

MOURNING DOVE - ZENAIDA MACROURA

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Columbiformes Family: Columbidae Genus: Zenaida
Species: *Z. macroura*

Habitat:

Biomes: Primarily a bird of open country, scattered trees, and woodland edges, but large numbers roost in woodlots during winter. Feeds on ground in grasslands, agricultural fields, backyards, and roadsides.

Distribution:

In US: The species is resident throughout the Greater Antilles, most of Mexico, the Continental United States, southern Canada, and the Atlantic archipelago of Bermuda. Much of the Canadian prairie sees these birds in summer only, and southern Central America sees them in winter only. The species is a vagrant in northern Canada, Alaska, and South America.

In Other Countries: One record, most likely a vagrant, from the United Kingdom.

Holistic Description: A graceful, slender-tailed, small-headed dove that's common across the continent. Mourning Doves perch on telephone wires and forage for seeds on the ground; their flight is fast and bullet straight. Their soft, drawn-out calls sound like laments. When taking off, their wings make a sharp whistling or whinnying. Mourning Doves are the most frequently hunted species in North America.

Species Richness: 5 SUBSPECIES

Population Dynamic: The number of individual mourning doves is estimated to be approximately 475 million. The large population and its vast range explain why the mourning dove is considered to be of least concern, meaning that the species is not at immediate risk. As a gamebird, the mourning dove is well-managed, with more than 20 million (and up to 40–70 million) shot by hunters each year.

Evolution and Systematics:

Evolution: Numerous early and late Pleistocene and prehistoric records for the living species from Florida to California, S. Dakota to Mexico, and from the Caribbean.

Systematics: Three geographic trends in morphological variation on North American continent: (1) plumage tone varies from dark in east to pale in west, with a broad area of intergradations in transition between eastern forest and western grasslands; (2) wing length gradually becomes longer from south to north; (3) toe length decreases from east to west.

Number of Species: 5 SUBSPECIES

Number of Genera: 5 SUBSPECIES

Physical Characteristics:

Size and Length:

Male

Length: 9.1-13.4 in (23-34 cm)

Weight: 3.4-6.0 oz (96-170 g)

Wingspan: 17.7 in (45 cm)

Female

Weight: 3.0-5.5 oz (86-156 g)

Wingspan: 17.7 in (45 cm)

Coloration: Mourning Doves often match their open-country surroundings. They're delicate brown to buffy-tan overall, with black spots on the wings and black-bordered white tips to the tail feathers.

General Body Features: Plump-bodied and long-tailed, with short legs, small bill, and a head that looks particularly small in comparison to the body. The long, pointed tail is unique among North American doves.

Special Features of the Body: Overall, the Columbidae tend to have short legs, short bills with a fleshy cere, and small heads on large, compact bodies. Mourning doves have perching feet, with three toes forward and one reversed. The legs are short and reddish colored. The beak is short and dark, usually a brown-black hue.

Special Features of the Head and Sensory Organs: In a series of experiments in 1975 by Dr. Mark B. Friedman, using doves, their characteristic head bobbing was shown to be due to their natural desire to keep their vision constant.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Body feathers have very dense, fluffy bases, are attached loosely into the skin, and drop out easily. Possibly serving as a predator avoidance mechanism, large numbers of feathers fall out in the attacker's mouth if the bird is snatched, facilitating the bird's escape. The plumage of the family is variable.

Any Special Internal Anatomy: Like some other birds, the Columbidae have no gall bladders. Some medieval naturalists concluded they have no bile (gall), which in the medieval theory of the four humours explained the allegedly sweet

disposition of doves. In fact, however, they do have bile (as Aristotle had earlier realized), which is secreted directly into the gut.

Sexual Dimorphisms: The adult male has bright purple-pink patches on the neck sides, with light pink coloring reaching the breast. The crown of the adult male is a distinctly bluish-grey color. Females are similar in appearance, but with more brown coloring overall and a little smaller than the male. The iridescent feather patches on the neck above the shoulders are nearly absent, but can be quite vivid on males.

Differences Between Juvenile Stage and Adult: Juvenile birds have a scaly appearance, and are generally darker.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Mourning Doves feed on the ground and in the open. They peck or push aside ground litter, but don't scratch at the ground. Males have favorite "cooing perches" they defend from other males. Members of a pair preen each other with gentle nibbles around the neck as a pair-bonding ritual. Eventually, the pair will progress to grasping beaks and bobbing their heads up and down in unison. **Like other columbids, the mourning dove drinks by suction, without lifting or tilting its head. It often gathers at drinking spots around dawn and dusk. Mourning doves sunbathe or rainbathe by lying on the ground or on a flat tree limb, leaning over, stretching one wing, and keeping this posture for up to twenty minutes. These birds can also waterbathe in shallow pools or bird baths. Dustbathing is common as well.**

Locomotion: Usually flies; capable of swift direct flights and rapid changes of pace and altitude. Flies singly or in flocks of 2 or more. Two flight patterns have other social connotations. On ground, walks or runs rather than hop. Uses open ground, avoids dense ground cover. Throws up tail (tail-tips) after alighting or as flight-intention movement.

Communication and Perception: This species' call is a distinctive, plaintive cooOOoo-woo-woo-woooo, uttered by males to attract females, and may be mistaken for the call of an owl at first. Other sounds include a nest call (cooOOoo) by paired males to attract their mates to the nest sites, a greeting call (a soft ork) by males upon rejoining their mates, and an alarm call (a short roo-oo) by either male or female when threatened. In flight, the wings make a fluttery whistling sound that is hard to hear. The wing whistle is much louder and more noticeable upon take-off and landing.

Home Range: Territory is established after pairing, with male taking initiative in selecting nest site. Defended area includes nest site and cooing perches. Source of nesting material is important in establishment of territorial boundaries around nest; boundaries can be manipulated by changing location of suitable nest material.

Degree of Sociality: Engages in numerous vigilant (alert) behaviors that facilitate potential inter- and intra-specific social interactions, and predator detection and avoidance. Behaviors include assumption of alert posture; extending and twitching neck; bobbing, pumping and tilting head; pausing; and preflight crouching. Basically this means that the bird is extremely gregarious. (SOCIAL)

Level of Aggression: Behaviors include Attack-charge and Attack-flight displays. Attack-charge and Attack-flight consist of rapid wing (singly or together) thrusts and beak thrusts (without contact) directed at intruder. Former occurs on ground, latter in short flights (≤ 10 m). Physical contact usually involves wing strikes but may include pecking. Immature and adult birds crouch, tuck in neck, and orient head toward intruder; then erect plumage, lift and spread wing farthest from threat toward vertical, and spread tail in direction of threat. Usually occurs while defending nest or food source.

Migration: Resident to long-distance migrant. Northern birds fly south thousands of miles (as far as southern Mexico); individuals that breed in central and southern U.S. move a few hundred miles or not at all.

Predators:

Predators: Falcons, Accipiters, Raccoons, Domestic Cats, Rat Snakes, Blue Jays, Fox Squirrels, Raptors, Mammals, and Reptiles.

Anti-Predator Defenses: Nest-distraction display, or Broken-wing Feign, occurs when parent incubating eggs or brooding young is flushed from nest. Three different forms described by Nice: most intense: parent throws self on ground near intruder and flutters about as if seriously injured; moderately intense: parent leaves nest, flies some distance (9–27 m), flutters a little on ground, stops and waves wings, then walks along waving wings, making little flights in air; least intense: parent flies near ground as if intending to display but instead flies up again and alights on tree. Parents also may fly from nest without any indication of display. Frequency and intensity of display increase after egg-laying and peak when squabs are being brooded.

Diet and Nutrition:

Adult Diet: Seeds make up 99 percent of a Mourning Dove's diet, including cultivated grains and even peanuts, as well as wild grasses, weeds, herbs, and occasionally berries. They sometimes eat snails. Mourning Doves eat roughly 12 to 20 percent of their body weight per day, or 71 calories on average.

Juvenile Diet: Granivorous habitat generalist that opportunistically takes advantage of seasonally available food resources among a wide variety of habitats that vary across its extensive range. Diet consists mostly (99%) of seeds from cultivated or wild plants with insignificant amounts of animal matter and leafy vegetation incidentally ingested.

Special Adaptations for Getting Prey: CHECK BOLDED ACTIVITY ON WATER INTAKE. Does not scratch with feet or probe with bill but will move sparse ground litter with whisks of bill to uncover food. Occasionally perches on stiff erect plants while feeding on seed heads. Feeds quickly to fill crop and digests food later at loafing or roosting sites. Usually forages in pairs during nesting season and in large flocks during late summer through autumn.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Seasonally monogamous, with some indications birds may re-pair in subsequent breeding seasons.

Mating Season: March to May

Courtship: Courtship begins when female alights near displaying male. Usually male approaches with a Charge (head held horizontally forward, tail pointed horizontally back, and whole body raised) and Bow Coo (bows head and body until head nearly touches ground [≤ 10 times], rises to very erect position, holds head forward, and utters loud coo). Female responds by flying away (male often follows), by ignoring male and continuing feeding or preening, by pecking at mate, or by permitting copulation and formation of pair bond. After bond is established, pair loafs together for a few days before initiating nest-building.

Territoriality: Defense is accomplished primarily by physical means, with territorial male chasing intruding males from defended area. Nesting males are also aggressive toward other birds.

Mating: NONE

Nesting: Typically nests amid dense foliage on the branch of an evergreen, orchard tree, mesquite, cottonwood, or vine. Also quite commonly nests on the ground, particularly in the West. Unbothered by nesting around humans, Mourning Doves may even nest on gutters, eaves, or abandoned equipment. A flimsy assembly of pine needles, twigs, and grass stems, unlined and with little insulation for the young. Over 2 to 4 days, the male carries twigs to the female, passing them to her while standing on her back; the female weaves them into a nest about 8 inches across. Mourning Doves sometimes reuse their own or other species' nests.

Egg-Laying: Clutch Size: 2 eggs Number of Broods: 1-6 broods Egg Length: 1.0-1.2 in (2.6-3 cm) Egg Width: 0.8-0.9 in (2.1-2.3 cm) Incubation Period: 14 days Nestling Period: 12-15 days Egg Description: Unmarked, white.

Hatching and Incubation/Gestation: Helpless, eyes closed, sparsely covered in cream-colored down, unable to hold up head, dependent on adults for warmth.

Development: Altricial. At hatch nestlings have closed eyes; head and body are covered with sparse cream-colored down. Young are unable to thermoregulate. Prominent white egg teeth are present on both mandibles. The bill, feet, legs, and bare areas around eyes tend to be dark neutral gray. Head is barely held upright.

Parental Care: Brooding Constant until 4-5 d; male midmorning to late afternoon, female all other times. By 6-7 d, constant brooding is unusual and squabs may be left unattended for long periods in good weather. Night brooding discontinued at 9-10 d. Squabs fed by regurgitation. Both squabs usually fed equal amounts, often at same time by inserting bills in each side of parent's mouth. Feedings may last for several consecutive minutes and may occur intermittently over period of 1 h. Both parents feed primarily crop milk for first 3-4 d posthatching, with more seeds substituted for decreasing crop milk by 5-6 d until diet of regurgitated foods is essentially same as that of parents by time of fledging.

Lifespan: Adult mourning doves live about two years in the wild. Some cases, however, have noted a life span of five, seven, and 10 years.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Mourning Doves are common across the continent and generally have prospered as people settled the landscape, however populations declined by about 15% between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 120 million with 81% spending some part of the year in the U.S., 19% in Mexico, and 5% in Canada. The species rates a 5 out of 20 on the Continental Concern Score. Mourning Dove is not on the 2014 State of the Birds Watch List. These birds are the continent's most popular game bird: hunters may shoot more than 20 million Mourning Doves each year. Because of the birds' popularity, game managers monitor their numbers to set hunting limits. Although Mourning Doves seem to do well in the face of hunting pressure, they also face the less visible problem of lead poisoning. Mourning Doves forage on the ground, and in heavily hunted areas they may wind up

eating fallen lead shot (records show some doves have eaten up to 43 pellets). Studies have found this problem is worst around fields specifically planted to attract the doves, and that about 1 in 20 doves wind up eating lead.

Conservation Efforts: ^^^^^^

Extra Facts:

1. During the breeding season, you might see three Mourning Doves flying in tight formation, one after another. This is a form of social display. Typically the bird in the lead is the male of a mated pair. The second bird is an unmated male chasing his rival from the area where he hopes to nest. The third is the female of the mated pair, which seems to go along for the ride.
2. Mourning Doves tend to feed busily on the ground, swallowing seeds and storing them in an enlargement of the esophagus called the crop. Once they've filled it (the record is 17,200 bluegrass seeds in a single crop!), they can fly to a safe perch to digest the meal.
3. Mourning Doves eat roughly 12 to 20 percent of their body weight per day, or 71 calories on average.
4. Perhaps one reason why Mourning Doves survive in the desert: they can drink brackish spring water (up to almost half the salinity of sea water) without becoming dehydrated the way humans would.
5. The Mourning Dove is the most widespread and abundant game bird in North America. Every year hunters harvest more than 20 million, but the Mourning Dove remains one of our most abundant birds with a U.S. population estimated at 350 million.
6. The oldest known Mourning Dove was a male, and at least 30 years, 4 months old when he was shot in Florida in 1998. He had been banded in Georgia in 1968.

Notable Species:

1. Eastern Z. m. carolinensis
2. Clarion Island Z. m. clarionensis
3. West Indian Z. m. macroura
4. Western Z. m. marginella
5. Panama Z. m. turturilla

All five subspecies of the mourning dove look similar and are not easily distinguishable. The nominate subspecies possesses shorter wings, and is darker and more buff-colored than the "average" mourning dove. Z. m. carolinensis has longer wings and toes, a shorter beak, and is darker in color. The western subspecies has longer wings, a longer beak, shorter toes, and is more muted and lighter in color. The Panama mourning dove has shorter wings and legs, a longer beak, and is grayer in color. The Clarion Island subspecies possesses larger feet, a larger beak, and is darker brown in color.