Recovery Plan Revision for the Endangered Ovate Clubshell (*Pleurobema perovatum*)
https://ecos.fws.gov/docs/recovery_plan/001117.pdf

Original Approved: November 17, 2000
Original Prepared by: Jackson, Mississippi U.S. Fish and Wildlife Service and Mobile River Basin Coalition Committee

Amendment 1

We have identified the need to amend recovery criteria for the ovate clubshell (*Pleurobema perovatum*). This proposed modification will be published as an addendum that supplements the recovery plan by adding delisting criteria which were not developed at the time the initial recovery plan was completed. The addendum will supplement the Recovery Objective and Criteria section of the *Recovery Plan for Mobile River Basin Aquatic Ecosystem* (USFWS 2000, page 56). Recovery plans are a non-regulatory document that provides guidance on how best to help recover species.

For
U.S. Fish and Wildlife Service
Atlanta, Georgia

Approved: _____
Acting **Regional Director, U.S. Fish and Wildlife Service**

Date: 9/25/19

METHODOLOGY USED TO COMPLETE THE RECOVERY PLAN AMENDMENT

The proposed amendment to the recovery criteria were developed using the most recent and best available information for the species. The lead biologist gathered the information and notified conservation partners of the Service's process to complete this amendment. Ultimately, biologists and managers in the Alabama Ecological Services Field Office developed the amended recovery criteria for the ovate clubshell.

ADEQUACY OF RECOVERY CRITERIA

Section 4(f)(1)(B)(ii) of the Endangered Species Act (Act) requires that each recovery plan shall incorporate, to the maximum extent practicable, "objective, measurable criteria which, when met, would result in a determination...that the species be removed from the list." Legal challenges to recovery plans (see Fund for Animals v. Babbitt, 903 F. Supp. 96 (D.D.C. 1995)) and a Government Accountability Audit (GAO 2006) also have affirmed the need to frame recovery criteria in terms of threats assessed under the five listing factors.

Existing Recovery Criteria

The current recovery plan (https://ecos.fws.gov/docs/recovery_plan/001117.pdf) (USFWS 2000) does not provide recovery criteria, but it does outline recovery objectives, see page 56.

Synthesis

The ovate clubshell was federally listed as endangered in 1993 (58 FR 14330). Currently, the species is threatened by habitat modification, sedimentation, degradation of water quality, impoundment by dams, operation of lock and dams, redirection of flow (Factor A); lack of adequate enforcement of existing Federal or State regulations prohibiting take (Factor D); and fragmentation of populations leading to genetic diversity loss (Factor E).

The ovate clubshell was historically distributed in the Tombigbee, Black Warrior, Alabama, Cahaba, Tallapoosa, and Coosa Rivers and their tributaries in Mississippi, Alabama, Tennessee, and Georgia. It has since disappeared from the Black Warrior and Coosa drainages, as well as the mainstem Tombigbee River. The ovate clubshell currently occurs within the following sub-basins: Tombigbee, Cahaba, Alabama, and Tallapoosa rivers or their tributaries.

The ovate clubshell remains threatened by extreme curtailment and fragmentation of its range, therefore habitat quality and many of the factors identified at the time of listing still threaten the species. The status has improved slightly regarding numbers of relict populations. However, all populations are small, isolated, and vulnerable to nonpoint source pollution, drought, or other stochastic events. While it may be locally common in some populations, the majority are small and localized and in decline (MRBMRC 2010). As such, we propose the following recovery criteria developed to ensure that ovate clubshell has adequate representation and redundancy so that stochastic losses of individual populations no longer threaten the species with extinction.

AMENDED RECOVERY CRITERIA

Recovery criteria serve as objective, measurable guidelines to assist in determining when an endangered species has recovered to the point that it may be delisted and the protections afforded by the Act are no longer necessary. Delisting is the removal of a species from the Federal Lists of Endangered and Threatened Wildlife and Plants. The term "endangered species" means any species (species, sub-species, or DPS) which is in danger of extinction throughout all or a significant portion of its range. The term "threatened species" means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Revisions to the Lists, including delisting or downlisting a species, must reflect determinations made in accordance with sections 4(a)(1) and 4(b) of the Act. Section 4(a)(1) requires that the Secretary determine whether a species is an endangered species or threatened species (or not) because of threats to the species. Section 4(b) of the Act requires that the determination be made "solely on the basis of the best scientific and commercial data available." Thus, while recovery plans provide important guidance to the Service, States, and other partners on methods of minimizing threats to listed species and measurable objectives against which to measure progress towards recovery, they are guidance and not regulatory documents.

Recovery criteria should help indicate when we would anticipate that an analysis of the species' status under section 4(a)(1) would result in a determination that the species is no longer an endangered species or threatened species. A decision to revise the status of or remove a species from the Federal Lists of Endangered and Threatened Wildlife and Plants, however, is ultimately based on an analysis of the best scientific and commercial data then available, regardless of whether that information differs from the recovery plan. When changing the status of a species, we first propose the action in the *Federal Register* to seek public comment and peer review, followed by a final decision announced in the *Federal Register*.

Herein, we provide delisting criteria for the Recovery Plan (USFWS 2000) as the plan did not include measurable delisting criteria at the time of publication.

Amended Recovery Criteria

We are providing recovery criteria for the ovate clubshell recovery plan (USFWS 2000). The below recovery criteria describes a recovered species, or a species that should be considered for removal from the List of Endangered and Threatened Wildlife (50 CFR 17).

1. Six (6) populations exhibit a stable or increasing trend, natural recruitment, and multiple age classes.

2. At least one (1) population (as defined in criteria 1) occurs within each of the presently occupied sub-basins: (Alabama, Cahaba, Tallapoosa, and Tombigbee).

3. Threats have been addressed and/or managed to the extent that the species will remain viable into the foreseeable future.

Justification for Amended Recovery Criteria

Criterion 1: Populations that exhibit a stable or increasing trend, natural recruitment, and multiple age classes demonstrate that the population is secure and will be resilient to stochastic events (Factor A). For the ovate clubshell, it is believed that six populations exhibiting these traits are necessary to provide sufficient redundancy to ensure the species will no longer require protection under the Act.

Criterion 2: In addition, in order to no longer require protection under the Act, at least one (1) population should occur within each of the presently occupied sub-basins (Alabama, Cahaba, Tallapoosa, and Tombigbee). The species is best served considering recovery at the sub-basin level, because the majority of historical and currently occupied sites are located in a single physiographic province, the Coastal Plain. Sub-basins for potential recovery/reintroduction would include the Tombigbee, Cahaba, Tallapoosa, and Alabama. Expanding the species' range into historically occupied river reaches within these sub-basins will increase its representation, and redundancy, and will reduce threats due to curtailment of range (Factor A) and stochastic events (Factor E).

Criterion 3: Abatement of the threats to the ovate clubshell will allow populations to become stable and contribute to the viability of the species. The ovate clubshell remains vulnerable to extinction due to extreme curtailment of range and habitat, low numbers, and vulnerability to non-point source pollution as well as stochastic and chronic events (e.g., spills, drought and/or land use runoff). The primary cause of the curtailment of range and fragmentation of habitat for this and other Mobile Basin species is construction of dams and impoundment of large reaches of major rivers. Active management of these dams with assurances for suitable habitat and flows would contribute to the conservation of the species into the foreseeable future. However, active propagation and management of the species, as outlined in Criterion 2, will be crucial to bolstering and maintaining the resiliency of populations, regardless of potential dam management prescriptions.

Rationale for Recovery Criteria

The proposed delisting recovery criteria reflect the best available and most up-to-date information for the ovate clubshell. Due to the large number of threats that cannot be mitigated to each population, the only way to ensure that the species will not become threatened with extinction in the foreseeable future is to create a sufficient number of populations distributed throughout the Mobile Basin. This will provide assurance that the loss of any one population due to unforeseen circumstances does not limit the continued existence of the species. For this reason, we believe that a robust and well developed propagation and reintroduction strategy is necessary for the delisting of this species. We suggest the maintenance and improvement of the existing populations is continued in an effort to establish resiliency. This, along with the establishment of additional populations, will demonstrate that the combination of threats acknowledged in the initial listing are reduced to a degree that is manageable, and that resilient populations can be sustained despite remaining threats.

LITERATURE CITED

Mobile River Basin Mollusk Restoration Committee [MRBMRC]. 2010. Plan for the population restoration and conservation of freshwater mollusks of the Mobile River Basin. IV – 101 pp.

U.S. Fish and Wildlife Service [USFWS]. 2000. Mobile River Basin Aquatic Ecosystem Recovery Plan. Atlanta, GA. 128 pp.