

Characterizing Reproductive States in Canada Lynx (*Lynx Canadensis*) and Wolverine (*Gulo Gulo*) Using Non-Invasively Sampled Fecal Hormones

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Non-invasively collected samples such as feces and hair are regularly used in wildlife management to identify species' presence on the landscape. In some cases, genetic methods can be used to identify sex and specific individuals from these sample types when materials are high quality. Identifying reproductive state non-invasively is more challenging. We evaluated potential hormonal markers of reproduction for Canada lynx (*Lynx canadensis*) and wolverine (*Gulo gulo*) in non-invasively collected scat. We describe validation of assays for fecal progesterone, prostaglandin metabolites, and cortisol and describe how seasonal patterns of these hormone metabolites are altered by reproductive state. We discuss the utility of endocrine measures for non-invasively monitoring reproductive state in forest carnivores of conservation interest.