

*Visitor's Guide to the Local Collection of Birds in the Museum of Natural History, New York City.* By FRANK M. CHAPMAN. 1894. 8°, pp. 100. 15 cents.

One of the best and most attractive local bird lists that has ever appeared in America has been recently issued from the American Museum of Natural History, New York. While it bears the misleading title *Visitor's Guide*, only a glance is necessary to see that it is much more. It is in reality a compact treatise on the birds known to occur within 50 miles of the great metropolis.

The author, Mr. Frank M. Chapman, prefaces the list proper by 12 pages of interesting and important matter respecting the physical and faunal aspects of the region, and the birds that are found there at different seasons. The area covered by the list is unusually rich in birds, no less than 348 species being recorded as occurring within its limits. This richness, as stated by Mr. Chapman, is due in part to the circumstance that two faunas—the *Alleghanian* (or eastern division of the Transition Zone) and *Carolinian* (or eastern division of the Upper Austral Zone) meet within its boundaries, and in part to the natural advantages of the region. "Our sea-coast, with its sandy beaches and shallow bays; our rivers, creeks and ponds, with their surrounding grassy marshes; our wooded hillsides and valleys; our rolling uplands and fertile meadows, offer haunts suited to the wants of most birds. Again, our coast-line and the Hudson River Valley form natural highways of migration regularly followed by birds in their journeys to and from their summer homes."

The paper is a model of its kind and should be in the hands of all interested in the birds of New York and vicinity. It is bountifully illustrated by cuts of birds borrowed from Coues' *'Key,'* to which are added several full-page plates of groups in the American Museum.

C. HART MERRIAM.

*Outline of Dairy Bacteriology.* By H. L. RUSSELL, University of Wisconsin. Published in Madison, Wisconsin, 1894. Pp. vi+186.

There is no better indication of the rather remarkable advance that has been made in recent years in bacteriological matters not connected with diseases than the publication of a text-book upon dairy bacteriology. That there should be demanded for classes in dairy schools a text-book describing the various phenomena connected with bacteria in their relation to dairy matters is rather surprising when we consider the fact that dairy bacteriology itself is the result of experiments of the last very few years. Prof. Russell has attempted in this little book of about 180 pages to give an outline of the present knowledge of the relation of bacteria to milk and all its products. The book is designed originally for his classes in a dairy school, and is, as its title indicates, only an outline, not involving any critical scientific discussions. As an outline, however, it is quite complete and the treatment is satisfactory. The book will be of use not only in dairy schools, but to all who are interested in matters connected with milk or butter supply. It will also be found useful to nurses and physicians who desire a knowledge of some of the recent discussions in connection with milk bacteriology and its relations to diseases.

H. W. C.

*The nature and distribution of attraction-spheres and centrosomes in vegetable cells.*—JOHN H. SCHAFFNER. Bot. Gaz. Nov. 1894.

The author studied centrosomes found in root tips of *Allium cepa* L., *Vicia faba* L., *Tradescantia rosea* L., also in the resting cells of the epidermis of *Allium cepa* bulb scales and in the walls of *Lilium longiflorum* ovaries. The usual methods for preparing and staining the material were adopted. In addition the author used a stain suggested by