

Bin 39110
5131 Maner Road
Smyrna, Georgia 30080
Tel 404.799.2100
Fax 404.799.2141



December 10, 2008

Ms. Sandy Tucker
U. S. Fish and Wildlife Service
Westpark Center, Suite D
105 Westpark Drive
Athens, Georgia 30606

Dear Ms. Tucker:

The enclosed is a summary of the conservation actions conducted during 2007 and 2008 for the Candidate Conservation Agreement with Assurances for the Robust Redhorse, *Moxostoma robustum*, Ocmulgee River, Georgia, (CCAA) as described in Agreement Number 1448-40181-01-K-005. This report summarizes activities conducted during 2007 and 2008 towards fulfillment of phases 1 and 2 of the CCAA. Specific activities addressed include stocking the project site (Conservation Action 1), studying the movement of introduced juvenile robust redhorse (Conservation Action 2), and monitoring the abundance and distribution of introduced robust redhorse (Conservation Action 3). We have also begun planning and coordination for activities associated with Conservation Action 4 (monitoring the adult population in the Ocmulgee River and estimating population size), as a result of our January 2008 modification to the CCAA.

In addition to specific activities related to the CCAA, Georgia Power has experienced some internal organizational changes resulting in new personnel assigned to robust redhorse issues. As a result of those changes, I will serve as the Company's contact for general robust redhorse activities, GPC's representative on the RRCC Excom, and Oconee and Ocmulgee TWG representative. Tony Dodd of GPC will be our representative on the Oconee River Flow Advisory Team and will also be actively involved in the RRCC and various CCAA activities. Tony and I are both grateful to your office, especially Alice Lawrence, and Jimmy Evans of Georgia DNR for assisting us with our transition, and we look forward to working with you on robust redhorse conservation issues in the future.

Please contact me at 404-799-2159 if you have further questions regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe E. Slaughter, IV". The signature is stylized and somewhat cursive.

Joe E. Slaughter, IV
Fisheries Biologist
Georgia Power Company

December 10, 2008
CCAA 2007 Progress Report
1448-40181-01-K-005

XC:

With attachments.

Jimmy Evans, Georgia Department of Natural Resources
Forrest Sessions, Chairman Robust Redhorse Conservation Committee
David Moore, Troutman Sanders
John Biagi, Georgia Department of Natural Resources
Mike Harris, Georgia Department of Natural Resources
Chuck Huling, Georgia Power
Doug Jones, Georgia Power
Jimmy Helms, Georgia Power
Cheryl Wheeler, Georgia Power
Mike Phillips, Georgia Power

2007-08 Progress Report: Candidate Conservation Agreement with Assurances for the Robust Redhorse, *Moxostoma robustum*, Ocmulgee River, Georgia

Agreement Number 1448-40181-01-K-005

Conservation Action 1. *Georgia DNR will stock the Project Site with approximately 4,000 hatchery-reared robust redhorse fingerlings each year for five years.*

From November 2007 through March 2008, a total of 550 hatchery reared robust redhorse representing four year classes were stocked into the Ocmulgee River; 542 stocked at the Lloyd Shoals ramp, and 8 stocked at the Highway 83 ramp. An additional 24 robust redhorse were retained in tanks at Warm Springs Hatchery for further methodological studies. Hatchery survival prior to these stocking events was highly variable and generally low (25% overall survival), largely driven by the poor survival of robust redhorse in pond culture settings (4.5%). Tank culture at Warm Springs yielded a survival rate of 51%, and robust redhorse stocked from that facility represented the greatest portion of fish stocked (500 of 550) during the time period. To date a total of 13,734 robust redhorse, representing 10 year classes have been stocked into the Ocmulgee River in the reach between Lloyd Shoals and Juliette dams.

In October 2007, the Robust Redhorse Conservation Committee (RRCC) agreed to suspend hatchery production of robust redhorse indefinitely, resulting in the suspension of further stockings of the Ocmulgee project site as outlined in Conservation Action 1. Hatchery production was suspended primarily because monitoring suggested that survival rates appeared sufficient to establish a viable robust redhorse population, assuming sufficient reproduction and recruitment (Jimmy Evans GA-DNR personal communication). The discovery of a spawning aggregation and suspected wild-spawned juveniles further suggested that stocking efforts might no longer be necessary. Increasing difficulty in capturing broodstock from the Oconee River and poor survival of fish in the overall hatchery production system also contributed to the suspension of hatchery production.

On January 3, 2008, the FWS issued a modification to the CCAA, which allows GPC to move forward with Conservation Actions 3 and 4 under the Adaptive Management provision without reaching the original stocking target of 20,000 fingerlings.

Conservation Action 2. *Georgia Power will fund two surveys, one in year 1 (2002) and one in year 3 (2004) on the movement of introduced juvenile robust redhorse.*

A third movement survey was completed in 2008 by UGA, and the final report from that study is included in Appendix A. This study follows telemetry studies conducted by Bud Freeman (UGA) and Cecil Jennings (UGA Coop Unit/USGS). Given the completion of the two prescribed studies and the additional 2008 study, we believe there are no further requirements related to this Conservation Action.

Conservation Action 3. *Georgia Power will conduct or fund six surveys in order to monitor abundance and distribution of juvenile and adult robust redhorse within Project Site.*

The third of five status surveys, performed in alternating years, under Conservation Action 3 was conducted in 2007 and 2008. That survey is described below.

A follow-up tracking survey from Conservation Action 2 conducted in early May 2007 resulted in the documentation of a spawning aggregate of apparently reproductive robust redhorse in the Ocmulgee River, downstream of Juliette Dam. The spawning aggregate was documented at between 1 and 1.5 m depth with flows generally less than 1 m/s. One radio tagged individual was also documented with this spawning aggregate. GA-DNR sampled that section of river during April 2008.

The third status survey was conducted in Fall 2007 with assistance from GA-DNR and FWS. That survey combined electrofishing and experimental hoop netting methods within the Lloyd Shoals Dam to Highway 16 reach in an effort to not only monitor survival of stocked fish, but also to test alternate collection methods which we hoped might improve catch rates. Results of that survey and experiment were presented at the 2008 Robust Redhorse Conservation Committee Annual Meeting in Boomer, NC, and that presentation is included in Appendix B. In summary, four robust redhorse individuals were collected during two electrofishing passes within the reach (two individuals per pass), all of which were previously stocked and/or tagged individuals representing three year classes. No robust redhorse or other species of catostomid were collected in experimental hoop nets, and baiting hoop nets or pools within the reach did not affect catch rates. In general, this survey shows that stocked robust redhorse are persisting within the Ocmulgee, however, samples sizes are too low to estimate survival or success of stocking efforts.

The fourth monitoring survey under Conservation Action 3 is scheduled for Fall 2009 and may be conducted in conjunction with adult population surveys outlined in Conservation Action 4.

Conservation Action 4. *Following the establishment of an adult refugial population in the Project Site, Georgia Power will fund three surveys to measure population size utilizing the mark-recapture methods used to estimate the population size of the Oconee River robust redhorse population.*

The first survey under Conservation Action 4 was conducted in March and April 2008 as a collaborative effort with GA-DNR. GPC and GA-DNR sampled various sections of the Ocmulgee River using standardized electrofishing techniques. A total 13 robust redhorse were collected, believed to represent 4 year classes. Two of the individuals collected were untagged/unmarked juveniles smaller in length than stocked sizes, which indicate some level of successful reproduction and recruitment within the system.

GPC and USGS have begun designing two-year studies for monitoring the Ocmulgee population and estimating population size using mark-recapture and other available

techniques. These studies, tentatively slated to begin in Fall 2009, are intended to document the status of the existing Ocmulgee River adult population and estimate the number of adult robust redhorse within the river as stocked fish grow and recruit to the population.

Joe E. Slaughter, IV
Fisheries Biologist/Senior Environmental Analyst
Georgia Power Company

Appendix A

Post-release movements and habitat use of stocked robust redhorse *Moxostoma robustum* in the
Ocmulgee River, Georgia

By

T. B. Grabowski and C. A. Jennings
Georgia Cooperative Fish and Wildlife Research Unit
Athens, Georgia

Submitted to Georgia Power Company

March 2008

Appendix B

Ocmulgee River Gear Trials 2007-08

By

Joe E. Slaughter, IV
Georgia Power Company

Presented at the 2008 Annual Meeting of the Robust Redhorse Conservation Committee
Boomer, NC

October 20-22, 2008