Double Crested Cormorant
Productivity and Population Estimate
Lake Clark National Park and Preserve
1996

by

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Double-crested cormorant (Phalacrocorax auritus) adults and nests were counted in June 1996 and chicks in August 1996 to determine a minimum population estimate and productivity.

Study Area and Methods:

A double-crested cormorant colony is present on a cliff on the Tuxedni River, Lake Clark National Park and Preserve (Fig. 1) (latitude = 60° 05.260', longitude = 152° 34.846').

We counted adult cormorants and nests from a boat moving south to north along the cliff face. Counts for adults and nests were conducted in mid-June when eggs had been laid, but before most nests had failed (A. Bennett, NPS, pers. comm., J. Piatt, NBS, pers. comm.). Two observers silently counted at the same time, with one observer counting adults and the other nests. We recorded only those adults that were perched near or on a nest or in an incubating posture. An occupied nest was designated as one with an adult near or observed in an incubating posture. This terminology was derived from Postupalsky (1974). We recorded all nests and adults observed systematically as we moved from south to north along the cliff face.

Chick counts were recorded in the same manner as adults with the exception of only one observer completing the counts.

Results and Discussion:

We completed 4 separate counts of adults and nests. Three counts were completed on 17 June 1996 and one on 18 June 1996. We completed 2 counts of chicks on 12 August 1996.

Adult cormorant numbers ranged from 56 to 62 with a mean of 59 adults. Occupied nest numbers ranged from 39 to 50 with a mean of 39 nests. Counts of adults and occupied nests in 1995 were 50
and 30, respectively (NPS records). The figures we observed in 1996 are similar to those found in 1995. There does appear to be a slight increase in both adult and nest numbers in 1996. However, several factors may have contributed to this; including, experience of observers, difference in counting methodology, and weather conditions. Only through continued monitoring of this colony can an accurate assessment of cormorant numbers be
determined.

We completed 2 separate counts of double-crested cormorant chicks on 12 August 1996. The number of chicks recorded during the first count was 67, with 74 chicks observed on the second count (mean = 71 chicks). The mean number of chicks/occupied nest was 1.6. No figures are available from 1995 on the number of chicks observed at this colony.

Because nests were not individually marked, no estimate of percent nest success (number of successful nests/number of occupied nests) was available. In future surveys, each cormorant nest should be identified and given a number during the early survey. This can be achieved from drawings and photographs of the cliff face. In the late survey, when chick numbers are counted, the number of chicks per individual nest should be recorded. From these results percent nest success can be estimated.

**Literature Cited:**