

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposal To Determine the Northern Aplomado Falcon To Be an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to list the northern aplomado falcon, *Falco femoralis septentrionalis*, as an endangered species under provisions of the Endangered Species Act of 1973, as amended. This subspecies historically occurred in southeastern Arizona, south-central New Mexico, southern Texas, much of Mexico, and the western coast of Guatemala. It has been extirpated as a breeding species from the United States, and at present is known to nest only in portions of eastern Mexico. This falcon is threatened by continued habitat loss and by contamination with organochlorine pesticides. No critical habitat has been proposed. This proposal, if finalized, will implement the protection provided by the Endangered Species Act of 1973, as amended, for *Falco femoralis septentrionalis*. The

Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by August 19, 1985. Public hearing requests must be received by July 5, 1985.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103. Comments and materials received will be available for public inspection during normal business hours, by appointment, at the Service's Regional Office of Endangered Species, 421 Gold Avenue, SW., Room 407, Albuquerque, New Mexico.

FOR FURTHER INFORMATION CONTACT: Mr. Dave Langowski, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103 (505/766-3972 or FTS 474-3972).

SUPPLEMENTARY INFORMATION:

Background

The northern aplomado falcon is perhaps one of our most colorful birds of prey. Adults are characterized by rufous underparts, a gray dorsum, along and banded tail, long legs, and a distinctive black and white facial pattern. *Falco femoralis septentrionalis* (family Falconidae) was first described by Todd in 1916 from a specimen taken in 1887 near Ft. Huachuca, Arizona. This subspecies is the largest form of *Falco femoralis* and weighs about 250-400 grams (Hector, 1981). Aplomados are

intermediate in size between American kestrels (*Falco sparverius*) and peregrine falcons (*Falco peregrinus*). The northern aplomado falcon does not seem to be migratory, since most collected adults were taken in winter months in the United States (Hector, 1981). Hector (1980, 1981, 1982, 1983) summarized the literature dealing with the northern aplomado falcon and reported on the historic and recent distributions of the species, its habitat, diet, and behavior. Kiff *et al.* (1978) documented eggshell thinning and pesticide contamination in the subspecies.

Egg laying has been recorded between the months of January and September; eggs are usually laid in April or May. Aplomado falcons feed on birds, insects, rodents, small snakes, and lizards (Hector, 1981). In eastern Mexico, the majority of prey items are insects; however, birds make up over 90 percent of the dietary biomass (Hector, 1981).

Typical northern aplomado falcon habitat is open rangeland and tropical savanna containing scattered mesquites (*Prosopis juliflora*), yuccas (*Yucca elata* and *Yucca treculeana*), oaks (*Quercus oleoides*), acacias (*Acacia farnesiana*), or palms (*Sabal mexicana*). In central Mexico, the falcon has also been found in open pine woodland (*Pinus montezumae*). The most recent reported United States nesting occurred in yucca/mesquite grassland near Deming, New Mexico, in 1952. In the same year, a second nest was found in northern Chihuahua, Mexico; this is the most recent documented nesting attempt for northern Mexico. The essential components of northern aplomado falcon habitat are open terrain with scattered trees, relatively low ground cover, an abundance of small to medium-sized birds, and a supply of nesting platforms (stick nests or large bromeliads) (Hector, 1983).

The historic breeding range of the northern aplomado falcon, as represented by museum specimens or eggs, included southeastern Arizona, southern New Mexico, and southern Texas in the United States, the States of Tamaulipas, Chiapas, Campeche, Tabasco, Chihuahua, Coahuila, Sinaloa, Jalisco, Guerrero, Veracruz, Yucatan, and San Luis Potosi in Mexico, and the western coast of Guatemala. It is now extirpated as a breeding species from the United States and is no longer known to nest on the central plateau of Mexico. The subspecies now nests regularly only in portions of northern and central Veracruz, northern Chiapas, western Campeche, and eastern

Tabasco, mostly in palm and oak savanna (Hector, 1981).

Considered together, the habitat preferences of the subspecies and the timing of its decline in the United States implicate habitat degradation due to brush encroachment as the main factor responsible for the disappearance of the subspecies from the United States. Secondly, overcollecting of the falcons and their eggs may have temporarily reduced their numbers in some parts of the United States. However, collecting pressure, by itself, could not account for the continued absence of the aplomado falcon north of Mexico. Currently, the most serious threat to this falcon is the continued use of DDT and other persistent insecticides within the ranges of the falcon and some of its migratory prey species.

Falco femoralis septentrionalis was first considered by the Service in 1973 as a possible candidate for endangered status (USDI, 1973); however, more information was needed to support such a determination. Additional information is now available to the Service to support a determination of endangered (Kiff *et al.*, 1978; Hector, 1980, 1981, 1982, 1983). The northern aplomado falcon is presently listed by the State of New Mexico as endangered (New Mexico State Game Commission, 1979), by the State of Arizona as extirpated from that State (Arizona Game and Fish Commission, 1982), and by the State of Texas as a protected nongame species (Texas Parks and Wildlife Code 127.70.12.001-.008). A 1983 status report for this subspecies was prepared by Dean P. Hector of the University of California at Los Angeles, under contract with the Service. Upon evaluation of that report, the Service has concluded that the status of this species most closely fits endangered as defined in Section 3 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Falco femoralis septentrionalis was included in category 2 of the December 30, 1982, Vertebrate Notice of Review (47 FR 58454). Category 2 includes those taxa that are thought to possibly warrant listing, but for which more information is needed to determine biological status and to support listing. That information is now available for this subspecies in the current status report (Hector, 1983).

Summary of Factors Affecting the Species

Section 4(a)(1) of the Act and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; revision published October 1, 1984; 49 FR 38900-38912) set

forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the northern aplomado falcon (*Falco femoralis septentrionalis*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The northern aplomado falcon has suffered severe population declines in the United States (Hector, 1981). These declines probably resulted primarily from brush encroachment on open rangelands, which eliminated the open country with scattered trees preferred by this species and provided better concealment for prey species. Brush encroachment involves the proliferation in open savanna or grassland of woody vegetation, such as mesquite and creosote bush, and has been fostered by severe overgrazing, suppression of range fires, and other vegetative disturbances (Humphrey, 1958). Such encroachment has been well documented for southern Arizona (Hastings and Turner, 1965), for south-central New Mexico (Buffington and Herbel, 1967), and for the southern Texas coastal plains (Johnston, 1973). It is likely that brush encroachment has also been a factor in the decline of the falcon on the central plateau of Mexico, although little data is available on such habitat degradation. Brush encroachment is probably still a factor limiting the distribution of the northern aplomado falcon. In addition, the clearing of lands throughout its range for agriculture has also contributed to the decline of the falcon by reducing prey species and by eliminating nesting sites. Although deforestation of eastern Mexico is no doubt creating additional habitat for the species in tropical portions of its range, continued habitat degradation in central Mexico may be adversely affecting the species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* The collection of northern aplomado falcons for scientific purposes has been minimal for the past 50 years. In addition, the species has rarely been used for falconry purposes. Falconry is not known to have had much effect on the aplomado falcon due to the difficulty of obtaining the species in the United States.

Some overcollecting of northern aplomado falcons and their eggs may have occurred in the early 1900s and may have contributed to the decline of the species in the United States, but collecting is not likely to be a significant factor now and cannot account for the

continued absence of the aplomado north of north-central Mexico. At least one falcon has been found shot in eastern Mexico (Hector, pers. comm.). The frequency with which this occurs is unknown.

C. *Disease or predation.* Nothing is known about the effect of disease or predation on population productivity. One parasite, a botfly, has been reported (Hector, 1982). This fly infests young aplomado falcons; however, it is not known under what conditions this insect could cause high mortality rates among nestlings. It is very unlikely that botfly parasitism has played a role in past declines of the aplomado. No instances of animal predation on northern aplomado falcons have been documented.

D. *The inadequacy of existing regulatory mechanism.* The Migratory Bird Treaty Act (16 U.S.C. 701-711) establishes provisions regulating the taking, killing, possessing, transporting, and importing of migratory birds, including all subspecies of *Falco femoralis*. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) includes all members of the family Falconidae, including *Falco femoralis*, on Appendix II that are not on Appendix I. CITES provides for regulation of import and export of its listed species.

In Texas, *Falco femoralis septentrionalis* is classified by the State as a protected nongame species (Texas Parks and Wildlife code 127.70.12.001-.008). In Arizona, it is included in Group 1 of the State list of threatened native wildlife, which comprises those species that are known to be extirpated from Arizona, but that still exist elsewhere (Arizona Game and Fish Commission, 1982). In New Mexico the species is listed as endangered, Group 1, meaning that its survival in the State is in jeopardy (New Mexico State Game Commission, 1979).

These classifications call attention to the plight of this subspecies in the United States. They also provide minimal protection by regulating taking and exploitation of the aplomado; however, they do not provide any protection to the habitat of the subspecies. The northern aplomado falcon is not subject to damaging levels of direct exploitation. Instead, the species is sensitive to habitat degradation and chemical contamination, and needs the type of active management and protective measures provided for in the Endangered Species Act.

E. Other natural or manmade factors affecting its continued existence. The most important threat to the present survival of the northern aplomado falcon is the continued use of persistent organochlorine pesticides within the range of this falcon and some of its migratory prey species. Recent data strongly suggest that such pesticide use is causing extreme eggshell thinning in some populations of northern aplomado falcons (Kiff *et al.*, 1978). Levels of DDE and DDT in membranes of 20 clutches of aplomado eggs collected in Veracruz (1957-1966) averaged 390 parts per million. In a more recent sample (1977) collected along a 500-mile transect from northern Veracruz to western Campeche DDE (DDT not reported) residue levels averaged 297 parts per million for 7 samples of eggshell fragments (Kiff *et al.*, 1978). The eggshell thickness index for eggs in these 1957-66 and 1977 samples averaged 25 and 24 percent less, respectively, than pre-DDT eggs from the same populations. Eggshell thinning of greater than 20 percent below pre-DDT levels is likely to result in nesting failure. In 1977, two nestings in Veracruz were observed to have failed due to eggshell breakage during incubation (Hector, 1981). On the average, eggs of the northern aplomado falcon collected in eastern Mexico are proportionately thinner than eggs collected from peregrine falcon populations that declined due to pesticide contamination (Peakall and Kiff, 1979).

The aplomado falcon has undergone severe losses in range and numbers in the past, and remaining populations are threatened by reproductive failure due to pesticide contamination. Experiences with the endangered peregrine falcon show that pesticide contamination can lead to severe, rapid population declines, and to the eventual extirpation of some populations of the affected species. The levels of pesticide contamination and eggshell thinning found in the eastern Mexican populations of the northern aplomado falcon exceed those found to have been the cause of nesting failure in populations of the peregrine falcon in the 1960's and 1970's.

The proposed action has been arrived at through the careful assessment of the best scientific and commercial information available, as well as the best assessment of the past, present, and future threats faced by this species. Based on this evaluation, the proposed action is to determine the northern aplomado falcon to be endangered throughout its historic range. The above factors make it apparent that this

subspecies is in danger of extinction throughout all or a significant portion of its range and, consequently, that the appropriate status for this subspecies is endangered, as defined in section 3 of the Act. Therefore, either no action or listing as threatened would be contrary to the Act's intent.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for the northern aplomado falcon at this time. Because there are no known active nesting areas left in the United States, no benefit would be derived from a designation of critical habitat. Critical habitat is not designated in areas outside U.S. jurisdiction (50 CFR 424.12(h); see revision of October 1, 1984, 49 FR 38900-38912).

Available Conservation Measures

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 encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required by 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 any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 and are now under revision (see proposal at 48 FR 29990; June 29, 1983). Section 7(a)(4) requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. When a species is listed, section 7 requires Federal agencies to ensure that activities they authorize, fund or carry

out are not likely to jeopardize the continued existence of such a species, or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

The effects of this rule on Federal activities are expected to be minimal, since the northern aplomado falcon does not presently nest and is rarely found in the United States.

The Act and its implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been illegally taken. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered animal species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation of survival of the species, and/or for incidental take in connection with otherwise lawful activities. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship which would be suffered if such relief were not available.

The northern aplomado falcon is already covered under the provisions of the Migratory Bird Treaty Act (16 U.S.C. 701-711), which regulates the taking, killing, possession, transport, and import of subject species. It is also included on Appendix II (as a member of the family Falconidae) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which controls the import and export of listed species. International trade of this species or its products is minimal. If this species is listed under the Endangered Species Act, the Service will review it to determine whether it should be placed upon the Annex of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, which is implemented through section 8A(e) of the Act, and whether it should be considered for

other appropriate international agreements.

Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered or threatened species. Therefore, any comments or suggestions from the public, government agencies, the scientific community, industry, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or the lack thereof) to the northern aplomado falcon;

(2) The location of any additional populations of this bird and the reasons why any habitat of the falcon should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the past or present distribution of this bird in the U.S. and Mexico (the central highlands, in particular); and

(4) Current or planned activities in the current range of the falcon and their possible impacts on the northern aplomado falcon.

Final promulgation of the regulations on this falcon will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final rule that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the proposal. Such requests must be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by the National Environmental Policy Act of 1969, need not be prepared in conjunction 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).

Literature Cited

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Authors

The editors of this proposed rule are S.E. Stefferud and Dave Langowski, Endangered Species Staff, U.S. Fish and Wildlife Service, Albuquerque, New Mexico 87103 (505/766-3972 or FTS 474-3972).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulation Promulgation

PART 17—[AMENDED]

Accordingly, it is hereby proposed 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:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

§ 17.11 [Amended]

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under "Birds," to the List of 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						
Birds:							
Falcon, northern aplomado.....	<i>Falco femoralis septentrionalis</i>	U.S.A. (AZ, NM, TX), Mexico, Guatemala.....	Entire.....	E.....		NA.....	NA

Dated: April 29, 1985.
Susan Recco,
Acting Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 85-12091 Filed 5-17-85; 8:45 am]
 BILLING CODE 4310-65-M