

assistant of the Academy, collected about 2000 water birds from the ocean in the vicinity of Point Pinos. The bird collection now occupies forty-five large zinc cases, and numbers over 11100 specimens, the result of exploration and the generous gifts of kind friends.

With the work on the ten-story Class A income building on Market Street well under way, with funds in hand and plans and specifications prepared for an attractive temporary museum building to be erected in Golden Gate Park, with substantial foundations laid for a large natural history library and great research collections, the prospects of the Academy seem brighter than at any time in its history.—*Edward Winslow Gifford.*

ANNUAL MEETING OF THE COLORADO BIOLOGICAL SOCIETY

The members and friends of the Colorado Biological Society listened to a very interesting program, at the Annual Meeting of the Society which was held Wednesday evening, January 8, 1907, in the rooms of the Colorado Scientific Society, Chamber of Commerce Building, Denver.

The first address of the evening was given by Mr. L. J. Hersey, the prominent naturalist and sportsman, his subject being "Birds". His talk which covered the structure, habits, classification and distribution of bird-life was illustrated by many stereopticon views of birds and their nests and eggs.

The second address of the evening was given by Prof. C. P. Gillette of the State Agricultural College of Fort Collins. Prof. Gillette who is the leading entomologist of the state chose for his subject "Plant Lice", and the narration of the life history, food habits, peculiarities and economic features of these tiny creatures proved intensely interesting.

At the conclusion of the program an hour was devoted to informal discussions after which the meeting adjourned.—R. B. R.

EDITORIAL NOTES

The "Report of the Chief of the Biological Survey for 1907", by Dr. C. Hart Merriam, deserves the careful attention of every American citizen. The practical work of the Bureau extends to matters intimately associated with the interests of the farmer, fruit grower, stock raiser, and sportsman, and thus merits unstinted support from the utilitarian standpoint alone. And when it comes to pure science we recognize in the Survey a contributor of the larger share of our knowledge of North American zoogeography. Let us help, thru our influence with National legislators, to not only continue but augment the work of the Bureau, along the lines outlined by its chief in his Recommendations for 1909.

The Cooper Club again participates in a distinction won by one of its active members. The only election to Fellowship in the American Ornithologists' Union during 1907 was that

of Richard C. McGregor, who has been pegging away steadily at Philippine ornithology for the past five years. The honor was merited, and in behalf of the Club we extend to him our congratulations.

Miss Bertha Chapman, who has been in charge of the nature study department in the Oakland city schools for the past seven years, has received an appointment as instructor in the University of Chicago.

The "First Annual Report" of the California Audubon Society, recently issued, shows that organization to have a decidedly thrifty start. It has already done considerable work along the lines of bird protection, and a campaign is being outlined by its energetic secretary, Mr. W. Scott Way, which is sure to accomplish much further good. The movement is of a nature to elicit a very large popular support, and, as far as direct human agencies are concerned, bird-life will thru it become more and more immune from destruction. The general annihilation of the domestic cat will be about the most important achievement to work for.

Mr. Chas. A. Vogelsang, Chief Deputy of the California Fish Commission, has just returned from an extended trip in the East where much valuable data was gathered in regard to game protection and fish culture.

The plans of Mr. R. H. Beck for a 1908 expedition to the Galapagos Islands did not materialize. Instead, Mr. Beck is collecting along the coast of Lower California for the California Academy of Sciences.

Mr. Edmund Heller, assisted by Chas. H. Richardson, Jr., is engaged in field work in the vicinity of Salton, in the interests of Miss Annie M. Alexander.

Every student of California birds should send for Prof. Beal's report on the "Birds of California in Relation to the Fruit Industry", which can be had by application to the Biological Survey, Washington, D. C. While we cannot agree exactly with the conclusions in regard to some of the species dealt with (for instance, the Linnet), the data presented is of indisputable value and interest. Much biographical data is also incorporated, of interest to the general bird student.

PUBLICATIONS REVIEWED

A | MONOGRAPH | of the | PETRELS | (Order Tubinares) | By | F. DUCANE GODMAN | D. C. L. F. R. S. President of the British | Ornithologists' Union etc. etc | With Hand-coloured Plates | by J. G. Keulemans | In Five Parts | Part I. | Witherby & Co. | 326 High Holborn London | December 1907. Large 4to (10x13 in.), pp. 1-68, pll. 1-19 + 5a (=20).

In excellence of typography and in careful execution of the plates, as shown by Part I,

the above-titled brochure bids fair to pass the standard set by the various other English Monographs of recent years. All the known species of Petrels, Shearwaters and Albatrosses will be dealt with in the completed work, so that for this Order of birds it becomes our standard text. The first part treats of 24 species of the Genera *Procellaria*, *Halocyptena*, *Oceanodroma*, *Oceanites*, *Garrodia*, *Pelagodroma*, *Pealea*, and *Cymodroma*. Of these the Genus *Oceanodroma* is the only one represented on the western coast of North America north of the Mexican boundary, and, moreover, it is the largest Genus, containing no less than thirteen recognized species.

Leucorhoa, *beali*, *beldingi*, *keadingi*, *macro-dactyla*, *melania*, *homochroa*, *monorhis* (=the *socorroensis* of our lists), *hornbyi*, and *furcata* are the species of *Oceanodroma* accredited to the eastern north Pacific. *O. hornbyi* continues to be known only from the type specimen now in the British Museum, and "said to have been obtained in the seas off the north-western coast of America." Mr. Godman evidently resents the action of the A. O. U. Committee in placing the species on the Hypothetical List, "as if the correctness of the habitat were not credited." But he further says, "unfortunately, after the manner of the times, no original label was attached to the specimen." However, until the species is rediscovered, it seems to us the course of the A. O. U. Committee is best followed. The lately described *O. monorhis chapmani* as well as the older *O. socorroensis* are both considered by the author as identical with the *O. monorhis* of Swinhoe, described in 1867 from China, thus giving the species an extremely wide range. Mr. Godman seems to have taken great pains in working over the literature of the subject and presenting the reader with selected biographical and exact distributional data. The beautiful hand-colored plates are perhaps the most attractive feature of the work.—J. G.

GEOGRAPHIC VARIATION IN BIRDS, WITH ESPECIAL REFERENCE TO THE EFFECTS OF HUMIDITY by C. WILLIAM BEEBE, Curator of Birds, New York Zoological Park (*Zoologica*: N. Y. Zool. Soc., Vol. I, No. 1, September 25, 1907; 41 pages, 6 figures.)

Mr. Beebe first takes up the historical phase of the subject, giving quotations from many eminent biologists who have studied geographic variation. Several of these quoted statements are diametrically opposed to one another, and the reader is left with the impression that the subject is as yet largely theoretical. The consensus of opinion seems to be, however, that humidity does affect the color of animals, those in the more humid parts of the earth being as a rule darker than those in the arid regions. Many interesting examples of

the supposed effect of humidity on coloration are cited, and these bear out well the above statement.

Dichromatism is discussed in the second division of the paper. In several cases, for instance in *Gallinago gallinago* and *Chen hyperboreus*, the dark phase is shown to inhabit a restricted and humid locality, whereas the light phase is more migratory and is widely distributed. This is also the case with the Black Hawk, the dark phase of the Rough-legged Hawk; but when dichromatism in the Jaegers is taken into account, no geographical explanation is possible, since the "distinction depends neither on age, sex, or season," and light birds frequently mate with those in the dark phase. *Felis onca*, the South American jaguar, and *Felis pardus*, the leopard of Asia, present instances of dark individuals in the more humid portions of their respective countries; in the Mountain Sheep of the western United States black individuals are frequently seen, the moisture in this case could have nothing to do with it. In conclusion the author says that these points will be cleared up only by the study of ecological conditions surrounding the species in question, and by experimentation on individuals "with climatal factors modified."

More problems are presented by Part III, which considers the subject of sporadic melanism. Several examples are given and discussed.

Part IV and V deal with experiments carried on by Mr. Beebe himself. Three young Wood Thrushes, *Hylocichla mustelina*, were taken from a nest and brought up by hand. Two of the birds lived long enough for the completion of a satisfactory experiment. One was kept in an outdoor aviary where conditions were as nearly normal as possible, while the other was confined in a superhumid atmosphere. This bird had not quite completed its second annual molt when it died. It showed a very marked darkening of the breast and side feathers, with a "tendency toward albinism" in the primaries and rectrices, whereas the outdoor bird was to all appearances in perfectly normal plumage.

Two White-throated Sparrows were treated in a like manner. At the end of three years the plumage of the indoor bird was "melanistic to an extreme degree," while that of the other was normal.

Similar experiments carried on with *Scardafella inca*, the Inca Dove, are considered in Part V. At the outset the geographical modifications of the wild genus *Scardafella* as it is traced from Arizona and Texas south thru Mexico to Brazil are considered. When a typical *Scardafella inca* is confined six months before the annual postnuptial molt, and exam-