



An osprey pair in flight, showing the field markings. Note the necklace on the female (bottom).  
Photo by Bill Schuerman

Ospreys also have smooth foreheads, without the brow ridge other raptors display.

An osprey's main field mark is the dark carpal (wrist) patches on the underside of the wings. The belly is light and mostly unmarked, although female ospreys can have a "necklace" (band of darker speckles across her white chest). Both sexes have a dark face stripe, beginning at the eye and reaching down to the neck.

### EXPERT ANGLERS

Ospreys are well equipped to capture their favorite prey: fish. An osprey is a strong flier, flying about 25 mph. Their vision is 5 times better than ours; they can easily spot a fish under water from 100 feet in the air.

While diving for its prey, an osprey enters the water talons-first at about 40 mph. Their eyes are protected from wind and water by a thin, clear third eyelid. They are the only raptors with closing nose flaps, so they can dive completely into the water and catch a fish up to three feet under water.

Their pale blue toes are tipped with needle-sharp talons that act as fish hooks. They are able to swivel the outside toe on each foot to help them get a better grip on the fish. The toes also have roughened spicules (tiny, spike-like points) that help prevent a slippery fish from escaping the osprey's grasp.

If that wasn't enough to make them excellent anglers, ospreys also have specialized carpal joints in the wings to help them push off the water and get back into the air once they've caught a fish.

**Thanks to the assistance of volunteers and conservation partners**, ospreys have returned to Iowa as a nesting species. They are at the top of the aquatic food chain, so they are a good indicator of a healthy environment. By preserving habitat and clean water, we can hope for continued improvements in the quality of all our lives.

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Photo by Nick Chill. [www.nickchillphotography.com](http://www.nickchillphotography.com)

## Ospreys in Iowa

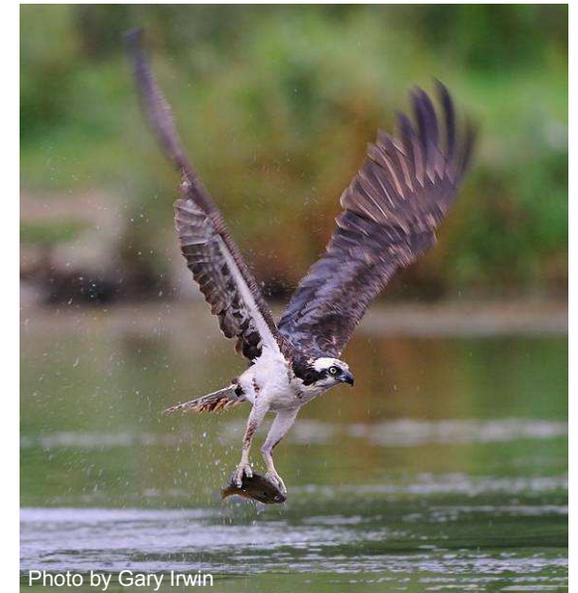


Photo by Gary Irwin





Photo by Bill Schuerman

Fossils show that ospreys (*Pandion haliaetus*) have roamed the earth for 13 million years! Today, they are found on every continent except Antarctica; of the four subspecies, *P.h. carolinensis* is found in the United States.

According to tribal elders of the Omaha nation, accounts of ospreys nesting along Iowa waterways are included in their oral traditional stories. These First Nation people have lived throughout northwestern Iowa for thousands of years. After European settlement, however, there are no records of successful osprey nesting in Iowa. In recent history, the osprey population of the continental U.S. plummeted in the 1950s due to the use of DDT. Following its ban in 1972, ospreys have been gradually coming back. In 1981, 8,000 pairs were counted in the lower 48 states; by 1994 that tally rose to 14,109. Ospreys have been slow to move into vacant and newly created habitat due to a strong fidelity to ancestral breeding areas.

### REINTRODUCTION IN IOWA

With the construction of lakes and reservoirs, potential osprey habitat has been created in many areas of the state. There are numerous osprey summer sightings in Iowa, but these young birds seem to be returning to northern areas for mating and nesting. Instead of expanding their breeding range, ospreys in densely populated breeding areas in Minnesota and Wisconsin experience suppressed reproduction. To address this issue and assist osprey expansion, young birds from Wisconsin

and Minnesota are being relocated to areas with suitable habitat in southern Minnesota, Iowa, Kansas, Missouri, and Ohio.

Since 1997, the Iowa DNR has assisted conservation partners with technical assistance, encouragement, and fish to successfully release ospreys in Iowa. These partners include Macbride Raptor Project, Saving Our Avian Resources, Clear Lake and the conservation boards of Black Hawk, Boone, Dickinson, Dubuque, Linn, Marion, Polk and Warren counties.

Osprey chicks' availability for potential relocation is evaluated in early July. Nests with more than one 42-day-old chick are located in Minnesota and Wisconsin. It is important the chicks be 42 days or older because this is the age when they are able to tear fish and feed themselves. Approved birds are brought to release sites and placed in carefully constructed 8'x8'x8' predator-proof release towers ("hack towers," see photo, right, with gate open). Volunteers feed the chicks through tubes, so the birds do not learn to associate humans with food.



At 53 days old, the ospreys are fully grown and have all their feathers. They are ready for release! The gate of the hack tower is raised, and the young attempt their first flight. They continue to be monitored and fed by volunteers as they get used to flying and begin fishing on their own.

Through August and September, the young



Young ospreys in a hack tower. The wings are marked with nontoxic paint for quick identification of the individual birds.

ospreys will explore further and further from their release site. By October, they will begin their migration to wintering sites up to 4,000 miles away in Central and South America. Immature ospreys spend up to 18 months in these areas before returning to North America to breed.

Iowa ospreys have two legs bands, one on each leg - a silver US Fish & Wildlife Service band



and a colored, numbered band for easier identification in the field. A purple band means the osprey was relocated from Minnesota or Wisconsin; ospreys

hatched from wild nests in Iowa have a green band.

### IDENTIFICATION

Ospreys, commonly called fish hawks or fish eagles, are neither a hawk nor an eagle. They are large, narrow-winged raptors, weighing between 2½ and 4½ pounds. An osprey's 6-foot wingspan is often mistaken for an eagle's, but an osprey's wings are narrower and curve backward at the wrist, like the wings of a gull.