

CURRENT STATUS: In Pennsylvania, the great egret is listed state endangered and protected under the Game and Wildlife Code. Nationally, they are not listed as an endangered/threatened species. All migratory birds are protected under the federal Migratory Bird Treaty Act of 1918.

POPULATION TREND: The Pennsylvania Game Commission counts active great egret (*Ardea alba*) nests in every known colony in the state every year to track changes in population size. Since 2009, only two nesting locations have been active in Pennsylvania: Kiwanis Lake, York County (fewer than 10 pairs) and the Susquehanna River's Wade Island, Dauphin County (fewer than 200 pairs). Both sites are Pennsylvania Audubon Important Bird Areas. Great egrets abandoned other colonies along the lower Susquehanna River in Lancaster County in 1988 and along the Delaware River in Philadelphia County in 1991. Wade Island has been surveyed annually since 1985. The egret population there has slowly increased since 1985, with a high count of 197 nests in 2009. The 10-year average count from 2005 to 2014 was 159 nests. First listed as a state threatened species in 1990, the great egret was downgraded to endangered in 1999.

IDENTIFYING CHARACTERISTICS: Great egrets are almost the size of a great blue heron (*Ardea herodias*), but white rather than gray-blue. From bill to tail tip, adults are about 40 inches long. The wingspan is 55 inches. The plumage is white, bill yellowish, and legs and feet black. Commonly confused species include cattle egret (*Bubulus ibis*), snowy egret (*Egretta thula*), and juvenile little blue herons (*Egretta caerulea*); however these species are smaller and do not nest regularly in the state. The short-legged cattle egret is about half the size of a great egret with a reddish wash over its head and back. Snowy egrets look most similar to great egrets, but they are smaller and more delicate-looking, have

black legs with yellow feet (those "yellow slippers"), and a dark bill. Juvenile little blue heron are white rather than blue as their name suggests, but are smaller than great egrets and have pale legs and bill. Also, great egrets typically forage in deeper water than the smaller, shorter -legged herons and egrets.

BIOLOGY-NATURAL HISTORY: Great egrets are the largest of the four white herons that regularly occur in Pennsylvania. After nesting, they are uncommon visitors throughout the state where suitable habitat exists, becoming more common in late summer when birds disperse from nesting colonies. Following nesting, juveniles and adults will often be seen standing, waiting patiently for prey, at farm ponds and distant streams, allowing many viewing opportunities and a striking picture. They





may disperse many miles away from their nesting grounds.

The major distribution of this species is south of Pennsylvania. The Mid-Atlantic coastal population extends like fingers up the streams of the Delaware and Susquehanna drainages. During spring migration, this species drifts slowly northward from their wintering areas in southern United States (Everglades, Florida, for example) and Central America. By mid-spring, nesting has started. A nest of sticks contains three to four pale bluish-green eggs. Both parents share incubation and chick rearing duties. After a 24-day incubation period and six weeks as nestlings, young are ready to fly by mid-June to July. Maturity may not be reached until the third year.

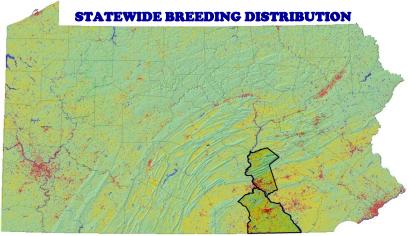
Food consists of frogs, small fish, and other small aquatic animals. Great egrets forage at varying distances from the nest depending on food availability, but typically within six miles (10 kilometers). In dry years, birds may travel up to 25 miles (40 kilometers) to feed. Water willow (*Decodon verticillatus*) shallows near islands are important hunting grounds for these birds. Rusty crayfish (*Cercopagis pengoi*), a species not native to Pennsylvania, is often eaten by great egrets in deeper water.

PREFERRED HABITAT: This egret is typically found feeding in shallow rivers, streams, ponds, lakes and marshes. Nests are found in adjacent trees or shrubby growth, preferably on islands. The birds usually nest in colonies that may include other colonial nesting species.

REASONS FOR BEING ENDANGERED: At the turn of the 20th century, many bird species were shot for use, in whole or in part, on women's hats. Great egrets were hunted for their beautiful feathers. By 1917, some doubted the species could be saved from extinction. Plume trade, combined with the popular hobbies of egg and bird collecting, decimated populations of many bird species, leading to enactment of several federal laws to protect migratory, breeding and rare birds in the 1900s, namely the <u>Lacey Act of 1900</u> and <u>Migratory Bird Treaty Act of 1918</u>. In addition, the National Audubon Society, one of the country's oldest non-profit conservation organizations, was formed around this time and used the great egret on its logo to symbolize the organization's commitment to bird conservation. Legal protection from plume hunting enabled the species to rebound.

Pennsylvania's first documented nesting record was in 1957. By 1990, birds had established three modest colonies here. Today, the main threats faced by the great egret are habitat loss (flooding of shallow feeding areas as a result of dams, for example), water pollution and disturbance of nesting colonies. Boat traffic also can disturb egrets and boat wakes can wash out the shallow foraging areas.

MANAGEMENT PROGRAMS: Great egrets are federally protected under the Migratory Bird Treaty Act of 1918 and as a state endangered species. Nesting colonies are protected through the Pennsylvania Natural Heritage Program and the Environmental Review process. Colonies are monitored through the Game Commission's colonial waterbird program. Colonial nesting birds are vulnerable to disturbance and direct persecution. The largest colony is part of a Pennsylvania Audubon Important Bird Area, the Sheets Island Archipelago. All known nesting colonies should be closed to public intrusion and safeguarded from developmental pressures within a quarter-mile of



Nesting County

Cathy Haffner/PGC Map



the colony. Wetlands, streams, and rivers used for foraging should be protected and enhanced through watershed stewardship programs.

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Pennsylvania Audubon. 2005. Important Bird Area Conservation Plans. Pennsylvania Audubon Society, Harrisburg, PA.

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Map sources: PGC data 2000-2009; 2nd Pennsylvania Breeding Bird Atlas 2004-2008

Suggested further reading:



Kushlan, James A. and others. 2002. Waterbird Conservation for the Americas: <u>The North American Wa-</u> terbird Conservation Plan, Version 1. Waterbird Conservation for the Americas. Washington, D.C., USA.

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