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Evaluating the prey base for lynx: snowshoe hare abundance, habitat use, and population dynamics in Glacier National Park

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During summer 2006 we collected data at 38 sites throughout Glacier National Park. The work entailed pellet counts, vegetation surveys, live-trapping hares, and collecting genetic (fresh pellet) samples for mark-recapture abundance estimation from individual genotypes. This season's data suggest that snowshoe hare densities are low in much of Glacier National Park. Populations were patchily distributed, with highest concentrations occurring in the Park's southeast and northwest corners. While the two highest hare density sites occurred in 1988 post-fire regeneration, hare densities generally were highly variable in 1988 burn areas. Hares were functionally absent from 1994 burn areas. Early results from our non-invasive monitoring work indicate that these methods may be cost-effective only in high hare density sites that are difficult to access with traps. Sites with densities less than one hare per hectare may not yield sufficient fecal pellet samples to reliably estimate densities by DNA mark-recapture. Over the four-month field season we trained a crew of eight undergraduates and recent graduates in a variety of field research techniques. An additional 13 volunteers of various backgrounds assisted with research. Results of the hare research were presented to Park visitors in a "campfire talk" at the end of the field season.