Tuesday
July 12, 1994

Part IV

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17
Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States; Proposed Rule
Endangered and Threatened Wildlife and Plants; Reclassify the Bald Eagle From Endangered to Threatened in Most of the Lower 48 States

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The bald eagle (Haliaeetus leucocephalus) is listed as endangered under the Endangered Species Act of 1973 (Act) in the lower 48 States, except Washington, Oregon, Minnesota, Wisconsin, and Michigan, where it is listed as threatened. The bald eagle also occurs in Alaska and Canada, where it is not at risk and is not protected under the Act, and exists in small numbers in northern Mexico. The Fish and Wildlife Service (Service) proposes to reclassify the bald eagle from endangered to threatened in the lower 48 States except in certain portions of the American Southwest and to classify those eagles in adjacent Mexico as endangered. The bald eagle would remain threatened in the five States where it is currently listed as threatened. The special rule for threatened bald eagles would be revised. This action would not alter those conservation measures already in force to protect the species and its habitats. The Service seeks comments from the public on this proposed reclassification.

DATES: Comments from all interested parties must be received by October 11, 1994. Public hearing requests must be received by August 26, 1994.

ADDRESSES: Comments and materials concerning this proposal should be sent to Chief, Division of Endangered Species, Fish and Wildlife Service, 1 Federal Drive, Whipple Federal Building, Fort Snelling, Minnesota 55111–4056. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.


SUPPLEMENTARY INFORMATION:

Background

Literally translated, Haliaeetus leucocephalus means white-headed sea eagle. This large, powerful brown bird with a white head and tail is well known as our Nation's symbol. Young bald eagles are mostly dark brown until they reach 4 to 6 years in age and may be confused with the golden eagle (Aquila chrysaetos). The bald eagle is the only sea eagle regularly occurring on the North American continent (American Ornithologists' Union 1983). Its range extends from central Alaska and Canada to northern Mexico.

The bald eagle is a bird of aquatic ecosystems (Marshall and Nickerson 1976). It frequents estuaries, large lakes, reservoirs, major rivers, and some seacoast habitats. However, such areas must have an adequate food base, perching areas, and nesting sites meeting certain requirements to support bald eagles. In winter, bald eagles often congregate at specific wintering sites that are generally close to open water and that offer good perch trees and night roosts. Bald eagle habitats encompass both public and private lands.

The bald eagle was first described in 1766 as Falco leucocephalus by Linnaeus. This South Carolina bird was later renamed as the southern bald eagle, subspecies Haliaeetus leucocephalus leucocephalus (Linnaeus), when, in 1897, Townsend identified the northern bald eagle as Haliaeetus leucocephalus alascanus (American Ornithologists' Union 1957). These two subspecific names were in use when the southern bald eagle (arbitrarily declared to occur south of the 40th parallel) was listed (March 11, 1967; 32 FR 4001) as endangered under the Endangered Species Protection Act of 1966 (16 U.S.C. 668as–668cc). For the time the bald eagle was listed (February 14, 1978; 43 FR 6233) for the entire lower 48 States, the subspecies were no longer recognized by ornithologists.

The bald eagle historically ranged throughout North America except extreme northern Alaska and Canada and central and southern Mexico. Bald eagles nest on both coasts from Florida to Baja California, in the south, and from Labrador to the western Aleutian Islands, Alaska, in the north (formerly to the Commander Islands, western Bering Sea). In many of these areas they were abundant.

Gerrard and Bortolotti (1988) describe early population trends. When Europeans first arrived on the North American continent, there were an estimated quarter- to half-million bald eagles. The first major decline in the bald eagle population probably began in the mid to late 1800's. It coincided with declines in numbers of waterfowl and shorebirds and other major prey species. Direct eagle killing was also prevalent, and, coupled with loss of nesting habitat, these factors reduced bald eagle numbers until the 1940's.

In 1940, the Bald Eagle Protection Act (16 U.S.C. 668) was passed. This law prohibits the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald eagle, alive or dead, including any part, nest, or egg, unless allowed by permit; “take” includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or disturb.

The Bald Eagle Protection Act and increased public awareness of the bald eagle resulted in a partial recovery or a slower decline of the species in most areas of the country. However, persecution continued, notably in Alaska, which was exempted from the Bald Eagle Protection Act and maintained a bounty on bald eagles. In 1952, after lengthy studies demonstrated that bald eagles were not affecting salmon numbers, Alaska was no longer exempted.

Shortly after World War II, the use of dichloro-diphenyl-trichloroethane (DDT) and other organochlorine compounds became widespread. Initially, DDT was sprayed extensively along coastal and other wetland areas to control mosquitos (Carson 1962). Later it was used as a general insecticide. As DDT accumulated in the fatty tissues of the adult females and impaired calcium release for egg shell formation, thus inducing thin shells and reproductive failure.

In response to the decline following World War II, on March 11, 1967 (32 FR 4001), the Secretary of the Interior listed bald eagles south of the 40th parallel as endangered under the Endangered Species Preservation Act of 1966. The northern bald eagle was not included in that action primarily because the Alaskan and Canadian populations were not considered endangered in 1967. On December 31, 1972, DDT was banned from use in the United States.

In 1973, the Endangered Species Act (16 U.S.C. 1531 et seq.) was passed. Among other provisions, it allowed the listing of distinct populations of animal species and the addition of a new category, “threatened.” The Act defines an endangered species as a species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species that is likely to become an endangered species (but is not in danger...
of extinction) throughout all or a significant portion of its range.

A nationwide bald eagle survey by the Service and a number of other agencies and conservation groups in 1974 revealed that, in parts of the northern half of the lower 48 States, bald eagle populations and reproductive success were lower than in certain southern areas. Thus, in 1978, the Service listed the bald eagle, Haliaeetus leucocephalus (no subspecies referenced) throughout the lower 48 States as endangered except in Michigan, Minnesota, Wisconsin, Washington, and Oregon, where it was designated as threatened (February 14, 1978; 43 FR 6233).

Restoring endangered and threatened animals and plants to the point where they are again viable, self-sustaining members of their ecosystems is the main goal of the Endangered Species Act. Thus, the Act contains recovery as well as listing and protection provisions. To effect recovery, section 4(f) of the Act provides for the development and implementation of recovery plans for listed species. According to the Act, a recovery plan is a plan for the conservation and survival of the species. It identifies, describes, and schedules the actions necessary to restore endangered and threatened species to a more secure biological condition.

In establishing a recovery program for the species in the mid-1970s, the Service divided the bald eagles of the lower 48 States into five recovery populations, based on geographic location, termed Recovery Regions. A recovery plan was prepared for each population by separate recovery teams composed of species experts in each geographic area. The teams set forth goals for recovery and identified tasks to achieve those goals. Coordination meetings were held regularly among the five teams to exchange data and other information. The five recovery regions and the dates of their approved recovery plans are as follows: Chesapeake Bay (1982, revised 1990); Pacific (1986); Southeastern (1984, revised 1989); Northern States (1983); and Southwestern (1982). The last two plans are under active revision and expected to be available for public review within the next 12 months. Many of the tasks described within these recovery plans have been funded and carried out by the Service and other Federal, State, and private organizations. Annual expenditures for the recovery and protection of the bald eagle by public and private agencies have exceeded $1 million each year for the past decade (Service files).

In the 16 years since it was listed throughout the conterminous 48 States, the bald eagle population has clearly improved. The improvement is a direct result of the banning of DDT and other persistent organochlorines and from recovery efforts. In 1993, a National Audubon Society survey reported only 417 active nests in the lower 48 States, with an average of 0.59 young produced per active nest. In 1993, about 4,000 occupied breeding areas were reported by the States with an estimated average young per occupied territory of 0.93.

Compared to 1974, for example, the number of occupied breeding areas in the lower 48 States has increased by 408 percent, and since 1990, there has been a 32 percent increase. The species is doubling its breeding population every 6–7 years since the late 1970s.

**TABLE 1.—NUMBER OF BALD EAGLE PAIRS COUNTED IN LOWER 48 STATES, 1963–1993**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>417</td>
</tr>
<tr>
<td>1974</td>
<td>791</td>
</tr>
<tr>
<td>1981</td>
<td>1,188</td>
</tr>
<tr>
<td>1984</td>
<td>1,757</td>
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<td>1986</td>
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<tr>
<td>1990</td>
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</tr>
<tr>
<td>1991</td>
<td>3,391</td>
</tr>
<tr>
<td>1992</td>
<td>3,747</td>
</tr>
<tr>
<td>1993</td>
<td>4,016</td>
</tr>
</tbody>
</table>

The Act requires periodic review of the status of listed species. The Service has reviewed the status of the bald eagle and is proposing reclassification in all or portions of four Recovery Regions. The review recognized the achievement of specific recovery plan reclassification goals. The biological basis for the recovery goals is described in each recovery plan.

The recovery plans were first approved in the early 1980's. The five Recovery Regions are illustrated on the following map:
A summary follows of each Recovery Region’s reclassification and delisting goals, an estimation of progress to date in achieving those goals, and proposed Service action. The terms “occupied breeding areas” and “occupied territories” are used interchangeably. Either term indicates that a pair of bald eagles has established a breeding territory and a nest site but was not necessarily successful in producing young. All numbers are based upon known eagle nests and not estimates; surveys, particularly those before the late 1970s, miss some pairs, so all counts are considered minimums.

**Chesapeake Recovery Region**

Threatened Goals: Sustaining 175–250 breeding pairs with a productivity level of 1.1 young per active nest, concurrent with sustained progress in habitat protection measures.

Delisting Goals: Sustaining 300–400 pairs with an average productivity of 1.1 young per occupied nest over 5 years with permanent protection of sufficient habitat to support this nesting population and enough roosting and foraging habitat to support population levels commensurate with increases throughout the Atlantic coastal area.

Progress to Date: 329 reported occupied breeding areas and 1.12 young per occupied area in 1993. Progress in habitat protection has been sustained and additional habitat is being protected. There have been in excess of 175 known occupied breeding areas since 1988; 1992 was the first year in which there were more than 300. Threatened goals have been met, delisting goals have not.

Service Proposal: Reclassify to threatened.

**Northern Recovery Region**

Threatened Goals: No goal for reclassification to threatened status in present plan.

Delisting Goals: 1,200 occupied breeding areas over a minimum of 16 States with an average annual productivity of at least 1.0 young per occupied nest.

Progress to Date: In 1993, there were 1602 known occupied breeding areas distributed over 21 States with 0.95 young per occupied breeding area. Productivity was 1.00 in 1990, 0.97 in 1991, and 1.01 in 1992. (Productivity estimates exclude nest data from Minnesota and Wisconsin in 1992, and from Wisconsin in 1990 and 1991, because there were no productivity surveys done in these States during those years.) Delisting goals have been met for occupied breeding areas and are close to being met for productivity.

Service Proposal: Reclassify to threatened; the species would remain threatened where it now has that status.

The recovery plan describes the delisting goals as initial and tentative.

**Pacific Recovery Region**

Threatened Goals: Nesting populations continue to increase annually for the 5 years beginning with 1986 nesting season.

Delisting Goals: A minimum of 800 nesting pairs with an average reproductive rate of 1.0 fledged young per pair with an average success rate per occupied site of not less than 65% over a 5-year period. Attainment of breeding population goals should be met in at least 80% of management zones.

Progress to Date: In 1993, 1066 occupied breeding areas were reported with 0.86 young per occupied breeding area. The number of occupied breeding areas has consistently increased since 1986 and exceeded 800 for 4 of the 5 years beginning in 1990 when 861 were reported. Productivity has averaged about 1.0 since 1990. Threatened goals have been met. Should this trend continue, the delisting goals for number of nesting pairs and productivity may be met in the near future. At present, less than 80 percent of the 37 specified management zones have met their delisting goals. In 1993, 20 of those zones had met or exceeded their recovery goals, and four other zones in addition to the original 37 had nesting eagles that are not part of the recovery goals for this region.

Threatened goals have been met. Delisting goals are close to being met for all criteria except attainment of breeding population goals for 80 percent of the management zones. About 10 more zones need to meet their goals to fulfill this criterion.

Service Proposal: Reclassify to threatened in California (except the 10-mile strip along the Colorado River), Idaho, Montana, Nevada, and Wyoming; the species would remain threatened where it now has that status.

**Southeastern Recovery Region**

Threatened Goals: 600 occupied breeding areas distributed over at least 75 percent of the historic range contingent upon greater than 0.9 young per occupied nest, greater than 1.5 young per successful nest, and at least 50 percent of the nests successful in raising at least one young; based on a 3-year average and documentation of population vigor and adequate support habitat. Individual State goals are given.

Delisting Goals: Delisting may be considered if the recovery trend continues for 5 years after reclassification goals are met. The criteria for delisting will be developed when the species is reclassified from endangered to threatened.

Progress to Date: 982 occupied breeding areas were reported with an average of 1.02 young per occupied territory in 1993. Nesting is distributed over all 11 Southeastern States. The number of occupied breeding areas reached 601 in 1991 and has exceeded 800 for three successive years.

Productive success for the years 1990–1993 averaged 1.53 young per successful nest (0.94 young per occupied territory), and 68 percent of the nests were successful in raising at least one young. Seven of eleven individual State goals have been met but these are considered guidelines rather than requirements. Existing habitat is deemed to be adequate to support and exceed overall recovery plan goals.

Threatened goals have been met and delisting goals will be met in 5 years if the trend continues.

Service Proposal: Reclassify to threatened.

**Southwestern Recovery Region**

Threatened Goals: 10–12 young per year over a 5-year period; population range has to expand to include one or more river drainages in addition to the Salt and Verde Systems.

Delisting Goals: None given.

Progress to Date: 29 occupied breeding areas were reported for 1993 with 27 young produced. Since 1988, the number of occupied breeding areas has increased by about 28 percent (six occupied territories) in the Southwestern Region. Nationwide, occupied breeding areas have increased by 62 percent (1540 occupied territories) in the same time period. Some of the increase in the Southwestern Region is due to finding previously unrecorded nest sites. Ten or more young have been produced every year since 1981. Productivity has increased 10–20 percent through the assistance of the Arizona Nest Watch program (Hunt et al. 1992).

Information to date indicates that breeding has expanded beyond the Salt and Verde River systems. Eagles are now nesting in the Gila and Bill Williams river systems in Arizona and the Rio Grande in New Mexico. Thus, the threatened criteria have been fully met.

Threatened Goals have been met and delisting goals will be met in 5 years if the trend continues.
The population remains small, localized, with variable productivity, and low adult survival. This population faces numerous and increasing impacts from a rapidly growing human population. These impacts include continued loss and modification of riparian habitat, disturbance at nest sites, entanglement of nestlings in fish line, and other human-caused influences.

The Southwestern Recovery Plan is undergoing revision to incorporate new information gained from recent investigations by Hunt et al. (1992). This research indicates that birds dispersing into west Texas and Oklahoma are more likely to be bald eagles of the Southeastern Region population than those of the Southwestern Region. Thus, the revised recovery plan may propose the elimination of west Texas and the western panhandle of Oklahoma from the Southwestern Recovery Region. The plan revision will also consider the addition of southern Utah and Mexico.

For the purposes of this reclassification proposal, however, the boundaries for the Southwestern Recovery Region will remain as stated in the recovery plan (U.S. Fish and Wildlife Service 1982). That is, the Southwestern Region includes Arizona, New Mexico, and those portions of Texas and Oklahoma west of the 100th meridian, and southeast California within 10 miles of the Colorado River or its mainstem reservoirs.

Service Action: Retain as endangered. Despite attaining all recovery plan goals, current information indicates that the population is at risk and remains in danger of extinction due to excessively low survival rates and the need for intensive management, particularly at nest sites.

Mexico

There are a small number of eagles nesting in Baja California and Sonora, Mexico. In January 1994, a minimum of eight active pairs were known with additional adults reported that may represent more active pairs with undetected nests (Henny et al. 1993, Service files). Productivity has been relatively high with more than 1.0 young per nest for those years that data have been collected (Henny et al. 1993, Service files). Although this population appears to be relatively stable, such low numbers are clearly not sufficient to prevent any sudden adverse environmental change to cause the extinction of the few pairs. These birds are presumed to be associated with the Southwestern population and are considered in danger of extinction. Threats to these birds include loss of habitat and disturbance from human encroachment with the increasing population (particularly tourists and recreational housing development) and potential for inbreeding from such low numbers of breeding birds.

In summary, the Service is proposing to reclassify the bald eagle from endangered to threatened in the Chesapeake and Southeastern Recovery Regions and those portions of the Northern States and Pacific Recovery Regions where it is currently classified as endangered. No changes are proposed for the Southwestern Recovery Region, where the bald eagle will remain classified as endangered. The Service is not proposing to delist the bald eagle anywhere in its range at this time. The Service is also proposing to list those bald eagles in Mexico as endangered.

On February 7, 1990, the Service published (55 FR 4209) an Advance Notice of a Proposed Rule (ANPR) to announce that consideration was being given to the possible reclassification or delisting of the bald eagle in all or part of its range in the lower 48 States.

Summary of Comments and Recommendations Resulting From Advance Notice

The responses received to the ANPR generally reflected the Service's announcement that delisting, as well as reclassification, was under consideration for the entire lower 48-State area. Not all responses specifically addressed delisting or reclassification. Nevertheless, the responses were useful in the formulation of the present reclassification proposal.

Many responses reflected the writers' strong personal feelings and concerns for bald eagles. Many respondents related the importance and value of their personal bald eagle experiences. Further, they expressed their desire that bald eagles be properly cared for and that the opportunity to view wild eagles not be lost. The bald eagle's position as our national bird was frequently mentioned.

In response to the ANPR, the Service received 4 responses from other Federal government offices, 22 responses from State conservation agencies, 23 responses from citizen groups, and 140 responses from individuals. Based on reclassification goals contained in the five regional Bald Eagle Recovery Plans, one Federal agency favored reclassification to threatened only in Florida and the development of State-by-State recovery plans/criteria, with subsequent State-by-State reclassification and delisting decisions.

Another Federal agency recommended reclassification to threatened in selected areas based on circumstances in the individual recovery regions, rather than for the nation as a whole, and recommended against delisting.

A third Federal agency recommended reclassification of the bald eagle to threatened in Arizona based on achievement of the Southwestern Recovery Plan reclassification goals and on protection and management measures presently in place.

The last Federal agency favored reclassification to threatened in those recovery regions where the recovery plans' reclassification goals have been met.

The Service received responses to the 1990 ANPR from 22 State natural resource agencies. Seven State agencies concurred with reclassification to or retention as threatened, including Michigan, Minnesota, and Wisconsin, the three Northern Region States where the bald eagle is presently designated as threatened. The remaining 15 responding States recommended against delisting and/or reclassification in their States.

Of the 140 individual responses (some signed by more than one individual), 135 opposed reclassification or delisting in some or all areas of the lower 48 States; of the 23 citizen group responses, 19 opposed reclassification or delisting in some or all areas of the lower 48 States.

Individuals and citizen groups suggested that it would be inappropriate to delist or reclassify the bald eagle to threatened while direct and indirect impacts such as contaminants and development on non-Federal lands remain a threat. The Service recognizes that habitat loss is a major challenge to the recovery of the bald eagle. The Service also recognizes that non-Federal, as well as Federal, habitat must be protected from contaminants, disturbance, and development or the secure population size will be diminished. However, reclassification to threatened would not reduce present Federal legal protection on non-Federal land nor would it allow habitat loss that could not otherwise occur.

A concern expressed by 62 individuals and 11 citizen groups was that bald eagle populations were below the higher levels of America's pre-settlement days or other former era, or that populations did not meet the abundance, distribution, or productivity goals for delisting or reclassification contained in the bald eagle recovery plans. The Act's designations of endangered and threatened are based on...
the present or foreseeable threat of extinction of the species, not historical levels. Recovery plan goals for recategorization have been met at this time.

One individual suggested that the Service conduct a population viability analysis (PVA) of the bald eagle, including a determination of the minimum viable population (MVP). The Service recognizes PVA and MVP as analytical tools and has funded and participated in the production of PVA’s for several endangered species. For the present recategorization decision, however, it is unnecessary because the bald eagles of the Chesapeake, Northern, Southeastern, and Pacific Recovery Regions have reached the recovery plans’ recategorization goals. Those goals are conservative and meet the Act’s definition of threatened.

The appearance of a lowered level of Federal legal protection was a concern in 26 individual responses and in one citizen group response. The prohibitions of section 9 of the Act are the same for threatened and endangered species, with the exception that with recategorization to threatened, the Service could issue permits for limited exhibition and educational purposes, for selected research work not directly related to the conservation of the species, and for other special purposes consistent with the Act (50 CFR 17.32, 17.41). All requirements of the Act under section 7 still apply. No changes in other protective provisions of the Act would result, nor would any other Federal law protecting bald eagles be affected.

Thirteen of the 135 individuals and 2 of the 19 citizen groups recommending against recategorization or delisting were concerned that the Service’s own efforts for bald eagle recovery, habitat management, habitat protection, and law enforcement might be diminished. The Service’s obligations to protect bald eagles under the Endangered Species Act, the Migratory Bird Treaty Act, the Bald Eagle Protection Act, and all other applicable laws will remain undiminished by the proposed recategorization.

Seven individuals and one citizen group recommending against recategorization or delisting suggested that the Service might be either collaborating with or yielding to economic interests who want development restrictions relaxed in areas presently used by bald eagles. The proposed recategorization eases no restrictions on the development of bald eagle habitat because the Act and regulations adopted under it make no distinction in the protection given to habitats of threatened and endangered species.

Seven individual and two citizen group respondents suggested that the Service might be delisting or recategorizing the bald eagle to enhance its reputation or for other self-serving purposes. This proposal to recategorize the bald eagle from endangered to threatened is undertaken in fulfillment of section 4(c) of the Act, which requires the Service to periodically review each listed species and to change classifications when appropriate, to maintain the integrity of the Act’s endangered and threatened categories. Since the bald eagle has met its recovery plan goals, the Service is now taking this action.

One individual and two citizen groups, in addition to the Maine and New Hampshire State conservation agencies, suggested that the northeastern part of the Northern States Recovery Region be separated and considered distinct. The Northern States Recovery Team, which has representation from the Northeast, has also considered this question and does not recommend separating the northeastern States from the present Northern States Recovery Region. The Service concurs with the Northern States Recovery Team.

**Summary of Factors Affecting the Species**

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 et seq.) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for recategorizing species on the Federal lists. A species may be listed or recategorized as threatened or endangered due to one or more of the five factors described in section 4(a)(1). These five factors and their application to the bald eagle are as follows.

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

The bald eagle is associated with aquatic ecosystems throughout most of its range. Nesting almost never occurs farther than 3 km (2 miles) from water (Gerrard and Bortolotti 1988). Fish predominate in the typical diet of eagles. Many other types of prey are also taken, including waterfowl and small mammals depending on location, time of year, and population cycles of prey species. Dead animals or carrion, especially in the wintering areas, are also taken when readily available (Lincer et al. 1979).

Nest sites are usually in large trees along shorelines in relatively remote areas. The trees must be sturdy and open to support a nest that is often 2—3 m (6—9 ft) across and more than a meter (3 ft) thick (Bent 1938). Bald eagles also select cliffs or rock outcrops for nest sites where large trees are not available. This dependence upon very large trees associated with water makes the eagle vulnerable to water-associated development pressures.

One of the two major threats to the bald eagle at present is the foreseeable future is destruction and degradation of its habitat (the other major threat is environmental contaminants—see Factor E below). This occurs through direct cutting of trees for shoreline development, human disturbance associated with recreational use of shorelines and waterways, and contamination of waterways from point and non-point sources of pollution. Contamination enters bald eagles through the food chain and may impair individual birds’ reproductive success and health. It may also reduce the abundance of preferred prey.

Steps to reduce these threats are underway at all levels of government and public organizations nationwide. Increased protection of nesting habitat and winter roost sites have occurred in many areas throughout the country. Guidelines to minimize human disturbance around nesting and winter roost sites have been developed in all parts of the country. Areas of contamination continue to be identified and reduced. Rehabilitation, captive propagation reintroduction, and transplanting programs have all worked toward increasing the viability of the U.S. bald eagle population.

Current threats to the bald eagle’s habitat and range in the United States by Recovery Region are as follows:

**Chesapeake Bay Region:** Buehler et al. (1991) reported that the bald eagle feeding and resting use of Chesapeake Bay shoreline was directly related to the distance of development from the shoreline. Eagles tended to avoid shorelines with nearby pedestrian or boat traffic. With human activity and development increasing, preferred bald eagle habitat is diminishing. Associated land clearing reduces bald eagle nesting and perching sites.

To offset these impacts, the Service has expanded its National Wildlife Refuge System around the Chesapeake Bay area to protect bald eagle habitat. For example, the Service acquired 3,500 acres of nesting and roosting habitat in the James River area of Chesapeake Bay in 1991 to be protected and managed for bald eagles. Acquisition of an additional 600 acres is planned. The Blackwater National Wildlife Refuge, which
provides important eagle habitat on
Chesapeake Bay, is also proposing to
acquire more land. Nickerson (1989)
estimates that enough suitable
unoccupied nesting habitat remains
that, if unaltered, it could sustain
continued growth of the bald eagle
population through the remainder of the
20th century.

Northern States Recovery Region:
Development, particularly near urban
areas, remain as a primary threat. In
spite of these localized problems, bald
eagle nesting activity in the Northern
States Recovery Region has more than
doubled in the past 10 years from fewer
than 700 to over 1600 territories known
to be occupied. There also is ample
unoccupied habitat still available
throughout this region.

In the Great Plains States, loss of
wintering habitat is a major concern.
Wintering areas have been lost through
development of riparian areas for
recreational, agricultural, and urban
uses. Loss of wintering habitat also
occurs due to lack of cottonwood
regeneration. This results from changes
in floodplain hydrology from
construction of reservoirs and dam
operations. Grazing also inhibits
regeneration. A threat to some wintering
populations of eagles in the Great Plains
States is the destruction of prairie dog
colonies and other important foraging
areas (U.S. Fish and Wildlife Service

However, management measures,
reforestation, improved water quality,
and a reduction in pesticide
contamination (see factor E below) have
enabled the Northern States populations
to increase substantially overall. Much
eagle nesting and wintering habitat is
on publicly owned lands. Many of these
lands are protected by habitat
management plans and strict eagle nest
protection and management guidelines.

Pacific Recovery Region:
Development-related habitat loss
continues to be the single greatest factor
limiting the abundance and distribution
of the species in the Pacific Recovery
Region (U.S. Fish and Wildlife Service
1986). Habitat conservation efforts,
including laws and management
practices by Federal and State agencies
and efforts by private organizations,
have helped to facilitate bald eagle
population increases in the Pacific
Recovery Region since the 1960's. For
example, interagency working teams in
eight of the sixteen Pacific Recovery Region
States have developed implementation
plans to address local issues more
specifically than the recovery plan. Bald
eagle habitat guidelines have also been
incorporated into development
covenants and land use. California and
Washington have rules relating to bald
eagles on private lands to encourage
landowners to maintain nesting territory
habitat.

Southeastern Recovery Region: The
accelerated pace of development
activities within eagle habitat and the
extensive area involved are the most
significant limiting factors in the
Southeastern Region. The cumulative
effects of many water development
projects impinge on the ability to
maintain current nesting populations
and ultimately may limit the extent to
which recovery may occur.

To reduce these threats, habitat
management guidelines are used to
minimize development disturbance in
and around nests. Several counties and
municipalities have adopted the
guidelines in their land use and zoning
policies. In addition, a significant
amount of new habitat has been created
in the form of manmade reservoirs.
Reservoirs primarily provide wintering
and non-nesting habitat, but are used by
nesting eagles as well (U.S. Fish and

In addition, many of the States have
or have had active hacking/
reintroduction programs. Rehabilitation
and release of injured eagles occurs
throughout the Southeastern Region
(U.S. Fish and Wildlife Service 1984,
1989). As a result of these and other
efforts, the bald eagle nesting
population in the Southeastern Region
has more than doubled in the past 10
years.

Southwestern Recovery Region: In
addition to threats common with other
Recovery Regions, such as human
disturbance and availability of adequate
nesting and feeding habitat, the bald
eagles of the Southwestern Recovery
Region are subjected to a high adult rate
of mortality, isolation, heat stress, and
nest parasites. The Arizona Bald Eagle
Nestwatch Program has significantly
increased survival of young by
minimizing human disturbance during
important incubation periods, and by
removing harmful material such as
parasites and fishing line debris from
nests. However, the high death rate of
adults and nestlings and the lack of gene
exchange with any adjacent nesting
populations, which may cause
inbreeding to adversely affect the
population's long-term survival, remain
limiting; this population continues to
recover because of intensive management,
particularly around each nest site.

Hunt et al. (1992) estimate a
minimum annual mortality rate of 16 to
22 percent of adult breeding birds and
believe it to be much higher. Bald eagles
commonly live 20 years in the wild and
up to 50 years in captivity (Stalmaster
1987). In the Southwestern Region,
adult life expectancy may not exceed
10–12 years (Hunt et al. 1992).

Historically, the bald eagle in Arizona
was more widely distributed but
probably was never abundant (Hunt et al.
1992). Prior to 1970, records can be
found for 19 pairs of nesting bald eagles
in Arizona. In 1993, 27 occupied territories
were reported for Arizona and 2 for New Mexico totalling
29 for the Southwestern Recovery
Region.

Research to date indicates there has
been no immigration to this population
of bald eagle. According to Hunt et al.,
this small population is isolated and
thus is subject to the genetic,
demographic, and environmental threats
known to be associated with small
populations. For these reasons, the
population is in continued need of strict
protection and intensive management.

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

There is no legal commercial or
recreational use of bald eagles. The
Service considers present legal and
enforcement measures sufficient to
prevent bald eagle extinction or a need
to reclassify as endangered. The Service
exercises very strict control over
scientific, educational, and Native
American religious activities involving
bald eagles or their parts. With
reclassification to threatened, the
Service could issue permits for limited
exhibition and educational purposes, for
selected research work not directly
related to the conservation of the
species, and for other special purposes
consistent with the Act (50 CFR 17.32
and 17.41(e)).

C. Disease or Predation

Predation is not a significant problem
for bald eagle populations. Incidents of
mortality due to territory disputes
between bald eagles have been reported.
Diseases such as avian cholera, avian
pox, aspergillosis, tuberculosis, and
botulism may affect individual eagles,
but are not considered to be a significant
threat to the population. In the
Southwestern population, the Mexican
chicken bug, when abundant, is known
to occasionally kill young. According to
the National Wildlife Health Research
Center, National Biological Survey,
Wisconsin, only 2.7 percent of bald
eagles submitted to the Center between
1985 and 1990 died from infectious
disease.
D. The Inadequacy of Existing Regulatory Mechanisms

The bald eagle is protected by the following Federal wildlife laws in the U.S.:

* Sections 7 and 9 of the Endangered Species Act (16 U.S.C. 1531 et seq.) protect individual bald eagles (threatened or endangered) and their active nests on public and private land.
* The Bald Eagle Protection Act (16 U.S.C. 668) prohibits without specific authorization the possession, transport, or take of any bald or golden eagle, their parts, nests or eggs.
* The Migratory Bird Treaty Act (16 U.S.C. 703) prohibits without specific authorization the possession, transport, or take of any migratory bird (including bald eagles), their parts, nests or eggs.
* The Lacey Act (16 U.S.C. 3372 and 18 U.S.C. 42-44) among other provisions, makes it unlawful to export, import, transport, sell, receive, acquire, or purchase any bald eagle, (1) taken or possessed in violation of any law, treaty, or regulation of the United States or in violation of any Indian tribal law or (2) to be taken, sold, or transported in interstate or foreign commerce, in violation of any law or regulation of any state or in violation of any foreign law.

This species is afforded uncommonly comprehensive statutory and regulatory protection under Federal and State authorities.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Contaminants may affect the survival as well as the reproductive success and health of the bald eagle. The abundance, and potentially more important, the quality of prey may be seriously affected by environmental contamination.

Although many of the compounds implicated in reduced reproductive rates and direct mortality are no longer used, contaminants continue to be a major problem. Pesticides in recent times have not impacted the bald eagle on a population level; however, individual poisonings still occur. Carcasses baited with poison may attract bald eagles as well as target animals such as coyotes. Poisonings may occur secondarily when predatory animals are poisoned and subsequently eaten by eagles. Crop insecticides may be taken up by prey animals and may also result in eagle mortality.

Organophosphates and carbamates are sometimes used illegally for animal poison. The National Wildlife Health Research Center has diagnosed over 100 cases of pesticide poisonings in bald eagles in the past 15 years.

The western plains and Rocky Mountain States are reported to have 300–600 bald eagle deaths each year in the past decade on western rangelands due, in part, to illegal use of pesticides such as fumiphur, phosdrin and highly restricted chemicals, such as strychnine, Compound 1080 and others (Tom Jackson, Fish and Wildlife Service, Denver, pers. comm.). This mortality on western rangelands corresponds with the primary breeding areas for most western bald eagles (other than Pacific coast birds). Some illegal uses of pesticides are targeted at bald and golden eagles. Cases of suspected intentional mortality through baiting of carcasses with pesticides has occurred in all western States and may occur in other States. Reducing this level of illegal mortality is important for the complete recovery of the species.

Chronic long-term exposure to contaminants is a much more extensive problem than direct mortality. Lifetime exposure to contaminants may limit the eagles' reproductive capabilities, alter their behavior and foraging abilities, and increase their susceptibility to diseases. (Organochlorines, such as DDT, are no longer legally used in the United States. Their presence in bald eagles is generally a consequence of their long persistence in the environment. Consequently, residues of such compounds from historic uses can still contaminate prey animals and be passed to eagles). Exposure to these compounds is also occurring at an early age. For example, approximately 90% of the eaglets sampled in Maine in 1992 had detectable levels of DDE in their blood.

In the Chesapeake Bay Region, Delaware Bay, lower Delaware estuary below Richmond continue to be a source of organochlorine and heavy metal contaminants that may impact eagle reproduction (U.S. Fish and Wildlife Service 1990). However, DDE concentrations in addled bald eagle eggs in Chesapeake Bay have declined significantly from 1969–84 (Wiemeyer et al. 1993).

In parts of the Northern States Region, contamination is depressing bald eagle productivity. This occurs notably in the coastal areas of the Great Lakes, those rivers accessible by anadromous fishes of the Great Lakes, and in parts of Maine. Research on bald eagle productivity in the vicinity of Great Lakes shorelines indicates significantly lower productivity than for inland breeding birds. The reduced productivity is correlated with concentrations of PCB's, DDE, dieldrin, and other organochlorine compounds in addled eggs (Best et al. in press).

Bald eagles of the Pacific Recovery Region nesting near the Columbia River estuary and Hood Canal, which is adjacent to Puget Sound, repeatedly have low reproductive success. DDE and PCB's have had a deleterious effect on the reproductive success of bald eagles in the Columbia River estuary (Anthony et al. 1993). Wiemeyer et al. (1993) found addled bald eagle eggs collected from Oregon ranked second (behind Maine) in DDE concentrations among the fifteen States sampled. However, concentrations of other contaminants in the Oregon eggs were low. In spite of localized reproductive impairment, the Pacific Recovery Region population has increased by about 68 percent in the past 10 years. Contaminants are not known to be a significant problem for eagles in the Southwestern Recovery Region or Mexico.

Lead poisoning has also contributed to bald eagle mortality. The National Wildlife Health Research Center has diagnosed lead poisoning in more than 225 bald eagles during the last 15 years. Lead can poison bald eagles when they ingest prey items that contain lead shot or lead fragments or where the prey has assimilated lead into its own tissues. In winter, eagles frequently feed on waterfowl that are dead or dying from lead poisoning or upon waterfowl crippled in the hunting season. Lead poisoning of eagles was a primary reason the Service required the nationwide use of non-toxic shot for waterfowl hunting. The requirement for use of non-toxic shot was phased in over a period of 5 years, and its use became mandatory for all waterfowl hunting in 1991. Use of lead shot is still permitted in many parts of Canada.

Illegal shooting still poses threats to individual birds. Improved law enforcement and public awareness has reduced shooting impacts from a cause of large scale mortality in the first half of this century to the deaths of occasional individuals at present. From 1985 to 1990, the National Wildlife Health Research Center has diagnosed over 150 bald eagle deaths due to gunshot. Hunter education courses
Human disturbance can be harmful and long-term threat. Significant declines in eagle use of the Skagit River, Washington, were noted in response to recreational activity (Stelmaster 1989). Human disturbance can be harmful during egg incubation and young brooding periods because disturbance can flush adults from nests. Land management practices can reduce or eliminate these disturbance problems. Management of bald eagle nesting sites has progressed in some areas to include zones of protection extending up to 2.5 miles (U.S. Fish and Wildlife Service 1986). In the Bear Valley National Wildlife Refuge, Oregon, for example, public access is restricted from November 1 through March 30 to prevent human disturbance to wintering bald eagles.

Despite these various threats to the bald eagle in the area proposed for reclassification, none are of sufficient magnitude, individually or collectively, to place the species at risk of extinction. Over most of the 48 States, the population is doubling every 6 or 7 years.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to reclassify the bald eagle from endangered to threatened in the lower 48 States except the southwestern population in Arizona, New Mexico, the southeast corner of California within 10 miles of the Colorado River or the river's mainstem reservoirs, and those portions of Texas and the panhandle of Oklahoma that are west of the 100th meridian. The latter population appears to be isolated. It is possible that future disturbance could directly result in the loss of nests and the loss of the variability in the population which would make it more susceptible to catastrophic events. This proposed action would not change the status of the species in the areas of Arizona, New Mexico, California, Texas, and Oklahoma.

In this proposal, the recognition of the southwest bald eagle population as distinct from eagles elsewhere in the lower 48 States is based on evidence that it appears to be reproductively isolated. Thus, for purposes of this proposed rule, the Service still recognizes two populations of bald eagles in the lower 48 States. Should this proposed rule become final, the southwest population segment would remain endangered, the adjacent Mexico population segment would be included in the Southwestern population as endangered, and the remaining population segment in the lower 48 States would be reclassified to threatened.

Special Rule
The Act allows special rules to be adopted for threatened species as needed for the species' conservation; such special rules are typically provided to reduce those protections afforded to endangered species under the Act. Section 17.41(a) is a special rule adopted at the time of the 1978 reclassification of the bald eagle. The original intent was to reduce the number of permits required for researchers working on threatened eagles (i.e., Oregon, Washington, Minnesota, Wisconsin, and Michigan) and to reduce the number of permits for exhibition and educational purposes under both §17.32 and 50 CFR parts 21 and 22. This rule allows for a single permit under §17.32 would only be required when a permit under parts 21 and 22 do not provide for an otherwise lawful activity. The issuance of all such permits would remain subject to section 7 of the Act and part 402 of this title.

Effects of This Rule
As a result of the proposed reclassification, prohibitions outlined under 50 CFR 17.41(a) would apply to bald eagles of the population reclassified as threatened. Prohibitions under §§17.21 and 17.22 would continue to apply to the endangered population. The Service could issue permits for exhibition and educational purposes, for selected research work (including banding and marking) not directly related to the conservation of the species, and for other special purposes. In allowing for a single permit, the Service seeks to foster further research and other uses of bald eagles consistent with the Act and the purposes of the Migratory Bird Treaty Act and the Bald Eagle Act (50 CFR 17.32, 17.41(a), 21.22, 22.21–22.23).

Requirements of the Act under section 7 still apply to all Federal agencies. There are no distinctions made in the Act or supporting regulations (part 402) between endangered and threatened species. The consultation and other requirements under section 7 apply equally to species with either classification.

Public Comments Solicited
The Service intends that the proposed reclassification correctly reflect the bald eagle's status according to the Act's definition of endangered and threatened and based upon the reclassification guidelines for each bald eagle recovery region. Therefore, information from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments are sought concerning:

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

(2) the location of any additional nests or roosting sites of this species, especially in the Southwestern Recovery Region;

(3) the appropriateness of the proposed limits and status of the endangered population in the American Southwest and Mexico;

(4) additional information concerning the past and present range, distribution, and population size of this species; and

(5) current or planned activities within the lower 48 States and Mexico that might have possible long-term impacts on this species.

Final promulgation of the regulation(s) on this species will take...
into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal, including the possible complete reclassification to threatened for all eagles south of Canada.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to Chief, Division of Endangered Species, Fish and Wildlife Service, 1 Federal Drive, Whipple Federal Building, Fort Snelling, Minnesota 55111—4056 (FAX: 612—725—3526).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under 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. A notice outlining the Service’s reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited


Author

The primary author of this notice is Jody Gustitus Millar, Bald Eagle Recovery Coordinator, Fish and Wildlife Service, 4449—48th Avenue Court, Rock Island, Illinois 61201 (309/793—5800).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Proclamation

PART 17—[AMENDED]

Accordingly, the Service proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

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


2. Section 17.11(h) is amended by revising the entries for “Eagle, bald” under BIRDS, to read as follows:

§17.11 Endangered and threatened wildlife.

* * * *

(h) * * *
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<th>Scientific name</th>
<th>Historic range</th>
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<th>Status</th>
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3. Section 17.41(a) is revised to read as follows:

§ 17.41 Special rules—birds.

(a) Bald eagles (Haliaeetus leucocephalus) wherever listed as threatened under § 17.11(h).

(1) Applicable provisions. All prohibitions and measures of §§ 17.31 and 17.32 shall apply to any threatened bald eagle, except that any permit issued under § 21.22 or part 22 of this chapter shall be deemed to satisfy all requirements of §§ 17.31 and 17.32 for that authorized activity, and a second permit shall not be required under § 17.32. A permit would still be required under § 17.32 for any activity not covered by any permit issued under § 21.22 or part 22 of this chapter.

(2) [Reserved]


Mollie H. Beattie,
Director, Fish and Wildlife Service.

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