

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: ABPBCX97030

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CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Amphispiza quinquestriata*

COMMON NAME: Five-striped Sparrow

SYNONYMS: *Aimophila quinquestriata*

FAMILY: Emberizidae

AUTHOR, PLACE OF PUBLICATION: P.L. Sclater and Salvin, Proceedings of the Scientific Meetings of the Zoological Society of London. Pt. 2, P. 323. 1868.

TYPE LOCALITY: Mexico, Sonora, San Rafael, Hacienda. First U.S. report, just west of Madera Canyon in Santa Rita Mountains of southeastern Arizona in 1957.

TYPE SPECIMEN: HT: MCZ 222625 (Male). M.A. Frazar, 18 May 1888. (Object notes: type – septentrionalis, Bull. MCZ, 77:485, 1934).

TAXONOMIC UNIQUENESS: Species consists of two recognized subspecies, *A.q. septentrionalis* and *A.q. quinquestriata* (Groschupf 1992). Present controversy concerns placement of this genus in *Aimophila*. For full discussion, see Phillips 1993. According to NatureServe (2001), “this was formerly in the genus *Amphispiza* and was transferred to *Aimophila* by AOU (1997) from which it was transferred by (AOU 1983).” It has once again been separated from *Aimophila* “on the basis of genetic (DaCosta et al. 2009) and morphological and vocal (e.g., Ridgway 1901, Storer 1955, Wolf 1977 data. Genetic data (Da Costa et al. 2009) indicates that this species forms a clade with *Amphispiza bilineata*.” (AOU 2010).

DESCRIPTION: Length is about 24.0 cm (6.0 in.), wingspan 20.3 cm (8 in) and weight is 7 oz (20 g). Both sexes alike and distinctively marked: the white throats are bordered by black and white stripes, and with a dark central spot at base of the gray breast. The upper parts plain purplish grayish-brown, inclining to chocolate on back, rump and upper tail-coverts more grayish; under tail-coverts are broadly margined with white. They have a superciliary streak, a malar streak, and a stripe down the middle of the chin and upper throat. The mandible is light bluish in color. The abdomen is white; legs and feet are light brownish, with toes darker. Juveniles unstreaked.

AIDS TO IDENTIFICATION: The Five-striped Sparrow resembles the Black-throated Sparrow (*Amphispiza bilineata*) with dark cheeks and throat and reddish-tinge on back as well as habits and song. However, juvenile plumage is unstreaked.

ILLUSTRATIONS:

Color drawing (Scott 1987:394)

B&W drawing (Mills 1977:130)

B&W drawing (Mills 1977:102)

Color drawing (Sibley 2000)

Color photo (In http://www.enature.com/fieldguide/showSpecies_LL.asp?imageID=17078)

Color drawing (Robbins 1983)

TOTAL RANGE: Range from southeastern Arizona, south through eastern Sonora and western Chihuahua, Mexico to central Sinaloa and west Durango; also in northern Jalisco.

RANGE WITHIN ARIZONA: South of Madera Canyon at west side of Santa Rita Mountains is northern limit breeding range, which extends southward into Mexico. According to AGFD HDMS unpublished records (accessed 2003) it has been located in Santa Cruz and Pima Counties.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Migratory in the northern extreme range of Arizona and northern Sonora, Mexico. Nesting in Arizona occurs from June through September. Stable, monogamous pairs are formed, with males defending territories. Populations are local and erratic in Arizona, but always at low levels even in good years. Time and amount of rainfall crucial to nesting especially because of surge of insect populations and activity that accompanies the July-August rains.

Their song consists of short, high liquid or tinkling phrases, each repeated two or more times, then a pause and another series. Their call is a husky *terp*; occasionally a higher, dry *chik* or a very high *tip*.

REPRODUCTION: Cup shaped nests constructed by females in brush less than 1.0 m (3.3 ft) above ground, made of fine grass and hair. Males attentively follow as the female selects nest material. Construction takes 3 to 5 days. Nest building occurs only in early morning before 08:00 (Mills et. al. 1980). The nest is a deep cup with an outside diameter of 79-120 mm and outside height of 64-140 mm. Dull white eggs, unmarked, clutch size 3-4, incubated by female for about 13 days. Known to nest up to three times in one season. By 4 days after hatching, eyes open, and wing and body feathers have appeared. Both adults feed nestlings and fledglings. Fledging occurs at 9-10 days post hatching. Juveniles feed on their own around 18 days, and may remain with parents for about 40 days after fledging while feeding entirely on their own.

FOOD HABITS: Insects and seeds are their main diet. Both parents feed the young caterpillars and grasshoppers; adults eat mainly caterpillars.

HABITAT: Dense bushy vegetation and grasses on steep hillsides, especially with acacia, mesquite or riparian vegetation. Semi desert slopes, canyon slopes. Density of brush apparently more important than species of vegetation or topography. Most commonly seen on rocky hillsides and lower slopes above brushy or wooded canyon bottoms (Glinski and Johnson 1989). It is believed that Five-striped Sparrows are restricted by habitat, and that so great is this specificity that “5 of the 7 known locations for this bird in the United States were discovered by identifying areas that appeared suitable from information from topographic maps and aerial photographs” (Mills and Groschupf 1979). However, according to Phillips 1993, “The Five-striped Sparrow’s breeding habitat is dense brush, normally dry. The species does not use true riparian habitat, and in winter it spreads to dry grassy hillsides, habitat more open than it uses for nesting. It apparently eschews arboreal vegetation at all times.”

ELEVATION: 3,500 - 4,000 ft. (1,068 - 1,220 m).

PLANT COMMUNITY: Lower Sonoran Zone

POPULATION TRENDS: Between surveys of 1977/78 and 1990, total number of birds appeared to have declined, however, because spatial and temporal movement of birds occurs within canyons, earlier counts may have underestimated total number of birds (Groschupf 1992).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: Not Forest Service Sensitive (USDA, FS Region 3 1999)
[Forest Service Sensitive (USDA, FS Region 3 1988)]

MANAGEMENT FACTORS: Major threat is habitat modification from livestock grazing and brush removal projects, which reduce grass and shrub density, essential for nesting. Lesser threat is recreation facilities development. Highly sought after by birders for life lists, means of attraction may be disruptive to nesting birds.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BIA - Tohono O’Odham Reservation; USFS - Coronado National Forest; Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

- Glinski, R.L. and T.B. Johnson. 1989. Nongame Field Note; Five-striped sparrow. Scheduled to run in Wildlife Views, June, 1990.
- Groschupf, K. 1992. Five-striped sparrow survey and banding in the Coronado National Forest, June and August 1992. Challenge Cost-Share Agreement No. CCS 3-92-05-25. Submitted to Coronado National Forest, USDA Forest Service and Arizona Game and Fish Department.
- Groschupf, K. 1992. Five-striped Sparrow. *In* The Birds of North America, No. 21 (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, DC: The American Ornithologists' Union.
- http://www.enature.com/fieldguide/showSpecies_LL.asp?imageID=17078.
- <http://www.enature.com/fieldguide/showSpeciesIMG.asp?imageID=17078>
- Mills, G.S. 1977. New locations for the five-striped sparrow in the United States. *In*: Western Birds 8(4): 121-130.
- Mills, G.S. and K. Groschupf. 1979. A statement on the potential effects of grazing, wood-cutting and recreational activities on the five-striped sparrow in the United States.
- Mills, G.S. et al. 1980. Life history of the five-striped sparrow. *In*: The Living Bird, Eighteenth Annual 1979-80. Cornell Laboratory of Ornithology. Pp. 95-110.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: April 30, 2003).
- Phillips, A.J. Marshall, and G. Monson. 1964. The birds of Arizona. The University of Arizona Press. Tucson, Arizona. P. 201.
- Phillips, A.R. 1993. Distribution, migration, ecology, and relationships of the five-striped sparrow, *Aimophila quinquestriata*. Western Birds 24: 65-72.
- Ridgway, R. 1901. The birds of north and middle America. Bulletin of the United States National Museum 50(1): 236.
- Robbins, C.S. et al. 1983. Birds of North America. Golden Press, New York, New York. Pp: 336-337.
- Scott, S.L. 1987. The National Geographic Society field guide to the birds of North America. National Geographic Society. Washington, D.C. P. 394.
- Sibley, D.A. 2000. The Sibley Guide to Birds. Alfred A. Knopf. New York, New York. P. 480.
- Terres, J.K. 1980. The Audubon Society Encyclopedia of North American Birds. Alfred A. Knopf. New York, New York. Pp: 342.
- USDA, Forest Service Region 3. 1988. Regional Forester's Sensitive Species List.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

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ADDITIONAL INFORMATION:

The name is from the Greek *amphi*, meaning around, and *spiza*, meaning finch, affirming the finch-like appearance. The specific epithet, also Greek, refers to the five (*quinque*) stripes (*striata*) on the head.

Revised: 1995-05-25 (DBI)
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