

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Endangered Species Bulletins and Technical
Reports (USFWS)

US Fish & Wildlife Service

7-21-1997

Endangered and Threatened Wildlife and Plants; Final Rule to Designate the Whooping Cranes of the Rocky Mountains as Experimental Nonessential and to Remove Whooping Crane Critical Habitat Designations From Four Locations

Follow this and additional works at: <https://digitalcommons.unl.edu/endangeredspeciesbull>



Part of the [Biodiversity Commons](#)

"Endangered and Threatened Wildlife and Plants; Final Rule to Designate the Whooping Cranes of the Rocky Mountains as Experimental Nonessential and to Remove Whooping Crane Critical Habitat Designations From Four Locations" (1997). *Endangered Species Bulletins and Technical Reports (USFWS)*. 47.

<https://digitalcommons.unl.edu/endangeredspeciesbull/47>

This Article is brought to you for free and open access by the US Fish & Wildlife Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Endangered Species Bulletins and Technical Reports (USFWS) by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is not a "major rule" as defined by section 804(2).

E. Petitions for Judicial Review

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by September 19, 1997. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Hydrocarbons, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: July 8, 1997.

W. Michael McCabe,

Regional Administrator, Region III.

40 CFR part 52, subpart VV of chapter I, title 40 is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

Subpart VV—Virginia

2. Section 52.2428 is amended by redesignating the existing text as paragraph (a) and adding paragraph (b) to read as follows:

§ 52.2428 Control Strategy: Carbon monoxide and ozone.

(a) * * *

(b) EPA is approving an exemption request submitted by the Virginia Department of Environmental Quality on December 18, 1995 for the Richmond ozone nonattainment area, which consists of the counties of Charles City, Chesterfield, Hanover and Henrico, and of the cities of Richmond, Colonial Heights and Hopewell, from the oxides of nitrogen (NO_x) requirements for reasonably available control technology (RACT). This approval exempts the Richmond ozone nonattainment area from implementing the NO_x RACT

requirements contained in section 182(f) of the Clean Air Act. The exemption is based on ambient air monitoring data. The exemption is applicable during the period prior to redesignation of the Richmond area to attainment of the National Ambient Air Quality Standard for ozone only as long as ambient air quality monitoring data for the Richmond ozone nonattainment area continue to demonstrate attainment without NO_x reductions from major stationary sources of NO_x.

[FR Doc. 97–19090 Filed 7–18–97; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AD45

Endangered and Threatened Wildlife and Plants; Final Rule 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: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) determines that it will designate the whooping crane (*Grus americana*) population of the Rocky Mountains as an experimental nonessential population and will 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 will 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.

EFFECTIVE DATE: August 20, 1997.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Southwest Regional Office, 500 Gold Avenue SW., Room 4012, Albuquerque, New Mexico 87103–1306.

FOR FURTHER INFORMATION CONTACT: Susan MacMullin, Southwest Regional Office, Albuquerque, New Mexico (see **ADDRESSES** section) (telephone 505/248–6663; facsimile 505/248–6922).

SUPPLEMENTARY INFORMATION:

Background

The Endangered Species Act Amendments of 1982, Public Law 97–304, added 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" and, under some circumstances further designated "nonessential" experimental. Such designations increase the Service's flexibility to manage such populations because "experimental" populations 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 any 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 their 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 (*Grus canadensis*). 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 reintroduced before 1982 were experimental and essential to the continued existence of the species. In 1982, 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 Rocky Mountain reintroduction might soon be an operational success rather than an experiment, and the Service considered the population essential to the continued existence of the species. Consequently, the Service did not designate the Rocky Mountain Population as experimental when the Act amendments first provided that opportunity.

The cross-fostering program was terminated in 1989 because the birds were not pairing and the mortality rate was too high to establish a self-sustaining population. Only three nonbreeding adults now survive in the Rocky Mountain region. The total population of whooping cranes has increased to approximately 350 individuals. The wild population now numbers approximately 220 individuals, including 47 experienced breeding pairs. Four captive populations have also been established with approximately 130 whooping cranes, including 15 breeding pairs and another 20 pairs due to begin breeding over the next few years. These are among the factors discussed below which allow the Secretary to now find the Rocky Mountain Population no longer essential to the continued existence of the species.

The Service will 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 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 wintering, roosting, and feeding habitat at Bosque del Apache. Section 7(a)(1) of the Act will still apply to all Federal agencies, and both sections 7(a)(1) and 7(a)(2) requirements for "threatened species" will apply on Service lands (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 Service Regions and the States within those 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 kilometers on either side of the Rio Grande ranging from the town of Belen, New Mexico, southward to Bosque del Apache National Wildlife Refuge, 24 km (15 miles) south of Socorro, New Mexico. The portion of the San Luis Valley involved is 24 km (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. Threats 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 (59 inches) in height and captive adult males average 7.3 kilograms (16 pounds), and females

6.4 kilograms (14 pounds). 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 but individuals pair again following death of a mate. Fertile eggs are occasionally produced at 3 years of age, but more typically at 4 years of age (Mirande et al. 1993). Experienced pairs may not breed every year, especially when habitat conditions are poor. Whooping cranes ordinarily lay two eggs. They will renege if their first clutch is destroyed or lost before mid-incubation (Kuyt 1981). Although two eggs are laid, whooping cranes infrequently fledge two chicks.

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 totaling 350 individuals. The largest captive population of 60 birds, including 9 breeding pairs, is located at the Patuxent Environmental Science Center (Patuxent) near Laurel, Maryland. Another seven pairs at Patuxent should begin producing eggs in the next 2 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. In October 1996, it became part of U.S. Geological Survey. A captive flock of 44 birds is maintained by the Service at the International Crane Foundation (Foundation), a nonprofit foundation near Baraboo, Wisconsin. The Foundation flock contains five breeding pairs and another five pairs which should enter production in the next 2 years. A third captive flock is housed in Calgary, Alberta, Canada, at the Calgary Zoo Ranch. This flock, under the oversight of the Canadian Wildlife Service, contains 21 cranes, including 1 breeding pair. Eight other

pairs at this facility should begin breeding by late this decade. Two pairs maintained at the San Antonio Zoological Gardens and Aquarium in San Antonio, Texas, should begin breeding in the next few years.

The Aransas/Wood Buffalo Population, the only self-sustaining natural wild population, contains 165 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. Forty-nine pairs nested in 1997. 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 52 captive-produced whooping cranes released 1993–1996 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 are planned for up to 6 more years. Project success will be evaluated annually (58 FR 5647; January 22, 1993).

The Rocky Mountain Population consists only of a male and two 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 Casa Colorado 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. The main crane use area in the San Luis Valley is Monte Vista National Wildlife Refuge, 10 kilometers south of the town of Monte Vista. These 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 the winter of 1995–1996, cross-fostered adult female whooping cranes of ages 4 through 14 years had passed through a nesting season on 45 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 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 parent 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." It was revised in 1990, and 1995. It discusses cooperative recovery actions, disposition 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 2 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 reintroduced 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 reintroductions 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 geographic area. The Service prefers to avoid experimentation in other United States

areas of the historic migratory range until late this decade when a reintroduction site is selected in Canada. The Act and National Environmental Policy Act requirements will need to be fulfilled for those portions of the United States that would be involved as migration and winter areas for a flock reintroduced in Canada.

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 flight 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. In 1995, Mr. Clegg raised a group of sandhill cranes and led 11 in fall migration from southeastern Idaho to Bosque del Apache National Wildlife Refuge in New Mexico. Two were killed by golden eagles (*Aquila chrysaetos*) during migration and one returned to Idaho on its own initiative. After release to the wild in New Mexico, two were killed by coyotes (*Canis latrans*) and two by hunters. The four that survived migrated north to Colorado in March and north from Colorado in April. Two summered in southeastern Idaho within 53 km of the Clegg ranch. The summering site of the other two birds is unknown. Three of the 1995 ultralight cranes returned to Bosque del Apache to winter in the fall of 1996. In 1996, Mr. Clegg reared eight sandhill cranes and led them in migration from Idaho to New Mexico. All birds arrived safely in New Mexico and there were no losses to eagles during the migration, nor to hunters or coyotes in the first months after their release to the wild. The day after their arrival at Bosque del Apache National Wildlife Refuge in New Mexico, it appeared that two research birds joined large flocks of sandhill cranes leaving the refuge to migrate south into Mexico. These birds are still missing and presumed dead. The other six 1996 cranes integrated with the wild cranes within hours of their arrival at the refuge, migrated into Colorado in March, and further north in April. Losses to golden eagles, coyotes, and hunters were reduced during the 1996-97 study. Rearing, migrating, and monitoring techniques were refined. Two severe winter storms prolonged the

migration, but when conditions were suitable for flight the birds were able to fly farther and for longer periods than in 1995. Research may be required on some alternative technique in the future if experimentation with ultralight aircraft indicates it is not a promising reintroduction technique for the Canadian site.

Satellite transmitters were placed on two 1995 and two 1996 research cranes in January 1997 to test the merits of these transmitters for monitoring movements. The 1995 and 1996 cranes are summering in southeastern Idaho and western Wyoming. Such locations are characteristic summering sites for yearling birds reared in southeastern Idaho.

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

(1) The three 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 with conspecifics and they appear to be behaviorally sexually neutered. Loss of such individuals will not deter recovery of the species.

(2) There are approximately 130 whooping cranes in captivity at 4 discrete locations and about 235 whooping cranes elsewhere at 2 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 has continued to increase to the present. Within the captive population there also are 20 young pairs expected to enter the breeding component of the population over the next 4 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 350 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 outweighs 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 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 the captive flocks. Wild birds placed in captivity also pose a greater danger because: (1) Self-inflicted injury may occur as they attempt to escape

from caretakers, (2) they may attack and injure caretakers, and (3) such cranes are prone to injury when they struggle while being examined during health checks.

The release of six or more captive-reared whooping cranes in the future 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 significant likelihood of establishing a self-sustaining population. The additional birds in the wild will provide additional viewing opportunities for bird watchers, enjoyment for those participating in the annual crane festivals at Monte Vista, Colorado, and Socorro, New Mexico, and may slightly prolong the existence of wild whooping cranes within the Rocky Mountains.

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 ceruleus*) are designated as look-alike species, 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 rule. Hunting sandhill cranes and snow geese has been permitted in the middle Rio Grande Valley of New Mexico, in northeastern Utah, and in a small area in southwestern Wyoming for the past decade without causing the known loss of a whooping crane. In New Mexico, the whooping cranes generally stay on Bosque del Apache National Wildlife Refuge or State game refuges during fall/winter hunting seasons.

Special Handling

Under the proposed special regulation, which is promulgated under authority of section 4(d) of the Act and which accompanies this final 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 area 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 power lines and fences, predators, and disease are known hazards to wild whooping cranes in the Rocky Mountains. 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 1992-1995 to Calgary Zoo Ranch to start the captive flock for Canadian Wildlife Service; and when birds were transferred from 1993-1997 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

from 1993–1996. 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 in Idaho were constructed for earlier studies and are designed similar to facilities at Patuxent and the Foundation. They conform to standards set forth in the Animal Welfare Act. To further ensure the well-being of birds in captivity and their suitability for release to the wild, the pens 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; managers of national wildlife refuges involved; and to crane festival 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.

The involved regions of the Service support the changes. 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 to whooping cranes as a consequence of the experimental designation but favored additional experimentation.

A majority of the respondents supported taking some birds into captivity, endorsed further experimentation with the birds left in the wild, and, after the proposed experiments were completed, favored leaving some whooping cranes in the wild for public education, viewing, and possible further research. In 1993, the Service decided to leave all the birds in the wild so there would be a greater likelihood of having a sufficient number of birds for the experiments.

The Canadian Wildlife Service endorses the actions described in this rule. The members of the Canadian and United States Whooping Crane Recovery Teams, and professional biologists working with State, provincial, Federal, and private groups who 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 and for ultralight aircraft-crane research in 1995 and 1996, 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 and solicited 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.

Summary of Comments and Recommendations

In the February 6, 1996, proposed rule (61 FR 4394) the Service requested comments or recommendations concerning any aspect of the proposal that might contribute to the development of a final decision on the proposed rule. A 60-day comment period was provided. State wildlife agencies; the National Audubon Society; the Whooping Crane Conservation Association; Defenders of Wildlife; Regional Directors of each involved Service region; refuge managers; State waterfowl biologists and nongame biologists; the Canadian Wildlife

Service; the Chamber of Commerce at Socorro, New Mexico; representatives of the electric utility industry; and private citizens were mailed copies of the rule or told of specifics of the rule (total contacts 47) and invited to provide comments.

A Service news release was issued on February 6 to coincide with publication of the proposed rule in the **Federal Register**. The release, entitled "U.S. Fish and Wildlife Service Proposes To Designate Rocky Mountain Population Of Whooping Cranes As Experimental," described the proposed action, told the readers where to acquire a copy of the rule, and provided a name and address to which comments on the action should be directed. The news release was sent to newspapers in New Mexico and others listed in an outreach plan. The release was sent to Service Regional Offices in Portland and Denver for routing to media and Congressional Offices in States affected by the proposed actions. The news release also was placed on the Internet on the Service's Home Page for Region 2 under the news release category. Nine comment letters were received. Six letters endorsed and three opposed the proposed action. Specific issues raised by those commenting and the Service's responses are presented below.

Letters supporting the actions were received from one individual, a representative of the utility industry, a nonprofit conservation organization, the Central Flyway Council, and two representatives of State wildlife agencies as summarized below. The President of the Whooping Crane Conservation Association (Association), a nonprofit conservation organization dedicated to conservation of the species, wrote in support of the designation change, the removal of critical habitat, and the proposed experiments. The Association membership is primarily individuals in Canada and the United States.

The Director of Wyoming Game and Fish Department indicated his staff had reviewed the proposed actions and they supported the rule. The Terrestrial Nongame and Endangered Wildlife Program Manager for Colorado Division of Wildlife endorsed the actions, the removal of restrictions no longer necessary, and the experiments that may prolong existence of the flock in the Rocky Mountains. A utility company representative wrote in support of the designation change, the removal of critical habitat, and the experiments designed to learn how to establish additional migratory populations. An individual wrote endorsing the change

in designation and the removal of critical habitat.

Joe Kramer, Chairman, Central Flyway Council wrote in support of the change in designation and the removal of critical habitat designations from the three National Wildlife Refuges. He stated the Council believes the change provides the flexibility necessary for sound and progressive management of this species. The Central Flyway Council is comprised of the States of Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming, and the Canadian provinces of Alberta, Northwest Territories, and Saskatchewan. Three individuals expressed opposition to the proposed actions as summarized below.

Comment: One respondent felt that nature is best left alone as much as possible, disrupting nature's balance causes harm, and no whooping crane needs to be taught to migrate.

Response: The Service agrees that the balance of nature is important and should not be disrupted if it is truly a balanced system. Unfortunately, many activities of man have disrupted this balance, necessitating some intervention by man if species and ecosystems are to be conserved. Previous releases of captive-reared sandhill cranes have documented that such birds may not exhibit appropriate migration behavior (Drewien et al. 1982).

Comment: A second respondent expressed concern about the low numbers of whooping cranes and failed to comprehend how the Service could consider any member of the species "nonessential" or "experimental".

Response: The Service understands that the terminology presents an enigma. The term "nonessential" refers only to those individuals which are not essential to future survival of the species. The three whooping cranes surviving in the Rocky Mountains are not breeding and will eventually die of natural causes. Consequently, they are not contributing to the future survival of the species. The small number of captive-reared whooping cranes which might be involved in research will be individual birds genetically redundant to the captive and wild populations. These individuals also are not "essential" to survival of the species. The Service believes it is justified in designating these birds as "nonessential experimental" as long as their involvement in the research increases the ultimate likelihood of full recovery of the species. The purpose of the experimentation is to identify a technique for reintroducing whooping cranes in areas where migration is

required between the nesting grounds and a safe wintering site. Until such a technique is identified, the Service will be unable to reestablish wild populations in areas where the birds must migrate to survive. Full recovery of the species will not be possible until additional wild migratory populations are established.

Comment: A third individual respondent was not opposed to the " * * * experiment per se, only that it not be conducted in New Mexico." If conducted in New Mexico, the commenter postulated that the Service would be signing the immediate death warrant of the cranes because they would have to compete against 30,000 hunters, an army of poachers, and 33 professional hunters of the U.S. Department of Agriculture.

Response: Hunters of sandhill cranes and snow geese in the middle Rio Grande Valley of New Mexico, where the whooping cranes winter, are required to take a course on bird identification and pass an exam on proper identification of protected species before they are permitted to hunt. This requirement has been in effect since whooping cranes were reintroduced to the area in 1975. Although the potential exists for shooting a whooping crane, we are not aware of a whooping crane being killed by hunters in New Mexico since they were reintroduced. The nonessential designation will not allow purposeful take such as hunting or otherwise intentionally killing cranes. The Service does not agree with the respondent's allegation that New Mexico is an inappropriate place to accomplish the experimentation.

Comment: The third respondent "extremely" opposed the proposed removal of the critical habitat designation, fearing it would permit unrestricted herbicide and pesticide spraying, trapping, and placement of M-44 sodium cyanide devices, wire snares, and compound 1080 baits by the U.S. Department of Agriculture.

Response: When the critical habitat designation is removed from National Wildlife Refuges, which is predominantly where the designation has been in effect, other Federal agencies, such as U.S. Department of Agriculture, must still consult with the Service before undertaking any actions affecting the refuge. On private lands, despite the removal of critical habitat, the whooping cranes will still be protected from intentional killing which is prohibited under section 9 of the Act.

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 as described in 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 1995 (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

A complete list of all references cited herein, as well as others, is available upon request from the Regional Office (see ADDRESSES section above).

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 record keeping requirements, and Transportation.

Regulation Promulgation

Accordingly, the Service hereby amends part 17, subchapter B of chapter

I, title 50 of the Code of Federal Regulations, as set forth below:

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.

whooping” under BIRDS, to read as follows:

PART 17—[AMENDED]

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

2. Section 17.11(h) is amended by revising the entry for “Crane,

§ 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 americana</i> ...	Canada, U.S.A. (Rocky Mountains East to Carolinas), Mexico.	Entire, except where listed as an experimental population.	E	1.3,487,621	17.95(b)	NA
Do	do	do	U.S.A. (FL)	NX	487	NA	17.84(h)
Do	do	do	U.S.A. (CO, ID, NM, UT, WY).	NX	621	NA	17.84(h)

3. Section 17.84 is amended by revising paragraphs (h)(1), (h)(3), (h)(4)(ii), and (h)(8) 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 a learned rather than an innate behavior. The experimental population released at Kissimmee Prairie is expected to remain within the prairie region of central Florida; and

(ii) The States 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.

* * *

Dated: June 3, 1997

William Leary,

Acting Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 97–19058 Filed 7–18–97; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 285

[Docket No. 970626157–7176–01; I.D. 041697C]

RIN 0648–AJ65

Atlantic Tuna Fisheries; Atlantic Bluefin Tuna Effort Controls

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS amends the regulations governing the Atlantic tuna fisheries to set Atlantic bluefin tuna (ABT) General category effort controls for the 1997 fishing year. The regulatory amendments are necessary to achieve domestic management objectives.

DATES: Effective July 15, 1997.

ADDRESSES: Copies of supporting documents, including an Environmental Assessment-Regulatory Impact Review (EA/RIR), are available from, Rebecca Lent, Chief, Highly Migratory Species Management Division, Office of Sustainable Fisheries (F/SF1), NMFS, 1315 East-West Highway, Silver Spring, MD 20910–3282.

FOR FURTHER INFORMATION CONTACT: Sarah McLaughlin, 301–713–2347, or Pat Scida, 508–281–9260.

SUPPLEMENTARY INFORMATION: The Atlantic tuna fisheries are managed under the authority of the Atlantic