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DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AD62

Endangered and Threatened Wildlife and Plants; Reopening of Comment Period for Proposed Establishment of a Nonessential Experimental Population of California Condors in Northern Arizona**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule; reopening of comment period.

SUMMARY: The U.S. Fish and Wildlife Service (Service) provides notice that the public comment period is reopened for the proposal to designate a nonessential experimental population of California condors (*Gymnogyps californianus*) in northern Arizona and southern Utah. This population is proposed to be designated as a nonessential experimental population in accordance with section 10(j) of the Endangered Species Act (Act) of 1973, as amended. The reopening of the comment period will allow all interested parties to submit written comments on the proposal.

DATES: The comment period which originally closed February 1, 1996, now closes February 29, 1996.

ADDRESSES: Written comments should be sent to the Supervisor, Ecological Services Field Office, U.S. Fish and Wildlife Service, 2321 W. Royal Palm Road, Suite 103, Phoenix, Arizona 85021. Comments and materials received will be available for public inspection, by appointment, during normal business hours, at the above Service address.

FOR FURTHER INFORMATION CONTACT: Jeffrey A. Humphrey, at the above address, telephone 602/640-2720; facsimile 620/640-2730.

SUPPLEMENTARY INFORMATION:

Background

The Service, in cooperation with the Arizona Game and Fish Department, and the U.S. Bureau of Land Management, proposes to reintroduce California condors (*Gymnogyps californianus*) into northern Arizona. This reintroduction will achieve a primary recovery goal for this endangered species, establishment of a second noncaptive population, spatially disjunct from the noncaptive population in southern California. Section 10(j) of the Endangered Species Act of 1973

(Act) enables the Service to designate certain populations of federally-listed species that are released into the wild as "experimental." This designation can increase the Service's flexibility to manage a reintroduced population. Section 10(j) allows an experimental population to be treated as a threatened species regardless of its designation elsewhere in its range and under section 4(d) of the Act. The Service has greater discretion in developing management programs for threatened species than it has for endangered species.

Nonessential experimental populations located outside National Wildlife Refuges or National Park Service lands are treated, for the purpose of section 7 of the Act, as if they are proposed for listing. The area proposed for nonessential experimental designation occurs in northern Arizona, southern Utah and southeastern Nevada.

A proposed rule to designate a nonessential experimental population of California condors was published in the Federal Register (61 FR 35) on January 2, 1996.

Pursuant to 50 CFR 424.16(c)(2), the Service may extend or reopen a comment period upon finding that there is good cause to do so. Full participation of the affected public in the species listing process, allowing the Service to consider the best scientific and commercial data available in making a final determination on the proposed action, is deemed as sufficient cause.

The previous comment period on this proposal closed on February 1, 1996. With the publication of this notice, the Service reopens the public comment period. Written comments may now be submitted until February 29, 1996, to the Service office in the **ADDRESSES** section.

Author

The primary author of this notice is Jeffrey A. Humphrey (see **ADDRESSES**).

Authority

The authority for this action is the Endangered Species Act of 1973 (16 U.S.C. 1531-1544).

Dated: January 30, 1996.

Lynn B. Starnes,

Acting Regional Director, Region 2, Fish and Wildlife Service.

[FR Doc. 96-2471 Filed 2-5-96; 8:45 am]

BILLING CODE 4310-55-P

50 CFR Part 17

RIN 1018-AD45

Endangered and Threatened Wildlife and Plants; Proposal to Designate the Whooping Cranes of the Rocky Mountains as Experimental Nonessential and to Remove Whooping Crane Critical Habitat Designations From Four Locations**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes to designate the whooping crane population (*Grus americana*) in the Rocky Mountains as an experimental nonessential population and to remove whooping crane critical habitat designations from four national wildlife refuges; Bosque del Apache in New Mexico, Monte Vista and Alamosa in Colorado, and Grays Lake in Idaho. The private lands involved are holdings inside refuge boundaries and a 1-mile buffer around Grays Lake National Wildlife Refuge. The Service proposes to use this population, and captive-reared sandhill cranes and whooping cranes, in experiments to evaluate methods for introducing whooping cranes into the wild where migration is required.

DATES: Comments from all interested parties must be received by April 8, 1996.

ADDRESSES: Comments and materials concerning this proposal should be sent to Dr. James Lewis, Southwest Regional Office, 500 Gold Avenue SW, Room 4000, Albuquerque, New Mexico 87103-1306. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Dr. James Lewis (See **ADDRESSES** section above) at telephone 505/248-6663; or facsimile 505/248-6922.

SUPPLEMENTARY INFORMATION:

Background

The Endangered Species Act Amendments of 1982, Pub. L. 97-304, added a new section 10(j) to the Endangered Species Act (Act) of 1973 (16 U.S.C. 1531 *et seq.*) that provides for the designation of specific introduced populations of listed species as "experimental populations." Under other authority of the Act, the Service already was permitted to reintroduce populations into unoccupied portions of the historic range of a listed species when it would foster the conservation

and recovery of the species. However, local opposition to reintroduction efforts, based on concerns about the restrictions and prohibitions on private and Federal activities contained in sections 7 and 9 of the Act, hampered efforts to use reintroductions as a management tool.

Under section 10(j) of the Act, past and future reintroduced populations established outside the current range of a species may be designated as "experimental." Such designations increase the Service's flexibility to manage such populations because they may be treated as threatened species, which allows more discretion in devising management programs than for endangered species, especially regarding incidental and other takings. Experimental populations "nonessential" to the continued existence of the species are to be treated as if they were only proposed for listing for purposes of section 7 of the Act, except as noted below.

A "nonessential" experimental population is not subject to the formal consultation requirement of section 7(a)(2) of the Act, except that the full protections accorded a threatened species under section 7 apply to individuals found on units of the National Wildlife Refuge System or the National Park System. Section 7(a)(1) of the Act, which requires Federal agencies to carry out programs to conserve listed species, applies to all experimental populations. Individuals to be reintroduced into an experimental population can be removed from an existing source or donor population only if such removal is not likely to jeopardize the continued existence of the species; a permit issued in accordance with 50 CFR 17.22 is also required.

An experiment to reintroduce whooping cranes to historic range in the Rocky Mountains began in 1975, testing the "cross-fostering" technique of placing whooping crane eggs in nests of greater sandhill cranes. On May 15, 1978, whooping crane critical habitat was designated in four areas to benefit the whooping cranes being reintroduced into the Rocky Mountains (43 FR 20938).

Section 10(j) requires the Secretary of the Interior to determine whether populations already reintroduced in 1982 were experimental and essential to the continued existence of the species. The population which migrates between the Gulf Coast of Texas and Northwest Territories, Canada, (Aransas/Wood Buffalo Population) then contained 73 birds (including 17 pairs). The only captive flock (at Patuxent Wildlife

Research Center) contained 35 birds but only 5 egg-laying females. The whooping crane population in the Rocky Mountains (Rocky Mountain Population) contained 14 birds, was increasing through releases, and breeding was expected in the near future. It appeared the reintroduction might soon be an operational success rather than an experiment and the Service considered the population essential to existence of the species. Consequently, the Service did not designate the Rocky Mountain Population as experimental when the Act amendments first provided that opportunity.

Since that time, however, the cross-fostering program was terminated because the birds were not pairing and the mortality rate was too high to establish a self-sustaining population. Currently only four nonbreeding adults remain in the Rocky Mountain region. At the same time, the total population of whooping cranes has increased to approximately 260 individuals. The wild population now numbers approximately 163 individuals, including 43 experienced breeding pairs. Four captive populations have also been established with approximately 96 whooping cranes, including 14 breeding pairs and another 21 pairs expected to begin breeding over the next few years. These are among the factors discussed below that allow the Secretary to now find the Rocky Mountain Population no longer essential to the continued existence of the species.

The Service proposes removing whooping crane critical habitat designations from four national wildlife refuges; Bosque del Apache in New Mexico, Monte Vista and Alamosa in Colorado, and Grays Lake in Idaho. The only private lands involved are private holdings inside refuge boundaries and a 1-mile buffer around Grays Lake National Wildlife Refuge. These critical habitats were established to provide food, water and other nutritional or physiological needs of the whooping crane; particularly potential nesting, rearing and feeding habitat at Grays Lake, roosting and feeding habitat during migration through Alamosa and Monte Vista, and winter roosting and feeding habitat at Bosque del Apache. If critical habitat designations are rescinded and the Rocky Mountain Population is designated as nonessential, section 7(a)(1) of the Act will still apply to Federal agencies and both sections 7(a)(1) and 7(a)(2) as required for "threatened species," will apply on National Wildlife Refuges. Federal agencies will still be required to

carry out programs to conserve this population and the Act's consultation and the National Wildlife Refuge System Refuge compatibility requirements will still apply on National Wildlife Refuges.

The proposed actions involve the following States and Service Regions—Pacific Region (Idaho), Southwest Region (Arizona and New Mexico), and Mountain-Prairie Region (Colorado, Montana, Utah, and Wyoming). The principal use areas of this population are the middle Rio Grande Valley of New Mexico, the lower San Luis Valley of Colorado, and summering areas in southeastern Idaho and western Wyoming, Southeastern Arizona, northeastern Utah, southwestern Montana, northwestern Colorado, and northern New Mexico are only occupied temporarily during migration or infrequently by a single whooping crane in summer or winter. The portion of the middle Rio Grande Valley involved includes a few miles on either side of the Rio Grande ranging from the town of Belen, New Mexico, to Bosque del Apache National Wildlife Refuge, 15 miles south of Socorro, New Mexico. The portion of the San Luis Valley involved is 15 miles on either side of a line running north-northwest from Capulin, Colorado, to Saguache, Colorado.

On March 11, 1967, (32 FR 4001) and again on June 2, 1970, (35 FR 8495) the whooping crane was listed as endangered. Its status resulted from hunting and specimen collection, human disturbance, and conversion of the primary nesting habitat to hay, pastureland, and grain production (Allen 1952) in the 19th and early 20th centuries. The whooping crane is in the family Gruidae, Order Gruiformes, and is the tallest bird in North America. Males approach 1.5 meters (96 inches) in height and captive adult males average 7.3 kilograms (16 pounds), and females 6.4 kilograms (14 pounds). Adult plumage is snowy white except for black primaries, black or grayish alulae, sparse black bristly feathers on the carmine crown and malar region, and a dark gray-black wedge-shaped patch on the nape.

Adults are potentially long-lived with an estimated maximum longevity in the wild of 22 to 24 years (Binkley and Miller 1980) and 27 to 40 years in captivity (McNulty 1966). Mating is characterized by monogamous life-long pair bonds. Individuals remate following death of a mate. Fertile eggs are occasionally produced at 3 years of age, but more typically at 4 years of age (Ernie Kuyt, Canadian Wildlife Service, pers. comm. 1991). Experienced pairs

may not breed every year, especially when habitat conditions are poor. Whooping cranes ordinarily lay two eggs. They will reneest if their first clutch is destroyed or lost before mid-incubation (Kuyt 1981). Although two eggs are laid, whooping cranes infrequently fledge two chicks.

The whooping crane first appeared in fossil records from the early Pleistocene (Allen 1952) and probably was most abundant during that 2-million-year epoch. They once occurred from the Arctic Sea to the high plateau of central Mexico, and from Utah east to New Jersey, South Carolina, and Florida (Allen 1952). In the 19th century, the principal breeding range extended from central Illinois northwest through northern Iowa, western Minnesota, northeastern North Dakota, southern Manitoba, and Saskatchewan to the vicinity of Edmonton, Alberta. Some nesting occurred at other sites such as western Wyoming in the 1900's (Allen 1952, Kemsies 1930). A nonmigratory population still existed in southwestern Louisiana in the 1940's (Allen 1952, Gomez 1992). Through the use of two independent techniques of population estimation, Banks (1978) derived estimates of 500 to 700 whooping cranes in 1870. By 1941, the migratory population contained only 16 individuals.

Whooping cranes currently exist in three wild populations and four captive locations, totalling 260 individuals. The largest captive population of 41 birds, including nine breeding pairs, is located near Laurel, Maryland. Another six pairs here should begin producing eggs in the next 3 years. This site was staffed and administered by the Service as Patuxent Wildlife Research Center until October 1993 when it became part of National Biological Service and was renamed Patuxent Environmental Science Center. A captive flock of 31 birds is maintained by the Service at the International Crane Foundation (Foundation), a private foundation near Baraboo, Wisconsin. The Foundation flock contains five breeding pairs and another five pairs that should enter production in the next 3 years. A third captive site is being developed in Calgary, Alberta, Canada, at the Calgary Zoo Ranch. This flock, under the oversight of the Canadian Wildlife Service, contains 19 cranes transferred from captive flocks in the United States (1991–1995). Ten pairs at Calgary should begin breeding by late this decade. Two pairs are maintained at the San Antonio Zoological Gardens and Aquarium in San Antonio, Texas, and should begin breeding in the next few years.

The Aransas/Wood Buffalo Population, the only self-sustaining natural wild population, contains 133 individuals that nest in the Northwest Territories and adjacent areas of Alberta, Canada, primarily within the boundaries of Wood Buffalo National Park. The migration route is similar in spring and fall. It passes through northeastern Alberta, south-central Saskatchewan, northeastern Montana, western North Dakota, western South Dakota, central Nebraska and Kansas, west-central Oklahoma, and east-central Texas. These birds winter along the central Texas Gulf of Mexico coast at Aransas National Wildlife Refuge and adjacent areas. Whooping cranes adhere to ancestral breeding areas, migratory routes, and wintering grounds, leaving little possibility of pioneering into new regions. The Aransas/Wood Buffalo Population can be expected to continue utilizing its current nesting location with little likelihood of expansion, except on a local geographic scale. The flock recovered from a population low of 16 birds in 1941, and now contains 131 individuals. Forty-five pairs nested in 1993, but of a potential 43–46 pairs, only 28 pairs nested in 1994, due to a late winter and possibly to poor food conditions on their wintering grounds. This was the first time in over 50 years that such a high percentage of the potential pairs failed to nest. This population remains vulnerable to destruction through a natural catastrophe (hurricane), a red tide outbreak, or contaminant spill, due primarily to its limited wintering distribution along the intracoastal waterway of the Texas coast (Service 1994).

The reintroduced population in Florida consists of 26 subadult captive-produced whooping cranes released in 1993–1995, in the Kissimmee Prairie. In this experimental effort designed to develop a nonmigratory self-sustaining population designated as experimental nonessential, annual releases of 20 or more birds have been planned for up to 7 more years. Project success will be evaluated annually (58 FR 5647; January 22, 1993).

The whooping crane population of the Rocky Mountains is proposed to be designated a nonessential experimental population according to the provisions of section 10(j) of the Act. The Service further proposes to rescind the designation of whooping crane critical habitat in Colorado, Idaho, and New Mexico. The Rocky Mountain Population consists only of a male and three female adult cross-fostered cranes surviving from an experiment to establish a migratory, self-sustaining

population. These birds are termed cross-fostered because they were reared by sandhill cranes at Grays Lake National Wildlife Refuge, a 8,900-hectare marsh in southeastern Idaho.

These cranes winter in the middle Rio Grande Valley of New Mexico at Belen State Game Refuge and Bosque del Apache National Wildlife Refuge from November–February. In February–March, they migrate north to south-central Colorado where they spend 4–6 weeks in the San Luis Valley before continuing north into southeastern Idaho and western Wyoming. The main crane use area in the valley is Monte Vista National Wildlife Refuge, 10 kilometers south of the town of Monte Vista. The whooping cranes spend April–September on their summer grounds in southeastern Idaho and western Wyoming. In September–October, before migration, they flock with sandhill cranes at Grays Lake and other wetlands and pastures before migrating southeast through northeastern Utah and western Colorado where they remain in the San Luis Valley for 4–6 weeks. They migrate through northern New Mexico and arrive at the wintering area in early November.

From 1975–1988, 289 eggs were transferred in the reintroduction experiment (including 73 eggs from the captive flock at Patuxent); 210 hatched, and 85 chicks fledged (Drewien et al. 1989). Population growth was slow due to small numbers of fertile eggs in some years and high mortality of young before fledging. The losses of chicks and fledged individuals, and the absence of breeding, resulted in a peak population of only 33 individuals in winter 1984–85.

By 1985, biologists began to suspect the absence of pairing might be due to improper sexual imprinting, particularly by female whooping cranes. Sexual imprinting of a foster-reared species on the foster-parent species had been confirmed in raptors, waterfowl, gulls, finches, and gallinaceous birds (Bird et al. 1985, Immelmann 1972). Older female whooping cranes frequently did not return in spring to Grays Lake or other areas occupied by males on their territories. In 1981, 1982, and 1989, captive-reared adult female whooping cranes were released at Grays Lake to enhance pairing activities and determine if adult males recognize conspecifics as mates. These experiments indicated that some cross-fostered males recognized conspecific females as appropriate mates. Improper sexual imprinting behavior seemed to be stronger in the cross-fostered females than in the males.

An experiment to test for improper sexual imprinting due to foster rearing among crane species occurred at the Foundation in 1987 (Mahan and Simmers 1992). Sandhill cranes were foster-reared by red-crowned cranes (sample $n=1$), white-naped cranes ($n=2$), and Siberian cranes ($n=1$). They were then observed from the age of 12 to 24 months, the period when pairing typically begins in sandhill cranes. They were placed in pens adjacent to an opposite-sexed, same-aged bird of the foster species on one side and an opposite-sexed, same-age conspecific on the other side. Each test bird socialized more with the foster species than with a conspecific and the preference was most apparent for females. A cross-fostered young would have to prefer a conspecific in order to obtain an appropriate mate. Thus, the cross-fostering technique does not appear to be suitable for reintroducing a crane to historical habitat.

The cross-fostering experiment was ended because these birds were not pairing and the mortality rate was too high to continue (Garton et al. 1989). Several experiments to encourage pair formation were carried out from 1986 through 1992 without success (Service 1994). By fall of 1994, cross-fostered adult female whooping cranes of ages 4 through 13 years had passed through a nesting season on 42 occasions without pairing. In 1992, a wild male cross-fostered whooping crane and female sandhill crane paired and produced a hybrid chick. This pairing is believed to be a consequence of improper sexual imprinting which resulted from the cross-fostering process. This is the first known instance of cross-species pairing despite frequent association of these two species in North America.

The cross-fostered cranes exhibited various parental behaviors on summer territories at Grays Lake and in a pen nearby. These activities and chick adoptions at the United States captive facilities suggested that some cross-fostered whooping cranes might adopt or bond with and rear a whooping crane chick. Such bonding experiments could occur in open pens with wild-captured adults and would theoretically result in a captive-reared juvenile imprinted on conspecifics and exhibiting some wild qualities. Wild cross-fostered adults were captured and placed with chicks in pens. When the young reached fledging age, all birds were released to the wild to learn from their foster parents where to migrate and spend the winter. This approach was tested without significant success in 1993 and 1994.

The United States Whooping Crane Recovery Plan was approved January 23, 1980, and revised December 23, 1986, and February 11, 1994. In 1985, the Director-General of the Canadian Wildlife Service and the Director of the Service signed a Memorandum of Understanding entitled "Conservation of the Whooping Crane Related to Coordinated Management Activities." The Memorandum of Understanding was revised and signed in 1990, and is scheduled for renewal in 1995. It discusses cooperative recovery actions, dispositions of birds and eggs, population restoration and objectives, new population sites, international management, recovery plans, and consultation and coordination. All captive whooping cranes and their future progeny are jointly owned by the Service and Canadian Wildlife Service and both nations are involved in recovery decisions.

The recovery plan's criteria for downlisting the whooping crane from the endangered to threatened category require maintaining a population level in excess of 40 pairs in the Aransas/Wood Buffalo Population and establishing two additional, self-sustaining populations each consisting of at least 25 nesting pairs (Service 1994). The experimental reintroduction underway in Florida, if successful, would provide the first additional population. The first priority for establishing the second reintroduction population is a migratory flock within historic nesting habitat in the prairie provinces of Canada (Edwards et al. 1994). The Canadian Wildlife Service and provincial wildlife agencies are cooperating in field studies to identify such a release area. By late in this decade the three principal captive flocks should be capable of producing enough whooping cranes to simultaneously support reintroduction in Florida and Canada, but there is no technique for introducing captive-reared cranes in a migratory situation so they will use an appropriate migration route and wintering location.

The Service proposes to use wild whooping cranes of the Rocky Mountain Population and captive-reared sandhill cranes and whooping cranes to evaluate methods of introducing captive-reared whooping cranes into a wild migratory situation. The research proposed within the range of the Rocky Mountain Population is needed to identify a technique for establishing a wild migratory population of whooping cranes in Canada. Such a technique is essential if the Service is to achieve recovery goals for downlisting (Task 31 of the Whooping Crane Recovery Plan;

Service 1994—58). The requirements of the National Environmental Policy Act and the section 7 requirements of the Act have been fulfilled for the proposed action.

The Rocky Mountains are the preferred location for research on techniques for establishing a migratory flock because a small experimental population has been present there for 20 years. A large data base on whooping crane and sandhill crane habitats and behaviors exists for this area which provides a comparative baseline for future research in the same geographical area. The Service prefers to avoid experimentation in other United States areas of the historic migratory range until late in this decade when a reintroduction site is selected in Canada. The Act and National Environmental Policy Act requirements are fulfilled for those portions of the United States that would be involved as migration and winter areas.

Adult cranes teach their young where to migrate and spend the winter. A promising topic of research in the Rocky Mountains is the use of ultralight aircraft to teach captive-reared cranes an appropriate migration route and wintering area. In 1993, Mr. Bill Lishman reared Canada geese in Ontario, trained them to follow an ultralight aircraft, and in fall led 18 on a 600 kilometer route to Virginia where they spent the winter. The following spring at least 13 returned to Ontario on their own initiative. In 1994, Mr. Kent Clegg reared six sandhill cranes and taught them to follow an ultralight aircraft in local flights within Idaho. As the next step in this research Mr. Clegg proposes in 1995 to rear a group of sandhill cranes and lead them in fall migration from southeastern Idaho to Bosque del Apache National Wildlife Refuge in New Mexico. If successful with sandhill cranes, the technique would then be tested in 1996, with 6–8 captive-reared whooping cranes. Research may be required on some alternative technique if experimentation with ultralight aircraft indicates it is not a promising reintroduction technique for the Canadian site.

The Rocky Mountain Population qualifies as being nonessential to the continued existence of the whooping crane because:

- (1) The four cross-fostered whooping cranes of the Rocky Mountain Population are not breeding and all members will likely die in the next 10 years. They are not contributing to the long-term existence of the species in the wild. None of the cross-fostered whooping cranes have paired and they appear to be behaviorally sexually

neutered. Loss of such individuals will not deter recovery of the species.

(2) There are approximately 110 whooping cranes in captivity at four discrete locations and about 150 whooping cranes elsewhere at two locations in the wild. This species has been protected against the threat of extinction from a single catastrophic event by gradual recovery of the Aransas/Wood Buffalo Population (average increase of 4.6 percent per year for the past 50 years (Mirande *et al.* 1993)), and by increase and management of the cranes at the captive sites. If the average growth rate continues the Aransas/Wood Buffalo Population will reach 500 by about 2020. The standard deviation in growth is almost double the mean growth so in some years the population will decline temporarily, although long-term growth continues to be good. Captive-produced birds which die during the experiments can be replaced through captive breeding or by transfer of eggs from the wild population in Canada. Eggs have been transferred to captivity from the Aransas/Wood Buffalo Population for building the captive flocks or experimental reintroductions since 1967. The wild population has continued to grow during this interval despite the egg transfers. Since 1985, biologists involved in the egg transfer have endeavored to ensure that one viable egg remains in each nest. Such egg switching within the Park provides infertile pairs the opportunity to raise a chick. These egg switches have increased flock growth and the potential for species recovery by an estimated 16–19 percent (Kuyt, pers. comm. 1991). Whooping cranes of the Aransas/Wood Buffalo Population have the highest long-term recruitment rate (13.9 percent) of any North American crane population (Drewien *et al.* 1995).

Egg and chick production doubled in the captive flocks in 1992, and continued to increase in 1993 and 1994. Production of fertile eggs by captive birds increased 66 percent in 1994. Within the captive population there also are 23 young pairs expected to enter the breeding component of the population over the next 5 years. Wild- and captive-flock increases illustrate the potential of the species to replace individual birds which might die during the experimentation.

(3) The repository of genetic diversity for the species will be the approximately 260 wild and captive whooping cranes mentioned in (2) above. Any birds selected for research on reintroduction techniques in a migratory situation will be as genetically redundant as practical,

hence any loss of reintroduced animals in the experiments will not significantly impact the goal of preserving maximum genetic diversity in the species.

(4) Research in the Rocky Mountain Population will further the conservation of the species. Such research is essential to recovery and downlisting the species to threatened status. The beneficial result of identifying a suitable reintroduction technique for placing captive-produced whooping cranes in a migratory circumstance outweigh any negative effects of the experiments. If a suitable reintroduction technique is identified it will expedite recovery and downlisting/delisting of the whooping crane.

Management

Effect on the Rocky Mountain Population

After captive-reared whooping cranes are released to the wild in the proposed experiments, the Service does not propose to recover and return them to captivity. Avian tuberculosis has been a significant disease problem among whooping cranes in the Rocky Mountains and is very difficult to detect. To protect captive flocks from this disease, the Service will not take a whooping crane from the wild and place it in captive flocks. Wild birds also pose a greater danger because: (1) self-inflicted injury may occur as they attempt to escape, (2) potential injury to caretakers, and (3) they are more prone to injury when handled for health checks.

The release of six or more captive-reared whooping cranes in 1996 into this population may slightly prolong its existence. The numbers proposed, including small additional numbers if additional research is required, will be far below the numbers required to have any substantial effect on survival of the population. The additional birds in the wild will provide some viewing opportunities for bird watchers, and some enjoyment for those participating in the annual crane festivals at Monte Vista, Colorado, and Socorro, New Mexico.

Potential Conflicts

The release of additional whooping cranes in the Rocky Mountains will not alter sandhill crane hunting activities along the migration pathway and wintering sites. Sandhill cranes and snow geese (*Chen caerulescens*) are species that look somewhat like whooping cranes. Hunters of these species might misidentify a whooping crane and shoot it, believing it is a legal target. Sandhill cranes are hunted in

some areas and precautions are taken to reduce the likelihood that whooping cranes might be mistaken for sandhill cranes and shot. Sandhill crane hunting is not permitted in Idaho and Colorado nor on the national wildlife refuges involved in this proposed rule. Sandhill crane hunting is permitted in the middle Rio Grande Valley of New Mexico, in northeastern Utah, and a small area in southwestern Wyoming and has occurred for these cranes and snow geese for the past decade without causing the known loss of a whooping crane within the Rocky Mountain Population. In New Mexico the whooping cranes generally stay on Bosque del Apache National Wildlife Refuge or State game refuges during fall/winter.

Special Handling

Under the proposed special regulation, which is promulgated under authority of section 4(d) of the Act, and which accompanies this proposed rule for experimental population designation, Federal and State employees and agents would be authorized to relocate whooping cranes to avoid conflict with human activities and relocate whooping cranes that have moved outside the appropriate release areas when removal is necessary or requested. Research activities may require capture in the wild of cross-fostered or captive-reared and released whooping cranes. These individuals will be captured using the night-lighting technique which has been used successfully to capture 269 cranes without injury (Drewien and Clegg 1992). Cranes utilized in the experiments will be equipped with a legband-mounted radio telemetry or satellite transmitter and periodically monitored to assess movements. They will be checked for mortality or indications of disease (listlessness, social exclusion, flightlessness, or obvious weakness).

Mortality

Although efforts will be made to reduce mortality, some will inevitably occur as captive-reared birds adapt to the wild. Collision with powerlines and fences, predators, and disease are known hazards to wild whooping cranes in the Rocky Mountains. Human-caused mortality will be minimized through public education. The Service anticipates the proposed actions may affect the whooping crane due to the potential death of one or more wild, cross-fostered and captive-reared individuals during the experiments. Such losses are not unique to this experiment, but could result during

normal life experiences of wild whooping cranes and of whooping cranes retained in captivity. Standard avicultural precautions taken in shipping, handling, and capture, should keep losses to a minimum. Recently released whooping cranes will need protection from natural sources of mortality (predators, disease, inadequate foods) and from human-caused sources of mortality. Natural mortality will be reduced through prerelease conditioning, gentle release, and vaccination. Human-caused mortality will be minimized through conservation education programs.

Health Care

As a consequence of the proposed experiments, disease could be transferred from a captive facility to the wild. Precautions taken to ensure that no disease is transferred will be those measures approved in previous transfers when the captive whooping crane flock was split between Patuxent and the Foundation; when birds were shipped from 1992-1994, to Calgary Zoo Ranch to start the captive flock for Canadian Wildlife Service; and when birds were transferred for the reintroduction to the wild in Florida. Health screening procedures have been developed for release of captive-reared whooping cranes in the wild and have proven effective in avoiding disease or parasite transfers in multiple shipments in 1993 and 1994. Such techniques have proven effective in previous transfers between captive sites and between captive sites and the wild.

Captive Facilities

Facilities for captive maintenance of the birds were constructed for earlier studies and are designed similar to facilities at Patuxent and the Foundation. They conform to standards set forth in Animal Welfare Act. To further ensure the well-being of birds in captivity and their suitability for release to the wild, the pens will include water where the cranes can feed and roost.

Coordination With Agencies and Interested Parties

In October 1992, the Canadian and United States Whooping Crane Recovery Teams recommended uses for the cross-fostered whooping cranes surviving in the Rocky Mountain Population. Both teams suggested using the remaining birds in further experimentation. Information about the recovery teams' recommendations was mailed to the involved Service Regions, States, and special interest groups for their review and comments.

In February 1993, the Southwest Region of the Service sent a memorandum to the State wildlife agency director in each of the affected States; the chairman and members of the Central Flyway Technical Committee; the crane subcommittee of the Pacific Flyway Council; representatives of the National Audubon Society; the president and trustees of the Whooping Crane Conservation Association; to managers of national wildlife refuges involved; and to crane festive groups in Socorro, New Mexico, and Monte Vista, Colorado, requesting their views on actions being considered for the Rocky Mountain Population of whooping cranes. In addition, Technical Committees of the Pacific and the Central Flyway Councils expressed opinions on the actions. Some recipients responded by mail and others provided only verbal comments by telephone.

Refuge managers at the three locations anticipated no problem with removal of the critical habitat designation and changing the designation to experimental nonessential. All involved States, the Pacific Flyway crane subcommittee, the Central Flyway Technical Committee, the Central Flyway Council, and the Pacific Flyway Council favored the change in designation. The Whooping Crane Conservation Association and Chairman of the Crane Festival in Colorado supported the changes. National Audubon Society representatives expressed mild concern about possible increased hazards in whooping cranes as a consequence of the experimental designation but favored additional experimentation.

A majority of the responses supported taking some birds into captivity and endorsed further experimentation. The Service then decided in 1993, to leave all the birds in the wild so there would be a greater likelihood of having sufficient birds for experimentation. Whenever the research is completed, a majority of the respondents favor leaving some of the whooping cranes in the wild for public education, viewing, and research.

The Canadian Wildlife Service endorses the actions described in this proposed rule. The members of the Canadian Whooping Crane Recovery Team and the United States Whooping Crane Recovery Team, professional biologists working with State, provincial, Federal, and private groups have expertise in research or management of cranes, also endorse the changes. The Whooping Crane Conservation Association and World Wildlife Fund-Canada provided funding

support for the guide bird experimentation in 1993 and 1994, indicating their endorsement of such experimental efforts and uses of the Rocky Mountain whooping cranes.

On June 24, 1993, the Service announced the availability of the draft revised recovery plan for the whooping crane for review and comment (58 FR 34269). Review copies were mailed to the involved States, Federal agencies, special interest groups, and others. The plan described further proposed experimentation with the Rocky Mountain Population. Favorable comments were received on the plan and all comments were supportive of the proposed research.

Public Comments Solicited

Comments or recommendations concerning any aspect of this proposed rule are hereby invited (see **ADDRESSES** section) from State, public, and government agencies, the scientific community, industry, or any other interested party. Comments should be as specific as possible. Final promulgation of a rule to implement this proposed action will take into consideration the comments for any additional information received by the Service. Such communications may lead to a final rule that differs from this proposal.

National Environmental Policy Act

An Environmental Assessment prepared under the authority of the National Environmental Policy Act of 1969, is available to the public at the Service Office identified in the **ADDRESSES** section. The Service determined that this action is not a major Federal action that would significantly affect the quality of the human environment within the meaning of section 102(2)(c) of the National Environmental Policy Act (implemented at 40 CFR parts 1500-1508).

Required Determinations

This rule was not subject to Office of Management and Budget review under Executive Order 12866. The rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Based on the information discussed in this rule concerning public projects and private activities within the experimental population area, significant economic impacts will not result from this action. Also, no direct costs, enforcement costs, information collection, or record keeping requirements are imposed on small entities by this action, and the rule contains no record keeping requirements, as defined under the

Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). This rule does not require a Federalism assessment under Executive Order 12612 because it would not have any significant federalism effects as described in the order.

The Service has determined that this action would not involve any taking of constitutionally protected property rights that require preparation of a takings implication assessment under Executive Order 12630.

References Cited

Allen, R.P. 1952. The whooping crane. Natl. Audubon Soc. Res. Rept. 3, 246 pp.
 Banks, R. 1978. The size of the early whooping crane populations. Unpubl. Rept. U.S. Fish Wildl. Serv. files. 10 pp.
 Binkley, C. S., and R. S. Miller. 1980. Survivorship of the whooping crane (*Grus americana*). Ecology 61:434-437.
 Bird, D.M., W. Burnham, and R. W. Fyfe. 1985. A review of cross-fostering in birds of prey. ICBP Tech. Publ. 5:433-438.
 Drewien, R.C., and K. R. Clegg. 1992. Capturing whooping cranes and sandhill cranes by night-lighting. Proc. North American Crane Workshop 6:43-49.
 Drewien, R.C., W. Brown, and E. Bizeau. 1989. Whooping crane cross-fostering experiment. Unpubl. report to U.S. Whooping Crane Recovery Team. 10 pp.
 Drewien, R.C., W. Brown, and W. L. Kendall. 1995. Recruitment in Rocky Mountain greater sandhill cranes and comparison with other North American crane populations. J. Wildlife Management (at press).
 Edwards, R., S. Brechtel, R. Bromley, D. Hjertas, B. Johns, E. Kuyt, J. Lewis, N. Manners, R. Stardom and G. Tarry. 1994. National recovery plan for the whooping crane. Report No. 6. Ottawa: Recovery of Nationally Endangered Wildlife committee, 39 pp.

Garton, E. O., R. C. Drewien, W. M. Brown, and E. G. Bizeau. 1989. Survival rates and population prospects of whooping cranes at Grays Lake NWR. Final report, in files U. S. Fish and Wildlife Service, Albuquerque, NM. 47 pp.
 Gomez, G. M. 1992. Whooping cranes in southwest Louisiana: History and human attitudes. Proc. N. Am. Crane Workshop 6:19-23.
 Immelmann, K. 1972. Sexual and other long-term aspects of imprinting in birds and other species. Pages 147-174 in D. S. Lehrman et al. (eds.) Advances in the study of behavior. Vol. 4, Academic Press, New York.
 Kemsies, E. 1930. Birds of the Yellowstone National Park, with some recent additions. Wilson Bulletin 42:198-210.
 Kuyt, E. 1981. Clutch size, hatching success, and survival of whooping crane chicks, Wood Buffalo National Park, Canada. Pages 126-129 in J. C. Lewis and H. Masatomi (eds.), Crane Research Around the World. International Crane Foundation, Baraboo, Wisconsin.
 Mahan, T. A., and B. S. Simmers. 1992. Social preference of four cross-fostered sandhill cranes. Proceedings Sixth North American Crane Workshop 6:114-119.
 McNulty, F. 1966. The whooping crane: The bird that defies extinction. E. P. Dutton and Co. Inc., New York, New York. 190 pp.
 Mirande C., R. Lacy, and U. Seal (eds.). 1993. Whooping crane (*Grus americana*) conservation viability assessment workshop report. Captive Breeding Specialist Group, International Union for Conservation of Nature, Apple Valley, Minnesota. 119 pp. U.S. Fish and Wildlife Service. 1994. Whooping crane recovery plan. Albuquerque, New Mexico. 92 pp.

Author

The primary author of this document is Dr. James Lewis (See ADDRESSES section above) at telephone 505/248-6663; or facsimile 505/248-6922.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—[AMENDED]

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

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

2. Section 17.11(h) is amended by revising the entry for "Crane, whooping" 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	Special rules.
Common name	Scientific name						
*	*	*	*	*	*		*
BIRDS							
*	*	*	*	*	*		*
Crane, Whooping	<i>Grus Americanus</i>	Canada, U.S.A. (Rocky Mountains East to Carolinas) Mexico.	Entire, except where listed as an experimental population.	E	1.3	17.95(b)	NA
Do	.....do	.....do	U.S.A. (FL)	XN	487	NA	17.84(h)
Do	.....do	.....do	U.S.A. (CO, ID, NM, UT, WY).	XN		NA	17.84(h)
*	*	*	*	*	*		*

3. Section 17.84 is amended by revising paragraphs (h)(1), (h)(3), (h)(4)(ii), and adding paragraphs (h)(8)(i) and (h)(8)(ii) to read as follows:

§ 17.84 Special rules—vertebrates.

* * * * *
 (h) * * *

(1) The whooping crane populations identified in paragraphs (h)(8)(i) and

(h)(8)(ii) of this section are nonessential experimental populations.

* * * * *

(3) Any person with a valid permit issued by the Fish and Wildlife Service (Service) under § 17.32 may take

whooping cranes in the wild in the experimental population area for educational purposes, scientific purposes, the enhancement of propagation or survival of the species, and other conservation purposes consistent with the Act and in accordance with applicable State fish and wildlife conservation laws and regulations.

(4) * * *

(ii) Relocate a whooping crane that has moved outside the Kissimmee Prairie or the Rocky Mountain range of the experimental population when removal is necessary or requested;

* * * * *

(8) Geographic areas that nonessential experimental populations inhabit include the following—

(i) The entire State of Florida. The reintroduction site will be the Kissimmee Prairie portions of Polk, Osceola, Highlands, and Okeechobee counties. Current information indicates that the Kissimmee Prairie is within the historic range of the whooping crane in Florida. There are no other extant populations of whooping cranes that could come into contact with the experimental population. The only two extant populations occur well west of the Mississippi River. The Aransas/Wood Buffalo National Park population nests in the Northwest Territories and adjacent areas of Alberta, Canada primarily within the boundaries of the Wood Buffalo National Park, and winters along the Central Texas Gulf of Mexico coast at Aransas National Wildlife Refuge. Whooping cranes adhere to ancestral breeding grounds leaving little possibility that individuals from the extant population will stray into Florida or the Rocky Mountain Population. Studies of whooping cranes have shown that migration is learned rather than innate behavior. The experimental population released at Kissimmee Prairie is expected to remain within the prairie region of central Florida; and

(ii) The State of Colorado, Idaho, New Mexico, Utah, and the western half of Wyoming. Birds in this area do not come in contact with whooping cranes of the Aransas/Wood Buffalo Population.

* * * * *

§ 17.95 [Amended]

4. Section 17.95(b) is amended by deleting the maps and descriptions of critical habitat for the whooping crane in the States of Idaho, Colorado and New Mexico.

Dated: October 20, 1995.

George T. Frampton, Jr.,
Assistant Secretary for Fish and Wildlife and
Parks.

[FR Doc. 96-2485 Filed 2-5-96; 8:45 am]

BILLING CODE 4310-55-M

50 CFR Part 17

RIN 1018-AC53

Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule to List the Fish Virgin Spinedace as Threatened and Withdrawal of the Proposed Rule to Designate Critical Habitat for the Virgin Spinedace

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; withdrawal.

SUMMARY: The U.S. Fish and Wildlife Service (Service) withdraws the May 18, 1994, proposed rule (59 FR 25875) to list the fish Virgin spinedace (*Lepidomeda mollispinis mollispinis*) as a threatened species and also withdraws the portion of the April 5, 1995, proposed critical habitat designation for the Virgin spinedace (60 FR 17296). The Virgin spinedace, a small fish in the minnow family (Cyprinidae), is endemic to the Virgin River drainage of southwestern Utah, northwestern Arizona, and southeastern Nevada. The Virgin spinedace was once common to abundant in clear water tributaries of the Virgin River and in some mainstem reaches above Pah Tempe (La Verkin) Springs near Hurricane, Utah. It was also occasionally found in most reaches of the river below Pah Tempe Springs, with the exception of the mouth of Quail Creek and the mouth of Beaver Dam Wash, where Virgin spinedace were once reported common. Approximately 37 to 40 percent of Virgin spinedace historical habitat has been lost due to human impacts which include the introduction of nonnative fishes, dewatering for agricultural purposes, mining, and urban development. These impacts have resulted in habitat fragmentation and continue to threaten the existence of the Virgin spinedace.

Subsequent to publication of the proposed rule, the State of Utah developed the Virgin Spinedace Conservation Agreement and Strategy (Agreement) for the Virgin spinedace to ensure that conservation measures and recovery actions needed for the fish's continued existence are initiated and carried out. In June 1995, the eight signatory parties to the Agreement began implementation of the Agreement

and its associated strategy to reduce threats to the Virgin spinedace that otherwise would warrant its listing as a threatened species under the Endangered Species Act of 1973, as amended (Act). The Agreement will reestablish and maintain water flows required for the Virgin spinedace and will restore 50 percent of its lost historical habitat. On April 10, 1995, the Service's Salt Lake City Field Office received a letter from one of the petitioners, the Bonneville Chapter of the American Fisheries Society, stating that with the implementation of the Agreement the Virgin spinedace no longer warrants listing. The other petitioner, Southern Utah Wilderness Alliance, still supports listing of the Virgin spinedace because of concerns that the Agreement will not be fully implemented or recover the species.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Utah Field Office, Ecological Services, U.S. Fish and Wildlife Service, 145 East 1300 South, Suite 404, Salt Lake City, Utah 84115. The complete file for this rule also will be available for public inspection at the Washington County Public Library in St. George, Utah.

FOR FURTHER INFORMATION CONTACT: Mr. Robert D. Williams, Assistant Field Supervisor, Salt Lake City Field Office, at the above address, telephone (801) 524-5001.

SUPPLEMENTARY INFORMATION:

Background

The Virgin spinedace belongs to one of three genera of a unique, endemic tribe of western cyprinids, the Plagopterini. Adult Virgin spinedace measure 80-120 mm (3-5 in) in length and have a broad, flat silvery body with a brassy sheen. They are usually found in clear, cool streams that are interspersed with pools, runs, and riffles. Rinne (1971) found that Virgin spinedace inhabited pools, often with undercut banks, debris, or boulders. The Virgin spinedace feeds primarily on aquatic insect life (Rinne 1971, Gregor and Deacon 1988, Angradi *et al.* 1991), and their feeding habits are dependent upon the types of food available. The Virgin spinedace is endemic to the Virgin River drainage, a tributary to the Colorado River of southwestern Utah, northwestern Arizona, and southeastern Nevada. The historical distribution of the Virgin spinedace is not well documented (Valdez *et al.* 1991). The species was probably common to abundant in tributaries of the Virgin River and some mainstem reaches above