

PIGEON GUILLEMOT NEST BOX USE AT EAST LIMESTONE ISLAND, 2001-2006

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SUMMARY

In 2001 ten Pigeon Guillemot nest boxes were installed on East Limestone Island. Each year we checked the nest boxes for breeding activity, measuring eggs and chicks if present and banding young. Birds first nested in the boxes in 2002 and the number of occupied nest boxes generally increased across years. These nest boxes will facilitate research on Pigeon Guillemots that typically nest in natural rocky crevices that are difficult monitor.

INTRODUCTION

Pigeon Guillemots (*Cephus columba*) are common along the coastline of Haida Gwaii in spring and summer months and breeding birds occur throughout the archipelago, including East Limestone Island. Pigeon Guillemots nest in burrows typically located in rock cavities, often forming small colonies. Because nests in rocks are often difficult to access, monitoring breeding activity can be challenging. Breeding activity of Pigeon Guillemots on East Limestone was first monitored in 2001 when

ten wooden nest boxes were installed at the SE corner, on the rock ledges at Look-out Point. The boxes were designed with a 7" x 8" x 30" entrance tunnel attached to a 7" x 18" x 18" nest chamber with a hatch on top. Once in place, the boxes were weighted down with rocks and lined with pebbles. The purpose of this paper is to summarize the results from Pigeon Guillemot nest box monitoring to date on East Limestone Island.

METHODS

Nest box checks occurred at the end of each field season. We checked the contents of nest boxes in July however the timing of checks varied across years according each field season schedule (Table 1). We measured length, breadth and mass for all eggs and recorded mass and wing chord for chicks. We also banded chicks that weighed more than 55 g with size 4 incoloy bands.

Table 1
Timing of Pigeon Guillemot nest box checks on East Limestone Is.

Year	Date checked
2001	~ mid July
2002	06 July
2003	02 July
2004	19 July
2005	23 July
2006	18 July

RESULTS

Pigeon Guillemots did not breed in the nest boxes in 2001 (Fig. 1), but droppings at entrances indicated that birds visited at least two of the nest boxes. At least one box has been occupied by a breeding pair every year since 2002 (range: 1-6 active per year; Fig. 1) and we first recorded the presence of

chicks in 2005 (Table 2). The average egg was (\pm SD) 61.0 ± 2.8 mm in length, 40.5 ± 0.9 mm in breadth and 50.8 ± 3.5 g in mass. We banded eight chicks from five nest boxes in 2005 and four chicks from three boxes in 2006.

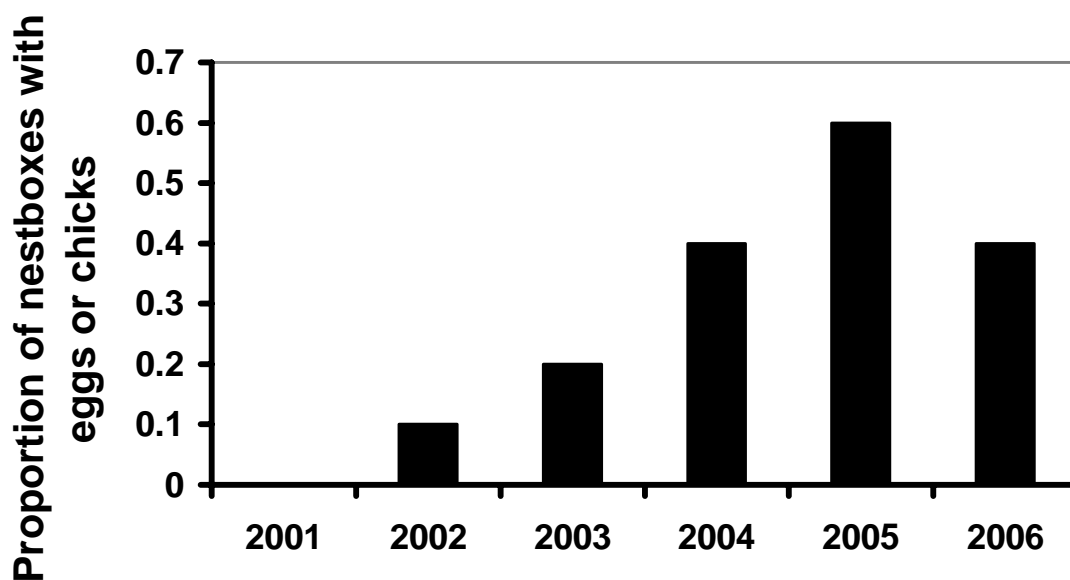


Figure 1
Proportion of Pigeon Guillemot nest boxes with eggs or chicks across years on East Limestone Is., 2001 to 2006 (n = ten nest boxes)

Table 2
Contents of Pigeon Guillemot nest boxes on East Limestone Island, 2001 to 2006
(E = egg, C = chick)

Nestbox #	2001	2002	2003	2004	2005	2006
P1	0	0	0	0	1E	0
P2	0	0	0	0	0	0
P3	0	0	0	1E	0	0
P4	0	0	0	2E	1C	1C
P5	0	0	0	0	1C	1E
P6	0	0	0	0	2C	2C
P7	0	0	0	0	0	0
P8	0	0	1E	1E	2C	0
P9	0	0	2E	1E	2C	2E
P10	0	3E	0	0	0	0

DISCUSSION

Pigeon Guillemots occupied the nest boxes within a year of installation and in general, nest box use at Lookout Pt. appears to be increasing across years. In 2006 fewer nest boxes were occupied compared to the previous year and this is likely attributed the fact that when checked in July, two boxes were unsuitable for nesting: one had a collapsed hatch and another lacked the gravel lining necessary for birds to form a shallow scrape.

The fact that birds are using the nest boxes might indicate that suitable nest sites are limited on East Limestone as nest site availability is considered to be an important factor affecting the size of some breeding populations (Ewins 1993).

In conclusion, the success of Pigeon Guillemot nest boxes on East Limestone is promising because these cavity nesting birds can be challenging to access and consequently difficult to study.

REFERENCES

- Ewins, P. J. 1999. Pigeon Guillemot (*Cephus columba*). In *The Birds of North America*, No. 49. (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington D.C.: The American Ornithologists Union.