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HIBERNAL DISTRIBUTION OF THE ORANGE-CROWNED WARBLER

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The A.O.U. Check-list Committee (Check-list of North American Birds, 1957:482) places the northernmost stations of occurrence in winter for the Orange-crowned Warbler (*Vermivora celata celata*) in Oregon, Tennessee, Ohio, Connecticut, Massachusetts, and Nova Scotia. It thus implies that a vast area of montane territory and grassland in North America is lacking even casual winter occurrences of this warbler. Such implication is wholly reasonable in view of the climatic and vegetational features of the region between the Mississippi River and the Pacific coast. In fact, however, the casual occurrence of the species must show a lesser gap than heretofore has been suspected; on January 3, 1959, I shot a male Orange-crowned Warbler (KU 36704) in Lawrence, Douglas County, Kansas.

This record is of passing interest in that it documents the northwesternmost hibernal occurrence of this species in the deciduous hardwood forest in North America. It is of additional interest that the specimen proved to be an adult bird, to judge from degree of ossification of the skull; the individual was not merely a wandering subadult. Likewise important was the fact that the bird was in good physical condition, with a heavy layer of subcutaneous fat and a stomach full of spiders. The excellent condition of the bird is significant considering that January 3, 1959, was in time about mid-course in a protracted period of cold weather and persistent snow at Lawrence; the mid-morning temperature when I took the bird was 4° F. Some Orange-crowned Warblers are thus sufficiently plastic physiologically to withstand severe weather. The species probably never will occur other than casually at this latitude, however, in view of a limited food resource.

Mrs. J. W. (Kathryn) Nelson discovered the bird, and Max C. Thompson assisted in taking it.—*Museum of Natural History, University of Kansas, Lawrence, Kansas, January 16, 1959.*

NOTES AND NEWS

With the coming of the summer months, members of the staffs of the Museum of Natural History and the Department of Zoology at the University of Kansas are shifting their attention to research projects that will take them into the field. Ornithologically, the picture of forthcoming activities is particularly bright, and involves projects of general interest to members of the Kansas Ornithological Society. Your new editor, Dr. Richard Johnston, along with graduate student Jon Barlow, will embark about July 1 for the state of Chiapas, Mexico, where they will spend a month collecting specimens of birds, mammals, and reptiles for the Museum and studying the behavior of several species of doves and pigeons in tropical deciduous woodlands of that area. Your old editor, J. W. Hardy, has decided to remain at K.U. where he will be engaged in full-time research for the coming year on the behavior of the White-fronted Parrot of Mexico. The Hardys also plan to spend July in Mexico (including Chiapas) studying the behavior of these parrots and attempting to capture young individual white-fronts for observation back in Lawrence. Dr. Robert M. Mengel, whose drawings of

birds were exhibited at the recent K.O.S. meeting in Lawrence, will take a deep breath and remain in residence for most of the summer, where he will press hard to finish line drawings for the Handbook of Birds of North America and wind up details on his own large work on the Birds of Kentucky. Aside from parrots and doves, Johnston and Hardy are also beginning studies on the breeding behavior of Purple Martins. Their 8-room martin house, with sliding doors on each compartment (so that the nests can be examined), and a colony of about a dozen birds is their current pride and joy.

If you are looking for something interesting to do birdwise, you might examine Bank Swallow colonies in your area and see if there are any other species of birds utilizing excavations in the colony. Here at Lawrence, English Sparrows seem not to be adverse to moving into such places (just as they do with the martins) and perhaps of even more interest, each Bank Swallow colony, at least in May, has one to several Cliff Swallows "hanging around." Our observations indicate that they probably are just temporary visitors, but a few have been seen looking into Bank Swallow tunnels. It would be interesting to know if the Cliff Swallows occasionally roost in these tunnels or, less likely, breed therein.—J.W.H.

Each spring and fall, the remaining Whooping Cranes migrate through Great Plains States between coastal Texas, where they winter, and northern Canada, where they breed. To see one of these magnificent birds is the ambition of amateur and professional ornithologists, alike. It is particularly encouraging, in light of the rarity of the species and the inability of too great a percentage of today's Duck Hunters to distinguish between this huge crane and a member of a species that they might legally shoot, to record the following incident, which appeared in *The Bushton News*, Bushton, Kansas, November 27, 1958.

Tommy Sheridan, one of Bushton's younger bird watchers, and his father, Allen Sheridan, recently got the bird thrill of a lifetime. Two Whooping Cranes almost descended upon them.

The Sheridans have a duck pond some ten miles southwest of Bushton. About 5:45 in the evening of October 18th they were crouched in their hunting blind. Their eyes strained toward the north as they looked through the reeds and rushes over the decoys. There were no ducks in sight, when, suddenly two large white birds appeared far out toward the northeast. They must have been a quarter of a mile away when they set their wings for the landing slide. Tommy and Allen raised their guns, and visions of roast goose were in their minds. But, no, they could not shoot. The birds came straight toward the duck pond, and they showed they were not geese. The wings were not cupped like those of landing geese. Quickly the great white birds came overhead and very near. They were less than ten feet above the blind with its thrill soaked occupants. Long necks, with orange hooded beaks up front stretched out ahead. Long legs streamed gracefully out behind. Mighty white wings, with a broad under edge of black, planed out straight and still. The majestic birds turned in a tight bank to circle the tiny Sheridan lake. They alighted on a pond nearby.

Father and son were tingling with the experience. Two Whooping Cranes had almost glided into their faces. But they wanted to see the giants of the bird world as they stood upon the edge of the little pond. Quietly the hunters crawled from the blind and toward the Cranes. But the Whoopers became frightened, lifted into the air and disappeared toward the setting sun.

Birds seen on the spring field trip in the vicinity of Lawrence.—The list below totals 142 species of birds. This is notable for two reasons: the weather conditions were not wholly favorable for listing a great number of birds (the wind was heavy), and the total is the largest ever recorded by members of the K.O.S. on the spring count. Also interesting is the probability that 30 to 40 additional species might easily have been seen; more parties composed of fewer observers would doubtless have picked up some of these. The area covered was roughly from Lake Shawnee to three miles east of Lawrence to the south edge of Lone Star Lake; weather, partly cloudy to clear, wind to 35 miles per hour, temperatures to 80°F.; about 80 observers in four parties; species: Common Loon, Pied-billed Grebe, Great Blue Heron, American Egret, Green Heron, Mallard, Gadwall, Baldpate, Blue-winged Teal, Shoveller, Lesser Scaup, American Merganser, Turkey Vulture, Red-tailed Hawk, Swainson Hawk, Rough-legged Hawk, Marsh Hawk, Osprey, Sparrow Hawk, Greater Prairie Chicken, Bob-white, Sora Rail, American Coot, Semipalmated Plover, Killdeer, Golden Plover, Common Snipe, Upland Plover, Spotted Sandpiper, Solitary Sandpiper, Greater Yellowlegs, Lesser Yellowlegs, Pectoral Sandpiper, White-rumped Sandpiper, Baird Sandpiper, Least Sandpiper, Wilson Phalarope, Mourning Dove, Yellow-billed Cuckoo, Black-billed Cuckoo, Great Horned Owl, Whip-poor-will, Booming Nighthawk, Chimney Swift, Belted Kingfisher, Yellow-shafted Flicker, Red-bellied Woodpecker, Red-headed Wood-

pecker, Hairy Woodpecker, Downy Woodpecker, Eastern Kingbird, Western Kingbird, Scissor-tailed Flycatcher, Crested Flycatcher, Phoebe, Least Flycatcher, Eastern Wood Pewee, Horned Lark, Tree Swallow, Bank Swallow, Rough-winged Swallow, Barn Swallow, Purple Martin, Blue Jay, Crow, Black-capped Chickadee, Tufted Titmouse, House Wren, Bewick Wren, Carolina Wren, Mockingbird, Catbird, Brown Thrasher, Robin, Wood Thrush, Hermit Thrush, Swainson Thrush, Gray-cheeked Thrush, Veery, Eastern Bluebird, Blue-gray Gnatcatcher, Ruby-crowned Kinglet, Water Pipit, Loggerhead Shrike, Starling, White-eyed Vireo, Bell Vireo, Yellow-throated Vireo, Solitary Vireo, Red-eyed Vireo, Warbling Vireo, Philadelphia Vireo, Black-and-white Warbler, Prothonotary Warbler, Tennessee Warbler, Orange-crowned Warbler, Nashville Warbler, Parula Warbler, Yellow Warbler, Myrtle Warbler, Cerulean Warbler, Blackburnian Warbler, Black-poll Warbler, Palm Warbler, Ovenbird, Louisiana Waterthrush, Kentucky Warbler, Yellowthroat, Yellow-breasted Chat, Wilson Warbler, American Redstart, Canada Warbler, House Sparrow, Bobolink, Eastern Meadowlark, Western Meadowlark, Yellow-headed Blackbird, Red-winged Blackbird, Orchard Oriole, Baltimore Oriole, Common Grackle, Brown-headed Cowbird, Scarlet Tanager, Summer Tanager, Cardinal, Rose-breasted Grosbeak, Indigo Bunting, Dickcissel, American Goldfinch, Red-eyed Towhee, Savannah Sparrow, Grasshopper Sparrow, Lark Sparrow, Slate-colored Junco, Chipping Sparrow, Clay-colored Sparrow, Field Sparrow, Harris Sparrow, White-crowned Sparrow, White-throated Sparrow, Lincoln Sparrow, Song Sparrow.

Lawrence has been witnessing for the past two months an extraordinary mortality of Robins, caused by a phenomenon that is becoming all too common these days in the eastern United States. In an effort to control the insect vectors of the Dutch elm disease organism, municipalities have been using an oil-base DDT insecticide, and in Lawrence for the past three years this substance has been sprayed wholesale on the city's elms. The insecticide inevitably is worked down to and into soils, where it is available to multitudes of invertebrate animals, many of which serve as food for birds. The most important of these animals, as far as Robins are concerned, are earthworms. DDT is concentrated in the fatty tissues of earthworms to a very great extent, since they ingest great quantities of soil in their daily activity; they thus serve as concentrated packets of DDT. Robins successfully foraging on earthworms therefore expose themselves to one of the most potent neurotoxic substances man has invented.

As a poison, DDT inhibits proper transmission of "messages" in the nervous system; its effectiveness is partly explainable with this in mind in relation to two additional characteristics: first, it tends to be stored in animal bodies in fatty tissue (and the myelin sheath of the nerve fiber is fatty), and second, it has a notable residual effect—it is potent over a long time. This means that Robins receiving a sublethal dose of DDT in previous years could be killed by an additional "sublethal" dose this year. This may well be what is happening in Lawrence, for mortality to Robins last year was not particularly remarkable, nor has it been so prior to 1959.

Symptoms of DDT poisoning range from excitability (small dosages) to nearly complete muscular dysfunction (large dosages). Many birds in Lawrence have been found showing muscle paralysis or tremors of varying degree, and their subsequent deaths can be charged directly to DDT. Other birds are not so adversely affected, but they are not at peak efficiency; most of the Robins hit by moving automobiles and caught by cats are probably of this latter category in Lawrence this year (and it should be noted that most birds hit by cars or caught by cats at any time are not wholly healthy). Thus far we have received reports of but three other species of birds being adversely affected by DDT this year: one Black-capped Chickadee, one Starling, and one Brown Thrasher.

There is a bright side to this story, even though it has nothing to do with the ethical, moral, or political right to broadcast a potent poison. In Lawrence the numbers of Robins seem to be as high as the available habitat will allow. We have made no really good censuses of breeding numbers so that the statement above is merely an impression; we include it for what it may be worth. Finally, of course, it should be borne in mind that this use of DDT is not a particularly whimsical one—the idea is to attempt to save elm trees from a disaster, the danger of which is real and present. The

operation now may well be akin to a man attempting brain surgery with a pick and shovel, after having completed but two years of medical training—we don't know enough and we may be using the wrong tools—but it is the best that can be done under the circumstances of ignorance.

Your Editor again urges all of you to save every piece of information relating to the breeding of birds in Kansas in 1959, and, most importantly, to send such information to the Museum of Natural History. Several members at the recent meetings indicated they had not sent in every record they had gotten last year, thinking that for common species there would be plenty of records submitted by other persons. We repeat: every single record of even the most common breeding bird is useful in the survey, and we need them all. The standard forms for submitting records will be sent you on request to the Editor.—R.F.J.

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