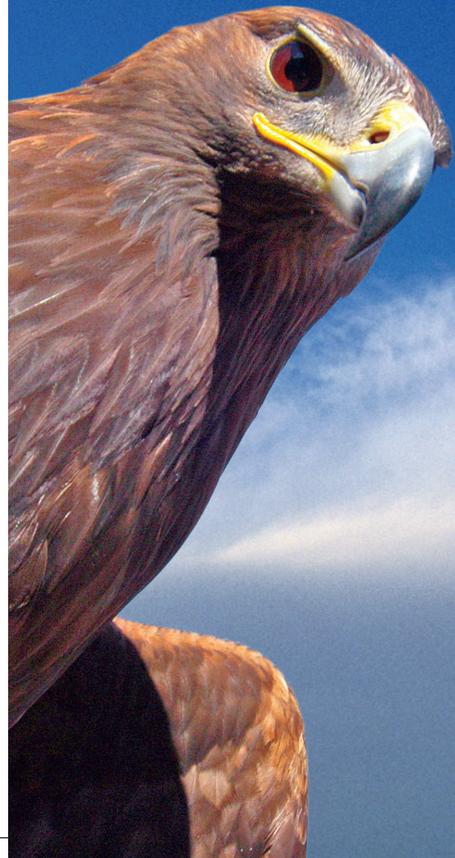


Many live in the state year-round, but some migrate hundreds or even thousands of miles in the spring and fall to their breeding and wintering grounds.

In Arizona, about 17 species of raptors regularly migrate during the daytime. The most common are red-tailed hawks, sharp-shinned hawks, Cooper's hawks, American kestrels and turkey vultures. Less common species include ospreys, ferruginous hawks, bald and golden eagles, prairie falcons, merlins and zone-tailed hawks.



GOLDEN EAGLE



PEREGRINE FALCON

BALD EAGLE

FERRUGINOUS HAWK

OSPREY

COOPERS HAWK

Photos by George Andrejko, Kenneth Jacobson and Kenny Wilkins



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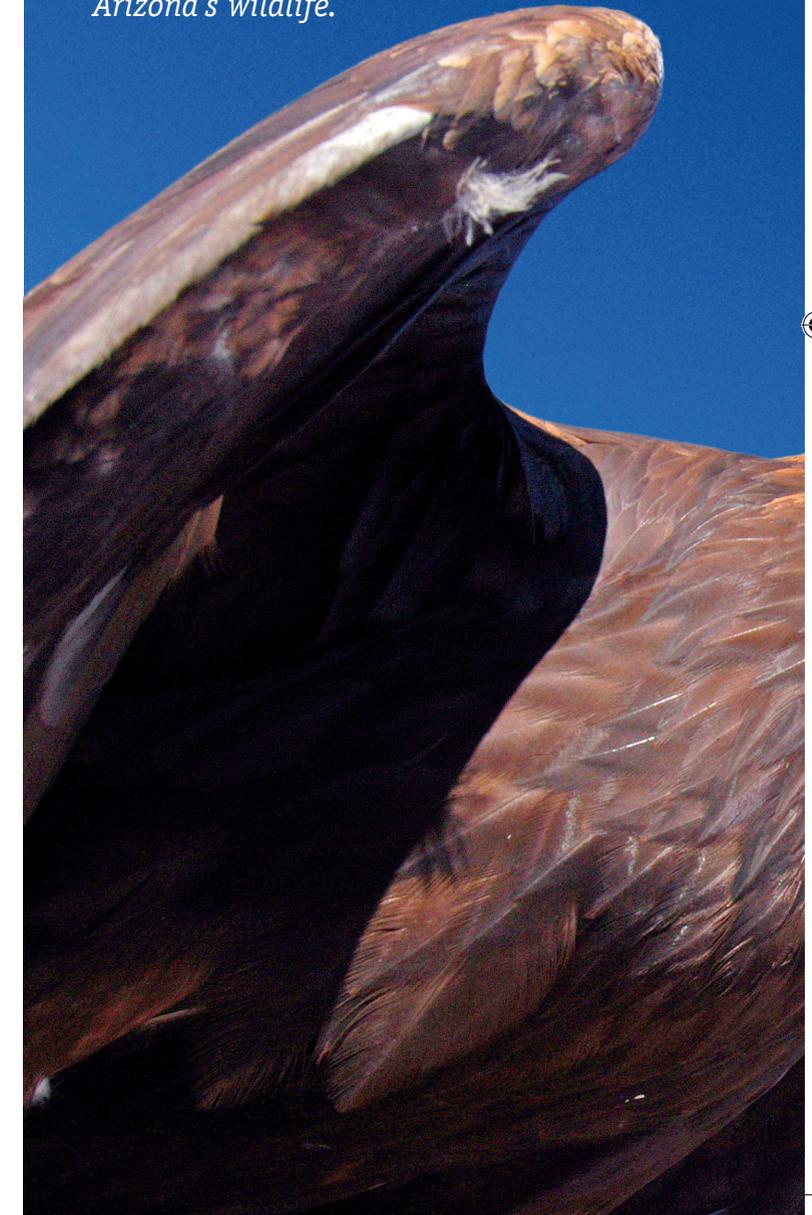
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RAPTOR MIGRATION IN ARIZONA



The wildlife of Arizona includes a rich diversity of birds, including at least 40 species of raptors. Also known as "birds of prey," this majestic group includes hawks, falcons, eagles, vultures and owls. From the powerful golden eagle and speedy peregrine falcon to the globe-trotting Swainson's hawk, raptors are some of the most fascinating of Arizona's wildlife.



MIGRATION AND HAWK-WATCH BASICS

Raptors migrate in response to changes in food availability, day length and weather conditions. During migration, raptors can be seen in large numbers along specific routes (called “flyways” or “corridors”). Only a few of these are known to exist in Arizona, but there may be more.

If you want to see migrating raptors, the peak of autumn migration is in September and October, while spring migration peaks between February and April. The best time of day for viewing is from 9 a.m. to 4 p.m.

Keep wind strength and direction in mind when scanning the sky. Raptors often use updrafts that are created along mountain slopes and cliffs as surface winds are deflected upward. To find these updrafts on windy days, raptors generally fly closer to the terrain along slopes and cliffs, which makes identification easier for hawk-watchers and provides great photo opportunities. On calm, sunny days, lift is generated by thermals (rising columns of air caused by uneven heating of the earth’s surface). Raptors can ascend thousands of feet on a thermal without flapping, and may be more distant and harder to see.

Updrafts are one reason why migrating raptors often concentrate along mountain ranges, rivers and coastlines. A good place to observe migration is a high point along a ridge or cliff with a good view to the north in the fall or south in the spring. Although both resident and migratory raptors may be seen this way, migrants usually fly in an alternating pattern of soaring and gliding behaviors, and they do not return.



IDENTIFYING BIRDS OF PREY

Raptor identification can be an exciting challenge due to the movement of the birds, distance from the observer and different lighting situations. Experienced observers look for telltale characteristics of each species, which include wing shape, flapping patterns, feather coloration and wing position during flight. Many species hold their wings wide open on calm days to soar, but may tuck in their wings and look different on windy days. Some birds of prey can end up funneled and clustered along a flyway. A keen observer will examine each individual to get a proper identification and never assume all the members of a large group of raptors are the same species. When an identification is elusive, an observer can often categorize the migrant into one of the four main groups of raptors: buteos, accipiters, falcons and eagles.

- Red-tailed hawk (*Buteo jamaicensis*): Only adult birds have red tails. The species can have a variety of feather colors and patterns. This hawk is common throughout the U.S. and is typically the first buteo a hawk-watcher learns to identify.
- Cooper’s hawk (*Accipiter cooperii*): One of the state’s most common migrants is the medium-sized Cooper’s hawk. Like other accipiters, it has broad, rounded wings and a long tail. It is frequently seen in suburban areas, where its prominent head, rounded tail and larger size distinguish it from the similar sharp-shinned hawk.
- American kestrel (*Falco sparverius*): This kestrel is the smallest falcon in North America. Like all falcons, it has pointed wings, which it flaps vigorously during flight. It can often be seen hovering and snatching insects in midair.
- Golden Eagle (*Aquila chrysaetos*): One of two species of eagles in Arizona, the golden eagle is often called “The King of Raptors” due to the golden-colored crown and neck feathers. With its 7-foot wingspan and long, plank-like wings, this raptor can be seen from miles away.



AMERICAN KESTREL

WHY STUDY RAPTOR MIGRATION?

Knowing where, when and how many birds of prey migrate helps to focus management and conservation efforts on valuable landscapes. To accomplish this goal, the Arizona Game and Fish Department investigates where raptors may migrate in large numbers, and where they might stop to rest and forage on their journeys. Counting raptors at observation sites along a migratory flyway (aka “hawk-watching”) affords biologists and the public the ability to learn about these birds on a larger scale than is possible at other times of year. This information is crucial when assessing the impacts of proposed development projects on wildlife, and can be used in comparisons with migration counts in surrounding states to spot changes in raptor populations.

GET INVOLVED

You can join a network of hawk-watching enthusiasts, help locate potential hawkwatch sites and count migrants. Because migration corridors in the state are not well known, you can be a pioneer in this effort. Your observations will assist Arizona Game and Fish to determine if an area is important for migrating raptors, and fill in knowledge gaps regarding the timing and size of migration.

Contact raptors@azgfd.gov for more information on what kinds of data to collect, how to identify birds of prey, where to start looking for raptors and other resources about migration. Or grab your binoculars, hike a mountain in late September and search the skies. For each hour of observation, note the species and number of individuals counted, then tell us what you find!

GOLDEN EAGLE



RED-TAILED HAWK