

Manoomin

Wild Rice



What Is It?



An Annual, Aquatic Grass



Habitat Preferences

- Water depths in 0.5-3 foot range
- Water not acidic or darkly stained
- Annual water level fluctuations not excessive but year-to-year conditions not too stable
- Organic, mucky substrate (preferred)
- And, rice requires gently....

Flowing Water



LIFE CYCLE OF WILD RICE

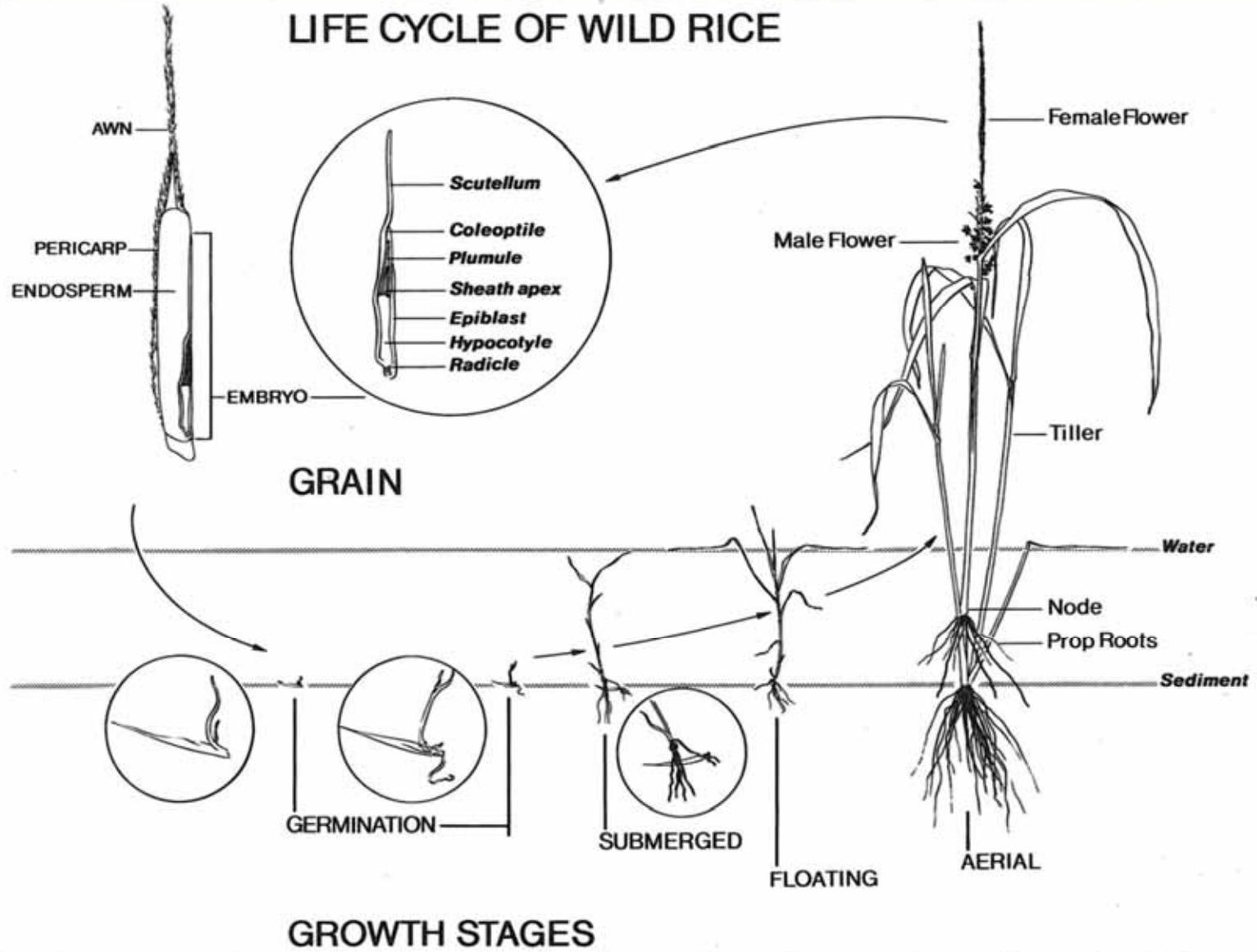


Image from *Wild Rice in Canada*

Seasonal Variation



Annual Variation



A North American Resource



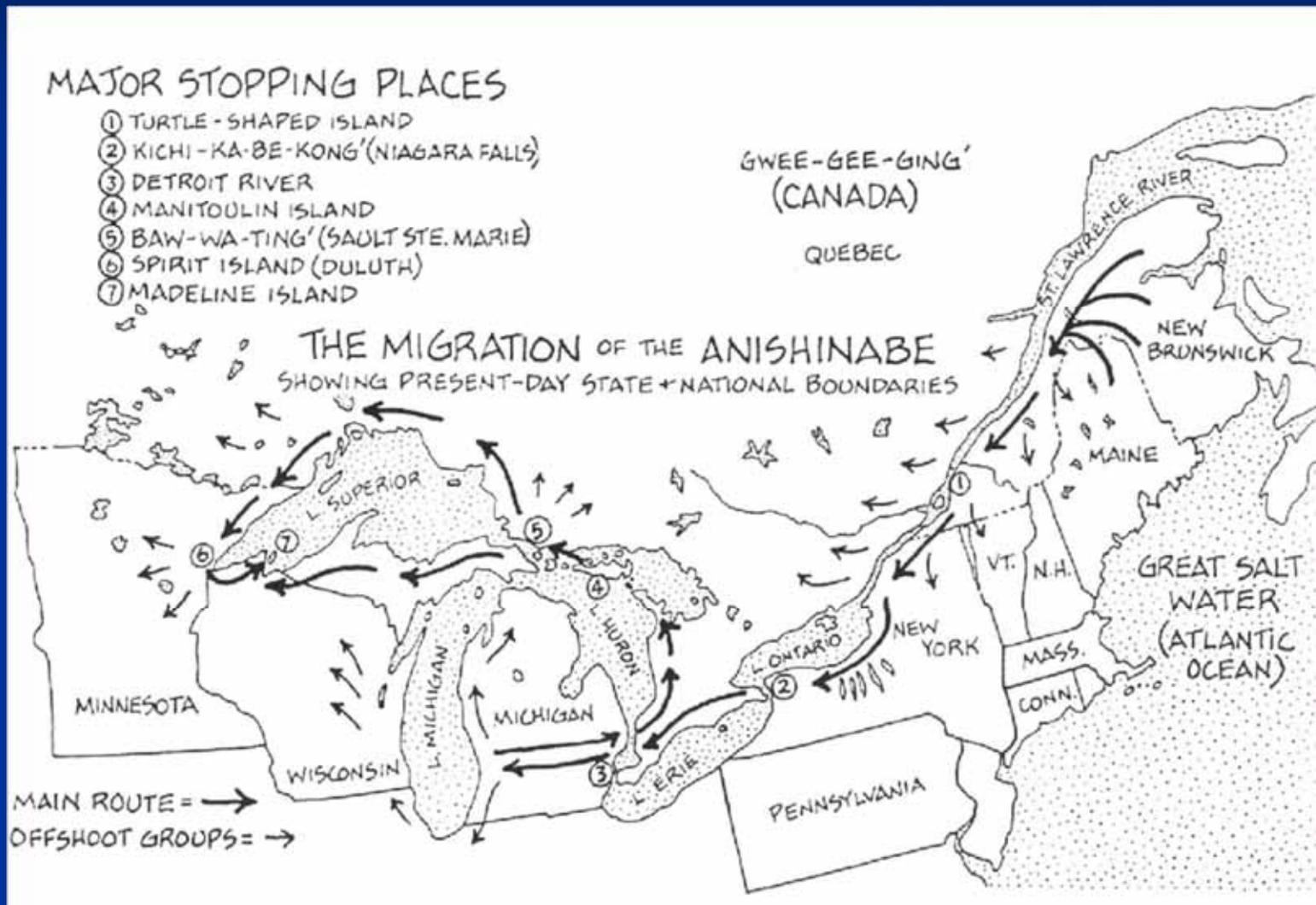
Tremendous Value Ecologically,



and Culturally.



The Anishinabe (Ojibwe) Migration Story



From the Mishomis Book, by Edward Benton-Banai

Once Commonly Found Within Its Range



News from Home ~ Newell Convers Wyeth
Image courtesy of Minnesota Historical Society

Mentioned in the Explorers
Journals Under a Wide Variety of
Names

Wild Rice

Fools Oats

Marsh Oats

Manoomin

Folle Avoine

Blackbird Oats

Indian Rice

Psin

Mad Oats

Canadian Rice



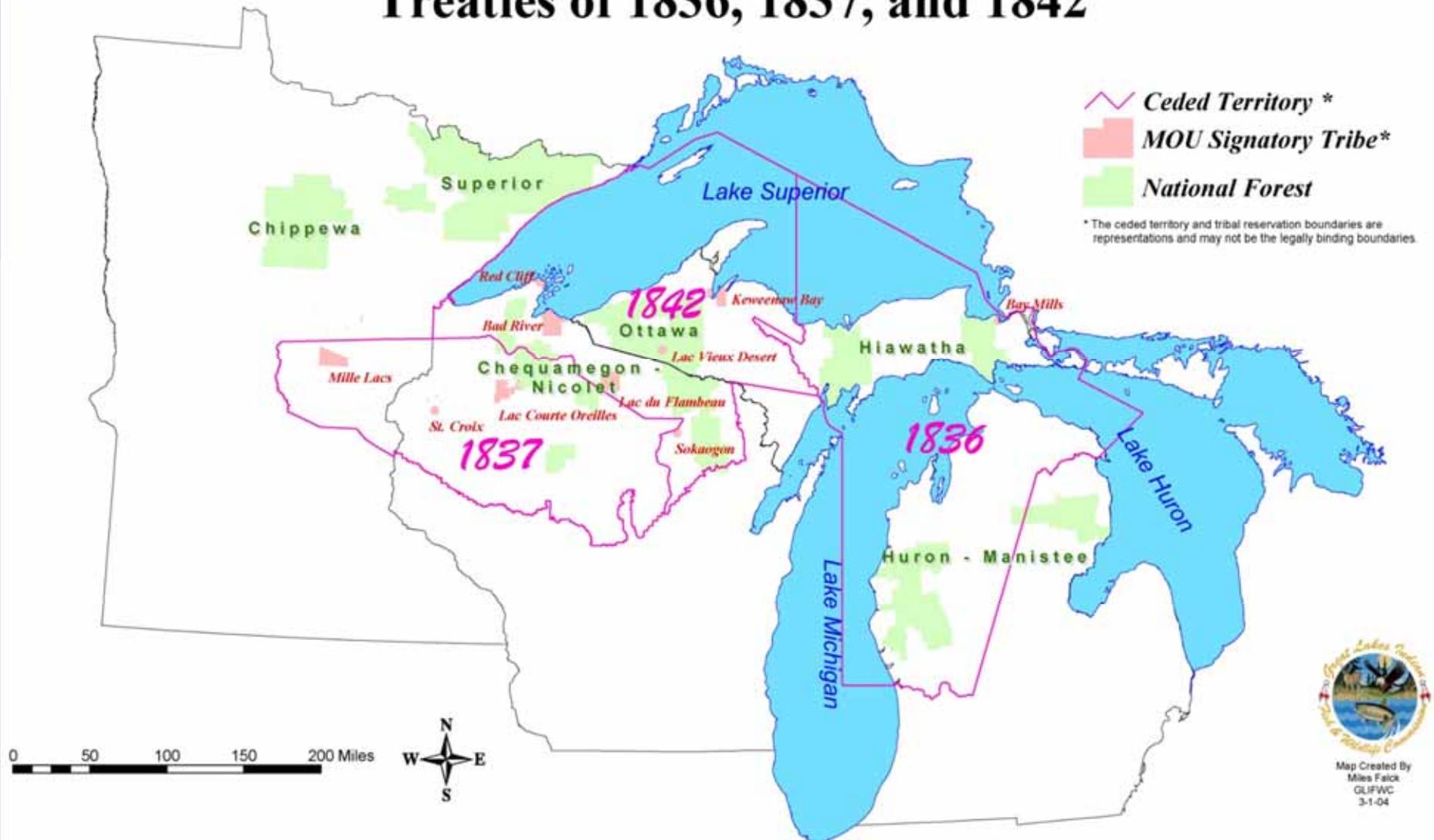
“We left this bay to enter the river that discharges into it; it is very beautiful at its Mouth, and flows gently; it is full Of bustards, Ducks, Teal and other birds, attracted thither by the wild oats of which they are very fond.”

Fr. Marquette's Journal

1673-1675



Lake States National Forests and Chippewa Ceded Territories: Treaties of 1836, 1837, and 1842



*"The privilege of hunting, fishing and gathering the **wild rice**, upon the lands, the rivers and the lakes included in the territory ceded, is guaranteed to the Indians, during the pleasure of the President of the United States."*



From the Treaty with the Chippewa, 1837

*“That our people... desire a donation of twenty-four sections of land, covering the graves of our fathers, our sugar orchards, and **our rice lakes and rivers**, at seven different places now occupied by us as villages...”*

From a “Petition of the head chiefs of the Chippewa tribe of Indians on Lake Superior, February 7, 1849



*" The defendants agree to consult with the Voigt Task Force before the issuance of any permit which is required to be obtained from the State regarding any activity which may reasonable be expected to directly affect the abundance or habitat of **wild rice** in the ceded territory..."*

From the Wild Rice Regulatory Consent Decree of the Voigt Litigation



Nutritive Values

(per 100g)

	Wild Rice	White Rice
Protein (g)	10.5	6.9
Total Dietary Fiber (g)	5.7	1.6
Calcium (mg)	21.0	13.0
Magnesium (mg)	177.0	33.0
Phosphorus (mg)	433.0	116.0
Potassium (mg)	427.0	68.0
Zinc (mg)	6.0	1.1

A Long History of Harvest



*Photo courtesy of
Minnesota Historical Society*





*Photo courtesy of
Wisconsin Historical Society*





Photo courtesy of Minnesota Historical Society





Photo courtesy of Minnesota Historical Society





Photo courtesy of Minnesota Historical Society



Photos courtesy of Minn. Historical Society





Photo courtesy of Minnesota Historical Society





Wasn't that E A S Y!!!



But maybe there is a bit more to it?



Wisconsin Harvest Regulations

- State or tribal permit required – usually....
- Smooth, rounded wooden knockers, no longer than 38 inches (must be cedar for tribal ricers)
- Boats no longer than 17 feet or wider than 38 inches
- Propelled with a push-pole or paddles
- Hours 10:00 am to sunset
- Some lakes regulated by date



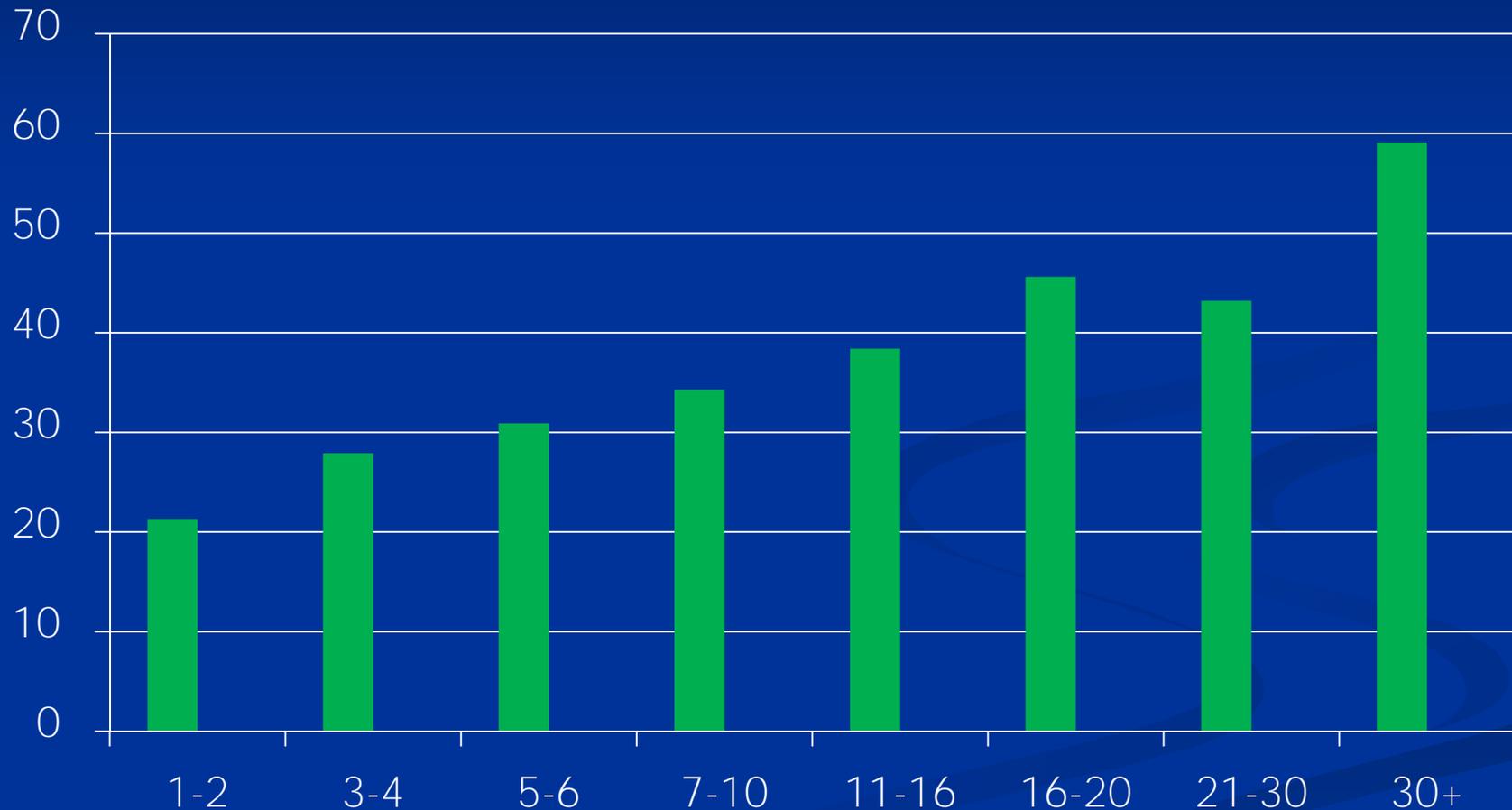
What are the subtleties?

- There are a number...



Making Manoomin

Years of Experience vs Pounds per Trip



Based on 2004-2007 data, state and tribal ricers combined.

So what do these folks know that I don't know?

- Which waters to go to, and where to go on those waters;
- When to be there, and when its not worth sticking around:
 - maturation
 - density
 - plant height, etc.;
- How to pattern a bed;
- How to pace the picking;

So what do these folks know that I don't know?

- Where the seed is large or small;
- Where the rice finishes the best

And...

IMPORTANTLY:



Don't
Wear
Fleece!

*Photo courtesy of
Annette Drewes*



What could I expect?

- Fresh air
- Wildlife
- Rice worms
- Spiders
- And maybe even some manomin!







What can I expect?

- The average Wisconsin ricker gathers about 40 pounds of green rice per trip, and makes almost 3 trips per year, ending up with about 110 pounds green rice total.
- Then, the hard work begins...





Photo courtesy of A mette Drewes

Air drying



Photo courtesy of Annette Drewes

Death to the WORMS !!



Finishing

- While some folks love to work through the finishing process – and the smell of parching rice is tough to beat – most harvesters bring their rice to a professional finisher.
- Professional finishers will either charge a per-pound fee, or will take payment in-kind: typically 20% of the finished rice.



Finishing is an art form in itself!



Typical Finishing Rates

- You will typically get about 40% yield of finished rice from “green” rice by weight.
- Thus, a typical Wisconsin ricer who harvests 110 pounds of green rice, and has it finished professionally with an in-kind finisher, might end up with about 36 pounds of finished rice for the pantry.
- That’s a lot of delicious, nutritious eating!

A "Typical" Rice Season

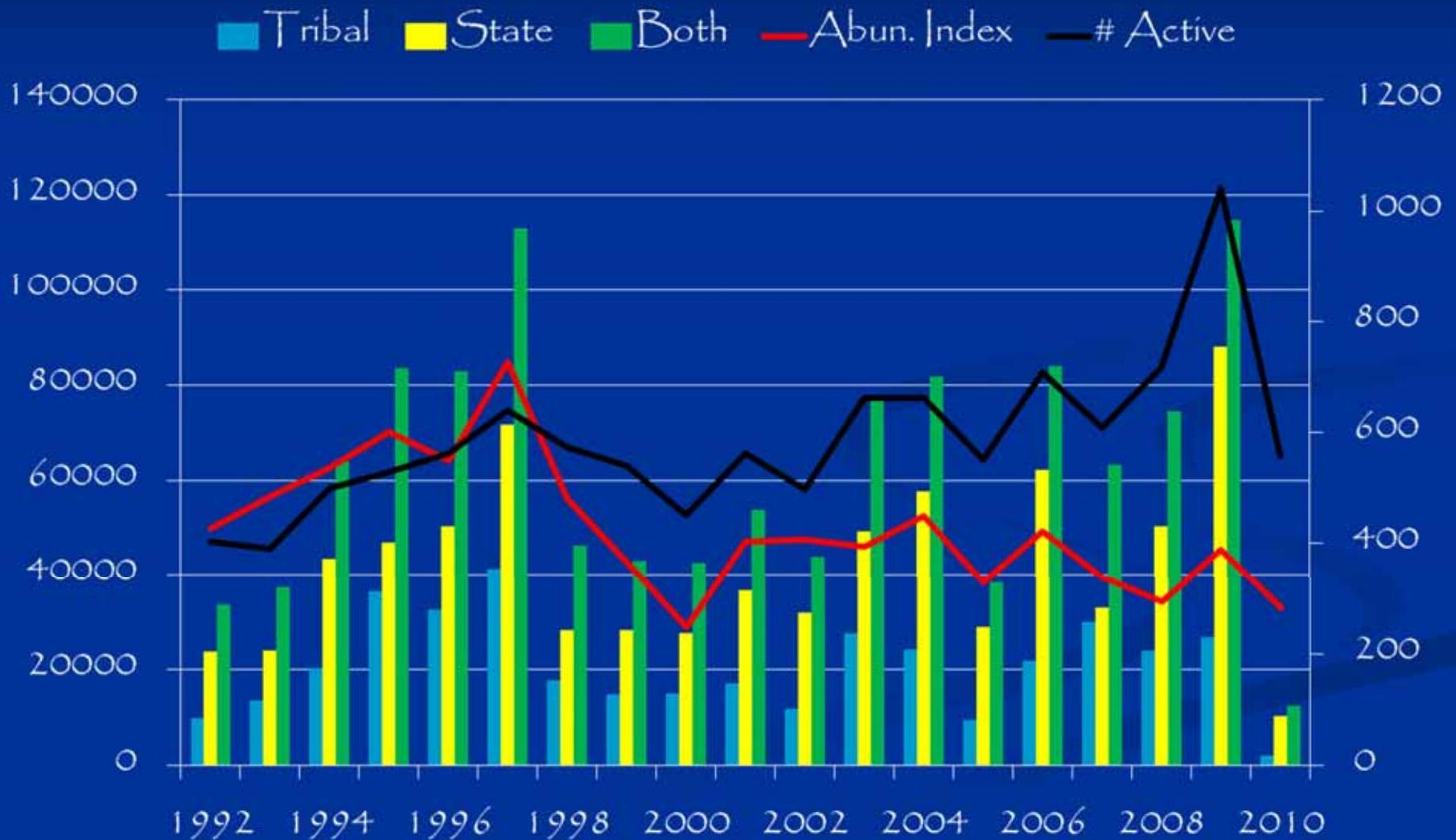
(based on 1997-2009 data)

	STATE	TRIBES
NUMBER ACTIVE	506	127
AVE. # TRIPS	2.6	3.6
AVE. HARV PER TRIP	35 lbs	48 lbs
AVE. HARV/PERMITEE	90	170
TOTAL HARVEST	45,689	21,689

All pound figures are for green, unfinished rice

Making Manoomin

State and Tribal Harvest vs Abundance Index by Year



Why not just do this?



Cultivated Wild (?) Rice



Cultivated vs "Wild" Wild Rice

What's the difference?

- Genetics: not a great difference...yet
- Growing conditions: no herbicides, pesticides, fungicides on wild beds
- Hand vs combine harvesting: **seed maturity**
- Finishing:
 - Small batch versus industrial finishing
 - Greater variation – and choice with wild
 - The additional "**curing**" step of cultivated

"Curing" Cultivated Wild Rice



Cultivated vs "Wild" Wild Rice

What's the difference?

- Different color /cooking characteristics
- Price
- F

L

A

V

O

R !!!



GLIFWC's Manoomin Management Program

- Abundance Monitoring
- Harvest Monitoring
- Restoration and Management
- Public Information and Education
- Research

GLIFWC's Manoomin Management Program

- A bundance Monitoring
- Why?
 - Gain Long Term Trend Information
 - Management Evaluation
 - Problem Identification
 - Service to Harvesters







Brown Spot Disease



Brown Spot Disease





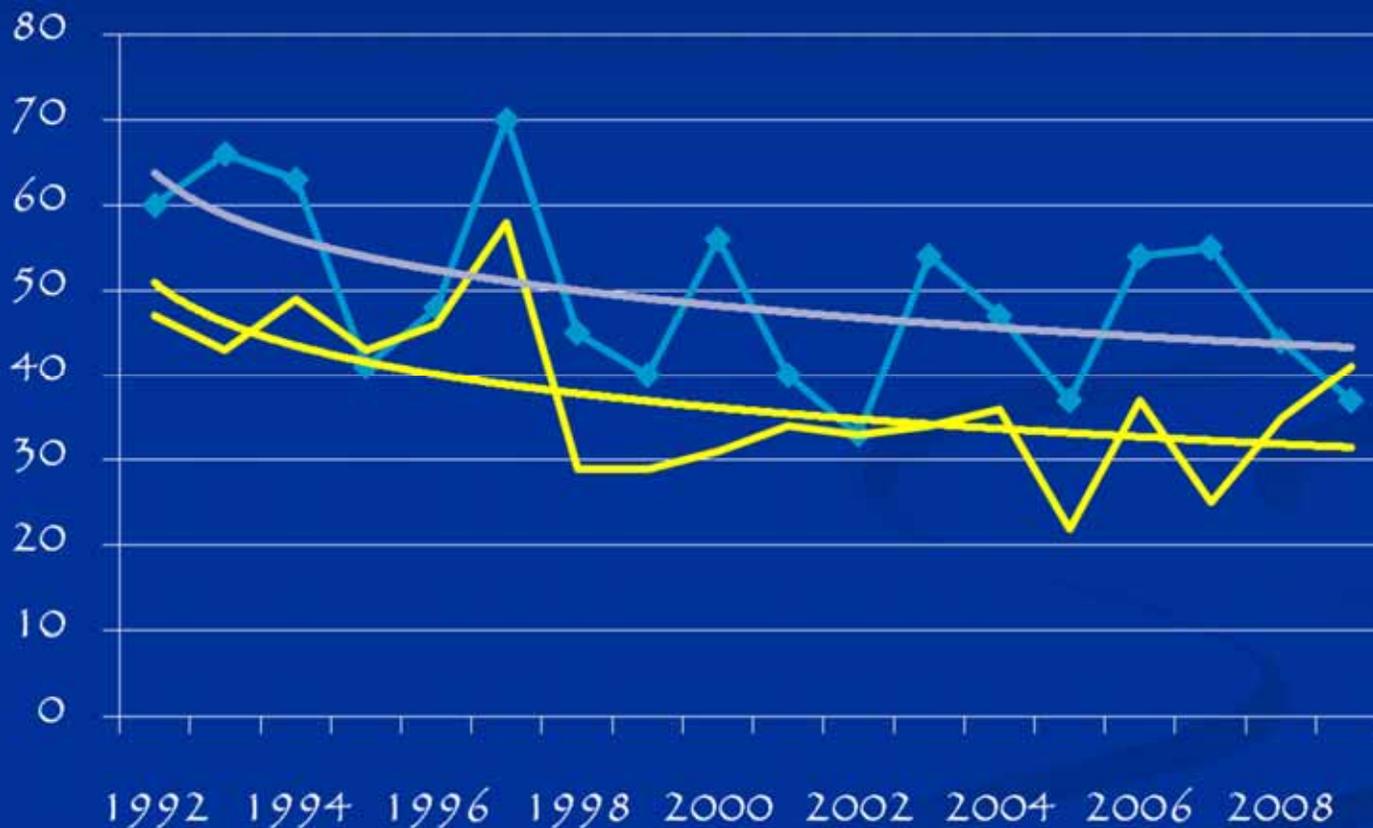
GLIFWC's Manoomin Management Program

- Abundance Monitoring
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Making Manoomin

Pounds per Trip by Year

◆ Tribal — State



Based on 1992-2009 data; trend lines logarithmic.

GLIFWC's Manoomin Management Program

- Abundance Monitoring
- Off-Reservation Harvest Monitoring
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ATTENTION BOATERS!
THIS WATER BODY SUPPORTS
WILD RICE!

Wild rice is important to wildlife and human harvesters, and is protected by state law. Rice is easily uprooted, especially during the "floating-leaf" stage from May-June. Please use care whenever boating near the rice beds.

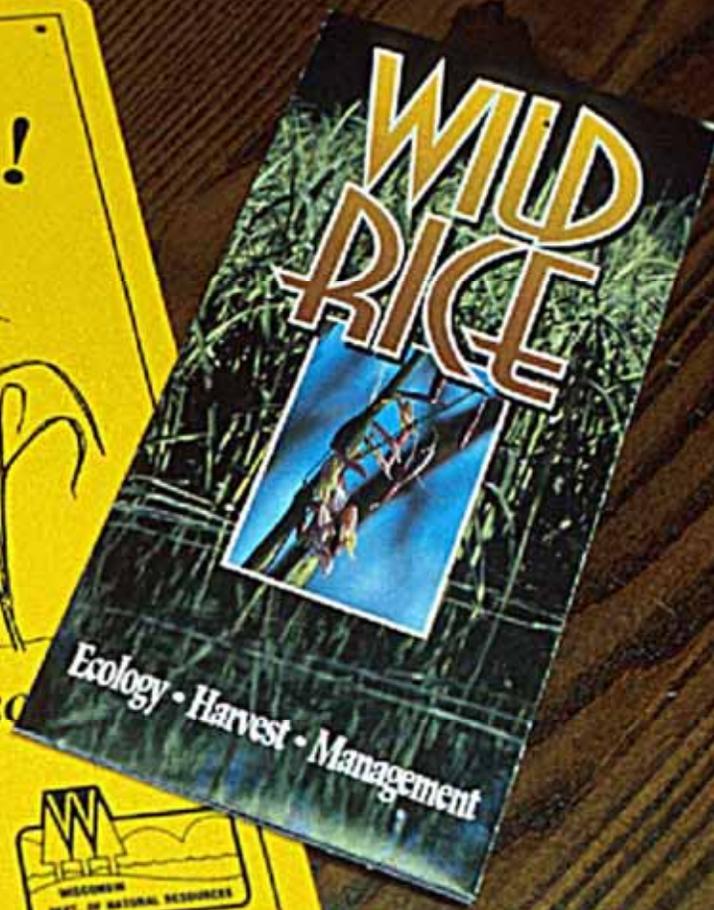


PRESERVE OUR NATURAL RESOURCES

FOR MORE INFORMATION:

GLIFWC:
P.O. BOX 9
ODANAH, WI 54891
(715) 682-6619

DNR: CONTACT
LOCAL WARDEN
OR WILDLIFE
MANAGER





GLIFWC's Manoomin Management Program

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Unfortunately Much Has Been Lost



Rice Lake, Polk County



Chippewa Flowage,
Sawyer County



(photo by Sue Sweeny)

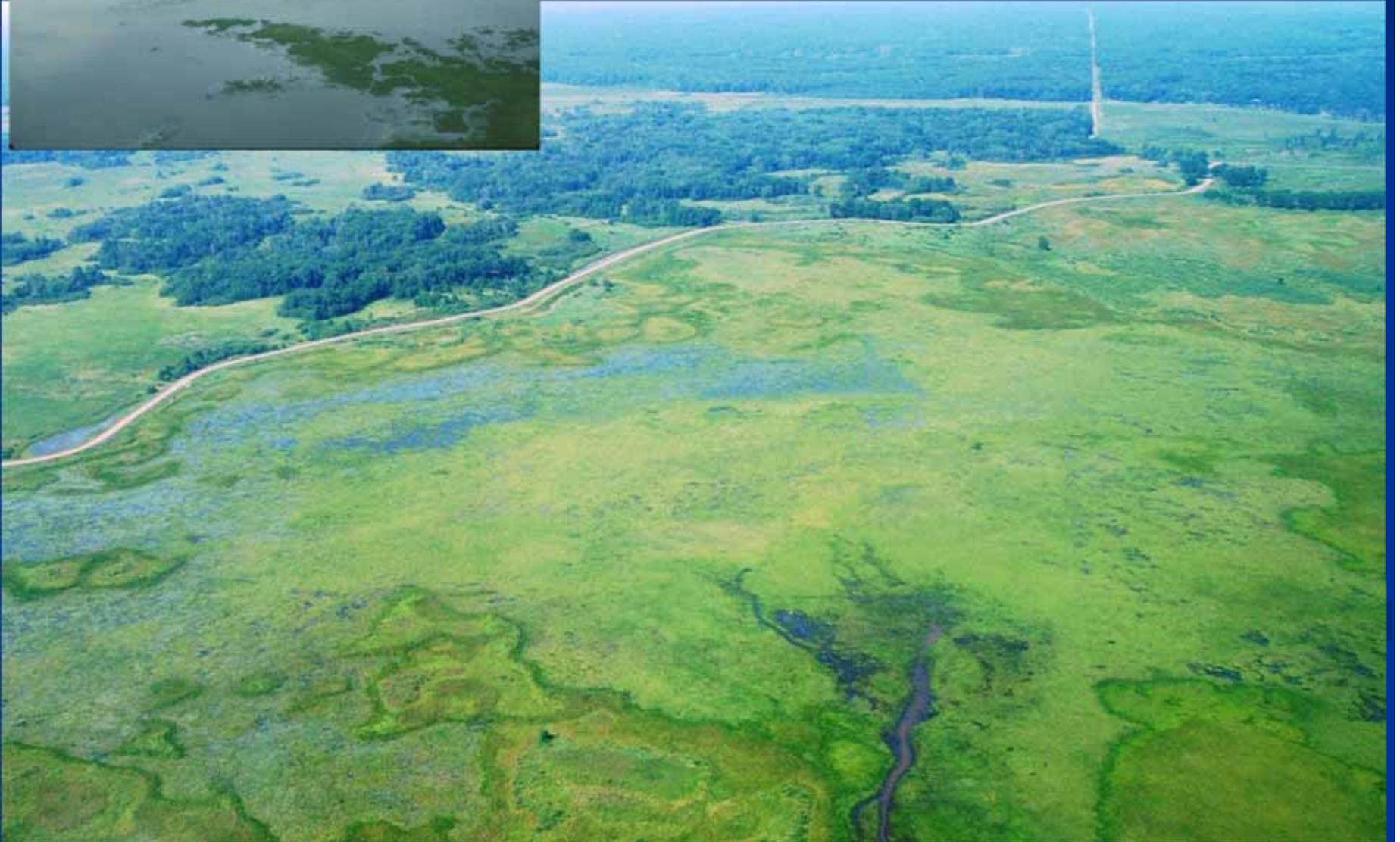
Dandelion –
(Doesn't Need Help
Dispersing)



Wild Rice –
(Needs Help!)



Phantom Flowage





2003

2010

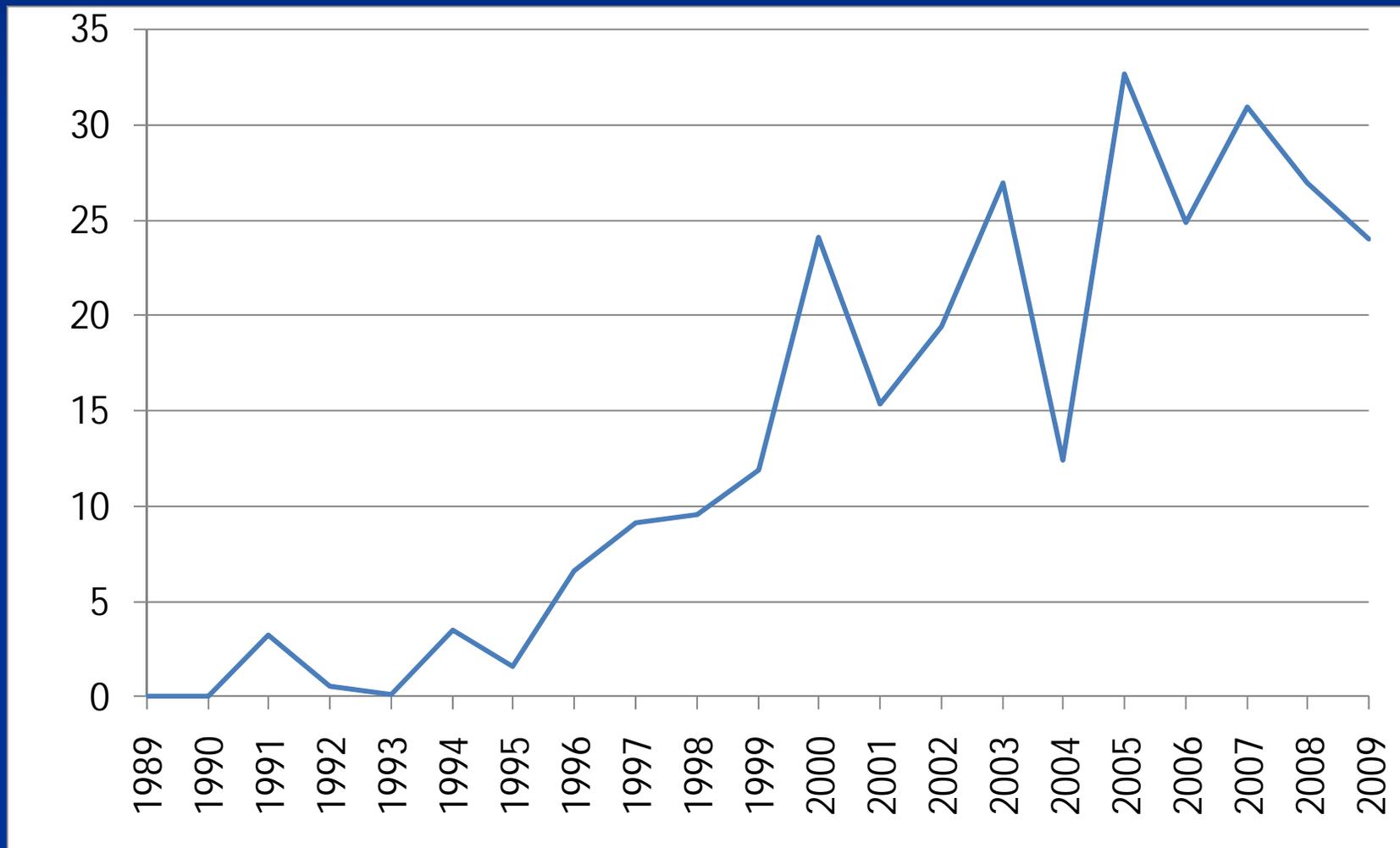


Limited to
the right
conditions



Making Manoomin

Percent of WI Off-Reservation Harvest
From Seeded Waters



Water Level Management





2009

Mud Lake

2010



A mik (Beaver) Control



Chippewa Lake

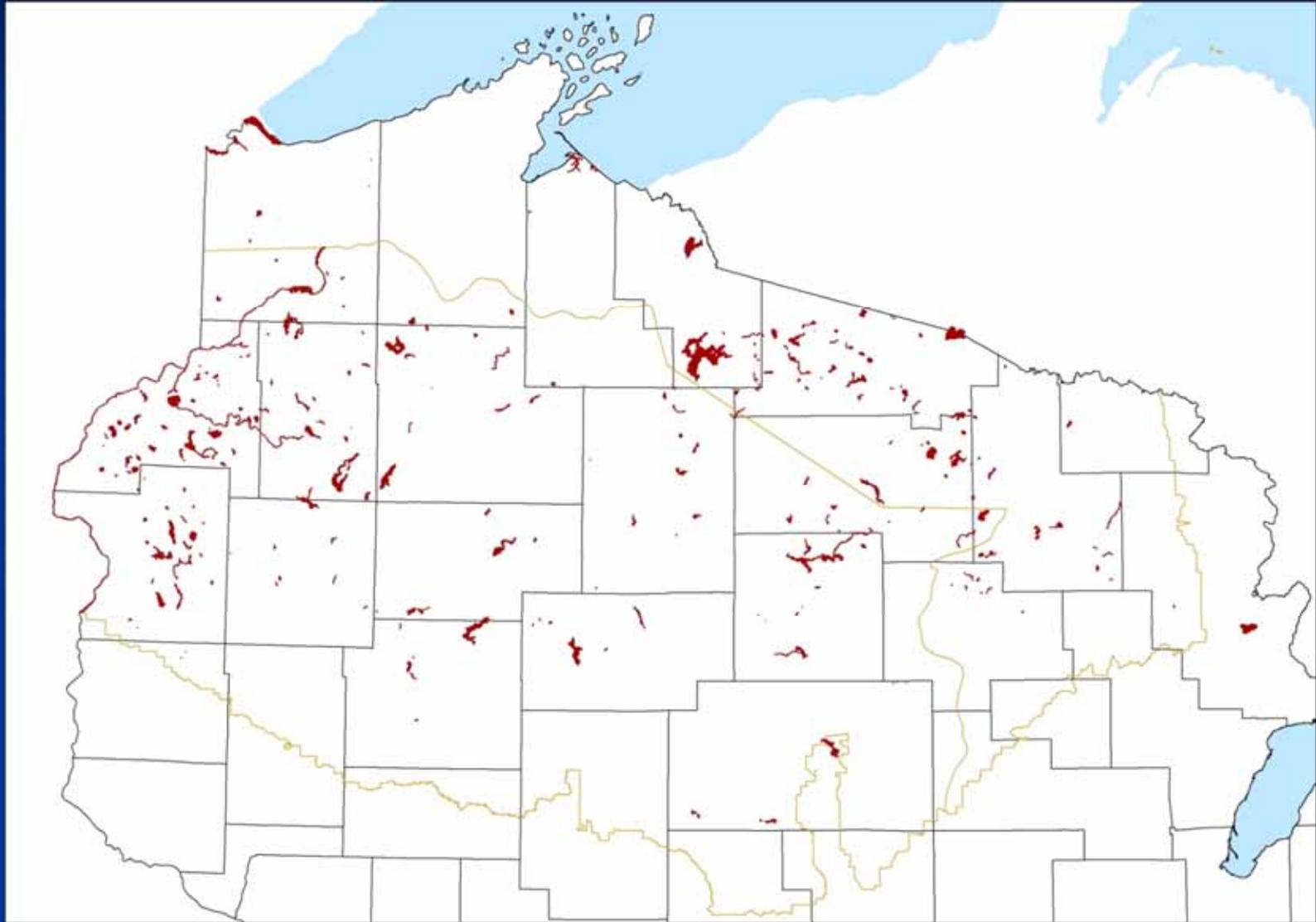


Recent Management Efforts

- WI Ceded Territory Inventory

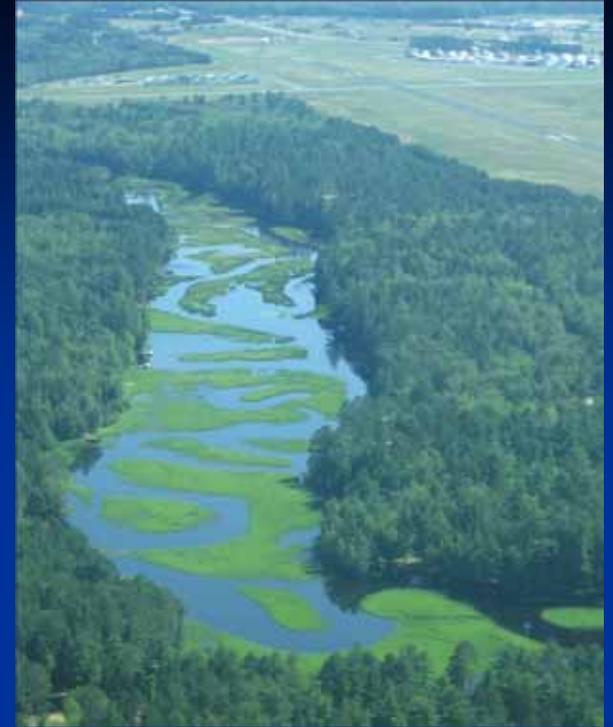


WI Ceded Territory Inventory



Current Efforts: Permit Reviews

- ❖ Increase wild rice protection by reviewing and commenting on:
 - Aquatic Plant Management Permits
 - Lake Management Plans
 - Invasive Aquatic Weed Management Plans
 - Other permitted activities affecting rice abundance



Current E ffort:
Develop a Joint S tate/T ribal
Wild Rice Management Plan
for the WI C eded T erritory





Photo courtesy of Annette Drewes

Miigwech!

- For More Information:
- 715-682-6619
- www.glifwc.org



LuAnn's Wild Rice

- 2 cups grated cheese, any kind
- 2 cups sliced ripe olives
- 2 cans stewed tomatoes
- 2 cups sliced fresh mushrooms
- 1 cup diced onion
- 2 cups wild rice (uncooked)
- 2/3 cups olive oil
- 2 t salt
- ½ t pepper
- Mix all above ingredients together; add:
- 3 cups boiling water
- Bake at 350, in a large uncovered casserole dish, about 2 hours

Mulligan Lake, Douglas County



HELP!



Spur Lake



Tranus Lake

2010



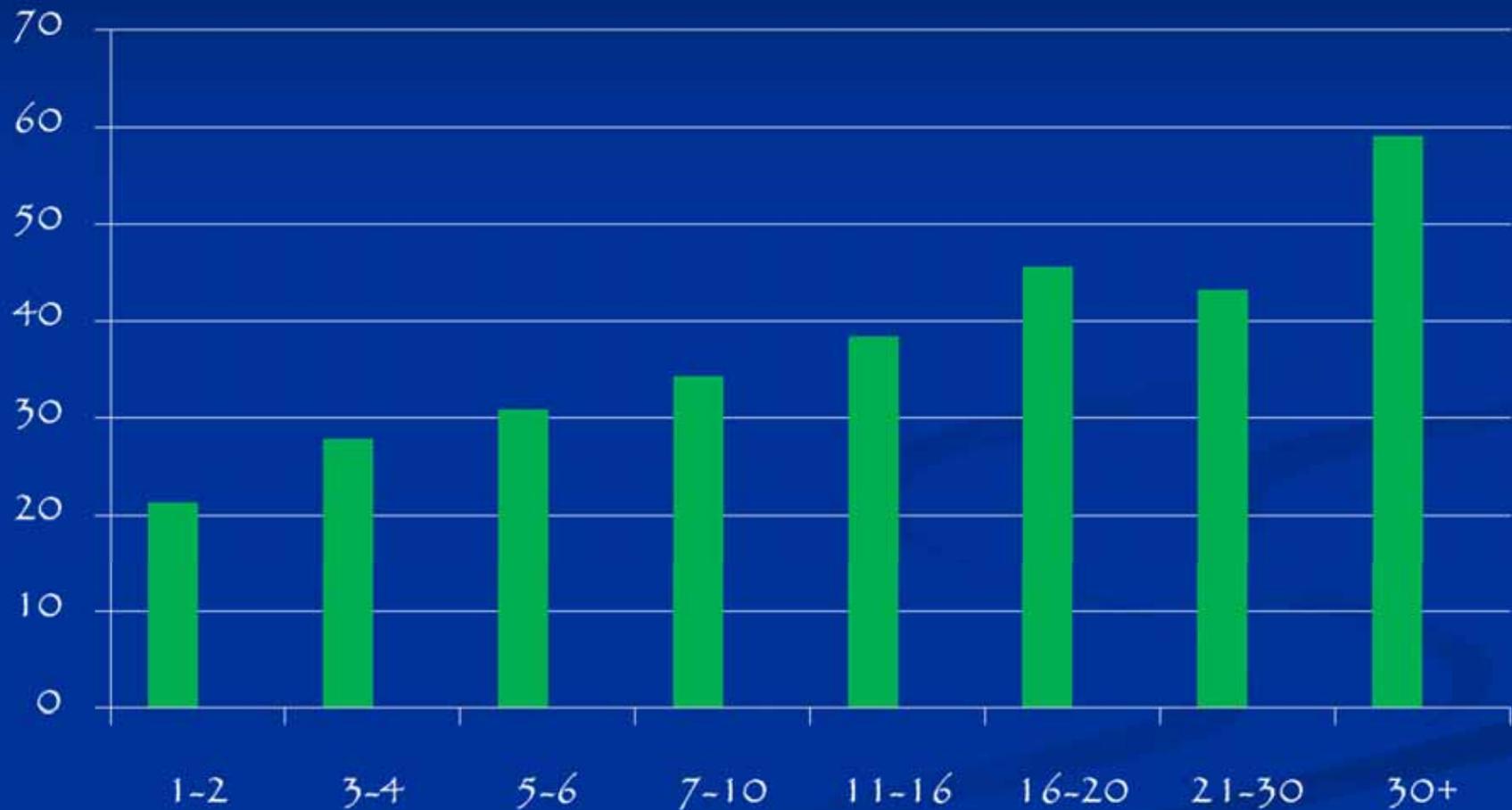
2002





Making Manoomin

Years of Experience vs Pounds per Trip



Based on 2004-2007 data, state and tribal ricers combined.

Objective V: Outreach and Education



- ❖ develop and implement strategies to encourage use of and promote protection of wild rice resources in the ceded territories
- ❖ work with tribal youth groups
- ❖ improve lake postings
- ❖ create a brochure for novice harvesters and undertake public education activities

Restoration





5 Objectives:



Objective I: Summarize Existing Data



- ❖ Data preparation for management plan development by:
 - compiling and analyzing existing data on harvest, abundance, distribution, and seeding
 - preparing GIS maps or coverages for each

Objective IV: Wild Rice Seeding



- ❖ Increase the acres of wild rice beds restored and re-seeded by:
 - working with cooperators to find new seeding opportunities
 - evaluating potential seeding locations
 - reviewing past seeding efforts
 - implementing beaver control efforts

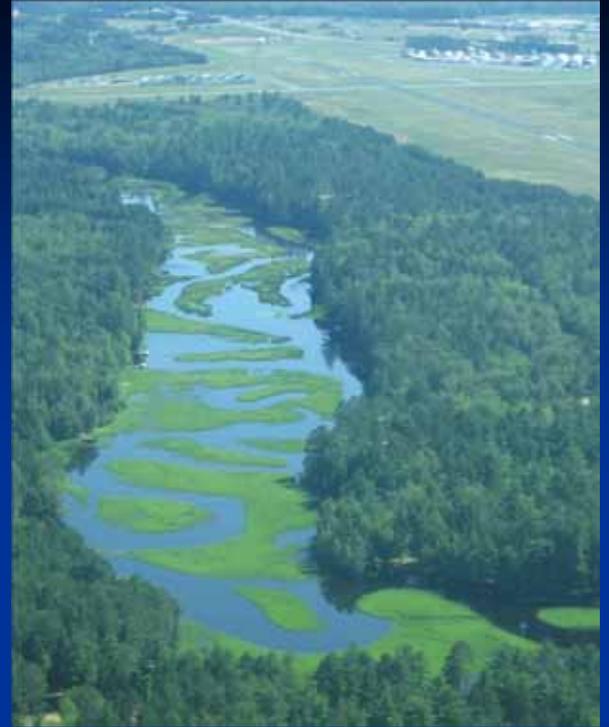
Recent Management Efforts

- GLRI Ceded Territory Wild Rice Protection and Enhancement Project



Objective III: Review Permits

- ❖ Increase the acres of wild rice protected by reviewing and commenting on:
 - Aquatic Plant Management Permits
 - Lake Management Plans
 - Invasive Aquatic Weed Management Plans
 - Other permitted activities affecting rice abundance



Objective II:
Develop a Joint State/Tribal
Wild Rice Management Plan
for the WI Ceded Territory





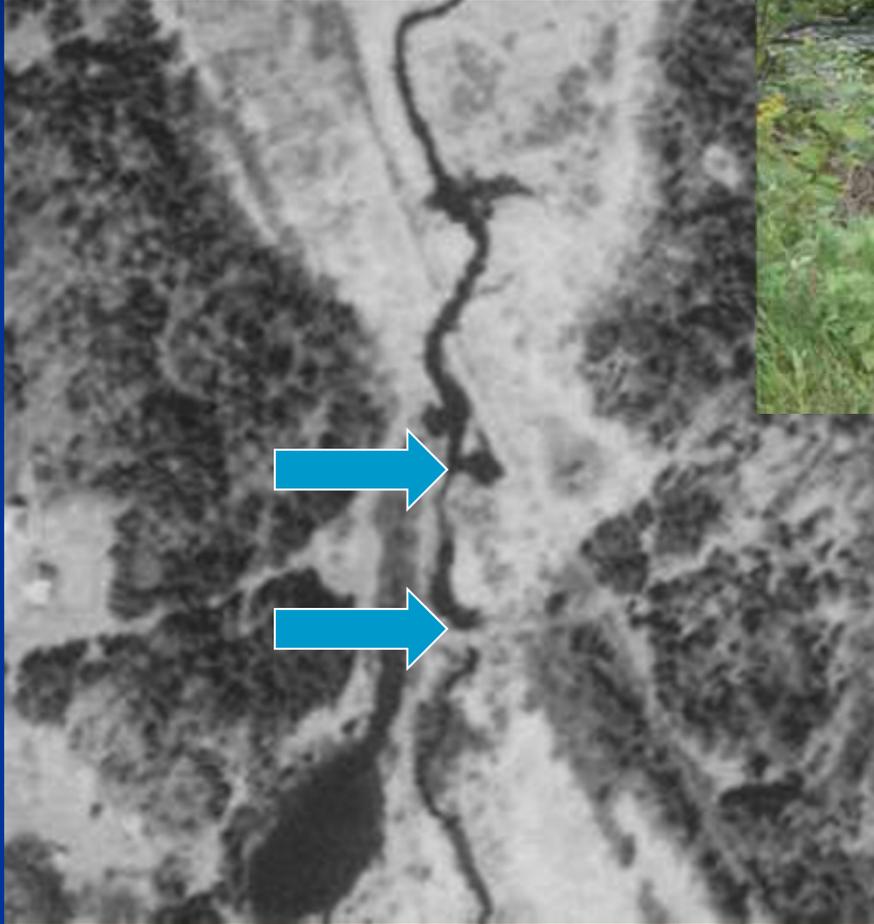
Spring Lake, Washburn County





Is Restoration Difficult?





*Look for
the Right
Locations*



Habitat Evaluation With the "Manoomin Master" Habitat Evaluation Tool

- *Propels you to site*
- *Indicates:*
 - depth*
 - sediment density /*
 - bottom type*
 - water clarity*
 - existing vegetation*
 - water flow*

Patent pending



But There Are a Number of Social and Ecological Issues to Consider.

Seed Source



Landowner concerns

Site History

Water level management

User conflicts



Habitat Suitability



Suggested Seeding Guidelines

- *Initial test seed of approximately 100+ pounds*
- *Seeding rate of about 50 pounds per acre*
- *Fall broadcast*
- *Plant the seed as soon as possible after it has been harvested or store properly)*
- *Monitor results*
- *Plan on 3-5 years of seeding (to simulate a natural bed)*





Well, if You Can Do This...



You Can Probably
Do This



Photos courtesy of Minn. Historical Society





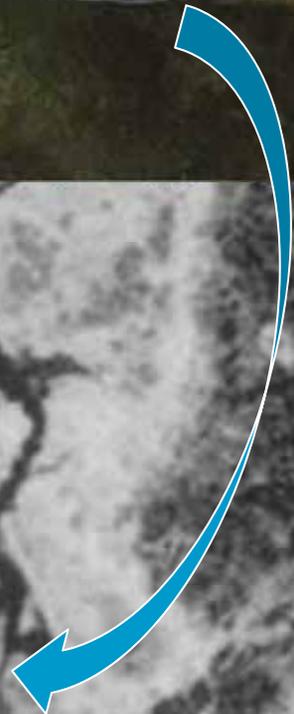
Photo courtesy of Minnesota Historical Society





Photo courtesy of Minnesota Historical Society







- Disruption of Natural Hydrology



Estimated Active Permits, Tribes vs State



A couple
more tidbits:

- E rgot

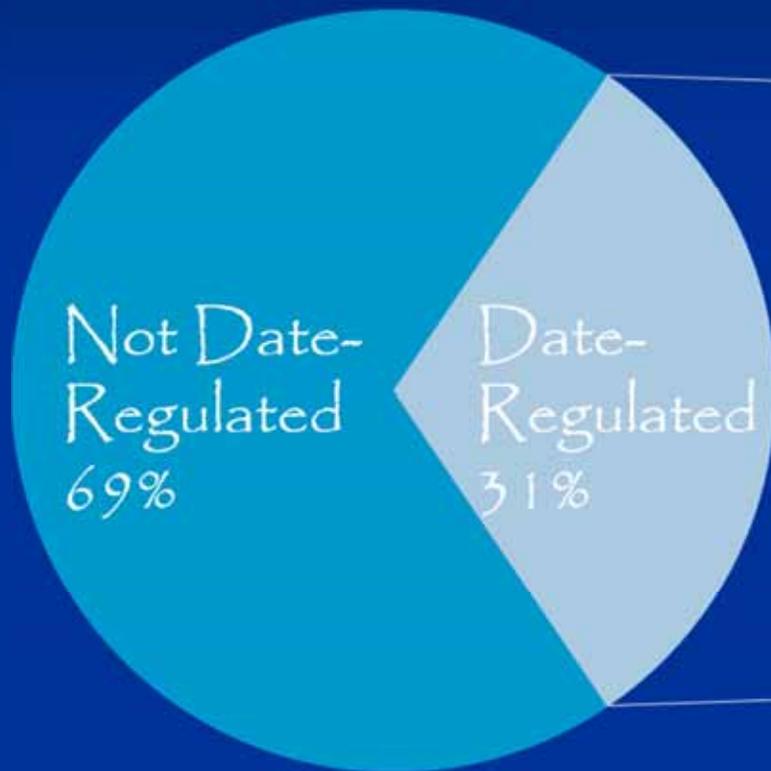


Being sensible...

- Dress appropriately
 - Old clothes
 - Tight weaves
 - Tape your pants legs?
- Bring fluids, food, sunblock, sunglasses, lifejackets (required by law)
- May want to tarp your canoe bottom

Making Manoomin

Percent of Total Harvest from Date-Regulated Waters



Based on 2000-2009 data.

