

“ When one tugs  
at a single thing in  
nature, he finds it  
is attached to the  
rest of the  
world.” - John  
Muir

# Paradise Lost? Project Plan

## Baldwin Wisconsin Idea Award 2006

- Call for Artists
- Workshop with artists, scientists and educators
- Artists create work
- Staff create interpretive text
- Exhibit travels 2007-2008, to date 8 locations and approximately 75,000 visitors in northern Wisconsin and Michigan

# Workshop at Camp Jorn



# Scientists



# Artists





# Installation Art by Workshop Participants



# Ice Sculptures





# Exhibit Opens In North Woods

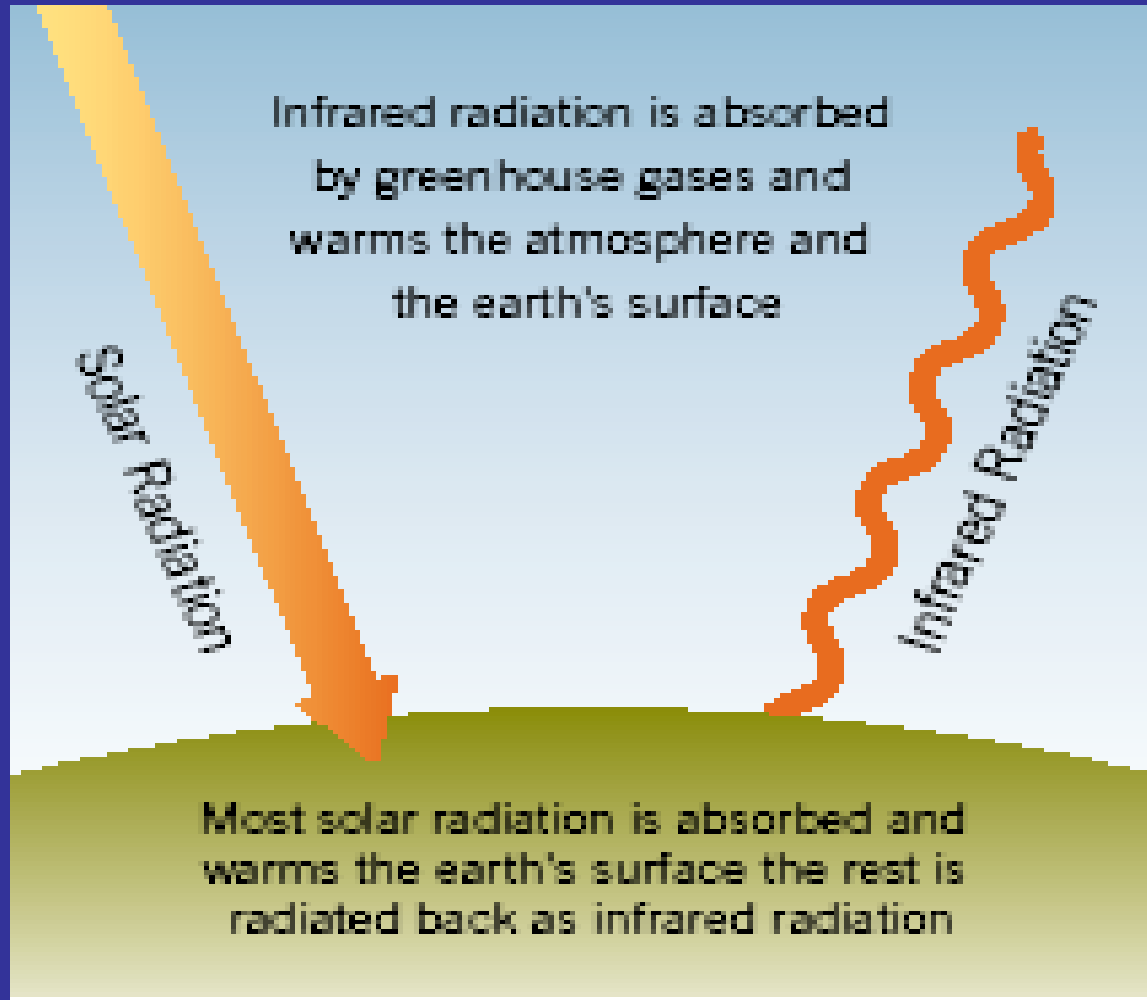


# Student Artwork

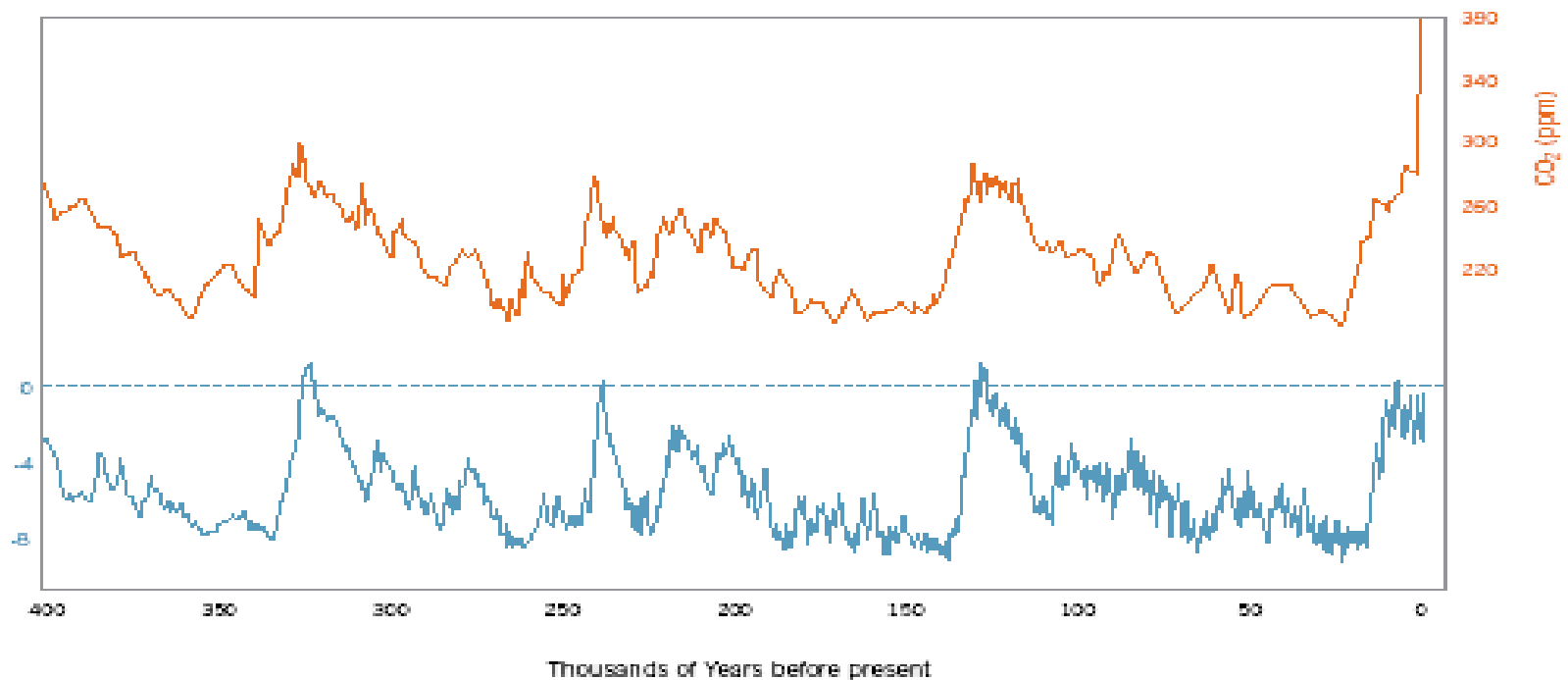


# Exhibit Content

- Consider Climate Change
- Celebrate the Cold
- Alter the Course



## CO<sub>2</sub> and Temperature



Fluctuations in temperature and in the atmospheric concentration of carbon dioxide over the past 400,000 years as inferred from Antarctic ice-core records (45). The vertical red bar is the increase in atmospheric carbon dioxide levels over the past two centuries and before 2006.

# Artist Responses



*Climate Change  
Globe, Bonnie  
Peterson*

Climate Change Globe, 2006, Traditional 12" diameter school globe on metal stand, acrylic paint, marker and paint pen



*Its Just Math,  
Fiber Art,  
Bonnie Peterson*



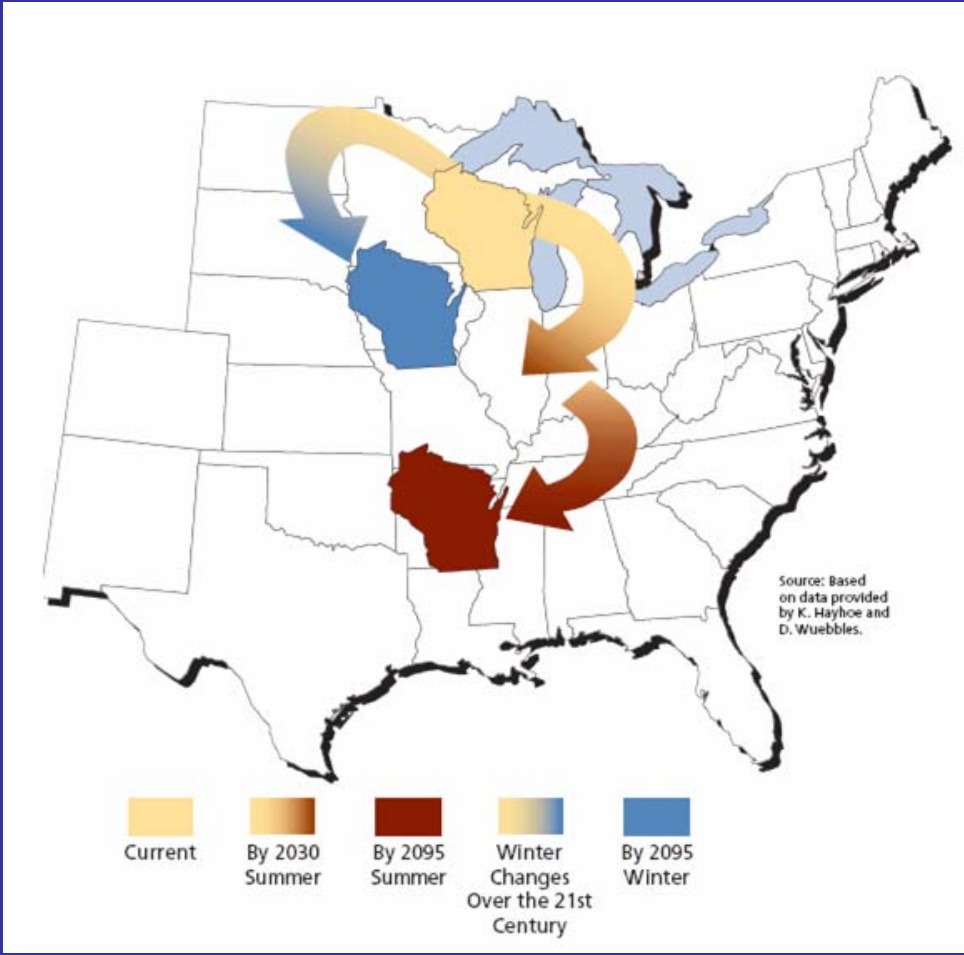
*Detail, Its Just Math*





*The Warming,  
Metal Sculpture,  
Marilyn Annin*

# Celebrate the Cold - North Woods Impacts





Arkansas Or Bust, dimms? large State puzzle, toy Hummers, corporate action figure, 2007



*A Puzzle for  
our Children,  
Ages 4 and  
Up  
Jamie Young*

# Winter – Our Sense of Place



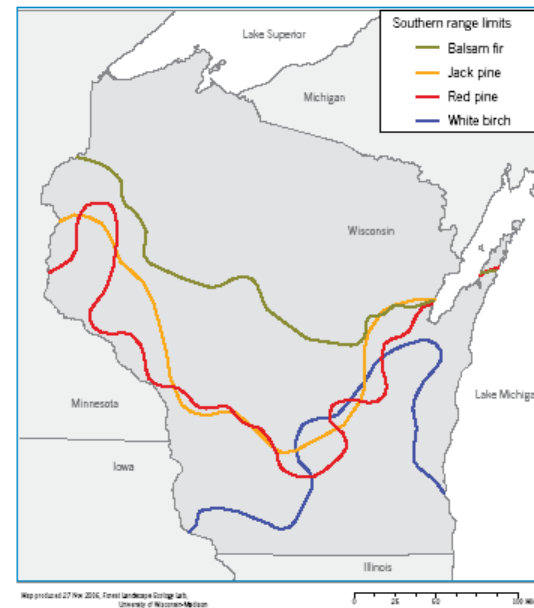
*David Níec, Moonlight and Shadows on Trees*

# Terrestrial Impacts, Forests, Wetlands, Wildlife

## Northward Ho - Habitats on the Move

As the climate changes, plant and animal ranges will also change. In the Northwoods, many northern forest plants may decline or be eliminated, while the range of some southern species may move north. White spruce, balsam fir, red pine, jack pine and paper birch will likely disappear from our region due to climate change. The new conditions may favor species such as oak and other hardwoods, but they may be slow to migrate north.

Southern range limits for four species likely to be affected by climate change, estimated from the 1996 US Forest Inventory and Analysis

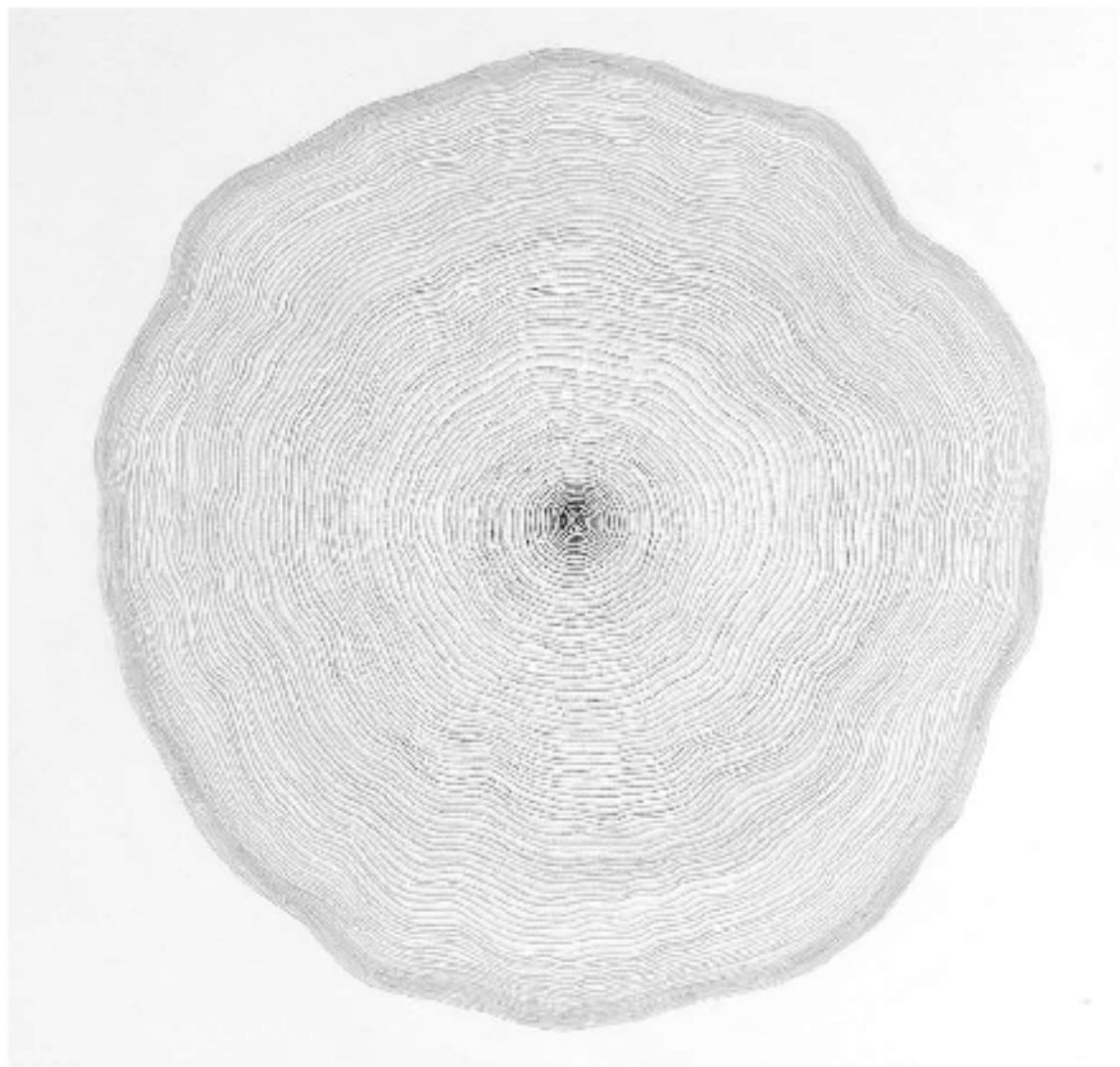


As climate changes, we expect northward migration of some tree species from the south

At the same time, many tree species will be displaced to the north or extirpated



*Icon, pastel on wood, Terry Daulton*



*Generations*, Graphite on paper, 2006

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Scott Pauli

*Generations,  
Graphite on  
Paper, Scott  
Pauli*

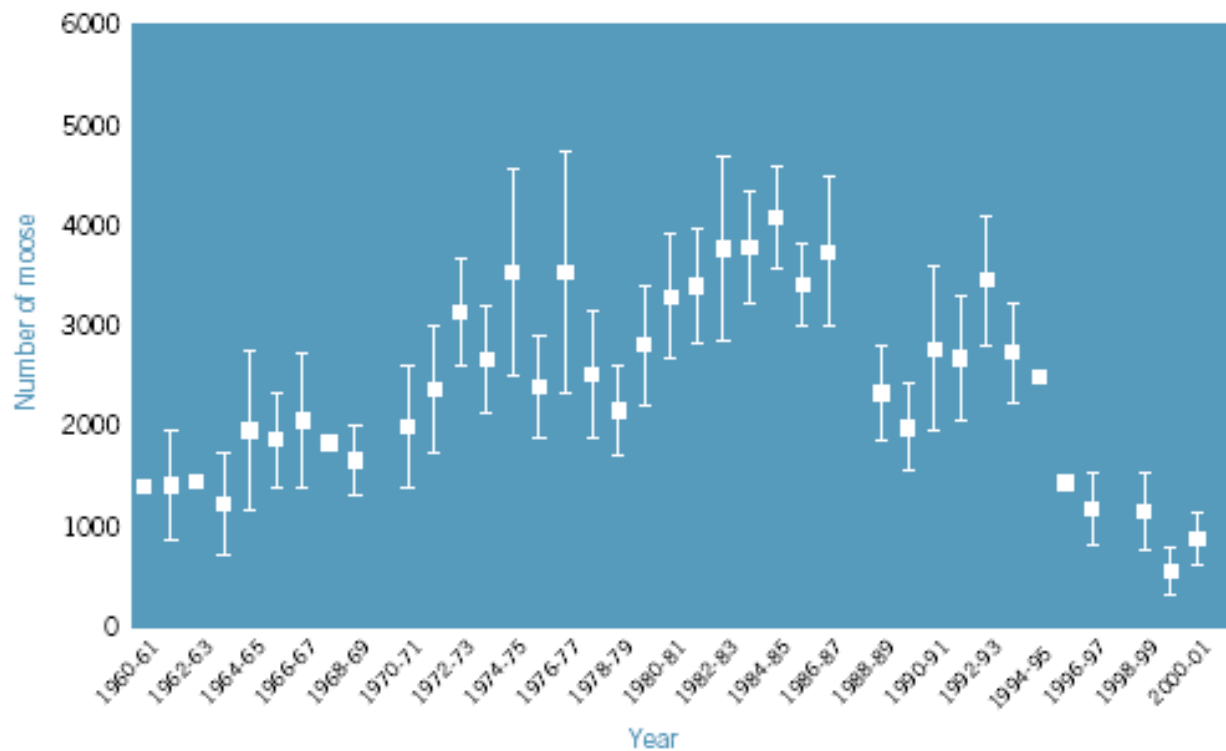


*A Trail of  
Feathers,  
Weaving Fiber  
Arts,  
Mary Burns*





### Northwest Minnesota Moose Population 1960 to 2001





*Moose Running,  
Oil on Canvas,  
Joyce  
Koskenmaki*

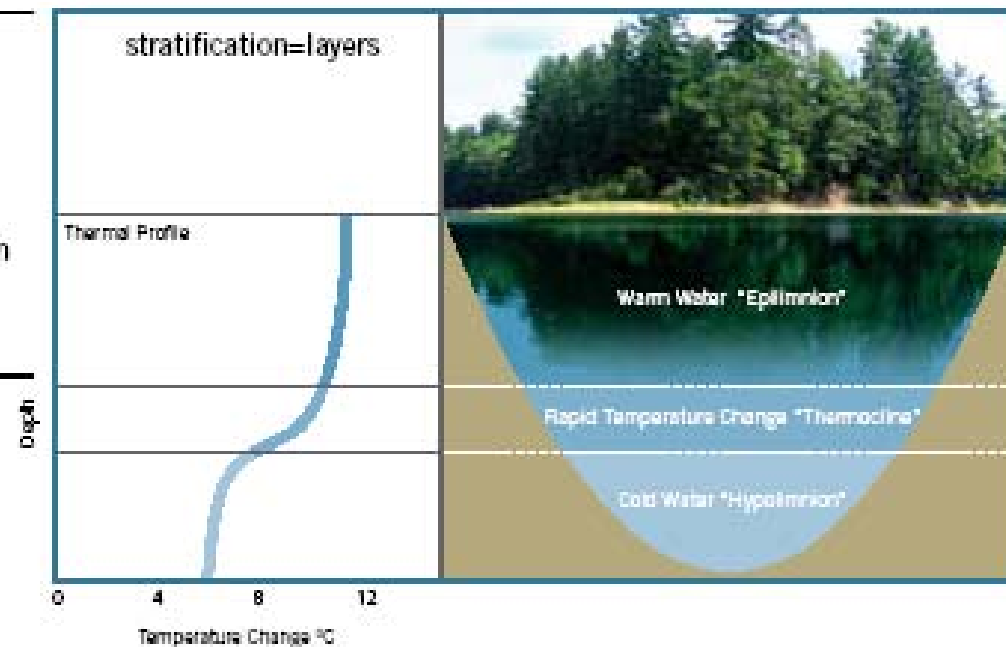
## Lakes, Small to Superior

How will climate change affect lakes?

- Increased algae and nutrients, turning clear lakes more green and murky
- Increased runoff and erosion from sudden storms
- Increased thermal layering in lakes in summer, causing low oxygen in deep zones
- Changes from cold and cool water fish such as trout and pike to warmer water species such as bass and catfish
- More invasive warm water species such as carp
- Less winter ice cover

### Lake stratification

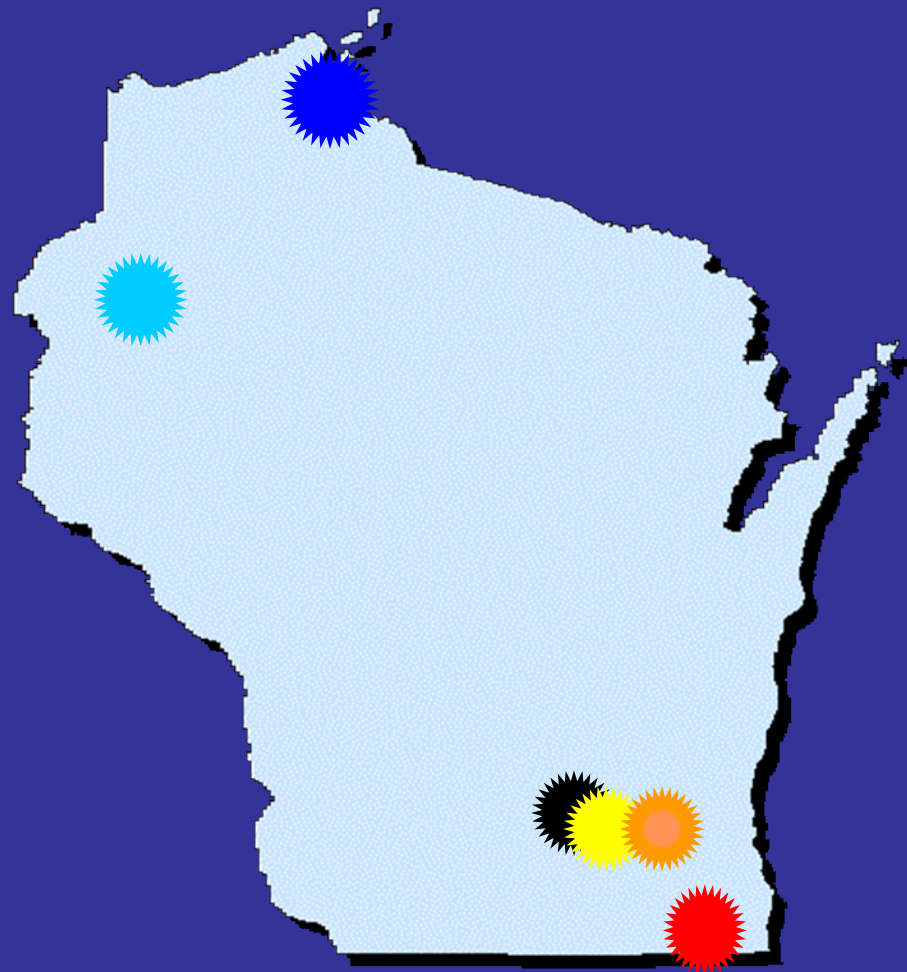
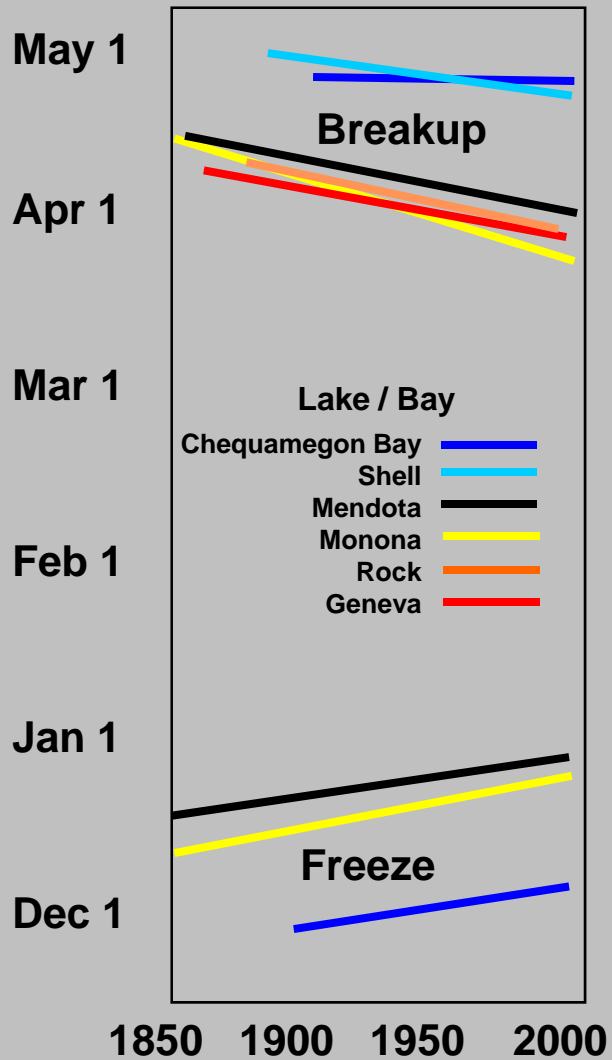
Warmer temperatures will prolong the duration of summer temperature layers, preventing mixing and thus preventing oxygen from reaching the deeper layers of the lake.





*The Things We Know, Watercolor,  
Amy Arnston*

# Changes in Ice Dates Around Wisconsin





*Winter's End,  
Watercolor,  
Helen  
Klebesadel*



*Ice Messengers, Oil  
on Canvas, Diana  
Randolph*



*February Past and Future, Photograph,  
Jeff Richter*

*February 1996*





*February Past and  
Future, Photograph,  
Jeff Richter*

*February 2000*



Superior photo by: Cows Marshall

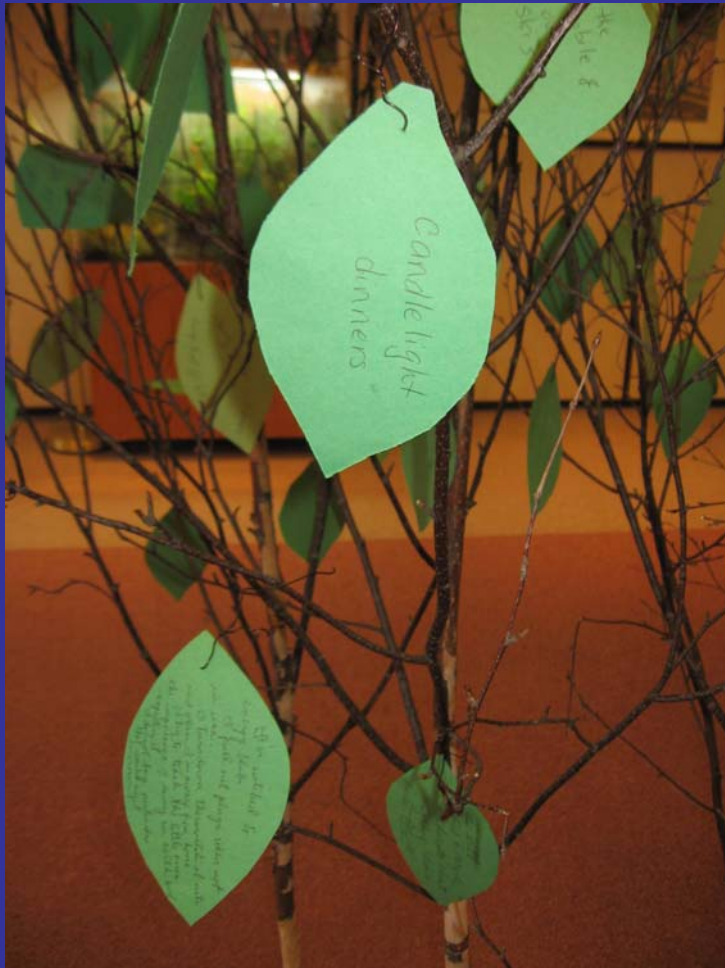
## Fishing for an Answer?

### Climate Change in Your Creel Basket

- As waters warm, fish like perch, smallmouth bass and carp may extend their range about 300 miles north into Ontario.
- 8 minnow, 7 sunfish, and 3 sucker species may extend their ranges north in the Great Lakes region with warming waters.
- The southern limit of cold water fish like whitefish, lake trout and brook trout, and cool water species, like northern pike and walleye, may move north.
- Reproduction of lake trout, walleye and pike may decline as spawning habitats warm.
- Lake trout may be lost in many warming inland lakes.
- There may be fewer winter fish-kills due to less winter ice cover on lakes.

For the angler this may mean a change in bag limits, what species you fish for, and where you fish.

# Alter the Course





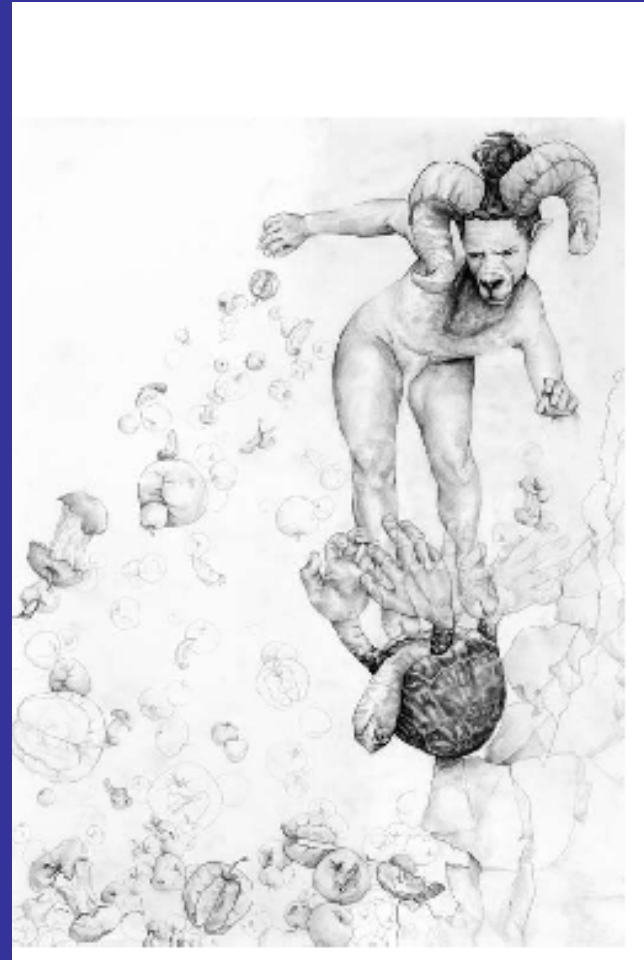
*Walking Blind,  
Pastel on Paper, jd  
slack*



*Support our Spruce, Pastel  
on Paper, jd slack*



*What you can,  
Graphite on  
Paper, Melissa  
Cook*



*Before the Fall,  
Graphite on Paper,  
Melissa Cook*

# WHAT CAN YOU DO?

Here are several things you can do to reduce greenhouse gas emissions and alter the course of climate change in the Northwoods for the better. Start with the easy options and work up. Many of these options have the added value of saving you money, and some will even improve your health!

## Home Heating and Cooling

Reduce up to 44% of total home energy use

- > Use setback thermostat
- > Insulate and seal air leaks
- > Install an ENERGY STAR® furnace

## Appliances and Electronics

Reduce up to 39% of total home energy use

- > Turn off and unplug when not in use
- > Buy ENERGY STAR® appliances
- > Replace refrigerators and freezers made before 1990

## Water Heating

Reduce up to 11% of total home energy use

- > Install a low flow shower head
- > Install a high efficiency water heater

## Lighting use

Reduce up to 6% of total home energy

- > Use compact fluorescent bulbs
- > Turn off lights when not in use

## Transportation

Reduce or eliminate CO2 emissions

- > Carpool
- > Walk
- > Bike
- > Take the bus
- > Buy a fuel efficient car
- > Purchase locally grown foods

## Renewables

Reduce or eliminate CO2 emissions

- > Participate in your utility's green power program
- > Install solar panels or a wind generator

## Plant a tree

Recapture CO2 from the atmosphere

- > Choose a species native to your area
- > Volunteer to help manage invasive species

## Write a letter to our leaders

Help them make good decisions

- > Start locally to act Globally

This Paradise we call the Northwoods  
does not have to be lost. If we all work  
together we can make a difference for  
the Lake Superior Region.

“Never doubt that a small group of  
thoughtful, committed citizens can  
change the world. Indeed, it’s the  
only thing that ever has.”

– Margaret Mead



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Scott Pauli, layout and catalog designer

# Writers and Musicians

- John Bates, prose and poetry
- Sarah Wright, prose
- Howard Paap, prose
- Charles Thomas, Musician
- Frank Montano, Musician

# Project Funders

- Baldwin Award
- Wisconsin Arts Board
- Bruning Foundation
- US Environmental Protection Agency
- Exhibition Host Sites

# Project Partners

- University of Wisconsin- Madison Center for Biology Education
- University of Wisconsin – School of Forest Ecology and Management
- University of Wisconsin – Limnology Lab , Trout Lake
- North Lakeland Discovery Center

# Future Exhibit Locations

- Olbrich Gardens, Madison, WI Jan 12 – Feb 8
- James Ford Bell Museum, Minneapolis, MN Feb 16- April 13
- Wisconsin Department of Natural Resources - Wild Rose Hatchery Interpretive Center, April 18th-July 14th
- Cable Natural History Museum, July 18th-October 4th