# NOTES ON SUMMER BIRDS OF SOUTHWESTERN KANSAS.

## BY JEAN LINSDALE.

The work on which the following notes are based was carried on from June 11, to August 2, 1921, for the Kansas University Biological Survey. The principal aim of the trip was to learn, "the present standing of each species of bird occurring in the particular part of the state visited." Stops were made at five localities in southwestern Kansas, and information was obtained concerning the distribution and the relative abundance of nearly all the summer resident birds of the southwestern part of the state.

Since very little work has been done on the birds of this section, and practically none since present methods of farming have been used, a knowledge of the standing of the birds there should be of particular interest.

## ITINERARY.

Pratt, Pratt County, June 11 to 26. Garden City, Finney County, June 27 to 30. Oanica, Kearney County, July 1 to 10. Coolidge, Hamilton County, July 11 to 27. Gove, Gove County, July 28 to August 2.

Several short trips were made from each of these locations into the surrounding territory.

## GENERAL ACCOUNT OF THE LOCALITIES VISITED.

PRATT.—Most of the work at Pratt was done at the Kansas State Fish Hatchery, which is three and one-half miles southeast of Pratt, Pratt County. The surrounding territory is rich farming land, wheat being the chief crop. Corn, kafir, oats, sorghum, and alfalfa are important in the order named. About three-fourths of the land in the county is under cultivation. The rest is in pasture. Most of the land is slightly rolling, although the narrow Ninnescah valley, which runs past the hatchery, makes a few breaks. Most of the farms have no trees of any kind, but a few farmers have set

out groves of young trees recently. Most of the trees in the vicinity are scattered along the river; the largest groves being at the hatchery and at the source of the river, about ten miles north-west. Nearly all the trees are cottonwoods and willows. Some catalpa, Russian mulberry, osage-orange, and a few apple trees have been set out. Near the source of the river many dead limbs and trees are standing, which furnish nesting sites for birds that require that type. At the hatchery all dead limbs and trees have been cut. Plum thickets fill most of the draws in the pastures.

The Ninnescah River, which starts a few miles north-west, is fed by under ground springs at its source and at frequent intervals along its course, so that it widens rapidly. It is not deep and near the hatchery the banks rise abruptly two or three feet. This leaves no beach for shore birds. The water is clear and flows fairly fast.

The ninety-seven acre-ponds at the hatchery are all connected and are built so that each bank serves for two ponds. Each bank is wide enough for a road on top. The tall grass on the banks is allowed to grow during the nesting season and furnishes cover for ground nesting birds.

South of Pratt in the Medicine Lodge River valley, a different type of country is encountered. The valleys are deeper and the timber along the streams is more varied. Birds and mammals in this section are different from those in most other parts of the state. A part of one day, June 19, was spent at Sun City, which is in that region.

Except for a few rains, most of them at night, weather conditions were favorable during the time spent at Pratt. Nearly all the birds were nesting. Many had young just out of the nest. The absence of birds which nest in hollow trees was particularly noticeable. Fish eating birds persist in staying around the hatchery, although they are killed at sight by those in charge.

GARDEN CITY is on the Arkansas River in Finney County and about sixty miles east of the west line of the state. Less than half the land in the county is in cultivation. Vegetation on the upland is chiefly buffalo grass. Wheat and sorghum are the chief cultivated crops. Alfalfa and sugar-beets are grown in the valley where there is some irrigation. Many good sized groves of cotton-

wood, catalpa, mulberry, and other trees have been planted along the river. Rainfall each year at Garden City is less than twenty inches, while evaporation during the growing season is well over sixty inches. The ground water level comes to within six feet of the surface in some places along the river. In some places the water is so near the surface that the roots of the plants (alfalfa) are drowned. Residents of the town say that within the last few years the number of birds has increased along with the increase in the amount of vegetation which has been considerable around the town.

About fifteen miles northwest of Garden City is a lake, owned by a land and irrigation company, that is said to be the largest in Kansas. It was made by building a dam across the narrow end of a valley and running river water into it through a canal. The lake when full is six miles long by three miles wide. Ducks and other water birds make this a stopping place from early fall to late spring.

No work could be done along the river here on account of the June flood, the mud being not yet dry.

Oanica.—The two houses on the Bruner ranch, fifteen miles north of Lakin, Kearney County, constitute what was formerly called Oanica. The houses are surrounded by a few locust and mulberry trees, which are little more than bushes. Some fruit trees have been set out. Vegetation is limited because of the lack of water. The first large draw north of the Arkansas River, fifteen miles south, runs near the houses, but contains no water. The water which it carries during a rain spreads out over the sand near the east line of the county. Away from this draw, the land is nearly level. Out of the three thousand acres in the ranch not more than two hundred are cultivated. The rest are covered with buffalo grass and sage brush and are used for pasture. Cattle raising is the chief business here. Only enough land is under cultivation to raise roughage to winter the stock. The chief crops are wheat and sorghums. 1921 was an exceptionally good year for most crops.

The nesting season was well advanced at the time spent here. Most of birds having young out of the nest.

COOLIDGE.—Most of the time at Coolidge was spent on the Shanstrom farm which consists of five-hundred acres along the

Arkansas River and about three miles east of the Colorado-Kansas line. A few acres of willows and cottonwoods have been left growing along the river. Surrounding the house is a thicket of more than an acre of trees planted so closely together that the house cannot be seen from outside the thicket. Cottonwood, pear, apple, walnut, mulberry, catalpa, and other trees are growing here. Many vines (grape) and bushes have been planted. Some blue-grass is growing. The farm is irrigated by river water. An artesian well near the house furnishes water for two small fish ponds and a permanent supply of water for birds.

Along the river alfalfa is the chief crop, although others can be grown because of the irrigation. On the upland some crops are grown by dry farming methods. An increasing amount of land is put into cultivation each year. A narrow strip in the flood plain along the river is left for pasture and for hay.

North of the river for about twelve miles the land is cut by numerous draws. A few of the low ridges have outcropping rocks. North of this is a section called "the flats" where practically no erosion has taken place and where there is almost no water run-off. Very short buffalo grass makes up most of the vegetation. About twenty acres are required to pasture one cow.

South of the river there is a strip of sand hills which is from four to twenty miles wide. The hills are low and in some places the undersoil shows through. Sage brush and bunch-grass, six inches to two feet high, cover most of the hills. In a few places there is no grass and the sand moves at all seasons, but most of the shifting takes place in the winter. South of the sand hills there is a border of land where yucca is growing fairly thickly. South of this there is another broad belt of dry, nearly flat, plains.

The June flood of the Arkansas River and the extra large amount of rain which this section received helped make birds more plentiful in the summer of 1921 than usual. Birds are concentrated along the river, especially in migrations, on account of the wide almost desert belts on either side. The irrigation has a lesser effect on Kansas birds than it does on those of eastern Colorado, but the bird life along the river has been changed greatly, even in Kansas, by irrigation.

Gove.—Work in this locality was done on the Mendenhall ranch

51

which is five and one-half miles southeast of Gove, Gove County. A grove of ten acres of trees near the house on this place includes nearly all the trees in that part of the county. Hackberry creek, which runs near the houses, has a few water holes, but is generally dry. There is very little brush along the creek. The grass is in some places about a foot high and furnishes good cover for ground nesting birds. Wheat is the chief crop. Pasture is good and a great deal of stock is raised.

The chalk cliffs and beds are exposed near here furnish nesting sites for many kinds of birds.

It was excessively hot and dry during the time spent here.

## ACKNOWLEDGMENTS

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## Annotated List of Birds

Podilymbus podiceps. Pied-billed Grebe.—A single individual was seen on one of the hatchery ponds at Pratt on June 16.

Chlidonias nigra surinamensis. Black Tern.—On July 21, 22, and 25 Black Terns were feeding over pools of water in the flood plain of the Arkansas River at Coolidge. Most of them were moving east down the river.

Anas platyrhynchos. Mallard.—One was seen in some marshy ground along the Arkansas River, a few yards west of the Colorado-Kansas line, on July 12.

Glaucionetta clangula americana. Golden-eye stayed at the State Fish Hatchery at Pratt all summer.

Botaurus lentiginosus. Bittern.—One was seen at the edge of a small pool of water along a road near Coolidge on July 17 and another at the same place on July 25.

Ardea herodias herodias. Great Blue Heron.—Several were feeding along the Arkansas River at Coolidge, July 15.

Butorides virescens virescens. Green Heron.—Green Herons were seen almost daily around the hatchery ponds at Pratt. A nest containing three nearly grown young was found in an apple tree near a small lake six miles northeast of the hatchery on June 18.

Nycticorax nycticorax naevius. Black-crowned Night Heron.—Several were found at the hatchery at Pratt. During the day, they remained in the tops of the taller trees along the Ninnescah River, but came to the fish ponds to feed at night.

A nest was found at Coolidge on July 14. It was in the top of a tall cottonwood tree along the Arkansas River, and held young that were nearly grown.

An immature female was shot in a grove of trees on the Mendenhall ranch near Gove on July 30.

Rallus elegans. King Rail.—A pair with black, downy young, two of which were seen, was found on the north edge of the hatchery at Pratt on June 12. The adults appeared to be very nervous and after the young were all out of sight, they kept coming back to within three or four feet of the intruder and continued cackling for several minutes. On June 14, a pair with several young was seen in a different part of the hatchery. On June 20, a deserted nest with two unhatched eggs was found in the tall grass between two of the fish ponds.

Fulica americana. Coor.—Several were seen on the ponds at the hatchery at Pratt. The hatchery workers shot them at every opportunity.

Totanus flavipes. Yellowlegs.—On July 12, a small flock was seen in the marshy ground along the Arkansas River west of Coolidge.

Tringa solitaria solitaria. Solitary Sandpiper.—Some were seen on the wet ground along the river at Coolidge on July 13, and daily from July 20 to 25.

Bartramia longicauda. UPLAND PLOVER.—A young female was shot on the plains south of Coolidge on July 13.

Actitis macularia. Spotted Sandpiper.—These birds were common along the river at Coolidge after July 13.

Oxyechus vociferus. Killdeer.—Common at all the localities

Podasocys montanus. Mountain Plover.—July 27, a flock was seen near a ranch house on the flat plains northeast of Coolidge.

Colinus virginianus virginianus. Bob-white.—A few were seen and heard calling at Pratt, Garden City, and Coolidge.

Zenaidura macroura marginella. Western Mourning Dove.—Doves were common at all the localities and were found nesting at Pratt and Garden City. On July 14 two young, almost large enough to fly, were thrown out of a nest in a tall tree at the hatchery at Pratt by Blue Jays.

Tympanuchus americanus americanus. Prairie Chicken.—A Prairie Chicken was flushed from the side of the road between Shields and Gove on July 27. This was the only one seen during the summer. Residents say that these birds nest commonly in the sand hills south of the

Arkansas River, and farmers near the river at Lakin claim that they do considerable damage to the crops in the fields when they feed in large flocks in the fall.

Cathartes aura septentrionalis. Turkey Vulture.—A few were seen soaring at Pratt. They appeared to be more common at Sun City, thirty miles south, in Barber County. A large flock near Coolidge spent most of the time flying over the river or standing on the sand in the river bed.

Ictinia mississippiensis. Mississippi Kite.—Several were seen flying over the timber along the Medicine Lodge River at Sun City on June 19. One nest was seen in the crotch of a large tree and about twenty-five feet from the ground. An adult was brooding.

Circus hudsonius. MARSH HAWK.—Marsh Hawks were seen flying over marshy ground along the Arkansas River at Coolidge on July 12 and 17. Several were seen on the Mendenhall ranch at Gove. Mr. R. H. Mendenhall said that earlier in the summer he has found a nest of this bird with four young. It was in some tall grass in a draw near his house.

Buteo swainsoni. Swainson's Hawk.—At Pratt, this Hawk was seen on June 15 and 19. It was seen at Oanica on July 6 and 11, on the plains north of Coolidge on July 19, 20, and 27, and in Gove County July 27 and 30. The birds were generally flying over the prairie or resting on the tops of telephone poles along the roads.

Archibuteo ferrugineus. Ferrugineus Rough-leg.—Two were observed at Pratt on June 17. One was seen soaring over a Barn Owl that was on the ground on the prairie at Oanica, July 2. They were found on the prairie north of Coolidge on July 17 and 27. July 30, several were noted at Gove.

Aquila chrysaëtos. Golden Eagles.—Golden Eagles were found at Coolidge on July 12 and 17. On July 23, a young one, not yet able to fly, was seen at Two Buttes, Colorado, about twenty miles west of the state line, where it had been taken from a nest.

Falco mexicanus. Prairie Falcon.—Single individuals were seen on the plains north of Coolidge on July 17 and 27. All that were noted were very wild.

Cerchneis sparveria sparveria. Sparrow Hawk.—One was seen along a road near Pratt on June 18. Several were found in the timber along the Arkansas River at Coolidge. Two young were shot out of a family group that was found near a large tree which had several holes.

Tyto alba pratincola. BARN OWL.—One was found in a barn at a deserted house near Pratt, June 16 and 20. July 2, one was seen on the prairie near Oanica. This location was at least fifteen miles from any good sized group of trees. July 13, one was found in a dense clump of bushy trees near the R. T. Shanstrom house at Coolidge. Mr. Shanstrom was familiar with this Owl, but he was certain that he had never seen one in this vicinity. Another was flushed in the grove of trees on the Mendenhall ranch at Gove on July 28.

Asio flammeus. Short-Eared Owl.—July 27, one was seen flying over a field between Shields and Gove, in late afternoon.

Otus asio asio. Screech Owl.—Screech Owls were heard calling at Pratt on the evening of June 19. Others were heard on the Mendenhall ranch at Gove, July 26.

Otus asio aikeni. AIKEN'S SCREECH OWL.—A young female was shot at Coolidge on July 17. It was one of a group of half a dozen that stayed in the trees around the house on the Shanstrom farm.

**Bubo virginianus pallescens.** Western Horned Owl.—Owls, probably belonging to this subspecies, were flushed in the timber along the Arkansas River at Coolidge, July 13 and 26.

Spectyto cunicularia hypogaea. Burrowing Owl.—June 19, a family group was seen at a prairie dog town in the northern part of Barber County. Two were shot in a pasture at the edge of Garden City on June 29. They were common where prairie dogs were found at Oanica and Coolidge.

Coccyzus americanus americanus. Yellow-billed Cuckoo.—Found commonly at every locality except Oanica. July 15, one was seen carrying nesting material along the river at Coolidge.

Ceryle alcyon alcyon. Belted Kingfisher.—Found at Pratt and Coolidge.

Dryobates villosus villosus. HAIRY WOODPECKER.—One was noted at Pratt on June 13 and one at Garden City, June 29. A male collected at all the places visited except Oanica.

Dryobates pubescens medianus. Downy Woodpecker.—One was seen in Barber County on June 19. Another was seen in the grove on the Mendenhall farm at Gove on July 28.

Melanerpes erythrocephalus. Red-Headed Woodpecker.—These birds were found at all the places visited except Oanica.

Colaptes auratus luteus. Northern Flicker.—Common at Pratt and Garden City. Two were seen at Coolidge on July 15. Several were found near Gove, July 28.

Chordeiles virginianus henryi. Western Nighthawk.—Common over the whole territory. Several were collected.

Muscivora forficata. Scissor-tailed Flycatcher.—A nest of this species was found in a tree along a road about one half mile south of the hatchery at Pratt on June 15. It resembled that of the Kingbird, and was about twelve feet from the ground. Others were seen in Barber County on June 19.

Tyrannus tyrannus. Kingbird.—Common in each of the localities. One nest was found at Pratt on June 15.

Tyrannus verticalis. Arkansas Kingbird.—Common in every part of the territory visited. At Oanica, a pair had a nest in the top of a windmill tower that was near a house. The windmill was in use every day. Another nest that was in a small tree nearby had young that were almost

ready to leave on July 6. Young, just out of the nest, were found at Coolidge on July 14 and 26.

Myiarchus crinitus. Crested Flycatcher.—Seen at Pratt on June 15 and 19.

Sayornis sayus. Say's Phoebe.—Common at Coolidge. Found at deserted ranch houses and around bridges. A nest that was found July 17 on a stove in an empty schoolhouse north of Coolidge held five eggs. A nest with five young was found July 18. It was on a stringer of a bridge across te Arkansas River at Coolidge.

One was seen in the chalk cliffs near Gove on July 30.

Empidonax minimus. Least Flycatcher.—One was collected in the grove on the Mendenhall ranch at Gove on July 28.

Otocoris alpestris leucolaema. Desert Horned Lark.—Common on the prairie over the whole territory.

Pica pica hudsonia. Magpie.—A small flock was seen in the timber along the Arkansas River near Coolidge on July 11 and a single bird near the river on July 12. Mr. Shanstrom said that these birds had nested on his farm in recent years.

Cyanocitta cristata cristata. Blue Jay.—Blue Jays were common at Pratt. A nest was found in a cottonwood tree on the hatchery on June 13. On June 14 a Blue Jay was seen throwing two young Western Mourning Doves out of their nest.

Jays were seen daily at Garden City; one was noted at Lakin on July 11, while one was collected at Coolidge on July 15 and a young bird just out of the nest was seen.

A nest was found in the grove on the Mendenhall farm near Gove and several birds were seen nearby.

Corvus brachyrhynchos brachyrhynchos. Crow.—Crows were seen daily at Pratt. On June 16, a pair was seen in a field near the hatchery seen daily at Pratt. On June 16, a pair was seen in a field near the hatchery with young just out of the nest. Several came to roost in the grove on the Mendenhall ranch at Gove.

Molothrus ater ater. Cowbird.—This bird was found at all the localities visited except Oanica.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird.— A small flock at Oanica on July 4.

Large flocks were feeding on the wet ground along the river at Coolidge and in the fields that were being irrigated. One was seen along a road between Shields and Gove on July 27.

Agelaius phoeniceus fortis. THICK-BILLED REDWING.—Common at Pratt, Garden City, and Coolidge.

Sturnella neglecta. Western Meadowlark.—Found commonly over the whole territory.

Ictorus spurius. Orchard Oriole.—Noted in all the localities except Oanica.

Icterus galbula. Baltimore Oriole.—Common at Pratt. Two nests were found on June 20. Several were seen at Garden City and at Gove

Icterus bullocki. Bullock's Oriole.—Found nesting at Garden City on June 28. At least one pair was found at Oanica. They were nesting and very common at Coolidge. On July 16, a nest was found that was fastened to a brace at the top of a telephone pole along a road east of Coolidge.

Quiscalus quiscula aeneus. Bronzed Grackle.—Common in all parts of the territory except Oanica.

Astragalinus tristis tristis. Goldfinch.—One seen at Garden City on June 27 and noted at Coolidge on July 20, 22, and 23.

Ammodramus savannarum bimaculatus. Western Grasshopper Sparrow.—One was collected and several were seen along a road in Barber County on June 19. Found commonly at Oanica on July 4 and in the sand hills south of Coolidge on July 12. It was observed near Coolidge on July 16 and 25. It was common on the prairie near Gove on July 30.

Chondestes grammacus strigatus. Western Lark Sparrow.— Common in each of the localities visited. One was seen carrying straw at Pratt on June 19.

Peucaea cassini. Cassin's Sparrow.—Two were collected at Oanica, where it was common on the prairie. Found singing in the sand hills and on the plains south of Coolidge on July 12 and 25, and on the flat plains north of Coolidge on July 27. Two were collected at Coolidge.

Cardinalis cardinalis. CARDINAL.—Several were seen on the hatchery at Pratt where one nest was found.

Hedymeles melanocephala. BLACK-HEADED GROSBEAK.—Found at Coolidge on July 13, 14, 18, 21, and 26. Several were seen at Gove on July 27.

Guiraca caerulea lazula. Western Blue Grosbeak.—Common at Pratt. Found at Coolidge on July 11, 22, and 26.

Spiza americana. Dickcissel.—Common in each locality.

Calamospiza melanocorys. LARK BUNTING.—Several were seen in a patch of weeds at Oanica on July 4. They were found at Coolidge on July 12, 23, and 25, and were common along the road between Shields and Gove on July 27.

Passer domesticus. English Sparrow.—Common around buildings in all parts of the territory.

Progne subis subis. Purple Martin.—One seen in Garden City on June 28.

Petrochelidon lunifrons lunifrons. CLIFF SWALLOW.—Several were seen flying along the Medicine Lodge River at Sun City, Barber County on June 19. After July 16, they were seen daily at Coolidge. On July 23, they were found nesting in colonies on the sides of the small canyons at Two Buttes, Colorado and were seen around the chalk cliffs at Gove on July 28.

Hirundo erythrogastra. BARN SWALLOW.—A pair was noted at Oanica on July 6, and it was found at Pratt on June 17, 18, and 19. It was common at Coolidge where one was carying nesting material on July 15.

Iridoprocne bicolor. TREE SWALLOW.—Feeding with other Swallows near Coolidge on July 22.

Stelgidopteryx serripennis. Rough-winged Swallow.—A pair was seen several times flying over the hatchery ponds at Pratt.

Lanius ludovicianus excubitorides (?). White-rumped Shrike.—A Shrike was common at Pratt, where two sets of young just out of the nest were seen on June 15. One of the young birds was collected, but the proper subspecific rank could not be determined. On July 12, one was seen south of the river at Coolidge.

Vireosylva gilva gilva. WARBLING VIREO.—A nest was found at Pratt on June 13, in a cottonwood tree and about twenty feet from the ground. This Vireo was heard singing on June 15 and 19 at Pratt and a male was collected at Garden City on June 28. One was found at Coolidge on July 11.

Vireo belli belli. Bell's Vireo.—Singing in the small willows along the Arkansas River at Coolidge on July 15.

**Dendroica aestiva aestiva.** Yellow Warbler.—Found in the willows along the river at Coolidge.

Geothlypis trichas occidentalis. Western Yellowthroat.—Found at Pratt on June 14 and 17. A female was collected.

Icteria virens longicauda. Long-tailed Chat.—Several were heard singing in the willows along the river at Coolidge on July 15. One was collected.

Mimus polyglottos leucopterus. Western Mockingbird.—Common at Pratt, Garden City, and Coolidge. Young were found nearly grown at Coolidge on July 14. Specimens collected at Garden City and Coolidge were intermediate between this and the eastern race. They were molting

**Dumetella carolinensis.** CATBIRD.—The Catbird was common at Pratt where a nest was found on June 14. One was seen in Garden City on June 28.

Toxostoma rufum. Brown Thrasher.—Common at Pratt and Garden City. A few were seen at Coolidge.

Salpinctes obsoletus obsoletus. Rock Wren.—A nest was found in a hole in a rock in an outcrop about six miles northeast of Coolidge on July 17. The hole was about three inches in diameter and the entrance was paved with small flat stones. The nest was lined with sticks and contained several young.

This Wren was heard singing around the chalk cliffs near Gove on July 28 and 30.

Thyromanes bewicki cryptus. Texas Wren.—Common along the Medicine Lodge River at Sun City on June 19.

Troglodytes aëdon parkmani. Western House Wren.—There was at least one pair of nesting House Wrens on the hatchery at Pratt. They were nesting in the frame of a large water tank.

Penthestes atricapillus septentrionalis. Long-tailed Chickadee.
—Common at Pratt. Several were seen at Gove on July 28.

Planesticus migratorius migratorius. Robin.—Robins were found daily at Pratt. Several were seen at Garden City on June 28. A juvenile was seen at Coolidge on July 28.

Sialia sialis sialis. BLUEBIRD.—A few Bluebirds were seen in Barber County on June 19. On June 27 and 29, they were found at Garden City and several family groups were seen on telephone wires along the road east of Coolidge.

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