

Newton's rings effects which are produced where spherical pigment granules come in contact with the outer transparent layer. The pigment also has the very important function of absorbing light not reflected to the eye as metallic color. The colors seen without a microscope are mixtures of colors from innumerable small points.' L. J.

Birds from Benguet Province, Luzon, and from the Islands of Lubang, Mindoro, Cuyo, and Cagayancillo. By Richard McGregor. Bulletin of the Philippine Museum, No. 3, January 30, 1904.

This number of the Philippine Museum Bulletin is devoted to Zoographical Notes for Lubang, Mindoro, Verde, Cuyo, Agutaya, Cagayancillo, and Benguet Province, Luzon, to Undescribed Plumages and Notes on the Rarer Species, to New Localities for Known Species, and to a list of Species from Irisan, Benguet Province, Luzon. L. J.

Birds of Alleghany and Garrett Counties, Western Maryland. By G. Eifrig. From *The Auk*, Vol. XXI, No. 2, April, 1904.

The author prefaces the list proper with a brief but lucid discussion of the physical features of the region and the intricate life zones as illustrated by birds, mammals, and plants. The list contains mention of 180 species, with brief annotations. We welcome it as a thoroughly reliable local faunal list. L. J.

Wisconsin Arbor and Bird Day Annual, 1904. Compiled by Maud Barnett. Issued by C. P. Cary, State Superintendent.

This hundred page magazine is prepared with special reference to the school children, with pictures, sketches of birds and trees, selections of poetry, and articles written expressly for this Annual, or selected for their fitness. A number of full page photographs of trees from nature by A. W. Mumford, of Chicago, add to the attractiveness of the pages. The compiler has done a good work which will certainly stimulate nature study among the children for whom it was intended. L. J.

Discovery of the Breeding Area of Kirtland's Warbler. By Norman A. Wood. From *Bull. Mich. Ornith. Club*, Vol. V, pp. 3-13, March, 1904.

This interesting account of the uncovering of the last warbler mystery is accompanied by four half-tones of nests and typical conditions of breeding, and a half-tone of the only egg found. Mr. Wood has here given us really more information about this rare bird, whose nesting was unknown until he discovered it, than we have of several other warblers. He has also given us careful and numerous illustrations of the song as heard in the breeding grounds. It is interesting to notice that none of the songs which he has transcribed for us resemble that which the writer listened to for a full half hour in Oberlin (see *Wilson Bulletin*, No. 32, page 2, July, 1900.) We can only hope that collectors will respect the rights of these birds to life, liberty and the pursuit of

happiness instead of rushing in and causing their extermination.

L. J.

The Migration Route of Kirtland's Warbler. By Chas. C. Adams
Bull Mich. Ornith. Club; Vol. V, pp. 14-21, March, 1904.

This second contribution to the life history of *kirtlandi*, an attempt to determine its route of travel from the Bermudas, its winter home, to its known breeding range in Michigan, is well timed. It is accompanied by a like study of the migration route of the Prothonotary Warbler, both being illustrated by maps. This discussion is necessarily limited to the known occurrences of the bird, and from the data at hand its route of migration seems to be from its winter home westward to the Mississippi river, thence north to the mouth of the Ohio, one branch continuing up the Mississippi to St. Paul, on its course giving off branches at the Illinois river, the birds reaching southern Michigan by skirting the southern end of Lake Michigan, and another branch entering northern Illinois. The Ohio offshoot again divides, one course being up the Ohio to Cincinnati, the other up the Wabash to northern Indiana and northern Ohio and eastern Michigan, there following the course of Lake Huron to Mackinac. The course thus pursued almost exactly corresponds to the post-glacial drainage of the regions covered. No doubt the birds pass further up the Ohio and finally cross to Lake Erie by one of the main tributaries, possibly the Muskingum or Scioto. Now that this bird has been brought so prominently before us there should be additional records of migrating birds.

L. J.

Unpublished Letters of John James Audubon and Spencer F. Baird. By Ruthven Deane. From "The Auk," Vol. XXI, No. 2, April, 1904.

This paper consists of a letter from Baird to Audubon, and Audubon's reply, concerning Audubon's proposed western trip, and a recommendation of Baird to a position in the "National Institute," by Audubon. These letters give us a hint of the esteem in which Audubon, then sixty-two years old, held Baird, then but nineteen. L. J.

Warbler Songs and Notes. By G. Eifrig. Reprinted from the Ottawa Naturalist, Vol. XVIII, 1904.

This paper is given to brief descriptions of the songs of 22 of the warblers which visit the region of Ottawa. L. J.

Amateur Sportsman, The Vol. XXX, Nos. 5, 6, Vol. XXXI, Nos. 1, 2
American Ornithology, Vol. IV, Nos. 4, 5.

Atlantic Slope Naturalist, The, Vol. I, No. 6.

Bird-Lore, Vol. VI, No. 3.

Condor, The, Vol. VI, Nos 2, 3.

Journal of the Maine Ornithological Society, The, Vol. VI, No. 2.

Maine Sportsman, The, Vol. 11, Nos. 127, 128, 129.

Monthly Bulletin, The, of the Division of Zoology, Pa. State Dept.

Agri., Vol. I, Nos. 4. 11-12, Vol II, No. 1.

Naturaliste Canadien, Le, Vol. XXXI, Nos. 2, 3.

Ohio Naturalist, The, Vol. IV, Nos. 5, 6, 7.