

SUMMARY

The absence of any return records of the first groups to arrive in the fall and the last to depart northward in spring is evidence that these are entirely migratory and do not winter in this area.

Those banded in December, January and February give the highest return percentages.

The amount of snowfall determines the winter's total of birds that will enter the traps.

Very few remain in this area over 100 days in any winter.

Most of the returned birds are taken during January and February.

Those that came back here a second year yield a much higher rate of return for future years than newly banded birds.

Our return records prove that some lived to the following ages:

80	reached	the	age	of	2	years
28	"	"	"	"	3	"
13	"	"	"	"	4	"
4	"	"	"	"	5	"
2	"	"	"	"	nearly	7 years

Norristown, Pennsylvania.

ADDITIONAL RETURNS AND RECOVERIES OF THE SNOW BUNTING

By OSCAR MCKINLEY BRYENS

SINCE writing up my returns of the Snow Bunting (*Plectrophenax nivalis nivalis* (Linn.)) for the winter of 1932-33, which appeared in *Bird-Banding*, Oct. 1933, page 206, many more have been recovered and are given below. A few of those listed in past reports have been retaken since that time, and all of the return dates are given.

The additional returns are as follows:

<i>Band Number</i>	<i>Date Banded</i>	<i>Returning Dates</i>	
B80275	February 28, 1929	January 21, 1931	
		February 19, 1933	Return—2
		January 20, 1934	Return—3
B160566	February 4, 1932	January 18, 1935	
B160580	March 7, 1932	March 3, 1933	
		February 13, 1934	Return—2
B160582	March 8, 1932	January 20, 1934	
B160591	March 11, 1932	February 5, 1933	
		February 23, 1934	Return—2
C98315	January 31, 1931	March 17, 1932	
		February 5, 1933	Return—2
		February 1, 1934	Return—3

C98334	March 3, 1931	January 12, 1936	Return—4
C98341	March 10, 1931	January 28, 1934	
H41847	February 13, 1933	February 23, 1934	
H41859	February 14, 1933	March 1, 1934	
H41866	February 14, 1933	January 15, 1936	
		February 23, 1934	
H41881	February 15, 1933	January 29, 1934	
H81223	March 9, 1933	February 25, 1934	
H81268	March 24, 1933	February 22, 1934	
L67404	January 3, 1934	January 18, 1936	
L67405	January 3, 1934	January 31, 1936	
L67423	January 20, 1934	February 3, 1936	
L67432	January 27, 1934	February 3, 1936	
L73506	February 3, 1934	February 2, 1936	
L73509	February 4, 1934	January 25, 1936	
L73511	February 4, 1934	January 23, 1936	
L73514	February 6, 1934	January 25, 1936	
L73527	February 22, 1934	January 13, 1936	
		January 27, 1938	Return—2
		February 15, 1941	Return—3
		February 11, 1942	Return—4
34-17563	December 31, 1934	January 18, 1936	
		January 27, 1938	Return—2
34-17565	January 18, 1935	February 11, 1937	
34-17570	January 20, 1935	January 25, 1936	
34-17571	January 22, 1935	January 31, 1936	
34-17574	January 25, 1935	January 18, 1936	
34-17578	January 26, 1935	January 18, 1936	
34-17579	January 26, 1935	January 14, 1936	
34-17583	January 31, 1935	March 27, 1937	
34-17585	February 2, 1935	January 19, 1936	
34-17589	February 7, 1935	January 18, 1936	
34-17594	February 20, 1935	January 18, 1936	
34-97142	January 15, 1936	February 26, 1938	
34-97155	January 18, 1936	February 13, 1938	
36-19368	February 27, 1936	January 29, 1938	
36-40465	January 31, 1937	January 27, 1938	
37-53539	January 26, 1938	January 18, 1940	
37-53548	January 28, 1938	January 17, 1940	
		February 2, 1942	Return—2
37-53550	January 28, 1938	February 22, 1939	
37-53589	February 4, 1938	January 17, 1940	
38-68204	March 2, 1938	February 22, 1939	
38-68222	March 7, 1938	March 2, 1939	
38-84365	March 1, 1939	January 17, 1940	
38-84383	March 15, 1939	January 4, 1942	
40-79881	February 14, 1941	February 20, 1942	
40-79883	February 25, 1941	February 3, 1942	
40-79884	February 25, 1941	January 3, 1942	
40-79888	March 1, 1941	January 15, 1942	
40-79892	March 3, 1941	February 10, 1942	

No. B160591 was found dead on its last return date; it was on the snow about 20 rods east of my trapping station, and also be-

tween 50 and 60 feet south of a telephone line which it may have hit. It was in good condition and fat. I saved the skin and found it to be a male.

No. L67404 (which returned January 18, 1936), was found dead on February 24, 1936, at $21\frac{1}{2}$ feet from one of my feeding stations; and it may have hit a telephone wire which it was nearly beneath. It was preserved as a skeleton, and is a female.

Two recoveries have been reported since my last paper on this species (*Bird-Banding*, Oct. 1933).

No. H81229 banded March 10, 1933, was next heard from as "Probably found dead, at Moonbeam, Ont., Canada, about April 28, 1936, by Ernest Leonard."

No. 36-19361 banded February 22, 1936, was next heard from as "Found dead November 3, 1937, at Fort Coulange, Quebec, by Major C. E. Caron."

Three Snow Buntings that I banded have been trapped and released at the Seney Waterfowl Refuge, Germfask, Michigan.

These are:

No. 37-53545 banded January 27, 1938; repeated January 29. Taken at Seney Refuge, February 2nd and 9th, 1939, by Homer L. Bradley.

No. 38-68204 banded March 2, 1938; repeated March 4th; returned February 22, 1939. It was next taken March 29, 1939 at Seney Refuge, by John H. Steenis. This bird was trapped at two stations about fifteen miles apart, and so we get some light on the winter feeding range of this species.

No. 38-68206 banded March 2, 1938; repeated March 3rd and 5th. It was next heard from February 6, 1939 when it was trapped by John H. Steenis at Seney Refuge.

The only other Snow Bunting which I have banded which has been trapped at some other station is No. 37-53589, banded February 4, 1938; it returned January 17, 1940; repeated January 19th. It was next taken February 15, 1941 at T-Lake in Blaney Park, Michigan, by Dr. Karl Christofferson.

The two "foreign" returns of the Snow Bunting that I have are of interest. Both were banded at the Seney Waterfowl Refuge on February 2, 1942 by John L. Sypulski, Jr., Refuge Manager. No. 139-24659 was trapped at my station on February 5, 1942 at 7:21 A.M., and was retaken February 8th, 10th, 16th, 17th, 19th, 24th, 26th, 27th, 28th; March 11th and 21st. The other bird—No. 139-24675, is my first "foreign" return of this species, and I trapped it at my station on February 3, 1942 at 12:05 P.M.; this being the next day after banding, and gives added interest on the winter feeding range. I got this bird on one other day—February

4th. With this bird came a real treat for these two banding stations as it was banded at one station one day, and then trapped at another on the next day.

Readers may note in the above list of returns, that No. L73527 has added another winter to its history; and it is now in its 9th winter, at least, and I feel sure of it being in its 10th winter, judging from my studies of the plumage of this species. It was last trapped on February 25, 1942.

In addition to the returns and recoveries, etc., in this paper, I give below, a summary of the number banded during the winters included in this paper.

Winter of 1933-34.....	113	Winter of 1938-39.....	21
Winter of 1934-35.....	38	Winter of 1939-40.....	36
Winter of 1935-36.....	150	Winter of 1940-41.....	27
Winter of 1936-37.....	6	Winter of 1941-42.....	107
Winter of 1937-38.....	98	Total banded.....	596

On February 24, 1942 I banded my 1000th Snow Bunting, and my grand total number banded of this species is now at 1024. It may be noted in the above list of Snow Buntings banded in the last past nine winters, that there are three winters that the number banded is over 100; and that there is one winter with an unusually small number banded. To explain the reason for these extremes of winter catches of this species, it is my hope that readers will not be misled to the belief that the more severe the winter, the more these birds would be forced to come to feeding stations, and also, that the more open the winter with frequent thaws, the less these birds would be forced to come to stations. I have now banded some of this species in fourteen different winters (beginning with that of 1928-29), and have put in almost the same amount of time in trapping each winter. And through this period of time I do not find the above mentioned beliefs to hold true. My biggest winter is that of 1932-33, when 174 were banded, and that was the most open of these fourteen winters. In the above list of bandings for the last nine winters may be noted that only six were banded in winter of 1936-37; that is what might be termed as a moderate winter with some bad storms. In this winter, three were banded in January and three in February. Many ornithologists may yet remember the winter of 1939-40 when snow fell in some localities in southern United States where it was not known to have occurred before; also colder weather than had been known before was recorded from many southern localities. In that winter, I banded 36 Snow Buntings and also got four returns, which makes 40 for that winter, and all were trapped in the month of January. Not a single capture was made during the remainder of that season, and

the Snow Bunting was a scarce species until spring thaws brought bare ground in view, and then they did not appear in usual numbers. That was not an open winter here in Luce County, Michigan, by any means.

Thus, through my several winters trapping of the Snow Bunting, I feel safe in saying that a larger number will remain through the winter if it is an open one than there will if it is severe. In the open winters (when there are no great snowfalls so that Nature's storehouses of weed seeds in the fields remain uncovered) conditions are such that larger numbers will remain. In this case, the number of birds wintering may exceed the supply of weeds in fields they frequent for the season. Then they come to farm yards and feeding stations if they remain in that vicinity. In the winters when the snow cuts the weed seed supply short by covering the weeds these birds are forced to come to farm yards and feeding stations. It may now be noted through my observations that the winter food supply will become scarce in either type of winter, and this may appear to many that there is no difference in reason for them remaining in larger numbers in one winter than in another. But here is a great factor in this case: the more open the winter, the less the feed in farm yards and at feeding stations becomes covered with snow; and the greater the snowfall, the more difficult it is to keep feed from being covered with snow. If feed were not available at these last resorts, they must then move to other regions.

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GENERAL NOTES

Unorthodox Banding Procedures.—Whereas the activities described below are not recommended as proper banding procedure, they were thought sufficiently interesting to warrant recording.

On the night of April 10, 1943, a group of us visited a barn over four miles from my home (Glen Mills, Penna.). We found a pair of Barn Owls (*Tyto alba praincola* Bp.), with the female incubating a single egg. Strategically locating ourselves, we eventually caught both birds. Having no bands with me, I decided to take them both back to the house. They were accordingly gently wrapped in burlap bags for the trip. At home, their legs were measured, they were weighed (♀ 20.5 oz., ♂ 16.5 oz.), and banded (♀ 41-721326, ♂ 41-721327). Again wrapped in the bags, they were returned to the barn and released, apparently none the worse for their experience.

My next trip to the barn was on June 6, at which time there were 2 little owls and three eggs, one of which was pipped. On June 26, the young ones were banded. Three live chicks were in the nest (40-673406 to 08), a dead one lay on the straw beneath, and no trace of the potential fifth could be found. So, the adults had not only survived their midnight experiences, but had successfully gone on to raise a family.