

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Proposed Reclassification of the
Peregrine Falcons in North America

AGENCY: Fish and Wildlife Service,
Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to reclassify from Endangered to Threatened the Arctic peregrine falcon (*Falco Peregrinus tundrius*). The Service finds that sufficient evidence has been gathered over the past several years warranting a proposal to make these changes. The Service also proposes to clarify the status of the American peregrine falcon (*Falco peregrinus anatum*) in some areas of its range. Any other free-flying peregrine falcon within the coterminous 48 States would also be protected from illegal take under Similarity of Appearance provisions proposed here. The Service requests comments and other information upon this proposed rule. These rules are proposed under the Endangered Species Act of 1973, as amended, and are based upon the completion of a status review required by the Act every 5 years.

DATE: Comments must be submitted on or before May 31, 1983.

ADDRESSES: Comments and other information should be mailed to the Director (OES), U.S. Fish and Wildlife Service, Washington, DC 20240. Comments and supporting documents are available to the public for inspection during normal business hours by appointment in Suite 500, 1000 N. Glebe Rd., Arlington, Virginia (phone 703-235-1975). Individuals submitting comments and other information should refer to this specific proposed rule in all correspondence.

FOR FURTHER INFORMATION CONTACT: Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, DC 20240 (703-235-2771).

SUPPLEMENTARY INFORMATION:
Background

The Service is required to conduct a status review of each species listed at 50 CFR 17.11 and 17.12 at least once every 5 years. This requirement stems from the amendments to Section 4 of the Endangered Species Act of 1973 signed into law on November 10, 1978. The rules at 50 CFR 424.20 implement this requirement of the amended Act. Subsequently, the Service published a Notice of Review for all species listed prior to 1975 in the *Federal Register* of May 21, 1979 (44 FR 29566-29577) that

included the two subspecies of North American peregrine falcons—American and Arctic. This proposal is based upon data accumulated in the Service's Office of Endangered Species through June 1982.

The American peregrine falcon (*Falco peregrinus anatum*) and the Arctic peregrine falcon (*F. p. tundrius*) were added to the U.S. Department of the Interior's list of foreign Endangered species on June 2, 1970 (35 FR 8495) and to the native list on October 13, 1970 (35 FR 16047). The basis for adding two of the three North American subspecies to this list was the realization, in the late 1960's that DDT and its metabolites (hereafter referred to only as DDT) was having a direct negative impact on these falcons' survival: falcons no longer nested from Minnesota eastward to the Canadian Maritimes and south to Georgia, and those nesting in western Canada and United States and northward into the Arctic were heavily contaminated and likely to become extinct in the near future. Only the Peale's peregrine falcons (*F. p. pealei*) nesting from the Aleutian Islands east and south to Vancouver Island were found to be reproducing at near normal levels with only traces of DDT.

Materials and information recorded or otherwise preserved over the previous decades clearly showed the effects of this contamination immediately after World War II when DDT was first used extensively. Most of the falcons in eastern United States and southern Canada failed to produce young by the mid-1950's, although a few survived into the late 1960's. The total surviving population (excluding the Peale's peregrine falcons) was then estimated at no more than a few hundred pairs north of Mexico.

Following the 1960's came a period of intensive studies to develop possible management practices to save the remaining falcons and restore the extirpated populations. The Service estimates that about 10 million dollars were expended on peregrine falcons in North America during the 1970's by the U.S. and Canadian Federal governments, many States and Provinces, several conservation organizations, and countless private citizens and businesses. Associated with these recovery efforts were efforts by other environmental interests that resulted in the ban on most DDT uses in the United States in 1972.

Recent studies have focused on the breeding ecology of peregrines with specific investigations into organochlorine contamination levels of individual birds, their eggs, and prey species. Other studies have been aimed

at finding the principal wintering grounds of these falcons (and their prey species) by banding. These and other studies have shown that DDT has been the main cause for decline of these falcons, although other causes have been known during this century. There have been only a few localized cases of habitat loss (i.e., nesting ledges) or chronic depredations for falconry purposes. Losses from accidents, shootings, and other similar causes do not appear to have significantly affected the whole population of peregrine falcons in North America. Only environmental contaminants have threatened their continued existence.

With the decline in DDT usage in North America the peregrine falcon populations of northern North America (e.g., Alaska, northern Canada, Greenland) are no longer threatened with extinction in the foreseeable future. The reproductive rate of these falcons has shown a gradual improvement in the Arctic over the past 5-6 years. Generally, rates in most sampled areas have gone from approximately 1.0 or less young produced per active pair to approximately 2.0 young per active pair. An apparent cline, increasing from west to east, has been observed: highest average productivity is usually observed in Greenland, the lowest in northern Alaska and northwestern Canada, with local variations (both lows and highs) seemingly the rule rather than the exception.

Although the use of DDT still continues where many of these birds apparently winter, the Service has recent samples showing less than 10% of the adult female falcons migrating into the Arctic each spring have levels of DDT contamination sufficient to reduce their natural reproductive potential. Based upon blood contaminant loads only, the other 90% should be capable of normal reproductive rates. The Service believes that the wintering and spring migration periods are when the female falcons obtain the bulk of the contamination that will affect their eggshell quality. That is, Arctic peregrine falcons return in May and almost immediately start nesting. Only the DDT acquired prior to egg formation can affect the eggs.

In mid-summer of 1981 eight nesting female American peregrine falcons were randomly selected and trapped in central Alaska by the Service. All showed some DDT contamination in their blood. Three had significant levels. Those three had a total of 11 young and one cracked egg in their nests. These samples were obtained while the females were hunting food for their

young. At this time the birds are under maximum stress and probably show their lowest body weights each year (highest would be expected on migration and a moderate weight would be expected in the winter) so measurement of any deposited or recently acquired DDT could be higher.

Previous nesting ground data on levels of contamination were based upon recovered unhatched eggs. Such eggs do not reflect the overall contamination level of the entire population, since they are not a random sample of all eggs being produced. There are some individual females that are very contaminated and rarely hatch a single egg each year.

Other biological data have been gathered for the western United States and Mexico. Some of these data indicate an increasing rate of productivity and recruitment. Particularly in Mexico and California, and possibly Arizona and New Mexico, populations are showing good productivity, although the number of pairs is still well below historic levels. Productivity in this region is now averaging about 1.6 young per nest attempt, while an average of 2.0 young per attempt has been recorded for Alaskan *anatum* in the past 4 years.

The productivity of the peregrine falcons from Oregon and Colorado east and north into central Canada is generally the lowest in North America and is probably not adequate to maintain that population at even the present very low numbers of pairs. From Colorado to southern Yukon Territory the natural productivity (some nests are augmented by biologists) averages about 1.0 young falcon produced per active attempt. Productivity from the few pairs thought or known to remain in eastern Canada below the tree line (northern Manitoba to Labrador) is largely unknown.

Another series of studies has concentrated upon migrating falcons, particularly along the Atlantic and Gulf coasts. Comparisons based upon equal units of effort show there has been an increase in the numbers of falcons observed moving south each fall and north each spring over the past 5-6 years. For example, counts at Assateague Island, Maryland-Virginia, averaged 25 falcons per 100 hours of observation in the falls of 1970-1974. From 1975 to 1978 the average was 56 per 100 hours. From 1979 to 1981 the counting rates averaged 108 per 100 hours. The numbers of falcons counted in migration at this one site doubled each subsequent period.

The timing of this upward trend may be explained by facts concerning the age of maturation and probable peak

productivity of female peregrine falcons. Normally, falcons start laying eggs in their third summer and probably average 3-4 more years of productivity. With the cessation of most DDT use in the U.S. in 1972, a few years would be needed for the falcon population to start to show any decrease in overall contamination levels. Productivity would be expected to start increasing as succeeding generations become less contaminated.

Based upon bandings and their recoveries, the Service estimates about 99% of the fall migrants on the Atlantic and Gulf of Mexico coasts originate in the Arctic and sub-Arctic regions from western Alaska to western Greenland. Reliable statistical estimates have been difficult to obtain, but the Service believes that a minimum of several thousand peregrine falcons are being produced each summer in the higher latitudes of North America (approximately north 60° N. Lat.). Estimates by some researchers have ranged to over 20,000 falcons being produced in some recent summers.

These estimates of the total production in northern North America are based upon a calculation known as the Lincoln Index. Several assumptions have to be made in order to utilize this method of estimating the production of young falcons each year. First, there are no significant differences in survivorship from July through October between banded and unbanded young. (That is, if 20 percent of the banded young die in that period, then the same percentage of unbanded young die.) Second, the migration routes and behavior are the same for both banded and unbanded young. Third, the banded and unbanded migrant young are not trapped out of proportion to each other at various banding stations south of Canada. (That is, neither type is more easily trapped than the other, since neither have seen the trapping devices before.) Fourth, the numbers of young produced south of about 55° N. Latitude are very few and compose a small fraction of total production in North America (perhaps several hundred, at most). Fifth, the proportion of young falcons caught on their first migration that were already banded (i.e., Alaska, northern Canada, Greenland) to the total trapped is equal to the proportion of banded to unbanded young reaching 3-6 weeks of age in northern North America.

The Lincoln Index may be written as follows:

$$P = \frac{(n_1 + 1)(n_2 + 1)}{(R_2 + 1)} - 1$$

Where,

P = Total production estimate of young falcons reaching about 3-6 weeks of age in North America (north of 55° N. Lat., excluding Gulf of Alaska region) and Greenland

n_1 = Total young wild peregrine falcons banded at about 3-6 weeks of age in above area

n_2 = Total falcons trapped south of Canada and east of 100° W. Long. in their first fall migration (September 15 to October 30)

R_2 = Number of falcons in n_2 which were banded as part of n_1

When more than one year is included, the P values can be averaged. The Service has compiled banding and trapping records for the period of 1976 through 1981. The most recent data may be slightly incomplete, since all records have not yet been completely entered into the banding files at the Bird Banding Laboratory, Laurel, Maryland. The few records that may be missing from this tabulation, will not dramatically change the estimate. We believe that all recaptures (R_2) have been reported by our cooperating banders by now. An increase in this last value would have a very measurable and negative effect upon the estimate.

Below is a tabulation of the data for the years 1976 through 1981 (P is rounded to nearest 50):

Year	n_1	n_2	R_2	P
1976.....	23	120	0	2,900
1977.....	88	218	1	9,750
1978.....	71	226	2	5,450
1979.....	148	434	2	21,600
1980.....	281	216	2	20,400
1981.....	314	267	3	21,100
Total.....	925	1481	10

Using these data, the Lincoln Index equation yields an average of about 13,550 young falcons produced to near fledgling age in northern North America for the years 1976-1981, inclusive. Although several adjustments to these figures might be made, the Service simply wishes to indicate that there is a large number of *Falco peregrinus* being produced in this region in recent years: certainly more than several thousand and possibly as many as 22,000. The precise number is not germane beyond demonstrating that this bird is not now in danger of extinction.

Factors Affecting the Species

The Service proposes to reclassify the Arctic peregrine falcon (*Falco peregrinus tundrius*) from Endangered to Threatened. The Service's listing regulations (50 CFR Part 424) provide for a review of the five factors below when reclassifying (or listing or delisting) a species (§ 424.11):

(1) The present or threatened destruction, modification, or curtailment of its habitat or range;

(2) Utilization for commercial, sporting, scientific, or educational purposes at levels that detrimentally affect it;

(3) Disease or predation;

(4) Absence of regulatory mechanisms adequate to prevent the decline of a species or degradation of its habitat; and

(5) Other natural or manmade factors affecting its continued existence.

The Service has studied the relevant information available for *Falco peregrinus* in North America and summarizes this information for each of these five factors below:

(1) *Habitat*. Peregrine falcons prefer high cliffs or bluffs for nest sites. There are numerous records of pairs nesting in this century on manmade ledges (e.g., tall buildings, bridges, towers). The feeding requirements (small- to medium-sized birds) are general enough so that no specific prey species are needed by this falcon, only prey abundance. Prey species are usually common birds such as those frequently associated with water (e.g., marshes, lakes, rivers) such as colonial seabirds, smaller waterfowl, shorebirds (plovers, sandpipers, etc.), and small gulls. Other major groups include doves and pigeons, jays, flickers, and open ground-nesting songbirds (longspurs, sparrows, pipits, larks, etc.).

Losses of nest sites have not posed any overall problem to this falcon. Over the years a few sites have been lost directly or indirectly because of water, highway, energy, or other projects. Most of the abandoned nest sites still exist, and many are now occupied by other large birds (e.g., owls, hawks, ravens), which could possibly be evicted by any returning pair of peregrine falcons. Similarly, habitats for prey species have been altered to some degree in some areas. Most nest sites for the falcons still show an abundance of available prey, although the species composition may have changed. No significant losses of habitat have occurred within the range of the Arctic peregrine falcon.

(2) *Overutilization*. Presently, it is not legal in the United States to sell, buy, or barter peregrine falcons. Undocumented stories of high prices paid for some peregrine falcons in the past have misled many into thinking this species is an extraordinarily valuable commercial item in the world. The Service finds the world market value of peregrines has usually ranged from \$150 to \$2,500 per bird in the past decade, based usually upon degree of training, source of stock, and age and sex of the bird. This compares to the \$5,000 to \$20,000 paid

for some other highly prized wildlife. Falconers in the Middle East (a group frequently mentioned to be needing peregrine falcons) generally prefer other species of large falcons for hunting purposes. Removal of young falcons from some specific nest sites has been of only local importance in the past in the possible reduction of peregrine falcon numbers.

Captive-produced peregrine falcons may meet much of the future demand for birds to be used in falconry when restoration efforts for extirpated and other populations have been largely satisfied. This will probably not be a major source for falconry purposes for some time, perhaps later in this decade. This rule will have no effect on the import or export for commercial purposes of peregrine falcons.

(3) *Disease or Predation*. Peregrine falcons suffer from natural diseases and predation as do most other forms of wildlife. No significant or serious disease or predation problems have been found in any populations of North American peregrine falcons, and no problems are anticipated.

(4) *Regulatory Mechanisms*. The present Federal falconry regulations (§§ 21.28 and 21.29) became effective January 1, 1978. These require the individual marking of captive raptors and have been shown to adequately provide for enforcement and possession of raptors for falconry. The Endangered Species Act of 1973, as amended, the regulations issued under the Migratory Bird Treaty Act, and the efforts of law enforcement agents have been effective in controlling the illegal take of falcons in the United States over the past decade. Similar protective measures are in effect in most of Canada. Such efforts are expected to continue at Federal and State levels.

All *Falco peregrinus* are covered under Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Service has previously rejected a petition to move the Arctic peregrine falcon to Appendix II (see 47 FR 7190-7192; February 17, 1982). These proposed rules would not affect any *Falco peregrinus* under CITES.

Critical Habitat (50 CFR 17.95) was designated in 1977 at several nesting sites in California for American peregrine falcons that were in areas of potential energy development. Such sites are protected under the Critical Habitat provisions of Section 7 of the Endangered Species Act. Other nest sites and significant migration or wintering habitats, which are not designated at 50 CFR 17.95(b) as Critical Habitat, may be indirectly protected

from adverse Federal actions affecting the falcons under the "jeopardy" provision of Section 7 of the Act. This provision requires all Federal agencies to insure that any action that they authorize, fund, or carry out, is not likely to jeopardize the continued existence of a listed species. Thus, Section 7 prohibits Federal agencies from adversely affecting American or Arctic peregrine falcon habitat which is not designated as Critical Habitat, if such action was considered likely to jeopardize the continued existence of either listed peregrine falcon.

Some of the peregrine falcon habitats that have been frequent subjects of consultations between the Service and other Federal agencies are coastal wetlands along the coasts of the Atlantic Ocean and Gulf of Mexico. Such habitats are well recognized as areas which attract large numbers of migrant, and sometimes wintering, falcons every year. Such areas will continue to receive such protection so long as any Endangered or Threatened peregrine falcons are expected to be found there on a regular basis.

(5) *Other Factors*: The major factor affecting the continued existence of most of the troubled populations of peregrine falcons in the world today is the use of various persistent chemical compounds, principally DDT. North American *Falco peregrinus* not exposed to significant amounts of DDT are not showing reproductive failures that could affect the population's continued existence. At DDT concentrations above 15-20 ppm wet weight in eggs, reproductive failures have been documented in peregrines. Thus far, Peale's peregrine falcons of the Gulf of Alaska have not shown a significant contamination level or impaired reproduction.

The peregrines of the British Isles, the Peale's falcons, are nonmigratory (although some of their prey are migratory). The British falcons were substantially reduced by the 1960's because of high chemical contamination. With the elimination of the contamination source in the United Kingdom, old nest sites have been reoccupied, and this population of falcons has now returned to levels that approach or may even exceed all previous censuses, including pre-World War II. This last case clearly shows dramatic effects of certain chemical compounds of *Falco peregrinus*.

Fewer than 10% of the several hundred adult female falcons trapped along the Texas Gulf Coast (a major concentration area in the spring and fall) have shown a significant level of

DDT contamination. In fact, there has been a tendency for these falcons to show even lower levels of contamination with each successive spring. The Service is uncertain if this is a significant change or only a sampling bias and/or a temporary trend noted over a few years. As indicated above, the numbers of falcons counted in the fall migrations has increased substantially following these recent samples of lower contamination levels taken in the spring.

Samples of eggs from the Arctic (and elsewhere) have been biased in the past by the fact that mostly unhatched or nonviable eggs were obtained. Addled falcon eggs would be expected to contain higher average levels of DDT and other compounds than randomly taken, freshly laid eggs. Because addled eggs are not a random sample, they would not reflect the true frequency and level of contamination in the population as a whole. The samples of blood from randomly trapped falcons provide a far more accurate index of overall contamination levels and frequency in these falcons. The Service concludes that while some female falcons (about 10%) are still significantly contaminated prior to egg laying, the remainder of the northern birds should be producing reasonable numbers of young falcons in recent summers. This latter analysis is based upon 430 blood samples from peregrines trapped in spring and fall migrations in the past 4 years.

This level of contamination still poses a problem to the falcon population, but it does not pose a major threat which clearly could cause the extinction of the falcon in the foreseeable future. Because the possibility of this level of DDT contamination continuing or even increasing remains, the Service will not consider the complete delisting of the Arctic peregrine falcon at this time.

The numbers of birds counted and banded each fall along the main migration routes indicate to the Service that a significant number of young peregrine falcons are, in fact, being produced in the northern part of North America. Both fall observations and bandings indicate that at least half, and probably three-quarters, are birds hatched that year.

A few banded birds have been recovered during the winter months from the populations south of the Arctic. Alberta peregrine falcons have been recovered during the winter in Central America south to northern Venezuela and Colombia. Birds originating from further south (the Rocky Mountains of the United States) may winter only as far south as Mexico or rarely to Costa Rica, while some may winter at lower

elevations in the American Southwest. Oregon and Washington birds are thought to winter near their nesting territories or south along the Pacific Coast into California. California birds seem to be largely nonmigratory, although some of the pairs nesting in the higher mountains probably winter in nearby lowlands. Falcons from Arizona, New Mexico, western Texas, and north central Mexico have not been banded in substantial numbers and recoveries during the winter period are nonexistent.

North American peregrine falcons, and many other avian species with similar distribution, show a "leap-frog" wintering pattern where the more northern nesting populations winter the furthest south and the further south nesting birds tend to move less and less. The southernmost birds (particularly if nesting south of about 40° N. Lat.) become largely sedentary, although young and adults may wander some distance during the winter. Thus, adults peregrine falcons from the southern Rocky Mountains and into Mexico may either wander into the lowlands or even coastal areas (Gulfs of California and Mexico) or remain within a hundred miles of their nest sites. Immatures from these probably nonmigratory populations (i.e., those largely south of Oregon, Nevada, Utah, and Colorado) may wander hundreds of miles during their first year before returning to the general vicinity of their natal areas.

Precisely where the various populations of falcons obtain their DDT is unclear. Part of this problem is related to the seasonal distribution and identity of their principal prey species. The prey composition seems to vary with season, locale, and individual falcon preferences. All populations of North American peregrine falcons show varying levels of contamination, with the Peale's falcon showing the least.

Summary of Status

The various populations *Falco peregrinus* found nesting in North America (including Mexico and western Greenland) are presently classified as three subspecies: (1) *F.p. pealei* (coastal British Columbia north and west through the Aleutian Islands, intergrades with *F.p. anatum* in western Washington and inland in the coastal ranges of British Columbia and southern Alaska westward to the vicinity of Bristol Bay; largely non-migratory, but some birds wander most winters as far south as the California coast), (2) *F. p. tundrius* (nests in Arctic North America: lands draining into the Arctic Ocean and north of the treeline from the Bering Straits east to the west coast of Greenland; intergrades

to varying degrees with *F. p. anatum* from the upper Yukon River Valley eastward through the taiga region of boreal America to the Ungava Peninsula; winter from southern U.S. south throughout all of Central and South America to central Chile and Argentina), and *F. p. anatum* (nests from central Alaska, central Yukon Territory, northern Alberta and Saskatchewan east to the Maritimes and south [excluding coastal areas north of Columbia River] throughout western Canada and United States to Baja California, Sonora, and the highlands of central Mexico; intergrades in the zones of contact with the other two subspecies, as indicated above; no nesting reported from Oklahoma and central Texas southward into eastern Mexico and east to northwestern Georgia and north along the coastal plain to the Chesapeake Bay; populations nesting in Mississippi River, Great Lakes, and Atlantic drainages south of the St. Lawrence River have been extirpated [ca.1960]; winters from southern United States south to about central South America, mostly in Mexico and Central America; eastern and southwestern United States and Mexico populations largely nonmigratory with some individuals wandering a few hundred miles from nesting sites).

The subspecies *pealei* has been largely unaffected by either DDT or other contaminants. Peale's peregrine falcon has never been considered for listing under the Endangered Species Act (or previous legislation) by the Service. No future change in its present status is foreseen, and the Service does not intend to propose any change for this subspecies.

The American peregrine falcon *F. p. anatum* now numbers a few hundred pairs, mostly in California and Mexico. Perhaps 125 pairs are in Alaska (mostly Yukon River drainage). More than a dozen are known (and probably many more exist) in the Yukon Territory. Less than a dozen active pairs are known from Alberta and adjacent areas of western Canada. Possibly another few dozens are spread over the rest of central and eastern Canada. Less than 100 active, known pairs remain in the coterminous United States outside of California. California had 39 known pairs in 1981, while another dozen or more may be present. Along the west coast of Baja California and in the Gulf of California area are perhaps 75 pairs of peregrine falcons. The highlands of Mexico are also thought to have about 100 pairs, although only about 20 pairs are known. The total number of *anatum*

(Canada, Alaska and coterminous United States, and Mexico) is estimated at 500-550 pairs.

Productivity in the United States (excluding Alaska, California, Arizona, and possibly New Mexico) and Canada has been marginal. This productivity level is barely capable, and may not be in some areas, of at least maintaining the present low population level and threatens the continued existence of the American peregrine falcon in these areas. From California and Arizona south into Mexico the falcons appear to be maintaining themselves with little or no significant overall increases in population numbers. This subspecies would remain Endangered under this proposed rule.

Because of the broad zones of intergradation between *anatum* and each of the other two North American races, the distributional limits of *anatum* need to be more clearly defined to insure appropriate protective measures under the Endangered Species Act. Subspecies by their very nature interbreed where they meet. Only rarely can they be clearly separated in all (even 90 percent) cases by experts in that group of animals. (Scientists generally apply a subspecific name when at least 70 or 75 percent of one geographic sample can be separated from 98 percent of all others of that species. In the case of *Falco peregrinus* it is frequently impossible to identify individual falcons to the subspecific level: plumage characters and sizes broadly overlap in North America, particularly in the zones of intergradation outlined above. The use of *anatum* and *tundrius* will be clarified under this proposal in the use of some geographical limits and their nomenclature. The Service still follows the concept of three subspecies of *Falco peregrinus* in North America as defined by most avian taxonomists.

From all the studies made over the past several decades the Service concludes that the arctic peregrine falcon (*F.p. tundrius*) is not now threatened with extinction throughout a significant portion of its range. Nevertheless, so long as DDT and other compounds which affect peregrine falcons are being used in large quantities in various localities in the Western Hemisphere and so long as a significant number (more than 5 percent) of the females show significant amounts (more than 15 ppm DDT wet weight in eggs or comparable values in other tissues) of contamination, these Arctic falcons are still threatened with becoming endangered.

The definitions of Endangered and Threatened species at § 424.02 of this title are stated as follows:

"Endangered species" means a species which is in danger of extinction throughout all or a significant portion of its range.

"Threatened species" means any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.

The term "species" as used under the Act includes subspecies and populations of vertebrates and does not necessarily refer to the biological "species" used by the scientific community.

As indicated previously, the Service believes that for the past several summers many thousands of Arctic peregrine falcons (plus some *anatum* and intergrades from the taiga and boreal regions of North America) fly south through the United States to winter as far as Argentina and Chile. The vast majority of these fall migrants intercept the coastlines of the Atlantic Ocean and Gulf of Mexico. Lesser numbers of falcons pass down the Pacific Coast as well as along the Rocky Mountains. Birds are largely scattered over their migration routes until they reach the coasts where several dozens a day may be counted at the correct time and place.

Similarity of Appearance

Since the mid-1970's approximately 1000 peregrine falcons have been released to the wild in Canada and the United States in an effort to restore extirpated populations and bolster remnant populations. These captive-produced falcons have originated from a variety of wild stocks, including both New and Old World populations. Some of the released falcons have been produced from stocks presently classified as Endangered together with the unlisted stocks. The released birds are readily identified as peregrine falcons, but they are not readily identifiable as to subspecies or genetic background. Crosses between the various stocks are made both in the propagation facilities and later when the released birds breed in the wild.

Pursuant to the "Similarity of Appearance" provisions of Section 4(e) of the act, species (or subspecies or other groups of wildlife) which are not considered to be Endangered or Threatened may nevertheless be treated as such for the purpose of providing protection to a species that is biologically Endangered or Threatened. Under this Similarity of Appearance provision (implemented by § 17.50) the Service must find: (a) that the species so closely resembles in appearance an

Endangered or Threatened species that enforcement personnel would have substantial difficulty in identifying listed from unlisted species; (b) that the effect of this substantial difficulty is an additional threat to the Endangered or Threatened species; and (c) that such treatment of an unlisted species will substantially facilitate the enforcement and further the purposes of the Act.

The released stocks of peregrine falcons are almost inseparable from wild birds by nearly any generally accepted means. Even with the band numbers (all are marked prior to release) the managers of the production facilities cannot always determine the genetic stock used to produce a particular individual. (Several semen donors are sometimes used to artificially inseminate the female). A few of these released falcons as well as wild birds have been found shot or trapped by unauthorized individuals in the past few years. The Service has found it difficult to prosecute an individual for the take of a released peregrine falcon under the Endangered Species Act because of the status of some of these subspecies used for stocking purposes. In other cases, falcons are claimed to be the unlisted Peale's peregrine falcon when, in fact, they could be either of the listed subspecies but misidentified. It is clear that these falcons had been shot, trapped, or otherwise taken without any forehand knowledge that these were, in fact, unlisted or listed stocks.

Therefore, the Service, in order to further the purposes of the Act, finds the following: (1) Enforcement personnel, as well as nearly all other persons, would be unable to routinely separate the presently listed stocks (i.e., American or Arctic peregrine falcons) from the unlisted stocks; (2) also, enforcement personnel would not always be able to separate the Endangered American peregrine falcon from the Threatened Arctic peregrine falcon, if the latter becomes so classified; and (3) that the illegal take of any peregrine falcons in areas where listed populations occur would be without regard for, or forehand knowledge of, the status of that particular individual falcon, and thus poses direct and indirect threats to the wild native birds.

The Service proposes to list all free-flying *Falco peregrinus*, not otherwise identifiable as a listed subspecies, to be Endangered under the Similarity of Appearance provision in the 48 coterminous States. As an example, Arctic peregrine falcons found in the 48 coterminous States, but not positively identifiable as such, would be treated as Endangered.

References

There have been many scientific papers, books, administrative reports, recovery plans, letters, petitions, and other documents used in the preparation of this proposed rule. Some of these documents have been prepared for future publication in appropriate scientific journals. Others are still part of ongoing research or management projects and constitute only interim reports of data gathered to date. Some of the documentation goes back several decades while some has been obtained as recently as last summer. The Service is unable to provide a brief list of these hundreds of sources within this Federal Register document. Persons interested in examining these materials may see and copy them as they see fit at the Service's Office of Endangered Species by appointment during normal business hours (703-235-1975).

Five-Year Review

This proposal is a direct result of more than two years of intensive data gathering by the Service for the five-year review required under Section 4 of the Act. This review of the status of a listed species must be conducted at least once every five years (50 CFR 424.20), starting November 10, 1978. The final review of the large numbers of documents submitted in response to the Notice of Review (44 FR 29566-29577) was made in late 1981. The Service wishes to express its gratitude to the hundreds of persons; organizations; Federal, Provincial, and State agencies; and the Canadian Wildlife Service who all have contributed data, suggestions, and other information towards this review over the past three years.

Effects of This Proposed Rule if Finalized

This rule, if made final, would change the status at 50 CFR 17.11 of the Falcons now listed under "Arctic peregrine falcon, *Falco peregrinus tundrius*" from Endangered to Threatened. These rules would formally recognize the relative security of this population from being no longer in danger of extinction throughout a significant portion of its range.

If finalized as proposed, these rules would clarify the status of the subspecies *anatum* and *tundrius* and use some geographic limits for the Endangered *Falco peregrinus anatum* as well. One of the areas with persistent problems as to the identification (*ergo*, status) of some falcons has been the Olympic Peninsula of Washington. A few pairs of falcons nest there, and

other falcons are seen in migration or during the winter. The Service believes that most of the nesting birds and some of the non-nesting birds are only an extension of the endangered populations to the east and south. The nesting pairs in this area have been identified as *pealei* by some authorities and *anatum* by others. The Service follows the view that this is an Endangered population and for the purposes of the Act should be so classified. Therefore, under this rule all peregrine falcons found nesting in Washington, not just those east of the Olympic Peninsula, would be recognized as American peregrine falcons and, therefore, treated as Endangered for the purposes of the Act.

The rules, if finalized, would also treat all peregrine falcons found in the wild in the coterminous 48 States and not otherwise determined to be either *anatum* or *tundrius* as Endangered under the Similarity of Appearance provisions (§ 17.50). Anyone taking, attempting to take, or otherwise possessing a *Falco peregrinus* in an illegal manner would be subject to penalty under Section 11 of the Act. For example, a peregrine is shot by a person, but the bird is subsequently determined to be a released bird of uncertain genetic origin. That person would be subject to these Federal regulations as if he had taken an Endangered species. There would be no difference in penalties for the illegal take of an Endangered versus Threatened species.

The taking of all peregrine falcons within the jurisdiction of the United States is subject to the Migratory Bird Treaty Act (16 U.S.C. 703-711), as amended. However, the Migratory Bird Treaty Act provides less protection and penalties than does the Endangered Species Act.

Public Comments Solicited

The Director intends that the rules finally adopted will be as accurate and effective as possible in the conservation of the North American peregrine falcons, Endangered or Threatened. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party concerning any aspect of these proposals are hereby solicited. Comments from other affected countries and from all the States' (except Hawaii), Puerto Rico's and the Virgin Islands' conservation agencies are also being sought.

Specific information which is being requested includes, but is not limited to: (1) Biological or other relevant data

concerning any threat (or lack thereof) to the peregrine falcons covered in this proposal; (2) information on environmental impacts that would result from the rule; and (3) possible alternatives to these proposed rules. The Service recommends that persons making a detailed review of this proposal also refer to other referenced sections and parts of 50 CFR.

National Environmental Policy Act

A draft Environmental Assessment has been prepared in conjunction with this proposed rule. This is on file in the Service's Office of Endangered Species (Mail: U.S. Fish and Wildlife Service (OES), Washington, DC 20240), 1000 N. Glebe Road, Arlington, VA. This document may be examined by appointment during regular business hours and copied, if desired, at no charge at this office. A determination will be made before the time of final rulemaking as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969 and 40 CFR Parts 1500-1508.

Primary Author

The primary author of this proposal is Jay M. Sheppard of the Service's Office of Endangered Species (703-235-1975, address above).

List of Subjects in 50 CFR Part 17

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

Proposed Regulatory Promulgation

PART 17—(AMENDED)

Accordingly, the Service proposes to amend Part 17 of Title 50 of the Code of Federal Regulations as follows:

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1241; and Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531, *et seq.*).

2. Amend the table at § 17.11(h) by revising the entries of the "Falcon, American peregrine" and "Falcon, Arctic peregrine" and adding the entry, Falcon, peregrine under "BIRDS" to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	St
Common name	Scientific name						
Falcon, American peregrine	<i>Falco peregrinus anatum</i>	Central Alaska, across north-central Canada to central Mexico, winters south to South America.	Entire, including all nesting peregrine falcons in Washington.	E	2, 3	17.95(b)	
Falcon, Arctic peregrine	<i>Falco peregrinus tundrius</i>	Alaska to Greenland, winters south to South America.	Entire	T	2, 3	NA	
Falcon, peregrine	<i>Falco peregrinus</i> (when not identifiable as <i>anatum</i> or <i>tundrius</i>).	Worldwide, except Antarctica and most Pacific islands.	Wherever found in the wild in the coterminous 48 States.	E(S/A)			NA

Dated: January 26, 1983.

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and Parks.

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