
LAND MOLLUSK FAUNA OF MONTANA: BIOGEOGRAPHY, CONSERVATION STATUS AND PROSPECTS

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Approximately 78 species of land snails and slugs have been reported for Montana, contrasting to 93 for British Columbia, 85 for Idaho, and 43 for Wyoming. Non-natives comprise 14 percent (4 snails, 7 slugs) of the total for Montana, 29 percent (13 snails, 14 slugs) for British Columbia, 19 percent (5 snails, 11 slugs) for Idaho, and 7 percent (2 snails, 1 slug) for Wyoming. Total native species for Montana, British Columbia and Idaho are nearly equal (67, 66, and 69, respectively), but only 40 for Wyoming, reflecting an overall drier and harsher climate. For Montana, 24 species (16 snails, 8 slugs) occur only west of the Continental Divide; the land snail fauna east of the Divide is 43 species, equal to the Wyoming total. Reflecting further the significance of western Montana for mollusk biodiversity, with its moister and more moderate climate, 15 of 24 exclusively western species (7 snails, 8 slugs) are Montana Animal Species of Concern, 5 of which (*Discus brunsoni*, *Oreohelix alpina*, *O. amariradix*, *O. carinifera*, *O. elrodi*) are Montana endemic snails. Land snails require cool and humid environments during their active season, microhabitats most prevalent in mature and old growth forests, riparian corridors, and around springs, but also present in large stable talus slopes. Many of these habitats are vulnerable to a variety

of human-caused and natural disturbances. Some western Rocky Mountain populations are currently considered conspecific with Pacific Northwest coastal populations; genetic analyses are needed to determine if these are sister species, similar to results obtained for several amphibian taxa.