

IMS Seminar  
October 9, 2013  
201 O'Neill, 3:30 pm

**Dr. Terry Chapin**  
UAF Professor Emeritus  
Department of Biology & Wildlife / Institute of Arctic Biology

### **Fostering resilience of the arctic system**

People are a critical part of the arctic system and strongly influence its future trajectory. Many aspects of arctic change are well documented and have frequently been summarized in various arctic assessment reports. Gaps in knowledge have also been identified and form the basis of research planning exercises by the scientific community, funding agencies and managers. From these assessments and plans, research findings and research priorities have been carefully defined and are broadly agreed upon. In contrast to the fact-based science reports, arctic management reports largely focus on process (leadership, coordination and engagement) in ways that are not tightly linked to scientific findings. Those aspects of arctic science that are least developed are interdisciplinary aspects that describe the resilience of the arctic system to changes occurring in the arctic and the consequences for the global system. In addition we need to identify more effective processes for identifying actionable science and its efficient incorporation into policies and actions. I suggest some steps for making arctic science more responsive to emerging uncertainties and to the needs of residents of the arctic and the rest of the planet.