



**FRESHWATER MOLLUSK CONSERVATION SOCIETY
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O'FALLON, MO 63366**

May 28, 2013

Public Comments Processing
Attn: FWS-R4-ES-2013-0026
Division of Policy and Directives Mgmt
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, MS 2042-PDM
Arlington, VA 22203

RE: Comments on Proposed Endangered Status for Fluted Kidneyshell and Slabside Pearlymussel, and Designation of Critical Habitat for both species, Docket # FWS-R4-ES-2013-0026-0001

Dear Sir or Madam,

The Freshwater Mollusk Conservation Society (FMCS) is dedicated to the conservation of, and advocacy for, freshwater mollusks, North America's most imperiled animals. FMCS is an international professional scientific society made up of state, federal, academic, and private scientists and conservationists, many of whom work directly with the nearly 150 endangered and threatened mollusks. Our members are considered experts in the conservation and recovery of freshwater mollusks.

The U.S. Fish & Wildlife Service (FWS) has proposed to designate fluted kidneyshell (*Ptychobranthus subtentum*) and slabside pearlymussel (*Lexingtonia dolabelloides*) as Endangered and to designate Critical Habitat (CH) for both species in the states of Alabama, Kentucky, Mississippi, Tennessee, and Virginia. The proposed CH designation encompasses 27 separate areas with 3 of these believed unoccupied by either of these species. The Federal Register notice notes that both of these mussel species have significantly reduced ranges from historical occurrences, with the fluted kidneyshell essentially extirpated from the southern portion of its native range in Tennessee and Alabama. Both species are threatened by destruction, modification, or curtailment of habitat or range, inadequate existing regulatory mechanisms, and other manmade factors.

The FMCS supports the listing of fluted kidneyshell and slabside pearlymussel as endangered under the Endangered Species Act, and the proposal to designate CH for both of these mussel species. Formal designation of CH facilitates priority recovery activities such as habitat restoration and reintroduction efforts. Because costs associated with formal designation are often low, this strategy is also cost effective. Additionally, eleven proposed CH units in the mussel designation are already designated CH for other endangered species rendering them 'no cost' additions to the conservation suite of tools. As current research demonstrates, the economic value mussels provide to riverine ecosystems through nutrient recycling and sequestration and water filtration is substantial. In addition, improving riverine habitat overall for the benefit of mussels also helps support native fish populations and lower

water treatment and regulatory costs, yielding economic benefits which are rarely considered in ESA listing decisions and conservation management decisions. We encourage FWS consideration of these ecologically and economically positive aspects of formal CH designation during their assessment. While the current economic impact analysis could not determine absolute values for these beneficial functions, the economic values to society are very real and should be included as offsets of the incremental costs.

The fragmented nature of remaining fluted kidneyshell and slabside pearlymussel populations makes these species much more vulnerable to large scale environmental changes such as climate change and associated shifts in temperature and flow regimes. Given the extent of anthropogenic barriers between extant populations, particularly major dams, each of these occurrences is critically important for the continued survival of the species as the natural patterns of dispersal have been disrupted. Maintaining suitable habitat and viable populations in a broad geographic range from north to south and over the full elevation range provides significant advantages to species existence over decades. The continued existence of each population also will be important for the maintenance of genetic variability species-wide, improving the probability of adaptation and opportunities for culture and augmentation.

Our membership is always eager to assist the FWS with recovery options for freshwater mollusks.

Sincerely,



Dr. Braven Beaty, Co-Chair, Environmental Affairs Committee
Freshwater Mollusk Conservation Society

Cc: Mary Jennings, FWS Tennessee Field Office, 446 Neal Street, Cookeville, TN 38501