

thereon as *bayleyi*. Similarly *Reithrodontomys lacei* is spelled *lacyi*.

In dividing the work into parts it is a pity the publishers did not end the second part with the Carnivora instead of including the first 63 pages of the Rodentia. In binding by orders—the most convenient form for most uses—the volume on the Rodentia will have no title-page in front, but has one for the matter posterior to the 63d page, where the 3d fasciculus begins (page 453 of the whole Catalogue).

The reviewer is indebted to Dr. T. S. Palmer for calling his attention to a number of the errors in generic names and dates.

In two instances Trouessart imposes new names on forms distinguished but not named by previous authors, and in both instances modestly but wrongly credits the name to the previous author instead of himself. The cases in point are *Vespertilio gryphus septentrionalis*, attributed to Harrison Allen, and [*Mus*] *sylvaticus* var. *noveboracensis*, attributed to Erxleben, and placed as a synonym of *Peromyscus leucopus*.

The three parts now published comprise the Primates, Chiroptera, Insectivora, Carnivora and Rodentia and contain 760 genera and 4,085 species. Of these, 288 genera and 1,900 species are included in the single order Rodentia.

The Catalogue, in spite of its inherent imperfections, is an extremely useful document and must be at the elbow of every student of mammals.

C. HART MERRIAM.

Guide to the genera and classification of the North American Orthoptera found north of Mexico. By SAMUEL HUBBARD SCUDDER. Cambridge, Mass., Edward W. Wheeler. 1897. Pp. 89. Price, \$1.00.

Dr. Scudder began his entomological studies with the Orthoptera, and is still at work elaborating the sub-families, genera and species with reference to a general work on the classification of the order. The little book before us is designed to serve as a Prodomus of the work, which we hope may be completed at a no distant day. As such it will be of great service to the student, since the families, sub-families and genera are tersely and yet fully described. Besides these diagnoses there are

elaborate tables for the determination of the families, sub-families and genera; the species not being mentioned.

In addition to the general bibliographical notes, those devoted to the families and the list of the literature are full and presumably exhaustive. The index appears also to be complete. The paper and printing are unexceptional.

It will be seen that the book will be indispensable to the student, as there is nothing like it in our entomological literature. That it has been prepared with thoroughness and care goes without saying. When will the time come when we shall have similar exhaustive manuals of the other orders of insects.

A. S. PACKARD.

Les Ballons-Sondes de MM. Hermite et Besançon et les Ascensions Internationales. Par WILFRID DE FONVIELLE. Bibliothèque des Actualités Scientifiques. Paris, Gauthier-Villars. 1898. 18mo. Pp. 112. Figs. 27.

This brochure by my colleague, the Secretary of the Aëronautical Commission, is timely, since it is the first complete account of an important investigation in Europe. M. de Fonvielle is well fitted to write on the subject, for he is not only a distinguished aëronaut and the author of several books on ballooning, but since their inception he has been an advocate of 'ballons-sondes,' or 'ballons perdus,' as formerly they were derisively named.

When one of these exploring balloons, set free by MM. Hermite and Besançon, in November, 1892, lost its buoyancy and fell to the earth there was obtained for the first time, from its minimum barometer and thermometer, the greatest height and the lowest temperature which had been reached. Fourteen of these small balloons having envelopes, generally of paper, filled with illuminating gas were liberated from Paris and most of them were recovered with their instruments recording the extremes of height and cold. MM. Hermite and Besançon, therefore, were encouraged to continue the exploration of the upper air with larger balloons made of goldbeaters' skin or of special silk, which they called *Aërophiles*. These carried continuously recording barom-