

MIDWINTER BANDING OF  
EASTERN SNOW BUNTINGS, LAPLAND LONGSPURS,  
AND HORNED LARKS IN NORTH DAKOTA

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To those of us who live within the wintering range of Snow Buntings and Lapland Longspurs, the banding of these birds opens up a new field for study. From my experience this winter (1933-34) it would seem that the reason so few of these two species have been banded is because little effort has been made to do so.

Snow Buntings (*Plectrophenax n. nivalis*) appeared on our farm early in November with the first heavy fall of snow. On December 17th, when there was only a little snow on the ground, Glen Berner, another bander, and I banded over seventy of them. The snow disappeared shortly afterwards, and with its disappearance the Snow Buntings disappeared also. More snow came on the 22d and the Buntings returned. We placed our four drop-traps in a burned-over wheat-field, in different situations, and far enough apart to prevent the pulling of one from disturbing the birds at the other traps, and ran long strings to a central point where we could park a car. Two weeks from the time we caught our first Snow Bunting we had banded over a thousand. Christmas week was very cold, but the banding was good. We found that in cold, rough weather the birds came most readily to our traps. We accordingly operated them from a heated automobile and did our banding inside the car, often with an outside temperature as low as 10° to 20° below zero.

In January another warm period again carried off the snow, and, as before, the Bunting disappeared, moving presumably to a snow-covered territory. On February 20th, however, although there came a slight snowfall of about an inch, no Snow Buntings returned. In their place an abundance of Lapland Longspurs (*Calcarius l. lapponicus*) appeared on their northern migration. On February 22d, Mr. Berner spent the entire day at the traps, and banded three hundred and nine birds, all Longspurs except about fifteen Horned Larks. The

<sup>1</sup> Word has been received from Mr. O. A. Stevens, of Fargo, North Dakota, that Mr. Boardman died on June 18th. *Bird-Banding* has lost a zealous worker and his passing brings to a close a most promising investigation of northern birds in winter time on a scale not previously attempted. *Editor.*

following Sunday he banded two hundred and eighty more. On three trips to the traps I banded five hundred and ten. As with the Snow Buntings, we found it necessary to have the ground covered with snow to get the Longspurs and Horned Larks to go under the traps.

We could positively connect the presence of Snow Buntings with the occurrence of snow on the ground, and we found that they left if the snow melted, only to return with the next storm. Any evening during a fall of snow, the calls of these birds could be heard as they flew over Jamestown in the dark. I think this is because they become confused by the street lights.

One evening on leaving the trapping-grounds we found the Snow Buntings evidently bedded down for the night, but instead of being in weed-patches, where we supposed they would be, we found them scattered over a plowed field. They were in holes dug in the little patches of snow on the lee side of clumps of dirt and they were partially covered. On approach they flushed one by one. They were tucked in about four feet apart, as if for the protection of the flock, since no marauder could have captured more than one bird without giving the alarm. Mr. Berner also observed them thus bedded in on another occasion.

On very severe days we have also seen them lie on their sides while feeding, their feet drawn up in their feathers to avoid freezing them, and on such days it was difficult to get their feet out of their feathers in order to place the bands. During such cold weather, we noted that the Buntings dig holes in the snow and lie in them on their sides, and always on or in drifts with southern exposures and in the open away from weed-patches. The Snow Buntings seem to do the most persistent feeding in the middle of the day, say from 10 A.M. until 2 P.M. It is not much use to try to trap later than 3 P.M. during the short days.

We operated on a burned-over uncut wheat-field adjoining a plowed field, having scattered gravel hillocks. On the burned-over section there would be patches of several acres of standing wheat that the fire had not destroyed. These places were a great attraction for the large flocks of Snow Buntings, and, after they had left, the Longspurs were equally attracted by them. From these large flocks of Buntings in the standing grain small bands would break away to feed at the traps. We often found Snow Buntings, Lapland Longspurs, and Horned Larks intermingled, so that we captured all three species together.

In selecting a place to trap the above species, I would suggest a burned-over stubble-field near to where a car can be

parked, or, of course, at any place these birds frequent, and traps should be permanently placed and baited. We have used a six-foot-square drop-trap with great success, taking as many as eighty-five birds at one pull. If birds are handled in large numbers, several gathering-cages are necessary to remove them quickly. We have had no casualties with this trap. At one time we were working on a flock that we estimated at ten thou sandbirds, and we probably banded at least ten per cent of them. Notwithstanding the large number of Buntings banded, 1,285, we did not get over six repeats during the winter, one bird recaptured the following day, and the other five recaptured the same day. In the case of Longspurs, repeats were much more frequent. We both found with regret that we were unable to make the distinctions necessary to determine the sexes or races of the Horned Larks, but I am satisfied the birds were the Prairie race, *Otocoris alpestris praticola*.

Regarding the winter-time habits of Snow Buntings, Forbush<sup>1</sup> writes that "when the snow is soft, these birds (Snow Buntings) are said to dive into it . . . and there pass the night," also that "when the snow is frozen hard, the flocks sleep in the open, protected from the north wind by some slight rise in the ground . . .", and that they are forced southward in severe winters when deep snow covers the north country.

Our observations show that the species also often enters the snow-banks during the day. This was noticeable during old, sub-zero weather, and particularly if a strong wind blew. Often a dozen or more birds congregate on a bank, and within a few inches of one another. We were able to watch them in a snow-bank close to our car, and it was observed that they not only used the snow for protection but for "dusting," as grouse dust in summer. After the birds were gone, and the ground was nearly bare with only a few drifts about, these pit marks could be seen in most any remaining drifts.

We banded a total of 2648 birds—1490 banded by me and 1158 by Mr. Berner. The details follow:

<i>Period</i>	<i>Snow Buntings</i>	<i>Horned Larks</i>	<i>Lapland Longspurs</i>
Dec. 15th to Dec. 31st . . . . .	509	93	20
Jan. 1st to Jan. 14th . . . . .	731	123	17
Jan. 28th to Feb. 27th . . . . .	45	36	1074
Totals . . . . .	1285	252	1111

Jamestown, North Dakota, March, 1934.

<sup>1</sup> Birds of Massachusetts and Other New England States, Vol. II, pp. 33-36.