



BROWN PELICAN

PELECANIFORMES

Family: Pelecanidae

Genus: *Pelecanus*

Species: *occidentalis*



Range: Widely distributed from south coasts of Western Canada to southern South America

Habitat: Maritime; salt waters. Strictly coastal and rarely seen inland

Niche: Aquatic, carnivorous, diurnal

Wild diet: Fish such as anchovies and sardines and some crustaceans such as shrimp

Zoo diet: Variety of available small fish

Life Span: (Wild) 15-25 years
(Captivity) record of 54 years

Sexual dimorphism: Males have longer bills and are slightly larger than females

Location in SF Zoo: Upper Lake

APPEARANCE & PHYSICAL ADAPTATIONS:

Bulky body, white head, pale yellow wash on crown; bill grayish; back, rump, and tail streaked with gray and dark brown; breast and belly blackish brown; eyes pale yellow; legs and feet black. Immature birds have a brown-gray neck; gray-brown back with white under-parts. Pelicans are light, having numerous air spaces beneath the skin and in the bones. They have extremely keen eyesight. Pelecaniformes are the only birds that share in common a totipalmate foot; all four toes are united by a web.

Weight: 8 to 10 lbs.

Length / Height: 3.5 to 4.5 ft

Wing span: 6.5 to 7.5 ft

Pelicans have an enormous, pouched bill with a gular pouch used for scooping fish (up to 4 lbs fish/day). Capacity may exceed 12 quarts. Pelicans hold their catch and let the water drain from the corners before they swallow. On land, it sometimes sags almost to the ground. Once the water is out, the pelican then swallows the fish and carries them in its esophagus. The pouch also serves as a cooling mechanism in hot weather, and as a feeding trough for young pelicans.

STATUS & CONSERVATION

This bird was almost decimated by hunters who provided pelican feathers for adorning ladies' hats and garments, egg collectors; and fisherman who thought pelicans ate too many fish. Efforts to secure the pelican's future brought some legal protection and, in 1903, the first D.S. National Wildlife Refuge, Florida's Pelican Island, was established. Brown pelicans are doing well in California since DDT was banned in 1972. The toxic pollutants caused the shells of eggs to be thin, thus making them very vulnerable to breakage in the nest. Predation and human disturbance of colonies and decline in food availability are major problems. They remain endangered in California, Texas, and Louisiana. They were removed from the Endangered Species List in 2009.

COMMUNICATION AND OTHER BEHAVIOR

Brown pelicans are virtually voiceless in their activities. They hunt by diving from the air for menhaden, pigfish, pinfish, herring, grass, and top minnows and some crustaceans, usually prawns. They dive deeply into the water and may submerge completely or only partially, depending upon the height of the dive, and come up with a mouthful of fish.

Pelicans are magnificent flyers capable of sustained soaring flight over great distances. They frequently migrate in large flocks, often flying low in a V-formation. When migrating or looking for good fishing areas, they take off in flocks, using thermal currents to give them height. Brown pelicans are unique in that they dive from the air from heights of up to 30 feet for food, keeping their wings partly folded. Under its skin on the breast, the layer of air pockets protects the bird from the force of the dive.

COURTSHIP AND YOUNG

Usually short and unspectacular with an “advertising” display to attract females. Pair formation probably occurs immediately preceding egg-laying. Altricial young stay in nest or near it for about 5 weeks. Eggs, when laid, quickly become encased in whitish lime. Usually only one young is raised. Pelican nesting peaks during March and April. Great adaptability in nesting. Nest in colonies in trees, bushes or on ground; if nest is in trees, reeds, grasses, and straw are heaped on mound of sticks interwoven into supporting branches; if on ground maybe a shallow scrape lined with a few feathers and a rim of soil and debris built up 4-10 inches above ground or large mound of soil and debris with cavity in top.

Unlike most birds, which warm their eggs with the skin of their breasts, pelicans incubate their eggs with their feet. They hold the eggs under the webs that stretch from the front toes to the hind toe, essentially standing on the eggs to warm them.

Incubation: 28 - 30 days (both parents)	Sexual Maturity: 2 – 5 years
# of eggs: 2 - 3	Fledging: 5 weeks

MISCELLANEOUS

The brown pelican is plentiful along the southern gulf coasts of the U.S.A., particularly when sharks and large fish drive smaller fish inshore. Often small gulls will pilfer some of the pelican's catch when it emerges from the water. The eight known species, six of which are in the Old World and two in the New World, are chiefly inhabitants of tropical and warm areas. The plumage of all sexes is alike and the young require several years to acquire adult plumage. All are highly communal in their activities and are aerial acrobats.

Sources:

Walker's 1999, Vol. II;

Grzimek, 1990, Vol. 5;

Animal Diversity Web: http://animaldiversity.ummz.umich.edu/site/accounts/information/Pelecanus_occidentalis.html

Environmental Defense Fund: <http://www.edf.org>

U.S. Fish & Wildlife: <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B02L>

Handbook of the Birds of the World, 1992, Lynx Edicions

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