

# 90-DAY FINDING PETITION REVIEW FORM

## LISTING AS A THREATENED OR AN ENDANGERED SPECIES

Federal Docket No. FWS-HQ-ES-2023-0033

### 90-DAY FINDING ON A PETITION TO LIST THE BLUE TREE MONITOR LIZARD (*Varanus macraei*) 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)).

#### Petition History

On April 25, 2022, we received a petition from the Center for Biological Diversity, requesting that the blue tree monitor lizard be 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). The petitioners additionally requested that the Service immediately protect blue tree monitor lizards with its emergency listing authority under 16 U.S.C. § 1533(b)(7). Because the Act does not provide for petitions to emergency list, we are considering it as a petition to list the blue tree monitor lizard. 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. This finding addresses the petition.

## Evaluation of a Petition to List the Blue Tree Monitor Lizard Under the Act

### *Species and Range*

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

Blue tree monitor lizard (*Varanus macraei*)

Historical range: Batanta Island and surrounding small offshore islets, Raja Ampat archipelago, West Papua Province, Indonesian New Guinea.

Current range: Batanta Island and surrounding small offshore islets, Raja Ampat archipelago, West Papua Province, Indonesian New Guinea. Anecdotal local reports indicate species has been lost from at least one of the offshore islets.

This is a recognized species by Böhme & Jacobs 2001.

### *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

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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 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. Our implementing regulations at 50 CFR 424.14(h)(1)(i) state 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 petition finding 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, we next determine if the petition has presented credible information that any one of those threats affects 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 claims in the petition are supported by 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 there are no 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, for any one threat, we find that there is credible information indicating that the threat is having or is likely to have a negative effect on the species as a whole, 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. If we do not find substantial information indicating that any one threat is having an impact at a species-level, we conduct a cumulative analysis of the effects of all of the threats.

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	<b>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.</b>	<b>Response (Populations/Species). Do the claims and the supporting information indicate negative effects to one or more populations and if so, to the species as a whole? Yes or no. Explain and describe below.</b>
Trade (Factor B)	<p>Yes. The petition presents credible information that the species is collected and traded internationally in the pet trade industry with the United States being the largest importer of the species and Indonesia being the largest exporter of the species (Bennett, 2015; CITES Trade Database). The petition presents credible information that trade in the species is increasing, and the species has a high market value (Bennett, 2015). Almost all trade of the blue tree monitor lizard reported in CITES is indicated to be captive-bred, but the petition provides credible information that suggests all animals originating from Indonesia are coming from the wild with captive breeding only possible for lizards maintained in Europe and North America (Bennet, 2015). Additionally, credible information in the petition indicates that there is illegal smuggling of blue tree monitor lizards with reports of blue tree monitors being confiscated from smugglers traveling to Malaysia, Hong Kong, and Prague in addition to confiscation reports in the CITES trade database (Biawak, 2019; Robin Des Bois, 2017).</p>	<p>Yes. The petition presents credible information demonstrating negative effects of the pet trade on populations of blue tree monitor lizards. The blue tree monitor is endemic to the 455km<sup>2</sup> island of Batanta and a couple small offshore islets, one the smallest distributions among varanid lizards. Citations indicate this restricted range makes them particularly vulnerable to overexploitation (Natusch and Lyons, 2012). Although there is no data available on the population size of the blue tree monitor, reported exports indicate harvest rates of the species may be 3.6-6.6 lizards/km<sup>2</sup> over a decade (Bennet, 2015), and the species is thought to be extirpated from one small unnamed offshore island where it was once known to occur (Del Canto, 2013; Shea et al., 2017). According to credible information presented in the petition, the status of the lizard is unknown on another small offshore island, Ayem, where locals report the population to be nearly extirpated due to heavy collection on the island after lizards became difficult to find in the forests surrounding the homes of collectors (Arida et al., 2021; Del Canto, 2013; Shea et al., 2017). Additionally, there is evidence presented in the petition that reported trade and assumed harvest may be under-estimated since animals that are injured or die prior to export are unaccounted for, which likely occurs frequently along the trade chain (Arida et al., 2021; Natusch and Lyons, 2012). The IUCN assessment of the species lists the pet trade as the leading threat to the species which resulted in an IUCN endangered classification in 2017, only 16 years after first being described as a species (Shea et al., 2017). The petition cites credible information indicating that the blue tree monitor is regulated through a domestic permitting and quota process, but enforcement of the regulations is lacking and quotas for the blue</p>

		<p>tree monitor lizard could not be found (Natusch and Lyons, 2012). All <i>Varanus</i> species are listed under CITES appendix II, but CITES protections may also be insufficient in reducing the negative impacts of trade on the species due to illegal harvest and laundering along the trade chain (Bennet, 2015; Koch et al., 2013; Lyons and Natusch, 2011; Natusch and Lyons, 2012). Additionally, there is a high probability that captive bred labels originating from Indonesia are fabricated since surveys suggest no suitable captive breeding facilities exist in the country and any captive breeding that does occur likely uses wild lizards (Bennet, 2015; Koch et al., 2013; Lyons and Natusch, 2011; Natusch and Lyons, 2012). According to the petition and credible sources cited therein, the blue tree monitor lizard lacks an adaptive management plan, and Indonesia does not have proper enforcement and monitoring capacity to differentiate between species, suggesting regulation of trade may be ineffective in protecting the species (Koch et al., 2013; Natusch and Lyons, 2012).</p>
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### ***Cumulative Effects of Claims Supported by Credible Information***

Because we have found that the petition presented substantial information that one or more threats are having an impact on the species to the point that the species' status may have changed, the petition presents substantial information indicating that the species may warrant listing. We do not need to assess cumulative effects at the 90-day finding stage because we will address cumulative effects of all threats in the 12-month finding.

### ***Evaluation of Information Summary***

The petitioner provided credible information indicating a potential threat to blue tree monitor lizard populations from the international pet trade (Factor B) with negative impacts on monitor populations, including at least one localized extirpation. Given the small range of the blue tree monitor lizard, the negative impacts of harvest may be a threat to the species.

### **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 effects of the 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 and readily available information regarding the international pet trade (Factor B), we find that the petition presents substantial scientific or commercial information indicating that listing the blue tree monitor lizard (*Varanus macraei*) may be warranted. The petitioners also presented information suggesting habitat loss, disease, and climate change may also be threatening the blue tree monitor lizard. We will fully evaluate these potential threats during our 12-month status review, pursuant to the Act's requirement to review the best scientific and commercial information available when making that finding.

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