



2018 UW-NPS Harlow Summer Seminars

AT THE AMK RANCH NEAR LEEK'S MARINA, NORTH OF COLTER BAY

Open to the public – reservations not required, \$5+ donation

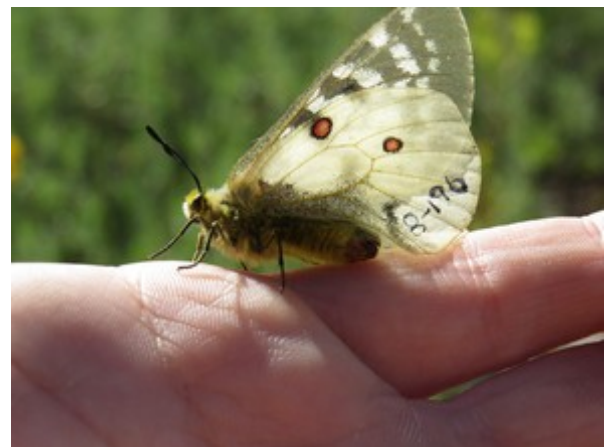
THURSDAY, JULY 5TH 2018, 5:30 PM

Butterfly and plant responses to climate change in montane meadows of Grand Teton National Park

Diane Debinski

Professor and Head, Department of Ecology, Montana State University

Montane systems may be most sensitive to climate change. Montane meadows are especially diverse and productive with respect to their plant communities, and as such, they are important food sources for a diverse group of herbivores, from small insect pollinators to large mammals. Temperature increases associated with climate change will likely lead to a decrease in the duration of snow cover, and this change could have a significant effect on the ecology of these systems. Butterflies can serve as ecological indicators because they are abundant, showy, and easily identified. *Parnassius* butterflies in the Tetons lay their eggs each year in mid-summer. These eggs overwinter under the deep snow, hatching into caterpillars in the spring when snowpack melts, and then flying as butterflies in summer. We have been studying *Parnassius* butterflies and the flowering plants that they use for nectar in the Tetons for over 25 years. This talk will tell the story of how a small white butterfly may provide a window into understanding how climate change may be affecting montane ecosystems worldwide.



Barbecue starts at 5:30 with hamburgers, veggie burgers, hot dogs, chips, salads and dessert for a \$5+ donation. The talk starts at 6:30 in the historic Berol Lodge at the AMK Ranch. Turn right when entering Leek's Marina parking lot in Grand Teton National Park.



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Biography (see attached photos):

Dr. Debinski is the Department Head for Montana State University's Ecology Department. She pursues research and teaching in the fields of conservation biology, landscape ecology, and restoration ecology. Some of the topics of her research include biodiversity preservation, and the ecological effects of habitat fragmentation and climate change. In grasslands, her research has focused on evaluating the use of fire and grazing in the context of managing for plant, bird, and pollinator communities. In montane meadows she has been conducting both observational and experimental studies of community responses to drought and environmental variation. She has also conducted research and taught a course focused on the recruitment and retention of women in Science, Technology, Engineering, and Math (STEM).

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