



Aquatic Plant Sales by Soil and Water Conservation Districts for Private Ponds, Lakes, and Wetlands

Michael Mounce

**Illinois Department of
Natural Resources**

Anglers Want Quality Fishing!!!!!!!!!!!!



Factors Affecting Fishing Quality

- **Lake Design**
- **Initial Stocking Assemblages**
- **Structured Harvest**
- **Supplemental Stocking?**
- **Habitat!!!!**



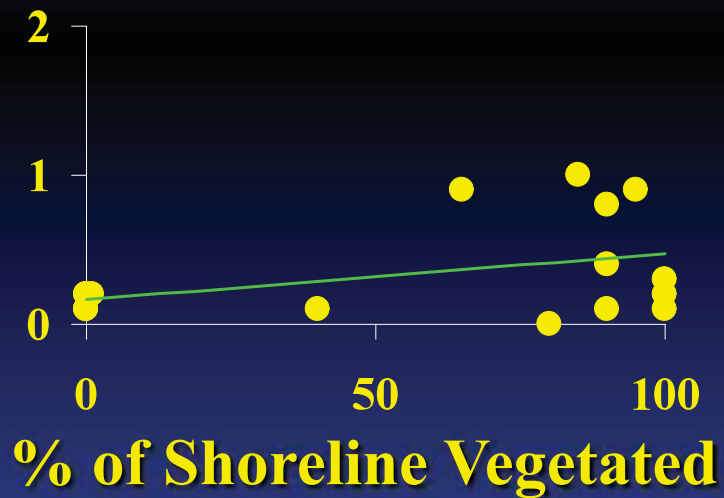
Factors Affecting Fishing Quality

- **Lake Design**
- **Initial Stocking Assemblages**
- **Structured Harvest**
- **Supplemental Stocking?**
- **Habitat**
 - **Fish Attractors**
 - **Aquatic Plants**

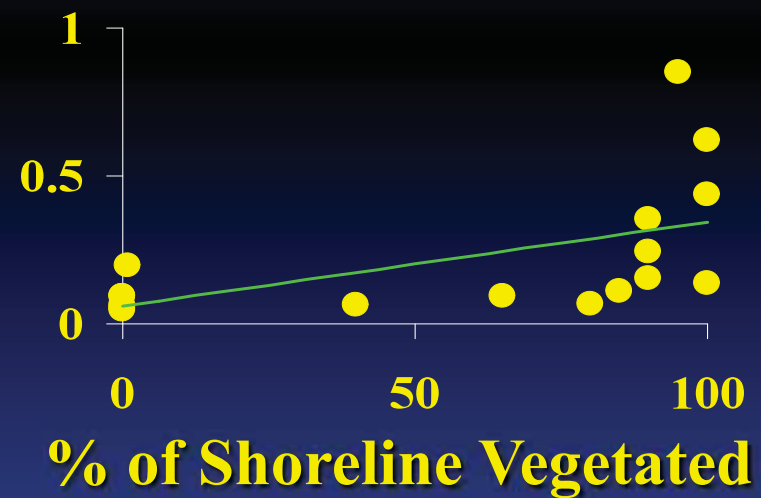


Effects of Habitat on Fish and Fishing Success

CPUE YOY Bass*



**Bass Fishing
Catch Rate***



* = $P \leq 0.05$

Habitat?

Anything Is Better Than Nothing.....

But is it Significant to the Fish??????

Habitat?



Habitat?



Benefits of Plants?

Mechanical

Absorption of

Wave Energy

Stabilization of Sediments

Substrate for Periphyton

Cover for Fish, etc.

Ecological

Competition for Nutrients

**Increased Volume of
Oxygen**

Reduced Fluctuation of pH

**Increased Abundance &
Diversity of Food Source**

Aesthetics?

Aquatic Plant Sources???

- **Local Native Populations**
- **Large Commercial Producers**

Aquatic Plant Source Problems???

- **Local Native Populations**
 - **Some are Rare**
 - **Expert to Identify**
 - **Exotics & Undesirable Species**
 - **Collection Can Cause Damage to Host Population**
- **Large Commercial Producers**

Aquatic Plant Source Problems???

- **Local Native Populations**
- **Large Commercial Producers**
 - **Primarily located in Wisconsin, Northern Indiana, and Northern Illinois**
 - **Ecotype?**

Ecotype Concept???

- **Plant Genetics are Complicated – multi-n**
- **Plants from Different Regions:**
 - **Have Significantly Different Genetic Make-up**
 - **Retain Growth Char. From that Region**
 - **Example: Wisconsin → Central Illinois**
 - **More Aggressive & Short Growing Season**
 - **Can Contribute Undesirable Genes to Local Populations**

Ecotype Concept???

- **Best to utilize plants from a similar ecotype**

How?

What to do?



- **Contacted Commercial Contract Grower from Central Illinois**
 - **Fromm-Huff Farms**
 - **Contract Only!**

What to do?

- **Contacted Local County Illinois Department of Agriculture, Soil and Water Conservation Districts**
 - **Annual tree, fish, and prairie plant sales**
 - **Sales Generate Income for the SWCD**

Success!!!!!!!!!!

Procedure

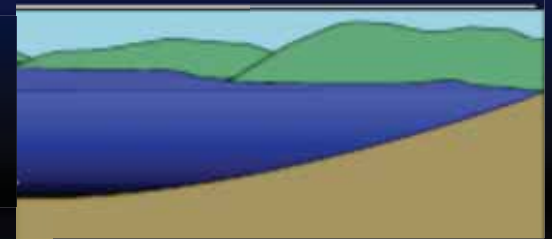
- **Cord. SWCD w/ Fromm-Huff Farms**
- **Selected Desirable Species**
- **Developed a “Marketing” Brochure**
- **Developed an Order Form**
- **Collected Local Seed Stock**
- **Promoted Sales to Constituents**

Species List

- **Three-Square Bulrush**
- **Southern Blue Flag Iris**
- **Swamp Milkweed**
- **Cardinal Flower**
- **Ironweed**
- **New England Aster**

Characteristics of Beneficial Species of Plants

- **Slow to moderate expansion rates**
- **Limited primarily to shallow water or moist soil**
- **Beneficial to fish and wildlife**
- **Esthetically acceptable**
- **Easily controlled (mechanically or chemically)**



Southern Blue Flag Iris



Three-square bulrush



Swamp Milkweed



Ironweed



© 2007 K. Chayak

© 20

Cardinal Flower



New England Aster



Plant Sales (@\$1.50/plant)

Species	Coles Co. SWCD '09	Champaign Co. SWCD '09	Champaign Co. SWCD '10
Three-Square Bulrush	155	70	207
Southern Blue Flag Iris	105	140	130
Swamp Milkweed	110	102	62
Ironweed	55	100	47
Cardinal Flower	140	167	148
New England Aster	100	132	15

Summary

- **Best to plant local ecotypes when available**
- **Sales moderate (economy?, education?, etc.)**
- **Grower wants to deliver in early June which is still during a time of fluctuating water levels due to frequent storms**
- **Need improved education on planting methods for buyers**
- **Increased diversity, if supported by sales**



© Garold W. Sneegas

