

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: ABNKA03010

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Gymnogyps californianus*

COMMON NAME: California Condor

SYNONYMS: *Vultur californianus*

FAMILY: Cathartidae

AUTHOR, PLACE OF PUBLICATION: *Vultur californianus*, Shaw, 1797. Naturalists' Misc. 9. *Gymnogyps californianus*, Shaw. 1978.

TYPE LOCALITY: Monterey, California, USA. 1792.

TYPE SPECIMEN: Unknown

TAXONOMIC UNIQUENESS: "All California condors alive today are descended from only 14 birds...they can be divided into three distinct groups, or clans, based on their lineage. The birds within each clan are highly inbred, but are less so across clans" (Cohn 1993).

DESCRIPTION: They are the largest flying land bird in North America. Adults have a wingspan of 9.5 feet (3.0 m), a body length of 119.0 cm (47.0 in), and width of 274 cm (108.0 in). Black in overall coloration, adults have white wing linings and orange heads; immature birds have mottled wing linings and a dusky head. By fledging stage, their wingspan is over 8 feet (2.4 m) long and their weight is between 16 and 20 pounds (7.3-9.0 kg). They soar on flat wings, circling for altitude, before giving one deep wing beat to soar off at great speed in search of large carrion. (Scott 1987).

AIDS TO IDENTIFICATION: They are the largest flying land bird in North America. Black in overall coloration, adults have white wing linings, orange head; immature birds wing linings are mottled, head dusky.

ILLUSTRATIONS:

Color drawing (Scott 1987: 183)

Color picture of egg (Baicich 1997: Plate 27)

Color drawing (Sibley 2000)

Color photos (Vezo 2002)

Color photos from AZ Game & Fish Sept. 9, 2010 News Release

(http://www.fws.gov/southwest/es/arizona/CA_Condor.htm)

Color AZ range map of Condor Non-essential Experimental Population Area

(http://www.fws.gov/southwest/es/arizona/CA_Condor.htm)

TOTAL RANGE: In prehistoric times, condors ranged from Canada to Mexico with isolated populations in NY and FL. Approximately 10,000 years ago, the Pleistocene extinction wiped out many large mammals that condors relied on for food. This loss of large prey naturally reduced their range to the Pacific Coast between British Columbia and Baja California, however recent decline in populations were human induced; poisoning, intentional shootings, habitat destruction and egg collection are examples.

RANGE WITHIN ARIZONA: Few sight records in 1880s, from southeast to northwest. One observed north of Williams on October 3, 1924 (Monson and Phillips 1981). Reintroduced to the Vermillion Cliffs in December 1996, and to the Hurricane Cliffs in 1998. These populations have been supplemented since, and adults from earlier releases have successfully bred. The AZ populations are considered Non-essential Experimental (10j), and their range covers all of northern Arizona north of I-40 except extreme eastern Arizona; see range map on USFWS-AESO website (http://www.fws.gov/southwest/es/arizona/CA_Condor.htm).

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Life span in wild is likely 50 or 60 years. Their nest is situated either at some distance above bottoms of cliffs or on steep slopes presumably providing air space for birds to approach and leave nests. Using thermal updrafts condors are able to soar to 15,000 feet, fly at 50 mph and travel over 100 miles per day while expending little energy. Condors fly extended distances in the spring and summer. They sun themselves first thing in the morning, to warm up with the suns rising by capturing the sunlight and warmth with extended wings turned to the sun. At watering holes, condors often are observed bathing. Preening and grooming the bare skin on their heads are particularly important because of their carrion diet.

REPRODUCTION: Condors do not breed until age 6-8 years and are monogamous for life. During the courtship display, the male stands with his wings partly outstretched, head held down, and his neck arched forward as he slowly turns and rocks from side to side. They also engage in neck wrestling as well as tandem courtship flights. The nest is a sheltered cave or hole in a cliff with a sand bottom. The nest site may be re-used or several sites used alternately. Pair formation takes place in late fall or early winter. They produce one five-inch long sub-elliptical egg that sits directly on the sand. The egg is smooth with a glossy surface with very fine elongated pits, and is faintly tinted blue. Both parents incubate the egg for 54-58 days. The nestling is altricial and downy. The down of the first coat is white and the head and neck are bare. The second down is gray and woolly, also extending to head and neck. The nestling slowly feathers between the seventh and twenty-second week. The chick fledges in six months and is dependent on its parents through the next fall's breeding period. The fledgling flies well at ten months but may rely on parents for feeding until it is over a year old. The pair produces only one chick every other year. If the first egg is lost due to accident or predation, a second egg will be laid ("double-clutching").

FOOD HABITS: A scavenger of large wild (elk, pronghorn antelope, deer) and domestic animals (cattle and sheep), condors use their eyesight to find food. Alternatively, turkey vultures use their sense of smell.

HABITAT: In Arizona, condors roost and nest in steep terrain with rock outcroppings, cliffs, and caves. In California, condors inhabit lower elevations and typically roost in caves or on ledges, but can be found in trees as well. High perches are necessary to create the strong updrafts the bird requires to lift into flight. Open grasslands or savannahs are essential to condors for searching for food.

ELEVATION: 2,000 - 6,500 feet (610-1981 m).

PLANT COMMUNITY: Great Basin Desertscrub and Mohave Desertscrub (Brown, 1982).

POPULATION TRENDS: In the late 1970's, the species was reduced to a population of less than 25 birds. The decision was made to bring all of the wild condors into captivity to begin a captive breeding program. The last wild condor was secured in April of 1987. After several years of a successful captive breeding program in Los Angeles and San Diego, the first two condors were reintroduced to a California wild sanctuary in 1992. In 1992, the Recovery Program began releasing condors back into the wild. By the summer of 1998, there were more than 150 condors in existence. In 2001 and 2002, condors in Arizona began breeding but nests were unsuccessful. In 2002, three condor eggs hatched in California but the chicks died before fledging. In August of 2003 the first condor chick in more than 80 years in Arizona appeared. Currently the Arizona chick from 2003 is doing very well, and there were two successful nests in 2004. California hatched three chicks into the wild that year.

On September 25, 2010, the 16th public release of California condors in Arizona occurred, since the recovery program began in 1996. According to Kathy Sullivan, Condor Program Coordinator for the Arizona Game and Fish Department (AGFD 2010), previous public releases were held in March, but weather conditions and condor behavior make the fall a better time for the annual event. Condors are hatched and reared in captivity at The Peregrine Fund's World Center for Birds of Prey in Idaho, Oregon Zoo, Los Angeles Zoo, and San Diego Wild Animal Park and transported to Arizona for release to the wild (AGFD 2010). In the Grand Canyon region, 73 condors are currently flying free. Today, the world's total population of California condors is 384, with 186 individuals gracing the skies of Arizona, Utah, California and Mexico (AGFD 2010).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: LE, XN (USDI, FWS 1967), Arizona population is listed as a 10(j) Non-essential, Experimental Population (USDI, FWS 1996).

STATE STATUS: 1A (AGFD SWAP 2012)

[WSC, AGFD, WSCA in prep]
[State Endangered AGFD, TNW 1988]
Category P, (Diario oficial de la federacion,
1994, 2010 NORMA Oficial Mexicana
NOM-059-SEMARNAT-2010)
Group 4 (NNDFW, NESL 2005, 2008)

OTHER STATUS:

MANAGEMENT FACTORS: Human activities need to be considered. Active threats are, lead poisoning, shooting, coyote predation, and power lines.

PROTECTIVE MEASURES TAKEN: A Recovery plan was completed in 1974, and revised in 1996. Critical habitat is designated in California. The Arizona population of California condors is listed as a 10(j) Non-essential, Experimental Population.

SUGGESTED PROJECTS: Currently there is an educational program to help reduce lead exposure in condors.

LAND MANAGEMENT/OWNERSHIP: BIA – Navajo Nation; BLM - Arizona Strip Office; NPS - Grand Canyon National Park; USFS - Kaibab National Forest (north and south of the Grand Canyon). And potentially the Hopi Reservation (Hopi Tribe).

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

Kathy Sullivan, Condor Program Coordinator, Arizona Game and Fish Department.

ADDITIONAL INFORMATION:

The following is a 2008 informative piece by Chad Olson with the National Park Service.

Grand Canyon breeding ground for condors
By Chad Olson NPS
Wildlife Extra.com
December 15, 2008

Two California condor chicks fledged from their nests in the Grand Canyon in December, bringing the world's population of endangered California condors now flying free in the wild to 169. This is the first time since the few remaining condors were taken into captivity in the 1980's that there are more free flying condors than are in captivity for breeding purposes.

"This shows that we are making real progress in bringing this ecologically significant bird back from the brink of extinction," said Bill Heinrich, who oversees the condor recovery program for The Peregrine Fund. "I am thrilled that these two chicks appear to be doing well and I hope they will survive to become productive members of the flock."

327 condors alive today - 158 in captivity

Currently, the total number of California Condors is 327, with 158 in captivity. Of the 169 condors in the wild, 67 are in Arizona and 83 are in California. There also are 19 California Condors flying free in Mexico. The goal is to produce at least 150 members in each of the U.S. populations, including at least 15 breeding pairs.

8 chicks in California

The Peregrine Fund breed condors at its World Center for Birds of Prey in Boise and releases them to the wild in northern Arizona. Eight wild condor chicks also hatched this year in California, where a geographically separate population is being produced by zoos, along with The Peregrine Fund.

Condor facts

- *Prior to reintroduction, the last wild condor in Arizona was sighted just south of the Grand Canyon in 1924.*
- *Condors reach maturity at about six years of age. They usually produce one egg every other year.*
- *Recovery and reintroduction cooperators include The Peregrine Fund, Arizona Game and Fish Department, Utah Division of Wildlife Resources, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service.*

Just 22 left in 1980's

California Condors are some of the world's rarest birds. Their numbers had dropped to just 22 individuals when the recovery program began in the 1980s. Because condors eat carrion, they help fulfill the role that scavengers play in the environment by consuming dead animal carcasses that might otherwise spread disease and foul land and water resources.

Grand Canyon

The Grand Canyon chicks, which hatched in May, were produced by two sets of condor parents nesting in the canyon's remote ledges and caves. The chicks were first observed testing their wings with short flights in September and October. One of the chicks was produced by the same adult pair that in 2003 hatched the first wild condor chick in the Grand Canyon in more than 100 years. The other chick belongs to first-time parents. The adult female is the last bird remaining from the group that was released when the Arizona recovery program began in 1996.

This month's fledglings make a total of nine wild chicks hatched in the Grand Canyon since 1996. Eight are still alive.

Condor in the Grand Canyon. Credit Grand Canyon NP.

Lead poisoning

The largest survival challenge facing the two new chicks and all condors is lead poisoning from lost or un-retrieved remains of animals that have been shot with lead ammunition. The Peregrine Fund works with the Arizona Game and Fish Department and local hunting groups on an awareness campaign that has produced a dramatic increase in the number of hunters using copper bullets or other non-lead alternatives in condor country, with a corresponding drop in condor deaths due to lead poisoning.

"We are grateful to all the hunters who are valued partners in restoring California Condors to their historic range," Heinrich said.

Every condor tested twice a year for lead

Nevertheless, every condor must be captured twice each year and tested for lead poisoning. Because they are social eaters, it is possible for just one carcass to poison several birds. Condors are treated with chelation, a process that removes lead from a bird's body, and re-released to the wild. None treated this year have yet died from lead poisoning.

"Until we significantly reduce the amount of lead they are exposed to, we will never have a self-sustaining population of condors," Heinrich said. "We look forward to the day when they no longer need us to survive."

Revised: 1995-05-25 (DBI)
1997-02-27 (SMS)
2004-07-02 (AMS)
2004-07-06 (ASR)
2004-07-08 (AMS)
2004-07-08 (ASR)
2008-12-18 (SMS)

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