



Mourning Dove



In August, mourning doves seem to be everywhere. Their slim, gray-brown forms are seen on telephone lines, in back yards, farm fields and weedy flats along highways. By late September, their swift, direct flight takes them overhead on whistling wings. They flash south in bands of 10 and 20, belly plumage catching the fading gold of late summer sunlight. When the great masses of doves begin to depart, autumn is on its way.

The mourning dove is a member of the family Columbidae and is the most abundant and widely-distributed migratory game bird in North America. Doves breed across the southern and western edges of Canada, throughout all of the lower 48 United States, and in much of Mexico, Central America and the Caribbean. They winter from Massachusetts, southern Michigan, Nebraska, and California south to Panama. Colloquial names are turtle dove, wild pigeon, wild dove, and rain dove.

Biology

An adult mourning dove, *Zenaidura macroura*, weighs 3½ to 5 ounces and is 10 to 13 inches in length from beak to tail tip. A dove is smaller and more streamlined than the closely related pigeon, with a long, pointed tail and tapering wings that spread 17 to 19 inches. The neck is long, the head small, and the bill slender, short and black.

A dove's wings are gray, and its back, rump, and middle tail feathers are grayish olive-brown. The lateral tail feathers are bluish-gray, with black crossbars and white tips which flash when the bird is flying. Juvenile doves are covered in buffy-tipped, brownish feathers. Adult females exhibit olive to brown coloration across their body, while adult

males maintain olive on their backs with a rosy breast and slate-gray nape and crown. Adult males will often have an iridescence spot on the neck. And both sexes could have a small black spot beneath the eye on their cheek.

The species' call is distinctive and earns the "mourning" half of this bird's name. The call is a hollow, plaintive *ooah, cooo, coo, coo*. Depending on distance, only the last three notes may be audible. This call is made by males trying to attract females. After mating, it serves to bond the pair and ward off other males. While females may coo in response, their calls are weak and scarcely audible. Another distinctive sound identifies the mourning dove: a whistling produced by the wings of a bird in flight.

Doves are beneficial in that they eat seeds of pest plants and generally do not damage crops. Foods are weed seeds and waste grains (these two items together may make up 98 percent of a dove's diet), a few insects, snails and slugs. Doves don't cling to stalks or scratch for food—they pick seeds off the ground. Favored weeds are croton, foxtail, smartweed, ragweed and seeds of various grasses and sedges. Grains eaten include corn, wheat, oats, barley, rye and buckwheat left on the ground by mechanical harvesting methods. They are readily attracted to backyard bird feeders where they consume a variety of seeds.

Seeds of plants such as croton and foxtail grass are very small, and single doves have been found with literally thousands (7,500 croton, 6,400 foxtail grass) in their crops. Grit aids in grinding up food, and it may be taken in the form of gravel, cinders, glass or any other small, hard material. Doves seen along roadsides often are picking up grit. In addition to food and grit, doves need water every

day. Ordinarily they fly to a stream, creek or pond early in the morning and again in the evening.

Small flocks of doves begin to return to Pennsylvania in early March, with arrivals peaking from mid-March through April. Some doves also winter in Pennsylvania. Banding studies indicate that birds returning to Pennsylvania to breed may have wintered along the southeastern coast—in North and South Carolina, Georgia and Florida.

The male selects a nesting territory and defends it by flying at and pecking other males. He coos to attract a female and performs a nuptial flight in a large oval pattern. The pair mate and select a nest site. Together they build a nest over the next 4 to 6 days, sometimes using a vacant catbird, robin or grackle nest as a platform. Dove nests are built of sticks, with little if any lining material. Eggs may be visible from the ground through the loosely woven twigs, but the nests are surprisingly strong for their frail appearance. They are built as high up as 50 feet (usually 10 to 25 feet) in the crotch of a branch, typically in conifers; or they may be constructed in tangles of shrubs or vines, or even on the ground. Doves have also adapted to using human made structures for nesting and will often be seen underneath a porch or deck.

Two or three days after the nest is finished, the female lays her first egg. A second egg comes two days later, and incubation begins at once. (On rare occasions, a third egg is laid.) Eggs are oval to elliptical, glossy, white and unmarked. Incubation and brooding duties are shared. The male sits on the eggs during the day, the female at night. The eggs hatch, after 14 to 15 days. The nestlings, also called squabs, are altricial: naked, blind and completely dependent on their parents.

For the first few days, squabs are fed a mixture of small seeds and a nutritious liquid called “pigeon’s milk,” which is secreted by the lining of the adult’s crop (the crop is the upper portion of the digestive tract). This “milk” is a chalky white nutrient rich fluid made up of antioxidants and immune-enhancing proteins. Both parents feed it to the young by regurgitation. Gradually, seeds begin to compose the bulk of the developing squabs’ diet. At 14 days, squabs are fully feathered, fledged and on their own—and the adults are ready to produce another brood.

The nesting cycle—egg-laying, incubation and care of squabs until they leave the nest—takes a little more than a month. Adults may make up to five nesting attempts over the summer. March through August comprises the typical nesting period, although doves in Pennsylvania have been observed nest-building as early as late February and incubating as late as the first week of October. About half of the nestlings succeed, resulting in an average of 4 to 6 young produced by each adult pair.

Weather can be an important mortality factor. Spring and summer storms with high winds blow nests, eggs and young out of trees; heavy rains and hail may kill adults as well as nestlings. Nest predators include blue jays, starlings, crows, squirrels, snakes, and house cats among others. Adults are

preyed on by hawks and owls. Disease and accidents cut dove numbers further.

Approximately 70 to 80 percent of all newly-hatched doves do not live one year (i.e., for every 100 hatched in a summer, only 20 to 30 will live to breed the following summer). If a juvenile survives its first year, the attrition slows somewhat. Adults have a 60 percent mortality rate.

Juveniles complete their feather development in about two weeks after leaving the nest. Then, they gather into small flocks to feed and roost. Migration of all ages is in full swing by mid-September or early October. Flocks of a few to 20 or more birds travel together, flying in the morning, resting and feeding at noon, flying in the afternoon, feeding in the evening, and roosting at night. If winter weather is not too severe, some birds spend the entire year in Pennsylvania. This proportion of the population appears to have risen over time, likely due in part to increased bird feeding activity by humans.

Because the mourning dove is a migratory bird, it falls under federal regulations. As with waterfowl, the states set hunting seasons and bag limits within a framework determined by the U.S. Fish and Wildlife Service. Doves have been hunted in Pennsylvania since 1945.

Population

Mourning doves adapt well to man and his activities. In the last 200 years, the dove population has increased greatly—probably as a result of intensified agriculture and expanding suburbs which provide much shrubby nesting habitat. Landscaping practices which decrease the amount or diversity of shrubs and trees, however, may affect doves adversely. Although long-term population declines in the western United States are of some concern, mourning dove numbers in the East appear stable to increasing. Mourning doves were among the top 10 species for both occurrence and abundance in the recently-completed second Breeding Bird Atlas of Pennsylvania. Doves occur in all but the most-heavily forested landscapes in Pennsylvania, and Atlas point count data provided an estimate of about 1.55 million singing males statewide.

The U.S. Fish & Wildlife Service monitors dove breeding populations by conducting call-count surveys. In Pennsylvania, the dove population peaks in August and September when adults and locally produced young are joined by migrants from farther north. They migrate leisurely, averaging about 15 to 30 miles per day.

As with any heavily preyed-upon species, the mourning dove has an extremely high reproductive rate (small, but multiple broods); in essence, parent doves don’t put all their eggs in the same basket. While dove numbers fluctuate from year to year, there’s no evidence that the population is cyclical.

Habitat

The mourning dove is a bird of open woodland edges. Favored habitat includes farmland with scattered trees and shrubs,

open woods, evergreen stands, orchards, roadside trees and suburban gardens. Doves usually avoid dense forests.

Food is not normally a limiting factor, because doves can subsist on a tremendous variety of seeds and can fly to places where food is adequate. Because they are so mobile and adaptable, there is little need to manage habitat specifically for them. Shelterbelts can be planted for nesting cover (red pine, long-leaf pine, Norway spruce, and locust trees are suitable), benefiting doves and other wildlife such

as songbirds, pheasants, rabbits, quail, etc. Also, millet overseeded in corn provides extra food.

In general, doves concentrate in areas with plentiful weed seeds or waste grain, near trees for roosting and nesting, and within easy flight of a water source. As long as such habitat exists—and right now it is abundant—the mourning dove will continue to be one of Pennsylvania's most plentiful and conspicuous game birds and a much-loved occupant of backyards.

