



About Us \* Special Topics < Teaching \* About Animal Names \* Help

Structured Inquiry Search

Home > Kingdom Animalia > Phylum Chordata > Subphylum Vertebrata > Class Aves > Order Ciconiiformes > Family Ardeidae > Subfamily Ardeinae > Species **Ardea alba**

**Ardea alba**  
great egret

Information Pictures Sounds Classification



2008/01/20 02:17:23.810 US/Eastern

By Jessica Jones

**Geographic Range**

Kingdom: Animalia  
Phylum: Chordata  
Subphylum: Vertebrata  
Class: Aves  
Order: Ciconiiformes  
Family: Ardeidae  
Subfamily: Ardeinae  
Genus: Ardea  
Species: **Ardea alba**

Great egrets are found in the Nearctic as far south as Texas, the Gulf coast states, and Florida up the Atlantic coast to Maine and southern Canada, and west to the Great Lakes. (Connecticut Department of Environmental Protection, 2000)

**Biogeographic Regions:**  
nearctic Q (native Q).

**Habitat**

The ideal location for great egrets is near any form of water. Streams, lakes, ponds, mud flats, saltwater and freshwater marshes are inhabited by this beautiful bird. Wooded swamps and wetlands are the preferred location for great egrets and other heron species. (Connecticut Department of Environmental Protection, 2000)

**These animals are found in the following types of habitat:**  
temperate Q; terrestrial Q; saltwater or marine Q; freshwater Q.

**Aquatic Biomes:**lakes and ponds; rivers and streams; coastal ; brackish water .**Wetlands:** marsh , swamp , bog .**Other:**riparian ; estuarine .**Physical Description****Mass**912 to 1140 g; avg.  
1026 g  
(32.1 to 40.13 oz; avg.  
36.12 oz)**Length**1 m (average)  
(3.28 ft)**Wingspan**1.50 m (average)  
(4.92 ft)

Great egrets are less than 1 meter long from bill to tail, 1 meter tall, have a wingspan of 1.5 meters, and weigh about 912 to 1140 g. On average, males are larger than females. They are completely white with a long yellow bill and dark gray legs. During flight their neck is usually in an "S" shaped curve. They are very elegant birds with plumage resembling lace. (Gough, Sauer, and Iliff, 1998; Illinois Department of Natural Resources, 1998; Sheehey, 1998)

**Some key physical features:**endothermic ; homiothermic; bilateral symmetry .**Sexual dimorphism:** male larger, ornamentation .**Reproduction****Breeding interval**

Great egrets breed once per year.

**Breeding season**

Breeding season begins in mid-April.

**Eggs per season**

3.50 (average)

**Time to hatching**

23.50 days (average)

**Time to fledging**

2.50 weeks (average)

**Age at sexual or****reproductive maturity (female)**

2 years (average)

**Age at sexual or reproductive maturity (male)**  
2 years (average)

Great egrets are seasonally monogamous animals. Male egrets are responsible for selecting a territory and performing a series of rituals in order to attract a female. Copulation occurs within the males' territory. (Illinois Department of Natural Resources, 1998)

**Mating systems:**

monogamous ♀.

Typically, great egret nests are built with other heron nests in a colony in wetlands and wooded swamps. Nests are a flimsy platform constructed of sticks, twigs, and stems built as high as possible. The eggs are a pale greenish blue, and are incubated by both the male and female for about 23 to 24 days. Nestlings usually fledge 2-3 weeks after hatching. With a clutch size of only 3-4 eggs, great egrets will lay replacement eggs if any of the first eggs are damaged. Great egrets are capable of reproducing after two years and raise one brood per year. The breeding season begins mid-April. (Connecticut Department of Environmental Protection, 2000; Illinois Department of Natural Resources, 1998)

**Key reproductive features:**

iteroparous ♀; seasonal breeding ♀; gonochoric/gonochoristic/dioecious (sexes separate); sexual ♀; fertilization ♀; oviparous ♀.

Both male and female great egrets participate in incubating and feeding the semi-altricial young. Nestlings are initially fed by regurgitation, followed by bill-grabbing, where the parent holds prey over the nestling to grab at as it eats. (Connecticut Department of Environmental Protection, 2000; Illinois Department of Natural Resources, 1998)

**Parental investment:**

no parental involvement; pre-fertilization; pre-hatching/birth (protecting: male, female); pre-weaning/fledging (provisioning: male, female).

**Lifespan/Longevity**

**Extreme lifespan (wild)**

22.80 years (high)

**Average lifespan (wild)**

15 years

**Average lifespan (captivity)**

22 years

Great egrets have a lifespan of about 15 years in the wild (22 in captivity). (Burger and Gochfeld, 1997)

**Behavior**

Great egrets are very territorial when it comes to courtship, nesting and feeding. They are diurnal feeders and at dusk they gather from surrounding areas to form communal roosts. Post-breeding dispersal is very common among great egrets. After the young hatch, they accompany the adults on long journeys. Many heron species rob other species in order to obtain more food. Great egrets steal a very high percentage of their food from other smaller herons. They also fight for food within their own brood. For many avian species food availability has an effect on aggression. However, it has been found that great egrets are highly aggressive in many situations even when food is not limited. (Drummond, 2001; Illinois Department of Natural Resources, 1998; Kushlan, 1978)

## Home Range

There is no information available on the home range for this species at this time.

### Key behaviors:

flies; diurnal ☑; motile ☑; territorial ☑; colonial ☑.

## Communication and Perception

Great egrets communicate through elaborate courtship rituals, and with vocalizations that are a harsh low "corr". Much of the way these birds communicate is illustrated by their elaborate courtship dances, and territoriality. When defending their territory they may squawk harshly, leap at, or jab their beak at the intruder. (Chisholm, 2001; Oregon Zoo, 2002)

### Communicates with:

visual ☑; tactile ☑; acoustic ☑.

### Perception channels:

visual ☑; tactile ☑; acoustic ☑; chemical ☑.

## Food Habits

Frogs, snakes, crayfish, fish, mice, crickets, aquatic insects, grasshoppers, and many other insects constitute the typical diet of a great egret. Other large wading birds have similar feeding habits and compete with great egrets for food resources. (Connecticut Department of Environmental Protection, 2000; Hill, 2001; Illinois Department of Natural Resources, 1998)

As opportunistic predators, great egrets usually feed on smaller aquatic and terrestrial insects and vertebrates and are considered to be heterotrophs. Wading slowly through the water, they are extremely successful at striking and catching fish or insects. Studies found that, standing still, great egrets were able to ingest more prey of intermediate size than if they moved around. This suggests that their goal is not to catch the largest quantity of food, but to catch high quality food. (Connecticut Department of Environmental Protection, 2000; Hill, 2001; Illinois Department of Natural Resources, 1998)

### Primary Diet:

carnivore ☑ (piscivore ☑).

### Animal Foods:

mammals; amphibians; reptiles; fish; insects; aquatic crustaceans.

## Predation

Known predators
-----------------

- jays and crows (Corvidae)
- vultures (Cathartidae)
- raccoons (*Procyon lotor*)

Adult great egrets have no non-human predators and now have some legal protection against humans. However, eggs and nestlings are exposed to numerous predators including crows (family Corvidae), vultures (family Cathartidae), and raccoons (*Procyon lotor*, which are the most threatening). (Connecticut Department of Environmental Protection, 2000; Illinois Department of Natural Resources, 1998)

## Ecosystem Roles

As predators great egrets affect the populations of their prey.

## Economic Importance for Humans: Negative

There are no known adverse affects of great egrets on humans.

## Economic Importance for Humans: Positive

Prior to the 20th century there was great demand for the lacey plumage of great egrets for women's hats and other fashionable garments. (Connecticut Department of Environmental Protection, 2000)

### Ways that people benefit from these animals:

body parts are source of valuable material.

## Conservation Status

### IUCN Red List: [\[link\]](#):

Least Concern.

### US Migratory Bird Act: [\[link\]](#):

Protected.

### US Federal List: [\[link\]](#):

No special status.

### CITES: [\[link\]](#):

No special status.

### State of Michigan List: [\[link\]](#):

No special status.

Prior to the 20th century, the population of great egrets was nearly decimated by the demand for their lacey plumage for women's hats and other fashionable garments. With great concern for the welfare of great egrets, legal restrictions were placed on the harvesting of this animal. Great egrets were placed under the protection of the Migratory

Bird Treaty Act of 1812. By the mid 1900's populations of great egrets were steadily on the rise. Today, populations are doing well. However, there are still many human-induced threats to the survival of great egrets. Loss of habitat, water pollution, and various air pollutants all contribute to the dangers faced by great egrets. Hydrocarbons are especially problematic because they cause great egrets to lay thinner eggs that are more susceptible to cracking or damage before the young hatch. Mercury has been found at high levels in the feathers of numerous avian species including great egrets. The amount of mercury found depends on age, sex, geographic location, and mercury concentrations in the habitat around them including the air, soil and organisms they consume. These contaminations have also been found to negatively effect behavior, physiology, and reproduction. (Burger and Gochfeld, 1997; Connecticut Department of Environmental Protection, 2000)

## Contributors

Jessica Jones (author), Western Maryland College.

Randall L. Morrison (editor), Western Maryland College. Alaine Camfield (editor), Animal Diversity Web.

## References

Burger, J., M. Gochfeld. 1997. Risk, mercury levels, and birds: relating adverse laboratory effects to field biomonitoring. *Environmental Research*, 75: 160-172.

Chisholm, D. 2001. Showy snowy and great egrets!. *Photographic Society of America Journal*, November: 32.

Connecticut Department of Environmental Protection, 2000. "Wildlife in Connecticut" (On-line). Accessed 11/20/2003 at <http://dep.state.ct.us/burnatr/wildlife/factshts/gegret.htm>.

Drummond, H. 2001. A revaluation of the role of food in broodmate aggression. *Animal Behaviour*, 61: 517-526.

Gough, G., J. Sauer, M. Iliff. 1998. "Patuxent Bird Identification Infocenter" (On-line). Accessed 11/20/2003 at <http://www.mbr-pwrc.usgs.gov/Infocenter/infocenter.html>.

Hill, K. 2001. "Smithsonian Marine Station at Fort Pierce" (On-line). Accessed 11/20/2003 at [http://www.sms.si.edu/IRLSpec/Ardea\\_alba.htm](http://www.sms.si.edu/IRLSpec/Ardea_alba.htm).

Illinois Department of Natural Resources, 1998. "Illinois Natural History Survey" (On-line). Accessed 11/20/2003 at <http://www.inhs.uiuc.edu/chf/pub/ifwis/birds/great-egret.html>.

Kushlan, J. 1978. Nonrigorous foraging by robbing egrets. *Ecology*, 59, No. 4: 649-653.

Oregon Zoo, 2002. "Oregon Zoo Animals:Great Egret" (On-line). Accessed 11/20/2003 at [http://www.zooregon.org/Cards/Cascades/great\\_egrets.htm](http://www.zooregon.org/Cards/Cascades/great_egrets.htm).

Sheehey, A. 1998. "A Field Guide to the Birds of Kern County" (On-line). Accessed 11/20/2003 at <http://www.natureali.com/GrEg.htm>.

**To cite this page:** Jones, J. 2002. "Ardea alba" (On-line), Animal Diversity Web. Accessed January 23, 2008 at [http://animaldiversity.ummz.umich.edu/site/accounts/information/Ardea\\_alba.html](http://animaldiversity.ummz.umich.edu/site/accounts/information/Ardea_alba.html).

---

**Disclaimer:** The Animal Diversity Web is an educational resource **written largely by and for college students**. ADW doesn't cover all species in the world, nor does it include all the latest scientific information about organisms we describe. Though we edit our accounts for accuracy, we cannot guarantee all information in those accounts. While ADW staff and contributors provide references to books and websites that we believe are reputable, we cannot necessarily endorse the contents of references beyond our control.

Other formats: **OWL**

---

[Home](#) | [About Us](#) | [Special Topics](#) | [Teaching](#) | [About Animal Names](#) | [Help](#)

Structured Inquiry Search

[Report Error](#) — [Comment](#)

Sponsored in part by the Interagency Education Research Initiative, the Homeland Foundation and the University of Michigan Museum of Zoology. *The ADW Team gratefully acknowledges their support.*

©1995-2006, The Regents of the University of Michigan and its licensors. All rights reserved.

 UNIVERSITY OF MICHIGAN

