

SRAC Sixth Annual Progress Report

Lovshin, L. L. 1990. Comparison of three fish-loading systems to harvest food-size channel catfish. Catfish Farmers of America, Little Rock, Arkansas.

Lovshin, L. L. 1992. Evaluation of a mechanical grader to separate fingerling channel catfish (*Ictalurus punctatus*) into length groups. Catfish Farmers of America, New Orleans, Louisiana.

Newsom, J. E., and K. B. Davis. Ionic responses of white-river crawfish (*Procambarus zonangulus*) and red swamp crawfish (*P. clarkii*) to changes in temperature and salinity. Presented at the Annual Meeting of the American Society of Zoologists. December, 1991. Atlanta, Georgia. 31:230. Abstract.

Steeby, J. 1991. A comparison of seines equipped with rubber roller or gathered-netting mud lines for harvesting channel catfish in earthen ponds. Alabama Fish Farmers Conference, Montgomery, Alabama.

THESES

Chen, J. 1991. Skin injuries and serum enzyme levels of channel catfish harvested by different loading equipment. M.S. Thesis. Auburn University, Auburn, Alabama, 101 pages.

Kiryu, Y. 1992. Bacterial diseases after harvesting channel catfish: Comparison of fish pumps to traditional methods and histopathology of fish infected with *Aeromonas hydrophila* complex. M.S. Thesis. Auburn University, Auburn, Alabama, 108 pages.

Newsom, James E. 1991. Osmotic responses of white river crayfish (*Procambarus zonangulus*) and red swamp crayfish (*P. clarkii*) to changes in temperature and salinity. M.S. Thesis. Memphis State University, Memphis, Tennessee.

Rode, R. A. 1991. Comparison of three fish-loading systems for harvesting food-sized channel

catfish. M.S. Thesis. Auburn University, Auburn, Alabama, 67 pages.

VIDEOS:

Warmwater finfish: Harvesting, handling and transportation. Southern Regional Aquaculture Center Video, 1992, 30 minutes.

C. PREPARATION OF EXTENSION PUBLICATIONS ON AVIAN PREDATOR CONTROL IN AQUACULTURE FACILITIES

Termination Report
For the Period
April 1, 1990 to December 31, 1992

FUNDING LEVEL:

\$15,000 for duration

PARTICIPANTS:

Texas Agricultural Extension Service (Lead Institution) - J. T. Davis

Mississippi Cooperative Extension Service - M. W. Brunson

Georgia Cooperative Extension Service - G. W. Lewis

Alabama APHIS/ADC/USDA - Frank Boyd

Arkansas APHIS/ADC/USDA - Michael Hoy

Louisiana APHIS/ADC/USDA - W. F. Stevens

Texas APHIS/ADC/USDA - Gary Littauer

Mississippi S&T Field Station APHIS/ADC/USDA - Alvin Stickley, Jr.

United States Fish and Wildlife Service

ADMINISTRATIVE ADVISOR:

Milo Shult
Vice President for Agriculture
University of Arkansas
Little Rock, Arkansas

PROJECT OBJECTIVES:

1. Produce a 20-minute educational video that describes the major avian predators, discusses their economic importance, effective control measures and their cost/benefit ratio.
2. Develop fact sheets to supplement the video which describe bird identification procedures, probable damage, seasonality of occurrence, recommended control measures and sources of technical assistance.
3. Ensure the widest possible distribution of these materials to producers, fish and game organizations and ornithological societies.

ANTICIPATED BENEFITS:

Wide distribution of these educational materials has served to awaken organizations dedicated to the protection of avian predators to the dilemma of the fish and shellfish producer. For many of these people, the documentation of depredations has served to change their attitude about the need to alleviate the problem. The compilation of the possible methods for control has helped producers make intelligent choices about what methods to use. Finally, many producers have been awakened to the fact that though some birds, such as the cattle egret, are a nuisance, they do very little actual crop damage.

PROGRESS:

Fact sheets and a video were prepared as contemplated and distributed throughout the U.S. Many organizations requested additional copies for use in their educational efforts. In addition, the information presented increased federal and

state research agencies' endeavors to find better protection methods, and furnished a basis to give enforcement personnel a standard to judge the level of effort a producer was providing. In at least a few instances, the cost of avian depredations are now an integral part of budgets and cost analyses being prepared by aquaculture producers and financial institutions.

PUBLICATIONS:

SRAC #400. Avian Predators on Southern Aquaculture. Alvin Stickley.

SRAC #401. Avian Predators - Frightening Techniques for Reducing Bird Damage at Aquaculture Facilities. Gary Littauer.

SRAC #402. Control of Bird Predation at Aquaculture Facilities. Gary Littauer.

VIDEOS:

Avian Depredation of Southern Aquaculture

IMPACTS:

From the producers' standpoint, this project did not directly reduce expenditures for avian predator control, however, it did provide information that helped many producers make informed decisions about expected costs of the various legal deterrent measures available. In addition, it provided information about products that were of doubtful benefit.

One of the most easily seen benefits of this project was the bringing together of scientists from Animal Damage Control, USDA, and the U.S. Fish and Wildlife Service into a joint project of benefit to both agencies. As a result of the initial funding provided by SRAC, these two agencies provided additional funding to assist with publication and dissemination of the information. This also legitimized the publications from the standpoint of State Fish and Game Agencies and private wildlife organizations.