

## GOOSE-RINGING IN VEST-SPITSBERGEN 1954

By James Goodhart, Russell Webbe and Thomas Wright

### SUMMARY

A PARTY of five visited Vest-Spitsbergen in July 1954 to catch flightless geese for ringing. Catches were made in Reindalen and Sassendalen. 526 Pinkfeet, 23 Barnacles and 74 Light-bellied Brents were ringed. The methods of capture are described, and various improvements suggested. A list of the recoveries of Pinkfeet marked during this expedition and in Gipsdalen in 1952 is appended.

### INTRODUCTION

During the summer of 1952 a Sherborne School Expedition made a preliminary investigation into the possibility of catching geese during their flightless period in Spitsbergen. They arrived in Gipsdalen on 10 August and found that the adults were already flying strongly, but managed to catch 42 well-developed goslings.

In view of these results it was decided to plan an expedition to arrive much earlier in Spitsbergen to find out where some of the Pink-footed Goose *Anser brachyrhynchus* concentrations were during the breeding season, and also to catch and ring as many as possible. There were five in the party led by G. T. Wright from Sherborne and the rest were undergraduates—Russell Webbe and James Goodhart from Cambridge, Colin Pennycuik from Oxford and Fredrik Bolin from Oslo.

The advance party of three arrived at Longyearbyen, the mining settlement in Icefjord, on 27 June. Their task was to set up caches of food and equipment in two valleys which we hoped to make the centres of our ringing activities. We carried a series of loads to the bottom of Todalen where we made our second camp. We then made a cache of three man-loads at the Eskerfossan by continuing up Adventdalen, over the Brentskardet into Eskerdalen until we reached the waterfall very close to where this valley joins Sassendalen. Next we carried six man-loads to Reindalen going up Todalen over the 1300 feet pass and down Gangdalen.

Most Arctic expeditions tend to be a little strenuous and exhausting physically, and we probably had our fair share. In the broad flat valleys, except where there were shingly outwash fans, the swamp was fairly continuous, but one seldom sank in more than 18 inches as then one meets the permafrost layer. The rivers in the big valleys—especially the Rein and the Sassen—were broad and deep and had to be crossed in rubber dinghies; however, those in the tributary valleys were veritable torrents and a very firm pair of feet was needed to avoid a dangerous ducking. The snow was quite deep on the high passes, and the big stone blocks that formed the screes were sometimes troublesome.

During this first period we saw two small gaggles of Pinkfeet—totalling 11 birds—flying north down Adventdalen, and also a pair that flew in the other

direction. A pair of Pinkfeet, calling frequently, flew round us for some hours in the Bolterdalen area of Adventdalen. On 3 July a small colony of Pinkfeet was found breeding on the buttresses of the gorge below the Eskerfossan. One bird was accidentally flushed from a nest containing one egg, and a further three sitting birds were seen as well as six nests of the year being found. No serious attempt was made to explore this colony any further because of an attendant predatory Glaucous Gull.

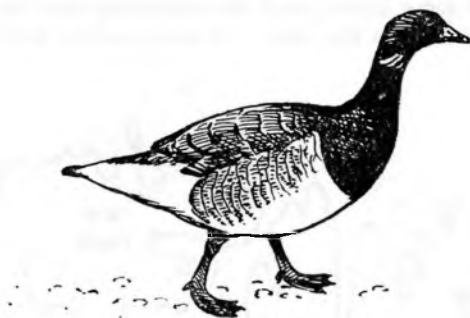
#### THE CATCHES IN REINDALEN

On 9 July the remaining two of the ornithological party arrived and we were all in Reindalen about three miles from Van Migerfjord by the 11th. On the morning of the 12th 470 Pinkfeet and a few Barnacle had been seen feeding on the shores of the large lakes which lay to the east of the river. We set up our nylon stake nets about half-way along a ridge that ran out about  $1\frac{1}{2}$  miles into the valley to the north of the lakes. We were careful to put them in a 'hull down' position so that they could not be seen from the southern side by the geese. We used a nylon net of  $1\frac{1}{2}$  inch mesh which was 300 feet long and 3 feet high, and tubular aluminium stakes which were a great improvement on the bamboo ones used in 1952.

On 14 July we made our first drive of part of the marsh. One man, taking a rubber dinghy with him, made a long encircling movement so as to get to the south of the lakes, while a second man walked down behind the ridge and then south along the central river to prevent them running to it and drifting down to the sea. A third man was in the marsh to the east to prevent the geese running up the high scree slopes, and the remaining two lay concealed on the ridge to guide the birds into the nets. All went well to start with as the geese



concentrated into a flock and ran to one of the lakes, and were dislodged on to the lake nearest the ridge by using the rubber dinghy. The birds seemed very loth to leave this lake and when they were eventually encouraged to leave the water quite a number ran along the shore and entered the lake again, but many were already streaming across the marsh towards the nets at a good pace. The birds unfortunately broke up into several flocks, and quite a number were lost in the final moments of the drive. The resulting catch was 205 Pinkfeet. These were ringed both with a numbered aluminium ring from Stavanger Museum and also with a coloured plastic ring. The next day we drove much the same area and caught 208 Pinkfeet and 1 Barnacle *Branta leucopsis*, but only ringed 196 as 12 of them had been caught the previous day. On the following day—16 July—we left the nets in the same place but concentrated our attention on a lake further to the west and much nearer the river. Using two rubber dinghies we tried twice, unsuccessfully, to move the birds from the lake because they could swim faster than we could propel the dinghies especially against the wind. However at our third attempt we managed to get the geese into the shallower northern end of the lake and pushed them off it and had a good long run to the nets. We caught 115 Pinkfeet (30 ringed in previous catches), 22 Barnacles and 63 Light-bellied Brents *Branta bernicla hrota*. We noticed that when the geese were on the lake and not unduly pressed by us the black and the grey types all stayed in one flock, but when they were more worried it was the Brents that started to panic first and made short rushes across the water ; furthermore when the birds were really in a tight corner they split into two flocks, one all black and the other all grey.



Next day we crossed the very wide Rein river to the western side and found two small lakes with a few Light-bellied Brents on them. We caught eleven adults from the first, and there were four adults and eight goslings on the other which we left unmolested as we considered the goslings too young to be caught. We then made our way down to the fjord shore where we found a shallow lagoon on which there were 92 Pinkfeet. We made a comparatively easy drive off the lake and the birds came off it in fine order, but one of the net poles broke and we lost all except five—one of which had been ringed already on the second day on the far side of the valley. The geese had meanwhile fled to the sea, but it is of interest to note that the five we had caught and then released made no attempt to go to the sea, but swam out into the middle of the lagoon and remained there quite contentedly. We also saw a large flock of birds a long way off sitting by the shore ; it was misty at the time and we could not agree among ourselves about their identification. We had been away from camp for a good while by then and returned without further investigating this flock.

Reindalen has never been mentioned in the literature concerning Pinkfeet as far as we know, but this year there were certainly 650 there excluding any that may have been in the large flock by the shore. These constitute well over 10% of the believed Pinkfoot population of Spitsbergen. But of greater interest concerning this valley is that we neither caught nor saw a single Pinkfoot nor Barnacle gosling, and out of about 40 potential pairs of Brent only two pairs had goslings. Previously we had seen plenty of what we believed to be Pinkfoot droppings in Gangdalen and in Semmeldalen where there are also suitable nesting sites. As these Reindalen birds are colour ringed—Pinkfeet with red, white or green, Brent with orange and Barnacle with white—it may be possible for future expeditions to prove whether this was just a non-breeding year in this valley or whether it is a yearling and two-year-old valley.

The literature seemed to indicate that there would be, at the outside, 200 Pinkfeet in each valley and we had in consequence taken that number of various ring colours. Thus having caught well over 400 in one valley we had to use three colours. In Sassendalen subsequently we used orange at first but found it was virtually invisible on an adult leg a few yards away, so we changed to black. It was our original intention to discover whether these different valley populations mix freely in winter, but as so few were ringed outside Reindalen it is doubtful if our original idea will bear much fruit.

### SASSENDALLEN

We left Reindalen on 19 July and had rather a strenuous two-day walk to the top of the valley, over the Reindalspasset into the top of Adventdalen and down to the Eskerfossar where we camped. We then moved camp down into Sassendalen and camped below the Skarvrypehøgda about two miles from the sea. We found that there were about 350 Pinkfeet and 25 Barnacle in the bottom five or so miles of the valley, and decided to try and drive them on to a small lake on the eastern side of the river which was about a mile from the sea. The river here is about 900 yards wide and one man, with a boat, must stand in the middle of the river to dissuade them from drifting down to the sea. On 29 July this flock—some of which had been seen to fly—was feeding near the main river opposite Eskerdalen. Two of us went a good way upstream of them and they all entered the river and started to drift down towards the sea, and were stopped by the man in the middle of the river; they then sat on the river's edge and twice started to run towards the lake, but eventually we made a wrong move and they all ran with great speed to the higher ground to the north of the lake and then made for the sea. There were already some geese and goslings on the little lake, but at least 54 of these scrambled up the far bank leaving 14 adults and about 50 goslings; 12 of the adults flew away as we drew nearer, and eventually we managed to catch one adult and 25 goslings.

It was later discovered that there was a flock of adults and goslings concentrated at the top of Sassendalen. We were unable to make an attempt to catch this flock as most of the party had to join a geological survey party and go up on to the central ice-cap by a certain date. This was a little while after our main activities in this valley, and it seems very probable that this was the whole valley population which numbered about 900. There is no doubt that a better policy would be to drive all the birds up towards the top of Sassendalen, then to set up the nets on a piece of ground moraine and to get round behind

the geese and drive them back down the valley into the nets. We found that activities around the delta area were neither easy nor pleasant—the river is wide, the sea is near and the bog round the little lake was very bad and was by far the worst that ever crossed our path.

We walked along to De Geerdalen from Sassendalen and one of our party remained in this area during August. A few nests were found near the Hyperitefossan in De Geerdalen and a flock of up to 40 birds, including a few goslings, was seen in this area of the coast on a number of occasions.



#### GIPSDALEN

We went across the fjord to Gipsdalen using our 16-foot boat which had been dropped at De Geerdalen by the Governor's boat. In this valley we disturbed about 130 geese—including a few goslings—feeding in a marsh about two miles from the sea, and they ran on ahead of us up the valley. When the valley began to narrow we set up the nets on some fairly high ground on the east side of the river. One man then went up to the top of the valley while the others lay in hiding in various places a few hundred yards from the nets. Four hours later the man returned saying that he had seen no geese ; a glacier and ice-cap blocked the top of the valley and the most likely solution is that they ran up one of the high scree slopes for which Spitsbergen is famous.

The result of all our activities in the valleys was that we ringed 526 Pinkfeet, 23 Barnacle and 74 Light-bellied Brent, as well as gaining valuable experience in the art of catching geese in Spitsbergen which we would be very pleased to hand on to anybody who may wish to continue this work.

#### IMPROVED METHODS

Finally we have some suggestions as to how a very much larger number of birds could be caught by one party in a season. The first essential would be a proper sea-going boat—sealer or such-like—which would enable much more ground to be covered as time would be saved in moving from valley to valley, as well as making an advance party (to carry food and equipment) unnecessary. The party should be larger than ours and probably seven or eight would be ideal. There must be one rubber dinghy for every two people, and also double ended paddles for quicker propulsion. Some form of communication between members on the ground is very necessary so that the leader could sit on some vantage point and direct operations. There is a new waterproof wireless set weighing about three pounds which would seem ideal. We found that during drives there was frequently a mile between beaters and also that the marsh undulated slightly, and the geese were occasionally invisible to the beaters, while those on the higher ground had an excellent view of both beaters and

geese. We heard it said by an old trapper that there were many geese in the valleys on the south side of Van Migenfjord, and it seems probable that they would be well worth while exploring if the party could arrive a little before the birds were flightless so that no time would be wasted if there were none there. The mines at Sveagruva have now closed down and Kjellstrømdalen looks from air photographs to be a very suitable valley, and would probably be well worth a visit, as also would the flat land round Cape Martin, which is known to hold some geese but has not been thoroughly explored.

### ACKNOWLEDGMENTS

We must express our deep gratitude to Herr Balstad, the Sysselman of Svalbard, and his wife, and to the employees of the Spitsbergen Coal Company, who extended to us all the help and hospitality at their disposal; Dr Holger Holgersen, of Stavanger Museum; and G. Lamont and C. Scotland, who took part in the earlier operations. We are much indebted to the Royal Society, Sherborne School, and the Gino Watkins Memorial Fund for financial assistance.



### RECOVERIES OF PINK-FOOTED GEESE RINGED IN SPITSBERGEN

Ring Number	Age	Where Ringed	Date of Ringing	Recovered
23801	Juvenile	Gipsdalen (78°30'N., 17°E.)	13.8.52	Neuharlingersiel, Ostfriesland, Germany (53°42'N., 7°43'E.), 28.10.52
23866	Juvenile	"	14.8.52	Fanö, near Esbjerg, Denmark (c. 55°26'N., 8°22'E.), 11.10.52
23868	Juvenile	"	15.8.52	Sande, near Wilhelmshaven, Germany (53°31'N., 8°1'E.), 31.3.54
23887	Juvenile	"	14 or 15.8.52	Vaern Enge, Ringkøbing Fjord, Denmark (55°52'N., 8°15'E.), 12.10.53
23889	Juvenile	"	14.8.52	Föhr, Schleswig, Holstein, Germany (54°43'N., 8°30'E.), 15.12.54
23894	Juvenile	"	14.8.52	Föhr, Schleswig Holstein, Germany, 31.1.54
204808	Adult	Reindalen (77°50'N., 15°30'E.)	14.7.54	Gaasterland, Friesland, Holland (52°50'N., 5°32'E.), 8.1.55
204815	Adult	"	14.7.54	Stickhausen, Ostfriesland, Germany (53°14'N., 7°40'E.), c. 10.12.54
204827	Adult	"	14.7.54	Gaasterland, Friesland, Holland, 2.10.54
204832	Adult	"	14.7.54	Gaasterland, Friesland, Holland, 10.1.55
204860	Adult	"	14.7.54	Astrup, S. Jutland, Denmark (55°10'N., 8°41'E.), 24.10.54
204873	Adult	"	14.7.54	Oostkerke, West-Flanders, Belgium (51°10'W., 3°14'E.), 13.2.55
204900	Adult	"	14.7.54	Werdum, Ostfriesland, Germany (53°40'N., 7°44'E.), 4.10.54
205105	Adult	"	14.7.54	Föhr, Schleswig Holstein, Germany, 16.12.54
205112	Adult	"	14.7.54	Rijsterbos, Friesland, Holland (52°51'N., 5°35'E.), 10.1.55
205142	Adult	"	14.7.54	Pitkum, near Emden, Ostfriesland, Germany (c. 53°23'N., 7°13'E.), 4.12.54
205153	Adult	"	14.7.54	Lynderup Enge, Hjarback Fjord, Denmark (56°34'N., 9°20'E.), last week 10.54
205166	Adult	"	14.7.54	Föhr, Schleswig Holstein, Germany, 22.12.54

Ring Number	Age	Where Ringed	Date of Ringing	Recovered
205187	Adult	„	14.7.54	Burderhammrich, Ostfriesland, Germany (53°14'N., 7°18'E.), 5.1.55
204523	Adult	„	15.7.54	Vaern Enge, Ringkøbing Fjord, Denmark, 5.10.54
204525	Adult	„	15.7.54	Vaern Enge, Ringkøbing Fjord, Denmark, 5.10.54
204527	Adult	„	15.7.54	Föhr, Schleswig Holstein, Germany mid 11.54
204568	Adult	„	15.7.54	Horsten, Ostfriesland, Germany (53°29'N., 7°59'E.), 2.12.54
204573	Adult	„	15.7.54	Büchten, Hanover, Germany (52°41'N., 9°37'E.), 23.12.54
204579	Adult	„	15.7.54	Föhr, Schleswig Holstein, Germany, mid 11.54
205142	Adult	Reindalen	15.7.54	Pitkum, near Emden, Ostfriesland, Germany (c. 53°23'N., 7°13'E.), 4.12.54
205208	Adult	„	15.7.54	Föhr, Schleswig Holstein, Germany, 18.12.54
205245	Adult	„	15.7.54	Steinhausen, Oldenburg, Germany (53°24'N., 8°08'E.), 20.1.55
205250	Adult ♂	„	15.7.54	{ Shot together, Föhr, Schleswig Holstein, Germany, 22.12.54
205251	Adult ♀	„	15.7.54	
205253	Adult	„	15.7.54	Graauw en Langendam, Zeeland, Holland (51°22'N., 4°4'E.), 20.1.55
205265	Adult	„	15.7.54	Norden, Ostermarsch, Germany (53°35'N., 7°12'E.), 4.12.54
205812	Adult	„	16.7.54	Baie de Seine, France (c. 49°28'N., 0°20'E.), 22.1.55
205821	Adult	„	16.7.54	Lüttjegaste, Ostfriesland, Germany (53°11'N., 7°29'E.), 5.11.54
205832	Adult	„	16.7.54	Bagges Daemring, Ringkøbing, Denmark (56°7'N., 8°8'E.), 28.11.54
205848	Adult	„	16.7.54	Nije Mirdum, Friesland, Holland (52°51'N., 5°35'E.), 15.12.54
204607	Juvenile	Sassendalen (78°10'N., 16°30'E.)	29.7.54	Föhr, Schleswig Holstein, Germany, 4.1.55
205891	Juvenile	„	29.7.54	Vaern Enge, Ringkøbing Fjord, Denmark, 10.11.54
205893	Juvenile	„	29.7.54	Rindum, near Ringkøbing, Denmark (56°6'N., 8°16'E.), 16.10.54
205899	Adult	„	29.7.54	Föhr, Schleswig Holstein, Germany, 4.1.55
204624	Juvenile	„	4.8.54	Vaern Enge, Ringkøbing Fjord, Denmark, 30.9.54

We are much indebted to Dr Holger Holgersen for informing us of the recoveries listed above, and for permission to publish them here.

It will, of course, be noted that no Spitsbergen ringed Pinkfoot has so far been recovered in Britain.

