

rily proved to inhabit Cheshire during the present and last centuries. The common and scientific names of each species are given, and also the various local names in use. Many of the latter are very curious, and all are of interest. The status in the county of each species is given in brief, in a single sentence at the head of each one treated.

The classification and nomenclature adopted is that used in Saunders' "List of British Birds", 1907 edition, binomials being used except when a British race is distinguishable from Continental birds of the same species. "In these cases we have thought it advisable to adopt the trinomial system of nomenclature, which in addition to other advantages shows plainly the real affinities of the local races or sub-species." Why, after such a concession, it was not thought advisable to use the system uniformly thruout the work, it is hard to understand.

The manner of occurrence together with the life histories of the various species are treated at length while the food of some of the birds is discuss in detail. There are numerous excellent illustrations, mostly general views showing the habitats of various species of birds.—H. S. S.

A FEW NOTES ON THE HABITS, LIFE HISTORY AND ECONOMIC VALUE OF DOVES. The Raising of Young Waxwings, *Ampelis* [sic] *cedrorum*. By William H. Gates. Bulletin 14, Gulf Biologic Station, Cameron, La.; pp. 1-32; 1909.

In this paper Gates gives many interesting details of the life history of doves about Cameron, La. It is noteworthy that nesting begins no earlier there than it does much farther north, for instance in southern Indiana, that is, about April 1. The writer notes a high proportion of nests destroyed, namely 80 out of 111. The most important natural enemies are the black king snake and the brown rat.

Incubation consumes from 19 to 21 days. The first egg is hatcht from 24 to 36 hours before the second, resulting in a markt difference in the size of the young which is notisable up to the third week. Gates says: "The crop capacity of young doves is enormous; up to the time they are three or four weeks old it is possible for them to hold over one-half of their weight of food in the crop. It is likely that in the state of nature the young are not fed more than three times a day, generally but twice, and often not more than once, especially after the young get to be a week or so old and do not need to be brooded." "The average of 78 weighings taken before and after feeding showed an increase of 36 percent of their own weight. The maximum amount of food given, among those that were observed, was in the case of a squab that weighed 53 grams at 5 o'clock, before feeding, and at 6:15 swung the

balance at 88 grams, showing that 35 grams of food had been taken, or a crop capacity of over 66 percent of its own weight." It is not surprising therefore that the young birds gain weight very rapidly. "Birds kept in the house gained, respectively, from 31 and 34 grams to 65 and 67 grams during the third week, and up to 95.5 and 96 grams during the next."

"Doves raised by the writer have been found to eat between 75 percent and 120 percent of their own weight of food per day, from the time they are hatched up to the time they are three weeks old. From then on the amount lessens rapidly till they become adult, when they will eat but 7 percent to 10 percent of their own weight." The actual weight of food consumed during the first 3 weeks is from 8 to 28 grams per day, from the third week on from 10 to 18 grams. In the wild state doves probably consume from 15 to 20 percent of their own weight of food. On the basis of 15 percent "it would take 33 grams a day to maintain a pair of doves, which allowing an average of 30 grams a day for food fed to the young during six weeks of the summer, amounts to over 30 pounds a year; at which rate it would take but 66 pairs to consume a ton of feed a year."

Gates finds that only a small proportion of the food is grain and that wholly waste. Most of the subsistence is obtained from the seeds of weeds. He mentions the shooting of doves on account of the alleged scattering by them of the seeds of indigo weed, a pest in rice. The doves eat the seeds for the nourishment contained in them and it certainly is an unusual happening for one to pass thru the strong gizzard entire. This unjust persecution of the doves should stop.

The writer presents the first evidence we have seen that doves ever voluntarily take living insects; he says birds in captivity were seen eating ants. Notes are given also on the nesting and food habits, and the rearing of the young of the nonpareil, bluebird and cedar-bird.—W. L. M.

AN ORNITHOLOGICAL RECONNAISSANCE OF NORTHEASTERN VENEZUELA BY C. WILLIAM BEEBE (=Zoologica, vol. 1, no. 3, Dec., 1909, pp. 67-114, figs. 21-37). The main body of the paper is taken up with the list of birds observed, with more or less extensive annotations pertaining to the life histories, habits, color variations, etc. Parts one, two, and three are devoted to the itinerary and accounts of the character of the country explored, while part five is a general summing up of ecological conditions, together with a comparison of conditions in Venezuela and New York State.

Descriptions of nesting habits of many of the species are of interest, especially so from the standpoint of such considerations as those presented in the paper by Peck on the same sub-

ject in the last issue of THE CONDOR.—H. S. S.

A. H. CLARK ON BIRDS OF THE NORTH PACIFIC AND ADJACENT SHORES.²—As indicated in the full title of the paper given below, this is a list of species observed at very many widely distant points. The North American itinerary began with San Francisco, and included Puget Sound, Vancouver Island, Unalaska and certain of the Aleutian Islands to the westward of the latter point. The annotations are of a heterogeneous nature, and many of them could very well have been briefer. For instance, on pages 47 and 48, at least the whole second paragraph, of 16 lines, consists of irrelevant incident, foreign to a purely scientific paper. And further, of what possible use is the record of the Western Gull from San Francisco Bay and the Glaucous-winged Gull from Puget Sound! So on with the bulk of the water birds and at least some of the land birds, which have been recorded over and over again from the same localities.

There are, however, a number of the North American records of interest, such as some of those from the Aleutians. The two gulls, *Larus schistisagus* and *Larus vegae*, are listed from the vicinity of Unalaska. Both are rare in Alaska, and in each case we would like to have known more about the specimens, if any were taken in American waters. *Larus vegae*, even, has been seriously doubted, as a species distinct from *L. argentatus* (see *Auk*, 1902, p. 20), at least as occurring in American waters. *Thalassaeetus pelagicus*, the Kamchatkan Sea Eagle, is recorded from Unalaska on the basis of one seen overhead in flight—not altogether satisfactory as the sole basis for the inclusion of the species as a bird of North America.

The willow ptarmigan of North America are subjected to a revision (pp. 51-54) the main points in which are the separation of the American continental form from the Scandinavian under the name *Lagopus lagopus albus* (Gmelin), and the inclusion of all the willow ptarmigan of the southern coast region of Alaska, from Norton Sound to extreme southeastern Alaska, under the name *Lagopus lagopus alexandrae* Grinnell. The use of the name *albus* for the Hudson Bay ptarmigan, seems to be a point well taken; but the relative ranges and races of the willow ptarmigan of Northwest America will not probably rest with the status suggested by Clark.

In this connection, the author exhibits an attitude altogether unbecoming in the treatment of one worker by another. On page 54, it is implied that Grinnell was decided in his

course to name the ptarmigan, *L. l. alexandrae*, because of coaching received from Clark, who freely vouchsafed his own conclusions in regard to the forms in North America. If Grinnell had felt any gratitude towards Clark for the information advanced, and especially if he had made use of even an iota of such information in his published report, then it would have been incumbent upon him (Grinnell) to have made full acknowledgment in print. But this, Grinnell did not feel and did not do. Hence we opine that the patronizing comment in the paper under consideration is not relished by that author; and it certainly will not fasten any added credit upon Clark.—J. G.

THREE CASES OF SUPERNUMERARY TOE IN THE BROAD-WINGED HAWK BY C. WILLIAM BEEBE (=Zoologica, vol. 1, no. 6, January, 1910; pp. 150-152, figs. 48-50). Three individuals possessing the same malformation are figured and described. Considering the rarity of such deformity among birds, it is curious to find it occurring with such comparative frequency in one species. One of these examples was originally reported by H. K. Coale (*Auk* IV, 1887, pp. 331-333); the other two are here figured for the first time.—H. S. S.

ABRIDGMENTS OF SOME CURRENT LITERATURE RELATING TO WEST COAST BIRDS.—*The Auk*, vol. XXVII, no. 1, January, 1910; pp. 33-35, plates IV and V: *The Palm-leaf Oriole*. By Florence Merriam Bailey. Contains notes on the choice of palm trees as nesting sites of the Arizona Hooded Oriole (*Icterus cucullatus nelsoni*). "In eight towns and three country places in the general region between Redlands and San Diego in the summer of 1907 I counted forty nests made of palm fiber and hung in fan palms, and twelve made of palm fiber and hung in other trees."

Ibid., p. 91: *Destruction of Young Water Birds by a Storm*. By Albert B. Reagan, Supervising Warden of the Olympic Bird Reserves. He states that a storm on August 28 and succeeding days destroyed many young birds. The locality is not stated but by implication it must have been some of the rocky islands along the west coast of Washington. "Many Cormorants perished, nearly all the Puffins and all of the California Murres. A half a hundred thousand birds must have perished."

The Auk, no. 2, April, 1910: *New Records for the State of Washington*. By Lee R. Dice. Richardson Grouse (*Dendragapus obscurus richardsoni*), lateral canyons of Snake River; Western Grasshopper Sparrow (*Ammodramus savannarum bimaculatus*), Touchet Valley near Prescott, Walla Walla County; Mountain Junco (*Junco montanus*), Pullman, Whitman County; Rocky Mountain Creeper (*Certhia familiaris montana*), Prescott, Walla Walla County; Long-tailed Chickadee (*Pen-*

² The Birds Collected and Observed during the Cruise of the United States Fisheries Steamer "Albatross" in the North Pacific Ocean, and in the Bering, Okhotsk, Japan, and Eastern Seas, from April to December, 1906 | By Austin Hobart Clark (=Proc. U. S. Nat. Mus., vol. 38, pp. 25-74. Published April 30, 1910.)