

Dusky Canada Goose Survey on Middleton Island - 2000

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We conducted a survey of Canada geese on Middleton Island from June 19-21, 2000. This effort is directed at documenting growth of this island group (Fig.1) and periodically determining its status as part of the dusky Canada goose population. Survey methodology was similar to surveys conducted in 1996 and 1997. The number of adult geese observed varied slightly (<288 geese) among the last 3 surveys (Table 1), indicating little change in the size of the breeding population in the late 1990s. The number of young observed in 2000, however, increased by approximately 50% (Table 1). More broods in 2000 (n=310) than in previous years (183 in 1996, 201 in 1997), rather than increased brood size, is responsible for the increase in young. We estimate that 48% of the Canada goose population on Middleton Island was composed of young in 2000 compared to 34% and 40% in 1996 and 1997, respectively. Higher rates of nest success, resulting in more broods is the reason why our estimate of total geese was higher in 2000 (Table 1).

Nesting chronology was relatively more synchronous in 2000 than in previous years with most broods being from 5-11 days of age (Fig. 2). Thus, peak nest initiation occurred between 6 and 12 May and peak of hatch occurred between 8 and 14 June (using an average clutch size of 6 and incubation period of 28 days). A small number of nests were initiated much earlier. Relatively greater proportions of younger (1996) or older (1997) aged broods in previous years (Fig. 2) indicates that breeding chronology in 2000 was intermediate with respect to the timing of nesting.

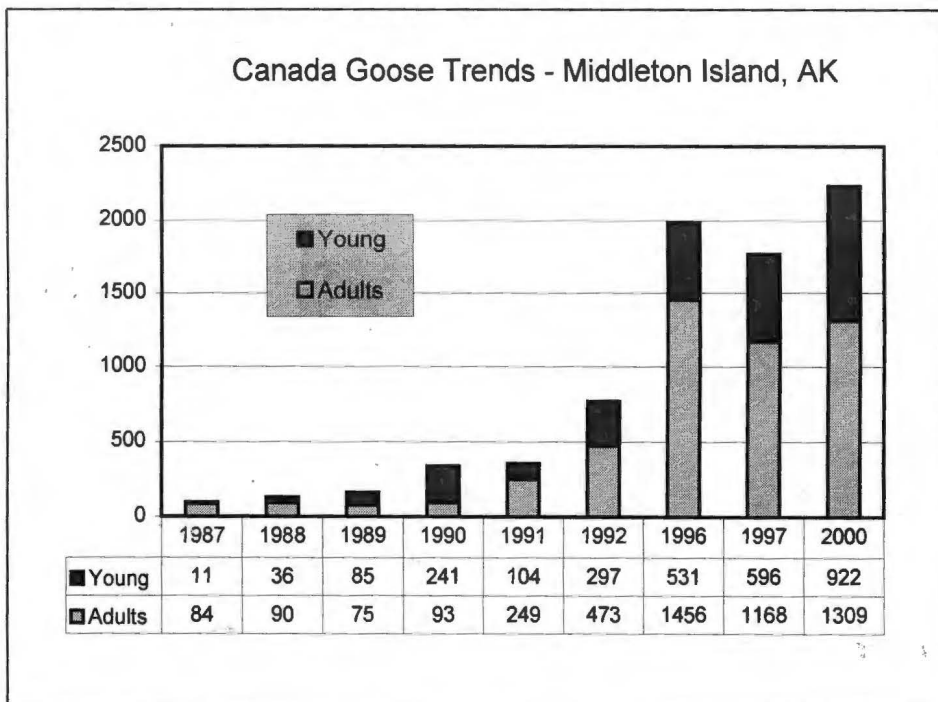


Table 1. Numbers of Canada geese observed on Middleton Island, Alaska during June in 1996, 1997 and 2000. The average and S.D. of known-sized broods was used to estimate size of suspected broods and broods of unknown size.

Year	Dates	Adults	Known-sized broods (young)		Unknown-sized broods (young)		Suspected broods ^a	Estimated young	Total geese observed ^b	Total geese estimated ^c
1996	Jun 20-22	1456	27	(111)	118	(420)	38	752±246 ^d	1987	2208±246
1997	Jun 23-25	1168	27	(106)	156	(490)	18	789±282 ^e	1764	1957±282
2000	Jun 19-21	1309	163	(638)	108	(284)	39	1227±284 ^f	2231	2536±284

^a Single or paired adult geese that flushed close, landed nearby and behaved as though a brood were present, although no goslings observed in heavy vegetation.

^b Adults + all observed young.

^c Adults + estimated young.

^d $111 + [(118 + 38) * 4.11 \pm 1.58]$

^e $106 + [(156 + 18) * 3.93 \pm 1.62]$

^f $638 + [(108 + 39) * 4.01 \pm 1.93]$

Figure 2. Age distribution of Canada goose broods observed on Middleton Island, Alaska in June 1996 (n=82), 1997 (n=128) and 2000 (n=206). Age was determined by plumage development.

