

WEIGHT GAIN AND SOUTHWARD FLIGHT BY A BANDED NORTHERN WATERTHRUSH  
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 bon Society\* and Frederic R. Scott

During the fall of 1969 Nisbet and Howard netted birds in the Codman Woods, Lincoln, Massachusetts (see Howard, EBBA News, 33(1): 45-46, 1970). The area, 15 miles inland, consisted of second growth woods, red maple swamp, and partially overgrown fields. Ten 30mm tethered nets were run from dawn to dark on all dry days from 10 September to 9 October.

On 15 September at 0815 Nisbet banded a Northern Waterthrush, number 70-68770. Its wing chord was 77 mm, its skull was completely ossified, it had a trace of fat and it weighed 17.1 grams. The bird was recaptured 8 days later and 440 miles south-southwest on 23 September 1969, at Kiptopeke Beach, Virginia and was processed at 0850. It was recognized as a foreign retrap and was examined carefully by Scott and several other banders. They confirmed that the skull was completely ossified, recorded its wing chord as 76mm and its weight as 21.3 g, a gain of over 4 g.

We would like to know where the bird gained weight, but unfortunately we do not have any definite information about its travels during the intervening 8 days. It was not retrapped at Lincoln, although three of the other six Northern Waterthrushes banded there in 1969 were recaptured at least once. One bird, recaptured 5 times, lost 2.3 g in 8 days (10 September- 19.5 g; 11 Sep - 19.8 g; 12 Sep - 19.2 g; 13 Sep - 18.5 g; 17 Sep - 18.5 g; 18 Sep - 17.2 g). Another, recaptured 4 times gained 1.7 g in 9 days (10 Sep - 17.4 g; 13 Sep - 17.0 g; 14 Sep - 17.4 g; 17 Sep - 19.2 g; 19 Sep - 19.1 g). A third bird increased from 16.6 g to 17.1 g in three days. It is possible that the weights of these birds were adversely affected by repeated trapping, as has been noted several times in other studies (Rogers and Odum, Wilson Bulletin, 78(4):415-433, 1966), so it is difficult to compare their rate of weight gain with that of 70-68770. However, these birds were retrapped so frequently that it seems unlikely that 70-68770 could have stayed long at Lincoln without being retrapped.

At Kiptopeke, the only significant wave of Northern Waterthrushes in this period was on 19 September (see accompanying table). None was weighed on that day, but two immatures caught next day weighed 15.8 and 16.0 grams, suggesting that the wave had been of light birds. Although other species were banded in good numbers from 21-23 September, retraps were numerous, amounting to more than 20% of the number of new bandings on each day. Hence, although no Northern Waterthrushes were retrapped at this period, it seems possible that 70-68770 had arrived in the Kiptopeke area with the wave on the 19th and had remained there until it moved into the netting area and was caught on the 23rd.

Date	<u>9/18</u>	<u>9/19</u>	<u>9/20</u>	<u>9/21</u>	<u>9/22</u>	<u>9/23</u>	<u>9/24</u>
Total new birds banded	14	788	66	142	274	220	126
Total repeats	8	3	12	37	59	46	12
No. Waterthrushes banded (new)	1	17	2	4	2	3	2
Winds: direction	NW-NE	NE	NE	NE	NE	NE	var.
speed (m.p.h.)	10-20	15-25	15-20	15-35	5-25	5-25	light

One of the original goals of Operation Recovery was to obtain direct recoveries of this kind, indicating the flight paths, speed and other migratory habits of songbirds. As most participants know, such recoveries have been disappointingly few, reflecting the large number of birds involved in the Atlantic coast migration, and perhaps also indicating that they have only a weak tendency to adhere to the coast itself. Interestingly enough, the first such record was also of a Northern Waterthrush. This was banded at Plum Island, Massachusetts on 2 September 1957 and recovered at 0730 on 7 September 1957 at Island Beach, New Jersey (Baird, et al., Bird Banding, 29(3): 137-168, 1958). This flight of 260 miles in 5 days is just over half the length of the flight of our bird. Perhaps the former represents one night's flight and the latter two nights' flight.

Caldwell, Odum and Marshall (Wilson Bulletin, 75(4):428-434, 1963) put forward the idea that some birds move south in stages, gaining weight as they go, until they reach the southern United States where they reach maximum weight and set off for their tropical winter quarters. The history of our bird is at least consistent with this idea.

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