

THE MOURNING DOVE IN MASSACHUSETTS

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Whether dotting the telephone lines along a country road or perched on an urban birdfeeder, the Mourning Dove or "Turtle Dove" can be seen throughout most of the state. The Mourning Dove, a distant cousin of the Passenger Pigeon, is a streamlined bird whose total length ranges between 11 and 13 inches. The eastern subspecies (Zenaida macroura carolinensis), which nests in Massachusetts, is slightly larger and more colorful than its western relatives.

Both the male and female dove have red legs, short dark bills and a long, dark, tapered tail with large white spots on the edge. The general body color is light brown, and the male possesses a bluish-gray crown and neck along with a light pink breast. This color distinction between the sexes can be used in the field. Immature birds can be distinguished by buffy-colored tips on the wing coverts.

The familiar call, a soulful oosh, cooo, cooo, coo has given the bird its name. It can most often be heard early in the morning when the males are establishing territories and courting mates. The distinct whistling sound created by rapid wing beats often calls attention to an otherwise unseen bird.

The Mourning Dove is seemingly one species which has adapted to man's alteration of the natural environment. City cemeteries, parks, shelterbelts, orchards, and ornamental trees and shrubs around homes are places one can find nesting birds. In Massachusetts nests are commonly built in conifers--spruces, cedars, and pines are utilized most often. These trees, spruce especially, offer horizontal branches with stiff needles that form a sound support for a nest as well as overhanging branches to provide protective covering.

The nest is a roughly constructed conglomeration of small twigs. Sometimes nests are placed on the ground, but normally they are located at heights between four and 30 feet, 14 or 15 feet being the average. In Massachusetts the nesting season begins in late March and peaks between late May and June. It has been found that 99 percent of all nests will have been initiated by July 30th.

The clutch of two, rarely three, pearly-white eggs is deposited on successive days, and incubation begins as soon as the first egg is laid. Researchers have found that usually the first egg is more oval in shape and shorter than the second, which is longer and more pointed. After approximately 14 days of incubation the eggs hatch. The young doves, called squab, are altricial; that is, at the time of hatching their eyes are closed, they are incapable of locomotion, and they are totally dependent on the parents for food.

The helpless young are sustained on a diet of "pigeon's milk," a liquid that is secreted from the crop linings of both the males and females. Pigeon milk is rich in calcium and vitamins A, B, and B₁. After a few

days of straight pigeon milk, the diet is supplemented with partially digested seeds and insects. The nestlings' weight increases some 30-fold within two weeks of hatching.

Since the young are fledged in about 12 to 14 days, a complete nesting cycle requires approximately 30 days. In some areas of the country as many as six broods may be fledged in one year by a single nesting pair of Mourning Doves. In Massachusetts, however, age-ratio data for doves banded from June 1st through September 30th indicate nesting pairs successfully fledge 3.1 young, roughly equivalent to two broods per nesting season. More clutches are initiated but many, particularly the early ones, are lost due to windy spring storms.

The Mourning Dove is primarily a seed eater; hence, it can often be observed along field edges. Some insects are taken as well, but these contribute only about one or two percent of the total diet. Small seeds from weed plants and grasses such as ragweed, foxtail, panicum grass, and crab grass are reliable food sources. Millet, sunflower, and agricultural crops such as corn, wheat, rye, oats, and rice are also important.

Although primarily thought of as a migratory species, doves found overwintering in Massachusetts have become more common during the past decade or so. Christmas Bird Counts over the past 20 years show that the number of doves sighted has increased 30 times. Banding data indicates that some 40 percent of adult and 22 percent of immature doves winter over despite the harsh conditions. Birds trapped for banding are sometimes found with toes lost to frostbite, a positive sign of overwintering. Since the Mourning Dove is a frequent visitor to backyard feeders, the increased popularity of bird feeding has probably led to increased survival. Unlike the Turkey and Ring-necked Pheasant, the feet of doves are delicate and are not well adapted to scratching through ice and snow for seeds.

Doves that do migrate usually leave by the end of October and sometimes congregate in staging areas. A sudden drop in temperature is the impetus to migration. Once on the wing, these birds are capable of flying 100 miles a day, usually settling for the winter in the mid-Atlantic and southern states. Band recoveries have been noted from Maryland, North Carolina, South Carolina, Virginia, and Georgia. Because it is a migratory bird, Mourning Dove management falls under the responsibility of the federal Fish and Wildlife Service. One of its projects, conducted in conjunction with state conservation agencies such as the Massachusetts Division of Fisheries and Wildlife, is to monitor population levels through data collected from banding and call-count surveys.

Call-count surveys may be unfamiliar to some readers. They consist of an observer recording the number of doves heard calling during a three-minute interval at 20 different stations along a 20-mile route. These data are analyzed statistically to yield population indexes which, combined with banding data, are part of the basis from which hunting regulations are developed.

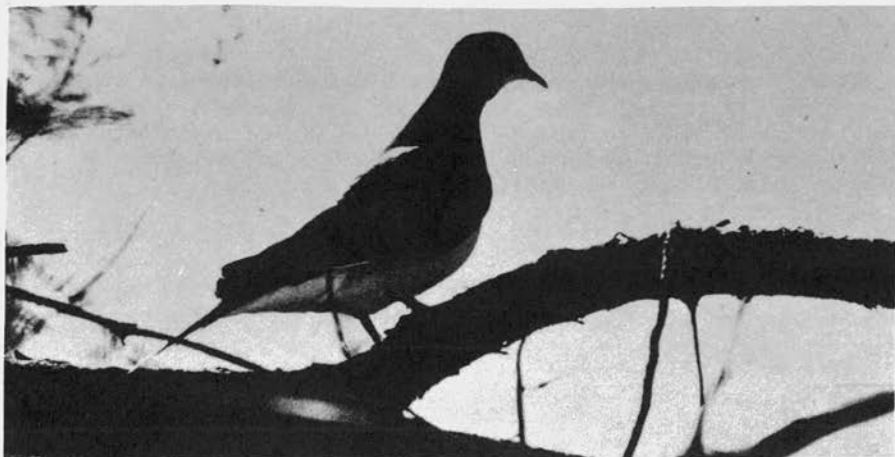
The Mourning Dove is our most important migratory game bird. It is presently hunted in 33 of the 48 contiguous states with some 49,000,000

being harvested yearly. Despite this seemingly heavy hunting pressure, hunting mortality makes up a very low portion of the total mortality. In South Dakota, where a dove season was first initiated in 1967, hunting mortality accounted for 16 percent of the population. Furthermore, the total annual mortality increased only three to four percent over that of pre-hunting years. Thus, hunter harvest adds only slightly to the total population mortality. Doves that would have died from other causes were instead harvested by the hunter.

Here in Massachusetts the dove has been afforded protection since 1903. However, states to the south do hunt doves that migrate from Massachusetts to winter in their harvest areas. The effects of such hunting are slight. Band recovery data for Massachusetts-banded doves (corrected for band reporting rates and crippling loss) indicate that hunting accounts for less than 3 percent of our doves' total mortality. Far greater numbers die from natural causes. Intrastate band recoveries for Massachusetts-banded doves indicate capture by domestic cats or collision with motor vehicles and stationary objects account for most of the mortality. Evidence of these types of mortality are very visible to man and are more likely to be reported than "unseen causes" of death.

The latter, which accounts for a good percentage of overall mortality, include predation by raptorial birds such as the Cooper's Hawk, sudden adverse weather, and disease. Prevalent dove diseases are "fowl pox" (*Borrelia avium*) and trichomoniasis, commonly called "dove disease" or "canker disease." Large outbreaks of dove disease have affected millions of birds in the past. In 1950, for example, a trichomoniasis epizootic was so severe that several states had to cancel their hunting seasons.

Nationally, Mourning Dove mortality due to hunting is low--far more doves die from natural causes than from the hunter's gun. When properly regulated hunting doesn't harm dove populations, rather it insures substantial numbers of doves for the future, for the enjoyment of all.



Mourning Dove photographed by Bill Byrne
Courtesy of Massachusetts Division of Fisheries and Wildlife