



Fish Shelter Project

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August 8, 2012

TLA - Background

- The Mission of the Three Lakes Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk Rive Chain of Lakes, especially Torch Lake, Clam Lake, and Lake Bellaire, for all generations.

Other Projects

- Fish shocking with the DNR
- Plant surveys in Clam, Bellaire, and Torch
 - Eurasian water milfoil
- TCE Plume at the mouth of Clam River
 - Antrim Underground – August 14



What?

- 5 year project to deploy fish shelters in 5 Lakes:
 - Torch Lake
 - Clam Lake
 - Lake Bellaire
 - Intermediate Lake
 - Elk Lake
- Three shelters at each of the 80 sites in 15-20 ft of water
- Written permission of riparian property owners
- Michigan DEQ permit issued June 1, 2012

Why?

- Improve the fishing in the 5 lakes
- Improve habitat for a variety of species and life stages
 - Organisms like habitat complexity
- Increase the population of fish-food organisms

Construction



Deployment



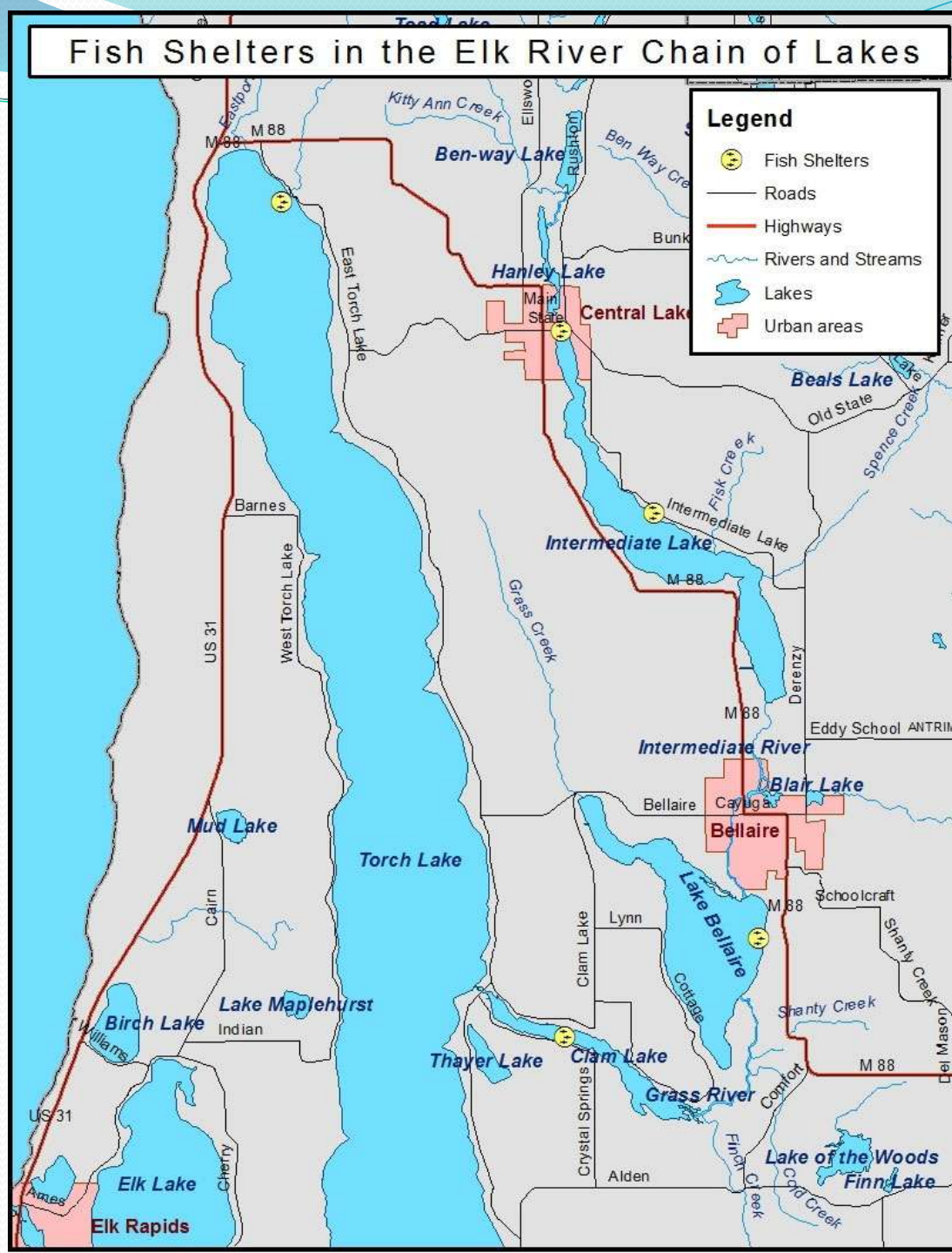
Locations

- 5 sites
- 4 lakes
 - Torch
 - Clam
 - Bellaire
 - Intermediate

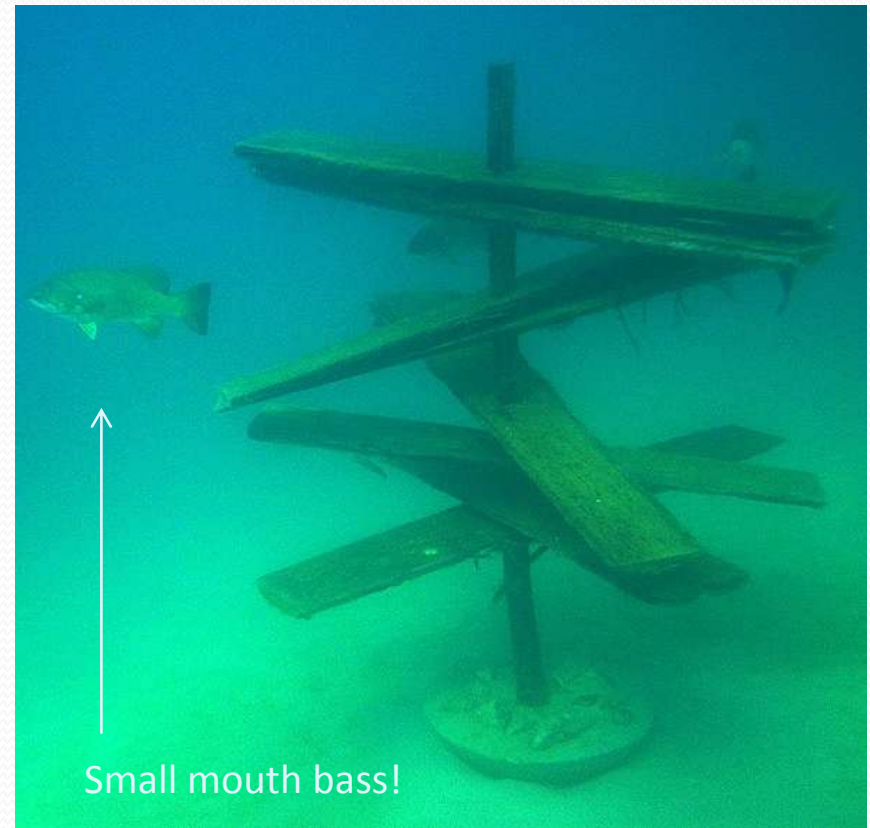
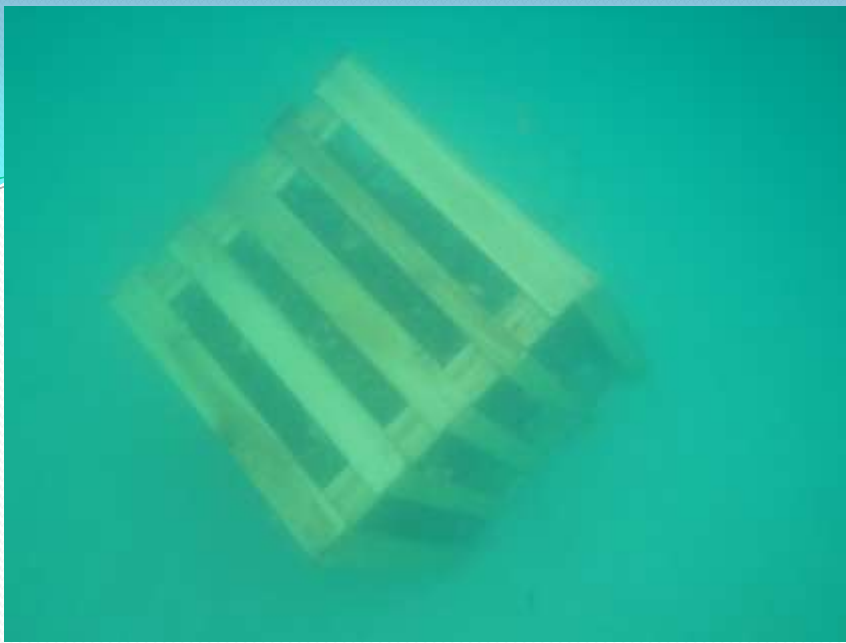
Torch:

N 45.09544

W 85.33549



Three Shelter Types



Diving

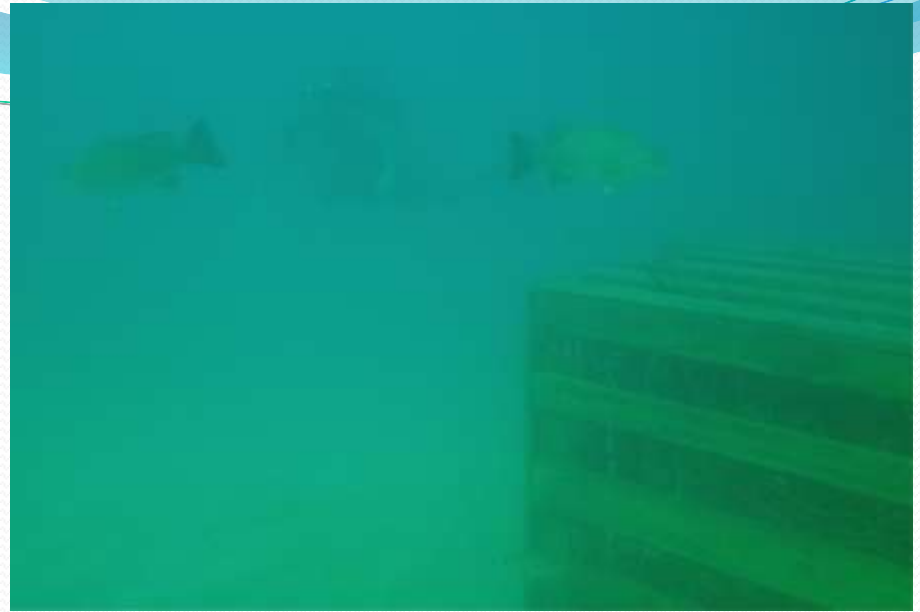
- Counting fish, recording numbers and sizes:
 - 0-6”
 - 6-12”
 - 12-18”
 - 18+”
- Buddy system
- Bellaire fire dept.



The Good News?



Fish!



Conclusions

- Smaller fish – stump and crate
- Larger fish – around crate and slab tree
- Overall range of fish length observed – 4 in to 19 in



Future Work

- Continue deploying shelters, and gathering as many materials and volunteers as possible
 - All natural materials
 - Green lumber – not dried
- Find a willing and able diver to continue observing the progress of this project
- Publicize the project's success and increase awareness

Thank You!

- Three Lakes Association
- Leslie Meyers, Dean Branson, Fred Sittel, and the many volunteers helping in contributions, construction and deployment

Collaborating Organizations

