



PIPING PLOVER CRITICAL HABITAT QUESTIONS AND ANSWERS

The U.S. Fish and Wildlife Service (Service) is proposing to designate amended critical habitat for the piping plover on its wintering grounds in four areas of North Carolina. Critical habitat is a term used in the Endangered Species Act (ESA) that refers to specific geographic areas that contain habitat features essential for the conservation of a threatened or endangered species. These areas may require special management considerations or protection for the species. The proposed amended designation was first published in the Federal Register on June 12, 2006. A notice of availability of the draft environmental assessment and addendum to the economic analysis, along with the proposed amended designation, was published in the Federal Register on May 31, 2007. The public may comment on the proposal and the environmental assessment and economic analysis for 60 days after the date of publication. The following frequently asked questions are provided with responses to help understand the proposed critical habitat designation for the piping plover.

1. What is a piping plover?

The piping plover (*Charadrius melodus*), named for its melodic mating call, is a small, pale-colored North American shorebird. The bird's light sand-colored plumage blends in with the sandy beaches and shorelines which are its primary habitat. It weighs 1-2 ounces (43-63 grams) and is 6-6 ½ inches (17-18 centimeters) long. During the breeding season, the legs are bright orange and the short, stout bill is orange with a black tip. There are two single dark bands, one around the neck and one across the forehead between the eyes. Plumage and leg color help distinguish this bird from other plovers. The female's neck band is often incomplete and is usually thinner than the male's neck band. In winter, the birds lose their breeding plumage; bill turns black, the legs remain orange but pale, and the black plumage bands on the head and neck are lost. Chicks have speckled gray, buff, and brown down, black beaks, orange legs, and a white collar around the neck. Juveniles resemble wintering adults and obtain their adult plumage the spring after they fledge.

2. Where do piping plovers live?

Historically, piping plovers bred across three geographic regions. These regions include: the United States and Canadian Northern Great Plains from Alberta to Manitoba and south to Nebraska; the Great Lakes beaches; and the Atlantic coastal beaches from Newfoundland to North Carolina. Currently, piping plovers live in an area similar to their historical range, although the numbers of those breeding in the Great Lakes region have decreased significantly since the 1930s. The Great Lakes breeding population is now found mainly in Michigan, with two pairs nesting in Wisconsin. Generally, piping plovers favor open sand, gravel, or cobble beaches for breeding. Breeding sites are generally found on islands, lake shores, coastal shorelines, and river margins.

Piping plovers winter in coastal areas of the United States from North Carolina to Texas. They also winter along the coast of eastern Mexico and on Caribbean islands from Barbados to Cuba and the Bahamas. Information from observation of color-banded piping plovers indicate that the winter range of the three breeding populations overlap, to a significant degree. Therefore, the source breeding population of a given wintering individual cannot be accurately determined in

the field, without having marked the individual. North Carolina is uniquely positioned in the species' range, being the only state where the piping plover's breeding and wintering ranges overlap and the birds are present year-round.

Piping plovers begin arriving on the wintering grounds in early July, with some late nesting birds arriving in September through October. A few individuals can be found on the wintering grounds throughout the year, but sightings are rare in May, June and July. Migration is poorly understood, but a recent study suggests that plovers use inland and coastal stopover sites when migrating from breeding areas to wintering grounds.

3. What do piping plovers eat?

Piping plovers feed along beaches and intertidal mud and sand flats. Primary prey for piping plovers includes worms, various crustaceans, insects, and occasionally bivalve mollusks.

4. How many piping plovers are there?

According to 2001 census numbers, approximately 29 breeding pairs live on the Great Lakes (all but two of these pairs are in Michigan); approximately 1,291 breeding pairs are found on the Northern Great Plains (including the Canadian Prairie region) ; and approximately 1,427 breeding pairs are found on the Atlantic Coast.

5. Is the piping plover an endangered species?

The piping plover first received protection under the Endangered Species Act (ESA) in 1986. Piping plovers nesting in the Great Lakes are listed as endangered; piping plovers nesting along the Atlantic Coasts and in the northern Great Plains of the U.S. and Canada are listed as threatened. All piping plovers on the wintering grounds are considered threatened.

6. What do the terms “endangered” and “threatened” mean under the ESA?

An endangered species, by definition, is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Except for special circumstances outlined at the time of listing, regulations applicable to endangered species are also applicable to threatened species.

7. Why are piping plover populations declining? What are the threats to the piping plover?

Piping plovers often nest on beaches where people like to live and enjoy the shoreline. Their nests accidentally get stepped on or crushed by people and vehicles. The presence of people also may cause the birds to desert the nest, exposing eggs or chicks to the hot sun and predators. Interruption of feeding may stress adult and juvenile birds during critical periods in their life cycle. Pets, especially dogs, may harass or kill the birds. Many of the coastal beaches traditionally used by piping plovers for nesting, feeding, and roosting have been lost to commercial, residential, and recreational developments. Also, developments near beaches provide food that attracts increased numbers of predators such as raccoons and foxes. In order to recover the piping plover and remove it from the endangered species list, threats to reproductive success at breeding grounds must be addressed. Availability of quality foraging and roosting habitat in the regions where this species winters is necessary in order to insure that

an adequate number of adults survive to migrate back to breeding sites and successfully nest.

8. What is being done to protect the piping plover?

A variety of protection measures are implemented as prescribed in recovery plans, and include:

Listing: In 1986, the Great Lakes breeding population of the piping plover was listed as endangered, while populations in all other portions of the species' range were listed as threatened.

Recovery Plans: The Service developed recovery plans that describe actions that need to be taken to help the bird survive and recover. Recovery plans currently exist for all three breeding populations.

Research: Several cooperative research groups have been set up among federal and state agencies, university and private research centers, and the Canadian Wildlife Service. Studies are being conducted to estimate the number of plovers, evaluate reproductive success, monitor long-term changes in populations, and verify where plovers breed and winter. Other studies have addressed the effectiveness of captive breeding efforts. The effectiveness of predator exclosures and habitat manipulations also has been evaluated.

Management and Habitat Protection: Measures to ensure successful nesting are conducted each year, including controlling human access to nesting areas, monitoring nesting activity, and protecting nests, eggs and young birds from predators. This requires intensive management efforts and significant participation by dedicated volunteers. Protection of winter habitat also requires constant vigilance and includes managing activities and controlling human access to limit impacts to habitat.

Public Education: Many states and private agencies are running successful public information campaigns to raise awareness of the plover's plight.

9. What are the recovery goals for the piping plover?

The recovery goals for the piping plovers vary depending on the breeding population. For example, the Atlantic Coast population recovery goals are to maintain 2,000 breeding pairs and an average of 1.5 fledged chicks per pair for at least five years and ensure long-term maintenance of wintering habitat. Goals for wintering areas have been recommended in existing recovery plans and include protection of specific sites that provide the essential requirements for the wintering populations of the piping plover. These recovery sites include areas currently used by wintering plovers and areas that would be suitable for use. As populations in all three breeding areas begin to recover, densities on the wintering grounds will increase. In order to achieve recovery, it is necessary to maintain sufficient habitat to ensure the survival of these wintering birds.

10. What protection does the piping plover currently receive as a listed species?

The ESA prohibits the import, export, or interstate or foreign sale of protected animals and plants without a special permit. It also makes "take" illegal – forbidding the killing, harming, harassing, possessing, or removing of protected animals from the wild. Federal agencies must consult with

the Service to conserve listed species and ensure that any activity they fund, authorize, or carry out will not jeopardize the continued survival and recovery of a listed species. This is referred to as a Section 7 consultation process.

Under Section 10 of the ESA, permits may be issued to take listed wildlife species for scientific purposes, to enhance the propagation, survival or recovery of the species, and for incidental take in the course of certain otherwise lawful activities.

In addition, the ESA requires that federal agencies not only take action to prevent further loss of a species, but also pursue actions to recover species to the point where they no longer require protection and can be delisted.

11. What is critical habitat?

Critical habitat is a term used in the Endangered Species Act of 1973, as amended. It refers to specific geographic areas that contain habitat features that are essential for the conservation of a threatened or endangered species and that may require special management consideration or protection.

12. Do listed species in critical habitat areas receive more protection?

A critical habitat designation does not set up a preserve or refuge, it only affects activities with federal involvement, such as federal funding or a federal permit. Listed species and their habitats are protected by the ESA whether or not they are in areas designated as critical habitat.

Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for the conservation of that species. Critical habitat also alerts the public, as well as land managing agencies, to the importance of these areas, but the ESA only imposes additional restrictions on the actions or programs that are authorized, funded, permitted, or carried out by a federal agency. For example, a landowner undertaking a project on private land that involves no federal funding or permit has no additional responsibilities if his property falls within critical habitat boundaries.

13. Do federal agencies have to consult with the Service outside critical habitat areas?

Not always. It is the responsibility of the federal agency to determine if a proposed project may affect threatened or endangered species. If a "may affect" determination is made, then that requires the federal agency to initiate the Section 7 process. Even when there is not critical habitat designation, federal agencies must consult with the Service, if an action that they fund, or authorize, or permit may affect listed species.

14. What impact will critical habitat designation have on beach use?

Non-federal activities are not affected by critical habitat designation. Designation of critical habitat requires federal agencies to review activities they fund, authorize, or carry out, to assess the likely effects of the activities on critical habitat. Thus, in the proposed designation, critical habitat would only affect beach use if the National Park Service (or some other federal agency) funds, authorizes, or carries out an action that will likely result in the destruction or adverse

modification of critical habitat to an extent that piping plover conservation and survival is precluded. In such cases, the Service will work with the federal agency to protect those sites while having as minimal an effect as possible on public enjoyment of the areas.

The National Park Service currently implements management strategies as proposed in their Interim Protected Species Management Strategy. This Strategy closes suitable interior habitats at the spits and Cape Point year-round to all recreational users to provide resting and foraging habitat for shorebirds (including the piping plover). Closures under the Strategy overlap proposed critical habitat to an extent; however, in general, the closures are smaller than the proposed critical habitat areas. Not much, if any, ORV use occurs within the areas the Strategy proposes to close for foraging and resting birds because these areas are typically outside of the ORV corridors. These areas proposed for closure under the Strategy would be closed regardless of wintering piping plover critical habitat designation. The National Park Service has indicated that they do not anticipate significant changes in their management of the area as a result of the designation of critical habitat. As a result, the Service believes the designation of the four areas as critical habitat will have little impact on beach use beyond the restrictions currently in place.

15. What activities could adversely affect critical habitat?

Some activities could have an adverse effect on piping plover critical habitat. Such activities might include:

- ◆ dredging and dredge spoil placement
- ◆ seismic exploration
- ◆ construction and installation of facilities, pipelines, and roads associated with oil and gas development
- ◆ oil spills and oil spill clean-up
- ◆ construction of dwellings, roads, marinas, and other structures and associated impacts such as staging of equipment and materials
- ◆ beach nourishment, stabilizations and cleaning
- ◆ certain types and levels of recreational activities such as all-terrain vehicular activity
- ◆ stormwater and wastewater discharge from communities
- ◆ sale, exchange, or lease of federal land that contains suitable habitat that is likely to result in the habitat being degraded
- ◆ marsh restoration
- ◆ military maneuvers.

Specific threats are likely unique to each area and are best addressed in recovery plans, management plans, and Section 7 consultations.

16. How does the Service determine which areas to designate as critical habitat?

Biologists identify physical or biological habitat features needed for life and successful reproduction of the species. These features are known as primary constituent elements and include, but are not limited to:

- ◆ space for individual and population growth and for normal behavior;
- ◆ food, water, air, light, minerals, or other nutritional or physiological requirements;
- ◆ cover or shelter;
- ◆ sites for breeding and rearing of offspring; and
- ◆ habitats that are protected from disturbance or are representative of the historic

geographical and ecological distributions of a species.

Areas containing these elements of the habitat are identified in the landscape. By law, the Service is required to identify sufficient areas containing these characteristics to insure conservation of the listed species.

17. Are all areas within the proposed piping plover critical habitat boundaries considered critical habitat?

When determining proposed critical habitat boundaries, the Service made every effort to avoid proposing the designation of developed areas such as buildings, paved areas, boat ramps and other structures that lack primary constituent elements for the wintering population of the piping plover. Any such structures inadvertently left inside proposed critical habitat boundaries are not considered part of the proposed unit. This also applies to the land on which such structures sit directly. Therefore, federal actions limited to these areas would not trigger Section 7 consultations, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

Designating specific locations for critical habitat for the piping plovers is difficult because the coastal areas they use are constantly changing due to storm surges, flood events, and other natural geo-physical alterations of beaches and shoreline. Thus, to best ensure that areas considered essential to the piping plover are included in this proposed designation, the Service's textual unit descriptions will constitute the definitive determination as to whether an area is within the critical habitat boundary. The Service's textual unit descriptions describe the geography of the area using reference points, including the areas from the landward boundaries to the MLLW (mean lower low water -- which encompasses intertidal areas that are essential foraging areas for piping plovers) and describes areas within the unit that are utilized by the piping plover and contain the primary constituent elements (e.g., upland areas used for roosting and wind tidal flats used for foraging). The Service's textual descriptions also exclude features and structures (e.g., buildings, roads, etc.) that are not or do not contain the primary constituent elements.

18. Does the ESA require an economic analysis as part of designating critical habitat?

Yes. The Service must take into account the economic and other relevant impacts of specifying any particular areas as critical habitat. The Service may exclude any area from critical habitat if it determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of critical habitat unless it determines, based on the best scientific and commercial data available, that the failure to designate the area as critical habitat will result in the extinction of the species.

19. For how many species has the Service designated critical habitat?

To date, the Service has designated critical habitat for more than 465 of the current 1,311 species listed as threatened or endangered.

20. Why is critical habitat being designated for the piping plover?

In December, 1996, Defenders of Wildlife (Defenders) filed a lawsuit against the Department of

the Interior and the Service for failing to designate critical habitat for the piping plover. A second, similar lawsuit for the Northern Great Plains population of the piping plover was filed in 1997. These lawsuits were subsequently combined, and in February, 2000, the court issued an order directing the Service to publish a proposed critical habitat designation for the Great Lakes and Northern Great Plains populations. Since the Service cannot distinguish the Great Lakes and Great Plains birds on their wintering grounds (unless banded), it designated critical habitat for all U.S. wintering piping plovers collectively. On July 10, 2001, the Service published a final rule designating 137 areas along the coasts of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas as critical habitat for the wintering population of the piping plover (66 FR 36037). This designation included approximately 2,891.7 kilometers (km) (1,798.3 miles (mi)) of mapped shoreline and approximately 66,881 hectares (ha) (165,211 acres (ac)) of mapped area along the Gulf and Atlantic Coasts and along margins of interior bays, inlets, and lagoons.

In 2003, two North Carolina counties (Dare and Hyde) and a beach access group (Cape Hatteras Access Preservation Alliance) filed a lawsuit challenging the Service's designation of four units of critical habitat on the Cape Hatteras National Seashore, North Carolina (Units NC-1, NC-2, NC-4, and NC-5). In a November 1, 2004 opinion, the court vacated (i.e., set aside) and remanded the designation of these units to the Service for reconsideration. The court held that the descriptions of critical habitat for the four units did not sufficiently exclude certain hard structures and other areas that did not contain primary constituent elements, and ordered the Service to show that primary constituent elements are found on areas that are designated. Although the court did not invalidate the primary constituent elements themselves, it ordered the Service to clarify that the primary constituent elements may require special management or protection. It also found that the Service's designation of critical habitat must include compliance with the National Environmental Policy Act. Furthermore, the court found that the Service's economic analysis was arbitrary and capricious, in that it considered the impact of off-road vehicles and other human use of beaches, but did not address information in the record about the possibility of closures of the beaches to such use or how off-road vehicle use might be affected by the designation. Finally, the court also found that the Service may have omitted from the economic analysis the costs of consulting on National Park Service actions, and ordered the Service to reconsider them. The proposed designation represents the Service's reevaluation of these areas.

21. How much habitat is being designated as critical habitat for the piping plover?

The Service proposes to amend and designate those four units (NC-1 Oregon Inlet, NC-2 Cape Hatteras Point, NC-4 Hatteras Inlet, and NC-5 Ocracoke Island) as critical habitat for the wintering population of the piping plover. The four amended units total approximately 1,827 acres of habitat. All areas proposed as critical habitat are federally-owned and managed by the National Park Service as the Cape Hatteras National Seashore.

22. Does the public have opportunities to comment on the proposed critical habitat designation of the piping plover?

Yes. The Service is soliciting comments from the general public, federal and state agencies, natural conservation organizations, wildlife conservation agencies, Tribal organizations, congressional groups, counties, and municipalities to make the information upon which the

Service bases the final decision to designate critical habitat as complete as possible. The Service has issued news releases, placed public notices in newspapers, and sent letters to interested parties to announce the opening of the public comment period on the proposal and the associated draft economic analysis and environmental assessment.

You may request a copy of the proposal and the draft economic analysis and environmental assessment by writing to: Field Supervisor, U.S. Fish and Wildlife Service, Raleigh Fish and Wildlife Office, Post Office Box 33726, Raleigh, North Carolina 27636-3726, or call 919-856-4520, or by visiting the Service's website at www.fws.gov/nc-es/piplch/piplch.html. If you wish to provide comments on the proposal, send them to the above mailing address or to ncplovercomments@fws.gov.

23. Where can I get more information on the piping plover and critical habitat?

For more information, visit the Service's web sites at: www.southeast.fws.gov. You may also telephone: Division of Endangered Species for the wintering habitat area, telephone 361-994-9005.