

## American Bald Eagle

### *Haliaeetus leucocephalus*

#### About Liberty the South Carolina Aquarium's resident Bald Eagle:

Found injured in Naples, Florida in October 2007, the South Carolina Aquarium's resident Bald Eagle, Liberty, is flightless due to a left wing injury. A common cause of eagle wing injuries are power lines, however the exact cause of her injury is unknown. She was moved from Florida to the American Eagle Foundation in Pigeon Forge, Tennessee and then to the Aquarium. Liberty now resides full-time at the Aquarium in her deluxe accommodations known as Eagle Rock, a 250-square foot exhibit, custom designed for the flightless bald eagle. The exhibit site features low to the ground perches with natural ramps designed so that she may walk up to various levels and ground level water through a flowing water fall with a re-circulating pool to provide clean water and adequate space for her to bathe. Due to her injuries, Liberty would be unable to survive in the wild on her own.

#### About Bald Eagles:

**Description:** The American Bald Eagle is the only eagle unique to North America. The American Bald Eagle's scientific name denotes a sea (halo) eagle (aetos) with a white (leukos) head. The Bald Eagle can be most readily identified by its uniformly brown body and its bright white head and tail. Males and females share the same plumage coloration, but females are generally about 25% larger than males (reversed sexual dimorphism). Females tend to have a deeper beak. The beak, feet, and irises are all yellow.

Their vision is excellent. They can see 4 times better than even the best human eye. 1000ft above the ground, they can spot prey over a 3 sq mi area.

Their wings are tapered towards the ends. This allows the air to cut through, and reduces turbulence.

**Size:** Adult Bald Eagles measure 2.5 to 3 feet in body length. Females can have wing spans of up to 7.5 feet, while males' wingspan can reach 5.5 feet. Weight and size vary by region; Bald Eagles found in southern, warmer areas of North America are smaller while those found in northern regions including Alaska are larger. Females can weigh up to 15 pounds and males can reach 12 pounds.

**Habitat:** These animals prefer to live near wide open bodies of water such as oceans, lakes, and wide rivers that contain abundant fish. Bald Eagles perch and nest in mature coniferous and hardwood forests. They are very sensitive to human development, and avoid centers of human population.

**Range:** Bald Eagles can be found throughout North America. Their populations are concentrated along the northern pacific coast, the northern Rocky Mountains, and the northeastern Great Lakes region. Northern eagles will migrate to open water in winter, many times congregating at dams for easy meals.

**Predators:** Occasionally adult Bald Eagles will fight each other over territory. Raccoons and other scavengers may target eagle eggs for food. Humans are by far the largest threat to Bald Eagles.

**Diet/Prey:** Bald Eagles are skilled opportunistic hunters that primarily prey on fish, although they will also target small mammals such as rabbits and deer fawn, and smaller birds such as ducks and geese. During lean winters they may scavenge carrion.

**Aquarium Diet:** Mice, rats, fish, quail and chicks.

**Reproduction:** Bald Eagles reach sexual maturity at 3 to 5 years. They are monogamous, but if their mating partner dies, the survivor will often find another mate. Courtship involves elaborate displays of coordinated flying, including swoops, chases, and aerial cartwheels. Eagle mates will also lock talons in mid air and free fall together, bailing out and flying off just before hitting the ground. Eagles build upon the same nest over many years, resulting in nests that are sometimes as large as 10 feet deep and 8 feet wide. They produce between one and three eggs per year, and males and females take turns caring for the eggs. Eggs hatch in about 7 weeks, and the young eagles usually leave the nest after 4 months when they take their first flights. Juveniles are mottled brown with white specs and are often confused with golden eagles. They will not get their white heads until they are 4 years old.

**Fun Facts:**

- Eagles can live up to 30 years in the wild, and perhaps longer in captivity – one lived at least 48 years.
- The largest Bald Eagle nest every recorded was found in Florida, and it was 9 feet wide, 20 feet deep, and weighed close to 2 tons.
- Bald Eagles are not bald... 'bald' is a derivation of the old English word 'balde' meaning 'white.'
- Bald Eagles can dive through the air at up to 90mph!
- Bald Eagles can swim for short moments via a butterfly stroke using their wings
- Bald Eagles are America's national bird, and the symbol of the United States
- Ironically, Eagles are known to practice kleptoparasitism: stealing food from other birds of prey that are already caught and killed
- The Bald Eagle has been a sacred bird in many Native American cultures, and considered to be spiritual messengers between divine powers and humans in some cases. Native American groups are under special permit to collect feathers to use in traditional ways.

**Conservation Connection:** Original colonists to America started competing with eagles for food and habitat. By the 1950s they were all ready in a great decline, but humans have had a detrimental impact on Bald Eagles in recent history. Widespread use of the pesticide DDT during the 20th century in or near eagle habitat caused this chemical to become biomagnified in this top predator, leading to problems with calcium metabolism that harmed egg development and sometimes produced sterile offspring. Also, because eagles are very sensitive to and avoid human populations, development of eagle habitat and human population expansion began to seriously affect eagle populations by the mid 20th century. By the 1950's there were only 412 documented mating pairs of Bald Eagles left in the lower 48 states. Illegal eagle hunting further perpetuated this decline. The Bald Eagle was declared endangered in 1967.

DDT as a pesticide was banned in the 1970's, and penalties for eagle hunting became severe. This

helped eagle populations rebound, and by the early 21st century it appeared that Bald Eagles had made a strong comeback. As of 2007, they are now recognized as an animal of “least concern” according to the IUCN Red List. Furthermore, in parts of North America where Bald Eagle populations are high, such as the northern pacific coast in British Columbia and Alaska, eco-tourism often incorporates Bald Eagle watching, which fosters reverence for these animals and helps to buttress the economics of protecting Bald Eagle habitats. Today, habitat destruction is the most serious threat to Bald Eagles.

Ecology: Bald Eagles are a top predator in their environment, and as such, they help to control the populations of the animals on which they prey.

Status in SC: Resident, breeding; semi-sparse

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