

EASTERN BLUEBIRD - SIALIA SIALIS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Turdidae Genus: Sialia
Species: S. sialis

Habitat:

Biomes: Eastern Bluebirds live in open country around trees, but with little understory and sparse ground cover. Original habitats probably included open, frequently burned pine savannas, beaver ponds, mature but open woods, and forest openings. Today, they're most common along pastures, agricultural fields, suburban parks, backyards, and golf courses.

Distribution:

In US: Eastern bluebirds are found east of the Rockies, southern Canada to the Gulf states, and southeastern Arizona to Nicaragua. This bird also occurs across eastern North America and south as far as Nicaragua. Birds that live farther north and in the west of the range tend to lay more eggs than eastern and southern birds.

In Other Countries: NONE

Holistic Description: Most of the country drives during an eastern North American summer will turn up a few Eastern Bluebirds sitting on telephone wires or perched atop a nest box, calling out in a short, wavering voice or abruptly dropping to the ground after an insect. Marvelous birds to capture in your binoculars, male Eastern Bluebirds are a brilliant royal blue on the back and head, and warm red-brown on the breast. Blue tinges in the wings and tail give the grayer females an elegant look.

Species Richness: 7 SUBSPECIES

Population Dynamic: From 1966-2015 the eastern bluebird experienced a greater than 1.5% annual population increase throughout most of its breeding and year-round ranges, with exceptions including southern Florida and the Ohio River valley.

Evolution and Systematics:

Evolution: The first fossil record of Eastern Bluebirds included 3 humeri from an abandoned lime quarry in Marion Co., FL, found among other late-Pleistocene remains.

Systematics: Both body size and coloration vary slightly to moderately across the range of this species. Wing and tail length vary little but generally increase from north to south, although this "trend" reverses south of the Isthmus of Tehuantepec in s. Mexico, such that the smallest birds are found in coastal Nicaragua. Birds that live farther north and in the west of the range tend to lay more eggs than eastern and southern birds.

Number of Species: 7 SUBSPECIES

Number of Genera: 7 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 6.3-8.3 in (16-21 cm) Weight: 1.0-1.1 oz (28-32 g)

Wingspan: 9.8-12.6 in (25-32 cm)

Coloration: Male Eastern Bluebirds are vivid, deep blue above and rusty or brick-red on the throat and breast. Blue in birds always depends on the light, and males often look plain gray-brown from a distance. Females are grayish above with bluish wings and tail, and a subdued orange-brown breast.

General Body Features: The Eastern Bluebird is a small thrush with a big, rounded head, large eye, plump body, and alert posture. The wings are long, but the tail and legs are fairly short. The bill is short and straight.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: Bluebirds have short, slim beaks which are multipurpose and can be used for eating insects and seed.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: The Bluebirds legs are short. They have three toes in the front and one in the back. This could be used for perching on a branch or pole.

Any Special Internal Anatomy: The Bluebird has very good eyesight and can locate small food from more than 100 feet away.

Sexual Dimorphisms: Male has rich blue upperparts, contrasting with red orange throat, breast, and flanks and white lower belly and undertail-coverts. Chin white or red orange. Outer rectrices have narrow white border. Female has blue gray upperparts, with gray brown wash across back; suggestion of white eye-ring on some individuals; wings and tail washed with dull blue; underparts paler orange than on male; white border of outermost rectrix is broader than on male.

Differences Between Juvenile Stage and Adult: Juvenile plumage browner, with white streaking above and dusky spotting below, and white eye-ring; sexes identifiable—males having blue in wing and tail, wing coverts, and narrower buff border on outermost rectrix.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: This small, brightly colored thrush typically perches on wires and fence posts overlooking open fields. The birds forage by fluttering to the ground to grab an insect, or occasionally by catching an insect in midair. Bluebirds can sight their tiny prey items from 60 feet or more away. They fly fairly low to the ground, and with a fast but irregular pattern to their wingbeats. Males vying over territories chase each other at high speed, sometimes grappling with their feet, pulling at feathers with their beaks, and hitting with their wings. The boxes and tree cavities where bluebirds nest are a hot commodity among birds that require holes for nesting, and male bluebirds will attack other species they deem a threat, including House Sparrows, European Starlings, Tree Swallows, Great Crested Flycatchers, Carolina Chickadees, and Brown-headed Nuthatches, as well as non-cavity nesters such as robins, Blue Jays, mockingbirds, and cowbirds. Males attract females to the nest with a display in which he carries bits of nesting material into and out of the nest. Once a female enters the nest hole with him, the pair bond is typically established and often remains intact for several seasons (although studies suggest that around one in every four or five eggs involves a parent from outside the pair).

Locomotion: Hop sideways, moving laterally with short steps (sidling), also while simultaneously turning 90–180°. When fully drenched, bluebirds can and do climb trees just as nestlings that have fledged prematurely, before they are able to fly, can climb up trees. Flight height is generally low in open areas, about 10–12 m off ground. Longer flights are higher.

Communication and Perception: Eastern Bluebirds sing a fairly low-pitched, warbling song made up of several phrases, each consisting of 1-3 short notes. Harsher chattering notes may be interspersed with the whistles. The whole song lasts about 2 seconds. Typically, unpaired males sing this song from a high perch or sometimes in flight, as they try to attract a mate. Females sometimes sing this song when they see predators on their territory. Paired males sometimes sing a much softer version of this song while females are laying eggs.

Home Range: Adult bluebirds defend the area around the nesting cavity; bluebirds use the nesting territory for mating, nesting, and feeding. Thus nesting territories include cavities. Home range sizes, sometimes called territories, 1.1–8.4 ha in Michigan; average 2.1 ha in New York. Territories in burned or lumbered areas are smaller than territories in old fields or in pastures and orchards, probably because of ease of foraging and availability of perches. Territory size can be substantially reduced by increase in number of available nesting cavities within an area.

Degree of Sociality: Semicolonial nester. Tends to settle in areas where bluebirds have already settled.

Level of Aggression: Include “fights”, “pecks”, “supplanting attacks” or “flybys”, “chases”, and “collisions”. In conspecific “fights”, individuals contact each other with beaks, feet, and wings. During fights, individuals face each other, grappling with their feet, sometimes falling to the ground. Males bite and pull females' head-feathers during occasional male aggression against females during “courtship” and sometimes preceding or following copulation attempts.

Migration: Resident to medium-distance migrant. Bluebirds leave breeding grounds in the north of their range to winter in the southeastern U.S. or Mexico. Populations in the northern part of their range are entirely migratory, spending winters in the southeastern United States or Mexico. Some fly as far as 2,000 miles between western Manitoba and Texas. Eastern Bluebirds from the southeastern U.S. may move short distances south or simply remain on their breeding territories all year.

Predators:

Predators: Eastern Chipmunks, Flying Squirrels, House Sparrows, European Starlings, Black Rat Snakes, Black Racers, Fire Ants, Domestic Cats, Black Bears, Raccoons, American Kestrels.

Anti-Predator Defenses: Bluebird males give distinctive song type in presence of predators. This song resembles typical territorial song, but begins with a chip. Females sometimes give full, loud song in response to predators when males are off territory; which may attract a territorial male back to his territory to defend against interloper males. Males and females will dive-bomb humans, black snakes, House Sparrows, and other passerine predators, while snapping their bills loudly.

Diet and Nutrition:

Adult Diet: Insects caught on the ground are a bluebird's main food for much of the year. Major prey include caterpillars, beetles crickets, grasshoppers, and spiders. In fall and winter, bluebirds eat large amounts of fruit including mistletoe, sumac, blueberries, black cherry, tupelo, currants, wild holly, dogwood berries, hackberries, honeysuckle, bay, pokeweed, and juniper berries. Rarely, Eastern Bluebirds have been recorded eating salamanders, shrews, snakes, lizards, and tree frogs.

Juvenile Diet: In Michigan, butterfly and moth larvae (35–41% of total), spiders (6–31%), short-horned grasshoppers (7–17%), crickets (7–10%), beetles (1–5%), Heterocera adults (3–7%), ants (Formicidae; 1–7%), *Lubbricus* sp. (1–8%), long-horned grasshoppers.

Special Adaptations for Getting Prey: Hunt for prey from lookouts while perched upright; locate ground arthropods visually, sallying to the ground to capture prey. Individuals identify appropriate prey from distances of 15–20 m, sometimes as far away as 40 m, suggesting eyesight is comparable to that of flycatchers. Take ground arthropods in their beaks; often consume

prey at the point of capture, though may take large prey items to a perch and bang the prey item against a substrate by moving their heads from side to side, then consuming the prey.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Generally eastern bluebirds are socially monogamous.

Mating Season: Spring and Summer

Courtship: Courtship-feeding occurs regularly in some populations, but occurrences and distributions within populations seem highly variable, with females “begging” from males in a posture reminiscent of chick “begging.” Males offer females prey without a visible signal from the female. Feeding of females by males is a regular aspect of breeding biology in migratory populations, but it is often rare or absent in facultatively migrant or nonmigrant populations.

Territoriality: HOME RANGE

Mating: Copulation seldom observed; seems surreptitious. Many copulations occur in the hour after an egg is laid, once egg-laying has begun; birds copulate on perches and sometimes within nesting cavities. Male mounts female's back; cloacal contact may or may not occur; copulations completed within 1–5 s. Females initiate copulations by assuming Solicitation Posture.

Nest Placement: Eastern Bluebirds put their nests in natural cavities or in nest boxes or other artificial refuges. Among available natural cavities, bluebirds typically select old woodpecker holes in dead pine or oak trees, up to 50 feet off the ground. Older bluebirds are more likely than younger ones to nest in a nest box, although individual birds often switch their preferences between nesting attempts. When given the choice in one study, bluebirds seemed to prefer snugger nest boxes (4 inches square instead of 6 inches square on the bottom) with slightly larger entrance holes (1.75 inch rather than 1.4 inch diameter).

Nest Description: After a male Eastern Bluebird has attracted a female to his nest site (by carrying material in and out of the hole, perching, and fluttering his wings), the female does all the nest building. She makes the nest by loosely weaving together grasses and pine needles, then lining it with fine grasses and occasionally horse hair or turkey feathers. Nest boxes in some places are so common that a single territory may contain several suitable holes. Females often build nests in each available hole, but typically only use one of these. Bluebirds may use the same nest for multiple broods.

Egg-Laying: Clutch Size: 2-7 eggs Number of Broods: 1-3 broods Egg Length: 0.7-0.9 in (1.8-2.4 cm) Egg Width: 0.6-0.8 in (1.5-1.9 cm) Incubation Period: 11-19 days Nestling Period: 17-21 days Egg Description: Pale blue or, rarely, white.

Hatching and Incubation/Gestation: Naked except for sparse tufts of dingy gray down, eyes closed, clumsy.

Development: Newly hatched young are altricial, with dingy gray down. Size at hatching correlates positively with egg size.

Parental Care: Both parents feed young; on average, males feed nestlings as often as females do, although in higher latitudes males feed young more frequently than females when females are brooding young. Deliver food items into gaping beaks of nestlings.

Lifespan: 6-10 years

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Eastern Bluebird populations increased between 1966 and 2015, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 22 million, with 86% spending at least some part of the year in the U.S., 22% in Mexico, and 1% breeding in Canada. The species rates a 7 out of 20 on the Continental Concern Score, and is not on the 2016 State of North America's Birds' Watch List. Eastern Bluebird populations fell in the early twentieth century as aggressive introduced species such as European Starlings and House Sparrows made available nest holes increasingly difficult for bluebirds to hold on to. In the 1960s and 1970s establishment of bluebird trails and other nest box campaigns alleviated much of this competition, especially after people began using nest boxes designed to keep out the larger European Starling. Eastern Bluebird numbers have been recovering since.

Conservation Efforts: ^^^^^^^

Extra Facts:

1. The male Eastern Bluebird displays at his nest cavity to attract a female. He brings nest material to the hole, goes in and out, and waves his wings while perched above it. That is pretty much his contribution to nest building; only the female Eastern Bluebird builds the nest and incubates the eggs.
2. Eastern Bluebirds typically have more than one successful brood per year. Young produced in early nests usually leave their parents in summer, but young from later nests frequently stay with their parents over the winter.

3. Eastern Bluebirds occur across eastern North America and south as far as Nicaragua. Birds that live farther north and in the west of the range tend to lay more eggs than eastern and southern birds.
4. Eastern Bluebirds eat mostly insects, wild fruit and berries. Occasionally, Eastern Bluebirds have also been observed capturing and eating larger prey items such as shrews, salamanders, snakes, lizards and tree frogs.
5. The oldest recorded Eastern Bluebird was at least 10 years, 6 months old. It had been banded in New York in May 1989, and was found dead in South Carolina November 1999.

Notable Species:

1. Florida bluebird (*S.s.grata*)
2. Tamaulipas bluebird (*S.s.episcopus*)
3. Azure bluebird (*S.s.fulva*)
4. SIALIS SIALIS SIALIS