

of these pairs raised 13 young.

- Although the population is relatively stable parkwide, few of the nests in the Yellowstone Lake area succeeded.
- Bald eagles, like osprey, are among the fish-eating wildlife being monitored to determine any effect from the declining cutthroat trout population.

Osprey (*Pandion haliaeetus*)

Like many other birds of prey, osprey populations declined due to pesticides in the mid-20th century. Its populations rebounded during the latter part of the 20th century. Monitored since the late 1980s, Yellowstone's population of osprey is considered relatively stable. On average, 50 percent of nests succeed (produce eggs) each year, with each successful nest producing an average of one young. These statistics are slightly lower than expected for a stable and healthy population, and may be explained by the park's harsh environment. As with bald eagles, scientists suspect that declining nest success for osprey around Yellowstone Lake is due, in part, to the decline of cutthroat trout.

Identification

- Slightly smaller than bald eagle.
- Mostly white belly, white head with dark streak through eye.
- Narrow wings with dark patch at bend.

Habitat

- Usually near lakes (such as Yellowstone Lake), river valleys (such as Hayden and Lamar valleys), and in river canyons (such as the Gardner Canyon and the Grand Canyon of the Yellowstone River).

Behavior

- Generally returns to Yellowstone in April & leaves in September.
- Builds nest of sticks in large trees or on pinnacles close to water.
- Lays 2–3 eggs in May to June.
- Eggs hatch in 4–5 weeks.
- Young can fly when 7–8 weeks old.
- Feed almost entirely on fish.
- Often hovers 30–100 feet above water before diving for a fish.
- In the air, arranges the fish with its head pointed forward to reduce its resistance to air.



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An osprey in Yellowstone National Park.

2011 Status

- In Yellowstone, the osprey population fluctuates, with 31 nests producing 25 young in 2007 and a high of 100 nests and 101 fledglings in 1994.
- Overall, osprey reproduction has increased each year since 2003.
- In 2011, osprey occupied 26 nests; 13 of these breeding pairs successfully fledged 24 young. However, none of the nests in the Yellowstone Lake area succeeded.
- Osprey in Yellowstone are being monitored, along with other fish-eating wildlife, to find out if they are affected by the declining population of cutthroat trout.

Trumpeter Swan (*Cygnus buccinator*)

Trumpeter swans in North America neared extirpation in the early 1900s due to human encroachment, habitat destruction, and the commercial swan-skin trade. Small populations survived in isolated areas such as Yellowstone. Red Rock Lakes National Wildlife Refuge, west of the park, was set aside in the 1930s specifically for this species. In the 1950s, a sizeable population of swans was discovered in Alaska. Today, more than 46,200 trumpeters exist in North America. Their population in the Greater Yellowstone area (GYA) is considered stable, but the park's population is declining. In recent years, fewer than 10 swans have lived here year-round. Winter numbers vary from 60 to several hundred. Reproduction rates are low. Scientists suspect that several factors are contributing to this decline:

- loss of wetlands during an extended drought in the late 20th and early 21st centuries
- fewer trumpeter swans taking up residence in the park



A trumpeter swan in Yellowstone National Park.

- competition with swans that migrate to the park for the winter
- increased predation by coyotes & wolves

Information on the GYA resident swan and wintering swan populations dates back to 1931 and 1971, respectively. Federal agencies conduct two annual surveys: The February survey counts how many migrant swans winter in the region; the September survey estimates the resident swan population and annual number of young that fledge (leave the nest).

Trumpeter swans are particularly sensitive to human disturbance. Because of this, park managers restrict human activity in known swan territories and nesting areas. Scientists are also conducting studies to determine the habitat requirements for the swan's nesting.

Identification

- Largest wild fowl in North America.
- White feathers, black bill with a pink streak at the base of the upper mandible.

- During migration, can be confused with the tundra swan, which is smaller, has rounder head, lacks pink mandible stripe, sometimes has yellow spot in front of eye.

Habitat

- Slow moving rivers or quiet lakes.
- Nest is a large, floating mass of vegetation.

Behavior

- Feed on submerged vegetation and aquatic invertebrates.
- Low reproduction rates: in 2007, 2009, and 2010, no cygnets fledged.
- Can fail to hatch eggs if disturbed by humans.
- Lay 4–6 eggs in June; cygnets fledge in late September or early October.
- Usually in pairs with cygnets in summer; larger groups in winter.

2011 Status

- Trumpeter swans are increasing in the Rocky Mountain region, stable in the Greater Yellowstone Ecosystem, but declining in Yellowstone National Park.
- Winter population in the region varies from 2,000–4,000; in the park, varies from fewer than one hundred to several hundred.
- There was no swan reproduction in 2011.
- Limiting factors in Yellowstone appear to be flooding of nests, predation, competition with wintering swans, possibly effects of drought, and less immigration into the park from outside locations.