

Contemplating the Translation of Qualitative Local Knowledge Data into Community Databases

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This presentation will focus on the data management issues of an evolving community-based monitoring system with Viliui Sakha communities of northeastern Siberia, Russia (and potentially in the near-future in the project's other site, Labrador, Canada). This NE Siberia community-based monitoring system has evolved out of a 2008-2011 NSF-funded Arctic Social Science project to gauge local perceptions, understandings and responses to the regional effects of global climate change. Findings revealed that one of the nine main changes observed was a change in the timing of the seasons. In response, Crate worked with her colleague and historical climatologist, Astrid Ogilvie, to develop a collaborative proposal, *Understanding Climate-Driven Phenological Change - Observations, Adaptations and Cultural Implications in Northeastern Siberia and Labrador/Nunatsiavut (PHENARC)*, in response to NSF's Arctic Systems Science call for interdisciplinary projects on changing seasonality. Ogilvie brings her expertise and also the inclusion of one of her field sites, Labrador, Canada, that gives the project a strong comparative aspect. Although only in its formative stages, Viliui Sakha communities envision creating what is known in US culture as a 'citizen science' network, possibly coordinated through local schools in which case it will have the added benefit of being both an education experience and of being guided by the next generation(s). To date, project PI Crate has been working with a dozen residents of the four research villages who she has contracted to record daily weather conditions, climate observations, and phenological (seasonal) changes. The qualitative ethnographic analysis of journals is ongoing and the individual journals bear a wealth of rich data related to how individuals perceive their world and the changes therein. However quantitatively there is the need to find ways to bring these data into a common 'language' in order to input them into a common village-level data base. How can communities develop village-level knowledge databases and use them?

Brief Overview of PHENARC: The primary research objective of PHENARC is to understand present and potential future linkages between Arctic system climate change, altered phenological processes, and adaptations and responses of human societies to these changes. Broad research questions are: i) What are the key seasonal events that form an integral part of the ecosystems in PHENARC's two main study areas of northeastern Siberia and Labrador?; ii) How are these seasonal events changing, and what specific phenological shifts are occurring in these study areas?; iii) What are the drivers of these seasonal events, and how do they cascade through and affect the entire system?; iv) How are phenological changes and their resulting ecosystem impacts affecting the timing of people's subsistence and other activities?; v) How are these societal changes in turn affecting the larger cultural system?
