

## **GAINING NEW INSIGHTS INTO CANADA LYNX MANAGEMENT USING DNA<sup>TWS</sup>**

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Genetic data can be used to shed new light on old problems. We used genetic data on the Canada lynx (*Lynx canadensis*) to address questions concerning connectivity between lynx populations. Specifically, we tested if southern lynx populations are maintained by migrants moving from Canada to the United States or if southern lynx populations are self-

sustaining, isolated entities. To address this question we analyzed lynx DNA with nine microsatellite markers and used the data to estimate gene flow between seventeen lynx populations in Canada, Alaska, and the contiguous United States. Our data shows that gene flow is extremely high between most lynx populations. We discuss this finding in light of the Evolutionary Significant Unit (ESU) concept. Furthermore, we emphasize that if lynx populations in the contiguous United States are maintained by gene flow, as our data suggests, then efforts must be initiated to ensure that movement to and from Canada is maintained or enhanced.