

90-DAY FINDING PETITION REVIEW FORM

LISTING AS A THREATENED OR AN ENDANGERED SPECIES

Federal Docket No. FWS-HQ-ES-2023-0229

90-DAY FINDING ON THE EMERGENCY PETITION TO LIST *Betta miniopinna* AS ENDANGERED UNDER THE ENDANGERED SPECIES ACT

Petitioned action being requested:

- List as an endangered or a threatened species
- Reclassify (uplist) from a threatened species to an endangered species
- Other

Petitioned entity:

- Species
- Subspecies
- DPS of vertebrates

Background

Section 4(b)(3)(A) of the Endangered Species Act (Act) requires that we make a finding on whether a petition to list, delist, uplist (reclassify the species from a threatened species to an endangered species), or downlist (reclassify the species from an endangered species to a threatened species) a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Our regulations provide that, for a petition to meet the “substantial scientific or commercial information” standard, we must determine in the 90-day petition finding that the petition includes “credible scientific or commercial information in support of the petition’s claims such that a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted” (50 CFR § 424.14(h)(1)(i)).

The Act and our regulations are clear that the responsibility is squarely on the petitioner to present the requisite level of information to meet the substantial information test to demonstrate that the petitioned action may be warranted. This means that the petitioner must not only present credible information that threats may be present; they also need to present credible information concerning a species’ documented or likely response to that threat, and that the species’ response is to such a level that listing or uplisting may be warranted. Where the petitioner has failed to do so, we should make a not-substantial finding on the petition -- we should not augment their petition with our own knowledge or other information we are aware of. If we are aware of species that may be in danger of extinction, we should undertake a status review on our own accord, regardless of the receipt of a petition.

Our regulations further state that we will consider whether a petition presents a complete and balanced representation of the relevant facts when making our finding of whether a petition presents substantial information that the requested action may be warranted. Thus, if we find that a petition cherry-picked information, ignored relevant and readily available information, and presented a biased and incomplete representation of facts, we should consider whether the petition has met the requirement to present substantial information (see instructions below for more information).

We note that designating critical habitat is not a petitionable action under the Act. Petitions to designate critical habitat (for species without existing critical habitat) are reviewed under the Administrative Procedure Act and are not addressed here. See 50 C.F.R. § 424.14(j). To the maximum extent prudent and determinable, any proposed critical habitat will be addressed concurrently with a proposed rule to list a species, if applicable.

Petition History

On July 6, 2023, we received a petition dated July 5, 2023, from the Center for Biological Diversity and the Monitor Conservation Research Society, requesting that *Betta miniopinna* be emergency listed as a threatened species or an endangered species under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioner, required at 50 CFR 424.14(c). Listing a species on an emergency basis is not a petitionable action under the Act, and the question of when to list on an emergency basis is left to the discretion of the Service. If the Service determines that the standard for emergency listing in section 4(b)(7) of the Act is met, the Service may exercise that discretion to take an emergency listing action at any time. Therefore, we are considering the July 5, 2023, petition as a petition to list the *B. miniopinna*. This finding addresses the petition.

Evaluation of a Petition to List the *Betta miniopinna* as an Endangered Species Under the Act

Species, Range, and Taxonomy

Does the petition present substantial information that the petitioned entity may be a listable entity (i.e., a species, subspecies, or distinct population segment)?

Yes

No

Betta miniopinna

Historical Range: Pulau Bintan (hereafter “Bintan Island”) of the Riau Archipelago, Indonesia

Current range: Bintan Island of the Riau Archipelago, Indonesia

Estimated area of occupancy: <10 km²

Habitat type: Only resides in peat swamp forests

This is a recognized species by Tan and Tan, 1994.

Taxonomy:

Kingdom: Animalia

Phylum: Chordata

Class: Actinopterygii

Order: Perciformes
Family: Osphronemidae
Genus: Betta

Statutory and Regulatory Standards for Evaluation of the Petition

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an “endangered species” or a “threatened species.” The Act defines an endangered species as a species that is “in danger of extinction throughout all or a significant portion of its range,” and a “threatened species” as a species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Act requires that we determine whether any species is an “endangered species” or a “threatened species” because of any of the following factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species’ continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

In accordance with 50 CFR 424.14(d), the Service’s determination as to whether the petition provides substantial scientific or commercial information indicating that the petitioned action may be warranted will depend in part on the degree to which the petition includes the following types of information: (1) Information on current population status and trends and estimates of current population sizes and distributions, both in captivity and the wild, if available; (2) Identification of the factors under section 4(a)(1) of the Act that may affect the species and where these factors are acting upon the species; (3) Whether and to what extent any or all of the factors alone or in combination identified in section 4(a)(1) of the Act may cause the species to be an endangered species or threatened species (i.e., the species is currently in danger of extinction or is likely to become so within the foreseeable future), and, if so, how high in magnitude and how imminent the threats to the species and its habitat are; (4) Information on adequacy of regulatory protections and effectiveness of conservation activities by States as well as other parties, that have been initiated or that are ongoing, that may protect the species or its habitat; and (5) A complete, balanced representation of the relevant facts, including information that may contradict claims in the petition.

Evaluation of Information in the Petition

When evaluating a petition, we assess the information in the petition and the sources that it includes as references. While we may use any readily available information (e.g., in our files or published literature that we are aware of) to determine the credibility of the information presented in the petition, we do not use readily available information to bolster the petition,

should the petitioner fail to provide substantial information, because the Act requires that we make a finding as to whether the petition itself presents substantial information indicating that the petitioned action may be warranted. Our implementing regulations at 50 CFR 424.14(h)(1)(i) state that conclusions drawn in the petition without the support of credible scientific or commercial information will not be considered “substantial information.” “Credible scientific or commercial information” may include all types of data, such as peer-reviewed literature, gray literature, traditional ecological knowledge, etc. Thus, we first must determine whether the information provided in the petition is credible. In other words, the Service must evaluate whether the information in the petition is substantiated and not mere speculation or opinion. Any claims that are not supported by credible scientific or commercial information do not constitute substantial information and will not be further evaluated. Next, we determine whether the conclusions drawn in the petition are reasonable (i.e., actually supported by that credible information).

After identifying the claims in the petition that are supported by credible information, we consider those claims in the context of the factors in section 4(a)(1) of the Act. When evaluating information presented in the petition, we consider factor D in light of the other factors, not independently. In other words, we consider whether the petition presents substantial information indicating that existing regulatory mechanisms may be inadequate to address the magnitude or imminence of threats identified in the petition related to the other four factors; therefore, we consider existing regulatory mechanisms in conjunction with each relevant claim presented in the petition.

To complete our analysis for a 90-day finding on a petition to list or uplist, we first identify the claims in the petition that are supported by credible information indicating that a potential threat is occurring or is likely to occur within the species’ range. After identifying the claims that are supported by credible information that a threat is occurring or likely to occur, we next determine whether the petition has presented credible information that those threats affect the species at a population or species level, after taking into account any mitigating actions or conditions that may ameliorate those threats, such that the petitioned action may be warranted. If we find that the petition does not present substantial information that the petitioned action may be warranted based on the information provided regarding the status and trends of the species or on one or more factors, we consider the cumulative impact of all of the threats that are supported by credible information. Based on these steps, we draw our conclusion and petition finding based on the standard for 90-day findings, which is whether the petition presents “credible scientific or commercial information in support of the petition’s claims such that a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted.” Our evaluation assesses the extent to which the credible information in the petition indicates that a reasonable person would conclude that the petitioned action may be warranted.

Claims Addressing Threats

We first assess whether the petition supported its claims with credible information (i.e., whether the petition has presented credible information that the threat is occurring or is likely to occur and that the species may be exposed to the threat) (Table 1). If the supporting information indicates that the threat is occurring or is likely to occur in the future and that the species may be exposed to

it, we then assess whether the petition presented credible information that reasonably indicates the presence of negative effects on the species as a whole.

If the petition did not present credible information indicating population-level effects, our analysis of that individual threat presented in the petition is complete, as there would be no species-level effects; we may then analyze that threat later if we need to evaluate cumulative effects. If the credible information about the particular threat indicates species-level effects, our analysis of that individual threat presented in the petition is complete. If the credible information about the particular threat does not indicate species-level effects but does indicate population-level effects, we assess the extent to which the credible information in the petition indicates that the scale of the effects of that threat are such that a reasonable person would conclude that listing or uplisting may be warranted.

If we find that there is credible information indicating that threats are having or are likely to have a negative effect on the species as a whole, such that a reasonable person would conclude that listing may be warranted, we can stop and make a positive “substantial information” finding. We would then evaluate all of the threats in detail based on the best scientific and commercial data available when we conduct the status assessment and make the 12-month finding. A positive 90-day petition finding does not indicate that the petitioned action is warranted. Such a finding indicates only that the petition presents substantial information that the petitioned action may be warranted and that a full review should occur.

TABLE 1: Evaluation of claims in the petition. Assessment of the credibility of scientific and commercial information in the petition and the extent to which claims supported by credible scientific or commercial information in the petition corroborates the presence of negative impacts to populations, or the species.

Threat or Activity	Exposure. Is the claim of the threat in the petition supported by credible scientific and commercial information? Does the petition support the claim that there is a potential threat and it is occurring or is likely to occur within the range of the species? If no, explain. If yes, include brief summary statement and citations to the credible information.	Response (Populations/Species). Do the claims and the supporting information indicate negative effects such that listing or uplisting may be warranted? Yes or no. Explain and describe below.
Habitat loss and degradation (Factor A)	<p>Yes. The petition does present credible information that deforestation is occurring within the range of the species (Hansen et al. 2013).</p> <p>The petition claims that conversion of peat swamp forests to industrial forestry operations and plantations is a primary threat to the species. However, information cited in the petition does not specifically address loss of peat swamp forest on Bintan, the island where <i>B. miniopinna</i> occurs.</p> <p>In support of the claim that conversion and degradation of peat swamp forests is a threat to the species, the petition includes several citations, each addressed below.</p> <p>The petition cites Newman & Valentinus (2005). This study only addresses logging in Papua, which is outside the range of the species. It claims that Indonesia is experiencing the worst rates of deforestation in the world, yet Hansen et al. (2013) contradicts this information with an estimate that deforestation in Indonesia between 2000 and 2012 is occurring at a rate of less than 1% per year.</p>	<p>No. The petition does not present credible information that deforestation of peat swamp forest is having a negative impact on the population(s) or species.</p> <p>Hansen et al. (2013) is the only reference in the petition, that discusses habitat loss and degradation, to incorporate the range of the species in their study. Hansen et al. (2013) shows that deforestation did occur across Indonesia with a loss of 8.4% from 2000 to 2012, which is <1% per year. The study does not discuss Bintan Island, where the species exists, nor peat swamp forest, the specific habitat type of the species. The petition does not link general deforestation to effects on the species or note a species response.</p>

	<p>The petition also cites Miettinen et al. (2012), which claims that Bintan Island, the island where the species occurs, is not peatland and hence, the island is not included in the study.</p> <p>Lastly, the petition also cites Low (2019). Low (2019) further cites Giam et al. (2012) in finding that large-scale conversion of peat swamp forest to industrial-scale forestry and monoculture plantations pose a threat to <i>M. miniopinna</i>, however, Giam et al. (2012) does not include Bintan Island, the only island where the species occurs, in their study.</p>	
Collection and Trade (Factor B)	<p>Yes. The petition shows advertisements for the sale of wild-caught individuals, despite such trade of <i>B. miniopinna</i> being illegal under Indonesian law (Latinne et al. 2020; Nijman et al. 2022).</p>	<p>No. The petition does not present credible information that trade is having a negative effect on the population(s) or species.</p> <p>The petition acknowledges that CITES, LEMIS, or other databases do not collate information on the trade of the species. Additionally, while the petition shows seven advertisements for the sale of the species, six of which are for wild-caught individuals, it does not note how many are available for purchase on each of these advertisements (or in turn, how many have been captured from the wild). The petition does present information that trade of <i>B. miniopinna</i> is illegal under Indonesian law and the Lacey Act because Indonesia does not have a set quota authorizing such trade under its law (Latinne et al. 2020; Nijman et al. 2022). However, the petition does not present information sufficient to gauge the number of individuals taken from the wild or effects from trade, including from the lack of enforcement of Indonesian regulation of trade, or otherwise on the population(s) or species.</p>
Disease (Factor C)	<p>No. The petition acknowledges that there are no data or information on diseases affecting <i>B. miniopinna</i>.</p>	NA
Climate Change (Factor E)	<p>No. The petition does not provide credible information that climate change will negatively impact individuals.</p>	NA

	<p>The petition provides information that surface temperature will likely increase within the range of the species, but this reference is for all of Southeast Asia and in reference to terrestrial temperatures (Christensen et al. 2007). The petition does not link the change in surface temperature to effects on the species.</p> <p>The petition claims that intense precipitation events will occur more frequently (Christensen et al. 2007) but does not link this directly to the species in any way.</p> <p>The petition claims that the species likely has low adaptive capacity, but this is not supported by any citations to credible information.</p>	
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Factor D cannot be an independent basis for determining that a species is an endangered species or a threatened species. We consider the effect of existing regulatory mechanisms, together with conservation efforts, when we evaluate claims in the petition regarding the individual threats associated with Factors A, B, C, or E. Because we have concluded that the petition does not provide substantial information that the species may warrant listing based on threats associated with Factors A, B, C, or E, we conclude there is not substantial information to evaluate any existing regulatory mechanisms for their effect on the threats and the status of the species.

Cumulative Effects of Claims Supported by Credible Information

If we do not find substantial information indicating that one or more threats are having or are likely to have an impact on the species to the point that the species may warrant listing, we consider the cumulative effects of all of the claims in the petition that are supported by credible information indicating the presence of potential threats affecting individuals or populations of the species.

Because we have concluded the petition provides credible information that effects to individuals of the *B. miniopinna* are reasonably certain to occur from more than one threat/activity but do not rise to the level of impacting populations or the species as a whole, we must assess whether cumulatively these effects to individuals may result in a finding that the petitioned action may be warranted. In this case, we consider the threats of habitat loss and degradation and collection and trade. For habitat loss and degradation, none of the references in the petition discuss Bintan Island, the only island where the species exists, in conjunction with peat swamp forest, the specific habitat type of the species. The petition does not link general deforestation to effects on the species or a species' response. Regarding collection and trade, the petition does not present information sufficient to gauge the number of individuals taken from the wild or effects from trade or otherwise on the population(s). Credible sources cited in the petition do not provide substantial information indicating that threats identified by the petitions may have synergistic or cumulative effects on the population such that the petitioned action may be warranted for *B. miniopinna*.

Evaluation of Information Summary

The petitioner provided credible information indicating potential threats to individuals of the species due to habitat loss and degradation and collection and trade. The petitioner also provided credible information that the existing regulatory mechanisms may be inadequate to address those potential threats (Factor D). While we found that the petition provided documentation of negative impacts to individual fish from these potential threats, the petition did not present credible information to support impacts to populations or the species as a whole due to that potential threat such that the species may warrant listing. Additionally, the petition did not provide any credible information to support the potential threats of disease (Factor C) nor the threat of climate change (Factor E).

Petition Finding

We reviewed the petition, sources cited in the petition, and other readily available information (within the constraints of the Act and 50 CFR 424.14(h)(1)). We considered the credible

information that the petition provided regarding the individual and cumulative effects of threats that fall within factors under the Act's section 4(a)(1) as potentially ameliorated or exacerbated by any existing regulatory mechanisms or conservation efforts. Based on our review of the petition, sources cited in the petition, and other readily available information, we find that the petition does not provide substantial scientific or commercial information indicating that listing the *B. miniopinna* as a threatened species or an endangered species may be warranted. The petitioner provided credible information indicating potential threats to individuals of the species due to habitat loss and degradation and collection and trade. The petitioner also provided credible information that the existing regulatory mechanisms may be inadequate to address those potential threats. Although the petition did provide credible information regarding deforestation at less than 1% per year countrywide, the reference investigated deforestation across the entire country and did not mention peat swamp forest, the specific habitat type for the species, nor Bintan Island, the only island the species is known to exist. Furthermore, the references provided in the petition that discussed peat swamp forests did not include Bintan Island, the island where *B. miniopinna* currently exists. The petition did not link this general deforestation to effects on the species. Given the specific habitat in the range of the species is not discussed, we cannot conclude that habitat loss and degradation is having a negative impact on the population(s) of the species. Additionally, regarding trade, the petitioners only presented information from a brief Google search on the trade of the species. While this brief search presents evidence of some illegal trade in wild specimens of the species, without more thorough information on the amount of trade of wild-caught *B. miniopinna* and abundance estimates, we cannot conclude that trade is having a negative impact on the population(s) of the species. Credible sources cited in the petition do not provide substantial information indicating that threats identified by the petitions may have synergistic or cumulative effects on the population such that the petitioned action may be warranted for *B. miniopinna*.

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