WEIGHT LOSS OF DUNLINS Calidris alpina WHILE BEING KEPT AFTER CAPTURE

by Clare S. Lloyd, M.W. Pienkowski and C.D.T. Minton

Clearly, birds which are not feeding are likely to lose weight as food reserves are utilized. Ringers have long recognised that the weight of a bird is likely to decrease after capture if the bird cannot feed. As some delay before weighing is inevitable for most waders in large catches many ringers note the time delay between capture and weighing. Data are slowly accumulating to allow the magnitude of any weight loss to be assessed and, if appropriate, corrected. Such studies have now been undertaken on the Snipe Gallinago gallinago (OAG Münster 1975) and the Dunlin Calidris alpina (OAG Münster 1976, N. C. Davidson in prep.).

This note reports further study on Dunlins at the Wash, E. England where twenty birds were deliberately retained for a prolonged period after capture, as part of a detailed study on Dunlin weights (Pienkowski, Lloyd and Minton, in press). The birds lost weight at approximately 1g/h during the first hour, about 0.5g/h during the next three hours, and were still losing 0.3g/h after 12 hours (Fig. 1). With an initial weight of about 53g, this corresponds to a weight loss of 2.6% after 1 hour, 5.5% after 4 hours and 10.9% after 12 hours. The studies at Münster and by Davidson gave comparable results. Both our study and Davidson's show a high initial rate of weight loss, probably due to the emptying of gut contents and subsequently a lower rate, probably the result of utilization of tissue reserves. If repeated handling for weighing increases stress, and therefore weight loss, our study may slightly overestimate the rate at which reserves are utilized.

These studies emphasize the need to record the time which elapses after capture and before weighing. Additionally, ringers may like to consider the value of weighing a sample of birds from a catch immediately after extraction from the net if conditions allow this. Such samples taken immediately after capture would enable much easier comparisons between weights in different circumstances.

We are gateful to the members of the Wash Wader Ringing Group for catching the birds and to N. C. Davidson for discussions on his and our results.

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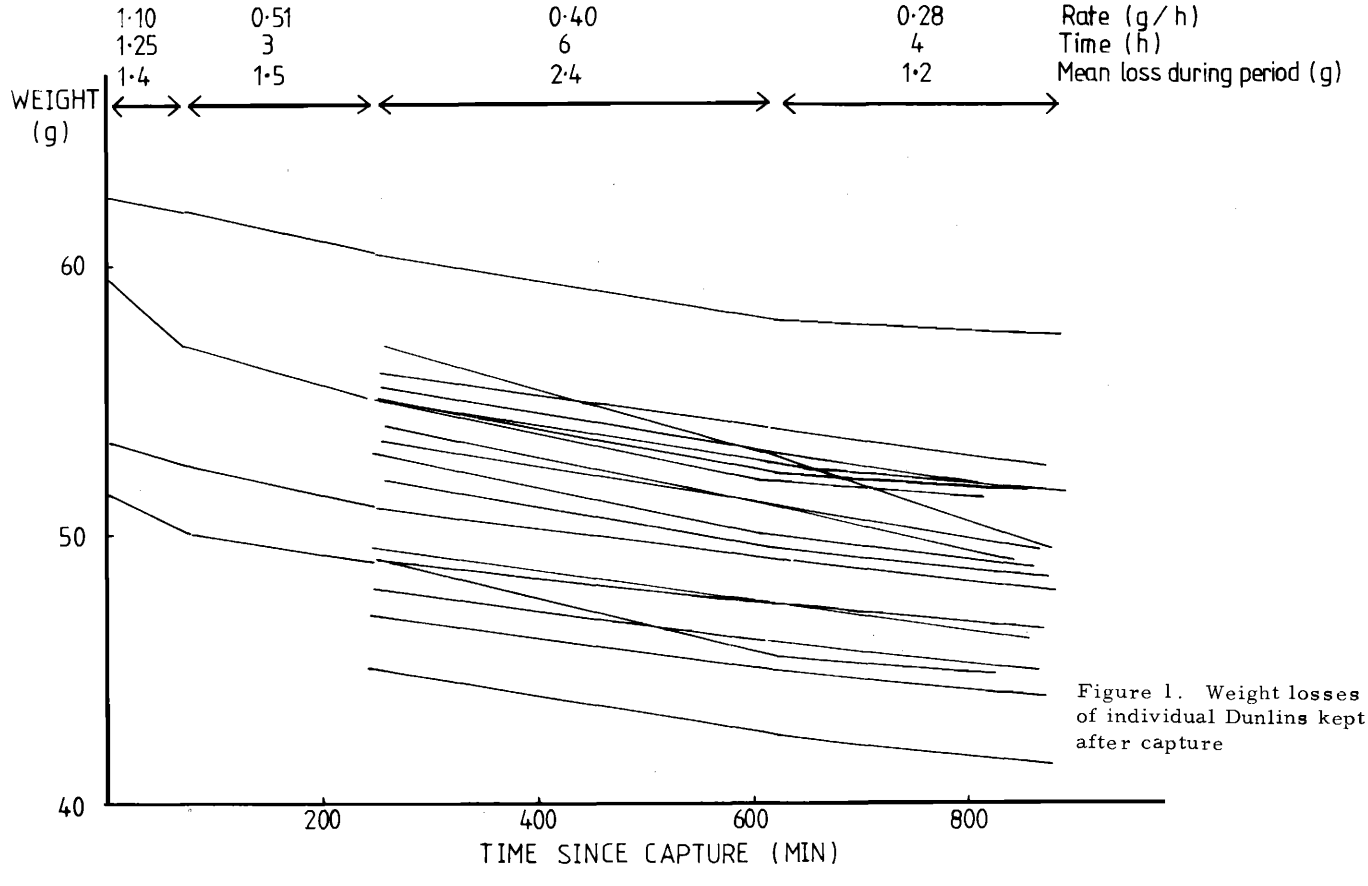

Figure 1. Weight losses of individual Dunlins kept after capture