast Regional Office, 263 13th Avenue South, St. Petersburg, FL 33701.

Facsimile (fax) to: 727-824-5309.

Electronic Submissions: Submit all electronic comments to [www.regulations.gov](http://www.regulations.gov) by clicking on "Search for Dockets" at the top of the screen, then entering the RIN in the "RIN" field and clicking the "Submit" tab.

Instructions: All comments received are considered part of the public record and will generally be posted to <http://www.regulations.gov>. All Personal Identifying Information (i.e., name, address, etc.) voluntarily submitted may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information. NMFS will accept anonymous comments (enter "n/a" in the required fields if you wish to remain anonymous). Please provide electronic attachments using Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

**FOR FURTHER INFORMATION CONTACT:** Shelley Norton, NMFS, Southeast Regional Office, at 727-824-5312; or Lisa Manning, NMFS, Office of Protected Resources, at 301-713-1401.

**SUPPLEMENTARY INFORMATION:**

**Background**

Under the ESA, we are responsible for determining whether certain species are threatened or endangered and for designating critical habitat for such species (16 U.S.C. 1533). On April 1, 2003, we listed the U.S. distinct population segment (DPS) of smalltooth sawfish ("the species") as endangered (68 FR 15674). At the time of listing, we also announced that critical habitat was not then determinable because we were completing ongoing studies necessary for the identification of specific habitats and environmental features important for the conservation of the species. Subsequently, we have sponsored additional research on the species, its habitat use, and its conservation needs. Additionally, NMFS has developed a draft recovery plan for the species pursuant to section 4(f) of the ESA. NMFS has now reviewed the best available scientific data and identified specific areas on which are located those physical and biological features essential to the conservation of the species.

*Smalltooth Sawfish Natural History*

The following discussion of the distribution, life history, and habitat use of the U.S. DPS of smalltooth sawfish is based on the best available commercial and scientific information, including information provided in the Status Review (65 FR 12959, March 10, 2000) and the Draft Smalltooth Sawfish Recovery Plan (71 FR 49418, August 23, 2006).

*Distribution and Range*

Smalltooth sawfish are tropical marine and estuarine elasmobranch (e.g., sharks, skates, and rays) fish that are reported to have a circumtropical distribution. The historic range of the smalltooth sawfish in the United States extends from Texas to New York (NMFS, 2006). The U.S. region that has historically harbored the largest number of smalltooth sawfish is south and southwest Florida from Charlotte Harbor to the Dry Tortugas. Most capture records along the Atlantic coast north of Florida are from spring and summer months and warmer water temperatures. Most specimens captured along the Atlantic coast north of Florida have also been large (greater than 10 ft or 3 m) adults and are thought to represent seasonal migrants, wanderers, or colonizers from a core or resident population(s) to the south rather than being resident members of a continuous, even-density population (Bigelow and Schroeder, 1953). Historic records from Texas to the Florida Panhandle suggest a similar spring and summer pattern of occurrence. While less common, winter records from the northern Gulf of Mexico suggest a resident population, including juveniles, may have once existed in this region.

The Status Review Team (NMFS, 2000) compiled information from all known literature accounts, museum collection specimens, and other records of the species. The species suffered significant population decline and range constriction in the early to mid 1900's. Encounters with the species outside of Florida have been rare since that time.

Since the 1990's, the distribution of smalltooth sawfish in the United States has been restricted to peninsular Florida (Seitz and Poulakis, 2002; Poulakis and Seitz, 2004; Simpfendorfer and Wiley, 2005; Mote Marine Laboratory's National Sawfish Encounter Database [MMLNSE]). Encounter data indicates smalltooth sawfish encounters can be found with some regularity only in south Florida from Charlotte Harbor to Florida Bay. A limited number of reported encounters (one in Georgia, one in Alabama, one in Louisiana, and

one in Texas) have occurred outside of Florida since 1998.

Peninsular Florida is the main U.S. region that historically and currently hosts the species year-round because the region provides the appropriate climate (subtropical to tropical) and contains the habitat types (lagoons, bays, mangroves, and nearshore reefs) suitable for the species. Encounter data and research efforts indicate a resident, reproducing population of smalltooth sawfish exists only in southwest Florida (Simpfendorfer and Wiley, 2005).

*Life History*

Smalltooth sawfish are approximately 31 in (80 cm) in total length at birth and may grow to a length of 18 ft (540 cm) or greater. A recent study by Simpfendorfer *et al.* (2008) suggests rapid juvenile growth occurs during the first two years after birth. First year growth is 26-33 in (65-85 cm) and second year growth is 19-27 in (48-68 cm). Growth rates beyond two years are uncertain; however, the average growth rate of captive smalltooth sawfish has been reported between 5.8 in (13.9 cm) and 7.7 in (19.6 cm) per year. Apart from captive animals, little is known of the species' age parameters (i.e., age-specific growth rates, age at maturity, and maximum age). Simpfendorfer (2000) estimated age at maturity between 10 and 20 years, and a maximum age of 30 to 60 years. Unpublished data from Mote Marine Laboratory (MML) and NMFS indicates male smalltooth sawfish do not reach maturity until they reach 133 in (340 cm).

No directed research on smalltooth sawfish feeding habits exists. Reports of sawfish feeding habits suggest they subsist chiefly on small schooling fish, such as mullets and clupeids. They are also reported to feed on crustaceans and other bottom-dwelling organisms. Observations of sawfish feeding behavior indicate that they attack fish by slashing sideways through schools, and often impale the fish on their rostral (saw) teeth (Breder, 1952). The fish are subsequently scraped off the teeth by rubbing them on the bottom and then ingested whole. The oral teeth of sawfish are ray-like, having flattened cusps that are better suited to crushing or gripping.

Very little is known about the specific reproductive biology of the smalltooth sawfish. As with all elasmobranchs, fertilization occurs internally. The embryos of smalltooth sawfish, while still bearing the large yolk sac, resemble adults relative to the position of their fins and absence of the lower caudal lobe. During embryonic development,

the rostral blade is soft and flexible. The rostral teeth are also encapsulated or enclosed in a sheath until birth. Shortly after birth, the teeth become exposed and attain their full size, proportionate to the size of the saw. Total length of the animal at birth is approximately 31 in (80 cm), with the smallest free-living specimens reported during field studies in Florida being 27–32 in (69–81 cm) (Simpfendorfer *et al.*, 2008). Documentation on the litter size of smalltooth sawfish is very limited. Gravid females have been documented carrying between 15–20 embryos; however, the source of this data is unclear and may represent an overestimate of litter size. Studies of largemouth sawfish in Lake Nicaragua (Thorson, 1976) report brood sizes of 1–13 individuals, with a mean of 7.3 individuals. The gestation period for largemouth sawfish is approximately 5 months, and females likely produce litters every second year. Although there are no such studies on smalltooth sawfish, their similarity to the largemouth sawfish implies that their reproductive biology may be similar. Genetic research currently underway may assist in determining reproductive characteristics (i.e., litter size and breeding periodicity).

No confirmed breeding sites have been identified to date since directed research began in 1998. Research is underway to investigate areas where adult smalltooth sawfish have been reported to congregate along the Everglades coast to determine if breeding is occurring in the area.

Life history information on the smalltooth sawfish has been evaluated using a demographic approach and life history data on largemouth sawfish and similar species from the literature. Simpfendorfer (2000) estimates intrinsic rates of natural population increase as 0.08 to 0.13 per year and population doubling times from 5.4 to 8.5 years. These low intrinsic rates of population increase are associated with the life history strategy known as “k-selection.” K-selected animals are usually successful at maintaining relatively small, persistent population sizes in relatively constant environments. Consequently, they are not able to respond effectively (rapidly) to additional and new sources of mortality resulting from changes in their environment. Musick (1999) and Musick *et al.* (2000) noted that intrinsic rates of increase less than ten percent were low, and such species are particularly vulnerable to excessive mortalities and rapid population declines, after which recovery may take decades. Thus, smalltooth sawfish populations are

expected to recover slowly from depletion. Simpfendorfer (2000) concluded that recovery was likely to take decades or longer, depending on how effectively sawfish could be protected.

#### *Habitat Usage*

At the time of listing, very little information was known about the habitat usage patterns of the species. The Status Review and the final listing rule identified habitat loss and degradation as the secondary cause of the species' decline. The primary reason for the species' decline was bycatch in various commercial and recreational fisheries.

The Status Review (NMFS, 2000) described sawfish habitat usage as: “Sawfish in general inhabit the shallow coastal waters of most warm seas throughout the world. They are found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m). They are often found in sheltered bays, on shallow banks, and in estuaries or river mouths.” In the years since the status review, additional research on habitat use by smalltooth sawfish has been undertaken. This research confirmed this general characterization for smalltooth sawfish and has revealed a more complex pattern of habitat use than previously known, with different life history stages having different patterns of habitat use.

A variety of methods have been applied to studying habitat use patterns of smalltooth sawfish, including acoustic telemetry (Simpfendorfer, 2003), acoustic monitoring (Simpfendorfer, unpublished data; Poulakis, unpublished data), public encounter databases (Seitz and Poulakis, 2002; Poulakis and Seitz, 2004; Simpfendorfer and Wiley, 2005), and satellite archival tagging (Simpfendorfer and Wiley, 2005b). The majority of this research has targeted juvenile sawfish, but some information on adult habitat use has also been obtained.

Encounter databases also provide insight into the habitat use patterns of smalltooth sawfish. MML, Florida Fish and Wildlife Research Institute (FWRI, formerly managed by Poulakis and Seitz), and the Florida Museum of Natural History (FLMNH) manage encounter databases containing data on sightings and captures of smalltooth sawfish from commercial and recreational fishermen, research efforts, and other sources (e.g., divers and boaters). To request reporting of sightings/captures from the public, MML, FWRI, and FLMNH have engaged in various outreach efforts. These efforts

include placing flyers at boat ramps and tackle/dive shops, media releases, articles in fishing magazines, interviews with recreational fishing guides and commercial fisheries, websites, and personal contacts with researchers. Standard questionnaires are used to collect encounter data (water depth, location, tidal states, gear information, size of animal, and various other physical and environmental features). Outreach efforts were initially focused primarily in Florida but have expanded into areas along the southeastern coasts of the United States between Texas and North Carolina. The bulk of the reports of smalltooth sawfish sightings and/or captures occur primarily in Florida between Charlotte Harbor and Florida Bay.

Based on our historic and current knowledge of where smalltooth sawfish are encountered (coastal areas), we believe recreational fishers who primarily fish in coastal areas represent the best source of data for the species. Additionally, Simpfendorfer and Wiley (2005) analyzed the number of registered fishers in Florida by county to see if fishing effort affects the distribution of the encounters. No strong correlation between the distribution of fishers and the encounter locations was found. Based on Simpfendorfer and Wiley (2005), we believe that the encounter data is not geographically biased.

The second largest source of encounter data is directed-research programs conducted by FWRI, MML, and NMFS. Directed-research efforts on the species are also primarily focused in coastal areas but are limited to southwest Florida between Charlotte Harbor and the Florida Keys. The sampling methodologies for the directed research efforts are not random or stratified; research efforts are focused in areas where sawfish have been encountered, primarily southwest Florida. We anticipate future sampling efforts for these and other areas will use a random-stratified approach. Research is underway to determine habitat usage patterns, site fidelity, movement patterns, and various genetic relationships.

Encounter and research data provide some insight into adult smalltooth sawfish habitat usage patterns. Data on adult male (at least 134 in [340 cm] in length) and adult female (142 in [360 cm] in length) smalltooth sawfish is very limited. Information on adult smalltooth sawfish comes from encounter data, observers aboard fishing vessels, and pop-up satellite archival (PAT) tags. The encounter data suggest that adult sawfish occur from shallow

coastal waters to deeper shelf waters. Poulakis and Seitz (2004) observed that nearly half of the encounters with adult-sized sawfish in Florida Bay and the Florida Keys occurred in depths from 200 to 400 ft (70 to 122 m). Simpfendorfer and Wiley (2005) also reported encounters in deeper water off the Florida Keys, noting that these were mostly reported during winter. Observations on commercial longline fishing vessels and fishery independent sampling in the Florida Straits show large sawfish in depths of up to 130 ft (40 m) (Carlson and Burgess, unpublished data).

Seitz and Poulakis (2002) reported that one adult-sized animal, identifiable by its broken rostrum, was captured in the same location over a period of a month near Big Carlos Pass. This suggests that adults may have some level of site fidelity for relatively short periods; however, the historic occurrence of seasonal migrations along the U.S. East Coast also suggests that adults may be more nomadic than juveniles with their distribution controlled, at least in part, by water temperature.

In summary, there is limited information on adult sawfish distribution and habitat use. Adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths. Adults are believed to feed on a variety of fish species and crustaceans. No known breeding sites have been identified. Encounter data have identified river mouths as areas where many people observe both juvenile and adult sawfish. Seitz and Poulakis (2002) noted that many of the encounters occurred at or near river mouths in southwest Florida. Simpfendorfer and Wiley (2005b) reported a similar pattern of distribution along the entire west coast of Florida. Along the Everglades coastal region, Simpfendorfer and Wiley (2005) report a strong association of smalltooth sawfish with the Chatham, Lostmans, Rodgers, Broad, Harney, and Shark Rivers.

Most of the research and encounter data on habitat usage of smalltooth sawfish has been obtained on juveniles that are less than 79 in (200 cm). Juveniles in this size class are most susceptible to predation and starvation (Simpfendorfer, 2006). Like other species of elasmobranchs, smalltooth sawfish appear to use nursery areas because of the reduced numbers of predators and abundant food resources (Simpfendorfer and Milward, 1993).

Much of the research on smalltooth sawfish juveniles indicates some

differences in habitat use based on the length of the animals, between what are characterized as very small (less than 39 in [100 cm]) and small (39–79 in [100–200] cm) juveniles. Most encounters of both very small and small juveniles have been within 1,641 ft (500 m) of shore (Simpfendorfer, 2006).

Very small juvenile smalltooth sawfish show high levels of site fidelity, at least over periods of days and potentially for much longer (Simpfendorfer, 2003 and 2006). Limited acoustic tracking studies (less than five animals) have shown that, at this size, sawfish will remain associated with the same shallow mud bank over periods of several days (Simpfendorfer, 2003). Very small juveniles spend a large portion of their time on the same shallow mud or sand banks in water less than 1 ft (30 cm) deep. Since water levels on individual mud banks vary with the tide, the movements of these small animals appear to be directed toward remaining in shallow water. The mud banks are very small and preliminary home range size for the tracked animals is estimated to be 1,076 -10,763 ft<sup>2</sup> (100–1,000 m<sup>2</sup>) (Simpfendorfer, 2003). The longer-term fidelity to these sites is poorly understood, and ongoing research is expected to provide more insight into determining how much habitat very small juveniles use on a daily basis. Simpfendorfer (2001) concludes that shallow coastal waters represent key habitat for the species, and in particular that waters less than 3.3 ft (1 m) may be very important as nursery areas. The primary purpose of staying in such shallow water is likely to avoid predators, such as bull sharks. Additionally, these shallow waters may provide warm water temperatures that may be utilized to maximize growth rates (Simpfendorfer, 2006). Simpfendorfer (2001) concludes that most smalltooth sawfish (adults and juveniles) show a preference for water temperatures greater than 17.8° C (64° F).

In addition to shallow mud banks, very small juveniles also use red mangrove prop root habitats in southern Florida (Simpfendorfer and Wiley, 2005). Animals in this size class spend the vast majority of their time in very shallow water less than 1 ft (30 cm) deep, and they tend to move into mangrove prop roots during periods of high tide. Red mangrove habitats also provide foraging opportunities for very small and small juveniles, because the prop root system provides nursery areas for various fish and crustacean species.

Small juveniles have many of the same habitat use characteristics seen in

the very small sawfish. Their association with very shallow water (less than 1 ft [30 cm] deep) is slightly weaker, possibly because they are better suited to predator avoidance due to their larger size and greater experience (NMFS, 2006). They do still have a preference for shallow water, remaining in depths mostly less than 3.3 ft (1 m). Most encounters of small juveniles also occur near red mangroves. Site fidelity has also been studied on small juvenile sawfish. Several sawfish, approximately 59 in (150 cm) in length and fitted with acoustic tags, have been relocated in the same general areas over periods of several months, suggesting a high level of site fidelity (Simpfendorfer 2003). The daily home range for these animals, based on data from a few animals, appears to be much larger than that of very small juveniles (e.g., 10,763,910–53,819,552 ft<sup>2</sup> [1–5 km<sup>2</sup>]). The recent implementation of acoustic monitoring systems to study the longer term site fidelity of sawfish has confirmed these observations and also indicates that changes in environmental conditions (salinity) may be important in driving changes in local distribution and, therefore, habitat use patterns (Simpfendorfer, unpublished data).

Simpfendorfer and Wiley (2005) documented that no encounters occurred within habitat in permanent freshwater areas. Many encounters occur near river mouths or near sources of freshwater inflow and encounter data suggests that estuarine habitats may be an important factor affecting the species' distribution. Simpfendorfer (2001) suggests the reason smalltooth sawfish occur in river mouth areas may be due to the lower salinity, submerged vegetation, or because prey may be abundant. We analyzed (MML and FWRI) encounter data from 1998–2008 for juveniles and the data indicates the majority of the juvenile encounters occur within euryhaline or estuarine waters. Euryhaline/estuarine waters are highly productive areas that contain a variety of food sources for the smalltooth sawfish. Mullet, clupeids, and various crustacean species that are known food sources for the smalltooth sawfish are commonly found in estuarine areas.

Juvenile smalltooth sawfish may require specific salinity regimes with specific freshwater inputs but at this time data on specific salinity regime requirements for the species does not exist. Ongoing studies of habitat use patterns of very small and small juveniles in the Caloosahatchee River are expected to provide more insight into the habitat used by or necessary for an individual juvenile (less than or

equal to 79 in [200 cm] in length) smalltooth sawfish. At this time, however, there is insufficient data available to determine whether specific salinity ranges are requirements of small juveniles.

Data on large (greater than 79 in [200 cm] in length) juvenile smalltooth sawfish is limited, and more information is needed to determine the habitat usage patterns and site fidelity characteristics of this size class of smalltooth sawfish.

#### **Critical Habitat Identification and Designation**

Critical habitat is defined by section 3 of the ESA as “(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.” This definition provides us with a step-wise approach to identifying areas that may be designated as critical habitat for the endangered smalltooth sawfish.

#### *Geographical Area Occupied by the Species*

The best available scientific and commercial data identifies the geographical area occupied by the smalltooth sawfish at the time of listing (April 1, 2003) as peninsular Florida. We have interpreted “geographical area occupied” in the definition of critical habitat as the range of the species at the time of listing (45 FR 13011; February 27, 1980). The range was delineated at the time of listing from data provided by existing literature and encounter data. Because only a few contemporary encounters (one in Georgia, one in Alabama, and one in Louisiana) have been documented outside of Florida since 1998, we consider peninsular Florida to be the species’ occupied range at the time of listing. At this time, we do not consider these limited observations as indicating that the species has re-established either its occupation of Gulf coast states or its seasonal migrations up the east coast of the U.S. outside of Florida.

#### *Specific Areas Containing Physical or Biological Features Essential to Conservation*

The definition of critical habitat further instructs us to identify the specific areas on which are found the physical or biological features essential to the species’ conservation. Our regulations state that critical habitat will be defined by specific limits using reference points and lines on standard topographic maps of the area, and referencing each area by the State, county, or other local government unit in which it is located (50 CFR 424.12(c)).

According to the definition of critical habitat, the physical and biological features essential to conservation must be identified (hereafter also referred to as “essential features”). Section 3 of the ESA (16 U.S.C. 1532(3)) defines the terms “conserve,” “conserving,” and “conservation” to mean: “to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary.” Our regulations at 50 CFR 424.12(b) provide guidance as to the types of habitat features that may be used to describe critical habitat.

The draft recovery plan developed for the smalltooth sawfish represents the best judgment about the objectives and actions necessary for the species’ recovery. We reviewed the draft recovery plan’s habitat-based recovery objective for guidance on the habitat-related conservation requirements of the species. This objective identifies the need to protect and/or restore smalltooth sawfish habitats and discusses adult and juvenile habitats separately. Habitats, especially those that have been demonstrated to be important for juveniles, must be protected and, if necessary, restored. Protected, suitable habitat throughout the species’ range will be necessary to support recruitment of young individuals to the recovering population. Without sufficient habitat, the population is unlikely to increase to a level associated with low extinction risk and delisting.

The draft recovery plan also identifies specific recovery criteria that must be met to satisfy each objective. As stated in the plan, adult habitat-based recovery criteria for the species require the identification and protection of adult aggregation, mating, and/or pupping areas. Information on historic aggregation, mating, and/or pupping sites does not exist. Currently, no

aggregation or mating areas have been identified for adults. Additionally, no information is available on specific pupping locations for gravid females. Tracking data on gravid females is lacking, but newborn juveniles still possessing their protective sheaths and newly pupped animals have been documented close to shore. Encounter and site fidelity data suggest juveniles are pupped in these areas, but this has not been validated. No known specific areas where adults perform any particular function, including feeding, are known. Adults are considered opportunistic feeders and forage on a variety of fish and crustacean species. Based on the available information on the habitat usage patterns of adults, we cannot identify physical or biological features essential to the species’ conservation, or identify any areas on which such features may be found.

In contrast to the paucity of information available on adult smalltooth sawfish, more detailed information on habitat usage patterns of juveniles is available, and more specific habitat-based recovery criteria are identified in the recovery plan. The habitat-based recovery criterion for juveniles identifies mangrove shorelines, non-mangrove nursery habitats, and freshwater flow regimes as important features for juveniles. As stated earlier, the habitat-based recovery objective for the species focuses on protecting areas that have been identified as important for juveniles (i.e., nurseries). This objective also stresses the need to protect suitable habitats for juveniles to support their recruitment into the population. Juveniles are especially vulnerable to predation and starvation (Simpfendorfer and Wiley, 2005). Protection of the species’ nurseries is crucial because the rebuilding of the population cannot occur without protecting the source (juvenile) population and its associated habitats. The recovery plan states that the recovery of the smalltooth sawfish depends on the availability and quality of nursery habitats and that protection of high-quality nursery habitats located in southwest Florida is essential to the species.

We conclude that facilitating recruitment into the population by protecting the species’ juvenile nursery areas is the key conservation objective for the species that will be supported by the designation of critical habitat.

As stated in the recovery plan, smalltooth sawfish, like many sharks and rays, use specific habitats commonly referred to as nurseries or nursery areas. The recovery plan does not identify specific locations for

nursery areas but does state that protecting nursery areas within southwest Florida is important to the recovery of the species. Nursery areas in addition to those in southwest Florida are also identified as important for recovery but locations of these additional areas were not specified. Thus, to identify specific areas that may meet the definition of critical habitat, we focused on specifically defining what constitutes a "nursery" area for smalltooth sawfish. We then identified those physical or biological features that are essential to the conservation of the species because they provide nursery area functions to the species in these areas.

We evaluated information in the draft recovery plan, historical information on habitat use by sawfish, and available encounter data and scientific literature, as well as sought expert opinion, to determine where or what constitutes a "nursery area" for the species. Historical information on the species only provides limited, mostly anecdotal, information on the location of juvenile animals and does not discuss specific habitat usage patterns for them. Historical information indicates that juveniles were found in the lower reaches of the St. Johns River, the Indian River Lagoon, southwest Florida, and in areas along the Gulf coast between Florida and Texas. Using historic location information alone would not provide a reasonable basis for identification of nursery areas, given the qualitative nature of the information. Further, because most of these areas have been so physically altered, conditions present historically may not be present today, and thus features that may have provided nursery area functions in the past may be absent.

We then reviewed juvenile encounter data from the MML and FWRI databases to see whether the data alone indicates the existence of nursery areas. In summary, juvenile sawfish have been encountered in the Florida Panhandle, the Tampa Bay area, in Charlotte Harbor and the Caloosahatchee River, throughout the Everglades region and Florida Bay, the Florida Keys, and in scattered locations along the east coast of Florida south of the St. Johns River. However, apart from the Charlotte Harbor, Caloosahatchee River, and Ten Thousand Islands/Everglades (TTI/E) areas, many of these encounters are represented by a single individual in a single year.

Heupel *et al.* (2007) are critical of defining nursery areas for sharks and related species such as sawfish based solely on the presence of single occurrences of individual juvenile fish.

Instead, these authors argue that nursery areas are areas of increased productivity which can be evidenced by natal homing or philopatry (use of habitats year after year) and that juveniles in such areas should show a high level of site fidelity (remain in the area for extended periods of time). Heupel *et al.* (2007) propose that shark nursery areas can be defined based on three primary criteria: (1) juveniles are more common in the area than other areas, i.e., density in the area is greater than the mean density over all areas; (2) juveniles have a tendency to remain or return for extended periods (weeks or months), i.e., site fidelity is greater than the mean site fidelity for all areas; and (3) the area or habitat is repeatedly used across years whereas other areas are not. Scattered and infrequent occurrences of juveniles may indicate a lack of features that provide the necessary functions of a nursery area, and an area with only scattered or infrequent occurrences is not viewed by the authors as constituting a nursery area. Heupel *et al.* (2007) do not assume that all sharks have nursery areas. The authors discuss that size-at-birth, rate of growth, time to maturity, litter size and frequency of breeding may be important factors dictating whether a shark species utilizes a nursery or not. Shark species with high growth rates, early maturity, and annual reproduction may not benefit as much from utilizing a nursery area. In contrast, the authors predict that species that have small size at birth and slow juvenile growth rates may be more likely to utilize nursery areas because they may be more susceptible to juvenile predation. We believe this paper provides the best framework for defining a "nursery area" for the smalltooth sawfish because they are small at birth, slow to mature, and existing data on tracked juveniles indicates their limited movements and ranges are directed toward avoiding predation by sharks foraging in deeper waters.

Using the Heupel *et al.* (2007) framework, we evaluated our juvenile encounter data for patterns in juvenile density, site fidelity, and repeat usage over years. Encounter data indicate three types of distributions of individual juvenile sawfish. The first group consists of scattered or single encounters. Encounters occurring in areas north of Charlotte Harbor, including a few in the panhandle of Florida and along the east coast of Florida, are included in this group. Encounters in these areas were scattered individual encounters, and no indication of repeat or multiple use of

an area was evident. The second group of encounters consists of encounters that had multiple individuals in an area, but these encounters were geographically scattered and not repeated over years. These encounters occurred in the Florida Keys. Encounters in this group were located on different sides of various Keys, and no consistent or continuous pattern of repeat usage over years could be identified. In fact, in 2006, juvenile encounters were largely lacking throughout much of the Keys. The third group of encounters exhibit repeat usage of the same location by both single and multiple individuals, higher density of encounters than the other groups, and usage occurring year after year. These encounters occurred in areas from Charlotte Harbor south through the Everglades and Florida Bay.

Based on this analysis, the juvenile encounters in the third grouping discussed above, from Charlotte Harbor through the Everglades, are the only encounters that suggest these areas meet the nursery area criteria set forth by Heupel *et al.* (2007). Juvenile sawfish are more commonly encountered in these areas than in other areas, i.e. density in the area is greater than the mean density over all areas, and the area is repeatedly used across years, whereas others are not. Available information about site fidelity of juveniles is limited and does not allow quantitative comparisons between the apparent nursery areas and all other areas. However, as discussed above, available information indicates that small and very small juveniles show high fidelity to shallow nearshore areas where they have been acoustically tracked. Data from juveniles tracked in the TTI/E area indicate they exhibit site fidelity and residency patterns between 15 and 55 days (Wiley and Simpfendorfer, 2007). Tracking data also suggests that juveniles exhibit specific movement patterns to avoid predation. A juvenile tracked in the Everglades National Park (ENP) in the Shark River spent its time moving between a shallow mud bank during low tide and mangrove roots during high tide (Simpfendorfer, 2003). Tracking data in Mud Bay (ENP) and Faka Union Bay (TTI) indicate juveniles remain in very shallow waters, 0.9 ft (0.3 m) over several weeks. Tracking data in the Charlotte Harbor Estuary is limited to the Caloosahatchee River and its adjacent canals. Juvenile tracking data from a 60 in (153 cm) juvenile indicates that the animal remained within water depths less than 3 ft (0.9 m) along a highly modified shoreline (Simpfendorfer, 2003). Tracking data

indicates the animal spent the majority of its time within man-made canals and adjacent to docks and marinas within the river.

Juvenile encounters outside of the area between Charlotte Harbor and the Everglades and Florida Bay do not fit the framework and are not considered nursery areas at this time. Anecdotal information indicates that juvenile size animals have been encountered throughout portions of their historic range, and our recovery plan indicates that the establishment of nursery areas outside of southwest Florida is necessary for the species to recover. However, we cannot determine at this time the temporal or spatial distribution of future sawfish nursery areas.

To more specifically delineate the boundaries of the nursery area or areas, we utilized Geographical Information System (GIS) software to map the density of all juvenile (length less than or equal to 200cm) encounters (MML and FWRI) located along peninsular Florida within 500 m of land, documented between the years of 1998–2008, with all years combined. Two density maps were generated to determine the mean density for all encounters and the density for all encounters excluding the research encounters. We utilized 1km<sup>2</sup> density grids (same grid size utilized by Simpfendorfer, 2006) to determine density levels and distributions. Juvenile densities were very similar between the two groups. However, to remove any bias from the research efforts, we utilized the juvenile density map excluding research effort. The overall nursery area between Charlotte Harbor and Florida Bay breaks naturally into two areas between Ten Thousand Islands and the Caloosahatchee River, based on a long stretch of sandy beach habitat in the Naples area that is lacking encounters with densities greater than the mean density overall. Next we mapped juvenile encounters in these two areas by year (1998–2008), to verify where repeat usage occurred over years. This produced several groupings of 1 km<sup>2</sup> grids with higher mean juvenile densities compared to mean juvenile density throughout peninsular Florida: 1 grouping within Charlotte Harbor, 1 grouping encompassing the Caloosahatchee River, and 3 groupings from the Ten Thousand Islands area through Florida Bay. We do not believe either the Charlotte Harbor Estuary or the TTI/E nursery areas should be subdivided into multiple smaller nursery areas for several reasons. First, the Heupel *et al.* (2007), framework does not indicate how discrete nursery areas within a large area of juvenile use might

be identified. Second, our knowledge about juvenile sawfish movements and ranges is very limited. Third, both areas consist of interconnected environmental systems and no environmental barriers exist to prohibit juvenile sawfish movement throughout the system. Finally, limiting nursery area boundaries to discrete habitat grids represented only by past encounters with juveniles would not best serve the conservation objective of facilitating population growth through juvenile recruitment. The specific boundaries of the two nursery areas were then derived by locating the nearest publicly identifiable boundary (e.g., boundaries of established parks or preserves) or structure external to the outermost boundary of the juvenile density grids where the mean density is greater than the density in the surrounding areas. We identified reference points and lines on standard topographic maps in the area to describe the specific boundary of the nursery areas.

The Charlotte Harbor Estuary nursery area includes Charlotte Harbor, Gasparilla Sound, Pine Island Sound, Matlacha Pass, San Carlos Bay, Estero Bay, and the Caloosahatchee River in Charlotte and Lee Counties. The nursery area is defined by the following boundaries. It is bounded by the Peace River at the eastern extent at the mouth of Shell Creek and the northern extent of the Charlotte Harbor Preserve State Park. At the Myakka River the estuary is bounded by the SR–776 Bridge and Gasparilla Sound at the SR–771 Bridge. The COLREGS–72 lines between Gasparilla Island, Lacosta Island, North Captiva Island, Captiva Island, Sanibel Island, and the northern point of Estero Island are used as the coastal boundary for the nursery area. The southern extent of the area is the Estero Bay Aquatic Preserve, which is bounded on the south by the Lee/Collier County line. Inland waters are bounded at SR–867 (McGregor Blvd) to Fort Myers, SR–80 (Palm Beach Blvd), Orange River Blvd, Buckingham Rd, and SR–80 to the west side of the Franklin Lock and Dam (S–79), which is the eastern boundary on the Caloosahatchee River and a structural barrier for sawfish access. Additional inland water boundaries north and west of the lock are bounded by North River Road, SR–31, SR–78 near Cape Coral, SR–765, US–41, SR–35 (Marion Ave) in Punta Gorda, and Riverside Road to the eastern extent of the Peace River. The Charlotte Harbor nursery area is graphically displayed at the end of this document.

The Ten Thousand Islands/Everglades (TTI/E) nursery area is located within Collier, Monroe, and Miami-Dade

Counties, Florida. The Everglades nursery area includes coastal and inshore waters within Everglades National Park (ENP), including Florida Bay; in the vicinity of Everglades City; within the Cape Romano-Ten Thousand Islands Aquatic Preserve (AP); and within the portion of Rookery Bay AP south of SR–92. The boundaries match the portion of Rookery Bay AP south of SR–92, and the Cape Romano-Ten Thousand Islands Aquatic Preserve AP. The nursery area boundaries also match the ENP boundaries with following two exceptions. The nursery area boundary connects points 55 and 57, which extend beyond the ENP boundary to include accessible nursery areas. The nursery area boundary is located inside the ENP boundary between points 77 and 2, omitting the northeastern portion of the ENP. The area is omitted because it is not accessible to sawfish. The TTI/E nursery area is graphically displayed at the end of this document.

Having identified the nursery areas, we next identified the physical or biological features found in these areas that are essential to the species' conservation because they provide nursery area functions to the sawfish.

Simpfendorfer (2006) analyzed MML's smalltooth sawfish encounter data to determine the importance of habitat factors to juveniles less than 79 in (200 cm) in length. Depth data is consistently reported by fishers and is accurately reported because most fishers use depth finders so depth data was extracted from the encounter database. Simpfendorfer (2006) examined the proximity of encounters to habitat features that could be evaluated from geographic information system (GIS) databases. These features were: mangroves (GIS mangrove coverages cannot distinguish between mangrove species), seagrasses, freshwater sources, and the shoreline. Simpfendorfer (2006) used GIS shapefiles for the features to determine the shortest distance from the encounter to the feature. The encounter data was converted to encounter density by gridding the data, and the results of the analysis were then used in a habitat suitability model. The model indicates that water depths less than 3 ft, mangrove buffers or shorelines, and euryhaline habitat areas (areas with wider salinity ranges and receiving freshwater input) have the strongest correlation with juvenile smalltooth sawfish encounters. Additionally, most encounters were documented within a distance of 1641 ft (500 m) from shore. The Simpfendorfer (2006) model suggests that areas of high suitability for juvenile sawfish contain all three of these features. Large areas coded as

“highly suitable” habitat for juveniles are located in the areas we determined meet the Heupel *et al.* (2007) framework criteria for a nursery area, as applied to the sawfish.

Based on the natural history of the species, its habitat needs and the key conservation objective of protecting juvenile nursery areas, two physical and biological features are identified as essential to the conservation of the smalltooth sawfish because they provide nursery area functions. The two features are: red mangroves and shallow euryhaline habitats characterized by water depths between the Mean High Water line and 3 ft (0.9 m) measured at Mean Lower Low Water (MLLW). As discussed above, the prop root system and the location of red mangroves (close to shore), and shallow water depths provide refuge from predators. Red mangroves and shallow mud or sand bank euryhaline habitats are also highly productive and provide ample, diverse foraging resources. Among elasmobranchs, smalltooth sawfish are one of the few species known to inhabit euryhaline habitats which may provide several benefits for the species. Euryhaline habitats are very productive environments that support an abundance and variety of prey resources that can only be accessed by species that inhabit their systems. Additionally, the risk of predation may be reduced in these euryhaline habitats because potential predators (sharks) may be incapable of inhabiting these habitats.

Based on the best available information, we conclude red mangroves and adjacent shallow euryhaline habitats and the nursery area functions they provide facilitate recruitment of juveniles into the adult population. Thus, these features are essential to the conservation of the smalltooth sawfish. While some studies cite 1.0 meter as the preferred depth limit, others (Simpfendorfer, 2006), cite 3.0 ft. For this rule, the water depth feature will be defined as 3 ft (0.9 m) because the NOAA Navigational Charts depth contour lines and most GIS databases utilize English units of measure.

Based upon the best available information, we cannot conclude that any other sufficiently definable features of the environment in the two nursery areas, other than red mangroves and adjacent shallow euryhaline habitats, are essential to smalltooth sawfish conservation.

Based on the boundaries of the two nursery areas and GIS data information on the location of the features, the Charlotte Harbor Estuary and the TTI/E nursery areas contain the features

essential to the conservation of smalltooth sawfish because they facilitate recruitment into the adult population. In this rule, we propose to designate these two specific areas, referred to as critical habitat “units,” as critical habitat for the smalltooth sawfish.

There are areas outside of the two nursery areas, including areas on the east and west coasts of Florida that contain some of the same features identified as essential features in our two proposed nursery areas. Habitat areas outside the specific nursery areas also meet Simpfendorfer’s (2006) classification of highly suitable habitat for juveniles because they contain these features, notably areas in Tampa Bay and in the Indian River Lagoon. Because the features are essential to the conservation of the species based on the nursery functions they provide, we determined that these features are essential to the conservation of smalltooth sawfish only when present in nursery areas. None of these other areas meet the Heupel *et al.* (2007) definition of a nursery area. Encounters in these areas are rare and no pattern of repeat usage could be identified. Lack of repeat or high-density usage of these other areas by juveniles may be a function of the limited current size of a reproducing population that does not yet need additional nursery areas. Even so, we have no basis to conclude that other areas, even those containing shallow euryhaline habitats and mangroves, will be used as nursery areas in the future. Nursery areas cannot be located based solely on the co-location of shallow depths and euryhaline salinity regimes, and juveniles are not commonly or repeatedly found everywhere the features are present. Mangroves may also not be determinative of nursery area function for the sawfish; the Florida Keys contain mangrove resources, yet juvenile sawfish use of the Keys as evidenced by encounter data has been highly variable, including near absence in certain recent years. Additionally, historic anecdotal information on locations of small animals suggests they were found in the lower St. Johns River which does not support mangroves. Based on the best available scientific information, we identified two specific areas for the species where these features provide nursery functions and are therefore essential to the conservation of the species. We therefore propose to designate the Charlotte Harbor Estuary and TTI/E Units.

The boundaries of the two specific areas are the same as the Charlotte

Harbor Estuary and TTI/E nursery area boundaries. GIS bathymetry data, mangrove coverage data, and salinity data were used to verify the distribution of the essential features within the nursery areas. We have identified reference points and lines on standard topographic maps of the areas to describe the specific boundaries of the two units in the proposed regulatory text.

The essential features can be found unevenly dispersed throughout the two areas. The limits of available information on the distribution of the features, and limits on mapping methodologies, make it infeasible to define the specific areas containing the essential features more finely than described herein. Existing man-made structures such as boat ramps, docks, pilings, maintained channels or marinas do not provide the essential features that are essential for the species’ conservation and are thus not proposed as critical habitat. Areas not accessible (i.e., areas behind water control structures) to sawfish are not part of this designation. As discussed here and in the supporting impacts analysis, given the specificity of the essential features, determining whether an action may affect one or both of the features can be accomplished without entering into an ESA section 7 consultation.

#### *Unoccupied Areas*

ESA section 3(5)(A)(ii) further defines critical habitat to include specific areas outside the geographical area occupied if the areas are determined by the Secretary of Commerce (Secretary) to be essential for the conservation of the species. Regulations at 50 CFR 424.12(e) specify that we shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species. Habitat based recovery criteria in the recovery plan suggest areas outside the current occupied range may be important to the species’ recovery. However, based on the best available information we cannot identify unoccupied areas that are currently essential to the conservation of the species. If information on essential features or habitats for the species becomes available, we will consider revising this critical habitat designation.

#### *Special Management Considerations or Protection*

Specific areas within the geographical area occupied by a species may be designated as critical habitat only if they



contain physical or biological features essential to the conservation of the species that “may require special management considerations or protection.” A few courts have interpreted aspects of this statutory requirement, and the plain language aids in its interpretation. For instance, the language clearly indicates the features, not the specific area containing the features, are the focus of the “may require” provision. Use of the disjunctive “or” also suggests the need to give distinct meaning to the terms “special management considerations” and “protection.” Generally speaking, “protection” suggests actions to address a negative impact or threat of a negative impact. “Management” seems plainly broader than protection, and could include active manipulation of a feature or aspects of the environment. Two Federal district courts, focusing on the term “may,” ruled that features can meet this provision based on either present requirements for special management considerations or protections, or on possible future requirements. See *Center for Biol. Diversity v. Norton*, 240 F. Supp. 2d 1090 (D. Ariz. 2003); *Cape Hatteras Access Preservation Alliance v. DOI*, 344 F. Supp. 108 (D.D.C. 2004). The Arizona district court ruled that the provision cannot be interpreted to mean that features already covered by an existing management plan must be determined to require “additional” special management, because the term “additional” is not in the statute. Rather, the court ruled that the existence of management plans may be evidence that the features in fact require special management. *Center for Biol. Diversity v. Norton*, 1096–1100. NMFS’ regulations define “special management considerations or protections” to mean “any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species” (50 CFR 424.02(j)).

Based on the above, we evaluated whether the essential features proposed in this document may require special management considerations or protections by evaluating four criteria:

- (a) Whether there is presently a need to manage the feature;
- (b) Whether there is the possibility of a need to manage the feature;
- (c) Whether there is presently a negative impact on the feature; or
- (d) Whether there is the possibility of a negative impact on the feature.

In evaluating present or possible future management needs for the features, we recognized that the features in their present condition must be the

basis for a finding that these are essential to the smalltooth sawfish’s conservation. In addition, the needs for management evaluated in (a) and (b) were limited to managing the features for the conservation of the species. In evaluating whether the essential features meet either criterion (c) or (d), we evaluated direct and indirect negative impacts from any source (e.g., human or natural). However, we only considered the criteria to be met if impacts affect or have the potential to affect the aspect of the feature that makes it essential to the conservation of the species. We also evaluated whether the features met the “may require” provision separately for the two “specific areas” proposed for designation.

Red mangroves and adjacent shallow euryhaline habitats are susceptible to impacts from human activities because they are located in areas where urbanization occurs. The Status Review (NMFS, 2000) states that habitat destruction is one of the key factors affecting the present range of the species. The continued urbanization of the southeastern U.S. has resulted in substantial habitat losses for the species. Coastal areas where these features are located are subject to various impacts from activities including, but not limited to, dredging and disposal activities, coastal maritime construction, land development, and installation of various submerged pipelines. The impact from these activities combined with natural factors (e.g., major storm events) can significantly affect the quality and quantity of the two features listed above and their ability to provide nursery area functions (i.e., refuge from predators and abundant food resources), to juvenile smalltooth sawfish to facilitate recruitment into the population. Dredging projects modify water depths to accommodate navigation needs, mangroves are removed to construct docks and various maritime structures, and water control structures are installed to modify water flows in various areas, which can alter salinity regimes downstream. Based on our past ESA section 7 consultation database records we know that coastal areas in southwest Florida will continue to experience impacts from coastal construction projects and that these features will continue to experience negative impacts in the future. Based on our past consultation history, fewer Federal actions may affect habitats in the TTI/E Unit than in the Charlotte Harbor Estuary Unit, because much of the TTI/E Unit is held in public ownership by the Department of

Interior. However, coastal storm impacts to mangroves, salinity, and water depth still occur within this area, and salinity regimes as well as mangroves in this area may be altered in the future by projects implemented under the Comprehensive Everglades Restoration Project. Thus, the two essential features currently need and will continue to need special management and protection in both of the two specific areas.

#### *Application of ESA Section 4(a)(3)(B)(i)*

Section 4(a)(3)(B) prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD), or designated for its use, that are subject to an integrated natural resources management plan (INRMP), if we determine that such a plan provides a benefit to the sawfish species (16 U.S.C. 1533(a)(3)(B)). We solicited information from DOD, and received information indicating that no DOD facilities or managed areas are located within the specific areas identified as proposed critical habitat.

#### *Application of ESA Section 4(b)(2)*

The foregoing discussion described the specific areas within U.S. jurisdiction that fall within the ESA section 3(5) definition of critical habitat because they contain the physical and biological features essential to the sawfish’s conservation that may require special management considerations or protection. Before including areas in a designation, section 4(b)(2) of the ESA requires the Secretary to consider the economic, national security, and any other relevant impacts of designation of any particular area. Additionally, the Secretary has the discretion to exclude any area from designation if he determines the benefits of exclusion (that is, avoiding some or all of the impacts that would result from designation) outweigh the benefits of designation based upon the best scientific and commercial data available. The Secretary may not exclude an area from designation if exclusion will result in the extinction of the species. Because the authority to exclude is discretionary, exclusion is not required for any particular area under any circumstances.

The analysis of impacts below summarizes the comprehensive analysis contained in our Draft Section 4(b)(2) Report, considering the economic, national security, and other relevant impacts that we projected would result from including the two units in the proposed critical habitat designation. This consideration informed our

decision on whether to exercise our discretion to propose excluding particular areas from the designation. Both positive and negative impacts were identified and considered (these terms are used interchangeably with benefits and costs, respectively). Impacts were evaluated in quantitative terms where feasible, but qualitative appraisals were used where that was more appropriate to particular impacts.

The ESA does not define what "particular areas" means in the context of section 4(b)(2), or the relationship of particular areas to "specific areas" that meet the statute's definition of critical habitat. As there was no biological basis to subdivide the two specific critical habitat units into smaller units, we treated these units as the "particular areas" for our initial consideration of impacts of designation.

#### *Impacts of Designation*

The primary impacts of a critical habitat designation result from the ESA section 7(a)(2) requirement that Federal agencies ensure their actions are not likely to result in the destruction or adverse modification of critical habitat. Determining these impacts is complicated by the fact that section 7(a)(2) also requires that Federal agencies ensure their actions are not likely to jeopardize the species' continued existence. An incremental impact of designation is the extent to which Federal agencies modify their proposed actions to ensure they are not likely to destroy or adversely modify the critical habitat beyond any modifications they would make because of listing and the jeopardy prohibition. When a modification would be required due to impacts to both the species and critical habitat, the impact of the designation may be co-extensive with the ESA listing of the species. The nature of the sawfish and the proposed essential features, and the type of projects predicted to occur in the future in the areas proposed for designation, allowed us to identify incremental impacts of the proposed designation. The Draft Section 4(b)(2) Report identifies incremental cost and benefits that may result from the designation. Additional impacts of designation include state and local protections that may be triggered as a result of designation, and positive impacts that may arise from avoiding destruction or adverse modification of the species' habitat, and education of the public to the importance of an area for species conservation.

The Draft Section 4(b)(2) Report describes the impacts analysis in detail (NMFS, 2008). The report describes the

projected future Federal activities that would trigger section 7 consultation requirements because they may affect one or both of the essential features. Additionally, the report describes the project modifications we identified that may reduce impacts to the essential features. The report also discusses the lack of expected impacts on national security, and other relevant impacts including conservation benefits that are expected to result from the proposed critical habitat designation. This report is available on NMFS' Southeast Region Web site at <http://sero.nmfs.noaa.gov/pr/SmalltoothSawfish.htm>.

#### *Economic Impacts*

As discussed above, economic impacts of the critical habitat designation result through implementation of section 7 of the ESA in consultations with Federal agencies to ensure their proposed actions are not likely to destroy or adversely modify critical habitat. These economic impacts may include both administrative and project modification costs; economic impacts that may be associated with the conservation benefits of the designation are characterized as other relevant impacts and described later.

Because the smalltooth sawfish has been listed for 5 years, a consultation history exists for the species. Assumptions about the types of future Federal activities that might require ESA section 7 consultation in the next 10 years were based on the species' past consultation history. We examined our consultation records over the last 10 years, as compiled in our Public Consultation Tracking System (PCTS) database, to identify types of Federal activities that have the potential to adversely affect either both the smalltooth sawfish and its critical habitat, or just the critical habitat (actions that require consultation due to effects solely on the fish are not impacts of the designation of critical habitat). The PCTS database contains information dating from 1997, providing a consultation history for sawfish and co-located listed species spanning 10 years. Consultation data for smalltooth sawfish began when the species was listed in 2003, and available information indicates that the number of consultations increased as Federal agencies recognized those projects that might affect the species and thus require consultation. Based on our outreach efforts to Federal agencies about the need to consult on the species, we believe that our data from 2005 to the present represents the level of future actions that may trigger consultation in the two areas proposed for designation

from which to estimate the number of future actions that may trigger consultation. Thus we extrapolated the number of consultation that occurred over a three-year period between 2005 and the present that required consultation due to the presence of the sawfish into the number of future consultations. We request Federal action agencies to provide us with information on future consultations if our assumptions omitted any future actions likely to affect the proposed critical habitat.

We identified four categories of activities that would require consultation due to potential impacts to one or both of the essential features: marine construction activities that require a Federal permit (e.g., docks, piers, boat ramps, dredging, shoreline stabilization, etc.); general permits authorizing specified categories and locations of construction activities without the need for individual project specific permits; water control structure repair and replacement; and road/bridge expansions, repairs and removals. No categories of future Federal actions are expected to require consultation due solely to impacts on one or both of the critical habitat features; all categories of projected future actions that may trigger consultation because they have the potential to adversely affect the essential features also have the potential to adversely affect the species itself. Therefore, we do not predict that the proposed designation will result in an increase in the number of consultations that would be required due solely to the presence of the species in the two specific units. Moreover, fewer than half of the past projects that required consultation due to effects on sawfish had actual impacts on one or both of the features now being proposed as critical habitat. A total of 76 consultations are predicted due to the proposed designation in the Charlotte Harbor Estuary Unit, and only 8 consultations in the TTI/E Unit, over the next 10 years. The U.S. Army Corps of Engineers is projected to be the Federal action agency for the majority of future projects requiring consultation due to adverse effects to critical habitat in both proposed units; the U.S. Coast Guard and/or the Federal Highways Administration may be co-action agencies that may also be involved in three consultations per unit over the next ten years. Although the TTI/E unit largely overlaps the Everglades National Park due to limitations on habitat altering activities in the park, we project one consultation with DOI over the next 10 years as a result of this designation.

Based on our consultation history, no past projects in these areas required modification to avoid adverse impacts to the sawfish; all consultations that were triggered were concluded informally. Thus, to be conservative and avoid underestimating impacts of the designation, we assumed that although all future projects will trigger consultation due to both the species and the critical habitat, the consultations will be formal and require a biological opinion based on potential adverse impacts on one or both of the essential features of the critical habitat. Thus, we have estimated incremental administrative costs of each consultation that will result from the proposed designation, as the difference in average costs of an informal and formal consultation. We have estimated the total costs for each unit as a range, reflecting the possible range in complexity and cost of consultations. The incremental administrative costs for the Charlotte Harbor Estuary Unit are estimated to range from \$1,026,000 to \$1,368,000 (depending on complexity) over the 10-year planning period. The incremental administrative costs for the TTI/E Unit are estimated to range from \$108,000 to \$144,000 (depending on complexity) over the 10-year planning period.

We next considered the range of modifications we may recommend to

avoid adverse modification from projected future activities in the smalltooth sawfish critical habitat. Based on our consultation history for the sawfish, no project modifications have been recommended for categories of Federal activities projected to require consultation in the future, to avoid adverse impacts to the fish. Thus, we assumed in our analysis that the costs of project modifications to avoid destroying or adversely modifying critical habitat would not be costs that are co-extensive with the listing of the species. Similarly, we assumed that the costs of project modifications required to avoid destruction or adverse modification of critical habitat will not be costs that are co-extensive with another existing regulatory requirement. Though there are numerous existing Federal, state, or local laws and regulations that protect natural resources including the proposed essential features to some degree, none of these laws focuses on avoiding the destruction or adverse modification of these features, which provide sawfish nursery area functions, thus facilitating sawfish recovery. As a result, we assumed the proposed designation will provide unique, additional protections to the critical habitat features that would result in project modifications where existing laws would not require such modifications.

We identified eight potential project modifications that we may recommend during section 7 consultation to avoid or reduce impacts to the essential features. To be conservative in estimating impacts, we assumed that project modifications would be recommended to address adverse effects from all projected future agency actions requiring consultation. Although we made the assumption that all potential project modifications would be recommended by NMFS, not all of the modifications identified for a specific category of activity would be necessary for an individual project, but we are not able to identify the exact modification or combinations of modifications that would be required for all future actions. Conversely, more than one project modification may be required for individual future projects where both essential features may be adversely affected by a project, and multiple project modifications are required to avoid such impacts.

Table 1 provides a summary of the estimated costs, where possible, of individual project modifications. The Draft Section 4(b)(2) Report provides a detailed description of each project modification, actions for which it may be prescribed, and whether it may be useful in avoiding adverse impacts to one or both of the essential features.

TABLE 1. SUMMARY OF TYPES OF POTENTIAL PROJECT MODIFICATIONS

Project Modification	Cost	Unit	Range	Approx. Totals
Project Relocation	Undeterminable	N/A	N/A	N/A
Horizontal Directional Drilling (HDD)	\$1.39-2.44 million	per mile	0.2-31.5 Miles	\$278,000-\$76,900,000
Restriction of Utility/Road Corridor Widths	Roadway Retained Sides, 2 Lane = \$1,875 Roadway Retained Sides, 4 Lane = \$2,150 Roadway Bridge, 2 Lane = \$3,370 Roadway Bridge 4 Lane = \$5,050	Linear Foot	N/A	\$1,875-\$5,050 per linear foot
Alternative Shoreline Stabilization Methods	Undeterminable	N/A	N/A	N/A
Limitations on Dock Widths and Sizes	Undeterminable	Sq. Foot	N/A	N/A
Limitations/Restrictions on Modifying Freshwater Flow	Undeterminable	N/A	N/A	N/A
Sediment and Turbidity Controls	Staked Silt Fence = \$2 Floating Turbidity Barrier = \$12	Linear Foot	N/A	\$2-\$12 per linear foot
Conditions Monitoring	Undeterminable	N/A	N/A	N/A

Note: Where information was available, the estimated ranges (extents) of the impacts are included.

### *National Security Impacts*

Previous critical habitat designations have recognized that impacts to national security may result if a designation would trigger future ESA section 7 consultations because a proposed military activity “may affect” the physical or biological feature(s) essential to the listed species’ conservation. Anticipated interference with mission-essential training or testing or unit readiness, either through delays caused by the consultation process or through requirements to modify the action to prevent adverse modification of critical habitat, has been identified as a negative impact of critical habitat designations (see, e.g., Proposed Designation of Critical Habitat for the Pacific Coast Population of the Western Snowy Plover, 71 FR 34571, 34583 (June 15, 2006); and Proposed Designation of Critical Habitat for Southern Resident Killer Whales; 69 FR 75608, 75633 (December 17, 2004).

These past designations have also recognized that national security impacts do not result from a critical habitat designation if future ESA section 7 consultations would be required for a jeopardy analysis even if no critical habitat was designated, in which case the critical habitat designation would not add new burdens beyond those related to the jeopardy consultation.

On April 11, 2008, we sent a letter to DOD requesting information on national security impacts of the proposed designation. We received responses from the Departments of the Army, Navy, and Air Force indicating that they have no facilities or managed areas located within the proposed critical habitat areas. Thus, consultations with respect to activities on DOD facilities or training are unlikely to be triggered as a result of the proposed critical habitat designation, and no national security impacts are anticipated as a result of this proposed critical habitat rule.

### *Other Relevant Impacts*

Past critical habitat designations have identified three broad categories of other relevant impacts: educational awareness benefits, conservation benefits, both to the species and to society as a result of the avoidance of destruction or adverse modification of critical habitat, and impacts on governmental or private entities that implement existing management plans in the areas covered by the proposed designation. Our Draft Section 4(b)(2) Report discusses these impacts of designating the specific areas as critical habitat for smalltooth sawfish.

As summarized in the Draft Section 4(b)(2) Report, there are potential

educational benefits resulting from the designation. Particularly in Florida, the designation may expand the awareness raised by the listing of the smalltooth sawfish. Mangrove shoreline areas are often used for recreational activities such as kayaking, and provide habitat for viewable wildlife. Additionally, Federal and State protected areas, such as Everglades National Park, Rookery Bay National Estuarine Preserve, Cape Romano-Ten Thousand Islands Aquatic Preserve, and Collier-Seminole State Park may benefit from the added awareness of the endangered smalltooth sawfish within their boundaries, and from the protection critical habitat designation affords.

Implementation of ESA Section 7 to avoid destruction or adverse modification of critical habitat is expected to increase the probability of recovery for listed species. In addition to contributing to sawfish recovery, benefits associated with project modifications required through section 7 consultation to minimize or avoid the destruction or adverse modification of the essential features, would include minimizing or avoiding the destruction or adverse modification of the ecosystem services that these features provide. By definition, the proposed physical and biological features are “essential to the conservation” of the smalltooth sawfish; in other words, conservation of the species as defined in the ESA is not possible without the presence and protection of the features. As discussed above, we have determined that the two areas proposed for inclusion in the critical habitat designation are juvenile nursery areas. The essential features of these areas, red mangroves with their prop root systems, and adjacent shallow euryhaline habitats, provide protection from predators and abundant and diverse prey resources, and thus provide key nursery area functions for the sawfish.

Because the smalltooth sawfish has limited commercial and recreational value, and because the species’ recovery is expected to take decades, we can predict no direct or indirect monetary value that may result from the proposed designation because of its contribution to the recovery of the smalltooth sawfish. However, as discussed in the following paragraphs, other benefits are expected to accrue to society in the course of protecting the essential features of the sawfish’s critical habitat from destruction or adverse modification.

Mangrove ecosystems provide a range of important uses and services to society. As these benefits currently exist, we do not interpret them as

resulting from the critical habitat designation per se. However, protection of the critical habitat from destruction or adverse modification may at a minimum prevent loss of the benefits provided by these resources, and would contribute to any benefits associated with increased future abundance of the smalltooth sawfish as it recovers. As we discuss in the Draft 4(b)(2) Report, we believe that the critical habitat designation will provide unique, additional protections to mangroves in the areas covered by the designation, relative to existing laws and regulations.

The additional protection of mangroves offered through the critical habitat designation ensures that mangroves in the areas covered by the proposed designation can continue to function as critical components of the ecosystem. The Draft 4(b)(2) Report discusses benefits of mangroves including benefits to biodiversity, benefits to fisheries, benefits to air and water quality protection, shoreline protection, and benefits to recreation and tourism. Most of these benefits are described in non-monetary metrics. Where economic values are presented, we note that they are derived from a variety of sources and studies and are provided for context in support of our conclusion that non-negligible economic benefits are expected to result from the proposed designation, because protection of the proposed critical habitat from destruction or adverse modification is expected at minimum to prevent loss of existing benefits the habitat provides.

While the shallow water euryhaline habitat feature offers important ecosystem services to various juvenile fish, invertebrates, and benthic and epibenthic organisms as described in the Draft Section 4(b)(2) Report, their conservation benefits are interrelated with the benefits offered by conservation of red mangroves. Consequently, the Draft 4(b)(2) Report focuses on the benefits of mangroves, and the interrelated benefits of the shallow water euryhaline habitat are not discussed in detail.

Very little impact on entities responsible for natural resource management or conservation plans that benefit listed species, or on the functioning of those plans, is predicted to result from the proposed critical habitat designation in the areas covered by the plans. Though the TTI/E unit largely overlaps with the Everglades National Park, our discussions with park managers identify only one park management project that will require consultation during the next 10 years.

### *Synthesis of Impacts within the Specific Areas*

For the reasons set forth below, based on our consideration of positive and negative economic, national security and other relevant impacts predicted to result from the proposed designation, we do not exercise our discretion to propose for exclusion all or any part of either the Charlotte Harbor Estuary Unit or the Ten Thousand Islands/Everglades Unit from the designation. No impacts on national security are projected to result from the proposed designation. Very little negative impact on existing resource management activities is projected to result from the proposed designation. Negative economic impacts resulting from section 7 consultation requirements are projected to be limited. A total of 84 Federal actions over the next ten years are projected to require ESA section 7 consultation to address predicted adverse effects to one or both of the physical or biological features of the proposed critical habitat. Only 76 of these actions are projected for the Charlotte Harbor Estuary Unit, or approximately eight per year on average. Only eight future consultations are projected to be required in the TTI/E Unit over the next ten years due to impacts on the critical habitat features, or approximately one per year on average. All of these projects would have required consultation due to the listing of the sawfish, even in the absence of the designation. We have projected that incremental section 7 costs will be associated with the designation, in the form of increased administrative costs of more complex, formal consultations, and in project modification costs. Estimated costs for these project modifications are provided in the Draft 4(b)(2) Report, though we could not predict the total cost of modifications resulting from the designation given the lack of information on project design and locations. However, we may have overestimated impacts in our assumption that all modification costs will be necessary and will be incremental impacts of the designation rather than baseline impacts of existing state, local or other Federal laws or regulations that protect natural resources. We do not project that any required project modifications will have secondary impacts on local or regional economies. The majority of project modifications are projected to be recommended to avoid adverse effects to the red mangroves in the proposed critical habitat areas. We expect that the designation will provide unique, additional protections to mangroves

because existing laws and regulations in these areas do not avoid the destruction or adverse modification of mangroves for the purpose of facilitating recovery of the sawfish. The proposed designation is expected to, at minimum, prevent the loss of societal benefits that mangroves and shallow euryhaline habitats currently provide in the two specific areas included in the proposal.

### *Critical Habitat Designation*

We propose to designate approximately 840,472 acres in two units of critical habitat occupied by the U.S. DPS of smalltooth sawfish at the time of its listing. The two units proposed for designations are: the Charlotte Harbor Estuary Unit, which comprises approximately 221,459 acres of habitat; and the Ten Thousand Islands/Everglades Unit (TTI/E), which comprises approximately 619,013 acres of habitat. The two units are located along the southwestern coast of Florida between Charlotte Harbor and Florida Bay.

The proposed specific areas contain the following physical and biological features that are essential to the conservation of this species and that may require special management considerations or protection: red mangroves and shallow euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at Mean Lower Low Water (MLLW). No unoccupied areas are proposed for designation of critical habitat.

### **Activities That May Be Affected**

Section 4(b)(8) of the ESA requires that we describe briefly and evaluate, in any proposed or final regulation to designate critical habitat, those activities that may destroy or adversely modify such habitat or that may be affected by such designation. A variety of activities may affect critical habitat that, when carried out, funded, or authorized by a Federal agency, will require an ESA section 7 consultation. Such activities include, but are not limited to, dredging and filling, and other in-water construction (docks, marinas, boat ramps, etc.), and installation of water control structures. Notably, all the activities identified that may affect the critical habitat may also affect the species itself, if present within the action area of a proposed Federal action.

We believe this proposed critical habitat designation will provide Federal agencies, private entities, and the public with clear notification of the nature of critical habitat for smalltooth sawfish and the boundaries of the habitat. This

designation will allow Federal agencies and others to evaluate the potential effects of their activities on critical habitat to determine if ESA section 7 consultations with NMFS are needed, given the specific definition of the two essential features. Consistent with recent agency guidance on conducting adverse modification analyses (NMFS, 2005), we will apply the statutory provisions of the ESA, including those in section 3 that define "critical habitat" and "conservation," to determine whether a proposed future action might result in the destruction or adverse modification of critical habitat.

### **Public Comments Solicited**

We request that interested persons submit comments, information, maps, and suggestions concerning this proposed rule during the comment period (see **DATES**). We solicit comments or suggestions from the public, other concerned governments and agencies, the scientific community, industry, or any other interested party concerning this proposed rule. Comments particularly are sought concerning:

(1) Current or planned activities in the areas proposed for designation and their possible impacts on proposed critical habitat;

(2) Any positive or negative economic, national security or other relevant impacts expected to result from the proposed designation and our consideration of these impacts, as well as the benefits to smalltooth sawfish of the designation. (These impacts are described in a report prepared pursuant to section 4(b)(2) of the ESA.);

(3) Types and numbers of Federal activities that may trigger an ESA section 7 consultation, their possible modifications, and potential modification costs that may be required of those activities to avoid destroying or adversely modifying critical habitat.

You may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES**). The proposed rule, references, and other materials relating to this proposal can be found on the NMFS Southeast Region web site at <http://sero.nmfs.noaa.gov/pr/smalltoothsawfish.htm>. We will consider all comments and information received during the comment period in preparing the final rule. Accordingly, the final decision may differ from this proposal.

### **Public Hearings**

50 CFR 424.16(c)(3) requires the Secretary to promptly hold at least one public hearing if any person requests one within 45 days of publication of a

proposed rule to designate critical habitat. Public hearings provide the opportunity for interested individuals and parties to give comments, exchange information and opinions, and engage in a constructive dialogue concerning this proposed rule. We encourage the public's involvement in such ESA matters. Requests for public hearings must be made in writing (see **ADDRESSES**) by January 5, 2009.

#### Peer Review

In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin, implemented under the Information Quality Act (Public Law 106-554), is intended to enhance the quality and credibility of the Federal government's scientific information, and applies to influential or highly influential scientific information disseminated on or after June 16, 2005.

To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the scientific information that supports this proposal to designate critical habitat for the U.S. DPS of smalltooth sawfish and incorporated the peer review comments prior to dissemination of this proposed rulemaking. The Draft 4(b)(2) Report that supports the proposal to designate critical habitat for the species was also peer reviewed and is available on our web site located at [www.fdms.gov](http://www.fdms.gov).

#### Classification

We determined that this action is consistent to the maximum extent practicable with the enforceable policies of the approved coastal management programs of Florida. The determination has been submitted for review by the responsible State agencies under section 307 of the Coastal Zone Management Act.

This proposed rule has been determined to be significant under Executive Order (E.O.) 12866. We have integrated the regulatory principles of the E.O. into the development of this proposed rule to the extent consistent with the mandatory duty to designate critical habitat, as defined in the ESA.

We prepared an initial regulatory flexibility analysis (IRFA) pursuant to section 603 of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), which describes the economic impact this proposed rule, if adopted, would have on small entities. A description of the action, why it is being considered, and

its legal basis are included in the preamble section of this proposed rule.

This proposed rule may affect small businesses, small nonprofit organizations, and small governmental jurisdictions that engage in activities that would affect the essential features identified in this proposed designation, if they receive funding or authorization for such activity from a Federal agency. Such activities would trigger ESA section 7 consultation requirements, and potential modifications to proposed activities to avoid destroying or adversely modifying the critical habitat. The consultation record from which we have projected likely actions occurring over the next 10 years indicates that applicants for Federal permits or funds may have included small entities. For example, marine contractors have been the recipients of USACE permits for dock construction; some of these contractors may be small entities. According to the Small Business Administration, businesses in the Heavy and Civil Engineering Construction subsector (NAICS Code 237990), which includes firms involved in marine construction projects such as breakwater, dock, pier, jetty, seawall and harbor construction, must have average annual receipts of no more than \$31 million to qualify as a small business (dredging contractors that perform at least 40% of the volume dredged with their own equipment, or equipment owned by another small concern are considered small businesses if their average annual receipts are less than or equal to \$18.5 million). Our consultation database does not track the identity of past permit recipients or whether the recipients were small entities, so we have no basis to determine the percentage of grantees or permittees that may be small businesses in the future.

Small businesses in the tourist and commercial fishing industries may benefit from the rule because avoiding the destruction or adverse modification of the critical habitat features, particularly mangroves, is expected to at minimum prevent loss of current direct and indirect use of, and values derived from, these habitats within the areas included in the proposed designation.

A review of historical ESA section 7 consultations involving projects in the areas proposed for designation is described in Section 3.2.2 of the Draft Section 4(b)(2) Report prepared for this rulemaking. We projected that, on average, about eight Federal projects with non-federal grantees or permittees will be affected by implementation of the proposed critical habitat designation, annually, across both areas

proposed for inclusion in the critical habitat designation. Some of these grantees or permittees could be small entities, or could hire small entities to assist in project implementation. Historically, these projects have involved dock/pier construction and repair, water control structure installation or repair, bridge repair and construction, dredging, cable installation, and shoreline stabilization. Potential project modifications we have identified that may be required to prevent these types of projects from adversely modifying critical habitat include: project relocation; environmental conditions monitoring; horizontal directional drilling; road/utility corridor restrictions; alternative shoreline stabilization methods; dock size and width limits; restrictions on structures that modify freshwater flows; and sediment and turbidity control measures. See Table 15 of the Draft Section 4(b)(2) Report.

Even though we cannot determine relative numbers of small and large entities that may be affected by this rule, there is no indication that affected project applicants would be limited to, nor disproportionately comprised of, small entities.

It is unclear whether small entities would be placed at a competitive disadvantage compared to large entities. However, as described in the Draft Section 4(b)(2) Report, consultations and project modifications will be required based on the type of permitted action and its associated impacts on the essential critical habitat feature. Because the costs of many potential project modifications that may be required to avoid adverse modification of critical habitat are unit costs such that total project modification costs would be proportional to the size of the project, it is not unreasonable to assume that larger entities would be involved in implementing the larger projects with proportionally larger project modification costs.

It is also unclear whether the proposed rule will significantly reduce profits or revenue for small businesses. As discussed throughout the Draft Section 4(b)(2) Report, we made assumptions that all of the future consultations will be formal, that all will require project modifications, and that all costs of project modifications will be incremental impacts of the proposed designation and not a requirement of other existing regulatory requirements. These assumptions likely overestimate the impacts of the proposed designation. In addition, as stated above, though it is not possible to determine the exact cost of any given

project modification resulting from consultation, the smaller projects most likely to be undertaken by small entities would likely result in relatively small modification costs.

We encourage all small businesses, small governmental jurisdictions, and other small entities that may be affected by this rule to provide comment on the number of small entities affected and the potential economic impacts of the proposed designation, such as anticipated costs of consultation and potential project modifications, to improve the above analysis.

There are no record-keeping requirements associated with the proposed rule. Similarly, there are no reporting requirements other than those that might be associated with reporting on the progress and success of implementing project modifications. However, third party applicants or permittees would be expected to incur incremental costs associated with participating in the administrative process of consultation along with the permitting Federal agency, beyond the baseline administrative costs that would be required for consultations based on the sawfish itself. Estimates of the cost to third parties from consultations were developed from the estimated Section 7 costs identified in the Economic Analysis of Critical Habitat Designation for the Gulf Sturgeon (IEc, 2003) inflated to 2008 (March) dollars. The incremental third party cost for each consultation would be the difference between the cost of an informal consultation and a formal consultation (\$2,000 difference per low complexity consultation and \$1,600 difference per high complexity consultation). The total impact on third party costs would be the incremental cost of the formal consultation multiplied by the increased number of formal consultations. The maximum incremental third party costs are estimated to range from \$121,600 to \$152,000 (depending on complexity) over the 10-year planning period.

No Federal laws or regulations duplicate or conflict with the proposed rule. Existing Federal laws and regulations overlap with the proposed rule only to the extent that they provide protection to natural resources including mangroves generally. However, no existing laws or regulations specifically prohibit destruction or adverse modification of critical habitat for, and focus on the recovery of, the smalltooth sawfish.

The alternatives to the proposed designation considered consisted of three alternatives, a no-action, our preferred alternative, and an alternative with varying numbers of units. NMFS

would not designate critical habitat for the smalltooth sawfish under the no action (status quo) alternative. Under this alternative, conservation and recovery of the listed species would depend exclusively upon the protection provided under the "jeopardy" provisions of Section 7 of the ESA. Under the status quo, there would be no increase in the number of ESA consultations or project modifications in the future that would not otherwise be required due to the listing of the smalltooth sawfish. However, the physical and biological features forming the basis for our proposed critical habitat designation are essential to sawfish conservation, and conservation for this species will not succeed without the availability of this feature. Thus, the lack of protection of the critical habitat feature from adverse modification could result in continued declines in abundance of smalltooth sawfish, and loss of associated values sawfish provide to society. Further, this alternative is not consistent with the requirement of the ESA to designate critical habitat to the maximum extent prudent and determinable.

Under the preferred alternative two specific areas that provide nursery functions for juvenile sawfish are proposed as critical habitat. These areas are located along peninsular Florida, encompassing portions of Charlotte, Lee, Collier, Monroe, and Miami-Dade counties. This area contains the physical and biological features essential to the conservation of the U.S. DPS of smalltooth sawfish. The essential features are red mangroves and shallow euryhaline habitats characterized by water depths between the MHW line and 3 ft (0.9 m) measured at MLLW that provide nursery area functions to smalltooth sawfish. The preferred alternative was selected because it best implements the critical habitat provisions of the ESA, by defining the specific features that are essential to the conservation of the species, and due to the important conservation benefits are expected to result from this alternative relative to the no action alternative.

Under the varying number of units alternative, we considered both combining the Charlotte Harbor Estuary Unit and the TTI/E Unit into a single unit for designation, and alternatively we considered splitting both units into multiple smaller units.

Under the first scenario, the unit would include the Naples beach area between the two proposed units, and thus would encompass a larger total area than the two proposed units. Though juveniles have been encountered in the Naples beach area,

they have not been encountered in high densities. We also do not believe that juveniles move between the Charlotte Harbor Estuary and TTI/E Units along this stretch of beach. Furthermore, while red mangroves exist along this area (though they are much more sparsely distributed than in the two proposed units), the salinity regimes are much more purely marine than estuarine, and the features are not considered to provide the nursery functions essential to the conservation of the species in these areas. Thus, we rejected this alternative because the Naples Beach area is not considered to meet the definition of critical habitat.

Under the second scenario, we considered options to split both the Charlotte Harbor Estuary Unit and the TTI/E Unit into multiple smaller units. We considered designating Charlotte Harbor and the Caloosahatchee Rivers as separate units, including limiting the sizes of each of these areas strictly to locations of past high density encounters of juveniles. We considered the same type of partitioning of the TTI/E Unit into smaller isolated units based on past high density encounters alone. We rejected the alternative of separating Charlotte Harbor and the Caloosahatchee River because state and local water resource managers consider the systems as a single integrated aquatic system. For both proposed units, we rejected the alternative of multiple smaller units drawn around past high density juvenile encounters because we believe it would have omitted habitat that is almost certain nursery habitat for the sawfish between the units. In addition, the proposed essential features are continuously distributed from the harbor into the river, so this option would have omitted areas that meet the definition of critical habitat. Moreover, a designation limited to past encounters would not take into account the limits of this type of data in defining the extent of habitat use by the sawfish, and it would not provide protection for expanded nursery habitat needed for a recovering population. In addition, it was not clear that designating multiple smaller units would result in lower economic impacts of the designation, as the precise location of future consultations within these areas cannot be predicted based on available information.

An environmental analysis as provided for under National Environmental Policy Act for critical habitat designations made pursuant to the ESA is not required. See *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S.Ct. 698 (1996).

We do not believe the proposed action contains policies with federalism implications under E.O. 13132. However, the Assistant Secretary for Legislative and Intergovernmental Affairs will provide notice of the proposed action to and request comments from the appropriate official(s) of the State of Florida in which the species occurs.

The proposed action has undergone a pre-dissemination review and determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (Section 515 of Public Law 106-554).

This action does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.

#### References Cited

A complete list of all references cited in this rulemaking can be found on our Web site at <http://sero.nmfs.noaa.gov/pr/SmalltoothSawfish.htm> and is available upon request from the NMFS Southeast Regional Office in St. Petersburg, Florida (see ADDRESSES).

#### List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: November 14, 2008.

**James W. Balsiger,**

*Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.*

For the reasons set out in the preamble, we propose to amend part 226, title 50 of the Code of Federal Regulations as set forth below:

#### PART 226 [Amended]

1. The authority citation of part 226 continues to read as follows:

**Authority:** 16 U.S.C. 1533.

■ 2. Add § 226.216, to read as follows:

#### § 226.216 Critical habitat for the U.S. DPS of smalltooth sawfish (*Pristis pectinata*).

Critical habitat is designated for the U.S. DPS of smalltooth sawfish as described in this section. The textual descriptions in paragraph (b) of this section are the definitive source for determining the critical habitat boundaries. The maps of the critical habitat units provided in paragraph (c) are for illustrative purposes only.

(a) *Physical and Biological Features Essential to the Conservation of the Endangered U.S. DPS of Smalltooth Sawfish.* The physical and biological features essential to the conservation of the U.S. DPS of smalltooth sawfish, which provide nursery area functions are: red mangroves and shallow euryhaline habitats characterized by

water depths between the Mean High Water line and 3 ft (0.9 m) measured at Mean Lower Low Water (MLLW). These features are included in critical habitat within the boundaries of the specific areas in paragraph (b), except where the features are currently not physically accessible to sawfish.

(b) *Critical Habitat Boundaries.* Critical habitat includes two areas (units) located along the southwest coast of peninsular Florida. The northern unit is the Charlotte Harbor Estuary Unit and the southern unit is the Ten Thousand Islands/Everglades (TTI/E) Unit. The units encompass portions of Charlotte, Lee, Collier, Monroe, and Miami-Dade Counties.

(1) *Charlotte Harbor Estuary Unit.* The Charlotte Harbor Estuary Unit includes Charlotte Harbor, Gasparilla Sound, Pine Island Sound, Matlacha Pass, San Carlos Bay, Estero Bay, and the Caloosahatchee River. The unit is defined by the following boundaries. It is bounded by the Peace River at the eastern extent at the mouth of Shell Creek at 81 59.467 W, and the northern extent of the Charlotte Harbor Preserve State Park at 26 58.933 N. At the Myakka River the estuary is bounded by the SR-776 Bridge and Gasparilla Sound at the SR-771 Bridge. The COLREGS-72 lines between Gasparilla Island, Lacosta Island, North Captiva Island, Captiva Island, Sanibel Island, and the northern point of Estero Island are used as the coastal boundary for the unit. The southern extent of the area is the Estero Bay Aquatic Preserve, which is bounded on the south by the Lee/Collier County line. Inland waters are bounded at SR-867 (McGregor Blvd) to Fort Myers, SR-80 (Palm Beach Blvd), Orange River Blvd, Buckingham Rd, and SR-80 to the west side of the Franklin Lock and Dam (S-79), which is the eastern boundary on the Caloosahatchee River and a structural barrier for sawfish access. Additional inland water boundaries north and west of the lock are bounded by North River Road, SR-31, SR-78 near Cape Coral, SR-765, US-41, SR-35 (Marion Ave) in Punta Gorda, and Riverside Road to the eastern extent of the Peace River at 81 59.467 W.

(2) *Ten Thousand Islands/ Everglades Unit.* The TTI/E unit is located within Collier, Monroe, and Miami-Dade Counties, Florida. The unit includes waters within Everglades National Park (ENP), including Florida Bay; in the vicinity of Everglades City; within the Cape Romano-Ten Thousand Islands Aquatic Preserve (AP); and within the portion of Rookery Bay AP south of SR-92. The boundaries match the portion of Rookery Bay AP south of SR-92, and the

Cape Romano-Ten Thousand Islands Aquatic Preserve AP. The unit boundaries also match the ENP boundaries with following two exceptions. The unit boundary connects points 55 and 57 which extend beyond the ENP boundary. The unit boundary is located inside the ENP boundary between points 77 and 2, omitting the northeast portion of the ENP. The boundary of the unit is comprised of the following connected points, listed by point number, degrees North latitude, degrees West longitude, and a brief description:

(3) 1, 25.2527, -80.7988, Main Park Road (SR 9336) at Nine Mile Pond; 2, 25.2874, -80.5736, ENP boundary; 3, 25.2872, -80.4448, ENP boundary at US HWY 1; 4, 25.2237, -80.4308, ENP boundary at US HWY 1; 5, 25.1979, -80.4173, ENP boundary at US HWY 1; 6, 25.1846, -80.3887, ENP boundary at US HWY 1; 7, 25.1797, -80.3905, ENP boundary at US HWY 1; 8, 25.148, -80.4179, ENP boundary at Intracoastal Waterway (ICW); 9, 25.1432, -80.4249, ENP boundary at ICW; 10, 25.1352, -80.4253, ENP boundary at ICW; 11, 25.1309, -80.4226, ENP boundary at ICW; 12, 25.1282, -80.4230, ENP boundary at ICW; 13, 25.1265, -80.4268, ENP boundary at ICW; 14, 25.1282, -80.4432, ENP boundary at ICW; 15, 25.0813, -80.4747, ENP boundary at ICW; 16, 25.0676, -80.4998, ENP boundary at ICW; 17, 25.0582, -80.5218, ENP boundary at ICW; 18, 25.0373, -80.5178, ENP boundary at ICW; 19, 25.0326, -80.5188, ENP boundary at ICW; 20, 25.0168, -80.5487, ENP boundary at ICW; 21, 25.0075, -80.5578, ENP boundary at ICW; 22, 24.999, -80.5609, ENP boundary at ICW near Plantation; 23, 24.9962, -80.5648, ENP boundary at ICW; 24, 24.9655, -80.6347, ENP boundary at ICW; 25, 24.943, -80.6585, ENP boundary at ICW; 26, 24.9388, -80.6716, ENP boundary at ICW; 27, 24.9124, -80.7255, ENP boundary at ICW; 28, 24.9006, -80.7348, ENP boundary at ICW; 29, 24.8515, -80.8326, ENP boundary at COLREG-72; 30, 24.873, -80.8875, ENP boundary at Arsenic Bank Light; 31, 24.9142, -80.9372, ENP boundary at Sprigger Bank Light; 32, 25.0004, -81.0221, ENP boundary; 33, 25.0723, -81.0858, ENP boundary; 34, 25.0868, -81.0858, ENP boundary; 35, 25.1567, -81.1620, ENP boundary at Middle Cape Sable; 36, 25.2262, -81.2044, ENP boundary; 37, 25.3304, -81.1776, ENP boundary at Little Shark River; 38, 25.4379, -81.1940, ENP boundary; 39, 25.5682, -81.2581, ENP boundary; 40, 25.7154, -81.3923, ENP boundary at Pavillion Key; 41, 25.8181, -81.5205, ENP



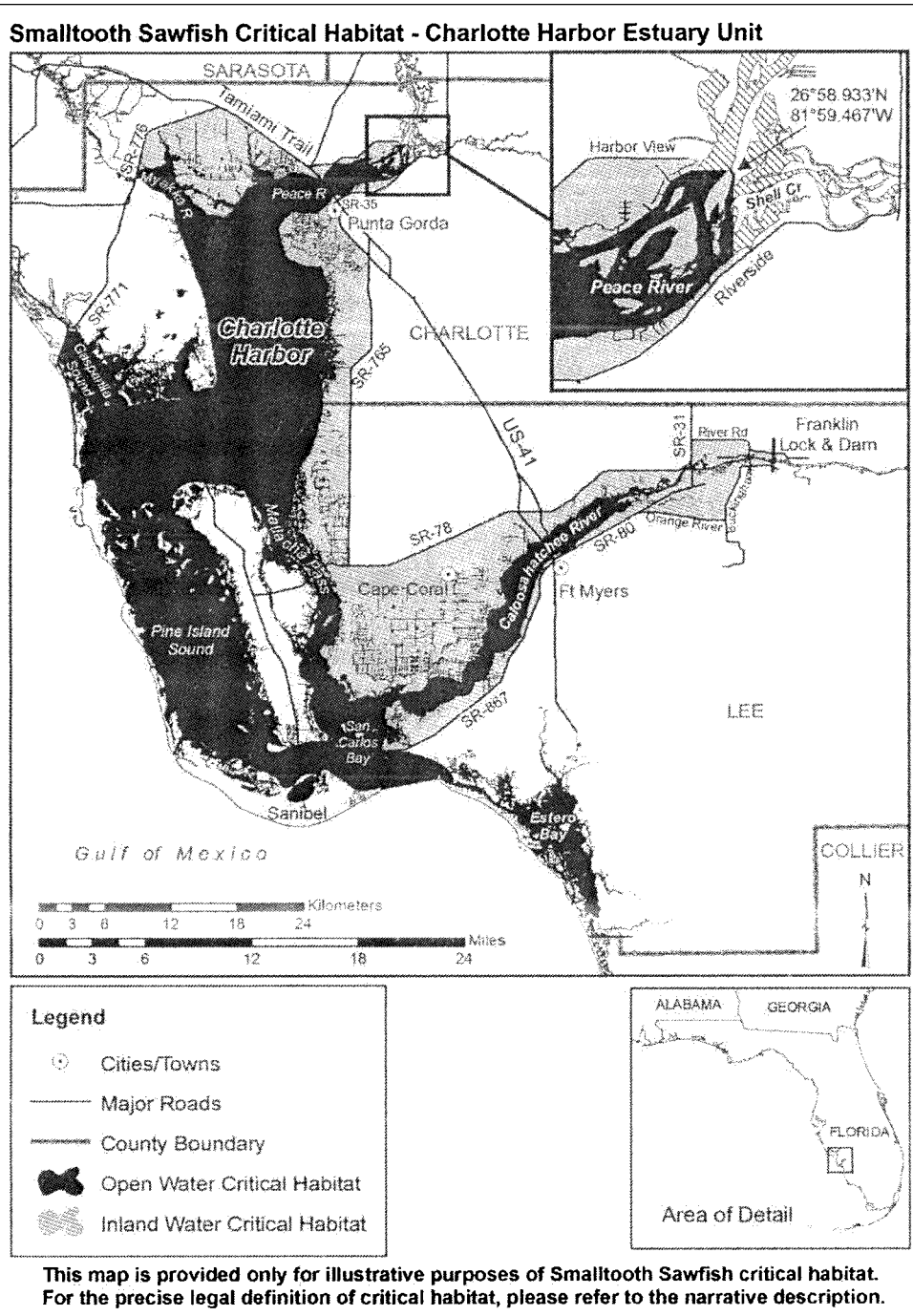
boundary; 42, 25.8326, -81.5205, ENP boundary at Cape Romano-Ten Thousand Islands AP; 43, 25.8315, -81.7450, Rookery Bay AP boundary (southwest corner); 44, 25.9003, -81.7468, Rookery Bay AP boundary; 45, 25.903, -81.6907, Rookery Bay AP boundary; 46, 25.938, -81.6907, Rookery Bay AP boundary at SR 92; 47, 25.9378, -81.6834, Rookery Bay AP boundary at SR 92; 48, 25.9319, -81.6718, Rookery Bay AP boundary at SR 92; 49, 25.933, -81.6508, Rookery Bay AP boundary at SR 92; 50, 25.9351, -81.6483, Rookery Bay AP boundary at SR 92; 51, 25.9464, -81.6433, Rookery Bay AP boundary at SR 92; 52, 25.947, -81.6200, Cape Romano-Ten Thousand Islands AP

boundary; 53, 25.9615, -81.6206, Cape Romano-Ten Thousand Islands AP boundary; 54, 25.9689, -81.6041, Cape Romano-Ten Thousand Islands AP boundary; 55, 25.913, -81.4569, Cape Romano-Ten Thousand Islands AP boundary; 56, 25.8916, -81.4082, ENP boundary northwest of Everglades City; 57, 25.863, -81.3590, ENP boundary east of Everglades City; 58, 25.8619, -81.2624, ENP boundary; 59, 25.804, -81.2602, ENP boundary; 60, 25.804, -81.2126, ENP boundary; 61, 25.7892, -81.2128, ENP boundary; 62, 25.7892, -81.1969, ENP boundary; 63, 25.7743, -81.1966, ENP boundary; 64, 25.774, -81.1803, ENP boundary; 65, 25.7591, -81.1803, ENP boundary; 66, 25.7592,

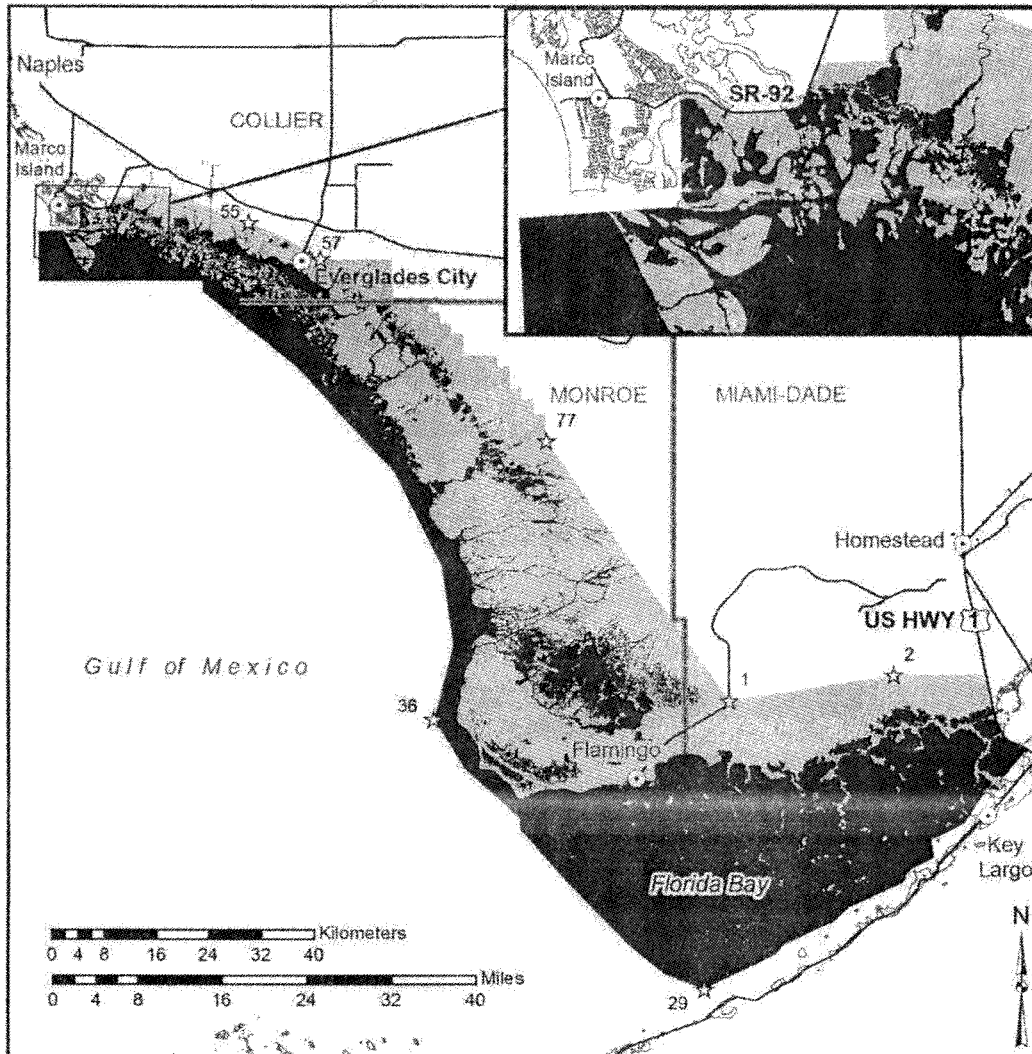
-81.1641, ENP boundary; 67, 25.7295, -81.1638, ENP boundary; 68, 25.7299, -81.1165, ENP boundary; 69, 25.7153, -81.1164, ENP boundary; 70, 25.7154, -81.1002, ENP boundary; 71, 25.6859, -81.0997, ENP boundary; 72, 25.6862, -81.0836, ENP boundary; 73, 25.6715, -81.0835, ENP boundary; 74, 25.6718, -81.0671, ENP boundary; 75, 25.6497, -81.0665, ENP boundary; 76, 25.6501, -81.0507, ENP boundary; 77, 25.6128, -81.0497, ENP boundary; return to point 1.

(c) *Maps.* Overview maps of designated critical habitat for the U.S. DPS of smalltooth sawfish follow.

**BILLING CODE 3510-22-S**

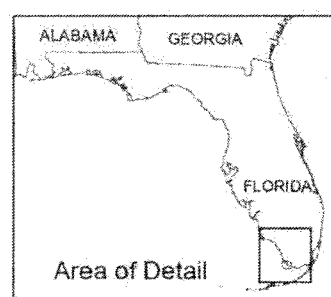


**Smalltooth Sawfish Critical Habitat  
Ten Thousand Islands/Everglades Unit**



**Legend**

- ☆ Critical Habitat Boundary Points
- ⊙ Cities/Towns
- Major Roads
- County Boundary
- 🌊 Open Water Critical Habitat
- 🌿 Inland Water Critical Habitat



**This map is provided only for illustrative purposes of Smalltooth Sawfish critical habitat. For the precise legal definition of critical habitat, please refer to the narrative description.**