DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AI41

Endangered and Threatened Wildlife and Plants; Reclassifying the American Crocodile Distinct Population Segment in Florida From Endangered to Threatened and Initiation of a 5-Year Review

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and initiation of a 5-year review.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to reclassify the American crocodile (*Crocodylus acutus*) distinct vertebrate population segment (DPS) in Florida from its present endangered status to threatened status under the authority of the Endangered Species Act of 1973, as amended (Act). We believe that the endangered designation no longer correctly reflects the current status of this taxon within this DPS due to a substantial improvement in the species' status. Since its listing in 1975, the American crocodile population in Florida has more than doubled, and its distribution has expanded. Land acquisition has also provided protection for many important nesting areas. We have determined that the American crocodile in its range in Florida meets the criteria of a DPS as stated in our policy of February 17, 1996. If this proposal is finalized, the American crocodile DPS in Florida will continue to be federally protected as a threatened species. The American crocodile throughout the remainder of its range as described in our December 18, 1979, final rule would remain endangered. Because a status review is also required for the 5-year review of listed species under section 4(c)(2)(A) of the Act, we are electing to prepare these reviews simultaneously. We are seeking data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by May 23, 2005. Public hearing requests must be received by May 9, 2005.

ADDRESSES: Written comments and materials may be submitted to us by any one of the following methods:

1. You may submit written comments and information to Cindy Schulz, U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, FL 32960.

2. You may hand-deliver written comments and information to our South Florida Ecological Services Office, at the above address, or fax your comments to (772) 562–4288.

3. You may send comments by electronic mail (e-mail) to *cindy_schulz@fws.gov.* For directions on how to submit electronic filing of comments, see the ''Public Comments Solicited'' section.

Comments and materials received, as well as supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Cindy Schulz, at the above address (telephone (772) 562–3909, extension 305, facsimile (772) 562–4288).

SUPPLEMENTARY INFORMATION:

Public Comments Solicited

We are requesting information for both the proposed rule and the 5-year review, as we are conducting these reviews simultaneously.

We intend that any final action resulting from this proposed reclassification will be as accurate and as effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested parties concerning this proposal. We particularly seek comments concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) The location of any additional populations of the American crocodile within the extent of its range covered by this proposed rule;

(3) Additional information concerning the range, distribution, and population size of this species in Florida;

(4) Current management plans or anticipated plan development that incorporates actions that will benefit or impact the American crocodile in Florida;

(5) Current or planned activities within the geographic area addressed by this proposal and their potential impact on this species; and

(6) Whether the current status of this population of the American crocodile is more appropriately described as ''recovered,'' threatened due to similarity of appearance,'' or in some other way different than the proposal made here.

Please submit electronic comments in ASCII file format and avoid the use of special characters and encryption. Please also include ''Attn: [RIN 1018–AI41]'' and your name and return address in your e-mail message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our South Florida Ecological Services Office (see **ADDRESSES** section).

Our practice is to make all comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by law. In some circumstances, we would withhold also from the rulemaking record a respondent's identity, as allowable by law. If you wish for us to withhold your name and/or address, you must state this prominently at the beginning of your comments. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

Background

The American crocodile is a large greenish-gray reptile. It is one of two native crocodilians (the other being the American alligator (*Alligator mississippiensis*)) that occur in the continental United States, and is limited in distribution in the United States to the southern tip of mainland Florida and the upper Florida Keys (Kushlan and Mazzotti 1989a). At hatching, crocodiles are yellowish-tan to gray in color with vivid dark bands on the body and tail. As they grow older, their overall coloration becomes more pale and uniform and the dark bands fade. All adult crocodiles have a hump above the eye, and tough, asymmetrical armor-like scutes (scale-like plates) on their backs. The American crocodile is distinguished from the American alligator by a relatively narrow, more pointed snout and by an indentation in the upper jaw that leaves the fourth tooth of the lower jaw exposed when the mouth is closed. In Florida, the American crocodile ranges in size from 26.0 centimeters (cm) (10.3 inches (in)) at hatching, to an upper length of 3.8 meters (m) (12.5 feet (ft)) (Moler 1991a). Larger specimens in Florida were reported in the 1800s (Moler 1991a), and individuals as large as 6 to 7 m (19.7 to 23.0 ft) have been reported outside the United States (Thorbjarnarson 1989).

The American crocodile occurs in coastal regions of both the Atlantic and Pacific coasts, in southern Mexico,

Central America, and northern South America, as well as the Caribbean islands (Thorbjarnarson 1989). It reaches the northern extent of its range in the southern tip of Florida (Kushlan and Mazzotti 1989a, Thorbjarnarson 1989). The species occurs within the jurisdictional boundaries of many different governments in the western hemisphere, including Belize, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Florida (USA), Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Mexico, Panama, Peru, and Venezuela.

The first documented occurrence of a crocodile in the United States resulted from the collection of a crocodile in 1869 in the Miami River off Biscayne Bay, though crocodiles were earlier suspected to occur there (Kushlan and Mazzotti 1989a). Within the United States, the historic core geographic range of crocodiles includes Miami-Dade, Broward, and Monroe Counties in Florida, but reports indicate that they occupied areas as far north as Indian River County on the east coast (Kushlan and Mazzotti 1989a). Crocodiles were probably never common on the west coast of Florida, but credible reports suggest that they occurred at least periodically as far north as Sanibel Island and Sarasota County (Kushlan and Mazzotti 1989a). The primary historic nesting area was on the mainland shore of Florida and Biscayne Bays, including many of the small islands near shore, in what is today Everglades National Park (Kushlan and Mazzotti 1989a). Nesting was also historically well-documented in the upper Keys from Key Largo south to Lower Matecumbe Key (Kushlan and Mazzotti 1989a). Reports of crocodile nests on Little Pine Key (Ogden 1978), and occurrences on Key West (Ogden 1978) suggest that crocodiles were once more common in the Keys than they are today.

In 1976, the American crocodile population in Florida was estimated to be between 200 and 300 individuals (40 FR 58308), with only 10 to 20 breeding females estimated in 1975 (40 FR 44149). Most of the remaining animals and known nesting activity during this time were concentrated in a small portion of their historic range in northeastern Florida Bay (Kushlan and Mazzotti 1989a).

Today, the population of American crocodiles in Florida has grown to an estimated 500 to 1,000 individuals, not including hatchlings (P. Moler, Florida Fish and Wildlife Conservation Commission (FWC), personal communication 2004; F. Mazzotti, University of Florida (UF), personal communication 2004). This estimate, developed by two established American crocodile experts, is based on a demographic characteristic that has proven true for both Nile crocodiles and American alligators. The characteristic is based on a generality from crocodilian research, that breeding females make up 4 to 5 percent of the non-hatchling population size. This estimate exhibits a large range, because the researchers used a range of 40 to 50 crocodile nests existing in Florida to do their calculations (P. Moler, FWC, personal communication 2004; F. Mazzotti, UF, personal communication 2004). We believe this is a reasonable but conservative estimate, because as stated below nesting has increased to 61 documented nests in 2003 and not all mature females breed and nest each year.

The nesting range has also expanded on both the east and west coasts of the State, and crocodiles are frequently being seen throughout most of their historical range. Nesting has extended back into Biscayne Bay on Florida's east coast, and now commonly occurs at the Turkey Point Nuclear Plant (Brandt *et al.* 1995, Gaby *et al.* 1985). During 2003, 61 crocodile nests were discovered in south Florida (S. Klett, Service, personal communication 2003; M. Cherkiss, personal communication 2003; J. Wasilewski, Natural Selections Inc., personal communication 2003), and nesting has been increasing for several years (Ogden 1978, Brandt *et al.* 1995, Kushlan and Mazzotti 1989b, Moler 1991b, Mazzotti *et al.* 2000, Mazzotti and Cherkiss 2001, and Mazzotti *et al.* 2002). Approximately 75 percent of reproductively mature females breed and nest each year (F. Mazzotti, personal communication 2001), suggesting that the actual number of nesting females may be higher than the 61 nests recorded. Surveys detect approximately 80 to 90 percent of nests (F. Mazzotti, personal communication 2001; J. Wasilewski, personal communication 2002), and surveyors are generally unable to distinguish those nests that contain more than one clutch of eggs from different females without researchers excavating the nests. We believe this situation lends to a possible underestimation of nests or females, because on occasion 2 females lay eggs in the same nest.

The breeding range of the American crocodile today is still restricted relative to its reported historic range (Kushlan and Mazzotti 1989a), with most breeding occurring on the mainland shore of Florida Bay between Cape Sable and Key Largo (Mazzotti *et al.* 2002). Crocodiles no longer regularly occur in the Keys south of Key Largo (P. Moler, personal communication 2002, Jacobsen 1983), though individuals have occasionally been observed in the lower Keys in recent years. An American crocodile was also observed for the first time near Fort Jefferson in the Dry Tortugas in May 2002 (O. Bass, Everglades National Park, personal communication 2002). We believe that these occasional observations may indicate that crocodiles are expanding their range back into the Keys, but Key Largo is the only nesting area currently known in the Florida Keys.

Crocodiles live primarily in the sheltered, fresh, or brackish waters of mangrove-lined bays, mangrove swamps, creeks, and inland swamps (Kushlan and Mazzotti 1989b). Prolonged exposure to salinities similar to that of seawater (35 parts per thousand (ppt) of sodium) may lead to reduced growth rates, particularly for young crocodiles (Dunson 1982, Dunson and Mazzotti 1989, Mazzotti et al. 1986). Availability of fresh water is a primary factor affecting growth and survival in young crocodiles (Dunson and Mazzotti 1989).

American crocodiles are shy and secretive, and remain solitary for most of the year (Mazzotti 1983); however, they are usually tolerant of other crocodiles in the same general area. Individuals may travel widely throughout their range, but they are generally concentrated around the major nesting areas (Kushlan and Mazzotti 1989b, Mazzotti 1983). Prior to nesting season, males become more territorial, and dominant males may mate with several females (Thorbjarnarson 1989).

Females do not become reproductively active until they reach a total length of approximately 2.3 m (7.4 ft) (Mazzotti 1983), and this generally corresponds to an age of 10 to 13 years (LeBuff 1957, Moler 1991a). Females construct earthen nests (mounds or holes) on elevated, well-drained sites near the water, such as ditch-banks and beaches. Nests have been reported in sand, marl, and organic peat soils, and the nests constructed in these different soils may be susceptible to different environmental conditions and different threats (Lutz and Dunbar-Cooper 1984, Moler 1991b). Female crocodiles will only nest one time per year and may not nest every year after they reach sexual maturity. They lay an average of 38 eggs (Kushlan and Mazzotti 1989b), which will hatch after an incubation period of approximately 90 days (Mazzotti 1989). Flooding, over-drying, and raccoon predation all pose threats to nests and developing eggs (Mazzotti *et al.* 1988, Mazzotti 1999), and suitable nest sites

that are protected from these threats may be limited. The reported percent of nests from which eggs successfully hatch in any one year range from 33 to 78 percent (Ogden 1978, Kushlan and Mazzotti 1989b, Moler 1991b, Mazzotti *et al.* 2000, Mazzotti and Cherkiss 2001). Typically, a nest was considered successful if at least one hatched eggshell or hatchling crocodile was documented. However, Moler (19991b) classified a nest as successful if ''it appeared to have been opened by an adult crocodile. In all but one case, hatchling crocodiles were tagged near each successful nest.''

Unlike alligators, female crocodiles do not defend nest sites (Kushlan and Mazzotti 1989b). However, females remain near their nest sites and must excavate young from the nest after hatching (Kushlan and Mazzotti 1989b). Kushlan (1988) reported that females may be very sensitive to disturbance at the nest site; most females that were disturbed near their nests did not return to excavate their young after hatching. Female crocodiles show little parental care, and young are generally independent shortly after hatching. Hatchlings disperse from nest sites to nursery habitats that are generally more sheltered, have lower salinity (1 to 20 ppt), shallower water (generally), and more vegetation cover, shortly after hatching, where they remain until they grow larger. Growth during the first year can be rapid, and crocodiles may double or triple in size (Moler 1991a). Growth rates in hatchling crocodiles depend primarily on the availability of fresh water and food in the nursery habitat they occupy and may also be influenced by temperature (Mazzotti *et al.* 1986).

Adult crocodiles have few natural enemies, but hatchlings and young crocodiles are regularly eaten by a variety of wading birds, crabs, mammals, and reptiles, including larger crocodiles. As crocodiles grow, their former predators become prey. The diet of American crocodiles at all ages is varied, and crocodiles forage opportunistically. Fish, crabs, snakes, turtles, and a variety of other small prey compose the majority of their diet. Crocodiles are usually active at night, which is the primary time when they pursue prey.

Land acquisition efforts by many agencies have continued to provide protection for crocodile habitat in south Florida. Crocodile Lake NWR was acquired in 1980 to provide over 2,205 ha (5,000 acres) of crocodile nesting and nursery habitat. In 1980, Everglades National Park established a crocodile sanctuary in northeastern Florida Bay. A total of 46 public properties (including Crocodile Lake NWR and Everglades National Park), owned and managed by Federal, State, or county governments, as well as 3 privately-owned properties (including Turkey Point Nuclear Power Plant) are managed at least partially or wholly for conservation purposes and contain potential crocodile habitat within the coastal mangrove communities in south Florida. For example, in the early 1980s, Everglades National Park plugged canals which allowed crocodiles to begin nesting on the canal berms. In 1976 the C–107 canal was completed and provides habitat for crocodiles at the Turkey Point Nuclear Power Plant. Approximately 95 percent of nesting habitat for crocodiles in Florida is under public ownership (F. Mazzotti, personal communication 2001).

Previous Federal Action

We proposed listing of the United States population of the American crocodile as endangered on April 21, 1975 (40 FR 17590). The proposed listing stated that only an estimated 10 to 20 breeding females remained in Florida, mostly concentrated in northern Florida Bay. The primary threats cited included development pressures, lack of adequate protection of crocodiles and their habitat, and the risk of extinction inherent to a small, isolated population. Comments on the proposed rule were received from 14 parties including representatives of the State of Florida, and all supported listing the American crocodile as endangered in Florida. We published a final rule on September 25, 1975, listing the United States population of the American crocodile as endangered (40 FR 44149).

On December 16, 1975, we published a proposal to designate critical habitat for the American crocodile (40 FR 58308). The proposed critical habitat included portions of Biscayne Bay south of Turkey Point, northeast Florida Bay, including the Keys, and the mainland extending as far west as Flamingo. We published a final rule designating critical habitat on September 24, 1976 (41 FR 41914). The final rule expanded the critical habitat to include a portion of Everglades National Park and northern Florida Bay to the west of the previously proposed area. The additional area lies entirely within Everglades National Park.

On April 6, 1977, we published a proposed rule to list as endangered all populations of the American crocodile with the exception of those in Florida and all populations of the saltwater (estuarine) crocodile (*Crocodylus porosus*) due to their similarity in appearance to the American crocodile in Florida (42 FR 18287). Under the similarity of appearance clause of Section 4 of the Act, a species may be treated as endangered or threatened for the purposes of commerce or taking if it so closely resembles an endangered species that law enforcement personnel will be unable to distinguish between the listed and unlisted species. We did not finalize this proposed rule.

On February 5, 1979, we provided notice in the **Federal Register** that a status review was being conducted for the American crocodile (outside of Florida) and the saltwater crocodile (*Crocodylus porosus*). The notice specified that we had information to suggest that the American crocodile and the saltwater crocodile may have experienced population declines and extensive habitat loss during the previous decade (44 FR 7060).

On July 24, 1979, we published a proposed rule (44 FR 43442) that recommended listing the American and saltwater crocodiles as endangered throughout their ranges outside of Papua New Guinea, citing widespread loss of habitat and extensive poaching for their hides. The Florida population of the American crocodile was not included because it was previously listed as endangered. Saltwater crocodiles were not listed within the jurisdictional boundaries of Papua New Guinea due to strict government control of crocodile farming and assurances that wild populations there were not being threatened.

We listed the American crocodile, with the exception of the previously-listed population in Florida, and the saltwater crocodile throughout its range, with the exception of the Papua New Guinea population, as endangered on December 18, 1979 (44 FR 75074). This action provided protection to these crocodilians worldwide.

Since the Florida population of the American crocodile was listed as endangered, we have conducted numerous consultations under section 7 of the Act for actions that may affect crocodiles. Most potential conflicts have been resolved early in the informal consultation process, resulting in our concurrence with a determination of ''not likely to adversely affect.''

One Federal prosecution occurred in the late 1970s for a dredge-and-fill permit violation that affected crocodile habitat on Key Largo within the boundaries of the then-proposed Crocodile Lake National Wildlife Refuge (*U.S.* v. *Joseph R. Harrison, Jr.* Civil Action No. 84–1465, Judge E.B. Davis, Final Consent Judgment on September

22, 1984). This case was settled prior to trial.

Distinct Vertebrate Population Segment Analysis

The Act defines ''species'' to include ''* * * any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.'' On February 7, 1996, we published in the **Federal Register** our Policy Regarding the Recognition of Distinct Vertebrate Population Segments (DPS Policy) (61 FR 4722). For a population to be listed under the Act as a distinct vertebrate population segment, three elements are considered—(1) The discreteness of the population segment in relation to the remainder of the species to which it belongs; (2) the significance of the population segment to the species to which it belongs; and (3) the population segment's conservation status in relation to the Act's standards for listing (*i.e.*, is the population segment endangered or threatened?). The best available scientific information supports recognition of the Florida population of the American crocodile as a distinct vertebrate population segment. We discuss the discreteness and significance of the DPS within this section; the remainder of the document discusses the species' status within the Florida DPS.

Discreteness: The DPS policy states that vertebrate populations may be considered discrete if they are markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors; and/or they are delimited by international governmental boundaries within which significant differences exist in control of exploitation, management of habitat, conservation status, or regulatory mechanisms.

The Florida population segment represents the northernmost extent of the American crocodile's range (Kushlan and Mazzotti 1989a, Thorbjarnarson 1989). It is spatially separated by approximately 90 miles of open ocean from the nearest adjacent American crocodile population in Cuba (Kushlan 1988). The Gulf Stream, or the Florida Current (the southernmost leg of the Gulf Stream), flows through this 90-mile gap. This strong current makes it unlikely that crocodiles would regularly, or even occasionally, move between Florida and Cuba. Behaviorally, American crocodiles are not predisposed to travel across open ocean. They prefer calm waters with minimal wave action, and most frequently occur in sheltered, mangrove-lined estuaries (Mazzotti 1983). No evidence is available to suggest that crocodiles have crossed the Florida Straits. There are no other American crocodile populations in close proximity to Florida (Richards 2003) that would allow direct interaction of animals. The Florida DPS is effectively isolated from other American crocodile populations and functions as a single demographic unit. Consequently, we conclude that the Florida population of American crocodiles is separated from other American crocodile populations as a consequence of physical or behavioral factors.

The genetic makeup of the Florida population of the American crocodile also is recognizably distinct from populations in other geographic areas within its range (M. Forstner, Southwest Texas State University, unpublished data), despite reported evidence of the introduction of genetic material from foreign crocodile populations (M. Forstner, personal communication 2002). Analysis of mitochondrial DNA suggests that the Florida DPS may be genetically more closely related to American crocodile populations in Central and South America than to those in Cuba and the Bahamas (M. Forstner, unpublished data). However, the Florida DPS remains genetically distinct and geographically distant from American crocodiles in central and south America.

In addition to the effective spatial isolation of the Florida population, the regulatory mechanisms providing protection for the crocodile and the level of enforcement of protections are substantially different outside of Florida, across international government boundaries. The first listing of the American crocodile under the Act only included the Florida population, and protection under the Act was extended to populations outside of the United States several years later (see ''Previous Federal Actions'' section). Florida supports the only population of the American crocodile that is subject to the full jurisdiction of the Act. Though the American crocodile is protected from international commerce by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), other countries have distinctly different regulatory mechanisms in place that do not provide the same level of protection from exploitation, disturbance, or loss of habitat within their jurisdictional boundaries for the American crocodile. Cuban laws provide protection to both crocodiles and crocodile habitat (Soberon 2000), and enforcement of those laws is reported to be good (P. Ross, International Union for the Conservation of Nature, Crocodile Specialists Group, personal communication 2002). However, the threats to crocodiles in Cuba are different than in the United States, with most human-caused mortality resulting from subsistence hunting due to a depressed economy. In the Dominican Republic, Jamaica, and Haiti, a wide variety of threats, conservation regulations, and levels of enforcement make the level of protection within these countries difficult to quantify or evaluate. Threats to American crocodile populations vary substantially throughout their range in Central and South America, with threats including malicious killing, illegal subsistence hunting in areas with a depressed economy, incidental mortality during legal caiman hunting, killing by fishermen, and incidental mortality in fishing nets (Ross 1998, Soberon 2000, Platt and Thorbjarnarson 2000, P. Ross personal communication, 2002). Therefore, significant differences do exist in control of exploitation, management of habitat, conservation status, or regulatory mechanisms in areas of the American crocodile's range outside of Florida.

Significance: The DPS policy states that populations that are found to be discrete will then be examined for their biological or ecological significance. This consideration may include evidence that the loss of the population would create a significant gap in the range of the taxon. The Florida population of the American crocodile represents the northernmost portion of its range in the world (Kushlan and Mazzotti 1989a, Thorbjarnarson 1989) and the only U.S. population. Loss of this population would result in a significant reduction of the extent of the species' range. Maintaining a species throughout its historic and current range is important to ensure its genetic diversity and population viability. While it is difficult to determine to what degree the Florida population of the American crocodile contributes substantially to the security of the species as a whole, the apparent isolation and evidence of genetic uniqueness (M. Forstner, Southwest Texas State University, unpublished data) suggest that the Florida population substantially contributes to the overall diversity within the species and is biologically or ecologically significant.

Recovery Accomplishments

The first recovery plan for the American crocodile was approved on February 12, 1979 (Service 1979). The recovery plan was revised on February

2, 1984 (Service 1984). The recovery plan for the American crocodile was revised again and included as part of the South Florida Multi-Species Recovery Plan (MSRP) (Service 1999). The recovery plan for the crocodile in the MSRP, which was approved in May 1999, represents the current recovery plan for this species.

The MSRP identifies 10 primary recovery actions for the American crocodile. Species-focused recovery actions include: (1) Conduct surveys to determine the current distribution and abundance of American crocodiles; (2) protect and enhance existing colonies of American crocodiles; (3) conduct research on the biology and life history of crocodiles; (4) monitor the south Florida crocodile population; and (5) inform the public about the recovery needs of crocodiles. Habitat-focused recovery actions include: (1) Protect nesting, basking, and nursery habitat of American crocodiles in south Florida; (2) manage and restore suitable habitat of American crocodiles; (3) conduct research on the habitat relationships of the American crocodile; (4) continue to monitor crocodile habitat; and (5) increase public awareness of the habitat needs of crocodiles. All of these primary recovery actions have been initiated since the 1999 MSRP.

American crocodile nest surveys and subsequent hatchling crocodile surveys around nest sites are conducted in all areas where crocodiles nest (Mazzotti *et al.* 2000, Mazzotti and Cherkiss 2003). Nest monitoring has been conducted nearly continuously at each of the primary nesting areas since 1978. Without these data, we would have little evidence to support reclassification. In addition, detailed surveys and population monitoring have been conducted annually since 1996 throughout the American crocodile's range in Florida. These surveys documented distribution, habitat use, population size, and age class distribution of crocodiles. During both crocodile surveys and nest monitoring, crocodiles of all age classes are captured and marked (Mazzotti and Cherkiss 2003). These marked individuals continue to provide information on survival, longevity, growth, and movements (Mazzotti and Cherkiss 2003). All captured individuals are marked by clipping tail scutes in a prescribed manner so that each crocodile is given an individual identification number (Mazzotti and Cherkiss 2003). In addition, hatchlings at Turkey Point are marked with microchips placed under the skin.

Several ecological studies have been initiated or continued in recent years. Study has continued on the effects of salinity on growth rate and survival of American crocodiles in the wild. Previous laboratory studies provided a general relationship, but field data have improved our understanding of this relationship. In addition, analysis of contaminants in crocodile eggs has been conducted recently at Rookery Bay, and these analyses contribute to a record of contaminants data as far back as the 1970s.

Protection and enhancement of nesting habitat within each of the three primary American crocodile nesting areas has also been ongoing for many years. Turkey Point Nuclear Plant has implemented management actions to minimize disturbance to crocodiles and their nesting habitat. This includes the designation of nesting ''sanctuaries'' where access and maintenance activities are minimized. Habitat management in these areas includes exotic vegetation control and encouraging the growth of low-maintenance native vegetation. On Crocodile Lake National Wildlife Refuge, management has focused on maintaining suitable nesting substrate. The organic soils that compose the nesting substrate have subsided over time, leading to the potential for increased risk of flooding or unfavorable microclimate. Nesting substrate has been augmented near nesting areas. Encroaching vegetation in nesting areas has also been removed. In Everglades National Park, management has included minimizing disturbance to crocodiles resulting from public use, and relocation of crocodile nests that were placed in recently-excavated spoil material subject to disturbance and inhospitable environmental conditions.

Signs have been in place for several years along highways to alert motorists to the presence of crocodiles in the areas where most crocodile road kills have occurred. Fences were also erected along highways to prevent crocodiles from crossing, although several of these fences were later removed because they were ineffective. The remaining sections of fence are intended to funnel crocodiles to culverts where they can cross underneath roads without risk. Other efforts to reduce human-caused mortality include law enforcement actions and signs that inform the public about crocodiles in areas where crocodiles and people are likely to encounter each other, such as at fish cleaning stations along Biscayne Bay.

The FWC established a standard operating protocol in 1988 to manage crocodile-human interactions. This protocol established a standard procedure that included both public education to encourage tolerance of crocodiles and translocation of crocodiles in situations that may threaten the safety of either crocodiles or humans. While the protocol has led to the successful resolution of many complaints, many of the large crocodiles that have been translocated under the protocol have shown strong site fidelity and have returned to the areas from which they were removed (Mazzotti and Cherkiss 2003). Translocation appears to be effective with small crocodiles (generally < 6 ft total length), but may not completely resolve human-crocodile conflicts involving larger, older animals. Developing an effective, proactive protocol to address human-crocodile conflicts is necessary to ensure the safety of crocodiles of all age groups near populated areas and to help maintain a positive public perception of crocodiles and crocodile conservation. We are working closely with FWC to continue development of an effective human-crocodile conflict management plan and to improve our understanding of how crocodiles respond to translocation.

Recovery Plan Provisions

The MSRP (Service 1999) specifies a recovery objective of reclassifying the species to threatened, and lists recovery criteria as:

> ''Previous recovery efforts identified the need for a minimum of 60 breeding females within the population before reclassification could be considered. Since these criteria were developed, new information, based on consistent surveys, has indicated that the total number of nesting females has increased substantially over the last 20 years, from about 20 animals to about 50, and that nesting has remained stable at the major nesting areas. Based on the fact that the population appears stable, and that all of the threats as described in the original listing have been eliminated or reduced, reclassification of the crocodile will be possible, provided existing levels of protection continue to be afforded to crocodiles and their habitat, and that management efforts continue to maintain or enhance the amount and quality of available habitats necessary for all life stages.''

Based on the criteria outlined in the MSRP, we can consider the American crocodile for reclassification to threatened status in Florida at this time, because crocodiles and their habitat are still protected and management efforts continue to maintain or enhance the amount and quality of available habitat. In addition, for several reasons, we believe that we have surpassed what prior recovery plans outlined as necessary to reclassify the American crocodile: The nesting range has expanded on both the east and west coasts of the State; crocodiles are

frequently being seen throughout most of their historical range; nesting has extended back into Biscayne Bay on Florida's east coast and now commonly occurs at the Turkey Point Nuclear Plant; nesting has been increasing for several years; and during 2003, 61 crocodile nests were discovered in south Florida. The level of protection currently afforded to the species and its habitat, as well as the status of habitat management, are outlined in the ''Summary of Factors Affecting the Species'' section of this proposed rule.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Act and regulations promulgated to implement the listing provisions of the Act (50 CFR part 424) set forth five criteria to be used in determining whether to add, reclassify, or remove a species from the list of threatened and endangered species. These factors and their application to the American crocodile are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

The original listing proposal (40 FR 17590) identified intensive human development and subsequent loss of American crocodile habitat as a primary threat to crocodiles. Since listing, much of the nesting habitat in Florida for crocodiles remains and has been afforded some form of protection. In addition, nesting activity that was concentrated in a small portion of the historic range in northeastern Florida Bay at the time of listing now occurs on the eastern, southern, and southwestern portions of the Florida peninsula. The primary nesting areas in northern Florida Bay that were active at the time of listing in 1975 remain protected and under the management of Everglades National Park, which has consistently supported the largest number of nests and the largest population of American crocodiles in Florida. The habitat in Everglades National Park is protected and maintained for crocodiles, and ongoing hydrologic restoration efforts may improve the quality of the habitat in the Park. Park managers emphasize maintaining a high-quality natural habitat that includes natural crocodile nesting areas. Restoration of disturbed sites, hydrologic restoration, and the removal of exotic vegetation like Australian pine and Brazilian pepper have improved crocodile nesting sites, nursery habitat, and other areas frequented by crocodiles.

Since the original listing, we have acquired and protected an important nesting area for crocodiles, Crocodile Lake National Wildlife Refuge on Key Largo. The acquisition of the Crocodile Lake National Wildlife Refuge in 1980 provided protection for over 2,205 ha (5,000 acres) of crocodile nesting and nursery habitat on Key Largo. The habitat on Crocodile Lake National Wildlife Refuge is protected and managed to support the local crocodile population. All of the nesting on Key Largo occurs within Crocodile Lake National Wildlife Refuge on artificial substrates composed of spoil taken from adjacent ditches that were dredged prior to acquisition of the property. These sites and the surrounding high-quality nursery habitat consistently support five to eight successful crocodile nests each year. The artificial substrate at nesting sites on the Refuge has begun to settle, and in an effort to continue maintenance of crocodile nesting habitat, the Refuge staff recently has augmented the substrate at certain sites to bring it back to its original elevation. Nesting has been documented at both of the elevated mounds. In order for these areas to remain as nesting and nursery sites, they need to be cleared of invasive exotics. Encroachment of native and exotic plants along the levies needs to be controlled in order for them to remain suitable for nesting crocodiles and their young. In general, Crocodile Lake National Wildlife Refuge is closed to public access. Access is granted by special use permit only. Both of these sites (Crocodile Lake NWR and Everglades National Park) have already implemented programs that provide for maintenance of natural conditions that will benefit the crocodile and are in the process of preparing management plans that will formalize ongoing management actions and further protect crocodile habitat (S. Klett, Service, personal communication 2002, Skip Snow, Everglades National Park, personal communication 2002). A management plan as defined here and throughout this proposal is not regulatory. These plans are developed by the property owners, and they outline strategies and alternatives believed to be necessary to conserve important habitat and in some cases species on the property. Implementation of the plan is not mandatory, but it should be updated on a regular basis so managers and staff on site have available the latest information and guidance for crocodile management.

In addition to these two primary core sites of publicly owned active nesting habitat for crocodiles, additional nesting habitat has been created within the historic range of the crocodile, but on a site that may not have historically supported nesting. The Turkey Point Nuclear Power Plant site, owned and operated by Florida Power and Light (FPL), contains an extensive network of cooling canals (built in 1974) that appear to provide good crocodile habitat in Biscayne Bay. The site is approximately 1,214 ha (3,000 acres), and the majority is considered crocodile habitat. The number of nests at this site has risen from 1 to 2 per year between 1978 and 1980 (Gaby *et al.* 1985) to 10 to 15 nests per year in the late 1990s (Brandt *et al.* 1995, Cherkiss 1999, J. Wasilewski personal communication 2002). This property now supports the second largest breeding aggregation of American crocodiles in Florida. The Turkey Point Nuclear Power Plant site, privately owned by FPL, has developed and implemented a management plan for their property that specifically addresses crocodiles for many years. Turkey Point is also closed to access other than personnel who work at the facility. FPL personnel maintain the canals and crocodile habitat at Turkey Point, by activities like exotic vegetation control and planting of low-maintenance native vegetation. They also have supported an extensive crocodile monitoring program since 1976. Operation of the Turkey Point Nuclear Power Plant is licensed by the Nuclear Regulatory Commission through 2032, and FPL plans to continue crocodile management and monitoring while the plant is in operation (J. Wasilewski, FPL, personal communication 2003).

FPL has also developed the Everglades Mitigation Bank along the western shore of Biscayne Bay and immediately adjacent to the Turkey Point Nuclear Power Plant, which may help bolster the crocodile population in Biscayne Bay in coming years. This site is a wetlands mitigation bank, approximately 5,665 ha (14,000 acres) in size, of which about 5,050 ha (10,000 acres) is crocodile habitat. To date, crocodile nesting has not been recorded on this site (J. Wasilewski, personal communication 2002); however, habitat restoration and management actions intended to improve nesting habitat may provide three additional nesting areas, each capable of supporting multiple nests (J. Wasilewski, personal communication 2002). It is difficult to estimate in advance how many potential nesting sites will occur in these three nesting areas, but we believe that it will be roughly equivalent to the Turkey Point Nuclear Power Plant site. This area will be protected in perpetuity and may help offset any loss of the artificial habitat at Turkey Point Nuclear Power

Plant if that site is modified after the current operating license expires in 2032. Even though the nesting habitat at Turkey Point has been created and all of the nesting at Crocodile Lake National Wildlife Refuge and some areas of Everglades National Park is on artificial or created substrate, crocodiles have successfully moved into and used this habitat. We believe that it is important to continue to provide protection for the artificial habitats that crocodiles opportunistically use within their current range.

Outside of these areas that now comprise the core of nesting habitat for American crocodiles in Florida, land acquisitions have also provided protection to many other areas of potential habitat for crocodiles. A total of 44 different public properties, owned and managed by Federal, State, or county governments, as well as 2 different privately owned properties managed at least partially or wholly for conservation purposes, contain potential habitat for crocodiles in Florida. A total of 35 of the publicly-owned or private conservation lands operate under current management plans (e.g., Florida Department of Natural Resources 1991). All of the plans prescribe management actions that will provide conditions beneficial for crocodiles and maintain or improve crocodile habitat and potential nesting sites. A common action called for in many of the plans is exotic vegetation control. Sites including Rookery Bay National Estuarine Research Reserve, Collier-Seminole State Park, and others list goals to restore the natural freshwater flow patterns through hydrological restoration (e.g., Florida Department of Environmental Protection 2000). The 44 other public properties contain about 28,330 ha (70,000 acres) of potential crocodile habitat, whereas together Everglades National Park and Crocodile Lake National Wildlife Refuge contain alone about 131,120 ha (324,000 acres). A total of approximately 166,000 ha (410,000 acres) of mangrove-dominated vegetation communities are currently present in south Florida on public and private lands that are managed at least partially for conservation purposes. Approximately 10,117 ha (25,000 acres) of mangrove habitat occurs in south Florida outside of public or privately-owned conservation lands. Only a small fraction (< 5 percent) of known nests currently occur on unprotected sites (F. Mazzotti, personal communication 2001), and these sites are probably less secure than sites on properties under public ownership.

Construction and development within coastal areas continues to grow, and still poses a threat to remaining crocodile habitat that is not protected. However, each year only a few nests may occur on privately-owned, unprotected sites (F. Mazzotti, personal communication 2001). With virtually all known crocodile habitat under protection for conservation purposes, the total Florida crocodile population now believed to be estimated between 500 and 1,000 individuals (not including hatchlings), the expansion of the crocodile's nesting range to both the east and west coast of Florida, and with crocodiles frequently being seen throughout most of their historical range, we believe that the amount and quality of crocodile habitat in south Florida will continue to be maintained or enhanced sufficiently in order to provide protection for all life stages of the existing crocodile population. We also believe that available habitat can support population growth and expansion.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Prior to listing in 1975, crocodiles were frequently collected for museums and zoos, and at least occasionally shot for sport. Though it is difficult to estimate the magnitude of collection and sport hunting, several lines of evidence suggest that they may have significantly impacted the Florida population prior to listing. Moore (1953) reported on a collector who advertised that he would pay for any live crocodiles anywhere in south Florida; these were added to his collection at a zoological garden. This collector claimed to have the largest collection of American crocodiles in the United States. Shooting for sport was also common, as was both incidental and intentional killing by fishermen in Florida Bay (Moore 1953). At the time of listing in 1975, our final rule stated that poaching for skins and eggs still sometimes occurred and crocodiles were occasionally shot for sport from passing boats. Ogden (1978) reported that half of the human-caused crocodile deaths recorded between 1971 and 1975 resulted from shooting.

Since listing in 1975, collection of wild American crocodiles has ceased, and few shootings have been reported (Kushlan 1988, Moler 1991a, P. Moler personal communication 2001). Kushlan (1988) reported that only 3 of 13 human-caused mortalities between 1975 and 1984 resulted from shooting (approximately 23 percent). Moler (1991a) reported 27 recorded human-caused mortalities from 1980 to 1991. During this period, only one shooting was reported (approximately 4 percent of human-caused mortalities). Since 1991, no crocodile mortalities resulting from shooting have been recorded. This declining trend in the number of recorded shootings suggests reduced risk to crocodiles from this threat. The few legal cases involving take of crocodiles in south Florida have been publicized and may have deterred poaching and killing of crocodiles. Stories in newspapers and other popular press, as well as radio and television reports and documentaries, have aided in informing residents and visitors about the status and legal protection of American crocodiles.

We receive no to few requests for recovery permits during a given year for commercial or scientific purposes related to the crocodile in Florida. We have no reason to believe that trade or any other type of current or future utilization pose a risk to the American crocodile population in Florida.

C. Disease or Predation

Depredation of American crocodile nests by raccoons was cited in the original listing of crocodiles as a threat to the population. However, predation on nests by raccoons at Turkey Point Nuclear Power Plant or Crocodile Lake NWR has not been observed (F. Mazzotti, personal communication 2004). Predation on nests has been caused by fire ants in Everglades National Park (one nest) and Turkey Point Nuclear Power Plant (several nests) (F. Mazzotti, personal communication 2004). Monitoring of nest sites throughout the range of the crocodile in Florida has shown that depredation is not a major cause of nest loss. On average, 20.1 percent (range 2.8 to 45.0 percent) of nest failures resulted from depredation (Kushlan and Mazzotti 1989b, Mazzotti 1989, Moler 1991b, Mazzotti *et al.* 2000, Mazzotti and Cherkiss 2001).

Predation on nests in Everglades National Park has been variable with an increasing trend that has not been tested for statistical significance (F. Mazzotti, personal communication 2004). For example, the majority of nests near Little Madeira Bay, within Everglades National Park, have been depredated by raccoons in recent years (Mazzotti and Cherkiss 2001). While a few years ago, most of the predation in Everglades National Park was on nests in artificial substrates, now most of the predation is on nests at beach nest sites which are historically the most productive in Everglades National Park (F. Mazzotti, personal communication 2004). This is of concern as these are the only nests on

natural habitat left in the U.S. Nest depredation may become an increasing problem as the density of crocodile nests increases, allowing for raccoons and other nest predators to become specialized in locating nests (Mazzotti 1999). However, localized efforts to control raccoons may boost productivity rates in areas where raccoon depredation has become problematic.

There is no evidence of disease in the American crocodile population in Florida. Therefore, disease does not present a known threat to the crocodile in Florida.

D. The Inadequacy of Existing Regulatory Mechanisms

The Act currently provides protection for the American crocodile as an endangered species, and these protections would not be significantly reduced if it were reclassified to threatened. A more complete discussion of applicable Federal regulations is included below (see ''Available Conservation Measures'' section). In addition to the Federal regulations described below, the National Park Service has established regulations for general wildlife protection in units of the National Park System that prohibit the taking of wildlife; the feeding, touching, teasing, frightening or intentional disturbing of wildlife nesting, breeding, or other activities; and possessing unlawfully taken wildlife or portions thereof (36 CFR 2.2).

The State of Florida provides legal protection for the American crocodile within the State. In 1967, the State of Florida listed the crocodile as ''protected.'' This status was revised in 1972, when the American crocodile was listed as ''endangered'' under Chapter 68A–27 of the Florida Wildlife Code. Chapter 68A–27.003 of the Florida Code, entitled ADesignation of endangered species; prohibitions; permits' specifies that Ano person shall pursue, molest, harm, harass, capture, possess, or sell'' any of the endangered species that are listed. Violation of these prohibited acts can be considered a third degree felony, and is punishable by up to 5 years in prison and a $10,000 fine (Florida Statute 372.0725). At this time, the FWC has no immediate plans to change the American crocodile's status, regardless of whether or not the Service reclassifies the species to threatened (P. Moler, FWC, personal communication 2004). The FWC also currently operates under a cooperative agreement with us under section 6 of the Act that formalizes a cooperative approach to the development and implementation of programs and projects for the conservation of threatened and endangered species.

On June 28, 1979, the American crocodile was added to Appendix II of CITES. This designation reflected that the species, while not currently threatened with extinction, may become so without trade controls. On June 6, 1981, the American crocodile was moved to Appendix I, indicating that it was considered to be threatened with extinction. Generally, no commercial trade is allowed for Appendix I species. CITES is a treaty established to monitor international trade to prevent further decline in wild populations of plant or animal species. CITES permits may not be issued if import or export of the species may be detrimental to the species' survival, or if specimens are not legally acquired. CITES does not regulate take or domestic trade, so it would not apply to take within Florida or the United States. Reclassification of the American crocodile in Florida from endangered to threatened will not affect the species' CITES status.

Several other Federal regulations may provide protection for American crocodiles or their habitat. Section 404 of the Clean Water Act (33 U.S.C. 1344 *et seq.*) requires the issuance of a permit from the U.S. Army Corps of Engineers (Corps) for the discharge of any dredged or fill material into waters of the United States. The Corps may deny the issuance of a permit if the project might adversely affect wildlife and other natural resources. Also, sections 401 and 403 of the Rivers and Harbors Act (33 U.S.C. 304 *et seq.*) prohibit the construction of bridges, roads, dams, docks, weirs, or other features that would inhibit the flow of water within any navigable waterway. The Rivers and Harbors Act ensures the protection of estuarine waters from impoundment or development and indirectly protects natural flow patterns that maintain crocodile habitat. In addition, the Federal agencies responsible for ensuring compliance with the Clean Water Act and the Rivers and Harbors Act are required to consult with us if the issuance of a permit may affect endangered species or their designated critical habitat, under section 7(a)(1) of the Endangered Species Act (see ''Available Conservation Measures'' section below). This requirement remains the same whether a species is listed as endangered or threatened.

The Fish and Wildlife Coordination Act of 1958 (as amended), codified at 16 U.S.C. 661 *et seq.* requires equal consideration and coordination of wildlife conservation with other water resources development. This statute allows us and State fish and game agencies to review proposed actions and address ways to conserve wildlife and prevent loss of or damage to wildlife resources. The Fish and Wildlife Coordination Act allows us to help ensure that American crocodiles and their habitat are not degraded by water development projects and allows us to incorporate improvements to habitat whenever practicable.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

As explained in the original listing (40 FR 44149), crocodile nest sites were vulnerable to disturbance from increasing human activity because of the remoteness and difficulty of patrolling nesting areas. Human disturbance of crocodiles can cause them to abandon suitable habitat or disrupt reproduction activities (i.e., females abandoning their nest sites). As the American crocodile population and the human population in south Florida both grow, the number of human-crocodile interactions has increased (Tim Regan, FWC, personal communication 2002). However, ongoing acquisition of important nesting and nursery sites and other additional crocodile habitat by Federal, State, or local governments and implementation of management plans on these publicly-owned properties have improved protection to crocodile nests.

Of the three core properties that support crocodile nesting (Everglades National Park, Crocodile Lake National Wildlife Refuge, and Turkey Point Nuclear Power Plant), only Turkey Point has a management plan in place that specifically addresses the American crocodile. This plan calls for activities like road maintenance, vehicle access, and construction to be conducted in important crocodile habitat only at certain times or locations based on the crocodile's activity in order to reduce human disturbance at Turkey Point. In addition, Turkey Point is closed to access other than personnel who work at the facility. Both Everglades National Park and Crocodile Lake National Wildlife Refuge, even without species-specific management plans, have established rules that provide protection from disturbance to benefit the crocodile. At Everglades National Park, protection from disturbance is based on guidelines for general public use, such as instructions to stay on marked trails. Crocodile Lake National Wildlife Refuge is generally closed to public access. However, personnel conduct necessary activities on the property in consideration of crocodiles to reduce disturbance. Activities conducted on or near the nesting sites are conducted

during the non-breeding season in order to minimize crocodile disturbance. Both Crocodile Lake National Wildlife Refuge and Everglades National Park are preparing management plans that will formalize ongoing actions and more specifically address American crocodiles (S. Klett, personal communication 2002, Skip Snow, Everglades National Park, personal communication 2002). In addition, Everglades National Park has been preparing a draft wilderness plan that will benefit the crocodile mostly by general prescribed changes in public use in portions of the Park.

In addition to these core nesting sites, approximately 44 public properties, managed as conservation lands by Federal, State, or county governments, provide potential habitat for crocodiles in south Florida. In addition, two other privately-owned sites that are maintained as conservation lands or that conduct natural lands management provide potential crocodile habitat. A total of 35 of these 46 properties operate under current management plans. Only two specifically mention management actions intended to benefit the American crocodile. However, other actions mentioned in management plans that will reduce disturbance to crocodiles include restrictions on public use, implementation of boat speed limits (including areas of no-wake zones), and prohibition of wildlife harassment. Managing potential human'crocodile conflicts remains an important factor in providing adequate protection for and reducing disturbance to crocodiles.

The original proposed listing cites the risk of a hurricane or another natural disaster as a serious threat to the American crocodile population (40 FR 17590). Hurricanes and freezing temperatures may also kill some adult crocodiles (Moler 1991a), but their susceptibility to mortality from extreme weather is poorly documented. These events still have the potential to threaten the historically restricted nesting distribution of the American crocodile in south Florida. However, increased nesting activity in western Florida Bay, Cape Sable, and Turkey Point Nuclear Power Plant have broadened the nesting range. Nesting now occurs on the eastern, southern, and southwestern portions of the Florida peninsula. While a single storm could still easily affect all portions of the population, it is less likely now that the impact to all population segments would be severe.

The original listing rule cited the restriction of the flow of freshwater to the Everglades because of increasing human development as a potential threat to the American crocodile population in Florida. Ongoing efforts to restore the Everglades ecosystem and restore a more natural hydropattern to south Florida will affect the amount of freshwater entering the estuarine systems. Because growth rates of hatchling crocodiles are closely tied to the salinity in the estuaries, restoration efforts will affect both quality and availability of suitable nursery habitat. Decreased salinity should increase growth rates and survival among hatchling crocodiles. Proposed restoration activities in and around Taylor Slough and the C–111 canal are projected to increase the amount of fresh water entering the estuarine system, and extend the duration of freshwater flow into Florida Bay (T. Dean, H. McSarry, P. Pitts, Service, personal communication 2004). The addition of fresh water will also occur throughout many of the tributaries and small natural drainages along the shore of Florida Bay, instead of primarily from the mouth of the C–111 canal (T. Dean, H. McSarry, P. Pitts, Service, personal communication 2004). Salinities in nesting areas, including Joe, Little Madeira, and Terrapin Bays, are projected to be lower for longer periods than they currently are within this area (based on alternative D13R hydrologic plan simulation—U.S. Army Corps of Engineers and South Florida Water Management District 1999). This restoration project should increase the amount and suitability of crocodile habitat in northern Florida Bay, and increase juvenile growth rates and survival (Mazzotti and Brandt 1995).

Hydrological restoration may also affect crocodile habitat in Biscayne Bay. Reductions in freshwater discharge will occur in the Miami River, Snake Creek, and central and south Biscayne Bay (H. McSharry, Service, personal communication 2004). These projected changes would appear to reduce habitat quality in a portion of Biscayne Bay. Consequently, the effect of the proposed hydrological modifications on the crocodile population in Biscayne Bay is likely negative. However, over the entire range of crocodile habitat that will be affected by Everglades restoration, we expect a benefit to the species.

Mortality of crocodiles on south Florida roads has consistently been the primary source of adult mortality, and this trend has not changed (Mazzotti and Cherkiss 2003). Road kills have occurred throughout the crocodile's range in Florida, but most have occurred on Key Largo and around Florida Bay, especially around Card and Barnes Sounds (Mazzotti and Cherkiss 2003). Many of the recorded crocodile road kills are of adults, which may result from the increased likelihood of large individuals being reported. We cannot accurately estimate the proportion of road-killed crocodiles that are reported. Therefore, it is difficult to accurately estimate the magnitude of this source of mortality or its effect on the population. However, all segments of the crocodile population in Florida have continued to grow despite this continuing mortality factor. Signs cautioning drivers of the risk of colliding with crocodiles have been posted along the major highways throughout crocodile habitat in south Florida. As discussed above, measures that have been identified to help reduce road kill mortality include installing fencing in appropriate places to prevent crocodiles from entering roadways and installation of box culverts under roadways so that crocodiles can safely cross roads.

As the MSRP details, the success of American crocodile nesting is largely dependent on the maintenance of suitable egg cavity moisture throughout incubation, and flooding may also affect nest success. On Key Largo and other islands, failure of crocodile nests is typically attributed to desiccation due to low rainfall (Moler 1991b). Data compiled by Mazzotti and Cherkiss (2003) document an average of 47.5 percent nest success from 1978 through 1999 (excluding 1991 and 1992 due to lack of data) at Crocodile Lake NWR on north Key Largo. Nest failures on the mainland may be associated with flooding or desiccation (Mazzotti *et al.* 1988, Mazzotti 1989). In certain areas, flooding and over-drying affect nest success. Data compiled by Mazzotti and Cherkiss (2003) document an average of 64.4 percent nest success from 1970 through 1999 at Everglades National Park (excluding 1975, 1976, 1983, 1984, and 1996 due to lack of data) and 98 percent nest success from 1978 through 1999 at Turkey Point Nuclear Power Plant (excluding 1980 and 1982 due to lack of data). However, overall, the crocodile population in Florida has more than doubled its size since it was listed to an estimated 500 to 1,000 individuals and appears to be compensating for these potential threats.

The final rule listing crocodiles did not reference contaminants as a potential threat. However, several studies have shown that contaminants occur in American crocodiles in south Florida (Hall *et al.* 1979, Stoneburger and Kushlan 1984, Mazzotti unpublished data). Though we have no evidence that contaminants have affected the crocodile population, we recognize that contaminants have been

documented in crocodile eggs. Contaminants such as pesticides and heavy metals may pose a threat to crocodiles in south Florida at some levels, but we have not yet detected them at the population level. A variety of organochlorine pesticide residues (DDT, DDE, and Dieldrin, among others), and PCBs have been documented in crocodile eggs collected from south Florida (Hall *et al.* 1979). Acute exposure to pesticides and heavy metals may result in death, while prolonged exposure to lower concentrations of organochlorines include liver damage, reproductive failure, behavioral abnormalities, or deformities. Despite the fact that contaminants have been documented in crocodile eggs in south Florida, the crocodile population and nesting are increasing. Little information is known at this time about what constitutes dangerous levels of these contaminants in crocodiles or other crocodilians.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the American crocodile in Florida in determining this proposed rule. Based on this evaluation, we have determined that the American crocodile in its range in Florida meets the criteria of a DPS as stated in our policy of February 17, 1996 (61 FR 4722), and in regard to its status, the preferred action is to reclassify the American crocodile in the Florida DPS from an endangered species to a threatened species. The recovery plan for the crocodile states that, ''Based on the fact that the population appears stable, and that all of the threats as described in the original listing have been eliminated or reduced, reclassification of the crocodile will be possible, provided existing levels of protection continue to be afforded to crocodiles and their habitat, and that management efforts continue to maintain or enhance the amount and quality of available habitats necessary for all life stages.'' We believe based on our evaluation that the criteria for downlisting the American crocodile in the Florida DPS have been met because:

(1) The amount and quality of crocodile habitat in Florida will continue to be maintained or enhanced sufficiently in order to provide protection for all life stages of the existing crocodile population and available habitat can support population growth and expansion; and

(2) Acquisition of important nesting and nursery sites and other additional crocodile habitat by Federal, State, or local governments and implementation of management on these publicly-owned properties have improved protection to crocodiles and crocodile nests.

Available Conservation Measures

Two of the three primary nesting areas for American crocodiles in Florida occur on Federal conservation lands and are consequently afforded protection from development and large-scale habitat disturbance. Crocodiles also occur on a variety of State-owned properties, and existing State and Federal regulations provide protection on these sites. The fact that American crocodile habitat is primarily wetlands also assures the opportunity for conference or consultation on most projects that occur in crocodile habitat under the authorities described below.

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing increases public awareness of threats to the American crocodile, and promotes conservation actions by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the State, and requires that recovery actions be carried out. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to the American crocodile and its designated critical habitat (41 FR 41914). Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. If a Federal action may affect the American crocodile or its designated critical habitat, the responsible Federal agency must enter into formal consultation with us. Federal agency actions that may require consultation with us include Corps of Engineers involvement in projects such as residential development that requires dredge/fill permits, the construction of roads and bridges, and dredging projects. Power plant development and operation under license from the Federal Energy Regulatory Commission/Nuclear Regulatory Commission may also require consultation with respect to licensing and re-licensing.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. The prohibitions, codified at 50 CFR 17.21 and 50 CFR 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, and pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and agents of State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving threatened wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in the course of otherwise lawful activities. For threatened species, permits also are available for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

Questions regarding whether specific activities will constitute a violation of section 9 should be directed to Cindy Schulz of the South Florida Ecological Services Office (see **ADDRESSES** section). Requests for copies of the regulations regarding listed species and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Ecological Services Division, 1875 Century Boulevard, Suite 200, Atlanta, Georgia 30345 (telephone 404/679–4176, facsimile 404/679–7081).

This proposed rule recommends a change in status of the American crocodile at 50 CFR 17.11, from endangered to threatened. If made final, this rule would formally recognize that this species is no longer in imminent danger of extinction throughout all or a significant portion of its range in Florida. However, this reclassification would not significantly change the protection afforded this species under the Act. Anyone taking, attempting to take, or otherwise possessing an American crocodile, or parts thereof, in violation of section 9 would still be subject to a penalty under section 11 of the Act. Section 7 of the Act would still continue to protect the American crocodile from Federal actions that might jeopardize its continued existence or destroy or adversely modify its critical habitat.

If the crocodile is listed as threatened, recovery actions directed at the crocodile would continue to be implemented as outlined in the MSRP.

The MSRP identifies actions that will result in the recovery of the American crocodile, including—(1) Determining the current distribution and abundance; (2) protecting and enhancing existing crocodile colonies; (3) conducting research on the American crocodile's biology and life history; (4) monitoring the south Florida crocodile population; and (5) informing the public about the recovery needs of crocodiles. The MSRP also outlines restoration activities that should be undertaken to adequately restore the mangrove community that the crocodile occupies. These actions include—(1) Protecting crocodile nesting, basking, and nursery habitat; (2) managing and restoring suitable crocodile habitat; (3) conducting research on the habitat relationships of the crocodile; (4) continuing to monitor crocodile habitat; and (5) increasing public awareness of the habitat needs of the crocodile.

Finalization of this proposed rule would not constitute an irreversible commitment on our part. Reclassification of the American crocodile in Florida to endangered status would be possible if changes occur in management, population status, and habitat or other actions detrimentally affect the population or increase threats to its survival.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of this review is to ensure that listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the comment period, on the specific assumptions and conclusions regarding the proposed reclassification of the American crocodile in Florida.

The final decision on this proposed rule will take into consideration the comments and any additional information we receive, and such communications may lead to a final regulation that differs from this proposal.

The Act provides for one or more public hearings on this proposal, if requested. We must receive requests within 45 days of the date of publication of the proposal in the **Federal Register**. Such requests must be made in writing and be sent to the South Florida Ecological Services Office, 1339 20th Street, Vero Beach, FL 32960.

Executive Order 12866

Executive Order 12866 requires agencies to write regulations that are easy to understand. We invite your comments on how to make this rule easier to understand including answers to the following: (1) Is the discussion in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposal?; (2) does the proposal contain technical language or jargon that interferes with its clarity?; (3) does the format of the proposal (grouping and order of sections, use of headings, etc.) aid or reduce its clarity; and (4) what else could we do to make the rule easier to understand?

Send a copy of any comments that concern how we could make this proposed rule easier to understand to the Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C St., NW., Washington, DC 20240.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information for which Office of Management and Budget Approval is required under the Paperwork Reduction Act. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid control number. For additional information concerning permit and associated requirements for threatened species, see 50 CFR 17.72.

National Environmental Policy Act

We have determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited in this document, as well as others, is available upon request from the South Florida Ecological Services Office (see **ADDRESSES** section).

Author

The primary author of this document is Tylan Dean, Fish and Wildlife Biologist (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

We propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry in the List of Endangered and Threatened Wildlife for ''Crocodile, American'' under REPTILES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*	*	
REPTILES							
*	*	*	*	*	*	*	
Crocodile, American ..	*Crocodylus acutus* ...	U.S.A. (FL), Mexico, Caribbean, Central and South America.	Entire, except in U.S.A. (FL).	E	10, 87, __	NA	NA

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do	.....do	.....do	U.S.A. (FL)	T	10, 87, __	17.95(c)	NA
*	*	*	*	*	*	*	

Dated: January 28, 2005.

Marshall P. Jones,

Acting Director, Fish and Wildlife Service.

[FR Doc. 05–5640 Filed 3–23–05; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[I.D. 031705E]

RIN 0648–AS90

Fisheries of the Exclusive Economic Zone Off Alaska; License Limitation Program for the Scallop Fishery

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

ACTION: Proposed rule; availability of an amendment to a fishery management plan; request for comments.

SUMMARY: The North Pacific Fishery Management Council (Council) has submitted Amendment 10 to the Fishery Management Plan for the Scallop Fishery off Alaska (FMP) for review by the Secretary of Commerce (Secretary). Amendment 10 would modify the gear endorsements under the license limitation program (LLP) for the scallop fishery to increase the dredge size allowed on vessels that qualify for the gear restriction endorsement. This action is necessary to allow increased participation by LLP license holders in the scallop fisheries off Alaska. This action is intended to promote the goals and objectives of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the FMP, and other applicable laws.

DATES: Written comments on the amendments must be received on or before May 23, 2005.

ADDRESSES: Send comments to Sue Salveson, Assistant Regional Administrator, Sustainable Fisheries Division, Alaska Region, NMFS, Attn: Lori Durall. Comments may be submitted by:

• E-mail to *Scallop10–NOA–0648–AS90@noaa.gov*. Include in the subject line the following document identifier: Scallop 10. E-mail comments, with or without attachments, are limited to 5 megabytes;

• Webform at the Federal eRulemaking Portal: *www.regulations.gov*. Follow the instructions at that site for submitting comments;

• Hand delivery to the Federal Building, 709 West 9th Street, Room 420A, Juneau, AK;

• Mail to P.O. Box 21668, Juneau, AK 99802; or

• Fax to 907–586–7557.

Copies of Amendment 10 and the Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) for this action may be obtained from the NMFS Alaska Region at the address above or from the Alaska Region website at *http://www.fakr.noaa.gov/*.

FOR FURTHER INFORMATION CONTACT: Gretchen Harrington, phone: 907–586–7228 or e-mail: *gretchen.harrington@noaa.gov*.

SUPPLEMENTARY INFORMATION: The Magnuson-Stevens Act requires that each regional fishery management council submit any FMP amendment it prepares to NMFS for review and approval, disapproval, or partial approval by the Secretary. The Magnuson-Stevens Act also requires that NMFS, upon receiving an FMP amendment, immediately publish a notice in the **Federal Register** announcing that the amendment is available for public review and comment.

Beginning in 2001, NMFS required a Federal scallop LLP license on board any vessel deployed in the scallop fisheries in Federal waters off Alaska. The LLP was implemented through approval of Amendment 4 to the FMP by the Secretary on June 8, 2000, and the final rule implementing Amendment 4 was published December 14, 2000 (65 FR 78110). The LLP was established to limit harvesting capacity in the Federal scallop fishery off Alaska. NMFS issued a total of nine LLP licenses. Licenses were issued to holders of either Federal or state moratorium permits who used their moratorium permits to make legal landings of scallops in each of any two calendar years during the period beginning January 1, 1996, through October 9, 1998. The licenses authorize their holders to catch and retain scallops in all waters off Alaska that are open for scallop fishing.

Licenses based on the legal landings of scallops harvested only from Cook Inlet (State Registration Area H) during the qualifying period have a gear restriction endorsement that limited allowable gear to a single 6–foot (1.8 m) dredge when fishing for scallops in any area. NMFS issued two licenses with this gear endorsement. The purpose of this gear restriction was to prevent expansion in overall fishing capacity by not allowing relatively small operations in Cook Inlet to increase their fishing capacity. The other seven licenses, based on the legal landings of scallops harvested from other areas outside Cook Inlet during the qualifying period, have no gear endorsement, but are limited to two 15–foot (4.5 m) dredges under existing state regulations.

Since the LLP was implemented, the Council found that the gear restriction endorsement may create a disproportionate economic hardship for those two LLP license holders with the endorsement when they fish in Federal waters, especially in light of the state's observer requirements and their associated costs. In February 2004, the Council developed a problem statement and four alternatives for analysis of modifying or eliminating the gear restriction for the two licenses affected by the gear restriction.

In October 2004, the Council voted unanimously to recommend Amendment 10 to change the single 6–foot (1.8 m) dredge restriction endorsement to a gear restriction endorsement of two dredges with a combined width of no more that 20–foot (6.096 m). This change would allow the two LLP license holders with the current gear endorsement to fish in Federal waters outside Cook Inlet with larger dredges. The Council recommended this change because it found that it is not economically viable for vessels to operate outside Cook Inlet with the existing gear restrictions. The Council also concluded that, because of changes to the fleet after the LLP was implemented due to the formation of a voluntary fishing cooperative, these two vessels could increase their capacity