RISES is a four-year research project (2012-2016) funded by the Academy of Finland. The project aims to reconstruct the environmental histories of integrated social-ecological systems in Fennoscandia and Yamal, West Siberia that have been characterized by both climate change and the constant adaptation of people and their reindeer herds through the late Holocene. The herds migrate long distances on territories characterized by rapid climate and land-use change, in particular oil and gas development. The team is experienced in strongly interdisciplinary and theoretical research. Intensive study areas for collecting experimental (quantitative) and descriptive (qualitative) data are selected for two bioclimatic zones, near and beyond treeline, in each region. The project links indigenous (Sámi and Nenets) oral histories with archaeology, palaeoecology and modern ecological and climate studies for a holistic explanation of stable states. We are in the process of producing a state-of-the-art assessment on the relative roles of, and feedbacks between, humans, animals and climate in the structure, function and resilience of past and contemporary systems.