

immature birds (Dutcher, Auk, III, 1886, pp. 443, 444, and Braislin, Auk, XXIV, 1907, pp. 186-189). Dr. Braislin, in the reference just cited, says, "Further investigation will probably show that the Hermit Thrush is, though rare, a regular summer resident on Long Island."—FRANCIS HARPER, *College Point, N. Y.*

Records from Bloomington, Indiana.—Those who have copies of 'Birds of the vicinity of the University of Indiana' may be interested in the following notes giving additions to the data contained in that paper. All are from the migration record of Dr. W. L. Hahn for the spring of 1908. The Redwinged Blackbird arrived on March 3, one day earlier than previously recorded; the Chipping Sparrow, March 15, one day earlier; the Tree Swallow, March 29, 7 days earlier; Blue-gray Gnatcatcher, March 22 (authority of H. Green), 15 days earlier; and the Mockingbird, February 19, 34 days earlier. The last record is particularly interesting as an indication that the bird may remain at Bloomington during the winter. Certainly winter conditions are no more unfavorable at Bloomington than at other localities where the bird is resident, and we may confidently expect that before many years, the Mockingbird will be added to the already long list of winter birds of Bloomington. In this connection I desire to record the fact that Mockingbirds were rather common in Benton County, Ind., a locality considerably north of the known breeding range, on September 12, 1906.—W. L. McATEE, *Biological Survey, Washington, D. C.*

New and Unpublished Records from Washington.—In preparing a standard list of the birds of Washington (now numbering, roundly, 375 species) we have not hesitated to accept, on occasion, the first-hand testimony of competent ornithologists, even when unsupported by specimens. A few of our own records, likewise, depend upon the binocular instead of the gun, but when this is the case, the fact is clearly stated.

My thanks are due to several gentlemen, notably to Dr. A. K. Fisher, of the Biological Survey; to Mr. A. W. Anthony, of Portland; and to my colleague, Mr. J. H. Bowles, of Tacoma, for permission to publish many of these presumed "first records." It may well be in some instances that previous publication has been overlooked, in which case the writer would esteem it a favor to be corrected. A list of the birds of Washington prepared by Professor O. B. Johnson, then in charge of the department of Zoölogy in the University of Washington, appeared in the 'Report of the Governor of Washington Territory for the year 1884' (published in 1885). This list enumerates 273 species, including some which appear below; but inasmuch as it was confessedly "popular" (the East-side records especially being partly based on hearsay or inference) and employed only vernacular names, it cannot, unfortunately, be cited as authority.

Pinicola enucleator alascensis. ALASKAN PINE GROSBEEK.—Common breeders in the balsam belt of the Mount Baker district; definitely observed south of the 49th parallel. (Allan Brooks, *in epist.*, Jan. 17, 1907.)

Calcarius lapponicus alascensis. ALASKAN LONGSPUR.— Unquestionably of ordinary occurrence east of the Cascade Mountains, but the only authentic record appears to be that of a specimen, a female of notably light coloration, taken in Seattle in October, 1907, by Mr. E. H. Jones.

Amphispiza bilineata deserticola. DESERT SPARROW.— A singing male was first seen in the sage-brush near our camp on Brook Lake, in Douglas County, May 31, 1908. He was narrowly observed on several occasions subsequent, and once appeared in company with a female. A male bird was several times sighted through a stretch of half a mile or so along the north shore of the lake, but never more than one at a time, and we could not be sure that above a single pair existed in the county — or indeed in the State.

Melospiza lincolni. LINCOLN'S SONG SPARROW.— Until recently curiously overlooked, although records abound on all sides of us. The first specimen noted was picked up from the ground beneath telegraph wires in Tacoma, May 22, 1906, by A. Gordon Bowles, Jr. This summer (June 28–July 14) I found a breeding colony of some twenty individuals, which occupied the swamp at Longmire's Springs, in the Rainier National Park. The altitude was nearly 3000 feet, and the birds on the first of July seemed to be about evenly divided between care of youngsters out of nest and preparations for a second nesting.

Helminthophila celata. ORANGE-CROWNED WARBLER.— Spec., ♂, by J. H. Bowles, Tacoma, May 8, 1907. (Ident. by Dept. of Agriculture, Washington, D. C.). Believed to be regularly migrant east and west of the Cascades.

Hylocichla ustulata swainsonii. OLIVE-BACKED THRUSH.— Thrushes of the *ustulata* group found along the eastern slopes of the Cascade Mountains have been allowed to pass as *typicus*, although it was presumed that specimens taken in the Kalispell region would prove to be *swainsonii*. To our surprise, Mr. Bowles finds *swainsonii* alone this summer, in the valley of the Stehekin, Chelan County, where they are very common up to 4000 feet. Specimens compared at Washington, by courtesy of Dr. A. K. Fisher.

Hylocichla guttata. ALASKA HERMIT THRUSH.— Two records: Tacoma, April 15, 1905, by J. H. Bowles; Seattle, Sept. 21, 1907, by Jennie V. Getty. Identification by Biol. Surv., Washington, D. C.

Hylocichla guttata sequoiensis. SIERRA HERMIT THRUSH.— Now established as the resident breeding form in the Cascade Mountains, at least west of the divide. Twin Lake, Mt. Baker District, Aug. 9, 1905, by W. L. Dawson.

Dryobates villosus hyloscopus. CABANIS'S WOODPECKER.— One specimen, ♀, Dec. 25, 1895, by Geo. G. Cantwell (J. H. Bowles *in* *epist.* Ident. by Bureau of Biol. Surv., Washington, D. C.). This identification is made in careful distinction from *D. v. monticola*, which occurs regularly in the northeastern part of the State, and to which the reference in Bendire, Life Hist. N. A. Birds, II (1895), p. 53, is presumed to belong. Others seen at Kirkland by Miss Jennie V. Getty.

Colaptes auratus luteus. YELLOW-SHAFTED FLICKER.—A specimen in Mr. Rathbun's collection was taken by Mr. Matt. H. Gormley on Orcas Island, Oct. 15, 1903. The bird is a male, and is typical, save for the faintest possible tinge of salmon in the yellow. The casual occurrence of this species west of the Cascades during migration is attested by several other witnesses; notably, Mr. D. E. Brown, formerly of Glacier, and Mr. Victor Savings, of Blaine.

Glaux funerea richardsoni. RICHARDSON'S OWL.—A specimen taken on the Nooksack River, near Glacier, Jan. 17, 1905, by D. E. Brown, has been examined by the writer.

Glaux acadicus scotæus. NORTHWEST SAW-WHET OWL.—Dr. A. K. Fisher, *in epist.*, Jan. 18, 1907, identifying specimen secured at Nisqually in Dec. (?) 1906; collection Edwards Bros., Tacoma. The only other recent specimen taken proves to be true *acadicus*.

Grus americana. WHOOPING CRANE.—I should hesitate to report the appearance of a large flock of these white cranes in Yakima County (May 2, 1908) and studied by myself through binocular at a range of *five miles*, were it not for abundant corroborative testimony on the part of ranchers both in Yakima and Douglas Counties. In the Big Bend country, especially this remnant of a vanishing race appears to be making its last stand.

Ægialitis nivosa. SNOWY PLOVER.—Specimen taken at Gray's Harbor, Sept. 3, 1899, by C. W. Bowles; now in collection of C. W. and J. H. Bowles in Ferry Museum, Tacoma.

Pisobia aurita. SHARP-TAILED SANDPIPER.—J. M. Edson, *in epist* Four specimens taken from a flock at Bellingham in September, 1892, carefully identified but not preserved.

Bartramia longicauda. BARTRAMIAN SANDPIPER.—Several times *heard* in western Walla Walla County near Two Rivers, April 22 and 23, 1905. Having been brought up on the prairie, I could not have been surer of my mother's voice.

Stercorarius pomarinus. POMARINE JAEGER.—“On Sept. 7, 1897, I saw a specimen of *Stercorarius pomarinus* in Puget Sound near Whidby Island, and on Sept. 24 one in Shoalwater Bay.” (A. K. Fisher, *in epist.*, April 7, 1908.)

Larus vegæ. VEGA GULL.—Several birds with very dark mantles seen about the wharves and shipping at Bellingham where shooting was impossible. One of these dark-winged birds, resting frequently on the top of a convenient pile, had a foot taken off as by a sharp-edged trap. The bird, however, supported itself freely upon the tarsal stump and apparently made light of its infirmity. Old “Dot-and-go-one” had also an unusually conspicuous spot of vermilion which glowed upon the angle of the lower mandible.

Xema sabinii. SABINE'S GULL.—One seen by Mr. Anthony in January or February, 1899, while cruising off Gray's Harbor. (A. W. Anthony, *in epist.*, Feb. 13, 1907.)

Sterna forsteri. FORSTER'S TERN.—Of regular occurrence on Brook

Lake and on Moses Lake, in Douglas County. Twenty or thirty seen in 1905, 1906, and again in 1908.

Dendrocygna bicolor. FULVOUS TREE-DUCK.— One specimen secured from a flock of ten on Gray's Harbor, Oct. 3, 1905, by Willis G. Hopkins, Esq., of Aberdeen, and now in his possession. It is interesting to note in this connection that a flock of eleven birds appeared at Alberni, B. C. (Vancouver Id.), on the 29th of September of the same year. From this flock five were secured by Mr. J. S. Rollin, a rancher; and one of these, a handsome male, now stands in the Provincial Museum at Victoria.

Puffinus opisthomelas. BLACK-VENTED SHEARWATER.— "Off Cape Flattery in June." (A. W. Anthony, *in epist.*, Jan. 15, 1907.)

Puffinus tenuirostris. SLENDER-BILLED SHEARWATER.— "Off Cape Flattery in October and November." (A. W. Anthony, *in epist.*, Jan. 15, 1907.) In August, 1905, Mr. Bowles witnessed the migration of countless thousands of these birds a quarter of a mile off-shore, at Moclips, and secured specimens.

Oceanodroma furcata. FORK-TAILED PETREL.— "Just off the Cape." (A. W. Anthony, as above.)

Phalaris psittacula. PAROQUET AUKLET. "I have seen it between Port Townsend and Cape Flattery." (A. W. Anthony, *in epist.*, Jan. 15, 1907.)— W. LEON DAWSON, *Seattle, Washington.*

Averaging Migration Dates.— What is the best way of averaging the dates of bird arrivals? This is a question that often arises in connection with the migration work of the Biological Survey.

Commenting on the method used here, Mr. Witmer Stone says (*Proc Acad. Nat. Sci. Phila.*, 1908, p. 138): "As so little has been attempted in the way of combining local migration records, I find it difficult to discuss the comparative value of different methods. Some casual allusions by Prof. Cooke to the methods employed by him, form indeed the only contribution to the subject with which I am familiar. He recognizes the danger of including the latest dates of arrival in computing averages and rejects them, just as I have advocated above, but in deciding how many to reject his method seems to lack definiteness and to involve the personal equation. He says (*Auk*, 1907, p. 347), 'When using migration records for the calculation of average dates of arrival, I usually discard dates that are more than six days later than the probable normal date of arrival.' This would seem to imply an arbitrary selection of 'the probable normal' date before any averaging is done, which seems to be a dangerous method."

For the benefit of any that are interested in the subject I will give my method in full and if any one can suggest a better, I am open to conviction.

What is desired in our work, is a date that represents the average time of the arrival of the first in normal migration. The securing of such a date requires the rejection of both extra early and extra late dates. The principal problem is the determining of where to draw these limits. My study of the relation of bird migration to the weather has convinced me