

Chapter VI. Birds

Birds are the most accomplished of all flying animals. Their ability to fly has allowed them to spread throughout the world, often to places, such as remote islands and Antarctica, that are beyond the reach of many other animals. Like mammals, birds are endothermic (warm-blooded) vertebrates. However, unlike most animals, they produce by laying eggs. Birds have several adaptations for flight, including wings, feathers, a light but strong skeleton, and a highly efficient respiratory system.

Bald Eagle *Haliaeetus leucophalus*

The Bald Eagle was officially declared the National Emblem of the United States by the Second Continental Congress in 1782. It was selected by the U.S.A.'s founding fathers because it is a species unique to North America. Ben Franklin wanted the wild turkey to be the national bird, because he thought the eagle was of bad moral character. The Bald Eagle has since become the living symbol of the U.S.A.'s freedoms, spirit and pursuit of excellence.

The Bald Eagle has two subspecies found in North America. The northern bald eagle's (*Haliaeetus leucophalus alascanus*) has a breeding range that includes the northern two-thirds of the continent and breeds in Nebraska, Oklahoma, Texas, New Mexico, Arizona, and Florida. The southern bald eagle (*Haliaeetus leucophalus leucophalus*) has its nesting grounds and most of its wintering grounds primarily along the Atlantic and Gulf coasts, the lower Mississippi Valley and west to northern California, Arizona and New Mexico.

The nesting populations began to decrease in the late 1900's due to reduction of habitat suitable for both breeding and wintering grounds, to develop land for farming and housing. Eagles were also trapped and shot for either the sale of their parts or because they were thought to be destroying livestock.

Another major factor brought on by man was the use of the pesticide DDT. In the 1940's to 1970's the bald eagle populations were nearly wiped out by this pesticides and other chemicals that contaminate the environment. The decline ranged from 50 percent in some areas to as high as 100 percent in others, this coming from reports in the late 1960s.

The contaminant residues were found in adult birds, eggs and nestlings as well as in their food sources. The DDT contaminants found in adult birds resulted in abnormal breeding behavior, thin egg shells, and dead embryos within the eggs.



Some other pesticides that were implicated in causing acute poisonings, which quite frequently resulted in immediate death of individual birds, are Dieldrin and Endrin. A

major step was taken in the 1970s on stopping the decimation of the bald eagles and other raptors by banning the use of several organochlorine pesticides, including DDT. The inception of the Endangered Species Act of 1973 was another major step in protecting the bald eagle and its habitat in the future. The bald eagle was added to the list of endangered species in 1978.

The Bald Eagle is a large bird, with a body length of 28-38 inches, a wingspan of 66–88 inches, and a weight of 6.6–14 lb.; females are about 25 percent larger than males. The adult Bald Eagle has a brown body with a white head and tail, and bright yellow irises, taloned feet, and a hooked beak; juveniles are completely brown except for the yellow feet. Males and females are identical in plumage coloration. Its diet consists mainly of fish, but it is an opportunistic feeder. It hunts fish by swooping down and snatching the fish out of the water with its talons. It is sexually mature at four years or five years of age. The Bald Eagle builds the largest nest of any North American bird, up to 13 ft deep, 8 ft wide, and 1.1 tons in weight.

In New Mexico, Bald Eagles typically nest in large trees, often ponderosa pine or cottonwood, with exposed branches strong enough to support the large nest. The same nest tree may be reused for many years. Nest trees are generally near lakes or reservoirs. Nest construction may begin as early as February, and a single brood is raised throughout the summer. Bald Eagles hunt from high perches and while soaring. Although fish is a prominent part of the diet in some areas, the species is an opportunistic forager. In New Mexico, the diet includes mammals such as jack rabbits, prairie dogs, and even pocket gophers.

Soaring to an altitude of 10,000 feet, the bald eagle graces the Land of Enchantment each winter. They winter in New Mexico from early November through March. The best places to spot the more than 100 bald eagles that come to New Mexico are along the Rio Grande reservoirs - Elephant Butte and Caballo, and Bosque del Apache National Wildlife Refuge, says Phillip Zwank, wildlife specialist and leader of the Cooperative Fish and Wildlife Research Unit housed at NMSU. Eagles also have been seen along the San Juan River, at Maxwell National Wildlife Refuge, and Cochiti Reservoir.

On June 28, 2007 the Interior Department took the American bald eagle off the Endangered Species List. The bald eagle will still be protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Bald Eagle Protection Act prohibits the take, transport, sale, barter, trade, import and export, and possession of eagles, making it illegal for anyone to collect eagles and eagle parts, nests, or eggs without a permit. Native Americans are able to possess these emblems which are traditional in their culture.

Wild Turkey *Meleagris gallopavo*

Three subspecies of wild turkey live in New Mexico. The **Merriam's** turkey, predominantly a mountain and coniferous forest species, has the widest distribution and is the most numerous turkey subspecies in the state. The **Rio Grande** turkey can be found along watercourses in central and northeastern New Mexico. The rare **Gould's** or Mexican turkey is found in the extreme southwestern corner of the state.

The three subspecies can be readily distinguished by the coloration of their tail feathers. The Merriam's has an ashy-white tail band, the Rio Grande a darker, chocolate-brown band, and the Gould's an almost pure white band on its tail. The breast and neck of all the subspecies have a bronze sheen, while their backs are mostly black. Wing feathers are barred with white and brown. Females or hens are generally lighter colored than the males, that are called gobblers or toms. Toms also sport red, white and blue coloration on their nearly featherless heads. Beards, the hair-like feather clusters that protrude from a male's breast, often are used to distinguish the sexes although this is not a reliable characteristic due to the fact that females also can grow beards. Hens average 8 to 10 pounds, while fully-grown toms average 17 to 21 pounds.



Merriam's
M. g. merriami



Rio Grande
M. g. intermedia



Gould's
M. g. mexicana

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Wild turkeys put on a spectacular show during their yearly mating season. Each spring, the male turkey presents a brilliant display of color, sound and movement to establish territory and attract females. The red, white and blue coloring of the male's beard intensifies during this period. The tom spreads his tail feathers in an upright fan, droops his wing tips to the ground and performs a strutting dance to attract the attention of the surrounding hens. The toms also produce a deep-throated "gobbling" sound, which is why they are so often referred to as gobblers.

After mating in March or April, the hens make their nests on the ground and lay nine to twelve eggs. Because the hens do not initially protect the eggs, freezing or wet weather in late spring can kill many young before they are hatched. Hens begin to incubate the eggs in mid to late May and, after approximately 28 days, the young poults hatch. Hens and their broods often join together in groups to forage for

insects, berries, grasses and other forage together throughout the winter until adult hens leave in the spring to nest.

Turkeys eat a variety of foods throughout the year, including pine and pinon nuts, acorns, berries, grass, insects and fruits. Foods, such as juniper berries and tall grasses that protrude above the snow, carry turkeys through winter in many parts of New Mexico. The birds typically forage and roost at lower elevations during the winter. Harsh weather and predators can take a large toll on turkey populations. Coyotes, bobcats, bears, skunks, and raccoons all prey on turkeys and young poults often fall prey to hawks and owls in the first few weeks of their life.

Burrowing Owl *Atene cunicularia*

The Burrowing Owl is considered a species of concern by the US Fish and Wildlife Service and is protected by both the Migratory Bird Treaty Act and New Mexico statute 17-2-14 (NMSA1978).

Burrowing owls rarely dig their own burrows and, therefore depend in part upon the presence of burrowing animals. In New Mexico, burrowing owls are associated with Gunnison's prairie dogs, black-tailed prairie dogs, American badgers, ground squirrels, rock squirrels, foxes and coyotes. Burrowing owls and prairie dogs are included as species of greatest conservation need in the western great plain short grass prairie vegetation type. Burrowing owls can also utilize human-made structures, such as, storm drains, berms, roadsides, irrigation canals and artificial burrows specifically constructed for the owls.



The Burrowing Owl can be found in western North America in open country from southern Canada to Mexico, Florida and in parts of the Caribbean and Central and South America. This species lives in dry open rolling hills, grasslands, deserts and open bare ground with gullies and arroyos.

Burrowing Owl numbers have been on the decline for the past 50 years. Rapid urbanization and agricultural growth have dramatically decreased its suitable habitat. Populations are also declining due to widespread elimination of burrowing rodents, notably prairie dogs and ground squirrels.

Greater Sandhill Crane *Grus Canadensis tabida*

The Greater Sandhill Crane is a very sociable bird, wintering in the thousands at the Bosque del apache National Wildlife Refuge. The Greater Sandhill Crane stands 40 – 50 inches tall and has a wingspan of 6 – 7 feet. The males weigh between 12 – 15

pounds, and the females weight approximately nine and half pounds. They feed on corn and chufa nuts on the refuge and farms up and down the Rio Grande valley in New Mexico.

The Greater Sandhill cranes migrate north to their breeding grounds in Eastern Idaho, Southwestern Montana and Western Wyoming in later February. Each pair will defend a territory of between 40 and 1000 acres depending on the richness of the food supply on the uplands adjacent to the nesting area. The nesting area must contain a considerable amount of food because it must provide support to adult cranes and one or two chicks.

The sandhill cranes are ground-nesters, building their nest out of marsh plants and grasses found in the area. The nest is a mound with a depression in the middle for the eggs which is 4 to 5 feet across. The nest is built in a large area of shallow water or on the ground in a marsh. The nesting areas must also be isolated from human activity and near dry uplands with a good food supply.

They usually lay two eggs which are laid two or three days apart. They are buff or olive with brown or lilac spots. Incubation begins when the eggs are laid and last between twenty-eight and thirty-one days. Hatching requires one whole day. The chicks are covered with tawny colored down. Their legs are well developed, and eyes wide open. After the first day, the chick will leave the nest and run after the parent to feed. The first chick follows the male while the second egg finishes incubation. The second chick will the female. For the first two months, the chicks depend entirely on their legs for transportation. The wings develop very slowly. The legs achieve their most rapid growth between the eight and sixteenth day of life.



Sandhill crane young will fight with each other during the first two or three days of life. If food is plentiful and the parents are able to keep the young separated, each parent will care for one young. If food is short or two young are not kept separated, the oldest of the young will bully the younger chick until it loses it will to fight and it runs off and perishes. This helps ensure the survival of the fittest young. Only one in five families of Sandhill Cranes will raise two chick to migrate in the fall to New Mexico.

When the first cold snap shuts down the insect life and other food sources around October, the cranes begin making more and more practice flights until one day the older cranes lead the spiraling flock off toward their wintering feeding grounds.

Pinyon Jay *Gymnorhinus cyanocephalus*

A highly social bird of the lower mountain slopes of the western United States, the Pinyon Jay is specialized for feeding on pine seeds. Each jay stores thousands of seeds each year, and has such a good memory that it can remember where most of them were hidden. They live in large flocks that can have as many as 500 birds. A pinyon jay may spend its entire life in the flock it was born into. The population varies depending on the availability of pinyon pine seeds. In years when there aren't many seeds, the jay population drops.

The pinyon jay is about 9-11 inches in length, and it has a wingspan of about 18 inches. It has a long, sharply pointed black bill; a short tail; a grayish-blue to blue body and a white chin. It has black eyes, legs and feet. Males and females are similar, but the male has a longer bill and the crown of his head is darker. The pinyon jay doesn't have feathers at the base of its bill covering its nostrils. This lets it stick its bill deep into pine cones without getting stuff stuck on its feathers.



The female pinyon jays lays two to five eggs in a cup-shaped nest made of grass, bark and pine needles placed on a platform of twigs three to six feet up in a pine, oak or juniper tree. The eggs hatch in about 16 days and the chicks fledge in about three weeks. Both parents care for the young. The pinyon jay nests in colonies.

They range from Oregon to South Dakota, southward to southern California, Baja California, Arizona, and New Mexico. Occasionally occurs far out of normal range when pine crops fail.

Western meadowlark *Sturnella neglecta*

The Western Meadowlark is very similar to the Eastern Meadowlark. Adults have yellow underparts, with a black "V" on the breast, and white flanks which are streaked with black. Their upperparts are mostly brown, but also have black streaks. These birds have long pointed bills and their heads are striped with light brown and black. Where their ranges overlap, they are best separated by voice. Western Meadowlark's yellow throat extends slightly farther into face than Eastern. Male Eastern is smaller with a conical bill and lacks white in the tail.

A male Western Meadowlark usually has two mates at the same time. The females do all the incubation and brooding, and most of the feeding of the young. The Western Meadowlark uses a "chase" display during pair formation, with the male

chasing the female. The female usually starts the display, and she determines the speed of the chase. If a male has two mates, both females may participate in the display at one time.



It is a stocky bird, 6 to 10 inches in length with a wingspan of approximately 16 inches and weighs from 3.14 ounces to 4.06 ounces. Sexes are similar, but the female is smaller and less marked. Their nests are situated on the ground, and are covered with a roof woven from grass. There may be more than one nesting female in a male's territory.

These birds forage on the ground or in low, to semi-low vegetation. They sometimes search for food by probing with their bills. They mainly eat insects, although they will devour seeds and berries. In winter, these birds often feed in flocks.

The western meadowlark is a short-distance migratory. Its breeding range stretches from British Columbia, northern Michigan, and northwestern Ohio south to Missouri, central Texas and northern Mexico.

Lesser Prairie Chicken *Tympanuchus pallidicinctus*

The lesser prairie-chicken is an upland, grassland-nesting bird present in regions of Kansas, Colorado, Oklahoma, New Mexico, and Texas. Related to the sharp-tailed grouse and differing only slightly from the greater prairie-chicken in color, size, and primarily in range, the lesser prairie-chicken is best known for its unique courtship displays and "gobbling" grounds. A highly social animal, the lesser prairie-chicken is most easily observed in spring when males gather to display for females. Once present in large numbers, the lesser prairie-chicken population and its original distribution have declined significantly since 1800. In the twentieth century, human influences such as the conversion of native rangelands to cropland, decline in habitat quality due to herbicide use, petroleum and mineral extraction activities, and excessive grazing of rangelands by livestock have contributed to this decline. Severe drought has also significantly impacted prairie-chicken populations. Unfortunately, the lesser prairie-chicken has been studied less than many other more common and widely distributed grassland birds. Due to these factors, the lesser prairie-chicken is now being considered by the U.S. Fish and Wildlife Service as a species in need of protection through the Endangered Species Act.

As a year-round resident, the breeding, summer, and winter ranges of the lesser prairie-chicken are identical. The lesser prairie-chicken is present in southeastern Colorado in Baca, Prowers, and Kiowa counties. In Kansas, the lesser prairie-chicken exists in nearly the entire southwestern quarter of the state bordering Oklahoma and

Colorado. The species occurs in Oklahoma's panhandle and northwest counties, and New Mexico counties of Harding and Union on the north to Eddy and Lea counties on the south. The northeastern and southwestern counties of Hemphill, Lipscomb, Wheeler, Donley, Cochran, Yoakum, and Gaines in the Texas panhandle support populations as well.



The lesser prairie-chicken's diet consists of insects, seeds, and leaves, catkins, and buds of forbs (broad-leaved plants) and cultivated crops. Juveniles less than 10 weeks old feed primarily on insects such as short-and long-horned grasshoppers and beetles; however leafhoppers and other smaller insects are eaten in the initial weeks following hatching. Within shinnery oak/grassland habitat, insects make up more than half of the spring and summer diet of adult lesser prairie-chickens. Sand sage leaves and buds and various forbs are consumed in spring and summer as well. Seeds are primary foods in autumn, supplemented with vegetative matter and insects. Shinnery oak acorns, sage leaves, wild buckwheat, rye and seeds from native wild plants, fruits, and flowers are eaten in winter months. Lesser prairie-chickens will eat corn, oats, wheat, rye, grain sorghum, and other small grain crops left as waste grain after harvest, or left standing as a food plot.

Red-Tailed Hawk *Buteo jamaricensis*

Hawks are carnivores (meat eaters) who belong to the category of birds known as raptors -- birds of prey. They have strong, hooked beaks; their feet have three toes pointed forward and one turned back; and their claws, or talons, are long, curved and very sharp. Prey is killed with the long talons and, if it is too large to swallow whole, it is torn to bite-sized pieces with the hawk's beak.

The Red-tail is the largest hawk, usually weighing between 2 and 4 pounds. As with most raptors, the female is nearly 1/3 larger than the male and may have a wing span of 56 inches. This species shows a great deal of individual variation in plumage.



The adult Red-tailed Hawk is easily identified, for when it leaves its perch on slow, measured wing beats, or turns while soaring overhead, the broad, rounded tail shows a rich, russet red, hence the name. Within its range, its frequent soaring and loud voice are a good pointer.

The Red-tailed Hawk has a broad, rounded tail that shows a rich, russet red. Their eyesight is eight times as powerful as a human's. The Red-tailed Hawk is usually found in grasslands or marsh- shrub habitats, but is very adaptable bird, being equally at home in deserts and forests, and at varying heights above sea level.

Mating and nest building begin in early spring, usually in March and continue through May. This is accompanied by spectacular aerial displays by both males and females. Circling and soaring to great heights, they fold their wings and plummet to treetop level, repeating this display as much as five or six times.

Nests are located from 35 to 75 feet high in the forks of large trees. The nest is large, flat, shallow and made of sticks and twigs about 1/2 inch in diameter. Both males and females assist in nest construction. Nest sites may be used from year to year, since there is strong evidence that hawks mate for life. If the old nest is wind damaged, layers of new nesting material are added each year.

The female usually lays 2 dull-white to bluish-white eggs that are marked with a variety of irregular reddish spots and splotches. Incubation takes 28-32 days and is maintained almost entirely by the female. During this period the male hunts for both of them, bringing her food to the nest.

When hatched, the young are covered with white down. They grow slowly and require much food, which keeps both parents busy. They remain in the nest for up to 48 days. During the last 10 days or so the young, which now appear as large as the parent birds, practice flapping their wings and balancing in the wind on the edge of the nest, preparing for the days when they will launch themselves into the air.

The young fledge at about 45 days. Red-tails typically do not begin breeding until their third year.