

probably as a hawk at a half a mile, but at 3000 feet would appear as only a dot invisible a short distance farther away. The distance visibility of other birds can be estimated by similar procedure. A broad-winged bird is better visible than one with narrow wings, a perching bird with a rounded profile better than one with a long narrow outline; a flat view of the extended wings better than an oblique aspect. Looking toward the source of light, as the sun, diminishes the visibility by halation, and by glare into the eyes.

When estimating the vertical heights of birds it is remembered, according to the sine of the angle of elevation, that with an angle of 19 degrees the height is approximately one third the hypotenuse; with 30° it is one half; 48°, three fourths; with 54°, eight tenths, and with an angle of 65° the vertical height is 90 per cent of the oblique visual distance. These ratios with the estimated visual distances permit a close estimate of the distances a bird is flying above the ground.

This research is not a consideration of the *recognition* of distant birds, which depends in addition upon relative shapes, flight actions, perching positions, habits and other factors.—HAROLD B. WOOD, M.D., 3016 North 2d St., Harrisburg, Pa.

Hailstorms and Avian Mortality.—A violent hailstorm occurred at Ithaca, New York, on May 19, 1936. The storm, which lasted from 12.45 to 1 p. m., was accompanied by high winds and rain. A half hour after the storm, hailstones as large as marbles were lying several inches deep in small gullies and depressions. During the storm, one of my students, Daniel Embody, picked up a Flicker (*Colaptes auratus*) lying on the local golf course. The bird was warm; the extended tongue hung an inch from the bill. It was quite apparent that the Flicker had been killed by hailstones. Embody saw another Flicker lying along the roadside. A thorough search by the writer and four students a few minutes later in this same neighborhood failed to locate this second bird. It had apparently not received a fatal blow. No other casualties were noted, although a search was made. The Flicker was carefully skinned. A bruise on the right thigh and two clots on the skull indicated where the bird had been struck by the hail. The gullet and stomach contained about sixty ants (*Lasius* sp.) and eleven seeds of staghorn sumach. Evidently the bird had been feeding at the time of death. It was a male and weighed 140 grams.

On July 3, 1936, press reports described a slashing wind, hail and rainstorm at Rome, New York. Hailstones larger than marbles lay in streets four to six inches deep in places an hour after the storm. A number of birds were reported to have been killed by these hailstones.

Gates (Science, n.s., vol. 78, pp. 263-264, 1933) has recorded high mortality among birds, especially Scarlet Tanagers and Bob-white, at Baton Rouge, Louisiana, during a severe hailstorm on April 20, 1933.—WM. J. HAMILTON, JR., Cornell University, Ithaca, N. Y.

Notes from northern Idaho.—The unusual abundance of certain species of birds in the vicinity of St. Maries, Benewah County, Idaho, during the past summer is worthy of comment.

LITTLE FLYCATCHER, *Empidonax traillii brewsteri*.—While by no means rare, this species is always associated in my mind with the edges of alpine meadows and willow-bordered streams at high altitudes in the mountains. During the latter part of last May and to some extent throughout the early summer, they were to be found in almost every willow thicket in this locality. Even in the semi-arid "Palouse Country" and the lower Clearwater Valley they were occasionally met with. On two different occasions in late May I noted a pair in a single clump of willows sur-

rounded by miles of open wheat fields, while the only water nearby came from a tiny spring which had been piped into a horse-trough. Along two miles of cottonwood and willow-bordered dike adjacent to the town of St. Maries I saw or heard not less than fifteen, in singles and pairs, on June 9, and almost as many on June 13.

ROCK WREN, *Salpinctes obsoletus*.—Commonly met with on certain high, rocky ridges of the upper St. Joe, but never before have I noted this species within fifty miles of St. Maries. On June 4, last, I saw a pair on the outskirts of town in a brushy, cut-over timber tract. There was a small rock-cut in the road nearby but nothing like the outcrops of basalt or sliderock that usually attract this species. During the rest of June and early July they were noted on many occasions, usually single individuals but sometimes in pairs. On June 13, I saw one bobbing about in a lumber yard and later that same day a metallic *chwing! chwing!* was heard and there was one singing its rather pleasing song perched atop a piece of piling on the edge of the millpond!

GRINNELL'S WATER-THRUSH, *Seiurus noveboracensis notabilis*.—While I became familiar with the Northern Water-Thrush in New York State some twenty-odd years ago, my first and only meeting with *notabilis* previous to this year occurred on the Lochsa River, a tributary of the Clearwater, on June 9, 1925. The bird was singing and I have never forgotten that song. On the 17th of May, 1936, I heard those same wild, ringing notes in a thicket of cottonwoods near the mouth of the St. Maries River but did not catch a glimpse of the bird. On June 9, 13, and 20, and on July 2 and 11, I heard not just one, but from two to five or six of these singers, sometimes at widely separated localities but always in the cottonwood and willow swamps. The only access to these areas was by following the dikes and the birds were invariably well back in the flooded jungles. Finally, on August 1, after I had almost given up hope, I caught a glimpse of the singer and a little later that same day was afforded an excellent view as it teetered on a cottonwood limb within fifteen feet of me. Once more, on August 12, I heard one make a half-hearted attempt at singing and got an unsatisfactory glimpse as it flew into the dense swamp.—R. L. HAND, *St. Maries, Idaho*.

A colony of Western Grebes.—On August 6, 1936, at the southwest end of the Strawberry Reservoir, Logan, Utah, near where the river enters the lake, a colony comprising sixty nests of the Western Grebe, *Aechmophorus occidentalis*, was observed. The nests were located in water twenty-four inches deep, and from twenty to forty yards out from the lake shore, and were in the direct sunlight. They were constructed of sedges, *Carex* sp., which grew in great abundance along the lake shore. The number of eggs found in the nests varied from one to six. However, two, three and four were the most common, the average being three eggs to a nest. One egg from a nest of two was beginning to pip. The eggs in nearly all of the nests were completely covered with about three-fourths of an inch of semi-decayed sedge plants. Some of the nests contained both hatched shells and whole eggs. This might indicate that all of the eggs do not hatch at the same time, but that the hatching is spread over a period of a few days. I have been unable to find any information on this point. I visited the colony again on the afternoon of August 10. At this time I found that all but a few of the eggs had hatched. On this visit we found one egg hatching; this was the last or only egg in the nest. At no time were any little ones seen; nor were the females ever seen on the nests, though they were often in the locality.—LYNN GRINER, *Utah State Agricultural College, Logan, Utah*.

Albino Pied-billed Grebe in Wisconsin.—Mr. Leonard Lehr of Milwaukee