

Iowa Department of Natural Resources
Natural Resource Commission

ITEM

12

DECISION

TOPIC

Agreement with Iowa State University - Research Studies

The Commission is requested to approve the annual agreement with Iowa State University for base funding and for research studies to be conducted through the Cooperative Fish and Wildlife Research Unit in FY 2010.

Wildlife Component

1) Base Funding	<u>\$20,000</u>
Total Wildlife Component	\$20,000

Fisheries Component

1) Occurrence & Abundance of Topeka Shiners in In-Channel & Off-Channel Habitats of Streams in Central Iowa (pending approval of SSP grant by U.S. Fish and Wildlife Service)	\$78,682
2) Fish Species of Greatest Conservation Need in Iowa's Nonwadeable Rivers: Distribution, Relative Abundance, and Relations with Instream Habitat and Potential Movement Barriers (SWG-funded)	\$150,560
3) Base Funding	<u>\$20,000</u>
Total Fisheries Component	\$229,242

Summary of projects:

Occurrence and Abundance of Topeka Shiners and Other Fishes in In-Channel and Off-Channel Habitats of Streams in Central Iowa

Objectives

1. Describe the occurrence and estimate the abundance of Topeka shiners and associated fishes in in-channel and off-channel habitats of streams in central Iowa.
2. Identify factors (e.g., physical and chemical habitat, species associations) related to the occurrence and abundance of Topeka shiners and associated fishes in in-channel and off-channel habitats of streams in central Iowa.

This project represents a collaboration between the Iowa Department of Natural Resources (Iowa DNR), U.S. Fish and Wildlife Service (USFWS), and Iowa State University (ISU). The proposed project will provide a number of benefits to Topeka shiners and other SGCN. A major benefit of the research is that it will provide current information on the distribution and abundance of Topeka shiners and other members of the fish assemblage in central Iowa streams. Previous research has largely ignored off-channel habitats, even though such habitats may be

important for many SGCN; therefore, another major benefit is that the research will provide unique information on fish assemblages in both in-channel and off-channel habitats (i.e., backwaters, small oxbows). Habitat information collected at small spatial scales (i.e., instream habitat, riparian conditions) will be used to refine models aimed at predicting the occurrence of Topeka shiners in Iowa. Predictive models will provide managers with tools for conserving critical habitat for Topeka shiners. Lastly, the project will provide detailed information on habitat characteristics important in the conservation and management of all fishes.

Fish Species of Greatest Conservation Need in Iowa's Nonwadeable Rivers: Distribution, Relative Abundance, and Relations with Instream Habitat and Potential Movement Barriers

Objectives

1. Describe the distribution and estimate the relative abundance of fish SGCN,
2. Examine the potential influence of instream barriers on fish distributions, and
3. Evaluate the effects of habitat and fish assemblage characteristics on the occurrence and relative abundance of fish SGCN in Iowa's nonwadeable river systems.

A major benefit of this project is that it will provide a much better understanding of the distribution and abundance of fishes in Iowa's larger rivers and streams, including both SGCN and non-SGCN, and native and nonnative species. Another major benefit is that the proposed project will provide needed insight on the ecology of high-priority SGCN. Specifically, describing associations of fish occurrence and abundance with physical (e.g., substrate composition, proximity to dams) and chemical habitat conditions will provide managers with information that can be used to conserve critical habitat characteristics. These benefits, along with many others not discussed here, will greatly contribute to fulfilling the objectives described in the Iowa Wildlife Action Plan and help managers to meet resource management goals.

Dr. Dale Garner, Wildlife Bureau Chief
Conservation and Recreation Division
June 11, 2009