## NOTES ON A COLLECTION OF BIRDS FROM WESTERN OKLAHOMA\*

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The University of Oklahoma Museum of Zoology Expedition of 1926 collected thirty-eight species of birds represented by seventy-five specimens. All of these were taken during June and July, 1926, in western Oklahoma, chiefly in Harmon, Texas, and Cimarron Counties. In most cases it was possible to preserve the stomachs and identify the contents.

One subspecies new to the State was taken. Dendroica aestiva morcomi, the Western Yellow Warbler, was collected in western Cimarron County; its general range is from the Rocky Mountains west to Nevada and eastern Washington, exclusive of most of Arizona and New Mexico. Several extensions of range are worthy of note. The Rock Sparrow (Aimophila ruficeps eremoeca) which we collected in Cimarron County had previously been found in Oklahoma only in Blaine and Jackson Counties and the Arbuckle and Wichita Mountains. The range of the Meadowlark (Sturnella magna magna) was also extended, and a hitherto debatable question settled; S. m. magna is the form in Harmon County and not the southern subspecies. The Texas Wren (Thryomanes bewicki cryptus) was collected from the western end of Cimarron County; it had previously been recorded in Oklahoma only as far west as Beaver County, and the breeding form in Cimarron County had been supposed to be Thryomanes bewicki eremophilus. Other records of interest will be noted in the body of the list.

Our thanks are due to Dr. H. C. Oberholser of the U. S. Biological. Survey for the identification of many specimens. The numbers in this list following the dates of collecting are those of the University of Oklahoma Museum of Zoology (U. O. M. Z.) specimens; when these numbers are followed by an asterisk the identifications have been checked by Dr. Oberholser. All other determinations have been verified by Mrs. M. M. Nice of Columbus, Ohio, to whom we are also very grateful. The nomenclature of the A. O. U. Check List has been followed except in the case of those specimens identified by Doctor Oberholster, when his terminology has been used.

We are indebted to the Bureau of Biological Survey, U. S. Department of Agriculture, for the identification by E. R. Kalmbach of stomach<sup>+</sup> contents, chiefly seeds. We also wish to thank Dr. M. H. Hatch of the University of Washington for identifying the Coleoptera found in the stomachs.<sup>+</sup>

Sterna antillarum.-Least Tern.

Harmon County, 7 miles southwest of Hollis on Red River-June 18, 5612; June 19, 5619.

Harper County, 20 miles east-southeast of Buffalo on Sleeping Bear Creek-July 10, 5673.

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tIn the study of bird food the term stomach is used rather loosely, meaning either the crop, true stomach or gizzard.

The gizzard of 5612 contained two minnows each an inch and a half long and that of 5673 contained four minnows.

Catoptrophorus semipalmatus inornatus.--Western Willet.

Cimarron County, 6 miles southeast of Boise City-July 9, 5672.\*

The gizzard of 5672 contained two clam shells about three-eighths of an inch long and many fragments of similar shells.

This is the first record of this uncommon transient in the Oklahoma panhandle west of Gate, Beaver County.

Oxyechus vociferus.-Killdeer.

Harmon County, 7 miles southwest of Hollis-June 20, 5621.

Texas County, 11 miles southeast of Guymon-June 27, 5627.

Cimarron County, 3 miles north of Kenton-July 5, 5657.

The gizzard of 5621 contained some small fragments of beetles while that of 5627 contained many insect remains.

Colinus virginianus virginianus.-Bob-white.

Harmon County, 7 miles southwest of Hollis-June 18, 5615; June 20, 5622.

Parts of many insects were found in the gizzard of 5615. The gizzard of 5622 contained fragments of a Carabid, 2 weevils, a nymph of an orthopteron, gravel, remains of euphorbiaceous capsules and the following seeds: 29 Lithospermum, 1 Geranium sp., 2 Verbena, and 10 cucurbitaceous seeds.

Callipepla squamata pallida (C. s. squamata)—Arizona Scaled Quail.

Cimarron County, 3 miles north of Kenton-July 5, 5658.\*

The crop of this specimen contained two grasshoppers; the gizzard contained remains of a caterpillar, of an acridiid, and of a weevil (?), gravel, 65 *Jacquemontia* (?) seeds, 2 *Rhus trilobata* seeds, and 36 *Sporobolus* sp. seeds.

Zenaidura macroura marginella.—Western Mourning Dove.

Harmon County, 7 miles southwest of Hollis-June 16, 5602; June 17, 5608.

The gizzard of 5602 contained 121 seeds of Euphorbia sp., 2 of Jacquemontia (?), 6 of Croton sp. v of Geranium sp., 3 of Verbena, 1 of Kallstroemia, 2 of Panicum hillmani, 1 legume near Parosela, 1 kernel of wheat, and fragments of Ambrosia elatior, of Helianthus, and of an unknown seed. The crop was filled with the following seeds: several hundred seeds of a Euphorbia, 1 Kallstroemia, 11 Verbena (probably bipinnatifida), 10 another Euphorbia (probably E. marginata), 5 Croton sp., 1 other euphorbiaceous seed, 1 Tragia sp., 14 Atriplex, 1 Amaranthus, 1 Oxalis, 17 Polygala sp., 36 Helianthus, 1 of another Helianthus, 1 Ambrosia elatior, 9 Panicum hillmani, 2 kernels of milo, 1 of black cane, and 13 kernels of wheat.

The crop and gizzard of 5608 contained a trace of a Cicindela in addition to these seeds: 151 Euphorbia sp., 35 Verbena, 3 Geranium sp., 1 Croton, 8 Lithospermum, 1 Amaranthus, 15 Panicum hillmani, and 1 Phalaris canariensis.

A nest with two young was found on June 20 in a cottonwood tree about 7 miles southwest of Hollis, Harmon County. Two nests, each containing one egg, were seen on July 7 near Kenton, Cimarron County; one of these was in a pinyon on top of a mesa.

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Ictinia mississippiensis.-Mississippi Kite.

Alfalfa County, 7 miles northeast of Ingersoll-July 11, 5675. This gizzard contained about 90 grasshoppers.

Cerchneis sparveria phalaena.—Desert Sparrow Hawk. Cimarron County, ½ mile southeast of Kenton—July 7, 5666.\*

Sperotyto cunicularis hypogea.—Burrowing Owl. Texas County, 5 miles northwest of Texhoma—July 9, 5670.

Geococcyr californianus.-Road-runner.

Cimarron County, 3 miles north of Kenton-July 8, 5669.

The gizzard of this specimen contained 16 grasshoppers, 1 Curculionid, 1 adult and 1 larval Lepidopteron, besides a few other insect remains.

Coccyzus americanus americanus.-Yellow-billed Cuckoo.

Cimarron County, 3 miles north of Kenton-July 5, 5651,\* 5653.\*

The gizzard of 5651 contained parts of 3 large cicadas and 1 seed of *Gaura* sp. (probably *suffulta*); specimen 5653 had eaten 5 or more Lepidoptera larvae, 1 cicada, and many other unidentifiable insects.

Ceryle alcyon alcyon.-Belted Kingfisher.

Harper County, 20 miles east-southeast of Buffalo-July 11, 5674.

Dryobates scalaris symplectus.-Texas Woodpecker.

Harmon County, 7 miles southwest of Hollis—June 16, 5603\*; June 17, 5606.\*

Thirty ants and a few insect parts were found in the gizzard of 5603, and 5 flies, 2 bugs, and a beetle were in that of 5606.

Chordeiles minor howelli .--- Howell Nighthawk.

Harmon County, 9 miles southwest of Hollis-June 18, 5613.\*

Cimarron County, 3 miles north of Kenton-July 4, 5649.\*

The gizzard of 5649 contained parts of many insects including a beetle. Two half-grown young were seen together on the bare ground near clumps of grass 3 miles north of Mangum, Greer County, June 23.

Muscivora forficata .--- Scissor-tailed Flycatcher.

Harmon County, 7 miles southwest of Hollis—June 16, 5601, 5605; June 17, 5611.

Examination of these gizzards revealed the following contents: 5601, maay small insect fragments; 5605, 3 grasshoppers, 1 small cicada, 1 robber fly, and other insect remains; and 5611, 1 cicada, a adult Lepidopteron, 1 grasshopper, and other insect parts.

A nest of coarse grasses in a cottonwood tree 25 feet above the ground was seen in Alfalfa County 7 miles northeast of Ingersoll on July 11.

Five young almost ready to fly were found in a nest of cotton rags, twigs, string, and grasses in a tree 7 miles southwest of Hollis, Harmon County, on June 17.

Tyrannus tyrannus.--Kingbird.

Texas County, 8 miles southeast of Guymon—June 27, 5626; June 29, 5635.

Both gizzards contained insect remains; in that of 5626 1 bug, 2 grass-

hoppers, 1 scarabaeid head, 2 carabid heads, several carabid dytra, elytra of an unknown beetle, and 2 *Haltica* (?) elytra could be distinguished.

Tyrannus verticalis.--Arkansas Kingbird.

Texas County, 8 miles southeast of Guymon—June 29, 5628, 5633. Cimarron County, 3 miles north of Kenton—July 2, 5643; July 6, 5664.

The gizzards of the Texas County specimens contained insect remains; this statement is also true for the Cimarron County specimens. In addition, in that of 5664 there could be distinguished 1 *Cicindela punctulata*, 1 *Calleida fulgida*, and 1 large fly.

Myiarchus cinerascens cinerascens.-Ash-throated Flycatcher.

Cimarron County, 3 miles north of Kenton-July 2, 5640; July 5, 5656.

These gizzards both contained insects; in that of 5656 there were 2 Lepidoptera larvæ and 1 Ophistoma sp.

In addition to the specimens collected, 2 more individuals of this rare summer resident in Cimarron County were seen near Kenton on July 5.

Otocoris alpestris enthymia.-Saskatchewan Horned Lark.

Cimarron County, 29 miles west of Guymon—June 29, 5632; 7 miles south of Boise City—June 30, 5637, 5638, 5639; 3 miles north of Kenton—July 4, 5650.

The results of the examination of the gizzards are as follows; 5632, a head of an Otiorhynchid, a grasshopper, fragments of a Coreid and of a pentatomid, other insect parts, and 12 seeds (unknown); 5637, insect remains; 5638, a hemipteron and egg, a shall acridiid, remains of a staphylinid, another beetle, and a Hymenopteron, 13 seeds of Astragalus, 4 of another Astragalus, and 2 seeds of a grass (Festuca?); 5639, 4 acridiids, 8 hemipterous eggs, trace of a pentatomid, 11 unknown seeds (same as in 5632), and gravel! 5650, a few insects, 1 seed of Lithospermum sp., and 3 pieces of gravel.

Cyanocitta cristata cristata.-Blue Jay.

Harmon County, 7 miles southwest of Hollis-June 18, 5616.

Texas County, 8 miles southeast of Guymon-June 29, 5631.

The gizzard of 5616 contained 4 Lepidoptera larvæ, 1 small cicada, other insect parts, and fragments of a seed of *Celtis* (possibly *C. georgiana*); 5631 had eaten many insects, including several beetles.

Cyanocephalus cyanocephalus.—Pinyon Jay.

Cimarron County, 1/2 mile northeast of Kenton-July 7, 5665.

This gizzard contained a cicada and other insects.

Agelaius phoeniceus fortis.-Thick-billed Redwing.

Texas County, 8 miles southeast of Guymon-June 29, 5629.\*

The gizzard contents of this specimen were insect parts, including elytra of about 20 small beetles.

Sturnella magna magna.--Meadowlark.

Harmon County, 7 miles southwest of Hollis-June 17, 5609;\* June 18, 5617;\* June 20, 5620.\*

The gizzard contents of these specimens were as follows: 5609, about

30 Lepidoptera larvæ, and remains of *Copidita suturalis*; 5617, parts of 2 grasshoppers and other insects; 5620, 2 small cicadas, other insects, and a spider.

The range of this species in southwestern Oklahoma is extended west from Jackson County.

Sturnella neglecta neglecta.-Western Meadowlark.

Cimarron County, 3 miles north of Kenton-July 3, 5645.\*

The gizzard of 5645 contained a beetle and other insects.

Icterus bullockii bultockii.-Bullock Oriole.

Texas County, 8 miles southeast of Guymon-June 27, 5625\*; June 19, 5634.\*

Cimarron County, 3 miles north of Kenton-July 2, 5641.\*

The gizzard of 5634 contained a few insect remains, and that of 5641, 2 grasshoppers.

Quiscalus quiscula aeneus.-Bronzed Grackle.

Texas County, 4 miles east and 7 miles south of Guymon-June 27, 5624.

Carpodacus mexicanus frontalis.—House Finch. Cimarron County, 2 miles north of Kenton—July 5, 5660.

Chondestes grammacus strigatus.-Western Lark Sparrow.

Cimarron County, 3 miles north of Kenton—July 2, 5642; July 4, 5648, 5652; July 5, 5659\*; July 7, 5668,\* 5671.

Harmon County, 7 miles southwest of Hollis-June 16, 5604; June 18, 5614.

These gizzards contained the following: 5604, 3 Lepidoptera larvæ, an ant, remains of a spider, a weevil, and of an elaterid (?), and fragments of corn (Zea mays); 5614, a small Hymenopteron, an acridiid, an embryo of an unknown seed, 1 seed of Sorghum halapense (Johnson grass), fragments of corn (Zea mays), remains of a Euphorbia seed, and gravel; 5642, traces of a hemipteron, of an acridiid, and of a hymenopteron, 1 seed of a Hordeum or Elymus, and 8 seeds of an unknown grass; 5648, a cicada, other insects, and a harvestman; 5652, a grasshopper, and other insect remains; 5659, a cicada, a few other insect parts, 5 seeds of Parosela (Dalea) probably P. aurea, a single cotyledon of some other small legume, and a piece of gravel; 5668, a few other insect fragments.

A nest containing 4 eggs was found on the ground in the valley of the Cimarron River, 3 miles noth of Kenton, on July 3.

Aimophila ruficeps eremoeca.-Rock Sparrow.

Cimarron County, 2 miles north of Kenton-July 7, 5667.\*

This gizzard contained 3 Lepidoptera larvæ, other insect parts, 3 seeds of Panicum hillmani, 1 seed of Amaranthus sp., and 3 fragments of gravel.

This specimen is the first record of the species in Oklahoma outside of the Arbuckle and Wichita Mountains and Blaine and Jackson Counties.

Pipilo fuscus mesoleucus.-Canyon Towhee.

Cimarron County, 3 miles north of Kenton-July 5, 5676; July 6, 5663.

The stomach of 5663 contained a lepidopteron, 3 grasshoppers, and other insects.

Spiza americana.—Dickcissel.

Harmon County, 7 miles southwest of Hollis-June 17, 5610.

Texas County, 8 miles southeast of Guymon-June 29, 5630.

The gizzard of 5610 contained a spider and a lepidopteron larvæ, and that of 5630, a trace of an orthopteron, and 1 seed of *Amaranthus* (probably *A. retroflexus*).

## Calamospiza melanocorys.-Lark Bunting.

Cimarron County, 10 miles southeast of Kenton—July 3, 5646, 5647. The stomach of 5646 contained 2 grasshoppers and 1 seed of *Lithospermum*; that of 5647 cotained a lepidopteron larva and many other insect remains, chiefly grasshoppers.

One young bird out of the nest was seen at the same time and place as the specimens were taken.

Dendroica aestiva morcomi.--Western Yellow Warbler.

Cimarron County, 3 miles north of Kenton-July 3, 5644.\*

The gizzard contained very few fine insect fragments.

This form is a new subspecies of the Yellow Warbler in Oklahoma and is the breeding form in Cimarron County.

## Mimus polyglottos leucopterus.---Western Mockingbird.

Harmon County, 7 miles southwest of Hollis-June 17, 5607.

Texas County, 8 miles southeast of Guymon-June 27, 5623.

The gizzard of 5607 contained 4 Lepidoptera larvz, a cicada, and various other insect parts.

## Salpinctes obsoletus obsoletus.-Rock Wren.

Cimarron County, 7 miles south of Boise City—June 30, 5636; 3 miles north of Kenton—July 5, 5655.

The gizzard of 5655 contained a cicada.

Catherpes mexicanus polioptilus.—Intermediate Canyon Wren.

Cimarron County, 3 miles north of Kenton-July 5, 5662.\*

The gizzard contained parts of insects including several beetles, and 8 seeds.

A nest containing 4 eggs was collected about 15 feet back from the entrance to a cave on a mesa 5 miles southeast of Kenton on July 5.

#### Thryomanes bewicki cryptus.—Texas Wren.

Cimarron County, 1 mile northeast of Kenton-July 5, 5661.\*

The gizzard contained a lepidopteron larva, a homopteron, a harvestman, a head of a caterpillar, and other insect parts.

The range of the Texas Wren in Oklahoma is thus extended from Gate, in eastern Beaver County, west to the end of the panhandle. In the absence of specimens the breeding form in this region was previously listed as T. b. eremophilus.

Psaltriparus plumbeus.-Lead-colored Bush Tit.

Cimarron County, 1 mile northeast of Kenton-July 5, 5654. The gizzard contained a few insect fragments.