

Efficient Methodology for Capturing Crystal

Darters along the Red Cedar River

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Abstract:

Crystal darter (*Ammocrypta asprella*) is currently listed as an endangered species in Wisconsin. They have long and slender body with large pectoral fins and a moderately long head and snout. This species thrive in turbid and strong current water with sandy riffles, bars, and pools. Little is known about *A. asprella* and documented occurrences are rare in Wisconsin. The purpose of this study is to develop an effective methodology for capturing this species where it can be quantify and observed. Although previous method have shown capturing success rate with the Missouri Trawl, we will be testing other methods such as seines and electric shocker on various locations along the Red Cedar River where *A. asprella* were sighted. Statistical analyses will report which methodologies is significant. This research will provide valuable information for Wisconsin Department of Natural Resources so that conservation practices of *A. asprella* can be implemented.

Objective:

We investigated the most efficient methods of capturing Crystal Darters.

Methods used:

Hand nets
Snorkeling
Seine
Minnow Traps



Figure 1 Image is from Wisconsin DNR database of Darters caught in Wisconsin.



Figure 2 Crystal Darter dwelling on riverside bottom.

Field Work:



Figure 3 Minnow traps layout along the Red Cedar River.



Figure 4 Seine used Dunnville Wildlife Area.



Figure 5 Jessica using hand dip nets along Chippewa River.

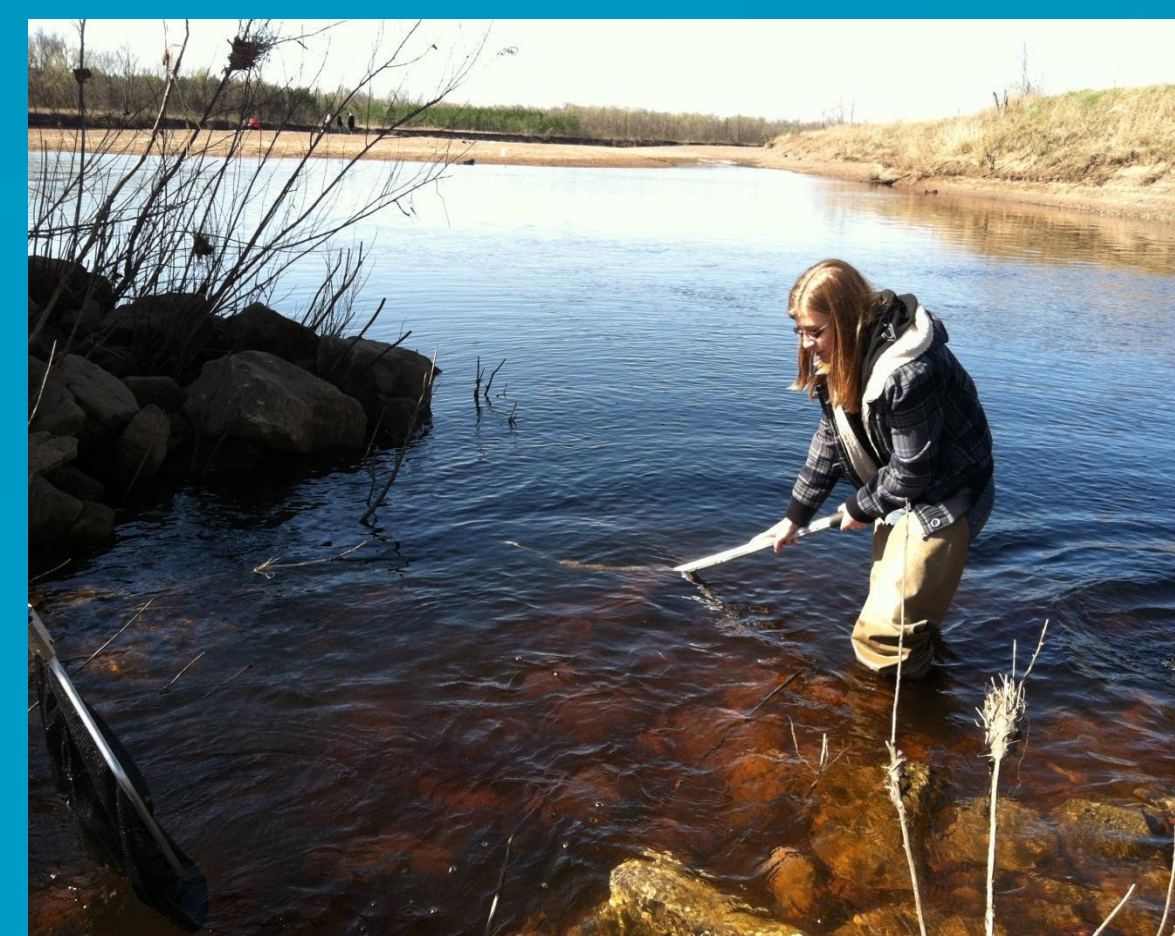


Figure 6 Caitlin using hand dip nets along Chippewa River.



Figure 7 Dr. Bessert snorkeling for Crystal Darter's habitat.



Figure 8 Image credit from John Lyon Wisconsin DNR of Crystal Darter Length.

Results:

- We caught Blunt nose Darter and Orange gill Darter
- No crystal darter during our field work because they are most active during July.

Future Work:

- Write a grant
- Build Missouri Trawl
- Use shocker and nets

Reference:

Herzog, P. D. (2004). Capture Efficiency and Habitat Use of Sturgeon Chub (*Macrhybopsis gelida*) and Sicklefing Chub (*Macrhybopsis meeki*) in the Mississippi River. *Dept. of Bio.* Southeast Missouri State University. 1-93.