

CLIMATE VULNERABILITY ASSESSMENT

By Ann Pierce

As continued pressure is placed on our natural resource base through invasive species spread, fragmentation, and increased product demand, our natural resources become more and more vulnerable to loss. These threats are amplified by the over-arching impacts of climate change. Current trends indicate that we may already be observing impacts of climate variability and warming on key wildlife and forest species. For example, changes in drought patterns and winter lows are indirectly impacting species such as jack pine and red pine through alteration of the disturbance patterns on which these species depend. Since 1950, average ice-out has tended to get earlier by two days per decade; since 1996 the trend is 7.5 days per decade (data through 2006).

Climate variability will impact most landscapes and watersheds in Minnesota, and conservation and preservation of the state's living resources must include a process for managing these resources through this transition to allow our systems to adapt to a certain amount of climate change. The goal of this project is to conduct a holistic assessment of the effects of climate variability on plant communities and wildlife species in Minnesota to help the state prioritize management needs.