YELLOWSTONE BIRD REPORT 2000

Terry McEneaney

Yellowstone Center for Resources
National Park Service
Yellowstone National Park, Wyoming

YCR–NR–2001–01

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Suggested citation: McEneaney, T. 2001. Yellowstone Bird Report, 2000. National Park Service, Yellowstone Center for Resources, Yellowstone National Park, Wyoming, YCR–NR–2001–01.

*Cover: Special thanks to my wife, Karen McEneaney, for her wonderful pencil drawing of three bird eggs. Bird eggs are some of the most beautiful objects in the natural world, and very difficult to draw. The smallest egg is that of a Calliope Hummingbird (*Stellula calliope*), the smallest and lightest bird in Yellowstone National Park. The largest egg is that of a Trumpeter Swan (*Cygnus buccinator*), the heaviest and largest bird in the park. The egg in the middle of the drawing is that of a Sandhill Crane (*Grus canadensis*), a medium-sized egg with unique brown pigmentation specifically adapted to conceal the egg from predators.*

Title page: An extremely rare photograph of a Virginia Rail chick in Yellowstone National Park. The park ornithologist rarely handles birdlife, but special cases require photo documentation. Special care must be taken when handling these rarities to ensure their survival.

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Northern Saw-Whet Owl. Terry McEneaney.

Bridge Bay Lagoon.

Bechler region.

White Lake.

Yellowstone Delta.

Drought-like conditions in the park in 2000. Photos by Terry McEneaney.

INTRODUCTION

The 2000 Yellowstone Bird Report is an annual report that summarizes bird information in Yellowstone National Park. The report originally started as a quarterly publication, then, beginning in 1996, it became an annual document summarizing all results and activities that occurred within the calendar year. Information found in this publication is also referenced in the Superintendent's Annual Report and provides valuable information for the Yellowstone historical record and interested public.

WEATHER PATTERNS AND SUMMARY

The twentieth century ended with a series of years with milder-than-normal weather conditions. In Yellowstone, the 1999–2000 winter was relatively mild, resulting in a slightly below average snowpack. Below average precipitation and above average temperatures continued through the spring, summer, and fall. Although snow runoff was uneventful and vegetative conditions very dry throughout this period, precipitation was just enough to prevent severe drought conditions. However, water levels in the park were as low as anyone could recall. Hard hit and most noticeable were the Yellowstone River, Yellowstone Lake, the northern range, and the Bechler area.

Seasons are highly variable in Yellowstone, but the summer of 2000 was characterized as being relatively warm and dry, particularly at high elevations. There were numerous lightning strikes; therefore, wildfire reports were average to slightly above average. Although western Montana was experiencing one of the worst fire seasons on record, Yellowstone was spared due to small amounts of precipitation that fell at critical times. The fall, on the other hand, was quite dry, windy, and warm. By late fall and early winter, precipitation was slow in coming, leaving very little snow on the high peaks. Large numbers of elk remained in the park until the end of December.

TABLE 1. 1999/2000 TEMPERATURE AND PRECIPITATION COMPARISONS

TEMPERATURE (°F)

	1999		2000	
Month	**Min.**	**Max.**	**Min.**	**Max.**
Jan	-26 OF	44 OF	-26 SR	46 M
Feb	-27 OF	50 T	-26 SR	50 T
Mar	-28 OF	66 M	-20 OF	57 T
Apr	-9 L	66 M	-5 L	75 M
May	4 L	78 M	15 L	71 T
Jun	10 OF	84 OF	16 T	87 M
Jul	22 OF	92 T	24 T	95 M
Aug	26 T	88 M	21 T	96 M
Sep	4 T	80 M	1 L	87 T
Oct	10 OF	72 T	9 SR	71 T
Nov	-9 OF	66 T	-17 T	48 T
Dec	-16 T	51 SR	-26 SR	39 T

PRECIPITATION (INCHES)

	1999		2000	
Month	**Min.**	**Max.**	**Min.**	**Max.**
Jan	1.07 M	7.39 SR	0.95 M	4.65 SR
Feb	0.94 T	5.13 SR	0.62 M	2.33 L
Mar	0.31 M	1.87 SR	1.17 OF	2.37 SR
Apr	1.14 OF	1.91 SR	0.78 T	1.62 L
May	1.51 T	3.86 SR	2.24 M	4.46 OF
Jun	1.59 M	4.02 L	1.54 L	2.43 SR
Jul	0.51 M	1.85 SR	0.20 T	0.67 SR
Aug	3.04 L	3.46 T	0.82 L	1.66 T
Sep	0.14 M	1.60 L	0.89 L	2.21 T
Oct	0.17 M	0.82 T	1.02 T	2.35 SR
Nov	0.31 T	2.57 SR	0.22 T	2.17 SR
Dec	0.95 M	2.90 SR	0.69 M	3.09 SR

L=Lake, M=Mammoth, OF=Old Faithful, SR=Snake River, and T=Tower.

Pilot Roger Stradley has played an important role in the bird program. He is seen here piloting an Osprey survey in the Grand Canyon of the Yellowstone. Terry McEneaney.

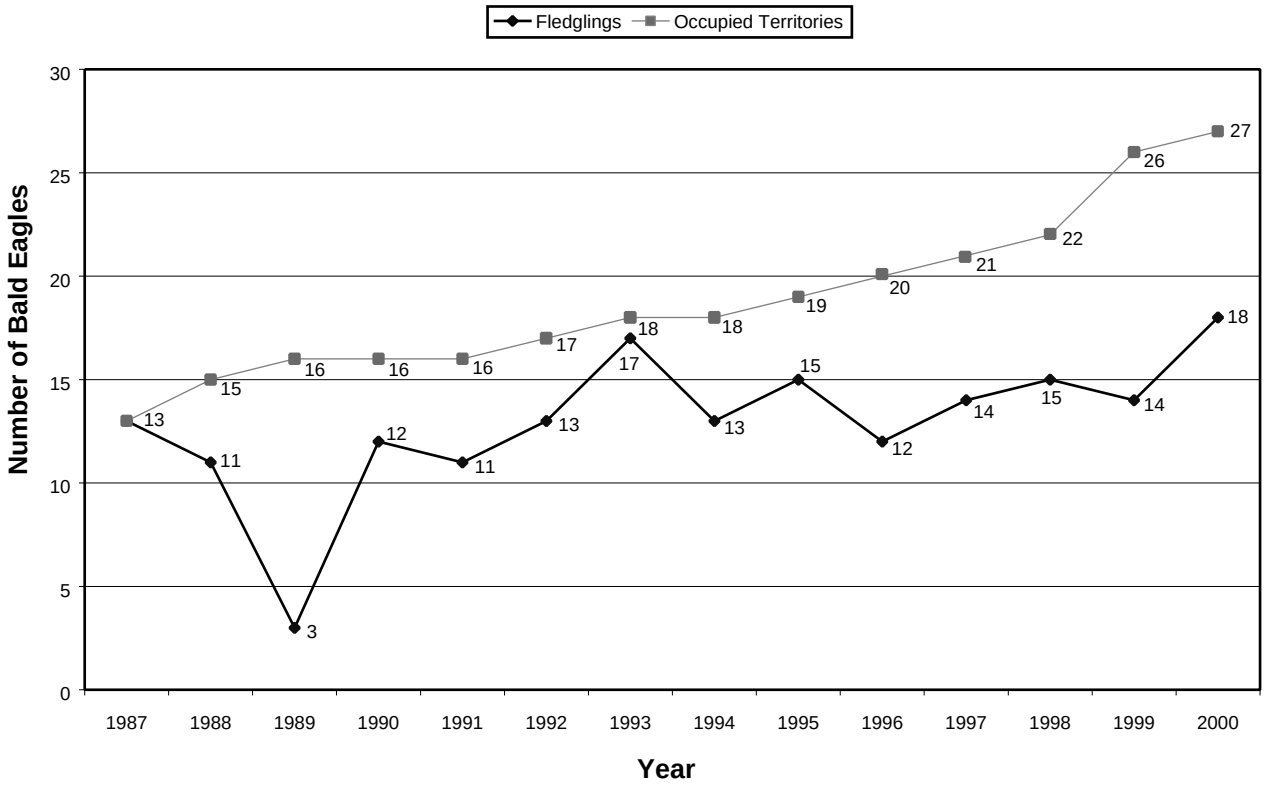
THREATENED AND ENDANGERED SPECIES

BALD EAGLE

In 1995, the U.S. Fish and Wildlife Service downlisted the Bald Eagle from endangered to threatened due to significant population gains made over the last three decades. Certain specific populations, however, are not completely recovered due to heavy metal contamination problems in the Great Lakes region, and habitat encroachment and development problems associated with riparian zones in the desert southwest.

In Yellowstone, a total of 18 eaglets fledged from 27 active nests during 2000 (Figure 1). The Yellowstone Bald Eagle population continues to incrementally increase. This year was no exception, with a new nest located on the northern range. Nest substrate instability, as a result of the 1988 Yellowstone wildfires, caused minimal problems this year for nesting pairs. However, in the next couple of decades we expect large numbers of trees to topple to the ground, which will undoubtedly result in nest failure, loss of nest sites, or sudden changes in location of a nesting territory. Although Bald Eagles have occasionally been documented taking over previously occupied Osprey nests, the incidence of takeover appears to be gradually increasing due to competition for nest sites.

Figure 1. Bald Eagle Productivity



Whooping Crane

The Whooping Crane is currently classified as an endangered species. The worldwide population consists of both wild and captive populations. This endemic North American species continues to rank as the rarest and most endangered crane in the world. Population figures as of 2000 placed the wild population at 265 cranes and the captive population at 122 cranes, for a total world population numbering 387 Whooping Cranes (Table 2, Figure 2).

A cross-fostering experiment to create a new migratory flock of Whooping Cranes took place in the Rocky Mountains in 1975. Under the direction of the U.S. Fish and Wildlife Service, researcher Rod Drewien transported Whooping Crane eggs from Wood Buffalo National Park in Alberta, Canada, and placed them under incubating Sandhill Cranes on Gray's Lake National Wildlife Refuge in Idaho. The main focus of this experiment was to have Sandhill Crane adults hatch and raise Whooping Crane young, thus leading immature Whooping Cranes on migration to a Sandhill Crane winter safehaven known as Bosque del Apache National Wildlife Refuge in New Mexico.

Initially, the cross-fostering experiment showed promising signs, but eventually problems began to develop. Of particular concern were high crane mortality and Whooping Crane mating behavioral problems associated with the experiment. However, a significant amount of valuable information was gained as a result of this study. A total of 289 eggs were removed from the wild for this experiment, which resulted in the Rocky Mountain Whooping Crane population reaching a peak of 35 subadults and adults in 1985. As of 1999, only two adults survived from the original experiment, and they resided within the greater Yellowstone. These birds were not paired. One bird resided in a remote area of Yellowstone National Park for many years, and the other frequented the Centennial Valley of Montana.

In addition, the Yellowstone National Park bird program had been monitoring a "sandhill-whooper" hybrid since it was discovered in 1992. The bird was frequently seen with a Sandhill Crane. However, this crane could not be located during the 1999 field season and presumably died on the wintering grounds. This bird had significant scientific value, since it would have allowed us an opportunity to determine whether it could reproduce successfully in the wild. This important piece of information could have assisted Whooping Crane recovery efforts in the future. However, these hopes faded with the death of this crane.

Another Whooping Crane management experiment occurred in the Rocky Mountains in 1997–1998 that had a bearing on Yellowstone National Park. Four young Whooping Cranes raised in captivity at Patuxent Wildlife Research Center in Maryland were transported to a ranch in eastern Idaho as part of an experiment to learn how to establish a new migratory

Table 2. 2000 Wild and Experimental Whooping Crane Populations

Wild Populations

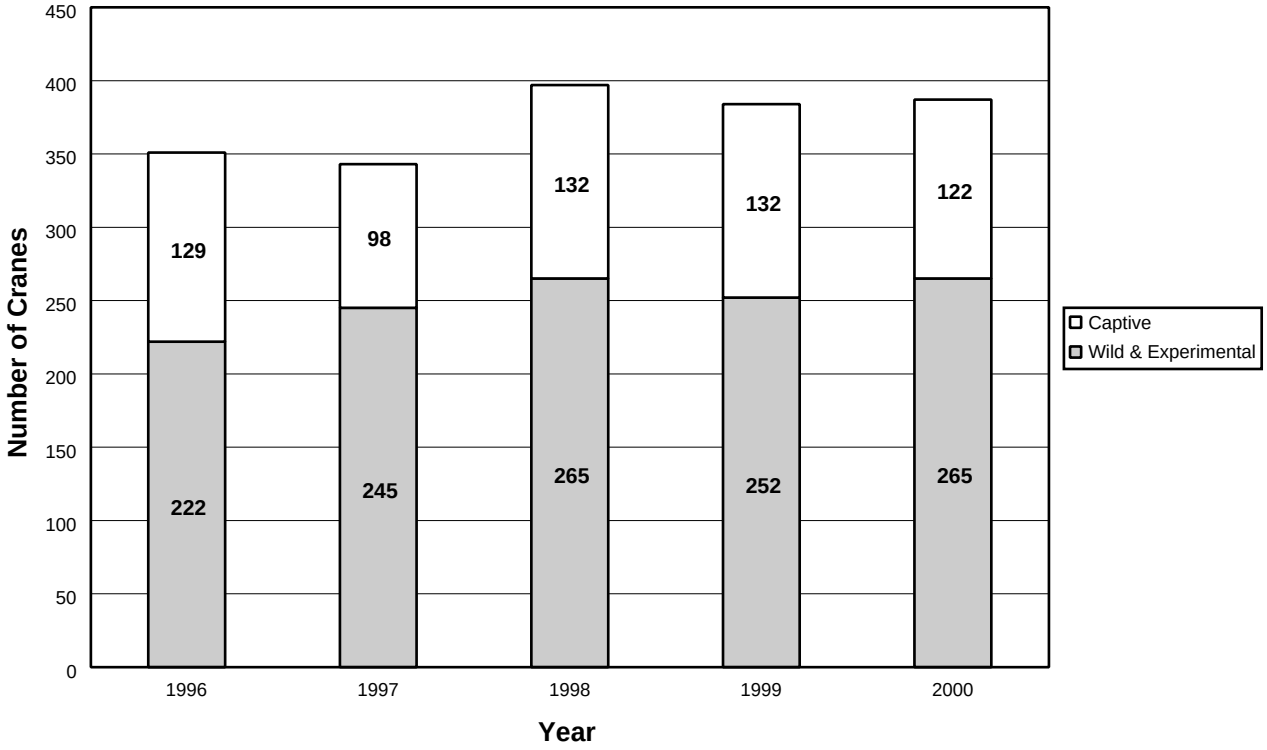
Area	Adults	Young	Total
Aransas/Wood Buffalo NP	169	8	177
Rocky Mountain	2	0	2*
Florida	66	20	86
Subtotal in the wild	**237**	**28**	**265**

*These birds (one Gray's Lake Whooping Crane and one ultralight) both summered in the greater Yellowstone area.

Captive Populations

Area	Adults	Young	Total	Breeding Pairs
Patuxent WRC, MD	47	17	64	10
International Crane Foundation, WI	28	0	28	6
Calgary Zoo, Alberta, Canada	19	0	19	2
San Antonio Zoological Gardens, TX	4	2	6	2
Lowery Park Zoo, Tampa, FL	1	0	1	0
Audubon Institute, New Orleans, LA	4	0	4	0
Subtotal in captivity	**103**	**19**	**122**	**20**
Total (wild and captive)			**387**	

Figure 2. Worldwide Whooping Crane Population



flock of Whooping Cranes in North America. The birds were trained to follow an ultralight aircraft. In the autumn of 1997, these cranes traveled from eastern Idaho to Bosque del Apache National Wildlife Refuge in New Mexico following the aircraft. Two of the cranes were killed by predators on the wintering grounds. The two remaining "ultralight" cranes began their spring travels north on March 5, 1998, staging for a month in the San Luis Valley of Colorado. Once moving again, the birds had problems with fences and powerlines. Collisions with wires continues to be the greatest cause of mortality for immature Whooping Cranes. Therefore, these cranes were quickly recaptured and released into a safer environment in Yellowstone National Park.

In May 1998, the two ultralight Whooping Cranes were released in the Slough Creek area of the park. This area proved to be troublesome. Large numbers of visitors were coming in close contact with the birds, creating further imprinting problems. Later that summer, an effort was made to recapture the cranes, but only one ultralight bird was caught and transported to a remote area of the park. The other crane remained in the vicinity of Slough Creek until it migrated out of the area that fall. Both ultralight birds returned to the wintering grounds in the fall of 1998. Then in the spring of 1999, one bird died in northern Utah of undetermined causes, leaving a lone ultralight survivor residing in eastern Idaho for the summer. In 1999, all that remained in the greater Yellowstone were two Whooping Cranes: one crane from the Gray's Lake experiment, and one from the ultralight experiment.

Rocky Mountain Whooping Cranes have had a history of being plagued by powerlines. In 2000, we regretfully report more disappointing news. On March 15, 2000, Yellowstone National Park lost its famed 16-year-old female Whooping Crane (from the Gray's Lake experiment) when it collided with a powerline at Monte Vista National Wildlife Refuge in Colorado. This bird was Yellowstone National Park's best hope, since it was the only wild Rocky Mountain Whooping Crane to build a platform nest. The carcass of this crane was salvaged, and will be placed in a Yellowstone National Park museum educational exhibit in the near future. As of 2000, all that remained were two Whooping Cranes in the Rocky Mountains: one crane surviving from the original Gray's Lake experiment that summered in the Centennial Valley of Montana, and one ultralight crane that resided in eastern Idaho.

Field assistants Eric Tomasik and Andrew Welch wait for a boat pickup on Yellowstone Lake after a long trip in the backcountry searching for peregrines. Terry McEneaney.

Andrew Welch perfecting the fine art of determining GPS locations of peregrine eyries. Terry McEneaney.

Staff ornithologist Terry McEneaney studying peregrines and Rosy Finches in the Absaroka Range. Terry McEneaney.

Species of Special Concern

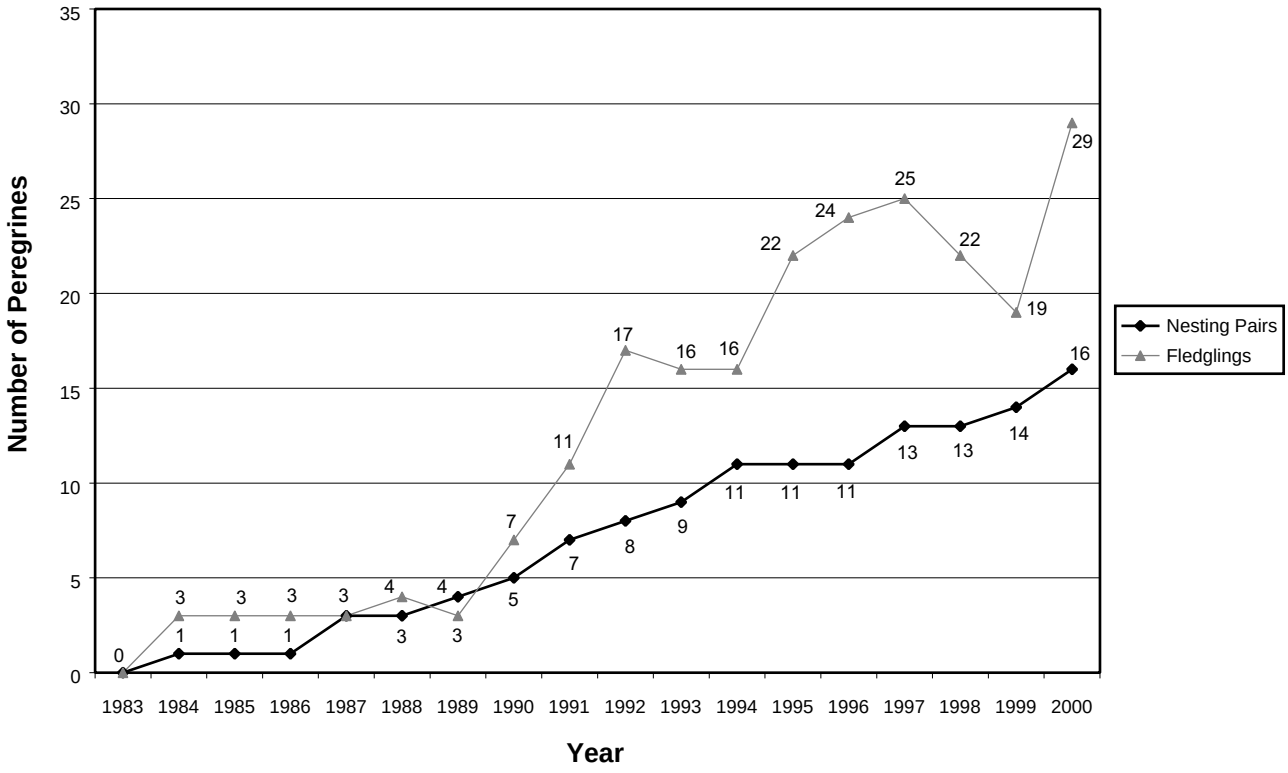
Peregrine Falcon

On August 26, 1999, the Peregrine Falcon was delisted or "removed" from the list of threatened and endangered species. Under provisions afforded by the Endangered Species Act, even though this species is no longer officially listed as endangered, YNP plans to monitor peregrines closely for five years post-delisting (until 2004) to ensure its recovery.

The Peregrine Falcon is now managed in Yellowstone as a species of special concern. Yellowstone National Park continues to be a stronghold for Peregrine Falcons in the Northern Rockies. Two new eyries were found in 2000, bringing the total number of peregrine eyries to 16. This is the most peregrine eyries ever recorded in Yellowstone National Park. Additionally, 29 young fledged from these eyries, which is also record production for the park (Figure 3).

Monitoring peregrine eyries is a time consuming task. The year 2000 is the second year since delisting, and only three more years of intensive monitoring are required to fulfill federal requirements for full recovery. After that period, a sampling scheme will be developed, in which perhaps only one third of the eyries in the park will be checked each year, thus completing a full parkwide production survey every three years. This will allow us time to check for new eyries and move on to other bird projects.

Figure 3. Peregrine Falcon Productivity



Trumpeter Swan

The Yellowstone National Park resident Trumpeter Swan population continues to show signs of a population at risk. Traditionally, the Centennial Valley of Montana has been a hot spot for cygnet production in the greater Yellowstone area. Swan recruitment from outside Yellowstone National Park is a critical factor in maintaining the resident swan population. Historically, swans that died in the park were eventually replaced primarily by swans from outside the park (namely the Centennial Valley). However, events over the last several years have led to a reduction of breeding swans in the greater Yellowstone and low numbers of fledged cygnets in Yellowstone National Park (Figure 4) causing serious concern.

The number of adult swans in Yellowstone National Park has declined over the years and currently stands at 20 individuals (Figure 5), identical to 1999. Swan recruits from Paradise Valley are most likely the reason the Yellowstone swan population has stabilized for the time being. In recent years, trumpeter swan nest attempts have ranged from 4 to 10 per year (Figure 6). There were only seven nest attempts in 2000, compared with six in 1999 and nine in 1998. In 2000, seven cygnets fledged from two broods in Yellowstone National Park. Years with drought-like conditions are usually favorable for swan production. The last time Yellowstone National Park fledged this many cygnets was 1988, another drought year. Except for these anomalies, cygnet production has been dismal over the last 13 years, ranging from zero to five cygnets per year.

A pair of Trumpeter Swans on the Yellowstone River, December 2000. Terry McEneaney.

Figure 4. Yellowstone Trumpeter Swan Cygnet Productivity

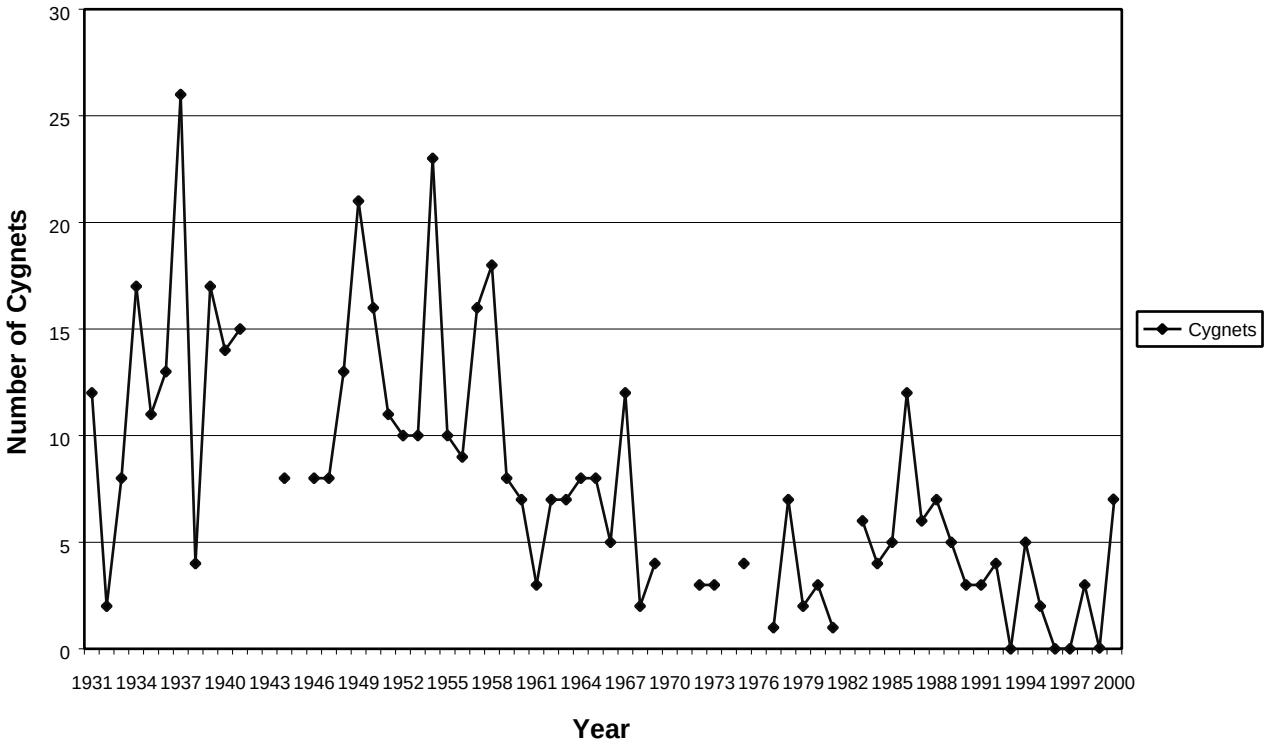


Figure 5. Resident Trumpeter Swan Population Dynamics

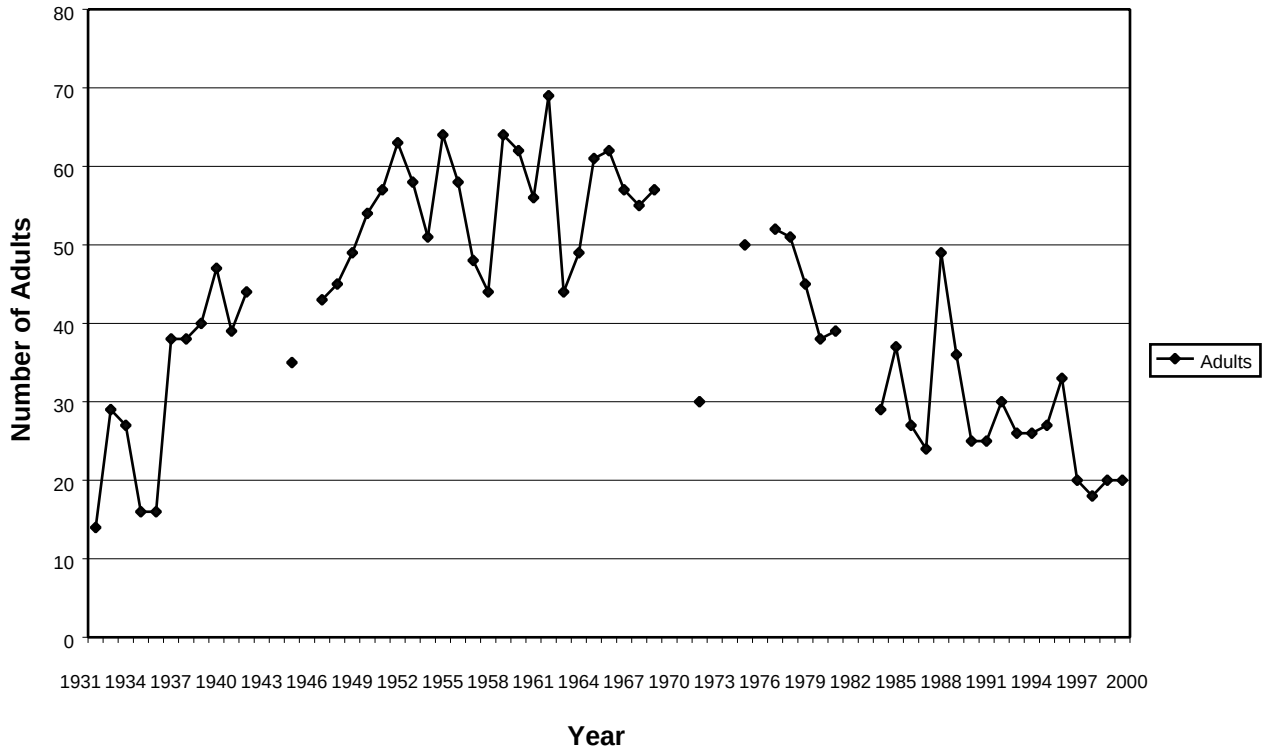
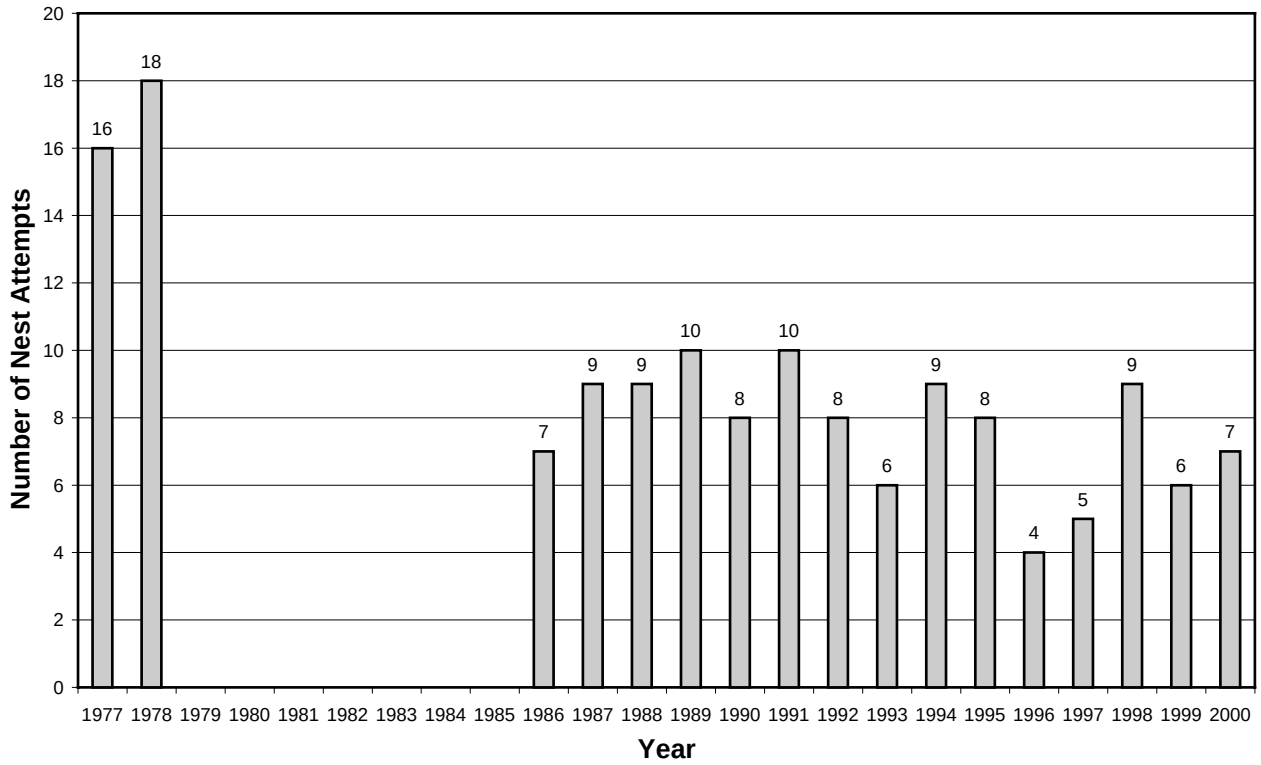


Figure 6. Yellowstone Trumpeter Swan Nest Attempts

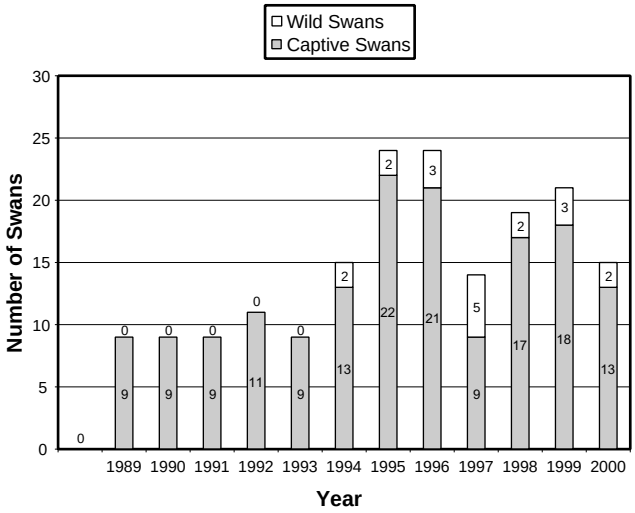


Paradise Valley Trumpeter Swan Flock. Yellowstone National Park began to participate in Trumpeter Swan conservation issues in Paradise Valley (north of the park in Montana) due to the potential threat posed by exotic Mute Swans. In the 1960s, a private landowner purchased a pair of Mute Swans for aesthetic purposes. By the late 1970s, the Mute Swan population had grown to a high of 120 individuals. Fearing potential competition with native Trumpeter Swans in Yellowstone National Park, the National Park Service became involved in a program to reverse this alien threat to native swans. In 1987, a slide program was presented by park staff to Paradise Valley landowners interested in helping resident Trumpeter Swans. After the initial presentation, an informal agreement was reached indicating the importance of eliminating Mute Swans immediately and replacing them with captive-raised Trumpeter Swans. The biggest obstacle was finding private funding to pay for the program, particularly since the purchase of captive Trumpeter Swans can be very expensive. Generous support from the Cinnabar Foundation and the Chevron Corporation, in addition to contributions from private citizens, allowed this program to proceed on schedule.

The first order of business was the elimination of Mute Swans. The staff ornithologist, through the help of landowners and park rangers, began to eliminate the first Mute Swans in the fall of 1987. By 1989, the Mute Swan population was reduced to 13 individuals, and Trumpeter Swans were introduced into Paradise Valley. In 1991, Trumpeter Swans outnumbered Mute Swans nine to two in Paradise Valley. By the mid-1990s, Mute Swans were eliminated from Paradise Valley altogether. Therefore, the threat posed by an alien species was extinguished in a relatively short period of time.

Large bird species such as Trumpeter Swans are most accurately censused by aerial surveys. Terry McEneaney.

Figure 7. Paradise Valley Trumpeter Swan Flock



Throughout the years, the Paradise Valley Trumpeter Swan program has experienced two major setbacks: 1) two captive swans and one wild swan were illegally shot on the DePuy Ranch in December 1995; and 2) severe floods on the Yellowstone River during the spring and summer of 1997 and 1998 flushed many swans downriver, leading to a major decline in the swan flock. In 1999, one captive swan pair managed to fledge five cygnets on one ranch, and a wild swan pair fledged a single cygnet. In 2000, the Paradise Valley flock totaled 15 swans (Figure 7, Table 3), compared to 21 swans in 1999. The primary reasons the population dropped this much in a year were mortality due to collisions with wires and recruits exploring the confines of Yellowstone National Park and Paradise Valley. Banded swans from Paradise Valley were seen in Yellowstone National Park, so the program is paying off in some ways.

TABLE 3. 2000 TRUMPETER SWAN PRODUCTION

Parameters	Yellowstone National Park	Paradise Valley
Occupied Sites	8	2
Nesting Pairs	7	2
Successful Nests	2	2
Cygnets Hatched	9	3
Broods w/Fledged Young	2	1
Cygnets Fledged	7	1
Adults	20	14
Total Swans	**27**	**15**

Molly Islands Colonial Nesting Birds

The Molly Islands Colonial Nesting Bird Census was conducted in mid-May, early June, early August, and mid-September 2000. Because of the sensitivity of the area, the Molly Islands are closed to public entry. The Molly Islands consist of two small islands appropriately named Rocky Island and Sandy Island, due to the nature of the nesting substrate. The census techniques applied this year were consistent with those conducted over the last several years. However, this year both boat surveys and aerial surveys were employed.

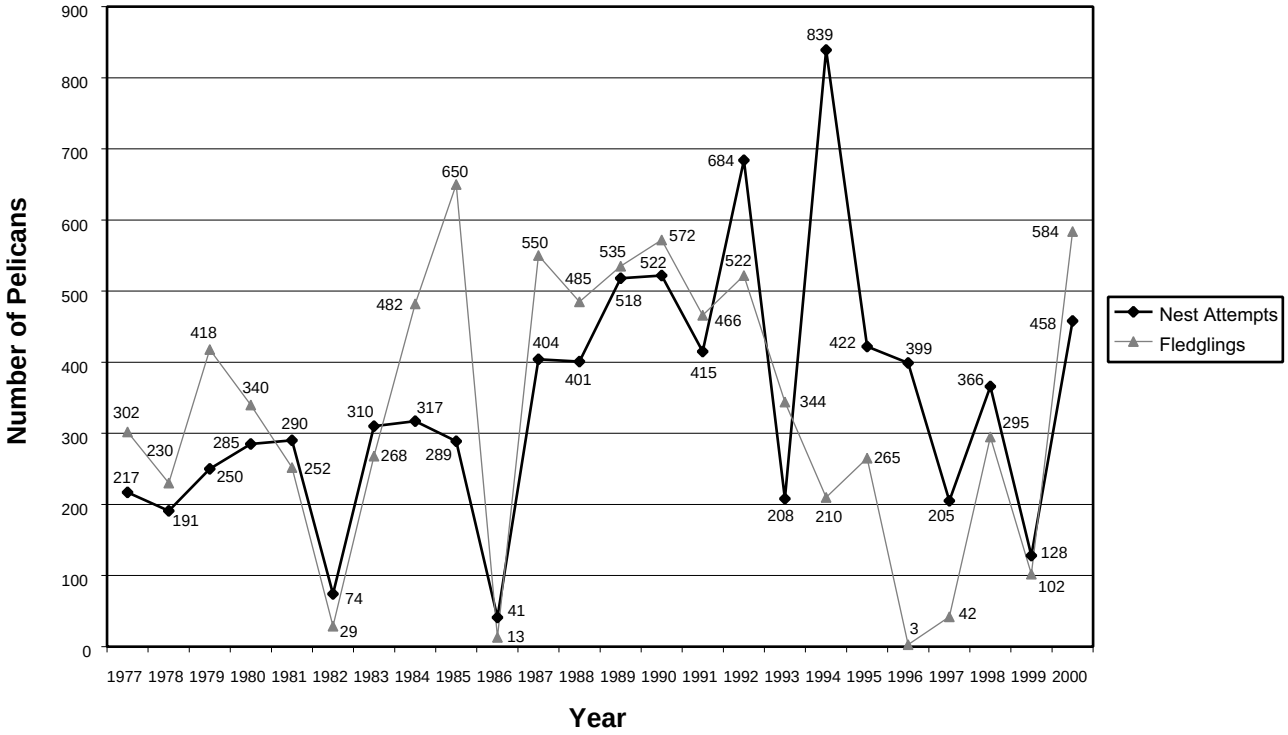
Yellowstone Lake thawed out from the deep freeze at the normal time in 2000; therefore, pelicans were right on time arriving at the islands. On Rocky Island, a total of 260 pelican nests were initiated on the highest part of the island (Table 4). Pelican nesting was restricted to one aggregation. Double-Crested Cormorants constructed 110 nests within this pelican aggregation. High water levels did not threaten the colonial nesting birds this year. Once the season progressed, a total of 230 American White Pelican nests and 104 Double-Crested Cormorant nests remained, and all of these turned out to be successful. Of the 140 pairs of California Gulls that

Terry McEneaney unloading a canoe after a day censusing birds on Yellowstone Lake. Terry McEneaney.

Table 4. 2000 Molly Islands Colonial Nesting Bird Productivity

Area	Species	Nests Initiated	Nests Successful	Young Fledged
Rocky Island				
	American White Pelican	260	230	420
	Double-Crested Cormorant	110	104	255
	California Gull	140	80	152
	Caspian Tern	0	0	0
Sandy Island				
	American White Pelican	98	80	164
	Double-Crested Cormorant	0	0	0
Molly Islands Totals				
	American White Pelican	458	310	584
	Double-Crested Cormorant	110	104	255
	California Gull	140	80	152
	Caspian Tern	0	0	0

Figure 8. American White Pelican Productivity



attempted to nest, 80 nesting pairs were successful in raising young. There was no Caspian Tern activity on Rocky Island in 2000, probably due to the large number of gulls. The following young fledged from Rocky Island in 2000: 420 American White Pelicans, 255 Double-Crested Cormorants, and 152 California Gulls.

On Sandy Island, a total of 98 American White Pelican nests were initiated in two large aggregations, but only 80 nests were successful in rearing 164 young. Double-Crested Cormorants and Caspian Terns did not nest on Sandy Island in 2000.

In summary, 2000 was a banner year for colonial nesting bird production due to the low water levels on Yellowstone Lake. Total production on the Molly Islands resulted in fledging 584 American White Pelicans (Figure 8), 255 Double-Crested Cormorants, and 152 California Gulls. As the exotic lake trout management program continues at Yellowstone Lake, the status of the Molly Islands birds will play a more critical role in assessing the impacts of this exotic organism on endemic piscivorous bird species. At this time, however, lake trout do not appear to have adversely affected colonial nesting bird production. Climatic conditions continue to appear to play the most important role in influencing bird production on these islands.

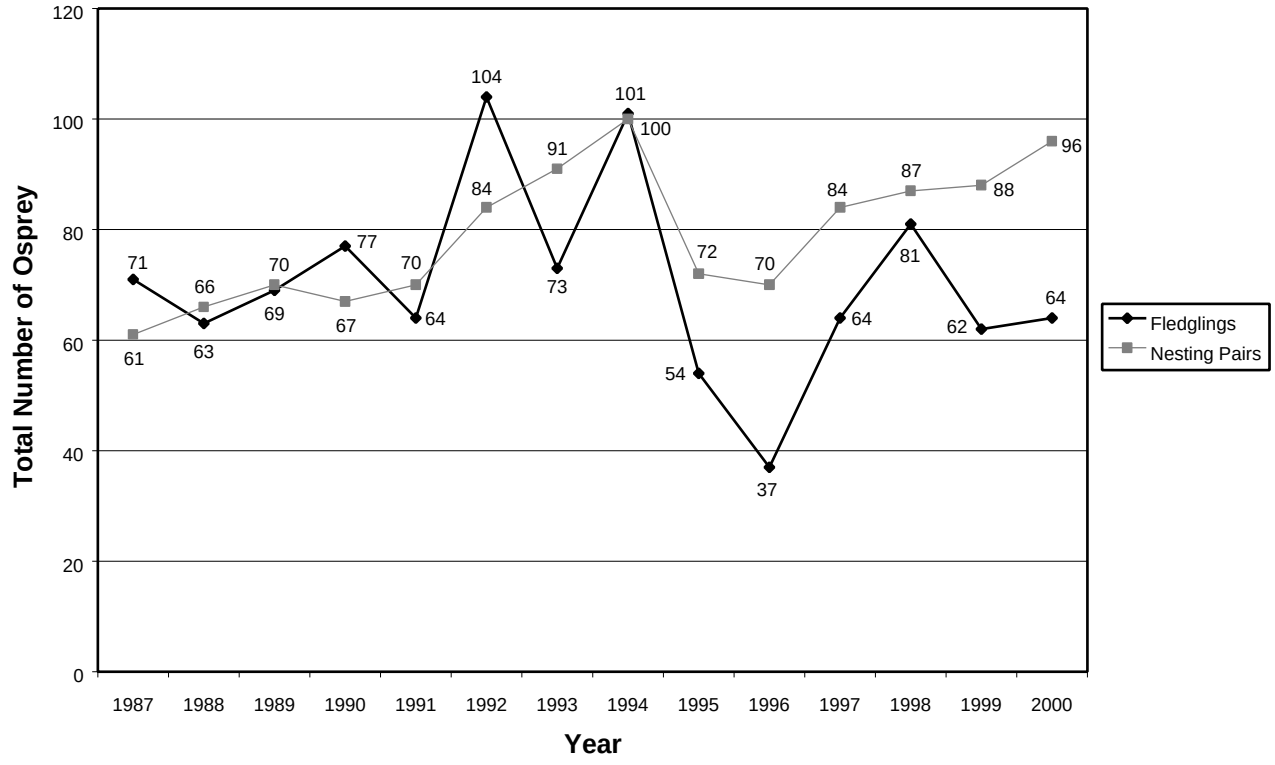
Recently fledged young pelicans. Molly Islands. Terry McEneaney.

OSPREY

The Yellowstone National Park Osprey population fared slightly better this year than in 1999. A total of 96 nesting pairs of Osprey fledged 64 young in 2000 (Figure 9), compared to 88 pairs fledging 62 young in 1999, and 87 pairs fledging 81 young in 1998. Tree nest-site instability and weather continued to play a role in influencing Osprey productivity in the park. The incidence of Bald Eagles taking over Osprey nest sites was documented at two sites. Monitoring the population dynamics of Ospreys and other piscivorous bird species is especially important as we chart lake trout numbers over time.

Osprey management sign, Frank Island. Terry McEneaney.

Figure 9. Osprey Productivity



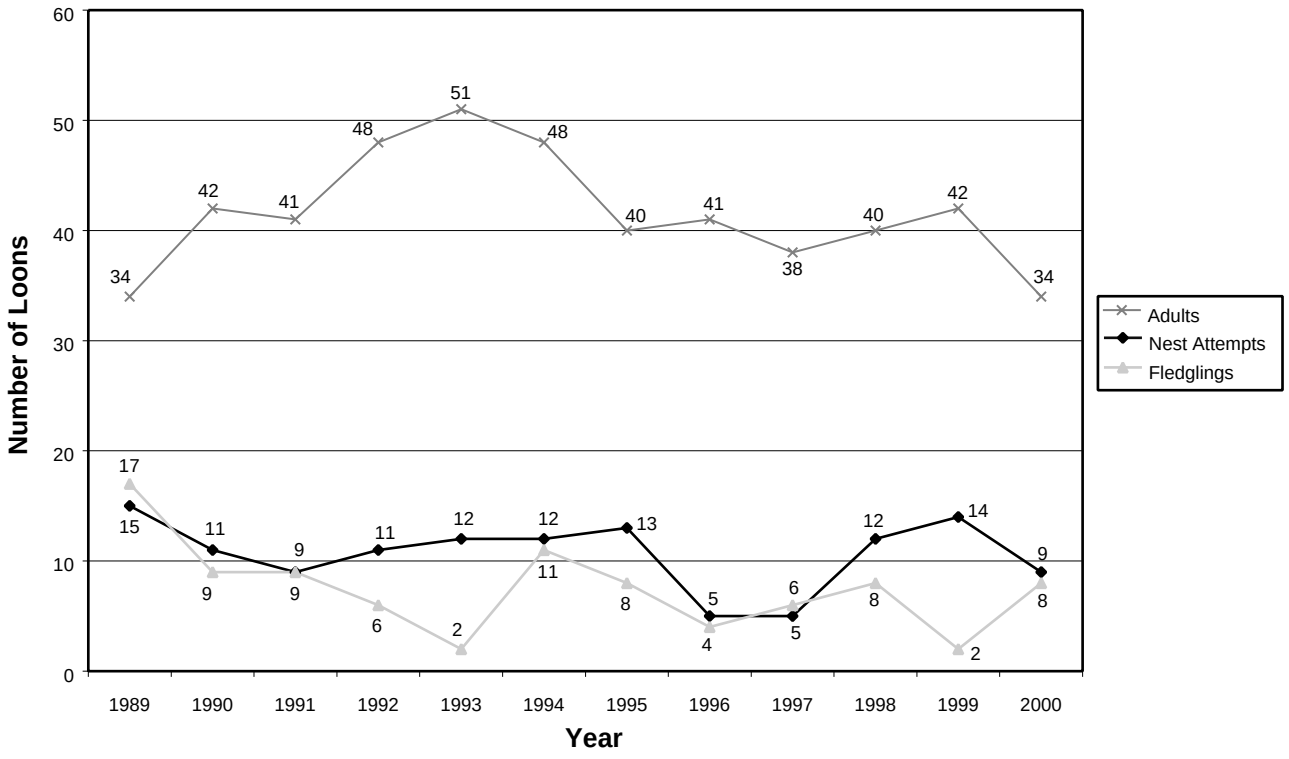
Harlequin Duck

The Harlequin Duck population in Yellowstone National Park continues to maintain itself and is only mildly variable from year to year, with generally 16–20 pairs residing in the park. Monitoring adults is the most effective method of keeping track of population vigor and trends. Monitoring annual productivity is not cost effective, as data collection is extremely time-consuming and difficult due to the remoteness of many of the areas in which harlequins are found. Productivity is extremely variable from year to year and is highly influenced by weather, particularly by flooding.

Common Loon

The Common Loon population in the park continues to fluctuate from year to year. There were nine nest attempts in 2000, yet only eight young managed to reach fledgling age (Figure 10), compared to 14 nest attempts and two fledglings in 1999. A total of 34 adults were found in the park in 2000 compared to 42 in 1999. Adult numbers have ranged between 34 and 51 individuals over the years. Yearly fluctuations in adult numbers and in the production of young are the result of variable weather conditions. The moderate loon production and the low adult numbers are a reflection of drought-like conditions.

Figure 10. Common Loon Productivity Trends



Other Studies and Population Monitoring

North American Bird Migration Count

Yellowstone National Park participated in the North American Bird Migration Count for the eighth consecutive year in 2000. Originally designed to collect quantitative and qualitative spring bird migration information on a continental scale, the count has turned into a low-key social event. The survey is traditionally scheduled each year on the second Saturday in May, May 6 in 2000. Five observers recorded a total of 2,598 individual birds (Table 5). A total of 85 species of birds were recorded during the count, including 61 species within the confines of Yellowstone National Park. The count originates on Yellowstone Lake and ends 70 miles north of the park in the Shields Valley of Montana.

Marbled Godwart on the shores of Yellowstone Lake. Wayne Wolfersberger.

Table 5. 2000 North American Bird Migration Count Summary
Yellowstone National Park and Vicinity

Year	1993	1994	1995	1996	1997	1998	1999	2000
Number of Species Recorded	72	74	61	82	93	91	85	85
Revised Number of Species (1996 Standards and Route)	86	74	75	82	93	91	85	85
Total Number of Species in YNP	69	73	52	73	70	69	70	61
Total Individual Birds								
Yellowstone NP, WY	1,545	1,793	2,408	1,797	1,038	1,073	826	750
Yellowstone NP, MT	289	145	242	113	94	64	163	912
Outside YNP (Park Co., MT)	139	89	248	313	949	413	1,974	936
Grand Totals	**1,973**	**2,027**	**2,898**	**2,223**	**2,081**	**1,550**	**2,963**	**2,598**
Number of Observers	2	5	7	4	4	4	3	5
Hours in the Field	16	47.5	76.5	28	42	48	36	69

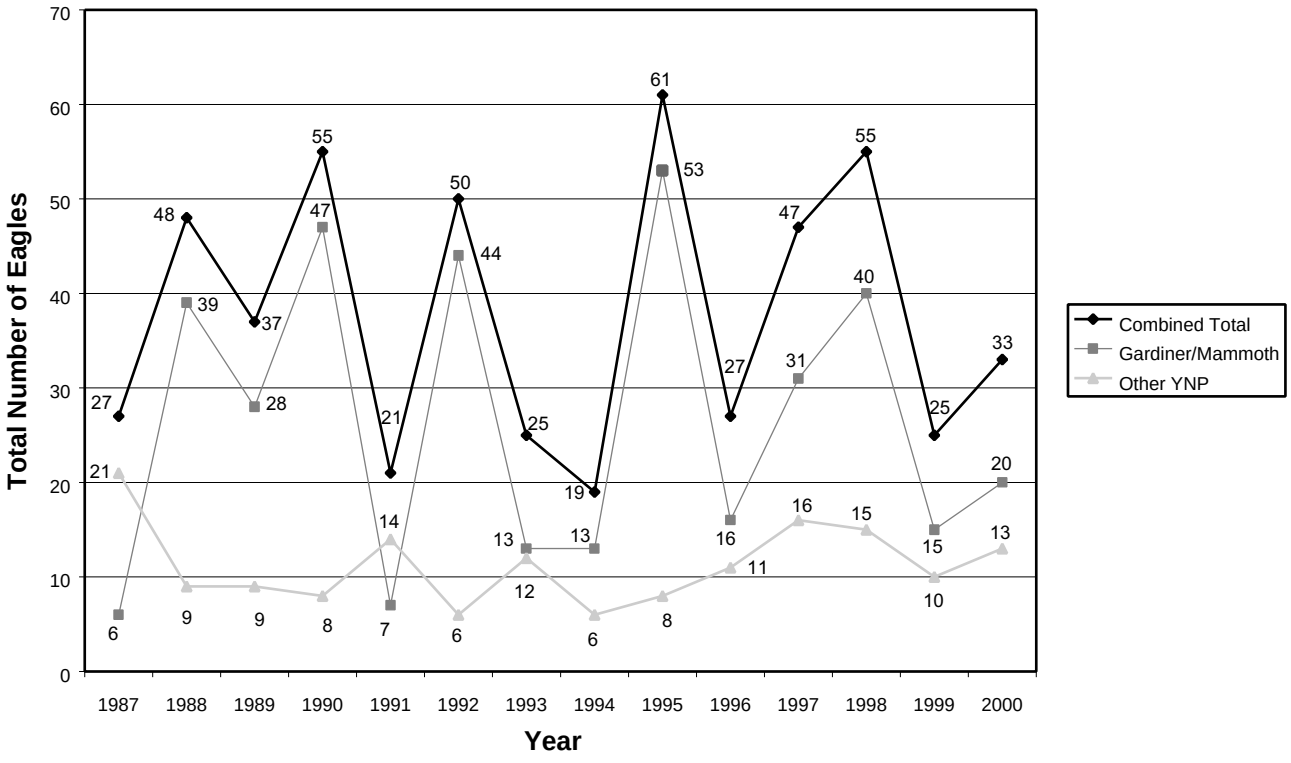
Mid-Winter Eagle Survey

A mid-winter Bald Eagle/Golden Eagle survey was conducted for the 14th consecutive year in Yellowstone National Park and on portions of the northern range outside the park. A total of 33 eagles were counted on January 7, 2000 (Figure 11). Of the total, 29 were identified as Bald Eagles and four were identified as Golden Eagles. The northern range outside of the park continues to be a hot spot for wintering eagles, possibly in relation to carrion availability from the regular- and late-season elk hunts. Weather continues to play a major role in eagle distribution, as does prey and carrion availability.

Breeding Bird Surveys

Three Breeding Bird Surveys were conducted in 2000. These songbird data were sent to the continental database clearinghouse located at the Patuxent Wildlife Research Center in Laurel, Maryland, and are included in the information available online at *www.mp2-pwrc.usgs.gov/bbs*. Data from these surveys are used to develop population trends for North American songbirds. Yellowstone National Park Breeding Bird Surveys date back to 1982.

Figure 11. Mid-Winter Eagle Survey



Glacial Boulder Route Survey

The Glacial Boulder route survey, which documents birdlife found exclusively in lodgepole pine, was conducted again in 2000. The transect begins at the Glacial Boulder trailhead near Inspiration Point. The point count census consists of 30 stations and is conducted entirely on foot. Census protocol for this survey is similar to that of a Breeding Bird Survey. This was the fifth year in a row that this survey was conducted, establishing additional baseline data for neotropical migrant landbird monitoring. Traffic noise during the summer is beginning to affect Breeding Bird Survey routes, and it is for this reason that we are developing census routes away from established roads.

Christmas Bird Count

The 2000 Yellowstone Christmas Bird Count (YCBC) marked the 28th year that the survey has been conducted in the Yellowstone area. During count day, December 17, a total of 39 species comprising 1,672 individuals were recorded. Two additional species were recorded during count week. Highlights of the YCBC included two Marsh Wrens and two Harris' Sparrows during count day, and one Great Horned Owl and one Virginia Rail during count week. As of 2000, a grand total of 95 species have been recorded on Yellowstone CBC day, and 97 species during CBC week.

The Yellowstone Christmas Bird Count had average public participation, with 13 people attending the event. Temperatures ranged from 18 to 34°F. Conditions were mild, and even the edge of rivers that would usually have been frozen were not. Despite the mild conditions, a slightly above average number of species were observed. Record numbers of Pine Siskin (322) and Green-Winged Teal (53) were also documented during the 2000 YCBC.

The new bird management office. Terry McEneaney.

Ravens up to no good play games with people and snowmobiles. Terry McEneaney.

Miscellaneous Projects and Programs

New Birds for Yellowstone National Park

Two new bird species were added to the Field Checklist of Birds of Yellowstone National Park in 2000. In August, several visitors reported a White-Faced Ibis in Hayden Valley. The bird was checked out on August 30 by the staff ornithologist. After careful examination of the bird, it was found to be an immature Glossy Ibis. This is the first record of a Glossy Ibis in Yellowstone National Park. Although photographs were attempted and only general photographs could be taken, careful study, written documentation, and extensive research revealed this bird to be a Glossy Ibis. This species has been extending its range, particularly in the western United States. The staff ornithologist observed an adult Glossy Ibis in Jackson, Wyoming, on May 4, 1999, which was Wyoming's first record for this species.

On September 13, 2000, George Henley observed two dark Parasitic Jaegers 40 yards east of the Mt. Holmes lookout. Ravens were observed harassing the jaegers until they finally left the area.

As of 2000, 313 species of birds have been documented in the park since it was established in 1872. The Field Checklist of Birds of Yellowstone National Park was last revised in April 2000 by the staff ornithologist. A newly revised bird checklist will be available by March 2001. This checklist is available on the park website at *www.nps.gov/yell*.

This immature Glossy Ibis is the first record of this species in YNP. Wayne Wolfersberger.

Bird Impression

In the fall of 1998, a cast or impression was discovered in a geothermal sinter deposit by graduate student Alan Channing from the University of Wales. The staff ornithologist was called in to assist Mr. Channing in determining if the impression was that of a bird. It was determined that the cast was indeed that of a bird, and it was remarkably well preserved. Details such as feather tracts, legs, neck, head, and bill were evident. The specimen was collected and later identified as an American Coot (*Fulica americana*). The bird cast was transferred to the Museum of the Rockies, where it is being temporarily stored pending further analysis. The Yellowstone staff ornithologist along with Museum of the Rockies paleontologist Jack Horner and Mr. Channing are working on a paper to appear in a future issue of *Yellowstone Science*.

The unique bird impression of an American Coot. Terry McEneaney.

Bird Website Revision

Further plans were made for a more refined bird section on the official Yellowstone National Park website. Park website coordinators Tom Cawley, John Uhler, Heidi Doss, and the staff ornithologist worked incrementally to improve the available bird information. Plans call for a more detailed section on birds, which will include: specific information on threatened and endangered birds, species of special management concern, and neotropical migrant landbirds; instructions on how to add bird observations to park bird records, and on how to contribute to the Yellowstone Park Foundation's Yellowstone Bird Fund and their current projects; a revised bird checklist; access to bird population trend data; researching bird information; and various reports. The new improvements in the bird section of the website are designed to make it more dynamic, personal, and user-friendly.

Chicken Found at Canyon

On May 8, 2000, a domestic chicken was found walking around the Canyon RV residence area. The hen had missing toes and grease all over her legs and feet. After investigating the incident, it was determined that the chicken hitched a ride from St. Anthony, Idaho, by climbing up under the hood and staying warm by the engine. The chicken apparently sprang free when the vehicle stopped at Canyon. It was a form of forced bird migration. The chicken was caught by Canyon rangers, brought to the staff ornithologist, and given away to Jim Alvis of Gardiner, Montana, who had a large flock of chickens. According to Mr. Alvis, other than its ugly-looking feet, the Canyon chicken is one of the best laying hens he has ever owned. The bird is still alive and well in its new home in Gardiner, Montana.

Computerized Database

The tables and charts found in this report are the result of an effort to computerize the bird database over the last two years. Progress is slowly being made on this huge project. Andrew Welch, a skilled computer technician, assisted the staff ornithologist in the summer of 2000 with computerizing the existing database and developing a GPS-oriented database for the future.

Environmental Assessments and Status Reviews

The most important Yellowstone National Park assessments in 2000 that utilized bird data included: the Seven Mile Bridge Kiosk Exhibit, the Swan Hunt Environmental Assessment, and the Bison Management Plan and EIS. The U.S. Fish and Wildlife Service also contacted the staff ornithologist regarding status reviews for the Sage Grouse. Because of the sheer number of bird species in North America, more status reviews of this nature are expected in the future.

Federal Highways Projects

This project took a large amount of time, since it involved five sections of road in Yellowstone National Park. These road reconstruction projects will result in a variety of future impacts ranging from major road reconstruction to minor road resurfacing modifications. In addition, this project was an exceptionally difficult task in 2000 due to the shortage of assistance to complete the project.

National Park Service National Species Inventory Database

In July, the staff ornithologist contributed time to a National Park Service initiative called the National Species Inventory Database. This project involved entering over 300 bird species into the database.

Greater Yellowstone Bald Eagle Working Group

Established in 1982, the Greater Yellowstone Bald Eagle Working Group is still in existence. Bald Eagle productivity and other management information are communicated to the group via an annual meeting, but meetings were not held in 1999 or 2000. Hopefully, the working group will continue to exist. The Bald Eagle is doing remarkably well and is ecologically recovered in the greater Yellowstone area. The group is unified in its belief that the Bald Eagle can be delisted in this area. The U.S. Fish and Wildlife Service is expected to take such action in the near future.

Greater Yellowstone Peregrine Falcon Working Group

Peregrine Falcon working groups are primarily organized by state. The park participates in two Peregrine Falcon working groups (Montana and Wyoming), and has been an active participant ever since peregrines were found in the greater Yellowstone area. Wyoming has an informal working group and most of the coordination is done over the telephone. Montana has a more formalized working group. Yellowstone National Park works closely with both state agencies and the Peregrine Fund. Working as a team is one of the main reasons the peregrine has made such a remarkable recovery. The Peregrine Falcon was officially delisted on August 26, 1999. The staff ornithologist attended the Montana meeting in January 2000.

Greater Yellowstone Trumpeter Swan Working Group

The Greater Yellowstone Trumpeter Swan Working Group was organized in 1997. The staff ornithologist was the first chairman of this working group. Yellowstone National Park and the Wyoming Game and Fish Department have been taking the lead to ensure that the greater Yellowstone area Trumpeter Swans are conserved.

Annual population and production data for greater Yellowstone area Trumpeter Swans are collected by the group, and management activities are communicated between agencies at these meetings. A well-attended meeting took place in Yellowstone National Park in the fall of 1999, with more than 30 members in attendance. The working group realizes the fragility of the greater Yellowstone area and the Yellowstone National Park Trumpeter Swan population. The staff ornithologist participated in the meeting held in Jackson, Wyoming, in December 2000.

Trumpeter Swans on the shore of Yellowstone Lake, fall 2000. Terry McEneaney.

Montana Bird Records Committee

The Montana Bird Records Committee meets once or twice a year, depending on the volume of information, to review new bird records. This is a very high profile committee, which keeps the park up-to-date on the latest advances in ornithology. The staff ornithologist is chairman of this committee and has been in this position for several years.

Wyoming Bird Records Committee

The staff ornithologist was elected to the Wyoming Bird Records Committee in 1998. Similar to the Montana program, the Wyoming Bird Records Committee meets once a year in the spring to review bird records. Yellowstone participated in its first meeting in May 1999 in Lander, Wyoming. The staff ornithologist was selected as the chair for the committee. Due to the time constraints of committee members, no meeting was held in 2000.

Harlequin Duck Working Group

Yellowstone National Park is a member of the Harlequin Duck Working Group. Although unable to attend a formal meeting in 2000 due to financial reasons, the staff ornithologist is planning on attending future meetings.

Neotropical Migrant Working Groups

Yellowstone National Park typically participates in three neotropical migrant working groups. The two state working groups are the Montana Partners in Flight and the Wyoming Partners in Flight. The third group, an international working group, is called the Western Working Group Partners in Flight. Ornithologists from all over the West are in this group, including colleagues from Canada and Mexico. They are currently focused on prioritizing species and developing conservation plans. Meetings occur twice a year, usually in different areas of the West. A tight travel budget prevented the staff ornithologist from attending many of these meetings. In 2000, one Western Working Group Partners in Flight meeting was attended in Friday Harbor, Washington, and one Wyoming Partners in Flight meeting was attended in Casper, Wyoming.

Table 6. Presentations and Speaking Engagements
2000 Bird Management Program

Date	Location	Affiliation	Subject	Number Attending
1/10	Old Faithful, WY	Talk	Neotropical Migrants—the Yellowstone/ Mexico Connection	80
4/10	Canyon, WY	Talk	Habituated Wildlife Workshop	80
5/6	Billings, MT	Billings Audubon	Status of Yellowstone Birds	110
6/15	Grant Village, WY	Talk	Status of Yellowstone Birds	30
6/16	Pompey's Pillar, MT	Pompey's Pillar	Bird Identification Workshop	40
8/22	Old Faithful, WY	Talk	Status of Yellowstone Birds	20
9/27	YNP	Field Trip	Mt. Washburn Raptor Count	15
9/30	YNP	Nat. Aud. Soc. BOD	Yellowstone Bird Field Trip	15
12/17	Mammoth, WY	Field Trip	Christmas Bird Count	13

Speaking Engagements and Public Contacts

Public contacts are increasing each year. The park concessioners annually request bird lectures for summer and winter guides. In addition, there are hundreds of letters of inquiry about bird information. Speaking engagements were also popular again in 2000 (Table 6).

Adopt A Biosphere Reserve Program and the NPS Recycled Uniform Program

Yellowstone continues to assist the two adopted biosphere reserves in Mexico (Mariposa Monarca Biosphere Reserve and the Manantlan Biosphere Reserve). We continue to offer logistical support, as well as to provide our counterparts with recycled National Park Service uniform components. They keep the NPS patch on the uniform and add their own biosphere reserve patch. In 1999, a large shipment of uniform components was sent to the Mariposa Monarca Biosphere Reserve. The next shipment to Mexico is expected in 2001.

Museum Scientific Bird Collection

The Albright Visitor Center continues to add birds to its museum collection. All of the park's stored bird carcasses were prepared into study skins for the collection in the fall of 2000 by Barbara Williams of Rockford, Illinois. Included in this group of birds was a live mount of a Whooping Crane.

Swallow, Woodpecker, and Raven Management and Mitigation

Swallows, Northern Flickers, and Ravens continue to pose obstacles for the people responsible for the care and management of buildings in the park. In addition, there are some health risks associated with some of these bird species. These birds are protected by law under the Migratory Bird Treaty Act and, as such, mitigation options are very limited. With proper installation, plastic netting can be used to discourage nesting in selected areas of high public use.

Professional museum taxidermist Barbara Williams with a live-mount Whooping Crane. Terry McEneaney.

Injured and Road-Killed Birdlife

A protocol for handling injured and road-killed birds has been in place for the last few years and appears to be working well. Procedures were followed in both 1999 and 2000, and there have been no problems associated with this protocol. The only professional bird rehabilitator the park is involved with is Big Sky Wild Care of Bozeman, Montana. All road-killed birds are to be salvaged, if possible, for future placement in the museum collection.

Terry with a rescued Western Grebe that landed on a road in December 2000. Terry McEneaney.

News Releases, Scientific Inquiries, Interviews, and Media Contacts

Working with the public demands a fair amount of time, but it is always time well spent. However, each year it seems to occupy a large percentage of the staff ornithologist's work schedule. The public is keenly interested in new information about Yellowstone National Park's birds. It is difficult to quantify this type of information request, but a concerted effort will be made to do a better job of documentation in the future.

In 2000, the staff ornithologist contributed bird information to seven periodicals. The *Yellowstone Journal* interviews involved separate articles on American White Pelicans, waterfowl, Bald Eagles, and Golden Eagles. *Birder's World* interviewed about birds and wildfires, while the *Jackson Hole News* wanted information on bird migration, and the *Billings Gazette* had an article about rare birds.

Lake Trout Gill Netting Cooperative Project

Beginning in 2001, the bird management program will be working closely with fisheries biologists to reduce bird deaths due to lake trout gill netting operations. Although the incidence of loon and waterfowl mortality is small, we are going to try to design a gill net that allows birds to escape.

Fish Transmitter Found Below Eagle Nest

In June 2000, a visitor found a fish transmitter below an old Bald Eagle nest in the West Thumb portion of Yellowstone Lake. The 16–18 inch cutthroat trout was initially captured and fitted with a transmitter in the spring of 1995 on the Yellowstone River. The fish probably made its way to the lake and was captured by the eagle relatively close to the nest.

Yellowstone to Yukon Bird Conservation Initiative

In September 2000, the staff ornithologist received a special invitation to participate in an experts workshop entitled Yellowstone to Yukon Bird Conservation Initiative. Selected professional ornithologists from the U.S. and Canada met for a two-day meeting in Charlo, Montana. Bird conservation strategies were discussed in depth. Of particular concern were habitat and land use issues along a large geographic gradient that extends from Yellowstone to the Yukon. The initiative was totally funded by a private individual who is devoted to protecting this unique geographic area.

Acknowledgments

Special thanks to Tami Blackford, Tom Olliff, and Glenn Plumb for their editorial comments and layout ideas for this report. Their assistance and expertise is greatly appreciated. Thanks to Eric Tomasik for his important assistance during the summer field season, and Andrew Welch for his valuable help organizing the bird database and setting up a new GPS database program. And, of course, special thanks to pilot Roger Stradley for his friendship, expertise, and sharp eyes. He is an important part of the bird management program. Also thanks to Wayne Wolfersberger for the use of two of his fine bird photographs.