

Delayed nesting in Oldsquaws.—On 7 June 1972, an Oldsquaw (*Clangula hyemalis*) nest containing one egg was found six km east of Churchill, Manitoba (58° 45' N, 99° 5' W). On 11 June the nest held two eggs. The next three eggs were laid prior to 16 June, and the sixth egg, on 16 June at 16:30. However, the banded female did not begin incubation but covered the clutch with about 3.5 cm of down. Temperatures in arctic Canada in May and June were well below the average in 1972 and on 17 and 18 June, 3.6 and 15.8 cm of snow, respectively, fell on the Keewatin and west Hudson and James Bays. The temperature on 18 June fell to -2° C at Churchill and most ponds and small lakes froze over, including the pond which the female Oldsquaw and her mate had occupied during the egg-laying period. On 18 June the pair departed to a large lake 0.5 km west of the nest. On 19 June, two sets of tracks, presumably those of the Oldsquaw pair, were visible in the snow at the nest-site but the birds were not observed near the nest until 26 June when the nest-site was no longer snow-covered. The female began incubation on 27 June and the six marked eggs hatched successfully on 24 July. Although no other Oldsquaw nests were found prior to 17 June, the presence of three incubating females on 1 July and of several broods of downy young on 24 and 25 July indicated that other clutches had been completed prior to the snowfall.

Apparently no females initiated egg-laying from 18 June until the area was clear of snow on 6 July. Two nests, each containing one egg, were found on that date. Two others, each containing a single unincubated egg, were found on 9 July. These four clutches were completed on 16, 17, 19 and 21 July, respectively. It was not possible to determine whether they hatched successfully.

In October 1972, attempts were made to live-trap immature Oldsquaws from each of two flocks of migrants at Toronto, Ontario to determine age ratios. It is assumed that the earliest migrant Oldsquaw flocks at Toronto are from populations breeding at the southern end of the species' breeding range, i.e. James and southwest Hudson Bays. Consequently, on 24 October, 18 immatures of this species (three males and 15 females) were captured from a flock of 47 birds which had apparently arrived at Toronto the previous day. The heads and necks of six (33%) of these individuals were partially covered with remnant juvenal down, whereas the remainder of the sample comprised older birds all of which had started the prebasic molt. In another sample of 26 immatures (eight males and 18 females), taken on 26 October from a single flock of 96 birds which had likely arrived the previous day, the heads of nine (30%) birds were partially down-covered.

In Oldsquaws, the juvenal plumage is complete, except for remnant down in the cervical and occipital regions, at the age of 35 days (Alison, unpub. Ph.D. dissertation, Univ. of Toronto, 1972). Consequently, the younger birds in the two samples were probably less than eight weeks old. The mean hatching date for these individuals was probably about 25 August. Allowing an incubation period of about 26 days, (Alison, *ibid*), the clutches from which these birds hatched were likely completed about 31 July. It might therefore be concluded that the younger immatures hatched from clutches initiated on or after 6 July, i.e. after the snow from the 17-18 June storm had melted on the Hudson Bay coast.

In this species, the prebasic molt does not begin until the young are at least 11 weeks old (Alison, *ibid*). Evidently, therefore, the older birds in the samples hatched prior to about 1 August. These individuals probably hatched from clutches completed about 6 July and presumably initiated about 26 June. However, on 26 June most potential coastal nest-sites on Hudson Bay, including almost all small islands in inland ponds, were snow-covered. Furthermore, due to the lack of evidence for Oldsquaws nesting between 18 June and 6 July, it is likely that the older immatures in the samples hatched from eggs laid prior to the 17-18 June snowfall. Thus, two age-classes among immature Oldsquaws resulted from the interruption in nesting activities caused by the unusually low June temperatures and record 17-18 June snowfall.

No instances of delayed incubation or delayed egg-laying in Oldsquaws have previously been recorded. However, Cooch (*Wildlife Management Bull. Series, 2: 28, 1965*) reported that during inclement weather, Common Eiders (*Somateria mollissima borealis*) almost cease egg-laying. A very late hatch in southern Oldsquaw breeding populations is unusual.

Young of this species fledge at 35 days of age (Alison, *ibid*) and thus, as a result of a late hatch, presumably some immatures were flightless when ponds and small lakes began to freeze about 20 September as temperatures fell below 0° C on the west coast of Hudson Bay (-9° C on 1 October at Churchill). If these severe conditions had occurred 10 days earlier, possibly the entire population of late-hatching Oldsquaws would have perished in a flightless condition on ice-covered ponds or small lakes.

On the Oldsquaw breeding grounds on Southampton and Baffin Islands snow cover was present in 1972 until after 15 July (data obtained from Toronto Weather Office) and much later on the other arctic islands of Canada. Furthermore, on Southampton Island, ponds began to freeze over on 11 September whereas on Baffin Island most ponds had frozen over on 19 August. At Cambridge Bay, Northwest Territories, most ponds were frozen on 10 September. Consequently, it is doubtful that northern populations of this species had sufficient time to rear broods successfully, and the highest reproductive success likely occurred along the south and west coasts of Hudson Bay south of Southampton Island.—R. M. ALISON, *Ministry of Natural Resources, Wildlife Branch, Room 4615A, Whitney Block, Parliament Buildings, Toronto, Ontario, Canada*. Received 13 December 1972, accepted 18 December 1972.

Fall movement and probable migrant returns of Mockingbirds in south Florida.—A definite pattern has emerged from four years of fall banding (22-25 Sept.-5 Nov.) of Mockingbirds (*Mimus polyglottos*) in Homestead, Florida. The two acres on which my nets are set support with contiguous land an estimated resident population of six pairs. These appear to be installed on territory by November. Until mid-October constant pursuits and battles occur with an overflow of birds as follows:

totals netted in the four years,

the last week of September—	117
the first week of October	83
the second week of October	57
the third week of October—	30
the fourth week of October—	9
the first week of November—	8

Of these, before 15 October, 80 birds are known HY, by the dark iris or "skulling." Because not all fall HY birds can be "skulled," some early-hatched birds could be incorrectly aged. After 15 October, I have taken only five known HY birds.

My Returns over five years also show a pattern (I am absent from 15 May-22 Sept.):

- 19 birds have returned during the time of the year that I am present,
- 14 have returned only in fall (12 in 2 successive years, 1 in 3 successive years, and 1 in 2 alternate years),
- 2 have returned only in winter, in 2 successive years,
- 4 have returned in fall-spring only (3 in 2 successive years, 1 in 2 alternate years),
- 9 have been in spring-fall only (2 in 3 successive years, 7 in 2),
- 1 has returned in spring only, in 2 successive years.

It is possible that some birds might have been present all the time and were not trapped, but I run up to 18 nets on and off all winter. The likelihood of taking most of the resident birds is strong enough so that the above pattern would have meaning.

My oldest bird was handled 17 times in four years.—ERMA J. FISK, *17101 SW 284 Street, Homestead, Florida 33030*. Received 30 November 1972, accepted 13 December 1972.