



The College at  
**BROCKPORT**  
STATE UNIVERSITY OF NEW YORK

Department of Environmental Science and Biology

Mr. Schoenwiesner,

Enclosed are 5 copies of our  
WERF pre-proposal. I sent a pdf  
on Sat, 3/3.

Thank you for considering this proposal.

James M. Haynes

## Fish and Wildlife Habitat Enhancement and Restoration Fund: Conceptual Pre-proposal

### TITLE: Status of Longear Sunfish in Lower Tonawanda Creek, Niagara Basin

#### SPONSOR

The Research Foundation of the State University of New York for and on behalf of The College at Brockport

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#### PROJECT LOCATION

The proposed study will take place in the 3-mile section of lower Tonawanda Creek near Millersport, NY between the Erie Canal and Route 78. These are public waters with a public boat launch and no private property issues.

#### SUMMARY

As of 2009 the study area in the Niagara Basin contained the only known native longear sunfish (*Lepomis megalotis*) population in New York State (D.M. Carlson, NYSDEC, personal communication). It is important that this species be maintained in the Niagara Basin. The goal of the proposed study is to intensively electrofish the study area over two years to determine the population status of longear sunfish in the Niagara Basin. Depending on sample size, specific objectives are to 1) Estimate population size by mark (fin clip)-recapture; 2) Establish length-weight-age (scale analysis) relationships; 3) Evaluate reproductive condition during the May-June spawning period; 4) Describe microhabitats where fish are caught from April-October; 5) Collect up to 20 longear sunfish to establish a second brood stock in NYS for preservation of the species and stocking in suitable waters; 6) Save tissue samples for possible genetic analysis, and 7) Provide catch records of the entire fish community for at least 5 sampling days each year, recorded for DEC Bureau of Fisheries storage; and 8) provide voucher specimens to the NYS Museum.

During mostly low intensity sampling, longear sunfish were caught in the study area by eight investigators on 34 occasions from 1974-2009 (personal communication, D.M. Carlson, NYSDEC), especially during high intensity sampling in 2005 (Wells and Haynes 2007). No longear sunfish were caught during low intensity sampling in 2010-2011, so it is important to intensively sample the study area again to determine if the population is extant. The proposed project will determine the current status of longear sunfish in lower Tonawanda Creek in the Niagara Basin and contribute to long-term protection and enhancement of a "threatened" species in New York State. Other HERF eligibility criteria met by the proposed project are:

1. Projects that preserve rare, threatened, and endangered ("RTE") plant, aquatic or terrestrial species or their habitat in the Niagara Basin. If longear sunfish are in the study area, we will identify their distribution and microhabitat preferences and recommend habitat preservation or restoration measures.
2. Projects with a strong scientific foundation. The proposers have a strong record conducting fishery assessments in New York State, including a 2-year study (2004-2005) of longear sunfish and fish communities in the Tonawanda Creek watershed.
3. Projects that involve multi-stakeholder collaboration. The NYSDEC wishes to assess the status of and maintain the viability of the native longear sunfish population in lower Tonawanda Creek. Mr. Douglas M. Carlson (Endangered Species Coordinator, Watertown, NY) asked us to make this proposal.
4. Projects consistent with applicable local, State, and Federal resource management plans. This proposal is fully consistent with the NY Comprehensive Wildlife Conservation Strategy recommendations for longear sunfish (personal communication, Ms. Lisa Holst, NYSDEC, Albany, NY).
5. Projects that feature matching resources. The College at Brockport proposes to contribute 28.6% of the total project cost.

6. Projects that are time-sensitive. No longear sunfish have been caught during low intensity sampling in 2010-2011 by the NYSDEC (D. M. Carlson, unpublished data). The agency is requesting this high intensity sampling project to establish the status of the longear sunfish population in lower Tonawanda Creek, so that remedial measures can be implemented if the population is declining relative to the numbers collected during the last high intensity sampling in 2005 (Wells and Haynes 2007).
7. Projects that are feasible from a cost/probability of success perspective. The College at Brockport has the expertise (the Project Director supervised the 2004-2005 longear sunfish study) and equipment (electrofishing boat) to conduct the project. The HERF is being asked to contribute ~\$40,000 to support 30 sampling trips in 2012 and 2013.

Dr. James M. Haynes will be responsible for the design, execution and reporting of the project. During his 34 years at Brockport, he has directed over \$2.5 million of externally-funded projects and published over 40 papers in peer-reviewed scientific journals. If funded we will electrofish on 15 days in each of 2013 and 2014, according to the following schedule:

April 15-30—1

May 1-July 31—11

August 1-October 15—3

#### FUNDING REQUESTED

Name of Proposed Project: *Status of Longear Sunfish in Lower Tonawanda Creek, Niagara Basin*

	Design/Build/Execute	Operate/Maintain
<b>Total Project Cost:</b>	\$56,160	\$0
<b>Cost Sharing:</b>	\$16,056	\$0
<b>Funding Requested:</b>		
<i>(Total cost minus co-funding)</i>	\$40,104	\$0

#### LITERATURE CITED

Wells, S. M., and J. M. Haynes. 2007. Status of the Longear Sunfish, *Lepomis megalotis*, in Western New York State, USA. Final report to the New York State Department of Environmental Conservation. Albany, NY. 121 p.