

# A FIVE-YEAR MANAGEMENT PLAN FOR THE PEREGRINE FALCON IN IOWA

2009 - 2014

Written for

The Iowa Department of Natural Resources  
Wildlife Diversity Program

## 1.0 INTRODUCTION

This management plan was written under the authorization of the Iowa Department of Natural Resources Wildlife Diversity Program. It presents a strategy to upgrade Peregrine Falcon recovery from an “endangered” species in Iowa to a status of “special concern.” It is intended to guide activities of government agencies, nongovernment organizations, and private individuals whose goal is the sustained presence of a viable population of Peregrine Falcons (*Falco peregrinus*) in the State of Iowa. It is intended that any management, research, permitting, or other activity affecting peregrines in this state refer to the guidelines in this plan.

The Peregrine Falcon was once a regularly occurring species throughout the upper Midwest. The original Peregrine Falcon population in Iowa probably numbered about ten pairs in any one year; about eight pairs along the Mississippi River and its tributaries, and pairs associated with interior rivers along the Cedar, Iowa, and Des Moines Rivers. These birds, part of a larger Midwestern population, disappeared by the mid-1960s due to poisoning by DDT and related chlorinated hydrocarbons.

Efforts to reestablish peregrines in Iowa began in 1989 at Cedar Rapids where 23 falcons were released in two years. In 1991 nineteen were released in Des Moines. In 1992, eight were released in Muscatine. From these 50 falcons, two pairs successfully nested in 1993 at Des Moines and Cedar Rapids. By 1995 it appeared Iowa’s goal of five nesting pairs would not be realized without further releases. Therefore, the Iowa Peregrine Falcon Recovery Team was formed, and an additional 117 falcons were released at Mason City, Bluffton, Effigy Mounds, Dubuque, Louisa Generating Station, and Palo Generating Facility. In Iowa 167 falcons were hacked between 1989 and 2003. The Iowa releases were part of a regional effort, which included Wisconsin, Michigan, Nebraska, Minnesota, Illinois, Indiana, Ohio and Missouri. Through 2003, a total of 875 peregrines were released by hacking in the Midwest. Independent releases were also conducted in Missouri, Kentucky and western Ontario.

## 2.0 CURRENT STATUS OF THE SPECIES

The first nesting attempts by peregrines in the Midwest in the post-DDT era occurred along the Mississippi River in 1986 and 1987. The first successful nesting occurred on the Multifoods building in Minneapolis in 1987, producing a single chick. In Iowa 1993 hailed the first successful nesting in nearly 40 years at Cedar Rapids and Des Moines. These two sites were exclusive to Iowa-nesting falcons until 1999 when falcons once again fledged near historic cliffs near Lansing, IA. Indeed Midwest Falcon Recovery coordinator Bud Tordoff exclaimed, "These were the first young peregrines known to fledge from a cliff nest in the Mississippi River valley since the extirpation of the original population by DDT in the 1950s and 1960s." Accelerated releases produced additional successful nesting in 2002 in the Quad Cities, 2003 at Louisa Generating Station, 2005 at Ottumwa Generating Station and wild site at Waukon Jct., in 2007 at Clinton Generating Station, I 280 Bridge in Quad Cities and Great River Bridge in Burlington, and in 2008 a second pair in Des Moines at the State Capitol. Notably the pair at Clinton would represent the southern extent of historic range of Peregrine Falcons along Mississippi River.

Further information on Iowa peregrines can be found in the Midwest Peregrine Falcon restoration project's annual reports which are available from The Raptor Center at the University of Minnesota.

Productivity of about 1.0 young per territorial pair is usually considered sufficient to sustain a stable peregrine population. In Iowa in 2008, productivity was 1.5 young per territorial pair, 2.5 per successful pair. From 2004 – 2008 productivity was 1.6 young per territorial pair, and 2.7 per successful pair. The new population may be larger than the original because of the new ecological niches provided by tall building in cities, smokestacks, and bridges. Of the 13 Iowa pairs in 2008, five were on buildings, three on smokestacks, three on bridges, one on cliffs, and one has alternated between cliff and smokestack.

Iowa's peregrine population is part of an upper Midwest population. Thus, the dynamics or status of Iowa's peregrine population must take into account the total Midwestern population. In the Midwest states in 2007 there were 223 territorial pairs and 443 young were produced. In the past three years brood size has remained stable at 2.09 young/territorial pair.

Previous management plans for the Peregrine Falcon called for reintroduction of falcons to achieve an annual population of between five - ten territorial pairs of birds in Iowa, and approximately 40 pairs in the Midwest. Those goals have been successfully reached. Release of peregrines in Iowa was discontinued in 2003 and the last releases in the Midwest have been completed.

Clearly, Peregrine Falcons are back and reproducing at a rate well above that required for continued population maintenance. The Peregrine Falcon population has reached or exceeded what was probably its historical level in Iowa and the upper Midwest.

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However, while there is room for growth in the newly created urban niche, there are also new management challenges in maintaining a friendly and welcoming public at these sites. Furthermore, peregrines are nesting successfully on cliffs along the Mississippi River and its tributaries, an original goal of the reintroduction program. Hopefully, other cliff site nesting will occur in historic range of falcons' historic nesting range. Efforts to minimize predation by mammals, i.e. raccoons and protection from bluff land development need to address these challenges where feasible. The Peregrine Falcon population in Iowa, as well as the upper Midwest, has become large enough and is reproducing at a rate where it will eventually reach its carrying capacity without further supplementation by hacking of captive-produced birds. Currently, the Peregrine Falcon is not listed as a Federally Endangered Species but is listed in Iowa as a State Endangered Species.

### 3.0 GOALS FOR THE NEXT 5 YEARS

The ultimate goal of this management plan is to develop and sustain a peregrine population vigorous enough to ensure its survival and ultimately reoccupy its historical breeding range, where that is feasible. This will require maintaining population levels which are large enough to be secure from stochastic events, and with enough genetic variation to allow for adaptive response to ongoing natural selection. The following goals will apply for the duration of this management plan regardless of state or federal listing status.

3.1 Establish minimum population levels – In Iowa, a minimum of 10 territorial pairs with an annual productivity of no less than 1.0 young per territorial pair per year, averaged over any three-year period, needs to be established and maintained.

### 4.0 OBJECTIVES AND METHODS TO MEET GOALS

It is implicit in our goal that a self-sustaining Peregrine Falcon population will require minimal levels of human management or interference. For this reason, it is desirable to reduce the level of human manipulation as soon as possible. To maintain the current population, and allow it to reach its carrying capability, the following management recommendations are made.

4.1 Maintaining minimum population levels – These guidelines assume that Iowa's peregrine population maintains the desired minimum, or floor, of ten territorial pairs producing 1.0 young per territorial pair. If the population falls below these levels other management strategies will need to be considered.

4.1.1 Nest Box Placement and Replacement – Currently, Peregrine Falcons nest in Iowa along the Mississippi River and larger urban areas. It is this “core population” around which management activities need to be based. Nest boxes, which are used by many of the successful pairs, should be maintained and replaced as necessary within current urban territories.

- a. Occupied nest boxes should be refurbished by February 28 of each year.
- b. Maintaining good working relationship with building owners, operators, workers, and tenants is crucial to the continued success of urban pairs. Every effort should be made to keep these interests informed and involved in decisions and management.
- c. All interested parties must be willing to provide advice and help where falcon activities interfere with building operation or maintenance.
- d. Develop guidelines for continued installation of next boxes.

4.1.2 Augmentation – Augmentation, the placing of wild or captive produced young in wild nests, can be used to maintain continued occupancy of sites of special interest. Augmentation should be used only when pairs are present, no more than two young should be placed in any nest, and no augmentation should occur into broods of two or more chicks, or into nests of first-time breeders.

4.2 Monitoring – Every attempt should be made to locate and identify all territorial pairs within the state and to monitor their productivity. To aid in identifying and monitoring pairs, all nesting birds and their offspring should be banded following the format set forth by the Eastern Peregrine Falcon Recovery Team.

Each spring, all territories occupied anytime within the previous five years should be checked for activity. Additionally, historic nesting sites along the Mississippi River should be checked on an annual basis regardless of recent occupancy.

When being banded, birds should be examined and treated if necessary, for trichomoniasis and external parasites.

4.3 Education and Public relations – The interest and goodwill shown by the public toward these birds, and the specie's dependence on this goodwill, make it very important that education and public relations efforts be considered as part of any Peregrine Falcon management plan.

4.3.1 Informing the media of banding or other appropriate activities is encouraged.

4.3.2 Production and distribution of educational materials about peregrines should be undertaken by the IADNR, the Raptor Resource Project, Alliant Energy, MidAmerican Energy and other parties.

4.3.3 Establish which eyries provide public viewing without disturbance to the peregrines.

4.4 Whenever possible all nesting birds and their offspring should be bled for DNA analysis following procedures currently in use; tissue samples, study specimens, and skeletons should be archived at the University of Minnesota, Bell Museum of Natural History.

4.5 Unhatched/infertile eggs found at nests should be collected, contents prepared and stored for contaminant analysis and the shells archived. Eggs should be sent to the USFWS, as stipulated by permit, and archived with the Bell Museum of Natural History, or the Milwaukee Public Museum.

4.5.1 Additional research is needed to continue wise management of the species and we recommend that the following be undertaken:

- a. Determine dispersal patterns of Iowa fledged young, particularly from urban pairs.
- b. Assess the impact of contaminants on Iowa's peregrine population.
- c. Determine migration patterns of adults and juveniles.
- d. Determine the effect of natal site on nest site selection.
- e. Determine the degree of interference which causes permanent nest site desertion.

## 5.0 COORDINATION AND RESPONSIBILITIES OF ORGANIZATIONS

Since reintroductions began in 1976, Peregrine Falcon management in Iowa has been coordinated with other states in the region. There has also been a great deal of cooperation between government agencies, Raptor Resource Project, Alliant Energy, MidAmerican Energy, the University of Minnesota, and a wide variety of private organizations, corporations, and individuals.

5.1 Coordination of Iowa's Peregrine Falcon management with other states should be continued.

5.2 A management team to serve in an advisory capacity to the IADNR and appointed by the IADNR Wildlife Diversity Program coordinator should be established.

5.2.1 This team should include representatives from the IADNR, USFWS, Raptor Resource Project, Iowa Falconers Association, Alliant Energy and MidAmerican Energy, The Raptor Center at the University of Minnesota. The total number of members and the appointment of additional members are left to the discretion of the Wildlife Diversity Program Coordinator.

5.3 Involvement of interested parties in peregrine management and recovery should be encouraged. The role of some of these organizations is outlined below.

Iowa Department of Natural Resources – Has overall responsibility for Peregrine Falcon management in Iowa. Facilitate issuance of appropriate permits associated with peregrine management and liaison with the USFWS and The Raptor Center on appropriate activities. The Raptor Center at the University of Minnesota has overall coordination of management activities. TRC are permit holders and coordinators of banding, augmentation, and research. Receive input from all interested parties regarding state listing of the peregrine. Regional Nongame wildlife specialists should be kept

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advised of ongoing peregrine management activities in their region so that they can participate as needed and/or inform other IADNR personnel.

U.S. Fish and Wildlife Service – Provide financial support for important peregrine work. Issue endangered species and migratory bird permits for peregrine propagation, release, and research, and enforce federal laws preventing killing and harassing of birds and nests. Coordinate the Federal Eastern peregrine Falcon Recovery Team and produce the Eastern Peregrine Falcon Recovery Plan. Review the current federal status of the peregrine, direct and support the ESA-mandated five-year monitoring phase of the species.

The James Ford Bell Museum of Natural History – Storage and analysis of tissue and blood samples. Collection of voucher specimens. Involvement in monitoring, banding, and bleeding. Maintenance of Midwest database.

Raptor Resource Project – continued nest box placement, maintenance, and monitoring. Also hacking, augmentation and research. Involvement in banding and bleeding under the permits of TRC.

Iowa Falconer's Association – continued involvement in survey efforts particularly for nests along the Mississippi River.