

Boozhoo



Gikinoo'wizhiwe Onji Waaban *(Guiding for Tomorrow)*

or

“G-WOW” Changing Climate, Changing Culture Initiative *A New Model for Climate Change Literacy & Action*

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on behalf of G-WOW Team

G-WOW Team Partners



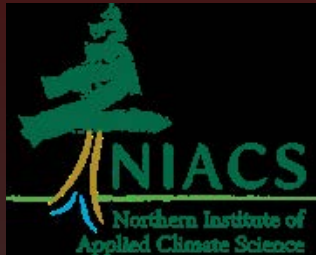
Funding Provided by:



Additional technical support and resources



Wisconsin climate science research, mapping tools



Climate science for northern Wisconsin forests



Multi-cultural place-based stories of climate change

Project Location:



In the heart of the Lake Superior Ojibwe Country, based at the Northern Great Lakes Visitor Center Ashland, WI

This region includes 11 Ojibwe Tribes living within the “Ceded Territory” of northern WI, MN, and MI.



Applicable to other locations & cultures



G-WOW Roots (2007)



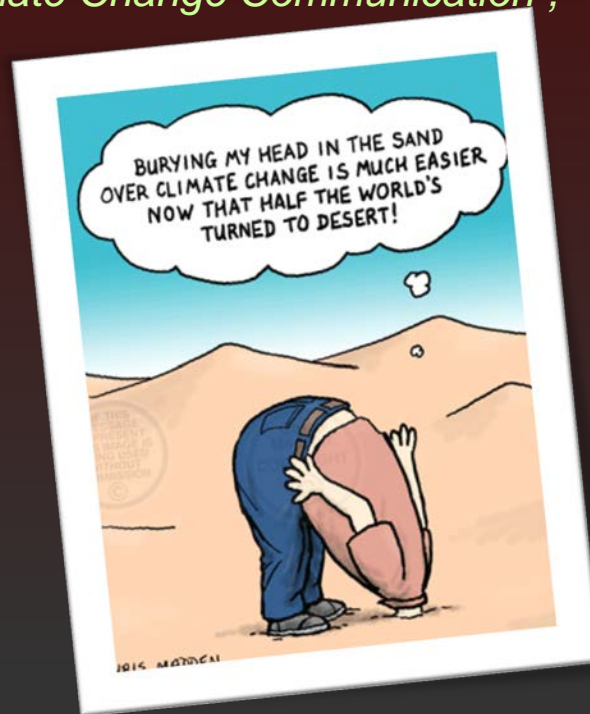
- Increasing evidence that climate change is affecting the sustainability of Lake Superior coastal resources, communities, and cultures
- Concern about climate change impacts to Ojibwe treaty rights and traditional cultural practices within the Ceded Territory
- “Traditional” climate literacy models were not resonating with audiences

Diverse project partners came together as the G-WOW Team to develop a new climate change educational outreach strategy

Culture Informing Science

“...local, place-based evidence of climate change gained through experiential learning is as, or more effective than, simply studying analytical climate change data to increasing climate change literacy.”

“The Psychology of Climate Change Communication”, Columbia University 2009



The Lake Superior Ojibwe have relied on the sustainability of key plant and animal species for generations to support subsistence, cultural, and spiritual practices or “lifeways”

Their traditional ecological knowledge (TEK) of natural systems provides place-based indicators of climate change for people of all cultures

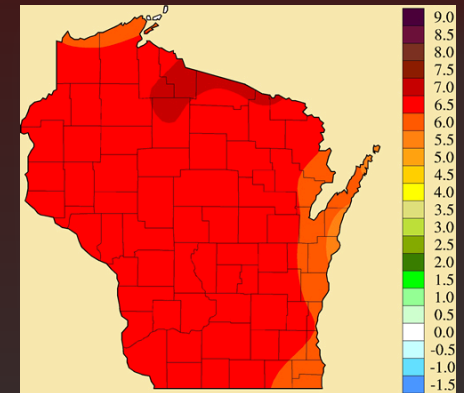


G-WOW Key Principles



Harvesting birch bark- a boreal species that relies on a cool climate

- Climate change is real
- Humans contribute to climate change
- Weather and climate are different
- Climate affects culture
- We can make a difference!



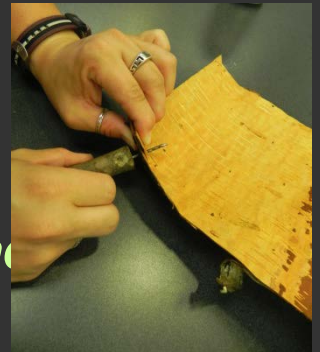
Projected change in Wisconsin's annual average temperatures in °F 1980-2055

Why Is the G-WOW Model Unique?

It based on evaluating climate change impacts on the habitat conditions needed for the sustainability of plant or animal species that support a cultural practice through integration of place-based with scientific evidence

- Creates a culturally relevant climate change perspective
- Links cultural, place-based evidence with scientific climate research
- Makes the model transferrable to other cultures
- Promotes action through service learning

The G-WOW model uses impacts on Ojibwe cultural practice as an indicator of a changing climate for all cultures



Applying G-WOW model: Wild Ricing

Manoomin (wild rice) is a key species to the Ojibwe for subsistence, spiritual, and ceremonial purposes.



The Ojibwe lifeway of wild rice harvesting depends on the sustainability of manoomin.



The sustainability of manoomin depends on habitats with:

- shallow water
- moderate water level fluctuations
- cool growing season temperatures

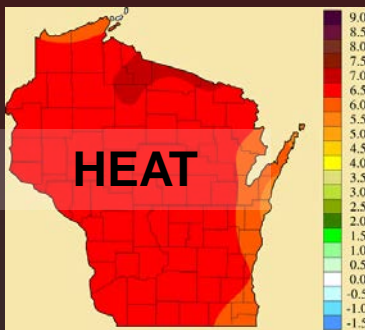


Is there place-based evidence of climate change impacts on manoomin?

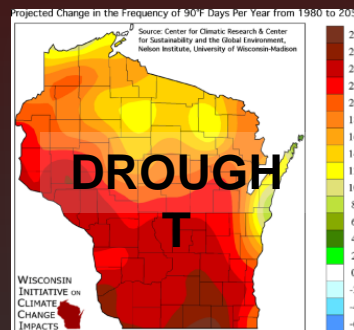
2007 - 2012: Unprecedented disruptions in tribal wild rice harvests and yields due to drought, fungal disease, storms



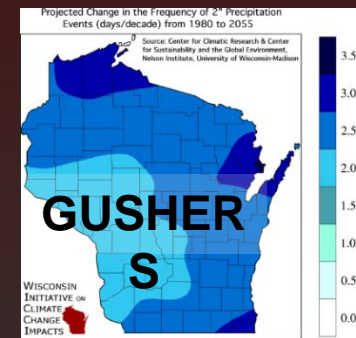
Is there scientific evidence that climate change will affect manoomin?



Annual average temperatures in °F, 1980-2055



Frequency of 90-degree days



Change in frequency of 2" + precip

Example: G-WOW application

Cultural Practice



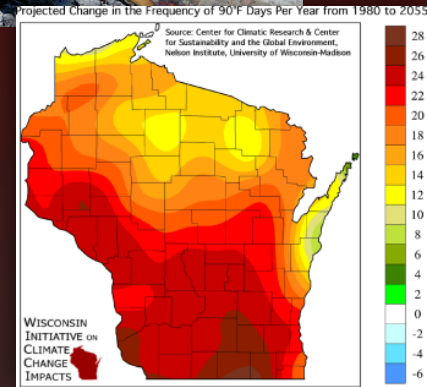
Key Species



Place-based & Scientific Evidence



Requires cool moist forest habitats, cold winters for sugar production



Projected frequency of days over 90-degree F, 1980-2055

What does this mean for sustainability of sugar maple trees?

Cultural practices & businesses that rely on sugar maple?

Example: G-WOW application

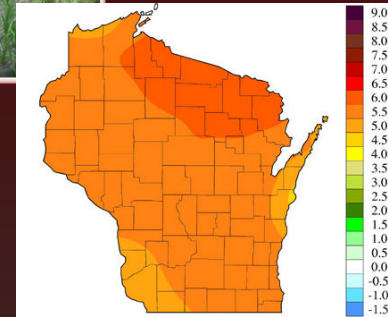
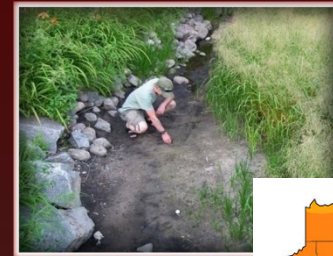
Cultural Practice



Key Species



Place-based and Scientific Evidence



*Requires cold water habitats
with high oxygen levels*

*Projected change in Wisconsin's
annual average summer
temperatures in °F, 1980-2055*

Climate models predict up to 95% of Wisconsin's brook trout habitat across could be lost if the average annual summer air temperature increased just over 5 ° F.

Example: applying the G-WOW model to a “non-species” dependent cultural practice

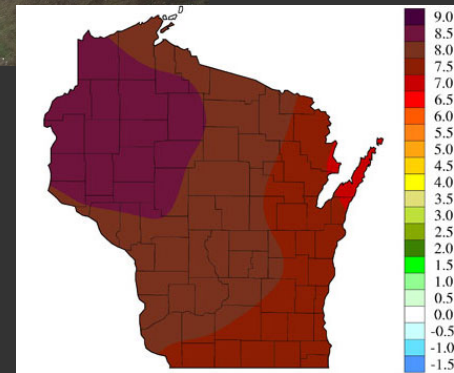
Cultural Practice



Key “condition”



Place-based and Scientific Evidence



What do these changes mean for species and cultural practices and species that depend on cold and snow?

Projected change in Wisconsin's winter average temperatures in °F, 1980-2055

G-WOW SERVICE LEARNING CURRICULUM

www.g-wow.org

Talking Circle

Sharing climate service learning projects and results



What Can We Do?

Taking action through climate service learning projects

Ojibwe Lifeways- Connect With Culture

Place-based evidence of climate impacts on 4-seasonal Ojibwe cultural practices and the key species supporting them

Investigate the Science

Integration of climate science with place-based evidence to evaluate if culture and science agree.

G-WOW Outreach Tools

Web Curriculum
www.g-wow.org



**Climate Change
Discovery Center**



**Educator Training
Institutes**



Cultural
Connection:
Ojibwe
language,
TEK, and
cultural
elements
infused

Integration of
climate
science

Taking action
on climate
change and
sharing results

TARGET AUDIENCES



Learners (middle school & above)

Teachers-Educators

General Public

The Ojibwe believe that we must think seven generations ahead when making decisions today. All cultures share responsibility for protecting their home, the Earth. We cannot eliminate all the risks that climate change presents, but we can make a difference in slowing its impacts. The culture and lifeways of future generations will be affected by the choices we make.

**We invite you to use and expand the G-WOW
model
to increase climate change literacy based on
the
unique lifeways of your culture**

www.g-wow.org



On Behalf of the G-WOW Team

Miiqwech!

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