November 17, 2021

VIA EMAIL AND CERTIFIED MAIL

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RE: Sixty-day notice of violations of the Endangered Species Act over unlawful denial of listing of four species as threatened or endangered

Dear Secretary Haaland:

This letter serves as a 60-day notice of intent to sue the Secretary and U.S. Fish and Wildlife Service (“Service”) from the Center for Biological Diversity, Noah Greenwald and other interested parties for unlawfully denying protection for the Burrington jumping slug, southern rubber boa, Black Creek crayfish and Virgin River spinedace as endangered or threatened. This letter is being provided to you pursuant to the 60-day notice requirement of the citizen suit provision of the Endangered Species Act (“ESA”). Id. § 1540(g)(2)(C).

In denying these four species badly needed protections, the Service failed to follow the best available science by ignoring clear threats to their survival and lack of protections to address these threats. In particular, the Service drastically underestimated the future impacts of climate change on the species by spuriously pointing to uncertainty of impacts or by truncating how far into the future impacts were considered, in some cases looking a mere 20 years into the future. The Service also failed to properly consider whether the species were endangered or threatened in a significant portion of range as required by the ESA despite clear risks to their survival across portions of range.
Statutory Framework

The Endangered Species Act is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” The ESA is intended to protect and recover species that the Service determines to be “endangered” or “threatened.” “Endangered” means the species “is in danger of extinction throughout all or a significant portion of its range.” “Threatened” means the species is “likely to become an endangered species within the foreseeable future in all or a significant portion of range.” The definition of “species” includes “subspecies” and “distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature.”

Section 4 of the ESA permits private parties to petition the Service to add a particular species to the Service’s formal list of threatened and endangered species. The Service is then directed to make a preliminary finding within 90 days. Assuming it finds “substantial information indicating that the petitioned action may be warranted,” the Service the agency must publish that finding and proceed to conduct a full scientific review of the species’ status. Based on that review, the Service has 12 months to either issue a “not warranted” finding (thus rejecting the petition) or a proposed regulation adding the species to either the endangered or threatened list. If the Service proposes to list the species under either category, it then has 12 more months to make a final decision.

When making listing determinations, the ESA requires the Service to determine “whether any species is an endangered species or a threatened species because of five enumerated factors:

(A) the present or threatened destruction, modification, or curtailment of a species’ habitat or range;
(B) overutilization for commercial, recreational, scientific, or educational purposes;
(C) predation or disease;
(D) the inadequacy of existing regulatory mechanisms; and
(E) other manmade or natural factors affecting the species’ continued existence.

If a species meets the definition of “endangered” or “threatened” because of any one or a combination of these five factors, the Service must list the species. In evaluating these factors,

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3 Id. § 1532(6).
4 Id. § 1532(20).
5 Id. § 1532(16).
6 Id. § 1533(b)(3)(A).
7 Id.
8 Id.
9 Id. § 1533(b)(3)(B).
10 Id. § 1533(b)(6)(A).
11 Id. § 1533(a)(1).
the Service must make listing determinations “solely on the basis of the best scientific and commercial data available.”

The lawfulness of the Service’s listing decisions is governed by Administrative Procedure Act (“APA”) standards of review. The APA directs that courts “shall” set aside agency actions, findings, or conclusions that are determined to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” In reviewing whether an agency decision is arbitrary and capricious, courts must “ensure that the agency considered the relevant factors and articulated a rational connection between the facts found and choices made.” An “agency rule would be arbitrary and capricious if the agency relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”

**The Foreseeable Future and Reliance on False Uncertainty**

The ESA requires the Service to list a species as “threatened” if it “is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” In 2009, the Department of Interior Solicitor issued a guidance interpreting the phrase foreseeable future, concluding the Secretary has “broad discretion with respect to what constitutes the foreseeable future... as long as the rationale is articulated,” further clarifying:

> Since the foreseeable future is uniquely related to population, status, trends, and threats for each species and since species often face multiple threats, the Secretary is likely to find varying degrees of foreseeability with respect to the various threats... the Secretary should not use an arbitrary “default” time period that is either absolute (e.g., 25 years) or based solely on the generation time of the species at issue.

In 2019, the Trump administration issued new regulations that similarly specified:

> The Services will describe the foreseeable future on a case-by-case basis, using the best available data and taking into account considerations such as the species' life-history characteristics, threat-projection timeframes, and environmental variability. The Services need not identify the foreseeable future in terms of a specific period of time.

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12 Id.; 50 C.F.R. § 424.11(c); see also Fed’n of Fly Fishers v. Daley, 131 F. Supp. 2d 1158, at 1164 (N.D. Cal. 2000) (“These factors are listed in the disjunctive; any one or a combination can be sufficient for a finding that a particular species is endangered or threatened.”).
15 Id. § 706(2)(A).
16 Greater Yellowstone Coal., Inc. v. Servheen, 665 F.3d 1015, 1023 (9th Cir. 2011).
18 Id. § 1532(20).
19 M-37021 at 13-14.
20 50 C.F.R. § 424.11(d).
In direct contravention to this guidance and the regulations, the Service arbitrarily used a “default” time-period for the four species. The default time periods used by the Service fall well short of available predictions for climate change and other threats and thus failed to follow the best available science for these species. As such, the not warranted findings for these species are arbitrary and capricious and in violation of the ESA.

For the Virgin River spinedace, for example, the Service limited consideration of future climate change impacts to just 20 years. According to the Service, such impacts include “an increased frequency of episodes of drought,” that will “exacerbate reduced streamflow, reduced habitat availability, increased stream temperature, and possibly invasions and expansions of nonnative fish species and diseases and parasites.” The sources cited by the Service in its review of the spinedace, however, all predict climate impacts to 2099 under different emission scenarios. In ignoring this information, the Service failed to consider the best available information as required by the Act.

One of the Service’s primary justifications for truncating analysis of foreseeable future to such short time-periods was that predictions further into the future would be speculative and uncertain. Courts, however, have consistently held that the best available science standard “does not require that [the Service] act only when it can justify its decision with absolute confidence.” Rather, “[e]ven if the available scientific and commercial data were quite inconclusive, [the Service] may—indeed must—still rely on it.” Requiring the best available science, as opposed to scientific certainty, “is in keeping with congressional intent” that the Service “take preventive measures before a species is ‘conclusively’ headed for extinction.”

Endangered or Threatened in a Significant Portion of Range

Under the Endangered Species Act, the Service must list a species if it is found to be either “endangered” or “threatened” throughout “all or a significant portion of its range.” In adding the phrase “significant portion of its range” (“SPR”) to the ESA, Congress recognized that it “represented a significant shift in the definition in existing law which consider[ed] a species to be endangered only when it is threatened with worldwide extinction.”

In 2014, the Service issued a policy interpreting the SPR phrase that consistent with congressional mandate recognized that the SPR language provides an “independent basis for listing.” Despite this recognition, however, the Service’s policy failed to provide such an independent basis, defining SPR in a manner that rendered the phrase indistinguishable from a species being endangered or threatened in all of its range. The policy states:

22 Ariz. Cattle Growers’ Ass’n v. Salazar, 606 F.3d 1160, 1164 (9th Cir. 2010), cert denied, 131 S. Ct. 1471 (2011).
25 Defenders of Wildlife, 258 F.3d 1136, 1141 (9th Cir. 2001).
26 Federal Register 79: 37588.
A portion of the range of a species is ‘significant’ if the species is not currently endangered or threatened throughout all of its range, but the portion’s contribution to the viability of the species is so important that, without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range.\textsuperscript{27}

Because this definition functionally equates a species being endangered in an SPR with being endangered in all of its range, the policy has been struck down as unlawful and vacated by two courts.\textsuperscript{28} Although now invalidated by the courts, the Service’s not warranted findings for the Burrington jumping slug used this definition and thus denial of protection for this species is unlawful and not in accordance with the ESA.

Specifically, the finding for the jumping slug found that in the British Columbia portion of the species’ range “a high proportion of resiliency units are currently in low or extirpated condition, largely due to low habitat quality and connectivity,” and that “additional loss of resiliency” was projected, but ultimately concluded “we did not find habitat loss in this portion of the range drives the viability of the species.”\textsuperscript{29} This conclusion clearly equates endangered in a significant portion of its range with endangered in all of its range.

The policy has a second problem that infected the not warranted findings for the four species. As an initial step in determining whether any portion of range is significant, the policy adds a requirement that is not contemplated by the ESA nor consistent with its purposes, stating:

\begin{quotation}
In practice, a key part of this analysis will be whether the threats are geographically concentrated in some way. If the threats to the species are affecting it uniformly throughout its range, no portion is likely to warrant further consideration.\textsuperscript{30}
\end{quotation}

Based on this guidance, the Service avoided analyzing whether the species in this notice are endangered or threatened in an SPR by instead looking at threats (e.g. habitat destruction, invasive species) and making a cursory conclusion that they are uniform across the species’ range and thus no portion can be considered significant. In doing so, however, the Service failed to consider the status of the species in significant portions of range. This is problematic because even if threats occur across the range of a species, they can affect species differently in portions of their range based on differences in status, such as small population size or population isolation.

To date, one court has addressed this issue and found the Service was in error when it only considered whether there was a concentration of threats and ignored the status of a species, finding for the Humboldt marten that:

\textsuperscript{27} Federal Register 79: 37587
\textsuperscript{28} Ctr. for Biological Diversity v. Jewell, 248 F.3d at 959; Desert Survivors, 336 F. Supp. 3d at 1136.
\textsuperscript{29} U.S. Fish and Wildlife Service, Species Assessment and Listing Priority Assignment Form, December 22, 2020, Page 27.
\textsuperscript{30} Federal Register 79: 37586.
Even if the Service sufficiently explained away the wildfire, climate change, and rodenticide risks, if it failed to recognize the California population’s isolation and small and declining numbers, it could not have properly assessed whether that sub-population was, as the Species Report found, ‘especially vulnerable to extirpation.’ The Court directs the Service to reconsider its SPR analysis in light of its revised analysis of the five ESA factors.\textsuperscript{31}

As with the marten, the species in this notice have populations or portions of their range where they are vulnerable to extinction, but the Service failed to consider whether they are threatened or endangered in an SPR, as required by the ESA, based on a conclusion that threats are not concentrated.

This conclusion is not based on the best available science and in direct contravention of the ESA’s requirement to list species as endangered or threatened in an SPR.

It is also clear that despite the Service’s cursory conclusion to the contrary, threats to the survival of these species are in fact concentrated and thus the determination that they are not endangered or threatened in an SPR is arbitrary and capricious. The Service’s status assessments for each of these species clearly identify threats that impact particular populations or portions of range of these species, such that they are concentrated (Table 1).

### Table 1. Concentrated threats impacting the four species denied protections.

<table>
<thead>
<tr>
<th>Scientific</th>
<th>Common Name</th>
<th>Concentrated Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lepidomeda mollispinis mollispinis</td>
<td>Virgin River spinedace</td>
<td>1. Impeded Passage; 2. Low Flows; 3. High Stream Temperatures</td>
</tr>
<tr>
<td>Hemphillia burringtoni</td>
<td>Burrington jumping slug</td>
<td>1. Logging; 2. Development</td>
</tr>
<tr>
<td>Procambarus pictus</td>
<td>Black Creek crayfish</td>
<td>1. Urbanization; Invasive Crayfish</td>
</tr>
<tr>
<td>Charina umbratica</td>
<td>Southern rubber boa</td>
<td>1. Climate change; Development; Collectors</td>
</tr>
</tbody>
</table>

**Conclusion**

In sum, the Service’s determinations that listing these four species is not warranted are arbitrary and capricious, contrary to the best available science, and violate the ESA. If the Service does not act to correct these violations within 60 days, the Center will pursue litigation in federal court. Please contact me should you have any questions or if you would like to discuss this matter.

Sincerely,

Noah Greenwald

Noah Greenwald

\textsuperscript{31} Ctr. for Biological Diversity et al. v. U.S. Fish and Wildlife Service, 15-cv-05754-JST at 17.