

## History

Mourning doves were found statewide by pioneers and no doubt played an important role in the diet of early settlers. The Migratory Bird Treaty Act with Canada and Mexico first regulated hunting of doves and other migratory birds in 1918. Currently 40 of the lower 48 states allow regulated dove hunting. Iowa is one of the states that does have a dove season. The United States Fish and Wildlife Service Breeding Bird Survey monitors trends in mourning dove populations across the U.S. The survey is run in spring and measure the pre-breeding population. The breeding bird survey is conducted by volunteers and records information on all birds heard or seen.

For management purposes the US is broken down into 3 major dove regions, eastern, central, and western management units; Iowa is located in the central management unit. Data from the breeding bird survey routes indicate Iowa dove populations have remained stable since the mid-1960s.

The mourning dove is the third most abundant bird in North America, with an estimated population of 300-400 million. It is the most abundant game bird in North America. The central management unit, which includes Iowa, contains approximately 57% of the US dove population and annually contributes approximately 202 million doves to the fall flight. Their greatest densities in Iowa occur in the Loess Hills of western Iowa and the southern 3 tiers of counties along Iowa's border with Missouri.

## Identification

Contrary to popular belief the dove is not a songbird. It is a member of the family of birds called Columbidae or pigeons. The family is distinct from songbirds because of the fatty milk substance parents feed their young. The mourning dove is a close relative of the common barn pigeon, but is somewhat smaller in size. Both the eastern and western subspecies breed within Iowa. Sexes are very similar having grayish-brown backs, buff colored undersides, black spots on the wings and behind the eye, and white feathers in the tail which show in flight. In the hand, males have a bluish-gray crown and faint purplish-pink on the breast, whereas females lack these colors. Juveniles can be distinguished from adults by light

buffing on the tips of the primary coverts, which persists until the first molt. Young are indistinguishable from adults by 3 months after hatching. Doves begin returning to Iowa in early March with spring migration complete by mid-May. Their familiar "Coo-oo-oo, coo" call can be heard throughout the state during the summer breeding season. Fall migration begins in late July with early hatched young moving south. Young doves begin the migration followed by adult females and then adult males. Iowa's doves' winter in the Gulf Coast states and Central Mexico. A small percentage (2%) of Iowa's doves, mostly males, overwinter in the state.

## Reproduction

Courtship and mating begin almost as soon as doves return to the state in early March. Unmated males perform their characteristic "perch-coo" call and flap-glide-flight in an attempt to attract a female. Doves that survive to breed in more than one nesting season often return to nest in the same tree the following year. First year females show no homing instinct. Doves are monogamous (have 1 mate) and generally form pair bonds that last only 1 nesting season. Doves build flimsy nests of twigs and grass usually placed in trees or shrubs 10-30 feet above the ground. In wooded areas elms and maples are preferred, but in more open agricultural areas coniferous shelterbelts and windbreaks are preferred nesting sites.

Nesting in Iowa begins in April and lasts through September, but peak-nesting activity (94%) occurs from May-August. Research from Iowa has shown less than 2% of nests are built after 1 September. Normally 2 white oval eggs are laid on alternate days. Both parents take part in incubation and brood-rearing activities. Males usually incubate during the day, females at night.

Squabs, as the young are called, hatch featherless (altricial) and grow rapidly, increasing in weight 14 times by 15 days of age. Young are initially fed crop milk, a fatty substance produced in the crop of adults, rich in protein and fats, which is gradually replaced with seeds as the young grow. Young leave the nest (fledge) 14-15 days after hatching, at which time their diet is nearly identical to that of adults. Young can survive on their own 5-9 days after leaving the nest and most leave the nest area within 2-3 weeks of fledging. The entire nesting cycle requires 30-32 days. Adults begin a new

nest 2-5 days after fledging. Dove's average 3-5 nests per year in Iowa with 1.8-1.9 young fledged per successful nest. On average half to two-thirds of the nests initiated are successful. Research in southern Iowa has shown doves can increase their population 3-fold in a single breeding season.



Mourning dove nest

## Food Habits

Doves are primarily seedeaters with more than 99% of their diets composed of weed seeds and waste grains. Preferred weed seeds include pigweed, foxtails, wild sunflower, and ragweed. Preferred waste grains include, corn, sorghum, sunflower, and millets. Insects make up less than 1% of the dove diet. Daily feeding movements of young and adults average 2-8 miles, water is required daily.

## Limiting Factors

Annual mortality rates for mourning doves are very high with only 4 out of 10 doves surviving from one year to the next. Research shows mourning doves experience unusually high losses from a variety of natural factors. Predators, disease, accidents, and weather extremes all take their toll on adult and young doves.

## Habitat Needs

Mourning doves are called habitat generalists because of their ability to adapt to a wide variety of habitats, including coniferous forests, residential areas, and agricultural areas. Mourning dove habitat needs include

trees in proper relation to open areas for nesting and roosting, a combination of wild and cultivated foods for feeding, and a source of water. Iowans can improve dove habitat on their lands by planting shelterbelts and providing a food source nearby. Coniferous trees (pines, spruces, junipers) are the preferred nesting and roosting habitat in Iowa. Weed patches and cultivated grains (corn, sorghum, wheat, sunflowers) in proximity to nesting and roosting cover provide excellent food.

## Hunting

As a game species the mourning dove has been governed by federal law since 1918. It has been recognized as a game animal under Iowa law since 1937. The 84<sup>th</sup> General Assembly (SF464) granted the Iowa DNR the authority to establish a dove season in 2011. Dove hunting provides an opportunity for hunters of any age or experience level to participate. An enjoyable hunt only requires simple equipment and moderate physical activity. Mourning doves are the most abundant game bird in Iowa and can be found in all 99 Iowa counties.

Any gauge or type of shotgun will work well for doves, but 20 and 12 gauges are most popular. Because shooting typically takes place on open fields at distances of 35 yards or less, an open- to moderate-choke will increase a shooter's chance of success. Skilled hunters setting up in pass-shooting situations may prefer tighter choke constrictions. Because mourning doves fly quickly and erratically, knowing how your shotgun patterns, and practicing with clay targets prior to the season will improve your hunt. Lead shot may be used for mourning dove hunting in Iowa. Light hunting loads with 3/4, 7/8, 1, or 1-1/8 ounces of shot are adequate for dove hunting. Ammunition loaded with steel shot in size #6 or #7, or lead shot in #7½ or #8 are excellent choices. Due to growing concern about the impacts of lead in the environment, the DNR encourages the use of nontoxic shot. Nontoxic shot is required in designated public wildlife areas. Mourning doves prefer feeding on open ground and eat a variety of seeds and grains. Look for doves:

- Near low-standing or harvested crops mixed with bare soil areas or along field edges.
- Near pastures, recently mown native grass areas or hayfields, sunflower fields and newly seeded CRP lands with areas of bare or open

ground.

- Near watering holes with bare shorelines.

Many DNR wildlife management areas have established plantings that will attract doves, including sunflowers, corn, wheat, and weed patches along crop fields. Please visit the DNR's website: [www.iowadnr.gov](http://www.iowadnr.gov) for a listing of public wildlife areas with plantings for mourning doves. Because doves have excellent eyesight, wear camouflage clothing and consider hunting from a blind or place of concealment. Remember, baiting doves is illegal, so spreading feed or broadcasting seeds outside of typical agricultural practices is not allowed.

States that allow dove hunting must follow hunting season frameworks established annually by the United States Fish and Wildlife Service. Current frameworks for Iowa allow for a 90-day season with a 15-bird daily bag limit. Bag limits are determined by the trends reported by the Breeding Bird survey. The earliest start day allowed by federal law is 1 September, and the latest end date is 15 January. Shooting hours are 1/2 hour before sunrise to sunset. States can be more restrictive with seasons and limits, but not more liberal. Iowa banding data shows hunters harvest about 6 doves out of every 100 banded in the state for a harvest rate of 6%. Hunting is a minor mortality factor for doves in Iowa.

## Economics

Revenue from the sale of hunting licenses and habitat stamps as well as the federal excise taxes on sporting arms and ammunition purchased by hunters helps support a wide variety of Iowa Department of Natural Resources' programs including wildlife management, wildlife research, and wildlife habitat acquisition.

## IOWA DEPARTMENT OF NATURAL RESOURCES

[www.iowadnr.gov](http://www.iowadnr.gov)

# MOURNING DOVE

(*Zenaidura macroura*)



Photo by Roger Hill

## Biological Facts

**Weight:** 4.2 oz; range 3.4-5.4 oz. **Length:** 12 inches.

**Flight speed:** 45-55 mph.

**Habitat:** forests, residential, agricultural.

**Foods:** waste grains and weed seeds.

**Life expectancy:** 60-70% annual mortality rate.

**Mating:** monogamous; females' pair with males each spring and remain with the male through that breeding season.

**Nesting period:** peak nesting May-August (94% of nests).

**Nests:** males select nest sites, both female and male build nest; usually a flimsy structure built of twigs and grasses; ground nesting has also been documented.

**Clutch size:** 2 eggs.

**Eggs:** pure white; ovate (3/4 inches x 1 inch).

**Incubation:** 14 days.

**Young:** altricial (hatch featherless); leave nest at 2 weeks.

**Broods per year:** 3-5 in Iowa.

**Nest success:** averages 47%.

**Fledge:** young leave nest at 12-15 days; independent of adults at 30 days.

**Migration:** Adults return in March with spring migration complete by May; young begin migrating south in July; fall migration peaks in August and is complete by October 31; about 2% of Iowa's doves are non-migratory.