

GENERAL NOTES

Distributional and breeding records of some birds from Coahuila—Summer field parties from the Museum of Natural History at the University of Kansas have collected in the past six years several hundred birds from the Mexican state of Coahuila. Several specimens from this collection warrant special consideration and are discussed below.

Recurvirostra americana. American Avocet. A small breeding colony (8 pairs) of this species was discovered by Robert W. Dickerman on May 19, 1954, 8 miles east and 2 miles south of Americanos, on a large grassy playa traversed by rows of creosote (*Larrea tridentata*). A male (KU 31433) and a female (KU 31432) were obtained. The latter was taken from a nest containing four partly-incubated eggs. Four eggs in a second nest contained well-developed, downy young. Breeding Avocets were previously reported in Mexico only from the state of San Luis Potosí (Friedmann, Griscom and Moore, 1950. *Pacific Coast Avif.* 29:101).

Otus scops flammeolus. Flammulated Screech Owl. Two specimens of this comparatively rare owl were collected by R. W. Dickerman: male (KU 31600), weight 50 gms., testes 8 mm. long, on April 4, 1954, 20 miles south of Ocampo, elevation 6000 feet, pine-oak association; male (KU 31581), testes 10 mm. long, on April 9, 1954, 13 miles east of San Antonio de las Alazanos, elevation 9345 feet, pine-spruce-aspen association. Each specimen has a suffusion of cinnamonaceous pigmentation, but represents the grayish phase, as described by Ridgway (1914. *U. S. Nat. Mus. Bull.* 50:729). To my knowledge, these specimens constitute the first records of this owl in the state.

Chordeiles minor howelli. Booming Nighthawk. R. W. Dickerman secured a male (KU 31443) on May 16, 1954, 3 miles north and 4 miles east of San Francisco, elevation 4850 feet. This migrant seemingly represents the first record of the subspecies in Coahuila. Nighthawks were heard and seen frequently in this area, and seven birds were observed in flight simultaneously.

Certhia familiaris americana. Brown Creeper. Van Tyne and Sutton (1937. *Misc. Publ. Mus. Zool., Univ. Mich.*, 37:67) recorded a wintering bird of this subspecies as far southwest as Hot Springs, Brewster County, Texas. Data from two specimens collected by R. W. Dickerman are as follows: female (KU 31612), taken on November 27, 1953, at the base of the Don Martin Dam; female (KU 31587), taken on April 5, 1954, 20 miles south of Ocampo. The latter was originally identified by A. R. Phillips. These specimens constitute the southernmost records for the subspecies. I find no previous records in the literature of the Eastern Brown Creeper in Mexico.

Ridgwayia pinicola. Aztec Thrush. A male (KU 31619), the skull of which was incompletely ossified, was taken on December 15, 1953, by R. W. Dickerman, 5 miles west and 22 miles south of Ocampo, elevation 6000 feet, and seemingly represents the northernmost record for this species, which was previously unknown in Coahuila.

Vireo atricapillus. Black-capped Vireo. Four specimens were taken as follows: 2 males (KU 31493-31494), testes enlarged, May 8, 9, 1954, 16 miles east and 18 miles north of Ocampo (R. W. Dickerman); 2 unsexed specimens (KU 32099-32100), July 3, 1952, Sierra del Pino, 6 miles north and 6 miles west of Acebuches, elevation 5250 feet (Sydney Anderson). These specimens seem to extend the known breeding range of the species south to central Coahuila.

Vireo flavifrons. Yellow-throated Vireo. Bent (1950. *U.S. Nat. Mus. Bull.* 197:288) states, "From the records it appears that within the last generation the yellow-throated vireo has extended its range southward or at least has increased in members in the

southern part of its breeding range." Harrison B. Tordoff collected a male (KU 32103) on June 20, 1952, 2 miles west of Jiménez. This bird was in full breeding condition, and is the first record of the species in Coahuila.

Vireo solitarius cassinii. Solitary Vireo. A male (KU 31589) was obtained by R. W. Dickerman on July 4, 1954, 20 miles south of Ocampo. The subspecies was previously unrecorded in Coahuila.

Molothrus ater ater. Brown-headed Cowbird. One female (KU 31513), was shot by R. W. Dickerman from a flock of eight birds on May 3, 1954, 21 miles south and 11 miles east of Australia. It measured: wing, 102 mm.; tail, 64 mm.; culmen, 17 mm.; tarsus, 26 mm.; ovary 8×4 mm. I find no previous records of this subspecies in the state.

Passerina cyanea. Indigo Bunting. A male (KU 31544) was collected by R. W. Dickerman on May 5, 1954, in San Marcos. This bird (testes 5×4 mm., moderately fat, in worn plumage) was observed chasing another male, and the pursuer in turn, was followed by a female. The territorial behavior (observed for 2 hours) of this bird suggests the possibility of breeding, but no nest was found. This specimen seems to provide the first record of the species in the state.

Aimophila cassinii. Cassin Sparrow. A male (KU 32158) in breeding condition (testes 7×5 mm.) was obtained by Sydney Anderson, 18 miles south and 14 miles east of Tanque Alvarez, on July 6, 1952. Another male (KU 32157), having testes that measured 5×3 mm., was taken by H. B. Tordoff, 9 miles south and 11 miles east of Sabinas, on June 14, 1952. This species was previously unrecorded in the state.—S. G. VAN HOOSE, *Museum of Natural History, University of Kansas, Lawrence, Kansas, March 12, 1955.*

An analysis of the songs of meadowlarks.—In my collection of field records of songs and calls of birds made during the past 40 years, there are 1,050 records of the Eastern Meadowlark (*Sturnella magna magna*). These were obtained largely in Connecticut, but also in several other eastern states. In the years 1950 and 1951 opportunity to travel elsewhere was presented, and I collected 31 records of the songs of the Southern Meadowlark (*S. m. argutula*) in Florida, Georgia, South Carolina, and southern Illinois. I also recorded songs of Western Meadowlarks (*Sturnella neglecta*) on 88 occasions in Oklahoma, Iowa, the Dakotas and Minnesota.

Detailed study of these records leads me to the interesting conclusion that the songs of the southern bird are intermediate between those of the eastern and western birds. This is not particularly apparent in merely listening to the songs, for the qualities of the eastern and southern birds are similar, neither having the gloriously musical voice that the western bird possesses. But details show that the southern bird is closer to the western than is the eastern.

In the matter of time the songs of eastern birds vary from 0.4 to 3.2 seconds in length, averaging 1.55 seconds. The southern bird varies from 0.8 to 1.4 seconds, averaging 1.0 seconds. The western bird varies from 0.6 to 1.8 seconds, averaging 1.2.

The number of notes in songs, counting a slur as two notes, varies from 2 to 9 in the eastern bird, averaging 4.7. The southern bird varies from 3 to 7, averaging 4.6 and the western bird varies from 3 to 11, averaging 6.34.

The pitch of the eastern bird ranges from C₆ to D_#⁷, a range of 7½ tones. The southern bird is distinctly lower, ranging from A₅ to C_#⁷, a range of 7 tones. The western bird ranges still lower, from D_#⁵ to B₆, as shown in the accompanying figure. It is significant that in only 31 records of the southern bird I should find notes 1½ tones lower than the lowest of more than 1,000 records of the eastern bird.