

# Great Blue Heron

*Ardea herodias*



Photo credit: Darren Colello

*By Clara Johnson*

Great blue herons are a very common bird species found in warm wetland areas of North America. There are many chances to see great blue herons in the Pacific Northwest. These stately birds can be seen fishing along the banks of many water ways and along the ocean coast, or flying in the air with their huge wings gracefully beating and their long necks held in their distinctive S shape.

## Characteristics

The great blue heron is one of the largest herons in the world. The adult heron stands more than 1 meter (3 feet) high, has a wing span of about 2 meters (6.5 feet), and weighs about 2.5 kg (5.5 pounds). The heron's body and wings are slate blue. Their legs are long and yellow. The adult's head is white with a black stripe above each eye that extends down to the plumes at the back of the head. The juveniles have grey heads and lack the plumes which will grow on their necks later in life. The heron has a long, pointed yellow bill which it uses for fishing.

Male and female herons look very much alike - the only difference is that males are generally larger and have longer bills than females. During breeding both males and females will have ornate plumes on their heads, necks and back that will show brighter colours in their feathers.

The great blue heron's huge wings beat slowly during flight, its legs trail behind its body, and its neck is held in a large S curve with its head resting on its shoulders. While walking on land or in the water the heron takes long slow strides with its long legs, with its neck usually held in a long elegant S curve.

## Life Cycle

Pair bonding between great blue herons occurs from mid-February to early March in areas where they live year round, and mid-March to early April in areas where they migrate in for the spring and summer. Elaborate courtship rituals are performed by both males and females.

When great blue herons arrive at their nesting grounds in the spring, they nest in large groups called colonies or heronries. Colonies of herons may be made up of a few pairs to hundreds of pairs. Most colony sites are occupied repeatedly over many years, with the existing nests re-inhabited and new nests added. Adult herons usually return to nest in the same colony they were born in while others are attracted from nearby heronries. This helps to ensure genetic diversity.

Nests are made typically in trees at about 20-50 metres (65-165 feet) above the ground. The nests are made from dry branches and are lined with twigs, moss, lichens or conifer needles. The male heron will bring materials to the female heron who constructs the nest. It takes about a week for a nest to be completed. The nest can be up to a metre (3 feet) in diameter and half a metre (20 inches) thick.

Three to five eggs are laid one or two days apart. It takes about 28 days to incubate each egg. Both adult herons share equally in the incubating and feeding duties. One of the adults will fly off to find food while the other stays at the nest. The returning adult will then feed the young by regurgitating directly into the chicks' open beaks.

Mortality for young birds is very high in their first year. The strongest chicks will get most of the available food from their parents. Many of the young chicks will starve and may be pushed out of the nest by their stronger siblings. Predators such as bald eagles and raccoons are also a threat to the young birds.

Great blue herons develop rapidly after they hatch. At 2 weeks of age they begin to clean their wings. At 6 weeks they begin to prepare for their initial flight by walking along branches and jumping up while beating their wings. At 8 weeks of age the young will fly from one tree to another. At about 10 weeks old the young great blue herons leave their parents nest for good and will then be independent.

The great blue heron begin mating at 2 years of age. Adults stay together for the breeding season but form new pair bonds each spring. Their normal life span is 15 to 20 years.

## **Habitat**

Great blue herons forage for food in coastal ocean waters, river or lake edges, marshes and many other wetland habitats. Their nests are usually high up in trees close to the water.

Great blue herons can be found in most warm wetland habitats in North America. Their range is greatest during the breeding season when they can be found in most provinces in Canada and as far north as Alaska on the west coast of North America. Many herons migrate south to ice-free regions for the winter. Some birds that have been banded by scientist in Canada have been found as far south as Ecuador's Galapagos Islands. But on the warmer west coast of British Columbia many of the birds stay in the area all year round.

The easiest time to spot a great blue heron is when it is fishing in shallow water at the edge of a pond, lake or ocean coastline. It typically catches its food by standing motionless at the edge of the water until it sees a fish, and then it will suddenly plunge its head into the water, catch the fish in its bill, and then swallow it outside the water. The great blue heron may also wade around in about 15 to 25 cm (5 to 10 inches) of water to stir fish out from a hiding place to make them easier to catch.

Great blue herons also eats shellfish, insects, small rodents, amphibians (mostly frogs), reptiles and small birds.

## **Behaviour**

The great blue heron is generally silent when flying or fishing, but has a loud clear voice which can be easily heard when it is close to its nesting colony. When approaching the nest a heron will often give a *roh-roh-roh* sound, likely to let its mate know it is coming. A *frawnk* sound is used to sound an alarm to the nesting colony. A *gooo* call is often heard at the end of a courtship ritual.

The heron's long bill is also used for communication through loud bill snapping during courting rituals, or to ward off other herons. Pair bonded couples will often tap each other's bills in a rapid side-to-side movement.

## **Threat**

The great blue heron population in North America is generally healthy. Scientists currently estimate there are tens of thousands of these birds in Canada. The Committee on the Status of Endangered Wildlife in Canada has listed the great blue heron as a "Species of Concern" due to increases in human activity in areas where they live. The herons, their nests, and eggs are protected by the British Columbia Wild Life Act. The great blue heron is on the British Columbia Blue List of "Species at Risk". Many governments in the United States have also put the great blue heron on their lists of wild life species that need protection and have implemented programs to protect these birds.

Birds of prey are also amongst the threats to great blue herons. The young herons are at risk of being eaten by birds of prey such as bald eagles who can attack heron nests.

## ***What We Can Do To Help***

Great blue herons live in warm wetland areas, and many humans also live in warm wetland areas. The activities of humans can be detrimental to the birds. Draining and filling wetland areas destroys the heron's hunting grounds, reducing their supply of food. The number of young birds which can survive to breeding age depends upon the amount of food available in the nesting areas. The lands around the Strait of Georgia and the Puget Sound in the Pacific Northwest are of significant concern due to increasing industrial and residential development in the area. It is important to preserve the environment around us to help preserve wildlife like the great blue heron.

Adult nesting birds are also very sensitive to human activity. Sudden loud noises can cause the adult herons to abandon their nests. Scientists suggest that human building developments should not be considered within 300 meters (985 feet) of a nesting colony and a quiet zone should be observed in the same area.

Great blue herons are some of the largest most easily found birds in the Pacific Northwest and in many other wetland environments in North America. Taking the time to learn about these birds and to quietly watch them as they hunt for food is an important way to increase your knowledge and understanding of the environment and the animals which share this environment with us.

## ***Other Interesting Facts***

Many of the great blue herons which live in Vancouver's Stanley Park have their nests in the trees immediately next to the Park Board office and around the tennis courts. These great blue herons have a fan base amongst the people who live and work near the park. You can read journal entries from the Stanley Park Ecology Society describing mating, nesting, and feeding activities as well as the latest news updates on this colony at:

<http://www.vcn.bc.ca/spes/urbanwildlife/heronry.php>

## ***Bibliography***

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<http://www.sfu.ca/biology/wildberg/hwg/heronworkgroup.html>

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