**American White Pelican (*Pelecanus erythrorhynchos)***

Jami Crego

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 Every summer, lakes and marshes in BC’s interior are visited by a unique transient, the American White Pelican. This feathered behemoth is one of the largest birds in North America, weighing 6-7 kg with a 9 foot wingspan that is second only to the California Condor. They stand almost four feet high, and mature adults are white with black primary feathers, a long orange bill with an expanding pouch, large, webbed feet, and a stubby tail. In the breeding season, sexually mature pelicans grow a triangular nuptial tubercule on top of their bill that drops off later in the year. Juvenile pelicans have gray feathering on their necks and back that fades to white in their second year. Travelling, flocks of pelicans can fly high by utilizing thermal air currents, and travel in a straight line or ‘V’ formation.

 The pelican’s expandable gular pouch serves four functions: it catches fish, holds regurgitated food for chicks, and is futtered and shaken for courtship displays and cooling. Unless carrying food to their chicks, pelicans do not store fish in their pouch; they scoop prey, then tilt their beaks up and let the water drain out of their bill before swallowing. Pelicans are piscivores: they primarily eat fish, like non-game species such as suckers and shiners, but also consume frogs, salamanders, and crayfish. They eat 3-4 pounds daily.

 Pelicans forage solo, but also hunt strategically as a flock. They will form a semi-circle and flap to chase schools of fish into the shallows, or a group of pelicans may scare fish towards another group, that later reciprocates. They feed most actively during the day and evenings, but have also been known to hunt at night, feeling in the shallows for prey.

 During the spring and summer, pelicans can be seen in inland lakes, marshes, rivers, and along coast lines. They especially like deltas and estuaries for the feeding and ‘loafing’ opportunities offered. They can be seen spring through summer in the Cariboo Chilcotin, preferring lakes and marshes with floating logs, sandbars, small islands, and shallow waters.

Stum Lake, found within the White Pelican Provincial Park on the Chilcotin plateau approximately 60 km northwest of Williams Lake, is the only nesting site in British Columbia. Pelicans are particular about where they nest: it must be a small island, relatively barren of tall foliage, in a lake near viable food sources and where the water surrounding the colony’s island is deep enough that terrestrial predators cannot reach it. Birds returning from wintering along the coasts of California, Florida, and the Gulf of Mexico arrive at Stum Lake between April 20th to April 30th; the lake is closed to human traffic and low flying aircraft annually from March 1st to August 31st to protect the birds from disturbances. Stress from human interference can lead to abandonment and the loss of all offspring.

While nesting, pelicans typically stay within 165 km of Stum Lake, foraging at numerous small lakes nearby, then expanding their range when the young can fly. The nearby Nazko Lake Chain can provide excellent viewing opportunities from spring through early summer. The male attracts a female through courtship displays, and together they scrape a nest in the rookery. The female lays 1-3 eggs, although only half will become fledglings. Like penguins, the pelicans incubate the eggs on their webbed feet. Both parents contribute equally to chick rearing, taking turns from incubating the eggs or guarding chicks to forage for two to three days, then return to exchange places. At approximately four weeks, the fledglings leave their parent’s nest to join a ‘pod’ of other fledglings on the island, although their parents continue to bring them food until they are flying and foraging themselves between 7-8 weeks.

In British Columbia, White Pelicans are recognized as an endangered species and are on the Provincial Red List. They are also protected under the Wildlife Act and the Migratory Bird Treaty of 1918. It is illegal to capture, disturb, or kill them. The 2021 Conservation Status Report estimates only 832 breeding pelicans are in BC; total population estimates for BC range from between 1100-1800 birds total. Under the Forest and Range Protection Act, 19 wildlife habitat areas that include pelican foraging sites are protected, although greater protection of foraging, nesting, and loafing sites are still needed.

Population loss during the 20th century due to habitat loss, human interference, and chemical pesticides such as DDT led to enhanced efforts being made to protect pelicans, and their population has managed to remain stable although not quite restored. In BC the species is identified as at medium to high risk. The Identified Wildlife Management Strategy includes pelican habitats in their planning to reduce human impact and preserve lakes frequented by pelicans.

This species is vulnerable for several reasons. Their limited nesting sites, low clutch numbers, and longer sexual immaturity (they cannot breed until their third year) means the population cannot quickly recover from losses. Birds are also exposed to greater risks during migrations. Complications arising from climate change, such as spring heat waves that kill nestlings, drastic fluctuations of temperature and water levels, and wildfires that destroy their habitat all contribute to pelicans’ at-risk status. Increasing urbanization is disrupting and destroying pelican habitat, which is also essential for supporting other wildlife.

Only two nesting islands remain at Stum Lake, so it is essential to stabilize the lake’s water levels to preserve these breeding colonies. More protection is needed for the pelicans foraging lakes, with nearby irrigation being planned out to avoid negatively impacting critical lakes. Better planning is needed for road and housing developments to avoid habitat disruptions and reduce environmental damage. Creating a buffer around sensitive wildlife areas would also be helpful to protect them from human disturbances. Individuals wanting to observe pelicans can do so without motorized watercraft, at a respectful distance to avoid distressing the birds. They should also refrain from introducing foreign game fish species that replace the pelicans’ natural food supply, respect restrictions within provincial parks and protected areas, and encourage legislation and conservation efforts intended to protect BC’s vulnerable species.

**References**

Audubon (2023, July 24). Guide to North American Birds: American White Pelican. Audubon.org.

<https://www.audubon.org/field-guide/bird/american-white-pelican>

BC Parks (2023, July 24). White Pelican Park. BCparks.ca. <https://bcparks.ca/white-pelican-park/>

BC Species & Ecosystems Explorer (BCSEE). (2023, July 23). *Pelecanus erythrorhynchos*. BC Conservation Data

Center. Gov.bc.ca. <https://a100.gov.bc.ca/pub/eswp/reports.do?elcode=ABNFC01010>

B.C. Conservation Data Centre. 2008. Species Summary: *Pelecanus erythrorhynchos*. B.C. Minist. of

Environment. Available: <https://a100.gov.bc.ca/pub/eswp/> (accessed Jul 27, 2023).

B.C. Conservation Data Centre. 2022. Conservation Status Report: *Pelecanus erythrorhynchos*. B.C.

Minist. of Environment. Available: <https://a100.gov.bc.ca/pub/eswp/> (accessed Jul 27, 2023).

Blood, D. (1993). Wildlife in British Columbia at Risk: american white pelican. Province of British

Columbia, Ministry of Environment, Land, and Parks. <https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/species-ecosystems-at-risk/brochures/american_white_pelican.pdf>

British Columbia.com. (2021) White Pelican Provincial Park. Britishcolumbia.com.

<https://britishcolumbia.com/things-to-do-and-see/parks-and-trails/cariboo-chilcotin-coast/white-pelican-provincial-park/>

Nature Works. (2023, July 24). *American White Pelican- Pelecanus Erythrorhynchos.*

<https://nhpbs.org/natureworks/whitepelican.htm>

San Francisco Zoo & Gardens. (2023, July 24). *American White Pelican*. Sfzoo.org.

<https://www.sfzoo.org/american-white-pelican/>