

THE CONTEST AGAINST INFECTION. By THEODORE POTTER. Published in The Cincinnati Lancet Clinic, Aug. 6, 1902.

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SOME STRUCTURAL PECULIARITIES OF PACIFIC SLOPE FISHES. By A. B. ULREY.

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THE YOLK NUCLEUS. By J. W. HUBBARD.

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PECULIAR DEATH OF AN ORIOLE. By T. B. REDDING.

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THE RANGE OF THE CROSSBILL IN THE OHIO VALLEY, WITH NOTES ON THEIR UNUSUAL OCCURRENCE IN SUMMER. By A. W. BUTLER.

In 1838 Dr. Kirtland had not met with the American Crossbill (*Loxia curvirostra minor*) in Ohio and Indiana. Dr. Haymond omitted it from his "Birds of Southeastern Indiana" in 1856. Dr. Wheaton reported it from Ohio in the winter of 1859-60. Evidently it was quite well known to Dr. Haymond in 1869. The winter of 1868-9 they were very abundant in the vicinity of Cincinnati. (Charles Dury.) This was doubtless the case at other places also. The range of the species at this time was supposed to be northern North America, south in the Appalachian mountains into Pennsylvania, extending in winter, irregularly over much of the United States. A letter from Mr. C. E. Aikin, of Salt Lake City, Utah, informs me that this species became very abundant in the city of Chicago in July and August 1869, and remained until late in the fall. They fed greedily upon seeds of sunflowers and were so sluggish that one could approach within a few feet of them so that they fell an easy prey to boys with catapults. In the latter part of August of the same year, he found them common in Lake county, Indiana. He also notes that they were not rare the succeeding year in the vicinity of Chicago. Dr. F. W. Langdon notes the capture of a single specimen from a flock of six or eight at Madisonville, near Cincinnati, O., Nov. 30, 1874. In the winter of 1874-5 Mr. Eugene P.

Bicknell noted these birds were present in the lower Hudson valley, and in April of the latter year found their nest. In the same article is noticed the occurrence of the species about New York City in late spring and early summer: on Long Island in midsummer, and on the Bermudas from March to May. (Bull. Nutt. Orn. Club, Vol. V., pp. 7-11.) Mr. E. W. Nelson in his paper on "Birds of Northeastern Illinois," read before the Essex Institute, December 4, 1876, says it was "formerly a common winter resident; now rare." Messrs. Dury and Freeman (Journ. Cin. Soc. Nat. Hist., 1879, p. 4), note its occurrence at Westwood, O., in 1879. Dr. J. M. Wheaton (Bull. Nutt. Orn. Club, 1879, p. 62) gives the following account of the occurrence of the species in Ohio: "On the 18th of June last, Mr. Charles Hinman killed one of these birds out of a flock of eight or ten which visited the coniferous trees in his garden in this city (Columbus). The specimen, which came into my possession by the kindness of Mr. Oliver Davie, was a male, not in full plumage. I have since learned that the Red Crossbill has remained during the season in the vicinity of Cleveland in considerable numbers, and is reported to have nested there." In commenting on this note (Ohio Geol. Survey, Vol. IV., Zoology and Botany, p. 317), Dr. Wheaton says: "I was unable to learn whether its nest had been actually discovered," and adds: "It has been known to nest in Indiana within a few years." I regret very much that I have been unable to get any clue whatever to the authority upon which this statement is made. Prof. A. J. Cook in writing of the Birds of Michigan says of the American Crossbill: "Occasional in summer. Dr. H. A. Atkins took nests of this species at Locke, July 13, 1880." It had previously been reported as breeding in Minnesota. In July and August, 1880, they were noted at Rugby, Tenn. (The Oologist, Vol. V., pp. 78-9; Bull. Nutt. Orn. Club, Vol. VI., pp. 56-7.) Dr. C. Hart Merriam notes it as an "abundant resident" in the Adirondack region. He says it is "rather scarce and irregular in summer, but the commonest bird in winter and early spring. Breeds in February and March while the snow is still four or five feet deep on the level and the temperature below zero (Fahr.). Have taken full fledged young in April." (Bull. Nutt. Orn. Club, Vol. VI., p. 229.)

Mr. C. W. Beckham (Birds of Nelson County, Kentucky: Ky. Geol. Surv., p. 24), says: "A flock of six or eight of these birds appeared here on November 18, 1882 on some pine trees, the first time I had ever observed them. They remained only a day or two, and none were seen until the 17th of March following, when I shot eight out of a flock of about twenty,

in the same place where they had previously been seen. Several flocks were observed about the same time near Bloomfield and Glenville in this county, and excited considerable comment on account of their queer bills. The weather at the time was quite mild, so that their appearance here was probably due to some other cause."

The winter of 1882-3 they were unusually abundant in many localities between the great lakes and the Ohio river. Prof. B. W. Evermann first observed them at Bloomington, Indiana, February 10, 1893. This was the second record for the state. For some time after they were common in Monroe county. March 15, 1883, Mr. E. R. Quick reported having seen a single specimen near Brookville, Indiana. April 2, my attention was attracted to a peculiar crackling sound which came from among the pine trees in my yard at Brookville. Close investigation revealed the fact that the cause was a lot of Crossbills. They were shelling the seeds out of the pine cones and the breaking of the cone scales made the sound which attracted my attention. I observed others were upon the ground feeding upon the seeds of the fallen cones. April 3 I saw six more in my yard. April 4 I saw one in a flock of Pine Finches. April 5 Mr. Quick noted one. Of those observed but one was in the red plumage. Prof. B. W. Evermann saw a few at Delphi, Carroll County, Indiana, the middle of March, 1883. At the same place about twelve were seen December 26, 1884. Mr. J. W. Byrkit informs me that they were very abundant at Michigan City, Ind., in the winter of 1883-4. Miss H. E. Colfax, in her report of the bird noted at the light house, at the same place, gives it January 16, 1884. In the winter of 1883-4 Prof. Evermann reported them very common in Monroe County, Ind. The *Ornithologist and Oologist*, Vol. VIII., p. 68, contains an account by A. H. Helme of their breeding April 10, 1883, near Miller's Point, L. I. Mr. Robert Ridgway (*The Auk*, Vol. I., p. 292), notes the probable breeding of the Red Crossbill in central Maryland in May, 1884. Mr. F. C. Brown reported their breeding in Eastern Massachusetts in the summer of 1884 (*The Auk*, Vol. II., p. 105). In the winter of 1884-5 they were tolerably common in Monroe county, Ind. (W. S. Blatchley, *Hoosier Naturalist*, 1886, p. 170). The late Mr. C. H. Bollman noted them "quite common," in the same county through March, April and early May 1885. He saw them first March 2, and last observed them May 12. Mr. J. W. Byrkit informed me that he saw the first Crossbills for the year March 24, 1885. He adds: "I am not quite positive but think the Crossbill breeds here (Michigan City), as they make their appearance about this

time and leave for the north about the middle of May." Mr. Charles Dury informed me they were abundant at Michigan City, Ind., one winter, which he thinks was 1885. He also reported Pine Finches and Redpolls from the same locality the same year. Prof. B. W. Evermann reported it from Carroll County, Ind., March 27, 1885. I am indebted to Mr. E. M. Kindle for the information that Mr. Sam Hunter reported a pair of American Crossbills to have bred at Bloomington, Ind. in 1885. Mr. Hunter informed him they nested in a pine tree and that the nest was made exclusively of pine burrs. Mr. R. R. Moffitt informs me that Red Crossbills were taken in Tippecanoe County, Ind., in 1885. He says they nested there. Prof. B. W. Evermann noted them at Camden, Ind., March 27 and April 13, 1885, also a large flock at Burlington, Ind., April 23, 1885.

Mr. Wm. Brester reported its occurrence in the mountains of Western North Carolina in the summer of 1885 (*The Auk*, Vol. III., p. 107) and says: "Seen only on the Black Mountains where it was numerous in small flocks throughout the balsam forests above 5,000 feet. At Highlands I was told that it regularly appeared in winter about the outskirts of the town." Mr. Charles W. Richmond (*The Auk*, Vol. V., p. 22), gives upon the authority of Mr. Hugh M. Smith, the information that an adult male American Crossbill, accompanied by a young bird, was seen May 17, 1885, within the District of Columbia. Prof. L. L. Dyche reports the occurrence, in the winter of 1885-6 of the Western Red Crossbill, *Loxia curvirostra stricklandi*, at Lawrence, Emporia, Manhattan and Wakarusa, Kan. They were first observed November 1, 1885, and were last seen January 26, 1886 (*The Auk*, Vol. III., pp. 258-261). The following winter I was fortunate in securing, through the kindness of Mr. A. O. Garrett, a series of specimens of *Loxia curvirostra minor* from Lawrence, Kan. March 13 and 14, 1887, he obtained four which he sent me, and later he sent me nine others which were taken March 24 and 25. The meeting of the range of these two forms is of considerable interest. Prof. B. W. Evermann reports a crossbill, species not determined, from Bloomington, Ind., February 23, 1886, and another March 8, 1886. The same authority states the late Mr. C. H. Bollman found a few specimens of the Red Crossbill near Bloomington, Ind., July 10, 13 and 14, 1886. Mr. Arthur P. Chadbourn says, in the summer of 1886 it was found in the White Mountains, N. H. (*The Auk*, Vol. IV., p. 105). Mr. George B. Sennett, in the same volume, p. 242, gives an account of finding this species in

the mountains on the borders of North Carolina and Tennessee in July and August 1886. Mr. Arthur T. Wayne, in the same volume, pp. 287-289, notes their abundance near Yemassee, S. C., in November and December, 1886, and in January and February, 1887. He noted them again in the same vicinity November 20, 1887 (*The Auk.*, Vol. V., p. 115), also during January, 1888 (*Ibid.*, p. 208). Mr. Frank M. Chapman also reports them from Aiken, S. C., November 12, 1887, (*Ibid.*, p. 324). Mr. G. G. Williamson observed them in Monroe County, Ind., January 18 and February 6, 1886. Mr. J. G. Parker reports them from Lake County, Ind., in May, 1887. In the fall of 1887, I again observed them at Brookville, Ind. They came to feed among the pines in my yard. October 29 several were seen and they last appeared November 19. Prof. Walter Faxon and Dr. J. A. Allen give it as common in the White Mountains, N. H., in July 1874, June 1885 and June 1886 (*The Auk.*, Vol. V., p. 152.) Dr. J. A. Allen on the next page of the same number of "*The Auk.*" speaks of a pair of American Crossbills taken at Mandeville, La., March 27, 1888. Prof. B. W. Evermann found them in Vigo County, Indiana in the spring of 1888. They were first seen February 6 and disappeared May 6. Mr. J. O. Snyder found them at Waterloo, Ind., March 13 and 17, 1888. Mr. H. N. McCoy informs me they were quite common in Wayne county, Ind., in the early part of 1888. They were last seen April 5. Mr. G. G. Williamson saw six or eight individuals near Muncie, Ind., April 17, 1888. May 4 he saw three others. Mr. Otho C. Poling notes their occurrence in Adams county, Ill. He gives no account of their occurrence in summer (*The Auk.*, Vol. VII., p. 239). Mr. John A. Balmer, informs me these Crossbills were found in the vicinity of Vincennes, Ind. in the winter of 1888-9. Mr. J. F. Clearwaters told me of the capture of two of these birds in Putnam county, Ind., in the winter of 1888. A flock of American Crossbills was seen by Mr. J. O. Snyder at Waterloo, Ind., April 27, 1889. Mr. Stewart E. White informs me he found them common on Mackinack Island, Mich., August 3 to August 9, 1889. Mr. H. W. McBride wrote me of taking three specimens at Waterloo, Ind., April 2, 1890. February 14, 1891, Mr. Stewart E. White saw six at Grand Rapids, Mich. He next noted the species March 16. He says it is quite rare in that vicinity. Mr. J. F. Clearwaters gave me the following account of their occurrence in Putnam county, Ind.: "On July 27, 1891, Jesse Earll was down beside the old mill pond, where we collect all our water birds, and noticed five birds on the ground, apparently probing in the mud with their bills. As they

rose he shot one which proved to be a male Red Crossbill in breeding plumage. He preserved the skin and still has it. The others were females or young, as he says none of them had any red on them."

Mr. Jonathan Dwight reported the American Crossbill on North Mountain, Penn., in June, 1891. (The Auk, Vol. IX., p. 137.) Dr. B. H. Warren, in his admirable "Report on the Birds of Pennsylvania," p. 228, gives it as breeding in the counties of Clinton, Clearfield, Luzerne, Lycoming and Cameron in that state.

March 1, 1892, Messrs. A. B. Ulrey and E. M. Kindle report seeing six in Monroe county, Ind. Mr. G. G. Williamson noted six near Muncie, Ind., April 16, 1892, and another April 24. Messrs. Charles D. and Lewis A. Test have kindly sent me the following interesting notes from the observations of the spring of 1892. The notes were taken near Lafayette, Ind. March 8, 1892, they saw the first American Crossbill. They were seen on the following succeeding dates: March 11; April 15, 19, 23 and 30; May 1, 3, 6, 8, 18, 20, 21, 27 and 30; June 2, 6, 22, 23, 27 and 30. The birds were seen in pine trees and also in yards and along the road. Search was made for nests but none were found. I am indebted to Mr. Otto Widmann for some valuable notes relating to the American Crossbill in Missouri last winter and spring and summer (1891-2). He says: "I never suspected these cone loving nomads to descend into a country so flat and uninteresting as St. Louis county, Mo., where nature never rears a cone without the help of the gardener. Thousands of young evergreens, especially Norway Spruces, have been planted during the past decade, but old cone-bearing conifers are few and far between. There are on my place, besides a few Norway Spruces, eighteen pine trees about thirty years old. Half of them are Austrian pines, the rest White and Scotch pines. Coniferous trees do not bear fruit every year, but last winter the Austrian pines were full of cones, getting ready to drop the seeds in early spring. Besides the maturing pine seeds our section had another attraction for erratic fruit eaters in the orchards. The apple trees had yielded an enormous crop and the demand not being sufficiently great to gather them in time, thousands of apples were still hanging in the trees when the Crossbills appeared on the scene. It was in the orchard that they made their appearance on November 13—the day after the first 'blizzard' had visited the upper Missouri valley. From this day on, the Crossbills remained in the neighborhood until the end of the month but none were here in December and January—at least I did not notice any until they began to

visit my pine trees in February. They were daily visitors all through March and until the 17th of April. From that day until May 8th none were seen, but from the 8th to the 14th they were again daily callers. After this date they were noticed twice; a party of six on June 5th, and two birds a male and female, in one of my pines on July 21st. I looked for their nest in the tree but, unfortunately it was not there! I think now that I have met with the species on several occasions in former years but did not know them. Frequenters of private gardens they were only seen when on wing or distant tree tops, and evaded identification. With us it is a shy and restless bird, easily alarmed and flying a great distance. Before taking wing and while in the air they are quite noisy with a note closely resembling the parent call of *Progne*; but when feeding in a pine tree the whole troop keeps perfectly silent, and nothing is heard but the noise made by breaking the cone scales. When present in May they are also feeding in elms." Mr. W. S. Blatchley gives me the following notes: "While sitting on the porch of a farm house in Putnam county, Indiana, July 11, 1892, I saw a single Crossbill, *Loxia curvirostra minor*, alight in the top of a pine tree in the yard and begin searching the cones for seeds. I watched it for almost ten minutes and then, that there might be no possibility of mistake in the identification, procured a gun and shot it. It proved to be a young male. On July 15 another young male, *i. e.* a male presumably of the previous year's hatching, was secured from the same tree and kept in confinement for several days, but was finally allowed its liberty."

The American Crossbills have, as has been shown, been noted within the region between the great lakes and the Ohio river in the following winters: 1868-9; 1869-70; 1874-5; 1882-3; 1883-4; 1884-5; 1885-6; 1887-8; 1888-9; 1889-90; 1890-91; 1891-2. From 1882 to 1892 they were only absent one year; 1886-7. In the winters of 1882-3, 1884-5, 1887-8 the area of dispersal was wide and the birds seem to have been generally distributed. Other years as 1868-9, 1869-70, 1883-4, they appeared, or at least were observed, in but few localities but where noted they were abundant.

The results of the inquiries concerning its summer range, particularly with relation to the Ohio valley and the territory adjacent thereto, have been wholly unexpected. Summing up the occurrence in summer and the evidence of its breeding in the region last referred to we note as follows: In the summer of 1869 they were abundant in the vicinity of

Chicago, both in Illinois and Indiana. In the summer of 1878 they were found at Columbus, O., and abundantly at Cleveland, where it was reported to have bred. Dr. Wheaton refers to their having nested in Indiana as a fact well known to him. Dr. H. A. Atkins is said to have taken nests of this species near Locke, Michigan, in 1880. The spring of 1885 they were common at Michigan City, Ind., and Mr. Byrkit thought they might have nested. In the summer of 1885 they were reported to have nested in Tippecanoe county, Ind. The same summer they are reported to have nested at Bloomington, Ind. They were reported from Monroe county, Ind., three different dates in July 1886. They were reported from Putnam county, Ind., in the summers of 1891 and 1892. They remained throughout a part of the summer of 1892 at Lafayette, Ind. They remained even later at Old Orchard, Mo., in 1892.

These notes but serve to bring more clearly to mind the peculiar, erratic character of the bird, of which we have known, to some degree, before. The notes would also seem to indicate that much of our lack of data is due to the scarcity of observers in years past. A few years ago the collection of data regarding almost any species of bird from Indiana, or almost any other state, would have been impossible. It is not improbable, could we begin with the abundance of Crossbills at Cincinnati in 1868-9, with a number of intelligent observers equal to that available now, we could have a collection of observations covering its whole range between the Ohio river and the lakes and perhaps including its movements for almost every year. Those blank years do not necessarily signify that it was wanting in the territory studied, but that for some one of a great many reasons, it was not observed. The erratic distribution of the species applies as well to its summer range as to that in winter. It seems very probable that the species breeds to some extent throughout the Ohio Valley. It is true that no specimens representing either the nest or eggs have been, so far as I know, preserved. Yet the evidence presented indicates that the breeding range of the species in the United States is not confined to the coniferous forests of the mountain ranges.

*Loxia leucoptera*, WHITE-WINGED CROSSBILL. This species is not met with in the Ohio valley so often as the last mentioned form. Its range lies farther to the northward. Its distribution within the United States, both in winter and summer, is much less extensive than is that of the American Crossbill. Audubon mentions its breeding in Pennsylvania in summer, but this is probably an exceptional case. Dr. J. M. Wheaton gave



it in his catalogue of Birds of Ohio, in 1861. Mr. Charles Dury found them abundant in the vicinity of Cincinnati, O., in the winter of 1868-9, in company with the last mentioned species. He says, "they were in large flocks containing both species in the proportion of two of the former to one of the latter" (the present) "species." Mr. C. E. Aiken informs me that this species was in company with the American Crossbill when they were so common in the vicinity of Chicago in the summer of 1869. He also noted them in Lake county, Ind., the latter part of August of that year. He says they displayed the same habits as the preceding species. His recollection is that the White winged form was less abundant, a little later in their arrival, and more wary. They remained through the winter. Prof. A. J. Cook informs me that one was killed by Dr. H. A. Atkins, at Locke, Mich., Aug. 9, 1875. A pair of White-winged Crossbills were taken at Fort Wayne, Ind., about 1878. The female is now in the collection of Mr. C. A. Stockbridge of that city. Mr. W. L. Scott notes the occurrence of a flock of White-winged Crossbills near Ottawa, Canada, towards the latter part of June 1882 (*The Auk*, Vol. I., p. 159). Mr. Fletcher M. Noe notes the occurrence of this species near Indianapolis, Ind., in the early part of 1883. February 6, 1883. Prof. B. W. Evermann shot two males from a flock of fifteen of these birds in a yard at Bloomington, Ind. February 10 he secured a female, and a few days later, two other specimens near the same place. Miss H. E. Colfax reports it from Michigan City, Ind., June 26, 1884. Mr. J. W. Byrkit found both species together in large flocks near Michigan City, Ind., the winter of 1883-4. Mr. Charles Dury reports it from Michigan City, Ind., he thinks in 1885. Faxon and Allen report seeing a few in the White Mountains, N. H., June 1886. (*The Auk*, Vol. V., p. 152.) Hon. R. Wes McBride has noted it as a winter visitor in DeKalb county, Ind. Dr. C. Hart Merriam gives it as a resident in the Adirondack region but adds, comparing it with the American Crossbill, "not nearly so common as the last." (*Bull. Nutt. Orn. Club*, Vol. VI., p. 229). Prof. B. W. Evermann informs me that he saw one in his brother's yard at Burlington, Ind. He says, "after watching it for a while I struck it with a stick, killing it." March 16 he saw another specimen of this species at Camden, Ind.

The only instance I know of its occurring in the Ohio valley in summer is that given by the late Mr. C. H. Bollman. He wrote me that he saw eleven on a fir tree in Bloomington, Ind., June 24th, 1886. A few days later he several times noted specimens of the other species.

Everywhere in the Ohio valley this species seems to be quite rare and exceedingly irregular in its occurrence. Mr. E. W. Nelson and Mr. Otto Poling note it as much less common in Illinois than formerly. With the exception of the winter of 1868-9 and the succeeding summer I do not know of its having appeared in any considerable numbers in any of the tier of states just north of the Ohio river.

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NOTICE OF A TERRAPIN TO BE RESTORED TO THE FAUNA OF INDIANA. By O. P. HAY.

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A MIGRATION OF BIRDS AND ONE OF INSECTS. By T. B. REDDING.

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THE SOUTH AMERICAN CAT FISHES BELONGING TO CORNELL UNIVERSITY. By E. M. KINDLE.

[ABSTRACT.]

Some years ago, the late Charles Frederick Hartt made a collection of fishes in South America, which he gave to Cornell University. This collection had never been studied until last spring, when it was sent to Dr. Eigenmann. The cat fishes in it were turned over to me to identify. In the identification of these I have used Dr. and Mrs. Eigenmann's "Revision of the South American Nematognathi." I have also had the use of Dr. Eigenmann's private library, which contains nearly all of the published literature on South American fishes. In the identification of doubtful species I have had the assistance of Dr. Eigenmann.

The collection contains nineteen genera and twenty-seven species, distributed among the three families, Loricariidæ, Siluridæ, and Callichthyidæ, and their sub-families.

Two new species have been found in the collection. One of these belongs to the genus *Hassar*. The name *wilderi* is proposed for it in honor of Prof. Wilder, of Cornell University. It is represented by four specimens from the Tocotins river. The other new species belongs to the genus *Hemiancistrus*, all of whose species are apparently rare. It has been named *longipinnis* in reference to the long dorsal.