



## Cover

Source: Arctic, Antarctic, and Alpine Research, 49(4)

Published By: Institute of Arctic and Alpine Research (INSTAAR),  
University of Colorado

URL: <https://doi.org/10.1657/AAAR0049-4-c1>

---

BioOne Complete ([complete.BioOne.org](https://complete.BioOne.org)) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](http://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

# Arctic, Antarctic, and Alpine Research

An Interdisciplinary Journal



Institute of Arctic and Alpine Research  
UNIVERSITY OF COLORADO **BOULDER**

Vol. 49, No. 4 November 2017