Grass River Natural Area – Facing the Challenge of Climate Change

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This video is about people who are entrusted with the protection and preservation of one of northern Michigan's most important and revered natural areas. Showing real leadership, the board of directors, staff and volunteers of the Grass River Natural Area (GRNA) are working to document, understand and manage the impacts of climate change that threaten these critical wetlands.

Recognizing that climate change is altering conditions and habitats for all life, this nonprofit organization is not debating the topic or hesitating at the edge of action. GRNA has launched an effort to confront these challenges head on. They are reaching out to field biologists and other scientists, gathering information about what changes are underway and what lies ahead. They know that the management choices ahead are both complex and critical.

Topics Covered

Climate Change; Adaptation; Endangered Species; Biological Diversity

Next Generation Science Standards

- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
- MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
- MS-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.
- HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- HS-LS4-4. Construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.