Mississippi's Freshwater Report for the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species Meeting on May 14-15, 2024 By Dennis Riecke Mississippi Department of Wildlife, Fisheries, & Parks Activities from July 2023 – March 2024

Aquatic Plant Control Activities

Treated hydrilla at J.P. Coleman State Park lake with Diquat

Myriophyllum spp. management in Wall Doxy State Park Lake (Spring Lake) included:

- Surveying and photographing parrotfeather biomass monthly.
- Treating critical areas (around piers and boat ramp) with Navigate, monitored results.
- Performed winter drawdown November 30 April 1.

Water Hyacinth (Pontederia crassipes) monitoring continued Arkabutla lake July 2023

Federal FY22 and FY23 ANS state grant fund projects were implemented to treat and hopefully eradicate water hyacinth at Horseshoe Lake.

Invasive Carp Control Activities

Contracts to reimburse fish processors for invasive carp purchase from the Mississippi River and from the Yazoo River Basin were signed with four firms but only 1 firm has purchased invasive carp so far from July 2023 – March 2024. The program reimburses fish processors 18 cents per pound if they pay fishermen at least 25 cents per pound.

Coordination Activities

Ongoing activities:

Participated in multiple Invasive Carp conference calls for Tennessee-Cumberland River Basin.

Participating in a decision analysis process to determine invasive carp barrier/deterrent placement along the Tennessee-Tombigbee Waterway.

New activities:

None.

Information & Education Activities

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New activities:

The Mississippi Museum of Natural Science replaced their nonnative invasive species exhibit to focus on the most common ANS species in Mississippi.

Ongoing activities:

Continued distributing "Stop Aquatic Hitchhiker" cards along with all initial boat registrations and boat renewal registration cards that are mailed out.

Continued printing The Stop Aquatic Hitchhiker logo and bullet list in the annual regulation guides --- *Mississippi Outdoor Digest*, (375,000 copies printed each year) and the *Digest of Mississippi Freshwater Commercial Fishing Laws and Regulations* (8,000 copies printed each year).

Links to the Mississippi River Basin Panel on Aquatic Nuisance Species and the Gulf and South Atlantic Panel on Aquatic Invasive Species, Stop Aquatic Hitchhiker and Habitattitude websites are on the department website.

The Mississippi Museum of Natural Science has a permanent exhibit on nonnative invasive species.

A project with Mississippi State University to develop 40 aquatic plant identification and control sheets for landowner use has been completed and a book consisting of all the sheets has been printed and distributed. The entire book has been linked on MDWFP and MDEQ websites. Links ot the individual plant identification and treatment sheets are posted on the MSU Cares (MS Cooperative Extension Service) website. The sheets provide herbicide options to mix with 1 gallon of water. Only herbicides that are rated as "excellent" are being listed. The sheets have also been placed on a website. The book and sheets have been well received.

Monitoring & Reporting Activities

Continued Invasive Carp Telemetry Project on Pickwick Lake and Tennessee -Tombigbee Waterway (TTW).

Assisted USFWS personnel with early detection sampling for Invasive Carp in pools E and D on the TTW . No carp were detected.

A FY23 state plan ANS project will expand the receiver array and tracking of invasive carp in the TTW.

Mississippi is cooperating with the USGS and Alabama on a Southeast Horizon eDNA sampling project for invasive species in the Tennessee Tombigbee Waterway.

Research Activities

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Current research projects:

<u>Mississippi State Univ. Research Project:</u> FY 2020 Lower Mississippi River -Moon Lake Invasive Carp Tracking Research

Mississippi State Univ. Research Project:

FY2021Tennessee – *Cumberland Rivers Data Management Application* – *Project 2* – *a literature review of the effects of invasive carp on native fish species*-

Mississippi State Univ. Research Project:

FY 2021 Developing an adaptive framework based on connectivity for evaluating management actions that limit bigheaded carps access to floodplain lakes. (Oxbow Lake topology)_

Mississippi State Univ. Research Project:

FY2021 Asian Carp Movement and Assessment to Inform Management and Removal Efforts in the Lower Mississippi River (LMR) Basin (Eagle Lake)

Mississippi State Univ. Research Project

FY2022 Distribution patterns of invasive carps in lakes of the Mississippi Alluvial Valley. Project will document the distribution of invasive carp in lakes of the Mississippi Alluvial Valley through surveys with biologists, fisherman and landowners and through field sampling.

New Detections

None.

Future Activities

Compose freshwater fishing bait regulations to specify what bait can be legally, sold, possessed, transported, and used in Mississippi.

Adopt a list of approved, restricted and prohibited species under the authority specified in MS Code 49-7-80 and as specified in the *Mississippi State Management Plan for Aquatic Invasive Species* Amend list of approved, restricted and prohibited species as specified in the public notice that regulates aquaculture activities in Mississippi.

Establish an EDRR monitoring program comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis.

Submit backlog of reported nonnative species occurrences to ANS database.

Work on revisions to the Mississippi State Management Plan for Aquatic Invasive Species.