



# Osprey

*Pandion haliaetus*



Jake Dingel/PGC Photo

**CURRENT STATUS:** In Pennsylvania, the osprey is protected under the Game and Wildlife Code and the Migratory Bird Treaty Act of 1918.

**POPULATION TREND:** Pennsylvania's nesting osprey (*Pandion haliaetus*) population is probably the largest has been since European colonization, with most ospreys nest on artificial structures near reservoirs. The 2016 comprehensive survey identified 148 nests in 6 clusters. During the 2nd Pennsylvania Breeding Bird Atlas (2004-2008), confirmed nests were reported in at least 90 atlas blocks widely distributed across the Commonwealth. That represents a tenfold increase compared to the 1st Pennsylvania Breeding Bird Atlas (1984-89), which recorded nine breeding pairs restricted to the north-eastern and south-central counties. Because many atlas blocks represent multiple pairs, the state nesting population in 2008 probably exceeded 100 active pairs. Nest totals hovering around 100 were reported by volunteers, cooperators and staff during osprey surveys in 2010 and 2013. The osprey's range is now statewide thanks to a series of successful reintroductions across the state and natural expansion of robust populations in the Delaware and Chesapeake bays into Pennsylvania's southeastern counties. Pennsylvanians can provide valuable information and help researchers assess the current abundance and distribution of ospreys by reporting observations of nesting pairs through the Game Commission's online Osprey Nest Survey. The osprey was listed as extirpated in Pennsylvania in 1979. As recently as 1986, the state had only one known nesting pair. Initial reintroduction attempts in the Poconos prompted a reclassification as endangered, and in 1997 ospreys were upgraded from endangered to threatened. In recognition of the osprey's recovery, and meeting all the population targets identified in the osprey management Plan (Masters et al. 2015) they were reclassified as Protected in 2017.



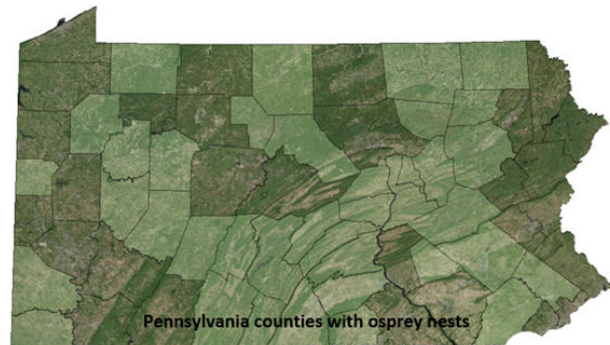
Jake Dingel/PGC Photo

**IDENTIFYING CHARACTERISTICS:** Ospreys are large, striking, fish-eating birds of prey most often seen around water. They may exceed 24 inches in length and sport wingspans approaching six feet. Also referred to as "fish hawks," ospreys are dark brown above, bright white below, with some brown streaking on the breast. Key identification characteristics are the prominent dark eye stripes, black patches at the crooks of bent wings, and a characteristic silhouette. Unlike eagles, ospreys often hover over open water while fishing, thus making this large raptor easily identifiable from a distance.



**BIOLOGY-NATURAL HISTORY:** The osprey is one of the world's most widely distributed birds. It is often called a "fish hawk" because of its feeding preferences. They are found along seacoasts and major waterways on every continent except Antarctica. They prey almost exclusively on fish. Ospreys start breeding at three years of age, or older. Until that age, immature birds stay on their southern wintering grounds of Central America and South America. Ospreys breed singly or in colonies. Their stick nests are large and usually built near water. A breeding pair adds sticks to the nest every year it is occupied and throughout the breeding season. They usually nest in large trees, but they may be found nesting on channel markers, telephone poles, billboards, cell towers, chimneys and manmade platforms built specifically for their use. In fact, in 2001, 80 percent of osprey nests were found on manmade structures, often near large bodies of water. Usually three eggs are laid and will hatch in about 40 days. Both sexes incubate eggs, although females tend to spend more time incubating than males. Females brood young through three weeks of age. Young begin to fly about seven weeks after hatching.

**PREFERRED HABITAT:** Ospreys prefer lakes, ponds, rivers and marshes bordered by trees. They require open water containing adequate fishing opportunities. In recent years, ospreys have produced young near lakes and rivers across most of the state. During spring and summer, non-breeding sub-adults can be found throughout the state. The world's largest nesting population of ospreys – approaching 2,000 pairs – occurs in the Chesapeake Bay area each spring. Osprey pairs typically return to Pennsylvania in late March to early April to nest.



**REASONS FOR BEING THREATENED:**

Historically, ospreys were never found in large numbers in Pennsylvania. In the early 1900s ospreys nested along the state's larger waterways, but habitat destruction and water pollution made these areas unsuitable. Illegal shootings also seemed to have played some role in the bird's decline. Osprey populations were further decimated through the effects of insecticides, such as DDT, on their reproductive capabilities. Use of DDT in the late 1940s unleashed what would become a slow, steady stranglehold on ospreys and other birds of prey. By eating contaminated prey, the birds ingested the insecticide that, in turn, induced them to lay eggs with extremely thin shells – shells often so fragile, they broke when sat upon. Unable to reproduce, ospreys soon disappeared.

**MANAGEMENT PROGRAMS:** Between 1980 and 1996, 265 ospreys – obtained as nestlings from Chesapeake Bay nests – were released in Pennsylvania. The reintroductions occurred in three geographic areas: the Poconos, Tioga County reservoirs and Moraine State Park (Butler County). Nest sites are tracked through the Wildlife Diversity Program and protected under the state Game and Wildlife Code and federal Migratory Bird Treaty Act.



**Sources:**

Carnegie Museum of Natural History. 2nd Pennsylvania Breeding Bird Atlas. Web. 24 July 2009.

Master Terry L., Stefani Cannon, Patricia M. Barber, and Douglas Gross. 2015. Osprey (*Pandion haliaetus*) in Pennsylvania, Ten Year Plan (2015-2025).

McWilliams, G. M. and D. W. Brauning. 2000. The Birds of Pennsylvania. Cornell University Press, Ithaca, NY.

Poole, Alan F., Rob O. Bierregaard and Mark S. Martell. 2002. Osprey (*Pandion haliaetus*), The Birds of North America Online (A. Poole, Ed.). Ithaca, New York: Cornell Lab of Ornithology.

Rymon, Larry. 1992. Osprey *In* Atlas of Breeding Birds in Pennsylvania (D. Brauning, Editor). University of Pittsburgh Press, Pittsburgh, Pennsylvania.



**Suggested further reading:**

Dunne, Pete, David A. Sibley, and Clay Sutton. 1988. *Hawks in Flight: The Flight Identification of North American Migrant Raptors*. Houghton Mifflin Harcourt, New York, New York. 272 pp.

Pennsylvania Game Commission and Pennsylvania Fish and Boat Commission. 2005. Wildlife Action Plan. Pennsylvania Game Commission, Harrisburg, Pennsylvania.

Poole, Alan F. 1989. *Ospreys: A natural and unnatural history*. Cambridge University Press, Cambridge, UK.

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