
TWO OUT OF THREE AIN'T BAD: 3 YEAR PROGRESS REPORT OF MULTI-SPECIES NON-INVASIVE MONITORING OF FOREST CARNIVORES IN THE SOUTHWEST CROWN OF THE CONTINENT

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The Southwestern Crown of the Continent is a 1.5 million acre landscape in western Montana that has been the focus of collaborative forest restoration since 2010. Monitoring the effects on forest carnivores of forest restoration efforts can aid land management decisions significantly. A multi-party working group initiated field work to collect baseline information regarding the distribution and relative abundance of forest carnivores across the Southwestern Crown. In the winters of 2012-2014, we employed non-invasive detection methods, including systematic grid-based snowtrack surveys (with backtracking to obtain genetic samples), combined with baited DNA snares and camera traps, to detect target species, including lynx (*Lynx canadensis*), wolverine (*Gulo gulo*), and fisher (*Pekania pennanti*). We surveyed 82 of the 129 5 x 5 mile grid cells in the study area, resulting in 3,366 miles of track surveys, and 274+ bait stations. We detected lynx in 35 cells and wolverine in 38 cells. The number of cells where lynx were detected was consistent between survey years, while the number of wolverine detection cells increased each survey year. We did not detect any fisher in the study area. Genetics have identified at least 18 individual lynx (13 M, 5 F) and 15 individual wolverines (6 M, 9 F). The combination of two detection methods improved our ability to detect species, including non-target species, compared with either method alone. Our methods could be deployed more widely in Montana.