

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Diets of Coyotes and Other Carnivores in Olympic National Park
Type of Project: Research
Discipline: Natural Resource
Funding Agency: National Park Service
Other Partners/Cooperators: University of Montana
Effective Dates: 8/1/2007-12/31/2008
Funding Amount: \$5250
Investigators and Agency Representative:
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Project Abstract: Olympic marmots (*Marmota olympus*) are large, burrowing endemic rodents inhabiting scattered subalpine meadows in Olympic National Park and the surrounding national forest. Over the past 25 years, they have disappeared from many locations and the remaining population is increasingly fragmented. The most likely driver of marmot decline is coyotes, which have entered the high country of the park only relatively recently. Little is known about distribution or abundance of coyotes, or of the diets of coyotes or other carnivores that may be preying on marmots.

Diets of carnivores can be determined from scats collected in the high country of the Park, but error inevitably exists in ascribing species to scats that are collected in the field. Therefore, researchers from the University of Montana will use diagnostic genetic tests to determine species of carnivore leaving the scats. Coyote scats that are detected will be further analyzed with other genetic analyses to determine number of individuals and background levels of genetic variation. Information gained from this research will provide information critical to the effective long-term management of declining endemic marmots in Olympic NP.

The University of Montana will sample predator scats collected from OLYM and verify initial species identification with DNA analysis and for coyote samples determined through DNA analysis, perform individual ID analysis. UM investigators will prepare a final report on carnivore diets in alpine OLYM, role of marmots in carnivore diets, and minimum number of coyotes preying on marmots in selected study areas

Outcomes with Completion Dates:

June 2008: Final report describing diets of carnivores in high elevation areas of the park, with particular emphasis on the role of marmots as prey. For all coyote samples, individuals will be identified to allow estimates of minimum numbers of coyotes in the alpine zones which are preying on marmots.

Keywords: Olympic NP; coyotes, marmots; predator-prey, Olympic NP, University of Montana

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Date Annual Report Received:
Date Final Report Received:
Publications, etc. on file: