

SHORT COMMUNICATIONS

HYBRIDIZATION AND POPULATION SUBDIVISION WITHIN AND BETWEEN ROSS'S GEESE AND LESSER SNOW GEESE: A MOLECULAR PERSPECTIVE

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Abstract. We reanalyzed Quinn's (1992) mtDNA control region data set including new sequences from nine Lesser Snow Geese (*Chen caerulescens caerulescens*) and 10 Ross's Geese (*Chen rossii*) and found the same divergent lineages that Quinn (1992) attributed to vicariant separation of Lesser Snow Goose populations during the Pleistocene. However, peculiar patterns of mtDNA control region sequence variation, including a multimodal mismatch distribution of mtDNA sequences with two levels of population structuring and the sharing of two divergent haplotype lineages, are consistent with two hybridization episodes in *Chen* geese. Comparisons of mtDNA variation with historical and allozyme data sets compiled by Cooke et al. (1988) are consistent with the hypothesis that sharing of two mtDNA haplotype lineages between Ross's Goose and Lesser Snow Goose resulted from hybridization (Avisé et al. 1992). Furthermore, population structure found within one haplotype cluster is consistent with Cooke et al.'s (1988) hypothesis of past allopatry between blue and white Lesser Snow Geese.

Key words: *Chen caerulescens caerulescens*, *Chen rossii*, *control region*, *hybridization*, *mtDNA sequencing*, *population genetics*.