## **Terrestrial Ecology in the Arctic; Climate Change Challenges**

Elisabeth J. Cooper<sup>1, 2</sup>

<sup>1</sup>University of Tromsø, Norway, <sup>2</sup>National Institute of Polar Research, Japan.

The climate is changing globally but it is in the Polar Regions that there is the greatest change and the biggest impacts. Climatic change research has been carried out in the Arctic over the last 20 years and we are beginning to have some idea of the potential impacts of changes in temperature and precipitation during the summer months. However, the winter periods are rather little studied and less understood than the summer growing season. This presentation will outline some such challenges facing the terrestrial Arctic and how organisms may overcome these difficulties or else be forced to relocate. New communities, trophic interactions and complex patterns of organization may be developed, and may be difficult to predict. The Arctic may look and function very differently in the future than it does today. These ideas will be presented and discussed.