

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,

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 (Code of Iowa, 481A.1 21(c)), but the Iowa DNR does not have the authority to establish a dove season. That authority rests with the Iowa legislature. Iowa is one of only 9 states that does not allow dove hunting. Iowa is the only state west of the Mississippi River that does not have a dove season. Iowa hunters have asked the Iowa legislature to allow regulated dove hunting numerous times since the 1950's, most recently in 2000. However, the Iowa legislature and governor have opted not to establish a regulated hunting season.

From a biological standpoint, hunting has no measurable impact on mourning dove populations. More doves are harvested annually by hunters in the continental U.S. than all other game bird species combined. Annual hunting harvest in the United States is estimated at 17- 21 million doves. Hunting harvest accounts for less than 10% of the annual mortality. As a comparison, mortality of doves to natural causes each year is estimated to be 4 to 5 times the number attributed to hunting. Because doves have a very short life span (most live less than 1 yr.) and a high reproductive rate, annual population levels are determined almost entirely by the whims of both weather and habitat conditions.

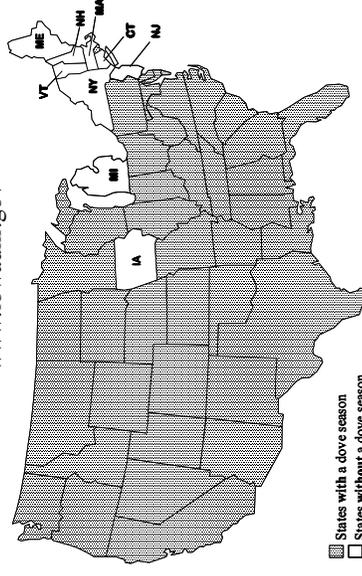
States that allow dove hunting must follow hunting season frameworks established annually by the U. S. Fish and Wildlife Service. Current frameworks for Iowa would allow for a 70 day season with an option of an 8, 15, or 22 daily bag limit. Bag limits are determined by the trends reported by the Call Count and Breeding Bird surveys. 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 1/2 hour after sunset. States can be more restrictive with seasons and limits, but not more liberal.

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.

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Map of states with and without dove hunting.

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.