

2007 University of Arkansas at Pine Bluff Combined Research and Extension Plan of Work

Farm Pond and Community Fishing Pond Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

- 134 100% Outdoor Recreation

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

There are about 100,000 small impoundments in Arkansas. Sunfish and crappie often stunt at a small size in these ponds due to limited predatory control. Hybrid striped bass (HSB) prefer small prey, and may reduce prey populations so that stunting is prevented. Thus, HSB could be used to improve sunfish and crappie fisheries and to provide a new sport fish in ponds. • To measure HSB survival in farm ponds • To evaluate HSB prey selection • To determine predatory effects of HSB in farm ponds • To determine impacts of additional competition on largemouth bass • To develop management recommendations for using HSB in ponds Fishing participation has leveled off, and is consistently lower than the national average for groups such as females, African-Americans, and urban residents. A possible solution to the decline is to target underrepresented groups with fishing education programs such as Arkansas Game and Fish Commission's (AGFC) Family and Community Fishing Program (FCFP), Fishing Derby Program(FDP), and Hooked on Fishing, Not on Drugs Program (HOFNOD). However, little evaluation of these programs has been conducted. • To determine appropriate stocking frequencies for put-take species • To assess the effect of the FDP on fishing activity at derby locations • To monitor HOFNOD instructors and evaluate program components • To evaluate new species for put-take fisheries • To assess participant demographics, attitudes, and success • To evaluate the overall impact of the FCFP on angler recruitment There are about 100,000 ponds and small impoundments in Arkansas, many of which provide significant fisheries resources to the state. However, management of these resources often proceeds without the proper guidance, largely due to inadequate distribution of educational materials. This Extension program is designed to improve distribution of pond management information. • To respond to Extension Educator requests • To support pond owner management needs • To produce timely media releases on pond management • To produce and maintain on-line information resources for ponds • To design fact sheets and other necessary media.

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

• HSB will grow and survive in Arkansas farm ponds. • HSB will eat pond prey species. • Pond owners will use HSB if recommended. • External funding will be maintained. • AGFC will adhere to experimental designs. • County Agents will facilitate distribution. • Management recommendations will be followed.

2. Ultimate goal(s) of this Program

Produce effective management recommendations for using HSB in ponds for prey control and fishery diversification. To enhance angler recruitment in Arkansas. Improve pond management in the state of Arkansas.

V(F). Planned Program (Activity)

1. Activity for the Program

Research Activities Include: • Assessment of HSB requirements for water hardness in Arkansas farm ponds based on survival post-stocking using cage studies • HSB prey selection and competition with largemouth bass • Growth and condition of HSB under different prey communities • Influence of HSB on prey communities at two stocking densities. Extension Activities Include: • Produce recommendations for using HSB in ponds Research Activities Include: • Evaluation of the FCFP • Evaluation of the FDP • Evaluation of the HOFNOD Program Extension Activities Include: • HOFNOD teacher workshops • AGFC training • Assist AGFC with instructional activities and evaluation design • Organize and conduct Urban Fishing Symposium Extension activities include: • Conduct pond workshops and lectures • Maintain Farm Pond Management Website • Produce Farm Pond fact sheets and other resources • Write farm pond articles • Write and distribute monthly press releases for Extension Educator use • Conduct online and hands-on in-service training for Extension Educators