

Throughout the document are references to specific feeding habits of birds, especially the glaucous gull, arctic skua, turnstone, purple sandpiper, and snow bunting. One of the most interesting points brought out is that bird-manuring is a primary factor in the distribution of vegetation in Spitsbergen, sometimes showing a control cutting right across the zonation produced by climate. The increased variety and luxuriance of vegetation on the skua-hummocks, bird islands and bird-cliffs, has distinct effects on the variety, abundance, and distribution of animal life, even on birds themselves. A case in point is the moss-lichen flats produced by the manuring of the Arctic Tern, which form the basis for the growth of grassy patches where the tern refuses to nest, but which are occupied by the Brent Goose and King Eider. Since the terns are the sole factor producing the grass turf, they are bringing about conditions that will eventually drive themselves off the island. The important element is nitrogen, derived from sea-animals preyed upon by the birds and ultimately from marine diatoms.

Thus problems in animal life in the Arctic are not really simpler than elsewhere, but that they appear simpler and thus more likely to yield satisfying conclusions, perhaps by reason of being fewer and more sharply set off, surely is an important element in their fascination for students.  
—W. L. M.

**St. Clair-Thompson on the Protection of Woodlands.**—‘The Protection of Woodlands by Natural as Opposed to Artificial Methods,’ as the title of the book<sup>1</sup> reads in full, is a manual in which the usual impracticability of artificial control of forest pests and the contrasted practicability and desirability of natural control are stressed. Since the author believes that “the numbers of injurious insects are normally kept under control more by birds than by any other parasites or predator” (p. 104), the book is devoted largely to the role of English birds in woodland economy and suggestions for better utilization of their services. He advocates a semi-natural system of mixed arboriculture rather than pure stands because it favors variety and number in the bird population. The only additional method of encouraging birds which he recommends is the provision of nest boxes; the reviewer would interject here, however, that winter feeding of suet is so cheap, easy and necessary, as not to be regarded as of only exceptional utility, and that “sparing” not “planting” of fruit-bearing species of shrubs and trees can be incorporated into any forest program without cost, consequently must be regarded as “practicable.”

The author is so keen about appraising everything from a strictly economical forestry point of view that in some cases at least the preponderating economic tendencies of certain species are ignored. For instance of the tree-creeper, he says “except in pest areas, when it may be useful, of rather limited value, if it is not slightly injurious . . . should not, at all events, be

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<sup>1</sup> G. W. St. Clair-Thompson, London, 1928, 223 pp. H. F. G. Witherby.

encouraged," (p. 48). This is a surprising dictum concerning a chiefly insectivorous bird that gleans its food almost entirely from trees. Upon looking for the reason we find it is because the tree-creeper includes predaceous Coccinellidae (ladybird beetles) in its food. Otherwise the schedule of its diet looks very much like that of one of the tits which are termed "quite the most useful birds of the forest" (p. 57). There is certainly too much discrepancy in the ratings of these groups of birds, far more in fact than a touch of Coccinellid diet can warrant. Feeding upon ladybirds is also the reason for St. Clair-Thompson's saying about swallows, martins, and swifts that "in the forest they must always be undesirable" (p. 65), a statement we must definitely challenge. Indiscriminate feeders like these always will consume some useful insects but that does not affect their general status as preponderantly useful species. So also in their relation to forests, usually it must be admitted not a particularly close one, swallows, martins, and swifts certainly do more good than harm. Little has been published on the food of these birds in England but if we can apply American experience to them, we can be sure that when bark beetles, plant lice, and other forest pests are on the wing that these birds will be found feeding on them persistently and voraciously.

The crossbill's "influence is decidedly harmful" (p. 44), we are told, despite the fact that their chief food, coniferous seeds, are produced in excessive profusion during a period of many years in the life of each bearing tree. Actual interference with forest reproduction by the depredations of cross-bills, therefore, is something that probably never occurs.

On the other side of the picture is the very high ranking given the starling; regardless of the generally useful nature of its food habits, the starling can hardly be reckoned as a forest bird. Again "so beneficial is the food of adult cuckoos, chiefly due to lack of useful parasitic insects and Coccinellidae, that broods of the less useful small birds can well be spared" (p. 75). If the exchange were in individuals, this statement could be accepted, but as to rating one cuckoo as more useful than a whole brood of the chiefly insectivorous birds destroyed in its production, we cannot agree.

St. Clair-Thompson highly commends the birds of prey other than the Falconidae and the sparrow hawk (*Accipiter nisus*) saying that they "constitute the most powerful natural agent in the control of mice and voles, Mustelidae in their present numbers not excepted" (p. 89). Something to be borne in mind when game bird introductions are considered is this writer's statement that the capercaillie and black game are very injurious except in mature forest, sometimes insurmountably handicapping reforestation efforts (pp. 92-96). On the other hand "it may safely be said that pheasant-rearing is largely responsible for the scarcity of insect pests in those preserved woods, which constitute so large a proportion of the total woodlands in England" (p. 184).

In fact the woodlands of England used for game preservation and therefore of an open type have had large bird populations and have been notably

free from serious insect depredations, while continental forests of the pure stand type with fewer birds have suffered seriously from pest invasions. We may quote as the author's general conclusions that: "Biological control is very effective up to a point; secondly it is the cheapest form of protection, because it is the most natural; thirdly, it is quite the most permanent, for once begun it continues to be automatic in its action" (p. 173), and "the problem of effective, cheap, and permanent control . . . is seen to have been solved by the proper encouragement of certain insectivorous birds" (p. 173).—W. L. M.

### The Ornithological Journals.

**Bird-Lore.** XXX, No. 5. September-October, 1928.

A Visit to Gilbert White's Selborne. By Charles W. Townsend.—An interesting account of a visit in May 1927. Those who would follow the subject farther should consult a similar journey described by Cornelius Weygandt in the 'Atlantic Monthly' for August, 1904.

A Contribution to the History of the Passenger Pigeon. By Benedict H. Revoil.—Reprint of an article in his 'Chasses dans l'Amerique du Nord.'

Fun in a Bird-Blind. By Alice B. Harrington.—Intimate studies of bird actions when undisturbed.

Bird Personalities. By J. H. Chase.—Studies of character in banded birds.

At Timberline. By Catharine A. Hurlbutt.—In the Rockies.

In the Audubon Society school department Dr. A. A. Allen has an interesting article on the Cowbird with numerous illustrations. A male is shown in a flying cage making his courtship display before a stuffed female.

**Bird-Lore.** XXX, No. 6. November-December, 1928.

Chance Flashlights of Birds. By Tappan Gregory.—Excellent photographs.

Midget. By Don Weydemeyer.—Account of a Clarke's Nutcracker.

A Mountain Idyl. By Mary Beal.—Apparently somewhere in California.

The articles and plate on migration and plumage of North American birds cover the Williamson's Sapsucker and White-headed Woodpecker.

Dr. Allen's illustrated article describes the life of the Downy Woodpecker.

The annual report of the National Association of Audubon Societies is as always very full and interesting.

**The Condor.** XXX, No. 5. September-October, 1928.

Notes on Persons whose names appear in the Nomenclature of California Birds. By T. S. Palmer.—This extensive paper presents brief biographical notices of some 180 persons whose names are associated with the various Californian birds, while Dr. Palmer has added a list of portraits and presented some interesting general facts in a preface. The paper is an important contribution to the biography of ornithologists.