***Investigations of the Long Term Sustainability of Human Ecodynamic Systems in Northern Iceland (MYCHANGE)***

This international, cross-disciplinary NSF-funded project focuses on change, the environment, and sustainability in Icelandduring the period ca. AD 1700 to 1950. A major aim of the project is to establish developments in human and social ecodynamics by considering one specific region – the Mývatn district in northeastern Iceland. The written record of subsistence and economy in Iceland is extensive, and includes highly detailed historical and literary accounts produced by individuals on a wide variety of scales from the personal, such as diaries and letters, to the official, including documents from governmental and municipal archives. The “MYCHANGE” project has a particular focus on such documentary evidence, and written accounts of daily activities include: haymaking; herding animals; subsistence; and trade, and provide a rich source of different perspectives on how people experienced, structured, and made use of their environment. The project encompasses a number of disciplines including historical ecology, environmental history, and literary studies, and includes considerable input from archaeology, in particular zooarchaeology. The project timeframe begins ca. 1700 as from that time onwards the documentary evidence is extensive, and extends to ca. 1950. After that time numerous changes occurred that are beyond the scope of this exploratory project.

In order to establish a synthetic view of the vulnerabilities and strengths that formed past subsistence modes the project places primary emphasis on one specific yet crucial aspect of the economy: the productivity of the grass growth and hay yield. The main elements considered are: haymaking; grassland management; and their inter-connections with climatic, environmental, and socioeconomic aspects. MYCHANGE relies on the contribution of local Mývatn farmers as well as on a long legacy of collaboration with scholars and scientists who have graciously provided expertise encompassing a variety of approaches and perspectives. The project also benefits from the results of several prior NSF-funded projects including *Landscapes of Settlement, Human and Social Dynamics in Myvatnssveit, Comparative Island Ecodynamics*, International Polar Year funding, and *Millennial Scale Ecodynamics in Skútustaðir, Mývatn, N. Iceland*. MYCHANGE team members can also draw on the shared literary focus of the *Inscribing Environmental Memory in the Icelandic Sagas* project. Notable in the list of synergistic collaboration is the long history of NABO research in the region, as well as support from Mývatn Research Station, Fornleifastofnun Íslands, and the Stefansson Arctic Institute based in nearby Akureyri. MYCHANGE is funded by a National Science Foundation "Early Concept Grant for Exploratory Research (EAGER)" award (1446308) for two years (2014-2016). The overarching goal of the project is to lay the foundation for a broader study of ecodynamics, social resilience and change in northeastern Iceland

The project team members are: **Astrid Ogilvie (**Principal Investigator**)** based at INSTAAR and the Stefansson Arctic Institute whohas worked for many years in the fields of historical ecology, climate change, environmental history, and human and social dynamics, with a primary focus on literary and historical sources from Iceland; **Árni Daníel Júlíusson** is an independent historian specializing in agricultural and environmental history, based at the Reykjavík Academy. A primary research focus is the Icelandic transition to modernity around 1800. His most recent work is two volumes on Icelandic agricultural history; **Megan Hicks** is an archaeologist based at Hunter Colleage at the City University of New York with expertise in zooarchaeology. Her interests and publications deal with human and animal interaction, local ecological knowledge, and the ecology of modernization. She has led NSF-funded research on the long-term farm of Skútustaðir in the Mývatn region and conducted a survey of 8 additional nearby farms; **Viðar Hreinsson** is an independent literary scholar based at the Reykjavík Academy. His main interests are in Icelandic cultural and literary history, most recently in the context of ecocriticism. Particular interests are 17th- and 19th-century manuscript sources, and also saga literature. In this latter regard he was the general editor of the most recent translation into English of the *Sagas of Icelanders*; **Ragnhildur Sigurðardóttir** is an independent ecosystem ecologist and geologist based at the Reykjavik Academy, specializing in cross-disciplinary approaches to systems analysis. Her main interests are in modeling natural and social systems for long-term sustainability assessments. She is a Lake Mývatn local, with valuable academic and native insight into landscape use in the recent past. In addition to local municipal archives, her family archives are an important historical resource for this project.