

Bridging Knowledge Across Scales For Adaptation Planning in Denali National Park

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Climate change impacts local places in surprising ways: by creating uncertainty for decision-makers who are nested at different organizational levels and spatial scales. The speed and complexity of the projected changes require that communities, agencies and government entities develop new methods to collect information, decipher trends and implications, and respond to change. In Denali National Park managers and rural subsistence communities make decisions at different scales that have cross-scale impacts and influence the natural resources and ecosystem services of the boreal forest. This project aims to document, assess and then facilitate the translation of current science, agency observations and data and local knowledge of rural community members between levels. We will use interviews and focus groups to understand how long-term residents of rural communities and National Park Service (NPS) employees understand the social-ecological system of Denali, what knowledge and data they possess about system function, what questions they have about the systems response to change, and whether available information could be scaled up or down to answer these questions. We propose that managers and rural community members will have different perceptions of change and understandings of system dynamics resulting in different questions and sets of data/information that they collect. We believe that cross-scale sharing of knowledge and data may provide complementary information and lead to more sustainable management and informed adaptation planning.

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