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RE: Sixty-day Notice of Intent to Sue for Violations of the Endangered Species Act Relating to Failure to Designate Critical Habitat for snuffbox (*Epioblasma triquetra*), rayed bean (*Villosa fabalis*), sheepnose (*Plethobasus cyphyus*), and spectaclecase (*Cumberlandia monodonta*) mussels

Dear Sirs.

In accordance with Section 11(g) of the Endangered Species Act (Act), 16 U.S.C. § 1540(g), the Center for Biological Diversity (Center) provides this 60-day notice of its intent to sue the U.S. Fish and Wildlife Service (Service) for violations of the Act¹ in connection with the Service's failure to designate critical habitat for the snuffbox (*Epioblasma triquetra*), rayed bean (*Villosa fabalis*), sheepnose (*Plethobasus cyphyus*), and spectaclecase (*Cumberlandia monodonta*) mussels. Specifically, the Service violated and continues to be in violation of Section 4 of the Act, which requires the Service to designate critical habitat concurrently with making a listing

¹ 16 U.S.C. § 1531, et seq.; 50 C.F.R. § 402, et seq.

determination.² This letter is provided pursuant to the 60-day notice requirement of the citizen suit provision of the Act, to the extent that such notice is deemed necessary by a court.³

I. Legal Background

The Act defines critical habitat as:

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the [Act], on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it was listed . . . upon a determination by [the Services] that such areas are essential for the conservation of the species.⁴

"Conservation," in turn, means recovery of these species "to the point at which the measures provided pursuant to this chapter are no longer necessary."⁵

Critical habitat provides important protection for imperiled species beyond that provided by listing alone. Pursuant to section 7(a)(2) of the Act, federal agencies must ensure through consultation with the Service that any action they authorize, fund, or carry out will not "jeopardize the continued existence of any [listed] species." For species with critical habitat, each federal agency must additionally guarantee that its actions will not "result in the destruction or adverse modification" of the critical habitat.⁷

Section 4 of the Act provides that once the Service publishes in the Federal Register notice of a proposed regulation listing a species, it has one year to either: 1) publish a final regulation that lists the species and finalize critical habitat designation concurrently; or 2) if critical habitat is prudent but not determinable, publish notice that it is extending the one-year period by no more than one additional year. If the Service avails itself of the one-year extension because it finds critical habitat is prudent but not determinable, it must within the additional year publish a final regulation designating critical habitat "based on such data as may be available at that time," giving the Service a final deadline of two years from the date of publication of the proposed listing to publish a finalized critical habitat rule.

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<sup>2</sup> 16 U.S.C. § 1533(a)(3)(A)(i), (b)(6)(C).
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³ 16 U.S.C. §1540(g).

⁴ 16 U.S.C. § 1532(5)(A).

⁵ *Id.* at § 1532(3).

⁶ *Id.* at § 1536(a)(2).

⁷ *Id*.

^{8 16} U.S.C. § 1533(b)(6)(A)(ii); 50 C.F.R. § 424.12; 50 C.F.R. § 424.17(b)(2).

⁹ 16 U.S.C. § 1533(b)(6)(C)(ii).

II. North American Mussel Extinction Crisis

North America has the highest freshwater mussel diversity rates in the world.¹⁰ Despite their ability to withstand harsh temporary conditions, about 70 percent of these mussel species are extinct or imperiled.¹¹ The fact that so many mussels are imperiled shows that there have been significant, long-term changes to mussel habitat.¹²

The presence of reproducing, diverse populations of mussels indicate a healthy aquatic system.

Mussels play an important role by filtering water for algae, plankton, and silts, and thus provide a life-giving purification system.

Mussels also often form beds that can range from smaller than a square foot to several acres.

These beds serve as a hard cobble for lakes, rivers, and stream bottoms which support other aquatic species.

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On April 20, 2010, the Center submitted to the Service a petition to list as endangered or threatened and designate critical habitat for 404 aquatic, riparian, and wetland species from southeastern United States, including the snuffbox, rayed bean, sheepnose, and spectaclecase mussels. The Service has since listed the four mussels but to date has failed to designate critical habitat.

A. Snuffbox and Rayed Bean Mussels

The snuffbox is a small to medium-sized freshwater mussel usually found in small to medium-sized creeks with swift currents, although it can also be found in Lake Eerie and larger rivers. ¹⁷ Its range has been reduced from 210 streams to 79 streams across the Midwest, Southeast, and Ontario. ¹⁸ As part of its reproductive cycle, it latches onto a host fish's head or snout to ensure mature microscopic larvae are released into the fish's gills, where they mature into juvenile mussels before dropping off. ¹⁹

¹⁰ FWS, "America's Mussels: Silent Sentinels," https://www.fws.gov/midwest/endangered/clams/mussels.html.

¹¹ *Id*.

¹² *Id*.

¹³ *Id*.

¹⁴ *Id*.

¹⁵ *Id*.

¹⁶ *Id*.

¹⁷ FWS, Snuffbox (freshwater mussel)

Factsheet, https://www.fws.gov/midwest/endangered/clams/snuffbox/SnuffboxFactSheet.html.

¹⁸ *Id*.

¹⁹ *Id*.



Snuffbox mussel. Photo by Dr. Chris Barnhart, Missouri State University

The rayed bean is a small mussel, usually less than 1.5 inches long, with a smooth shell with dark green wavy lines.²⁰ The number of historically occupied streams and lakes has been reduced by 73 percent, and is now only found in 31 streams and one lake.²¹



Rayed bean mussel. Photo by FWS

On November 2, 2010, the Service published a proposed rule to list the snuffbox and rayed bean mussels as endangered throughout their ranges, but did not propose critical habitat, instead asserting that designation was not determinable.²² On February 14, 2012, the Service issued a final rule listing the snuffbox and rayed bean mussels as endangered under the Act, finding that critical

²⁰ FWS, Rayed Bean Factsheet,

https://www.fws.gov/midwest/endangered/clams/rayedbean/rayedbeanfactsheet.html.

 $^{^{21}}$ Id

²² Endangered and Threatened Wildlife and Plants: Listing the Rayed Bean and Snuffbox as Endangered, 75 Fed. Reg. 67552, 67582 (Nov. 2, 2010)

habitat for the snuffbox and rayed bean was not determinable.²³ The February 2012 decision did not provide a timeline for designating critical habitat, nor did it indicate a basis for an extension of time other than stating the "biological and physical requirements of these species are not sufficiently known."²⁴ To date, the Service has not finalized a rule designating critical habitat for the snuffbox and rayed bean mussels.

B. Sheepnose and Spectaclecase Mussels

The sheepnose mussel is a medium-sized, long-lived mussel that grows to about 5 inches in length.²⁵ Due to its thick shell, it is thought to live longer than other mussel species, but age information is unknown.²⁶ It lives in larger rivers and streams across the Midwest and Southeast, but is no longer found in two-thirds of its total historic streams.²⁷



Sheepnose mussel. Photo by FWS; Kristen Lundh.

The spectaclecase is a large, long-lived mussel, growing up to 9 inches in length with an often elongated and curved shell, hence its name.²⁸ The oldest documented individual is thought to be 70 years old.²⁹ The spectaclecase historically was found in at least 44 streams, but is today only found in 20 streams in Alabama, Arkansas, Illinois, Iowa, Kentucky, Minnesota, Missouri, Tennessee, Virginia, West Virginia, and Wisconsin.

²³ Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Rayed Bean and Snuffbox Mussels Throughout Their Ranges; Final Rule, 77 Fed. Reg. 8632, 8664 (Feb. 14, 2012).

²⁴ 75 Fed. Reg. 67552, 67582 (Nov. 2, 2010); 77 Fed. Reg. 8632, 8664 (Feb. 14, 2012).

²⁵ FWS, *Sheepnose*, https://www.fws.gov/Midwest/endangered/clams/sheepnose/index.html.

 $^{^{26}}$ *Id*.

 $^{^{27}}$ Id

²⁸ FWS, Spectaclecase (a freshwater mussel),

https://www.fws.gov/midwest/endangered/clams/spectaclecase/SpectaclecaseFactSheetMarch2012.html. ²⁹ *Id.*

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Spectaclescase mussel. Photo by FWS; Nick Rowse

On January 19, 2011, the Service published a proposed rule to list the sheepnose and spectaclecase mussels as endangered throughout their ranges, but did not propose critical habitat, instead asserting that designation was not determinable.³⁰ On March 13, 2012, the Service issued a final rule listing the sheepnose and spectaclecase mussels as endangered under the Act, finding that critical habitat for the sheepnose and spectaclecase mussels is not determinable.³¹ The March 2012 decision did not provide a timeline for critical habitat designation other than to state, "we will use information provided to us in developing a future critical habitat proposal."³² The decision also did not indicate basis for an extension of time other than stating that the "biological and physical requirements of these species are not sufficiently known."³³ To date, the Service has not finalized a rule designating critical habitat for the sheepnose and spectaclecase mussels.

III. Violations of the Endangered Species Act

The Service is in violation of the Act by failing to designate critical habitat for all four mussels within the statutory timeframes required under the Act. The Service failed to designate critical habitat for the snuffbox and rayed bean mussels "concurrently" with its February 14, 2012 rule listing the species as endangered. The Service also missed its November 2, 2012 deadline to designate critical habitat for the snuffbox and rayed bean mussels within an additional year from the date of the proposed listing rule. Similarly, the Service failed to designate critical habitat for the sheepnose and spectaclecase mussels concurrently with its March 13, 2012 rule listing the species as endangered. The Service also missed its January 19, 2013 deadline to designate critical habitat for the sheepnose and spectaclecase mussels within an additional year from the date of the proposed listing rule.

³⁰ Endangered and Threatened Wildlife and Plants; Endangered Status for the Sheepnose and Spectaclecase Mussels, 76 Fed. Reg. 3391, 3418 (Jan. 19, 2011).

³¹ Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Sheepnose and Spectaclecase Mussels Throughout Their Range, 77 Fed. Reg. 14914, 14948 (Mar. 13, 2012).

³² 77 Fed Reg. 14914, 14929, 14934 (Mar. 13, 2012).

³³ 77 Fed. Reg. 14914, 14948 (March 13, 2012).

Consequently, the Service has failed to timely designate critical habitat for the snuffbox, rayed bean, sheepnose, and spectaclecase mussels, and is in violation of Section 4 of the Act. The Service will continue to be in violation of the law until it publishes final rules designating critical habitat for the four mussels. If the Service does not make the required critical habitat designations for these mussels within the next 60 days, the Center intends to file suit in federal court. Please contact me if you have any questions or if you would like to discuss this matter.

Sincerely,

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