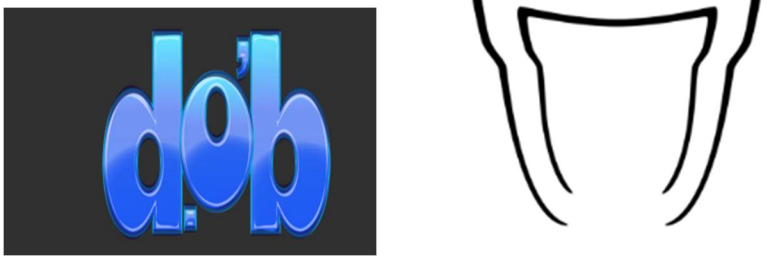

David O'Boyle, Esq
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January 2, 2024

TO: http://www.regulations.gov Submitted Electronically

FROM: David O'Boyle, Esq. and Friends From Other Flower Pots

SUBJECT: Docket No. FWS–R4–ES–2023–0171; Endangered Species Status for Oblong Rocksnail (Leptoxis compacta)

Introduction:

My name is David O'Boyle, Esq. I am writing on behalf of myself as an attorney with expertise in federal administrative law, and as an author of children's books featuring animals, among them aquatic like the Oblong Rocksnail, and general nature/conservationist themes. I am also writing as general counsel for my publishing company D/B/A David O'Boyle; and as chairman of Friends from Other Flower Pots, an unincorporated association with a mission to help Americans exercise their right to comment on federal policies related to the protection of endangered species.

Altogether we support the proposed listing of the oblong rocksnail as endangered under the Endangered Species Act. To better inform the determination of the final rule, you asked for comments concerning, among other things,

1) Rocksnail biology, historical and current range, distributions trends, and population trends including habitat requirements for feeding, breeding, and sheltering.

Rocksnails generally do not flow upstream.[1] It makes sense, then, that they are less abundant upstream from the rediscovery site than downstream from the discovery site.[2] Additionally, for increased viability of the species, dendritic networking is necessary. However, dendritic networking is limited for oblong rocksnails, as they generally inhabit the main part of the Cahaba River and not in its tributaries. To increase dendritic networking would generally require human intervention. With that in mind, what is the scope of human intervention that would be required?[3]

Could human intervention be as easy as collecting some rocksnails and placing them upstream? Rocksnails, unlike other snails, have also shown promise in their ability to reproduce in captivity. Could such rocksnails grown in captivity also be placed in such locations?[4] Would they have a better chance, the same chance, lesser chance of survival in those parts of the river that the rocksnail formerly inhabited but now does not?

Part of the answers to these questions seem to rely on how far upstream the rocksnails already are in comparison to their historical reach in the Cahaba River. Out of the 50 approximate miles of the Cahaba River 38 of those miles were the historic reach of the rocksnail). Put differently, if the current majority population of rocksnail is more downstream than where they were historically located, then bringing them upstream would seem to be less of an issue than if the majority population is more upstream and there is little historical evidence of their existing in such places further up the Cahaba.

Regardless of greater historic rocksnail presence upstream or downstream, it is worth elaborating on whether external factors such as urbanization and climate change have changed the makeup of the

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[1] See SSA "Pleurocerid snails have slow and restricted dispersal capabilities (reviewed in Huryn and Denny 1997). Recent studies show pleurocerid snails have much greater downstream movement than upstream (Whelan et al. 2019, pp. 1593, 1603; Redak et al. 2021, p. 643), suggesting it would be difficult for the species to move to upstream sites (i.e., suitable shoals) or into any habitat that might occur in tributaries on their own, should additional suitable habitat become available".

[2] Id. "Currently, the oblong rocksnail occurs in about 5.7 river miles (9.2 km) of the Cahaba River (see Figure 4 below) from Old Marvel Slab upstream to Booth's Ford (Wright et al. 2020, p. 6). More than 30 individuals were found at the site of rediscovery – an unnamed shoal upstream of the Cahaba River and Shades Creek confluence in Shelby County, Alabama, in 2011 (Whelan et al. 2012, p. 2). This site also contained all gastropods known to this section of the Cahaba River, including the round rocksnail, a related, federally threatened species. In 2019, the oblong rocksnail was found downstream 1.1 miles (1.8 km) and upstream 2.9 miles (4.8 km) at Booth's Ford (Wright et al. 2020, p. 13) relative to the site of rediscovery. It remains sparse and hard to detect at the upstream location, but at other locations it is considered locally abundant (Wright et al. 2020, p. 4)".

[3] Id at Chapter 6.4 "Due to the species presence in a relatively short, straight-line section of the Cahaba River, the most significant risk to this species is from the lack of dendritic networking (which conveys no ability for natural rescue in the event the main channel population is lost), coupled with the risk of short or long-term decline in water quality. At present, water quality in the river is sufficient to support this and other rare species in the main channel. Several rare species of fish, including Goldline Darter (Percina aurolineata) and Cahaba Shiner (Notropis cahabae), are expanding their ranges. Since the rediscovery in 2011, the oblong rocksnails' contemporary range has been extended 1.83km downstream and 4.76km upstream (Wright et al. 2020, p. 8). It is unlikely it could expand much further downstream as habitat may be limiting, and expansion into side channels and upstream would be limited without human intervention."

[4] "Rumors of the Oblong Rock Snail's Demise Were Somewhat Exaggerated - Scientific American Blog Network" (last accessed at 1/2/2024). ("Since the snails can reproduce in captivity, it may be possible for conservationists to breed them in a lab and then re-seed parts of their old territories with new populations. This reestablishment would help mitigate the risk of extinction from one big event.")

historical reach of the rocksnail. In other words, has the ecosystem/geography of the historical areas of the rocksnail changed whereby what was earlier a sufficient ecosystem for them because of clean water, certain types of underwater features like flat rocks with the right algae growth for feeding, been altered or replaced, making what was in past history a fertile ground for rocksnails now infertile. If that is true, to what extent is the changing riverscape reversible?

Assuming that the human intervention requirements are more complex than simply dropping newborn captive rocksnails upstream or dropping presently downstream Cahaba River Rocksnails upstream from their current location, what are the actual human intervention options for dendritic networking? Are we talking the need to dredge/dig out/dam parts of the river, pursue regulatory takings or any other more drastic measures to make such dendritic networks, which comes with great expense (machinery, sophisticated labor) and obvious legal burdens (e.g., regulatory takings), or is the necessary human intervention less extreme, but not as simple as the hypothetical proposed 'rocksnail dropping' solution above?

Commercial/Economic Considerations

Moreover, the Cahaba River is a major source of economic life for rural communities along its banks.[5] Among the commercial activities they depend upon is eco-tourism, from fishing, swimming, kayaking and canoeing. Snails/mollusks are indicator species for a healthy ecosystem. Protecting rocksnails likely means protecting the river that these communities depend on. For eco-tourists certainly will head to the Cahaba in its present state, as it is home to more species of native fishes than both Columbia and Colorado river watersheds combined.[6] In the future, however, a Cahaba river that nobody wants to come and perform such recreational activities will be as economically harmful to these people as it is environmentally harmful to the rocksnail.

Sincerely,

David O'Boyle, esq /s/ individually

David O'Boyle /s/ as general counsel for David O'Boyle's publishing company

David O'Boyle, esq. /s/ on behalf of the Friends from Other Flower Pots.

[5] About the Cahaba River - Cahaba River Society "The Cahaba is a major asset to the urban area and Alabama. Much of the Cahaba's main channel is wild, beautiful, and very popular for canoeing, fishing, swimming, and environmental education. Canoe and boat launches are accessible from downtown Birmingham and many suburban and rural communities. The river is central to eco-tourism strategies for rural counties, including those in the Black Belt of Alabama."

[6] Id Cahaba River Biodiversity - Cahaba River Society; see also 1 river in Alabama has more species of freshwater fish than all of California - al.com ("In terms of slugs, fish, crayfish and snails - freshwater aquatic critters -- Alabama likely has the most diversity in the U.S.").