

LARK SPARROW - CHONDESTES GRAMMACUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Passerellidae Genus: Chondestes Species: C. grammacus

Habitat:

Biomes: Lark Sparrows breed in open grassy habitats with scattered trees and shrubs including orchards, fallow fields, open woodlands, mesquite grasslands, savanna, sagebrush steppe, and grasslands. During migration and winter they use similar habitats, but can also be found in pine-oak forest, thorn scrub, and agricultural areas with scattered trees and hedgerows.

Distribution:

In US: This passerine bird breeds in southern Canada, much of the United States, and northern Mexico. It is much less common in the east, where its range is contracting. The populations in Mexico and adjacent states of the United States are resident, but other birds are migratory, wintering in the southern United States, Mexico and south to Guatemala.

In Other Countries: It is a very rare vagrant to western Europe, with two accepted records in Great Britain in 1981 and 1991.

Holistic Description: This large sparrow may be brown, but its harlequin facial pattern and white tail spots make it a standout among sparrows. Males sing a melodious jumble of churrs, buzzes, and trills reminiscent of an Old World lark. Their courtship is also unusual, involving a hopping and crouching display unlike other sparrows. Lark Sparrows occur in the West and the Great Plains in prairies, grasslands, and pastures with scattered shrubs. In winter, look for them in small flocks in brushy areas.

Species Richness: 2 SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Species identified from the Pleistocene; Rancho La Brea, CA.

Systematics: Two subspecies recognized; rather weakly differentiated and based on slight differences in coloration and back pattern. Characters said to merge clinically where ranges of subspecies meet and to be obscured by individual variation.

Number of Species: 2 SUBSPECIES

Number of Genera: 2 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 5.9-6.7 in (15-17 cm) Weight: 0.8-1.2 oz (24-33 g)

Wingspan: 11.0 in (28 cm)

Coloration: Adults have a bold, blocky facial pattern that sets them apart from other sparrows. Chestnut and white stripes streak across the head, a black mustache runs down the sides of the throat, and the cheeks have chestnut spots. The outer tail feathers are tipped in white and a black spot marks the center of the chest. Juveniles have a ghosting of the adult's facial pattern and heavy streaking on the breast and flanks.

General Body Features: A large, long-tailed sparrow. When perched, it often looks long-bodied with a thin neck and a round head. The tail is long and rounded.

Special Features of the Body: NONE, USE OTHER SPARROW

Special Features of the Head and Sensory Organs: The female birds are drab and dull colored, an adaptation that allows them to hide amidst the woods and branches while incubating eggs in the nest.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: NONE, USE OTHER SPARROW

Any Special Internal Anatomy: NONE, USE OTHER SPARROW

Sexual Dimorphisms: Sexes similar. Males marginally larger than females.

Differences Between Juvenile Stage and Adult: Young lark sparrows are duller, and the underparts are streaked. Juveniles similar to adults but underparts with coarse, brownish-black streaks mainly on breast and flanks; upperparts with bolder black markings on back and wing coverts.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Lark Sparrows spend much of their time on the ground but also perch in trees and shrubs and on fence posts and wires. Males and females form monogamous bonds for a single breeding season. When courting, the male hops in a line and then crouches on the ground holding his tail up at an angle. He then spreads his tail feathers, showing off the white tips, and struts with his wings drooping nearly to the ground, almost like a turkey. When the female is receptive, the male gives her a small twig just before copulation. Males don't tolerate other males in their territory and quickly threaten them by raising the head, a display that frequently leads to both birds flying at each other and grappling in midair. Female intruders, on the other

hand, are met with courtship displays. Once incubation is nearly over, Lark Sparrows become more tolerant and often forage in groups. In the winter, they form feeding flocks and frequently mix with White-crowned Sparrows and Vesper Sparrows. Locomotion: Always walks from point to point unless alarmed, with hopping observed only during courtship. On breeding grounds, flights are straight-line and conspicuous over tops of shrubs or low trees. Does not dive into cover when alarmed but moves off short distance and perches in shrubs or trees.

Communication and Perception: Male Lark Sparrows sing a melodious jumble of clear notes and trills interspersed with harsh buzzes and churrs. The song generally starts with a short buzz followed by 1–3 clear notes, then a few notes at a lower pitch, and finally a clear trill; they often switch up the order of the notes. Listen for the short buzzes within the jumble to help identify the song. Look for them singing from elevated perches including fence posts, shrubs, and telephone wires.

Home Range: Overall, defends immediate nest site but not large territories. In mixed prairie of Douglas and Jefferson Cos., KS, 3 pairs' territories measured 66, 90, and 248 m² during Apr and May; these were core-use areas where defense, nesting, and foraging behaviors were concentrated. For the latter, this pair ranged over 6 ha. Individuals may sometimes range over 10–100 ha to meet all habitat requirements.

Degree of Sociality: Highly social; during breeding season may join with other Lark Sparrows on feeding sorties. More noticeable are same-species or mixed-species flocks during migration or on winter range; up to 40–50 individuals during Sep–Oct.

Level of Aggression: Male strongly territorial from nest selection and construction through egg-laying and early incubation. Territory intrusions by other Lark Sparrows challenged by male's approaching to within several centimeters, often vocalizing with tink Alarm or Distress notes; then raising head and pointing bill vertically. If intruding bird is male, its head is raised with bill skyward in similar behavior, then both birds fly at each other, striking body and wings against each other, often spiraling up for several meters.

Migration: Resident to short- or medium-distance migrant.

Predators:

Predators: Mammals, Snakes, Loggerhead Shrike

Anti-Predator Defenses: Frequent vocalizing using tink Alarm or Distress notes. May follow or harass snakes, coyotes, or humans at safe distance while vocalizing.

Diet and Nutrition:

Adult Diet: Lark Sparrows eat insects and seeds, consuming more insects in the summer months and more seeds in the winter months. They pick insects and seeds from the ground or from leaves and twigs.

Juvenile Diet: ^^^^^^^^^^

Special Adaptations for Getting Prey: Often a selective predator with regard to size of insect and energy gain/handling time. May opportunistically exploit temporarily or seasonally abundant foods; e.g., irruptions of orthopterans and coleopterans. Forages on ground, searching litter and picking up seeds or insects on bare ground or among grasses, forbs, and shrubs. Gleans arthropods from low annuals and lower stems and leaves of shrubs.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Presumed to be primarily monogamous. Polygyny observed infrequently.

Mating Season: March to May

Courtship: Courtship initiated with male and female about 0.5 m apart; both hop in straight line, male sings partial or complete song with tail at 35° angle to ground while female forages. After travelling about 1.0 m, male crouches slightly with head erect, spreading tail rectrices and flashing white tips while dropping wings such that primaries touch or nearly touch ground in turkey-like manner. Male behavior continues for 5 min. Female then crouches in solicitation posture. Prior to mounting, male picks up small twig, which is passed to female during copulation.

Territoriality: HOME RANGE

Mating: Copulation lasts about 2 s. After copulation, female may fly off with twig; copulation may occur on ground or perched. One observer recorded 20 attempts at copulation in 3.5 min. Lark Sparrows copulate soon after being paired and frequently during courtship, nest site selection, and nest-building.

Nest Placement: Female Lark Sparrows pick a spot either on the ground or in a tree or shrub. Ground nests tend to be placed in a shallow depression on a spot where the land rises slightly. Tree and shrub nests tend to be around 4.5 feet off the ground. Sometimes they reuse old nests from other species, including nests of Scissor-tailed Flycatchers, Curve-billed Thrashers, Northern Mockingbirds, and Western Kingbirds.

Nest Description: Females build a thick-walled cup of grass, twigs, or weedy stems that they line with finer grass or horsehair.

Egg-Laying: Clutch Size: 3-6 eggs Number of Broods: 1-2 broods Egg Length: 0.7-0.9 in (1.8-2.3 cm) Egg Width: 0.6-0.7 in (1.5-1.7 cm) Incubation Period: 11-12 days Nestling Period: 11-12 days Egg Description: Creamy white with dark spots and scrawls.

Hatching and Incubation/Gestation: Eyes closed; sparse down.

Development: Altricial young; newly hatched birds cannot regulate their own body temperature and require brooding; eyes closed. Once dry, young covered with sparse gray-brown down. Body mass of one young was 2.2 g at hatching.

Parental Care: Arthropods, especially grasshoppers, the sole item fed to nestlings. Both male and female care for young. Male may feed young directly or present food to female to feed young.

Lifespan: Around 7 years.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Lark Sparrows are common, but their populations declined by 32% between 1970 and 2014, according to Partners in Flight. The estimated global breeding population is 11 million. The species rates a 10 out of 20 on the Continental Concern Score, which means it is not on the Partners in Flight Watch List and is a species of low conservation concern. Following forest clearing in the Midwest and the eastern United States in the mid 1800s to early 1900s, Lark Sparrows expanded their range eastward and bred as far as east as New York. But by the mid 1930s forests started to grow back and urbanization increased, pushing Lark Sparrows back westward. Causes of the more recent population declines across its range are not well understood but could be due to habitat loss or to increased fire frequency in grasslands dominated by non-native grasses.

Conservation Efforts: ^^^^^^^

Extra Facts:

1. Courting male Lark Sparrows put on a dance that lasts for up to 5 minutes. The dance starts with the male hopping, then spreading his tail and drooping his wings so that they nearly touch the ground, almost like a turkey strutting.
2. Female Lark Sparrows sometimes use old mockingbird or thrasher nests instead of building their own nest.
3. The oldest recorded Lark Sparrow was a male and at least 9 years, 11 months old.

Notable Species: NONE