

## Response to "Inaccurate Data and the Olympic National Park Mountain Goat Controversy"

Dr. R. Lee Lyman has had a long-standing interest in the mountain goat (*Oreamnos americanus*) management issue at Olympic National Park (Lyman 1988). Lyman (1995) contends that our recent monograph (Houston et al. 1994) contains errors in mammalian biogeography. For the most part, these perceived "errors" result from differing interpretations.

With respect to mammal occurrence, we noted 12 species of terrestrial mammals absent historically from the Olympic Mountains compared to the Cascades, based on the reports of 5 earlier workers. Lyman (1995) rules it inappropriate to include the bog lemming (*Synaptomys borealis*) in the list of absent mammals because the current range of the species does not extend far enough south. Fine, although Dalquest (1948:338) reports that the species "...was evidently forced southward by the Pleistocene glaciers into Washington and is now retreating northward in the wake of the ice."

Lyman disagrees with our list of 18 mammals reported missing from the Alexander Archipelago, and reports only 6 missing from the entire area. As reported in the text (Houston et al. 1994:43), "[t]he situation on Alaska's Alexander Archipelago is more complex, but up to 18 species are absent from *one or more* of the islands compared to the mainland"; this seems to be the major difference in interpretation. This meaning is not clear in the monograph table (p. 44) listing the species.

Lyman reports 31 species of mammals missing from Vancouver Island compared to the mainland, 10 more than we report. The main difference seems to be that I did not include species whose current ranges in British Columbia were limited to the southwestern tip of the mainland, i.e., their ranges did not extend far north along the mainland coast parallel to Vancouver Island (the range of *Phenacomys intermedius* does extend about one-third the distance). At least seven of these species are members of Dalquest's (1948)

*Pacific Coastal Fauna* that "...reaches its northern limit of distribution in Washington and is better represented farther south" (Dalquest 1948:52). Clearly, I should have explained the rationale for not including these species (Houston's variant of Lyman's bog lemming rule). In retrospect, the 10 species could be included on a list of mammals considered to be absent from Vancouver Island.

Our main point (Houston et al. 1994) is that terrestrial mammals and plants on the Olympic Peninsula share certain biogeographic characteristics with Vancouver Island, the Queen Charlotte Islands, and the Alexander Archipelago. The four areas support endemic forms of mammals and plants and have mammalian faunas that are comparatively impoverished. We expect these general patterns of species diversity and endemism to be reinforced as the biogeography of many groups of invertebrates is better understood.

With respect to the Fannin and Grinnell (1890) article on mountain goat distribution that so exercises Lyman (1995), Schultz simply overlooked it in her search through many hundreds of documents (S. Schultz, personal communication, May 1995). Fannin and Grinnell (1890) report that goats occurred in the Olympic mountains during the 19th century, but there is a mountain of evidence to the contrary (Schultz 1994). Fannin and Grinnell (1890) got it wrong in this early popularized account, just as they did other important points. They mistakenly reported that the historic range of the mountain goat included Colorado, as well as the southern Sierra Nevada of California. They also placed Mount Saint Helens and Mount Adams—with their goat populations—in Oregon instead of Washington.

Lyman (1988, 1994) has long disagreed with the National Park Service on mountain goat management, particularly interpretations of the archeological and historical evidence concerning the occurrence of mountain goats in the Olympic Mountains. Lyman reported that mountain goats

could have been present historically in the Olympic Mountains, but "...might not have been recorded because appropriate areas were not surveyed (Lyman 1988:14). As noted by Schultz (1994), considerably more historical information existed on early conditions in the Olympic Mountains than reported by Lyman (1988). Curiously, in subsequent reference to the 1988 paper Lyman claims that "...it was never my intent to review all of that [historical] information; I was more intent on figuring out a way to get goats into the Olympics" (Lyman to Houston, letter of 27 February 1995). Little seems to have changed.

I too encourage those interested to review the available documents, including Lyman's 1988

paper, Schalk's (1993) interpretation of the archeological/ethnographic information, and the Schultz (1994) review of the historic accounts of mountain goats on the Olympic Peninsula. Summaries of the nine independent reviews of these issues, so disparaged by Lyman (1995), will be found in a recently released draft environmental impact statement (National Park Service 1995). The complete reviews are available from the superintendent of Olympic National Park, 600 East Park Ave., Port Angeles, WA 98362.

### Acknowledgement

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