

**Eighteen More Snow Bunting Returns-W.**—So far as I know, there are very few bird-banders in North America who have any success in trapping the Snow Bunting (*Plectrophenax nivalis nivalis*.) I am, therefore, giving here my results for the winter of 1932-1933. This note is a continuation of my three other notes on this species, which appeared in *Bird-Banding*, Vol. I, No. 4, 1930, pp. 187 and 188; Vol. II, No. 3, 1931, p. 127; and Vol. III, No. 4, 1932, pp. 175 and 176.

The winter of 1932-33 was the most successful I have had in the five winters that I have been banding Snow Buntings. My first Snow Bunting capture during the winter was on October 30, 1932, the bird coming to my feeding station when natural feeding grounds became partially covered with snow. This date set a new early record of this species at my station, my earliest previous record being December 7, 1932. Although this bird came to my station at an early date, the winter up to the middle of January, 1933, was mostly favorable for natural winter food, as there was not much snow-fall and not much cold weather, with the result that few visited the station until January, at which time sixteen were banded. February set a new high record for number banded, with 114, which is more than were banded any previous winter. The number banded in March was a little less than during March, 1932, the record being 61 in March, 1932, and 44 during March, 1933. The whole number banded for the winter (1932-33) was 174, which is over twice as many as were banded during any previous winter.

My returns for the winter of 1932-33 are as follows:

Band-number	Date banded	Returning dates	
B80230	February 9, 1929	January 31, 1931	
B80230	February 9, 1929	January 24, 1932	
B80230	February 9, 1929	February 15, 1933	Return-2
B80275	February 28, 1929	January 21, 1931	Return-3
B80275	February 28, 1929	February 19, 1933	Return-2
C98288	January 13, 1931	March 16, 1932	
C98288	January 13, 1931	January 25, 1933	Return-2
C98309	January 24, 1931	March 14, 1932	
C98309	January 24, 1931	March 10, 1933	Return-2
C98315	January 31, 1931	March 17, 1932	
C98315	January 31, 1931	February 5, 1933	Return-2
C98317	February 2, 1931	March 13, 1932	
B160564	February 2, 1931	January 30, 1933	Return-2
B160568	February 3, 1932	February 2, 1933	
B160572	February 7, 1932	February 25, 1933	
B160580	February 18, 1932	March 16, 1933	
B160581	March 7, 1932	March 3, 1933	
B160581	March 7, 1932	February 11, 1933	
B160588	March 8, 1932	February 2, 1933	
B160591	March 9, 1932	January 25, 1933	
B160810	March 11, 1932	February 5, 1933	
B163197	March 15, 1932	February 20, 1933	
B163198	March 18, 1932	February 25, 1933	
B163216	March 18, 1932	February 27, 1933	
B163216	April 3, 1932	February 16, 1933	

It may be noted in the above table that all returns which were banded during the winter of 1930-31 and one from 1928-29 are returns-2, and that one of the 1928-29 birds is a return-3; also that there are no returns from birds banded during the winter of 1929-30.—OSCAR MCKINLEY BRYENS, R.F.D. 1, McMillan, Michigan. July 22, 1933.

**An Eastern Evening Grosbeak Recovery of Interest.**—A male Eastern Evening Grosbeak banded at my trapping station, Sault Ste.

Marie, Michigan, February 20, 1932, was shot at Newdale, Manitoba, November 21, 1932. This is my most westerly record to date. Two of my Grosbeaks were taken in northern Minnesota in 1929, one of them at Karlstad in the northwest corner of the State. Newdale is about thirty-five miles north of Brandon, Manitoba, and some two hundred miles northwest of Karlstad.—M. J. MAGEE.

## RECENT LITERATURE

**Game Management.**—By Aldo Leopold, Drawings by Allan Brooks. Charles Scribner's Sons, 597 Fifth Avenue, New York. London. 1933. 8 vo. pp. i-xxi + 1-148. Price \$5.00.

That Aldo Leopold is one of the clearest thinkers now studying the intricate problems of general conservation is evident on every page of this volume, which, besides being the most comprehensive and detailed work yet to appear on the subject, is obviously the product of an orderly, analytical, and open mind.

The author's thesis is, in brief, that "game can be restored by the *creative use* of the same tools which have destroyed it—axe, plow, cow, fire and gun." He defines game management as "the art of making land produce sustained annual crops of wild game for recreational use," and then in eighteen crowded chapters shows in detail and from almost every angle how it may be accomplished. While advocating artificial production of game, and the placing of the "art" on a frankly economic basis, he is careful to define sport, and to draw a middle course between the staged "pheasant drive" type of shooting in vogue in Europe and Great Britain, and the "free hunting" enjoyed by our grandfathers, now unfortunately a thing of the past. He marshals his facts from all the natural sciences, from biochemistry and zoology down to animal husbandry and agricultural economics, and he presents a lucid, convincing picture.

Throughout the book—Measurement of Game Populations, Game Refuges, Control of Cover, Control of Disease, Game Economics, and Esthetics are a few of the chapter-headings—the author's thorough grounding in modern biological principles is evident. Ecologists and students of geographical distribution will approve wholeheartedly his practical application of many of their tenets. The principles of ecological interrelationships and the laws of territoriality as expressed by recent thinkers form the groundwork on which his whole management plan is based. Though naturalists now take them for granted, ideas such as that there is a definite and measurable limit to the numbers of birds any given territory can support will probably be regarded by most sportsmen as astonishingly new. Another hypothesis which will undoubtedly be thought radical by the old guard predicates the improvement of environmental conditions as of far greater essential importance towards improving shooting than restocking with hand-raised birds.

The author recognizes the fact that game-birds are disappearing, despite legislative efforts in their behalf. He outlines the usual development of conservation methods as follows:

1. Restriction of hunting.
2. Predator-control.
3. Reservation of game lands (as parks, forests, refuges, etc.).
4. Artificial replenishment (restocking and game-farming).
5. Environmental controls (control of food, cover, special factors, and disease).