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Raptors: Diurnal and Nocturnal Birds of Prey

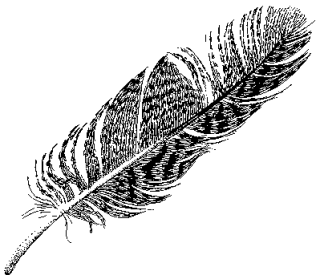
U.S. Fish & Wildlife Service

Raptors

Diurnal and Nocturnal Birds of Prey

Migratory Bird Management Mission

To conserve migratory bird populations and their habitats for future generations, through careful monitoring and effective management.



What Is a Raptor?

A raptor is a bird of prey that is known for its predatory habits of feeding on other animals. This group of birds possesses several unique anatomical characteristics that allow them to be superior hunters. These include excellent sensory abilities such as binocular vision and keen hearing in order to detect prey, large powerful grasping feet with razor-sharp talons for catching prey, and generally large, hooked bills that can tear prey. There are 30 species of hawks, falcons, and eagles, as well as 18 species of owls breeding in North America. In this large group of birds, there are diurnal, or daytime, species, such as hawks, falcons, and eagles, and nocturnal, or nighttime, species, such as owls. The Barn Owl is the preeminent nighttime hunter. With its facial disk and asymmetric ears, it has a keen sense of hearing which allows it to detect and capture prey in complete darkness.

Should We Be Concerned About the Conservation Status of Raptors?

Yes. Throughout the 20th century, raptors were impacted greatly by human disturbances such as habitat loss, shooting, and environmental contaminants. Many raptor species such as the Bald Eagle and Peregrine Falcon sharply declined as a direct result of use of the pesticide DDT. However, their numbers have rebounded since DDT use was restricted in the 1970s. The Peregrine Falcon was recently removed from the list of Endangered and Threatened Species in the U.S. (25 Aug 1999), and the Bald Eagle was recently proposed for delisting (6 July 1999) due to its increase from 417 pairs in 1963 to 6,334 pairs in 2000.

Many long-distance migrants, such as Swainson's and Broad-winged hawks, have experienced declines due to habitat destruction and hazards such as pesticide use in their wintering grounds. Swainson's Hawks breed in the western and midwestern U.S. and Canada and migrate all the way to central Argentina for the winter. Conditions on the migratory route as well as in the wintering countries have had a major impact on their populations returning to the U.S. each year.

Many grassland raptor species, including Ferruginous Hawk, Swainson's Hawk, Northern Harrier, Golden Eagle, and Burrowing Owl, have sharply declined in many locations over the past few decades as their grassland habitats have been greatly altered.

Barn Owl

Not all raptor species are declining. Some raptor species have benefited from human disturbances, including woodland species such as Sharp-Shinned and Cooper's Hawks. The increase in home bird feeding has directly resulted in increased numbers of these bird feeder predators.

What Are We Doing for Raptors?
The Migratory Bird Management Program of the U.S. Fish and Wildlife Service is engaged in numerous activities to ensure that raptor populations remain healthy.

Every five years, the Program *publishes a comprehensive list of birds of conservation concern*. There are 9 raptors (19% of all North American raptor species) on the U.S. Fish and Wildlife Service's National list of Birds of Conservation Concern 2001 to receive conservation action from federal and state agencies. This attention will bring us more information about these declining raptors, which will help in their recovery or prevent them from declining further.

A new challenge for our Program is *monitoring and management of species once on the road to extinction*, such as the Peregrine Falcon and the symbol of our Nation, the Bald Eagle. We are engaged in monitoring, planning, and management for recovered Peregrine Falcon populations. We have written National Management Guidelines for recovering Bald Eagles as a blueprint for management of the species following its delisting.

Golden Eagle

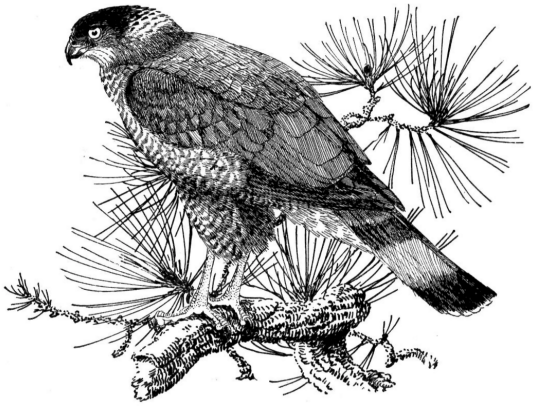
We are currently *involved in a multi-year project on surveying populations of Golden Eagles* throughout their range in the western U.S. Despite its size, little is known about population numbers of this species, and this information will allow us to estimate population numbers and trends as well as reproductive productivity. This information is important for management of the species in the face of increasing human pressures on the western landscape.

The Service is *working with the Canadian Wildlife Service on conservation of the Burrowing Owl,* a shared species that has undergone significant range-wide population declines, particularly in Canada. We have just completed a range-wide status assessment for western Burrowing Owls and support research on these owls in Canada, the U.S. and Mexico.

The Service joins other organizations such as Hawk Migration Association of North America and Hawkwatch International in *supporting the valuable efforts of a large network of raptor migration monitoring stations*. These stations exist throughout North America and provide systematic counts of migrating raptors as they pass. We provide funding for the North American Raptor Monitoring Strategy, a comprehensive effort to develop monitoring plans for all raptor species in North America.

What Else Is Needed for Raptors?
Many raptor species face continued contaminant problems, particularly with rodenticides and other pesticides, persistent organic chemicals such as PCBs and metals such as mercury and lead. Raptors also face many secondary poisoning threats, whereby they ingest contaminated prey items. A systematic contaminant monitoring program is needed to keep track of these incidents, and a public education effort is needed to let people know about these problems and how they can help prevent such poisonings.

There is a great need for further examination of other mortality factors such as electrocutions and disease as well as the effects of human disturbance on raptor populations. As humans continue to alter the landscape, we need to understand how raptor species will be impacted.



Cooper's Hawk
credit: Alan Brooks

Work is needed to increase our knowledge of status and trends of raptor populations that are known or suspected to be declining if we are to effectively conserve these species.

Outreach and education are important components of raptor conservation. Raptors are highly visible species, frequently seen by the public as subjects covered by the media, in zoos and other animal facilities, and in the wild. Not only are raptors really interesting birds, but they also play a crucial role in many ecosystems and, because they are at the top of many food chains, they face threats of greater magnitude than do other species below them on food chains. We must strive to create a greater awareness for raptor conservation in the general public.

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Raptors and other migratory birds are some of nature's most magnificent resources. Their conservation is a critical and challenging endeavor for the Migratory Bird Management Program and all who value nature.

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