**Analyzing Grizzly Bear Movement Patterns – Insights for Identifying Females with Newborn Cubs using Telemetry Data (Poster and Oral Presentation)

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Grizzly bears (*Ursus arctos horribilis*) generally den in rugged, remote terrain during winter months.Females give birth to cubs in the den in mid to late winter and emerge in spring with highly vulnerable cubs. Detection of cub presence to date has generally relied on aerial surveys,which are costly and challenging, particularly in denning terrain. An understanding of the presence and survival of grizzly bear cubs after den emergence is thus generally limited. This information gap impedes an accurate assessment of reproductive rates, an understanding of which is particularly important in the Cabinet-Yaak and Selkirk Recovery Ecosystems, where small populations can be particularly impacted by cub recruitment. Using post-den location data from 39 GPS-collared female grizzly bears in these populations, we aim to compare movement patterns using cumulative net displacement in an effort to differentiate females with newborn cubs, older young (1–2 years of age), and no offspring. We hypothesize that females with cubs will exhibit lower cumulative net displacement (a metric to quantify the totaldistance moved over a period of time) and reduced movements compared to females witholder young or no offspring, because more females who localize their space use can conserve energy and improve survival of their cubs. This ongoing research will improve an understandingof grizzly bear ecology in the Cabinet-Yaak and Selkirk Recovery Ecosystems.