

Osprey Trivia

1. What is a "seahawk"?

Ospreys are also known as sea hawks because they often live by the sea and feed only on fish. "Sea hawk" can also refer to skuas, which are fish-eating seabirds related to jaegers. Skuas are "piratical" birds, obtaining much of their food by stealing it from other seabirds.



Osprey

Skua

2. What is the Seattle Seahawks' "seahawk"?

The term "seahawk" was invented by the Seattle football franchise and has no biological significance. Before every home game, the Seahawks release a trained augur hawk named "Taima" to fly out of the stadium tunnel and get the crowd excited about the game. This imported hawk from Africa, which resembles an osprey, is used because the U.S. Fish and Wildlife Service prohibits the use of native hawks for commercial purposes.



Taima

3. Do ospreys have magical powers?

People in the Middle Ages thought that if a fish looked up at an osprey, the sight of it would mesmerize the fish and it would give itself up to the bird. Shakespeare mentions this in Act IV of *Coriolanus*:

"I think he'll be to Rome
As is the osprey to the fish, who takes it
By sovereignty of nature."

4. How long have ospreys be around?

Fossils found in southern California show that ospreys were around 11-15 million years ago in the Mid-Miocene era.

5. Where do ospreys live?

Ospreys live on every continent except Antarctica. Only a single species of osprey (*Pandion haliaetus*) is spread across the globe except in Australia where the eastern osprey (*Pandion cristatus*) is native. Ospreys living in the temperate latitudes migrate south to the tropics each winter and return north to breed in the summer. Non-migratory ospreys living year-round in the tropics stay in the general vicinity of their nest all year.



Dark blue areas indicate the worldwide range of ospreys.

6. Where do North American ospreys migrate?

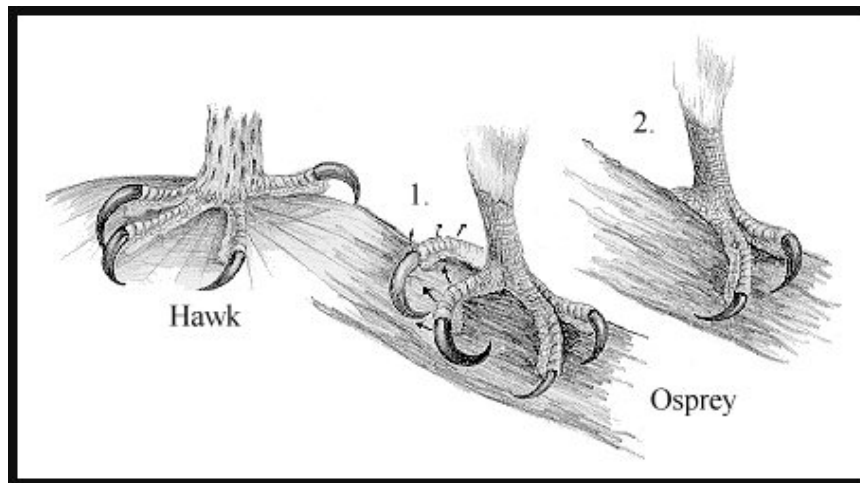
North American ospreys breed in Canada, the northeastern US, and in western states near water (areas in orange). They migrate through the US (yellow zones) to winter in Central and South America (blue). Small non-migratory populations (purple) in Florida and Baja may explore their region, but stay in the same general area year-round. A North American osprey may log more than 160,000 migration miles during its 15-20 year lifetime.



Migration route of North American ospreys.

7. What is unique about an osprey's toes?

The feet of most hawks and falcons have immovable toes, with three toes in the front and one pointing backwards, as shown below. Ospreys, owls, woodpeckers, and parrots, however, have a unique configuration enabling them to slide their toes back and forth. The outer toe is reversible, which means they can carry prey with two toes in front and two toes behind (see images 2 and 3 below). This lets them grip fish as they fly and to turn the fish so it is parallel to the bird's body, decreasing the wind resistance.



8. Does an osprey have a nose?

Ospreys have nostrils that can open and close. These slits prevent water from going up their noses when they dive into the water after a fish.



9. How long do ospreys stay with their mates?

Once bonded, an osprey pair stays together for life (up to 25 years). They migrate separately, spending the winters apart, but reunite every mating season for the rest of their lives. Ospreys only seek out new mates if their mates die. Occasionally females will “divorce” their partner if they do not supply them with adequate fish while brooding.



A mated pair of ospreys (male on left, female on right).

10. Are osprey feathers "water proof"?

An osprey has oily plumage, which repels water when it dives under the water for fish. Its feathers become slightly wet, but not so much that it can't take off again. Ospreys regularly maintain this waterproofing by spreading oils from a special gland over their feathers after every dive. Other birds lacking this oil, like cormorants, must spread their wings out to dry.

11. Why did ospreys almost go extinct?

During the mid-20th century, the North American osprey and other birds of prey almost went extinct due to the widespread use of the pesticide DDT and its build up in the watershed system. DDT caused their eggshells to become too thin to survive. After DDT and other contaminants were banned, the osprey recovered due to hacking programs, where young

birds from healthy populations were moved to areas where their populations had plummeted, and the building artificial nesting platforms.

In Europe during the late 19th and early 20th centuries, the main threats to ospreys were hobbyists collecting their beautifully speckled eggs and sportsmen hunting the adult birds. These practices are now outlawed although they are still hunted in South America and Africa.

12. Do Ospreys nest in trees?

Ospreys are adaptable birds and able to nest in natural and artificial structures close to water. They naturally nest in the top of dead or live trees. However, suitable trees are difficult to find in developed areas. They will also nest on nest platforms and other man-made structures like utility poles and navigation light towers as seen around Cayuga Lake.



Osprey nest in tree.

13. What do ospreys eat?

Ospreys are the only birds of prey that feed exclusively on fish, which make up 99.5% of their diet. On rare occasions, they will prey on rodents, rabbits, amphibians, and small reptiles. They typically take fish weighing 5–10 ounces and about 10–14 inches in length, but will catch fish weighing anywhere from 2–68 ounces. In Cayuga Lake, ospreys eat

mostly brown bullhead, rock bass, small- and largemouth bass, pumpkin seed, bluegill, white sucker, carp, yellow perch, and lake trout.

14. How do ospreys fish?

Ospreys look for fish by hovering over the water, although sometimes they sit on a perch to sight their prey. They dive into the water with wings swept back, thrusting their talons forward at the last minute to grab the fish from the water. Once it has a fish in its talons, it turns the fish's head forward to make it more aerodynamic in flight. Adults are successful about once every four dives, but it takes juveniles much longer to make a catch.



15. How often do ospreys catch fish?

Adult ospreys catch fish about 50%-80% of the time they dive. They typically take fish weighing 5–10 ounces and 10–14 inches in length, but will catch fish weighing anywhere from 2–68 ounces.



16. What special adaptations allow ospreys to catch slippery fish?

Ospreys have reversible outer toes, rough sandpaper-like spicules on the bottoms of their feet, closable nostrils to keep out water during dives, and backwards-facing scales on the talons, which act as barbs to hold fish.



17. How long do ospreys live?

Typically, ospreys live 7–10 years, although some live to be 20–25 years old. The oldest wild osprey on record lived to be over thirty years of age.

18. How big are ospreys?

Males can have 57.8-65.3 inch wingspans, are 22-23.6 inches in length, and weigh 3 pounds. Females have a 22.5-26.3 inch wingspan, are 22.4-25.9 inches in length, and weigh 3.5 pounds.



19. Why are there empty osprey nest during the breeding season?

An osprey pair that loses their eggs mid-season or breeds very early will sometimes build a second “frustration” nest, which is not used for breeding. It is thought this stems from having pent-up breeding urges when there is not enough time to breed again. Immature ospreys may also build “frustration” nests to practice building for the future.

20. Why do ospreys prefer to nest in open areas?

Ospreys are excellent at soaring and diving, but cannot maneuver as well

as other hawks, and usually stay in open areas. They also nest in open areas to prevent Great Horned Owls from attacking their nests.



Great Horned Owl hiding in tree.

21. Why do ospreys decorate their nests?

No one knows why ospreys like to use trash as nesting material. Ospreys will adorn their nests with items found along the shore such as moss, algae, bark, Huila hoops and other toys, mylar balloons, candy wrappers, nets, and clothing. Unfortunately, they often bring string, twine, and fishing line to their nests, which can strangle the young and adults.



22. What is the division of labor at an osprey nest?

Both the male and female will build the nest. The male tends to collect the larger sticks and the female gathers softer items to line the nest. Both birds take turns incubating the eggs although the female does the majority of the work. Once the eggs hatch, the female takes over all nest care while the male provides most of the food for the family.

23. What animals prey on ospreys?

Raccoons steal their eggs and Great-horned Owls will kill the chicks and adults. Bald Eagles commonly steal their fish and occasionally kill them.



Raccoons feed on osprey eggs.

24. How do you tell male and female ospreys apart?

Distinguishing the sex of ospreys is difficult. The best way to tell is by their behavior. Females stay on the nest most of the time and do most of the incubation and all of the brooding. Males spend their time fishing for the family. Females are generally larger and have darker streaking on the

breasts (necklaces). Males usually have plain white breasts although they may have small necklaces. Both sexes have dark brown upperparts and creamy underparts with distinctive dark 'highwayman's mask' around their yellow eyes.



Adult female



Adult male

25. What do the juveniles look like?

Fledgling ospreys look similar to adults but have orange instead of yellow eyes and lighter brown feathers with pale edges, which wear off with use. Their full adult plumage develops by the age of eighteen months.



Two month old fledgling.

26. What is life like for young ospreys?

Osprey eggs hatch after 40 days and the chicks emerge fairly helpless. Young ospreys spend the first seven or eight weeks confined within the nest. Fish are brought to the nest by the male and given to the female. She tears the fish in little pieces and feeds it to the chicks. At two weeks old the youngsters can move around the nest and after a month they are very active preening and exercising their wings. Gradually the wing-flapping increases until they are able to lift a little off the nest, called "helicoptering." Soon after, when the wind is just right, they will take their first flights.



Female feeding two-week old chicks.



Juvenile helicoptering above the nest.

27. When do the young leave the nest?

Osprey fledge in late-July or August when they are about 2 months old, but remain close to the nest for at least another month as they are dependent on their parents for food.



Fledgling about to take off. Photo courtesy of Andy Morffew.

28. What do ospreys tell us about the environment?

Since ospreys are at the top of the aquatic food web, they mirror the health of the waterbodies in which they fish. If a lake is polluted with certain chemicals, the animals low in the food chain, such as minnows, digest small amounts of that chemical. Animals at the top of the food web feed on these lower animals and accumulate large amounts of toxins in their bodies—a term known as bioaccumulation.