

## THE IMPACT OF POPULATION DENSITY ON BODY CONDITION OF NEWFOUNDLAND ADULT WILLOW PTARMIGAN

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ABSTRACT.— We compared average weights of sampled Willow Ptarmigan (*Lagopus lagopus alleni*) to corresponding fall abundance (1975–2010) to assess the potential role of population abundance on body condition. Ptarmigan abundance was measured as birds seen per kilometer walked, and average weights were from a random harvested sample of the birds. We found an apparent negative relationship between Willow Ptarmigan abundance and average adult female and male weights. Importantly, previous data indicate that the island of Newfoundland has one of the lowest breeding densities of Willow Ptarmigan within its range. Newfoundland's marginal habitat may limit the ability of Willow Ptarmigan to reach densities similar to the rest of its range as expressed negatively through body condition. *Received 7 January 2011, accepted 31 January 2011.*

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