

# WESTERN MEADOWLARK - STURNELLA NEGLECTA

**Taxonomy:** Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Icteridae Genus: Sturnella  
Species: S. neglecta

## **Habitat:**

**Biomes:** Western Meadowlarks live in open grasslands, prairies, meadows, and some agricultural fields ranging from sea level to 10,000 feet. They avoid wooded edges and areas with heavy shrubs. In winter they forage for seeds on nearly bare ground, in contrast to the Eastern Meadowlark, which tends to feed in more vegetated areas.

## **Distribution:**

**In US:** Western meadowlarks are permanent residents throughout much of their range. Northern birds may migrate to the southern parts of their range; some birds also move east in the southern United States. The breeding habitats of western meadowlarks are grasslands, prairies, pastures, and abandoned fields, all of which may be found across western and central North America, as far south as northern Mexico.

**In Other Countries:** NONE

**Holistic Description:** The buoyant, flutelike melody of the Western Meadowlark ringing out across a field can brighten anyone's day. Meadowlarks are often more easily heard than seen, unless you spot a male singing from a fence post. This colorful member of the blackbird family flashes a vibrant yellow breast crossed by a distinctive, black, V-shaped band. Look and listen for these stout ground feeders in grasslands, meadows, pastures, and along marsh edges throughout the West and Midwest, where flocks strut and feed on seeds and insects.

**Species Richness:** 2 SUBSPECIES

**Population Dynamic:** CHECK THREATS

## **Evolution and Systematics:**

**Evolution:** Fossils of the Western Meadowlark or Sturnella spp. have been identified from late Pleistocene (0.6 Megannum [Ma]) and Holocene (10,000 yr) deposits in several states, all within the species' present distribution: California, Idaho, Nebraska, New Mexico, Oregon, S. Dakota, Texas, and Wyoming.

**Systematics:** Little variation, but birds breeding on the coastal slope of the Cascades are darker, deeper yellow, and more heavily barred and spotted than others. The darker coloration of these birds is consistent with that of many other species with a darker form in the Pacific Northwest.

**Number of Species:** 2 SUBSPECIES

**Number of Genera:** 2 SUBSPECIES

## **Physical Characteristics:**

**Size and Length:** Length: 6.3-10.2 in (16-26 cm) Weight: 3.1-4.1 oz (89-115 g)

**Wingspan:** 16.1 in (41 cm)

**Coloration:** Western Meadowlarks have yellow underparts with intricately patterned brown, black and buff upperparts. A black "V" crosses the bright yellow breast; it is gray in winter. Contrasting stripes of dark brown and light buff mark the head. The outer tail feathers flash white in flight.

**General Body Features:** The Western Meadowlark is the size of a robin but chunkier and shorter-tailed, with a flat head, long, slender bill, and a round-shouldered posture that nearly conceals its neck. The wings are rounded and short for the bird's size and the tail is short, stiff, and spiky.

**Special Features of the Body:** NONE

**Special Features of the Head and Sensory Organs:** NONE

**Dentition:** BEAK/LAMELLAE/GIZZARD

**Special Features of the Limbs and Digits:** NONE

**Any Special Internal Anatomy:** NONE

**Sexual Dimorphisms:** Sexes similar in coloration and pattern, but female smaller and slightly less strongly marked; best differentiated by wing length.

**Differences Between Juvenile Stage and Adult:** Juvenile similar to adult, but yellow under-parts paler and dusky streaking on breast instead of black "V". Sexes indistinguishable by plumage but measurements of fully grown juveniles are reliable for sexing.

## **Behavior:**

**Diurnal, Nocturnal, or Crepuscular:** Diurnal

**Activity:** Flocks of the stout-bodied Western Meadowlark forage along the ground in open fields, probing the soil for insects, grain and weed seeds. When taking to the air, they fly in brief, quail-like bursts, alternating rapid, stiff wingbeats with short

glides. In spring, males establish territories and chase intruders away in “pursuit flights” that can last up to 3 minutes. You may see males competing over territorial boundaries perform a “jump flight,” springing straight up into the air several feet and fluttering their wings over their back with their legs hanging limp below. Male Western Meadowlarks can spend up to a month establishing and defending a breeding territory before females arrive. Successful males typically mate with two females during the breeding season, bringing food to the nest once the chicks are hatched and noisily chasing intruders away. Western Meadowlarks are extremely sensitive to humans when nesting and will abandon a nest if they are disturbed while incubating their eggs.

**Locomotion:** Foraging birds walk or run on ground. When approaching nest, birds walk more stealthily with body closer to ground. Flight similar to that of quail and grouse, alternating periods of gliding with wings held stiff and periods of rapid wing beats below the horizontal.

**Communication and Perception:** Male Western Meadowlarks have a complex, two-phrase “primary” song that begins with 1–6 pure whistles and descends to a series of 1–5 gurgling warbles. Males develop a repertoire of up to a dozen songs, and may switch the songs they sing in response to an intruder. When chasing competing males or responsive females, male Western Meadowlarks give a hurried, excited “flight song” of short-spaced whistles and warbles. Although Western Meadowlarks seldom sing more than 10–12 songs, their eastern counterparts exhibit a much larger repertoire of 50–100 song variations.

**Home Range:** Males have multipurpose territories within which they gather food, mate, and rear young, and which they defend against intruding meadowlarks. Males alone establish and defend territories, for up to 4 wk prior to arrival of females and until fledging of final brood. Defense most intense preceding incubation of 1st clutch, with secondary peaks preceding subsequent nesting attempts. Territories in Wisconsin varied from 1.2–6.1 ha.

**Degree of Sociality:** Becomes gregarious in loosely constituted flocks, sometimes up to 200 birds in fall and winter; remains in flocks until following spring. Flocks may also include Eastern Meadowlarks. No winter territoriality.

**Level of Aggression:** When territories are being established, resident males constantly engage in evicting trespassing meadowlarks. Intruding migrants aerially pursued until beyond territorial boundaries. Chases rarely last for more than a few seconds but may occur as often as 1/min early in residency. A 3rd male occasionally becomes involved. Resident males may initiate chases with trespassing migrant females. Trespassers exhibiting posturing may resist eviction; ensuing chase a tortuous affair, lasting as long as 3 min without interruption, with more the aspect of aerial duet; differing from chase in length and extent to which preceded by preliminary posturing.

**Migration:** Resident to medium-distant migrant, traveling mainly in small flocks. Western Meadowlarks leave breeding grounds in the northern part of their range (Canada and the northern U.S.) to winter farther south. Small numbers may overwinter in the north during mild years. Those living at high elevation move to lower elevations in winter.

#### **Predators:**

**Predators:** Raccoon, Squirrel, Snakes, Badger, Hawk, Cat, Canis, Opossum, Skunk, Cowbird, Deer, Merlin, Great Egret, Prairie Falcon, Burrowing Owl.

**Anti-Predator Defenses:** An adult's rendition of repeated whistles may signal a bird of prey sighting, whereupon all meadowlarks in area immediately cease activity, crouch low to ground or perch, and “freeze”. Safety often depends on the ability to hide in dense vegetation, protected by cryptic coloration. Either sex may attempt to lure a predator or human from their nest with appeasement display, wings and tail spread. Females may explode off the nest, sometimes causing injury to scattered eggs and young.

#### **Diet and Nutrition:**

**Adult Diet:** Western Meadowlarks eat both grain and weed seeds along with insects. They show a distinctly seasonal dietary pattern, foraging for grain during winter and early spring, and for weed seeds in the fall. In late spring and summer they probe the soil and poke beneath dirt clods and manure piles seeking beetles, ants, cutworms, grasshoppers, and crickets. As they forage, meadowlarks use a feeding behavior called “gaping”—inserting their bill in the soil or other substrate, and prying it open to access seeds and insects that many bird species can’t reach. Western Meadowlarks occasionally eat the eggs of other grassland bird species. During hard winters, they may even feed at carcasses such as roadkill.

**Juvenile Diet:** Nestlings fed almost exclusively insect food, principally Lepidoptera larvae, beetles, grasshoppers, and spiders.

**Special Adaptations for Getting Prey:** Food is obtained from the top of the ground, also by probing beneath the soil and by searching under clods, manure, etc. When probing, closed awl-like bill is inserted into ground or beneath object, then the mandibles are spread apart, a behavior (gaping) found in many blackbirds.

#### **Reproduction:**

**Mode of Reproduction:** Polygyny

**Mating System:** Polygyny; males usually have 2 mates concurrently, rarely 3. In Wisconsin, 53% of breeding males were polygynous. During one season, 6 of 9 males had more than 1 mate; because of possibility of overlooking unbanded females in large grassland territories, 60–80% may be more accurate estimate.

**Mating Season:** February to May

**Courtship:** Females typically initiate the aerial chases and regulate their speed. Chases may be single flights of short duration or series of brief flights alternated with intervals of rest and posturing on the ground; more commonly a tortuous affair of 4–5 min in which the pair fly well beyond the confines of their territory. Males are normally silent during the chases, but in times of intense excitement may render rehearsed song; females occasionally give call notes, but these are ordinarily restricted to posturing on the ground. If the male is paired with 2 females, aerial chases may include both females.

**Territoriality:** HOME RANGE

**Mating:** Observations of resident males “copulating” with clumps of grass well in advance of arrival of females indicate early readiness of some males. Copulations normally occur only during periods of nest-building and egg-laying, and normally only within male's territory.

**Nest Placement:** The female Western Meadowlark chooses a nest spot on the ground in pasture, prairie or other grassland habitat. She seeks out a small dip or depression such as a cow footprint, often shielded by dense vegetation that can make the nest difficult to see.

**Nest Description:** Working alone, the female Western Meadowlark uses her bill to shape a depression in the soil into a cup-like shape, then lines the nest with soft, dry grasses and the pliable stems of shrubs. Although some nests are simple grass-lined bowls, Western Meadowlarks often use the vegetation around the nest cup as an anchor to create a hoodlike, waterproof dome over the nest by weaving together grass and shrub stems. When finished the nest is 7–8 inches across, with a cup that is 4–5 inches across and 2–3 inches deep. It can take 6–8 days for the female to build the season's first nest. As the parents move back and forth from the nest they create short “runways” into surrounding grasslands.

**Egg-Laying:** Clutch Size: 5-6 eggs Number of Broods: 1-2 broods Egg Length: 1.0-1.3 in (2.5-3.3 cm) Egg Width: 0.8-0.9 in (1.9-2.2 cm) Incubation Period: 13-16 days Nestling Period: 10-12 days Egg Description: White profusely spotted with brown, rust, and lavender.

**Hatching and Incubation/Gestation:** Eyes closed, naked with pinkish orange skin and sparse pearl gray down along the spine and above the eyes.

**Development:** Altricial young nearly naked at hatching. Sparse down described as “pale”, “pearl gray” and “conspicuously whitish”. Down longest on capital and spinal tracts, shorter on humeral and femoral tracts. Down most abundant on spinal tract. Down on head localized chiefly above eyes and on occiput.

**Parental Care:** Female alone broods nestlings and assumes greater role in feeding; males frequently select and carry food in bill but only infrequently deliver food to nestlings. Male's attentiveness to nestlings may vary with degree of attention to his other females. Food items fed directly from bill to throat without regurgitation.

**Lifespan:** Up to 6.5 years.

### **Conservation:**

**Official Federal Status:** Least Concern

**Special Statuses in Individual States:** NONE

**Threats:** Although Western Meadowlarks are numerous, their breeding populations declined over 1% per year between 1966 and 2015, resulting in a cumulative decline of 48%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 85 million with 84% spending part of the year in the U.S., 25% in Mexico, and 9% in Canada. The species rates a 10 out of 20 on the Continental Concern Score and is not on the 2016 State of North America's Birds' Watch List. Declines may be due in part to conversion of grassland breeding and wintering habitat to housing and agricultural uses. Other factors affecting Western Meadowlark populations may include pesticide uses, habitat degradation due to invasive plant species, and fire suppression that alters native grasslands. Further research is needed to determine how different management practices in both native and planted grasslands affect both nesting success and adult survival of Western Meadowlarks.

**Conservation Efforts:** ^^^^

### **Extra Facts:**

1. The nest of the Western Meadowlark usually is partially covered by a grass roof. It may be completely open, however, or it may have a complete roof and an entrance tunnel several feet long.
2. Although the Western Meadowlark looks nearly identical to the Eastern Meadowlark, the two species hybridize only very rarely. Mixed pairs usually occur only at the edge of the range where few mates are available. Captive breeding experiments found that hybrid meadowlarks were fertile, but produced few eggs that hatched.

3. The explorer Meriwether Lewis was the first to point out the subtle differences between the birds that would eventually be known as the Eastern and Western Meadowlarks, noting in June 1805 that the tail and bill shapes as well as the song of the Western Meadowlark differed from what was then known as the “oldfield lark” in the Eastern United States.
4. John James Audubon gave the Western Meadowlark its scientific name, *Sturnella* (starling-like) *neglecta*, claiming that most explorers and settlers who ventured west of the Mississippi after Lewis and Clark had overlooked this common bird.
5. In 1914, California grain growers initiated one of the earliest studies of the Western Meadowlark’s diet to determine whether the bird could be designated a pest species. Although they do eat grain, Western Meadowlarks also help limit numbers of crop-damaging insects.
6. Like other members of the blackbird, or icterid, family, meadowlarks use a feeding behavior called “gaping,” which relies on the unusually strong muscles that open their bill. They insert their bill into the soil, bark or other substrate, then force it open to create a hole. This gives meadowlarks access to insects and other food items that most birds can’t reach.
7. The Western Meadowlark is the state bird of six states: Kansas, Montana, Nebraska, North Dakota, Oregon, and Wyoming. Only the Northern Cardinal is a more popular civic symbol, edging out the meadowlark by one state.
8. The oldest recorded Western Meadowlark was at least 6 years, 6 months old when it was found in Colorado.
9. A male Western Meadowlark usually has two mates at the same time. The females do all the incubating and brooding, and most of the feeding of the young.

**Notable Species:**

1. *S. n. Confluenta*
2. *S. n. neglecta*