BLACK-CHINNED SPARROW - SPIZELLA ATROGULARIS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Passerellidae Genus: Spizella Species: S. atrogularis

Habitat:

Biomes: Black-chinned Sparrows are locally common in dry brushlands and chaparral from near sea level to 8,000 feet. They associate with sagebrush, rabbitbrush, ceanothus, and other chaparral species. They typically breed on rocky hillsides and winter downslope in desert scrub.

Distribution:

In US: This passerine bird is generally found in chaparral, sagebrush, arid scrublands, and brushy hillsides, breeding in the southwestern United States (western Texas to southern California), and migrating in winter to north-central Mexico and Baja California Sur. There is also a non-migratory population in central Mexico.

In Other Countries: ^^^^^^^

Holistic Description: If you hear a ping-pong ball bouncing around rugged and rocky hillsides of the Southwest, look for a Black-chinned Sparrow. These small, long-tailed sparrows are gray with a pink bill and brown wings. Only the male sports the namesake black chin. They forage on the ground in chaparral and desert scrub, but they don't stay out in the open for long. They spend winters in Mexico.

Species Richness: 4 SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Dawson assigned 6 upper mandibles from Pleistocene of Rancho La Brea to genus Spizella; condition of specimens was too fragmentary to attempt specific assignment. La Brea deposits are about 48 km south of prime Black-chinned Sparrow breeding habitat, in extensive chaparral of San Gabriel Mtns.

Systematics: Northern birds tend toward purer gray coloration overall, with fewer brown tones. Southernmost populations on Mexican plateau are darker gray with richer reddish brown back than U.S. birds have, although birds from interior n.-central California may approach southern birds in these traits. Southern birds also have blackest, most extensive chin patch. Southwestern California populations have shortest wings and tails; birds from south and east have longest tails. Songs of eastern birds are more complex and variable than those of western birds.

Number of Species: 4 SUBSPECIES

Number of Genera: 4 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 5.8 in (14.6 cm) Weight: 0.3-0.5 oz (9-14.8 g)

Wingspan: 7.7 in (19.5 cm)

Coloration: Dark gray overall with brown streaks down the back and on the wings. Note the pinkish bill. Breeding males have a small patch of black on the chin and throat.

General Body Features: A small, slender sparrow with a round head, a conical bill, and a long tail.

Special Features of the Body: Sparrows are physically similar to other seed-eating birds, such as finches, but have a vestigial dorsal outer primary feather and an extra bone in the tongue.

Special Features of the Head and Sensory Organs: This bone, the preglossale, helps stiffen the tongue when holding seeds.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Other adaptations towards eating seeds are specialised bills and elongated and specialised alimentary canals.

Any Special Internal Anatomy: NONE

Sexual Dimorphisms: Adults sexually dimorphic and lack wing-bars; otherwise, typical Spizella features: small size, slender build, thin notched tail. Head, underparts, rump, and uppertail-coverts grayish; lower belly whitish gray. Breeding male has black upper throat and chin, extending upward onto lores and above bill; brown back with blackish streaks, rusty outer scapulars; wings and tail brownish black; primaries, greater coverts, and median coverts edged buff brown; rectrices narrowly edged light gray; pink bill, legs, and toes. Female has duller, restricted black on face and chin; juvenile and winter adult has gray throat and lores.

Differences Between Juvenile Stage and Adult: Juvenile has paler crown and underparts lightly streaked with brownish wash.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Black-chinned Sparrows are rather secretive sparrows of rugged terrain. They hop between shrubs and generally don't forage out in the open, at least not for long. During the breeding season though, males sing from exposed perches to defend their territory. Pairs stay together for a single breeding season and tend to be rather solitary. In winter, Black-chinned Sparrows sometimes forage in small single-species groups.
Locomotion: Direct and low, usually near ground or through alleyways in brush; occasionally low over bushtops.
Communication and Perception: The male Black-chinned Sparrow's song sounds very much like a bouncing ping-pong ball. The song starts with 1–5 clear notes, followed by a long accelerating trill. The notes slur into each other as the song gets faster and faster. The trill can end on a higher pitch or a lower pitch, but it always accelerates.
Home Range: Male maintains territory through breeding season; role of female not known. Male sings persistently on territory throughout breeding season. Slower-cadence Typical Song given from prominent perch as male arches head back, exposing black chin. Studies are needed to investigate significance of sexually dimorphic black chin and face, as well as role of sexual selection, in securing territory and/or mates. In s. California, most females and some singing, probably first-summer, males have little or no black on chin.
Degree of Sociality: Mated pairs solitary during breeding season, though often in loose, local colonies.
Level of Aggression: Territorial encounters between conspecific males include short chases. No physical contact reported. Conspecific males exchange accelerated Coupled Song. Alarm Chip Calls near nest by either adult immediately attract mate, who joins in vocal alarm.
Migration: Resident to short-distance migrant. Northern populations migrate south, but populations in interior Mexico are mostly residents.
Predators:
Predators: Garter Snake, Western Scrub Jay.
Anti-Predator Defenses: Both adults give intensified Chip Call notes in presence of potential predators. When intruder approaches nestlings, 1 adult attempts to distract with Chip Call notes while other feeds young; parent will enter shrubbery from distance and run under cover to nest location.
Diet and Nutrition:
Adult Diet: Black-chinned Sparrows eat insects during the breeding season. They pick insects from trees and shrubs as well as from the ground. In winter they take seeds from grasses and other flowering plants often while perched on a nearby shrub or from the ground.
Juvenile Diet: ^^^^^^^
Special Adaptations for Getting Prey: In summer, gleans insects from inner foliage and ground; rarely captures insects in flight.
Reproduction:
Mode of Reproduction: Monogamous
Mating System: Apparently strictly monogamous; no reports of polygamy.
Mating Season: March to May
Courtship: NONE
Territoriality: HOME RANGE
Mating: NONE
Nest Placement: Black-chinned Sparrows place their nests about 2 feet above the ground near the center of a dense shrub.
Nest Description: Females and possibly males collect grasses and stems that they weave into a loose cup-shaped nest. They line the nest with fine grasses and softer plant material.
Egg-Laying: Clutch Size: 2-5 eggs Number of Broods: 1 brood Egg Length: 0.6-0.8 in (1.5-2 cm) Egg Width: 0.5-0.6 in (1.2-1.5 cm) Incubation Period: 12-13 days Egg Description: Light bluish green either unmarked or with small scattered spots.
Hatching and Incubation/Gestation: Naked with eyes closed.
Development: Altricial; young naked and flesh-colored; eyes closed.
Parental Care: Apparently only female broods. During early nestling stage, female broods until male returns with food; male leaves immediately after bringing food to young.
Lifespan: NONE
Conservation:
Official Federal Status: Least Concern
Special Statuses in Individual States: NONE

Threats: Black-chinned Sparrows are locally common, but their populations declined by 62% between 1970 and 2014, according to Partners in Flight. They are a Yellow Watch List species with a declining population and a Continental Concern Score of 15 out of 20. The estimated global breeding population is 450,000. Climate and rainfall patterns affect Black-chinned Sparrow numbers. Populations in Santa Barbara County, California, declined following wet winters, but lack of rain in Texas delayed breeding. Extensive grazing can degrade chaparral breeding and nonbreeding areas, causing sparrow numbers to fall. In the Chisos Mountains in Texas for example, extensive grazing reduced the number of Black-chinned Sparrows, but 30 years after the cattle were removed their numbers increased. Extensive grazing on other public lands in the West may also be linked to population declines.

Conservation Efforts: ^^^^^^^

Extra Facts:

1. Most male and female sparrows look alike, but not Black-chinned Sparrows; the male sports a black chin patch that is absent on the female.
2. Jean Louis Cabanis, a German ornithologist, discovered the Black-chinned Sparrow in Mexico in 1851.

Notable Species: NONE