

ered young. This nest was in Carr Canyon and was placed at the top of a black oak sapling growing out of the side of the canyon. The nest was fifteen feet from the ground and seventy-five from the bed of the canyon which is very deep with precipitous walls. The male came with a caterpillar but seeing me would not go to the nest. The female, however, fed the young and brooded them without paying much attention to me.

The least common of the three Vireos breeding in the Huachuca Mountains is the Western Warbling Vireo. I have located but four pairs after visiting all the principal canyons, but there may be others in some of the smaller canyons. One pair is near the reservoir in Miller Canyon. I spent two hours on June 4, 1907, looking for their nest, climbing all the likely looking trees. The male got very uneasy at my continued presence and finally called his mate off the nest. She began calling with the usual Vireo alarm note and after locating her I watched very carefully for about ten minutes till she flew onto the nest, thirty feet up in a sycamore standing nearby on the edge of the creek. The nest was invisible from the ground and was well sheltered with leaves above. The female left the nest as I climbed up. There were four eggs with incubation begun. I secured good photographs of this nest and eggs.

On May 21, 1908, I was fortunate enough to locate a nest just begun. The two birds were together in the tree tops nearby all the time. The male was singing most of the time, the female responding from time to time with low notes which I cannot find syllables to describe. They were difficult to follow from tree to tree and it was sometime before I could tell where they were building. On June 1st the nest contained two eggs and June 4 I collected the nest and four eggs, taking photographs of them. The nest was placed in a fork near the top of a small ash growing well up from the bed of the canyon. The nest has the framework of grass tops like the two preceding species but the interwoven material is mostly a white parchment-like substance from the seed pods of the mesquite. Bits of cobwebs complete the outside which is rather ragged in appearance and of a grayish white color. The lining is fine grass tops with the seeds removed as is the case with the other two.

The average measurements of the nests of the three species as shown by specimens in my possession are as follows:

Plumbeous Vireo: diameter, outside $3\frac{3}{4}$ inches; inside $2\frac{1}{4}$ inches.

Stephens Vireo: diameter, outside, $2\frac{3}{4}$ inches; inside $1\frac{1}{2}$ inches.

Western Warbling Vireo: diameter, outside $3\frac{3}{4}$ inches; inside 2 inches.

Plumbeous Vireo: depth, outside $2\frac{1}{2}$ inches; inside $1\frac{3}{4}$ inches.

Stephens Vireo: depth, outside $2\frac{1}{2}$ inches; inside $1\frac{3}{4}$ inches.

Western Warbling Vireo: depth, outside 2 inches; inside $1\frac{1}{2}$ inches.

Tombstone, Arizona.

NESTING OF THE PINE SISKIN AT GREAT SLAVE LAKE

By RUDOPH M. ANDERSON

THE Pine Siskin (*Spinus pinus*) appears to be a rather rare bird in the territory along the Athabasca, Slave and Mackenzie rivers. At least the writer met with the species on only one occasion during the season of 1908. On the morning of June 24, our party, on one of six scows and a York-boat, towed by the little steaming "Eva," pulled out of the delta of the Slave River, intending to cross the end of the lake to Hay River. A fairly strong wind was blowing from across the lake, causing heavy waves over the mud flats outside the mouth of the river,

and we were compelled to run on the lee side of Moose Island, and wait for the wind to subside. Moose Island is a high, rocky, stony island, about one and one-half miles long and three-fourths of a mile wide, a few miles from Fort Resolution, at the south-west corner of Great Slave Lake. The island is fringed with white spruce of good size; but the interior is high and rocky, covered with a tangle of burned and fallen spruce timber and sprinkled over with a sparse growth of young poplars.

A few Pine Siskins were seen in the spruce trees as we landed, and a few Chipping Sparrows (*Spizella passerina*) along the shores. The interior of the island revealed many Slate-colored Juncos (*Junco hyemalis*) and Intermediate Sparrows (*Zonotrichia l. gambeli*), one Black-poll Warbler's (*Dendroica striata*) nest with four eggs, one Sparrow Hawk, one Canada Jay (*Perisoreus canadensis*), and a small Flycatcher (*Empidonax*). White-throated Sparrows were fairly common, and a Spotted Sandpiper's (*Actitis macularia*) nest with four eggs was observed on the north shore of the island. Half a dozen Pine Siskins were observed at one time in the tops of spruce along the south shore.

After lunch I was resting under a white spruce, about one foot in diameter, near our campfire on the lake shore, when I saw a Pine Siskin fly into the tree directly above my head. Examining the tree carefully I soon saw the nest among the lower limbs of the tree, about fifteen feet from the ground, near the end of a small horizontal branch about two feet from the trunk of the tree. Both parent birds were about, and I shot the nearest, which proved to be the male. The other bird was unfortunately lost in the brush.

The nest contained three eggs, advanced in incubation; very pale blue in color, sparsely spotted at the larger end with light reddish brown. One of the eggs had on one side, near the smaller end a heavy comma-shaped streak about one-fourth of an inch long, and one other egg had a heavy, irregular line about the same size in a similar position; these streaks were deep umber-colored. The other egg had no large marks. The eggs also showed a very few minute black pin-point marks at their larger ends.

The nest was very neatly built, well-cupped and well-concealed by the very thick terminal twigs of the white spruce branch. Depth (outside), two and one-half inches; (inside) one and one-half inches. Diameter (external) two and one-half inches; (internal) one and one-half inches; composed of small dead spruce twigs, a few grasses, fibrous bark shreds, and a few shreds of cottony substance; lined with fine grass fibers and hair, mixed with a few bunches of moss fibers.

Herschel Island, N. W. T.

MR. ROCKWELL'S SUGGESTION OF COOPERATION IN ORNITHOLOGICAL STUDIES

By WILLIAM E. RITTER

I WAS interested in Mr. Rockwell's "Plan for Cooperative Ornithology" printed in the September CONDOR. A word should be spoken on this subject from the standpoint of general biology as well as from that of ornithology.

That there are more observers of the natural habits of birds than of any other group of animals is, I suppose, beyond question. As a result there is more accur-