

## 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 39 of the lower 48 states allow regulated dove hunting. Iowa is one of the states that does not have a dove season. The Fish and Wildlife Service Call-Count Survey and the Breeding Bird Survey monitor trends in mourning dove populations across the U.S. Both surveys are run in early spring and measure the pre-breeding population.

The call-count survey is conducted by state and federal wildlife agencies and only counts doves, while 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 call-count and breeding bird survey routes indicate Iowa dove populations have remained stable since the mid-1960.

The mourning dove is the third most abundant bird in North America, with an estimated population of 350-475 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 271 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, over winter 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.



Mourning dove nest.

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. Doves 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.

## 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,

