protection of wild life for its economic value to our trees, flowers and crops — and necessarily to man himself.

This report should be read through by every one interested in wild bird life and every reader will we feel sure join with us in congratulating the National Association and its officers upon the completion of a most successful year's work.— W. S.

Lloyd-Jones on Feather Pigments.[1]— This investigation while carried on primarily in connection with the study of color-inheritance in Pigeons, has an important bearing upon the general subject of coloration in birds. The author finds that there are only two pigments in domestic Pigeons, a red-brown, which produces the red and yellow colors, and a black, which under different conditions produces black, dun, blue and silver. In typical "red" birds the pigment granules are about 0.3 m. in diameter; in 'plum colored' individuals they are 2.0 m. or more, while in yellows they are so minute that their granular structure cannot be determined. Blue as in all birds is a structural color but just what physical peculiarities of the feather produce it has not yet been determined. An interesting point in the author's paper is that he finds that the black pigment may exist either in spheres or in rods so that genetically speaking we may have two different blacks which to the eye appear absolutely identical. Mr. Lloyd-Jones is to be congratulated upon a piece of careful work in a field which offers opportunities for many important investigations.— W. S.

Grinnell on Distributional Control.[2]— Dr. Grinnell's object in this interesting paper is to demonstrate that data secured through field observation can be so employed as to bring results essentially similar to, and just as conclusive as, those secured through laboratory experimentation, in determining the factors which govern the delimitation of animal habitats.

The cases of several species of bird and mammals are considered in detail and the possible effect of various environmental factors is carefully weighed.

Dr. Grinnell finds that in the majority of cases which he has studied, temperature looms up as the most frequent delimiter of distribution, but he argues that this fact is in no way antagonistic to the claim that other factors such as humidity, food-supply and shelter also figure critically. The paper is suggestive and gives one a deeper insight into the complications of a problem that we are perhaps too much inclined to regard as entirely solved.— W. S.

Recent Publications of the U. S. Biological Survey.— Three bulletins have recently been issued by the U. S. Biological Survey. One of

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[1] A Microscopical and Chemical Study of Feather Pigments. By Orren Lloyd-Jones. Jour. Exper. Zoöl., Vol. 18, No. 3, April, 1915, pp. 453–495, pll. 1–7.

[2] Field Tests of Theories Concerning Distributional Control. By Joseph Grinnell. American Naturalist, LI, pp. 115–128, February, 1917.