

ABSTRACTS FOR CONDOR 104(1) FEBRUARY 2002 C.E.

FEATURE ARTICLES

MITOCHONDRIAL DNA SUGGESTS HIGH GENE FLOW IN ANCIENT MURRELETS

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Abstract. Ancient Murrelets (*Synthliboramphus antiquus*) are subarctic seabirds that breed on islands from British Columbia through Alaska to China. In this study, we used sequence variation in the mitochondrial control region and cytochrome *b* gene to estimate the extent of genetic differentiation and gene flow among populations both within British Columbia and across the North Pacific. Results suggest that genetic differentiation is low and female-mediated gene flow is high among colonies within British Columbia, in agreement with banding studies. Surprisingly, genetic differentiation appears to be low and gene flow high between British Columbia and Asia. The effective female population size appears to be stable, but the species may have undergone a range expansion. These results suggest that Ancient Murrelets from throughout the North Pacific may represent a single management unit for conservation.

Key words: Ancient Murrelet, gene flow, management unit, mitochondrial DNA, population genetic differentiation, *Synthliboramphus antiquus*.

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