

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

[Docket No. FWS-R4-ES-2024-0154;
FXES1111090FEDR-256-FF09E21000]

RIN 1018-BH81

Endangered and Threatened Wildlife and Plants; Endangered Species Status for Puerto Rican Skink, Lesser Virgin Islands Skink, and Virgin Islands Bronze Skink and Designation of Critical Habitat; Threatened Species Status With Section 4(d) Rule for Culebra Skink and Designation of Critical Habitat; Not Warranted Species Status for Mona Skink, Greater Virgin Islands Skink, Greater Saint Croix Skink, and Lesser Saint Croix Skink

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and notification of findings.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the Puerto Rican skink (*Spondylurus nitidus*), a skink species from Puerto Rico and Desecheo Island, and the Lesser Virgin Islands skink (*S. semitaeniatus*) and Virgin Islands bronze skink (*S. sloanii*), two skink species from the U.S. Virgin Islands and the British Virgin Islands, as endangered species. We propose to list the Culebra skink (*S. culebrae*), a skink species from Culebra Island and offshore cays of Puerto Rico, as a threatened species with protective regulations under section 4(d) of the Endangered Species Act of 1973, as amended (Act) (“4(d) rule”). After a review of the best available scientific and commercial information, we find that listing these species is warranted. If we finalize this rule as proposed, we will add these species to the List of Endangered and Threatened Wildlife and extend the Act’s protections to these species. We also propose to designate critical habitat for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink under the Act. We also announce the availability of an economic analysis of the proposed designation of critical habitat for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink. We find that it is not warranted at this time to list the Mona skink (*Spondylurus monae*), the Greater Virgin Islands skink (*S. spilonotus*), the Greater Saint Croix skink (*S. magnacruzae*), and the Lesser Saint Croix skink (*Capitellum*

parvicruzae). However, we ask the public to submit to us at any time any new information relevant to the status of any of the species mentioned above and their habitats.

DATES: We will accept comments received or postmarked on or before February 18, 2025. Comments submitted electronically using the Federal eRulemaking Portal (see ADDRESSES, below) must be received by 11:59 p.m. eastern time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by February 3, 2025.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<https://www.regulations.gov>. In the Search box, enter FWS-R4-ES-2024-0154, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment.”

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS-R4-ES-2024-0154, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

We request that you send comments only by the methods described above. We will post all comments on <https://www.regulations.gov>. This generally means that we will post any personal information you provide us (see Information Requested, below, for more information).

Availability of supporting materials: Supporting materials, such as the species status assessment report, are available on the Service’s website at <https://www.fws.gov/office/caribbean-ecological-services>, at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2024-0154, or both.

FOR FURTHER INFORMATION CONTACT: Lourdes Mena, Field Supervisor, U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office, P.O. Box 491, Boquerón, PR 00622; telephone 352-749-2462; email: lourdes_mena@fws.gov. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-

contact in the United States. Please see Docket No. FWS-R4-ES-2024-0154 on <https://www.regulations.gov> for a document that summarizes this proposed rule.

SUPPLEMENTARY INFORMATION:**Executive Summary**

Why we need to publish a rule. Under the Act, a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species’ critical habitat to the maximum extent prudent and determinable. We have determined that the Puerto Rican skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink meet the Act’s definition of endangered species and the Culebra skink meets the definition of a threatened species; therefore, we are proposing to list them as such and propose designation of critical habitat for each species. Both listing a species as an endangered or threatened species and making a critical habitat designation can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. We propose to add the Puerto Rican skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink as endangered species to the List of Endangered and Threatened Wildlife (List) in title 50 of the Code of Federal Regulations at 50 CFR 17.11. We also propose adding the Culebra skink as a threatened species to the List with a rule under section 4(d) of the Act, and we propose the designation of critical habitat for all of these species. This document serves as our 12-month petition findings for the Puerto Rican skink, Lesser Virgin Islands skink, Virgin Islands bronze skink, and the Culebra skink. We also announce 12-month petition findings that the Mona skink, Greater Virgin Islands skink, Greater Saint Croix skink, and Lesser Saint Croix skink are not warranted for listing as endangered or threatened species under the Act.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five 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. We have determined that the Puerto Rican skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink are endangered species due to the following threats: nonnative predators (Factor C) and habitat loss and degradation from development (Factor A). We have determined that the Culebra skink is a threatened species due to the following threats: nonnative predators (Factor C), habitat loss and degradation from development (Factor A), and sea level rise and storm surge from a changing climate (Factor E).

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary), to the maximum extent prudent and determinable, concurrently with listing designate critical habitat for the species. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, 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 protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Information Requested

We intend that any final actions resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) Each skink species' biology, ranges, and population trends, including:

(a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current ranges, including distribution patterns and the locations of any additional populations of these species;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for these species and/or their habitats.

(2) Threats and conservation actions affecting the species, including:

(a) Factors that may be affecting the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(b) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to these species.

(c) Existing regulations or conservation actions that may be addressing threats to these species.

(3) Additional information concerning the historical and current status of these species.

(4) Information to assist us with applying or issuing protective regulations under section 4(d) of the Act that may be necessary and advisable to provide for the conservation of the Culebra skink, in particular, whether we should consider any additional or different exceptions from the prohibitions in the 4(d) rule.

(5) Specific information related to critical habitat, such as:

(a) The amount and distribution of Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink habitat;

(b) Any additional areas occurring within the range of each of the species, including Puerto Rico and surrounding islands and cays as well as the U.S. Virgin Islands and British Virgin Islands, that should be included in the designation because they (i) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations or protection, or (ii) are unoccupied at the time of listing and are essential for the conservation of the species;

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of predators and climate change; and

(d) Whether areas not occupied at the time of listing qualify as habitat for the species and are essential for the conservation of the species.

(6) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(7) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the related benefits of including or excluding specific areas.

(8) Information on the extent to which the description of probable economic impacts in the economic analyses is a reasonable estimate of the likely economic impacts and any additional information regarding probable economic impacts that we should consider.

(9) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. If you think we should exclude any additional areas, please provide information supporting a benefit of exclusion.

(10) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available, and section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific data available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <https://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted

on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <https://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <https://www.regulations.gov>.

Our final determination may differ from this proposal because we will consider all comments that we receive during the comment period as well as any information that may become available after this proposal. Based on the new information that we receive (and, if relevant, any comments on that new information), we may conclude that the Puerto Rican skink, Lesser Virgin Islands skink, or Virgin Islands bronze skink are threatened instead of endangered species, or that the Culebra skink is an endangered species instead of a threatened species, or we may conclude that these species do not warrant listing as either endangered species or threatened species. For critical habitat, our final designation may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, or may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion and exclusion will not result in the extinction of the species. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the protective regulations issued or applied under section 4(d) of the Act for Culebra skink if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions if we conclude that the protective regulations as a whole, including those additional prohibitions, are necessary and advisable to provide for the conservation of the Culebra skink. Conversely, we may establish additional exceptions to the prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of the Culebra skink. In our final rule, we will clearly explain our rationale and the basis for our final decision, including why we made changes, if any, that differ from this proposal.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by

the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On February 11, 2014, we received a petition from the Center for Biological Diversity (CBD) and Dr. Renata Platenberg (reptile ecologist) requesting that nine Caribbean skink species be listed as endangered or threatened and that critical habitat be designated for these species under the Act. These nine species are: the Puerto Rican skink, the Culebra skink, the Mona skink, the Monito skink, the Greater and Lesser Virgin Islands skinks, the Virgin Islands bronze skink, and the Greater and Lesser Saint Croix skinks. We acknowledged receipt of this petition via email on February 12, 2014. On January 12, 2016, we published a positive 90-day finding (81 FR 1368) indicating that the petitioned action may be warranted and that the petition presented substantial scientific or commercial information for seven of the skink species. On March 16, 2016, we published a not-substantial 90-day finding (81 FR 14058) for Monito skink. On September 14, 2016, we published a substantial 90-day finding (81 FR 63160) for the Lesser Virgin Islands skink.

On March 10, 2020, CBD issued a notice of intent to file suit to compel the Service to issue 12-month findings for the eight skinks with substantial 90-day findings. On September 22, 2020, CBD filed a complaint for declaratory and injunctive relief, stating that the Service had failed to make a timely determination for whether the eight species of Caribbean skink warrant protection under the Act. On May 27, 2021, the Service agreed to a settlement to complete its review of the status of the skinks and submit 12-month findings to the **Federal Register** by December 12, 2024.

Peer Review

A species status assessment (SSA) team prepared an SSA report for the Puerto Rican skink, Mona skink, Culebra skink, Greater Virgin Islands

skink, Lesser Virgin Islands skink, Virgin Islands bronze skink, Greater Saint Croix skink, and Lesser Saint Croix skink (Service 2023, entire). The SSA team was composed of Service biologists and a contractor from Texas A&M University, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of each of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting each of the species.

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review in listing actions under the Act (<https://www.fws.gov/sites/default/files/documents/peer-review-policy-directors-memo-2016-08-22.pdf>), we solicited independent scientific review of the information contained in the SSA report. We sent the SSA report to seven independent peer reviewers and received three responses. Results of this structured peer review process can be found at <https://www.regulations.gov>. In preparing this proposed rule, we incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this proposed rule.

Summary of Peer Reviewer Comments

As discussed in Peer Review above, we received comments from three peer reviewers on the draft SSA report. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the contents of the SSA report. The peer reviewers generally concurred with our methods and conclusions and provided clarifications and editorial suggestions. One reviewer indicated the Service was not justified in concluding that the Puerto Rican skink does not inhabit Culebra, Cayo Norte, and Cayo Luis Pena. The Service acknowledges it is possible that the Puerto Rican skink may have been in these locations historically; however, we lack genetic information that could confirm Puerto Rican skinks are sympatric with Culebra skinks. The SSA report provides this background in the historical distribution narrative (Service 2023, p. 33) but does not include Puerto Rican skinks in the distribution maps for these areas. We also received a comment disagreeing with information presented in appendix B of the SSA report (Service 2023, pp. 146–169) summarizing the likely extinct status of the Greater Virgin Islands skink, Greater Saint Croix skink, and

Lesser Saint Croix skink, referencing the discrepancy with the International Union for Conservation's (IUCN) criterion for possible extinction. The Service does not use the IUCN criterion to determine whether a species is extinct. The Service used the best available information, as presented in the SSA report, to determine that these species are extinct. Otherwise, no substantive changes to our analysis and conclusions within the SSA report were deemed necessary, and peer review comments are addressed in version 1.0 of the SSA report.

I. Proposed Listing Determination

Background

A thorough review of the taxonomy, genetics, life history, and ecology of each of the skink species is presented in the SSA report (Service 2023, pp. 17–43), and species-specific distribution information follows the general overview below.

The eight Caribbean skink species—Puerto Rican skink, Mona skink, Culebra skink, Greater Virgin Islands skink, Lesser Virgin Islands skink, Virgin Islands bronze skink, Greater Saint Croix skink, and Lesser Saint Croix skink—have similar patterns and coloration. All are generally some shades of tans and browns, with a pair of dark lateral stripes and limb pattern, if present, with spots or blotches (Hedges and Conn 2012, pp. 14–15). Juveniles often have blue tails. Available information suggests that females are slightly larger than males (Hedges and Conn 2012, p. 10). Adult snout–vent length (SVL) will also differ slightly between species, but in general ranges from approximately 3 to 4 inches (in) (7.6 to 10 centimeters (cm)).

Caribbean skinks are ectothermic (cold-blooded) animals and therefore highly dependent on the air and soil

temperature to thermoregulate (maintain body core temperature) (Noble et al. 2017, p. 72) and are often observed basking in the sun on rocks, leaf litter, and fallen logs in forest habitat (Henderson and Powell 2009, p. 293; Sanchez 2013, p. 1). Caribbean skinks have been observed on the ground, shrubs, cacti, trees, boulder and limestone rocks, leaf litter, on and under debris piles, under rocks and rock fissures, near human habitation and houses, and are known to hide from perceived predators under or within rocks, vegetation, and debris or when they are not basking (Bullock and Evans 1990, p. 428; Henderson and Powell 2009, pp. 292–293; Hedges and Conn 2012, entire).

Very little information exists about the diet and foraging behavior of Caribbean skinks. They appear to be diurnal and primarily hunt for prey by actively foraging in dry coastal woodlands but are known to be somewhat omnivorous including consumption of some plants (Platenberg and Boulon 2006, p. 224; Daudin and de Silva 2011, p. 265; Henderson and Powell 2009, pp. 292–293; Hedges and Conn 2012, p. 220). Some information specifies that the skink diet is omnivorous, including insects, fruits, and even a common coqui (*Eleutherodactylus coqui*) in Puerto Rico (Henderson and Powell 2009, p. 293).

Caribbean skinks are viviparous (*i.e.*, bearing live young). It is theorized that the timing of birth in viviparous skinks is meant to maximize food availability (Vrcibradic and Rocha 2011, p. 822; Hedges and Conn 2012, p. 223) as well as maximize optimal conditions for growth and survival of neonates (Abts 1988, p. 389; Olsson and Shine 1997, entire). Most skink species reproduce annually, but many skinks have more than one brood; however, it is unknown

which reproductive strategy is exhibited in female Caribbean skinks. Collection of specimens indicates Caribbean skinks are gravid during the dry season, which is January through April, and birthing occurs primarily in February through May (Hedges and Conn 2012, p. 223). Little information is available about the influences on fecundity of Caribbean skinks. Given that *Spondylurus* reproductive strategy is similar to other viviparous skinks, maternal thermoregulation (*i.e.*, basking behavior) is likely used by female Caribbean skinks to keep developing embryos at optimal temperatures for development of the young. Therefore, influences on basking time of female skinks (*e.g.*, the presence of predators) could have the potential to decrease the fecundity of Caribbean skinks or decrease the survival of young skinks.

No population estimates are available for the eight skink species. During 2021–2022 skink surveys (Rivera et al. 2023, p. 9), there were 42 observations of Puerto Rican skinks, 8 of Mona skinks, 59 of Culebra skinks, and 4 of Virgin Islands bronze skinks. In addition, on Desecheo Island, five Puerto Rican skinks were encountered during a 6-day herpetological survey (Herrera–Giraldo and Bermudez 2010, p. 22).

Current and historical distributions of the eight Caribbean skink species encompass the islands of Puerto Rico, the U.S. Virgin Islands (USVI), and the British Virgin Islands (BVI). The Puerto Rican skink, the Mona skink, and the Culebra skink all fall within the U.S. territory of Puerto Rico, which includes the main island of Puerto Rico and surrounding islands (figure 1). The Puerto Rican skink's current range includes the main island of Puerto Rico and Desecheo (figure 1).

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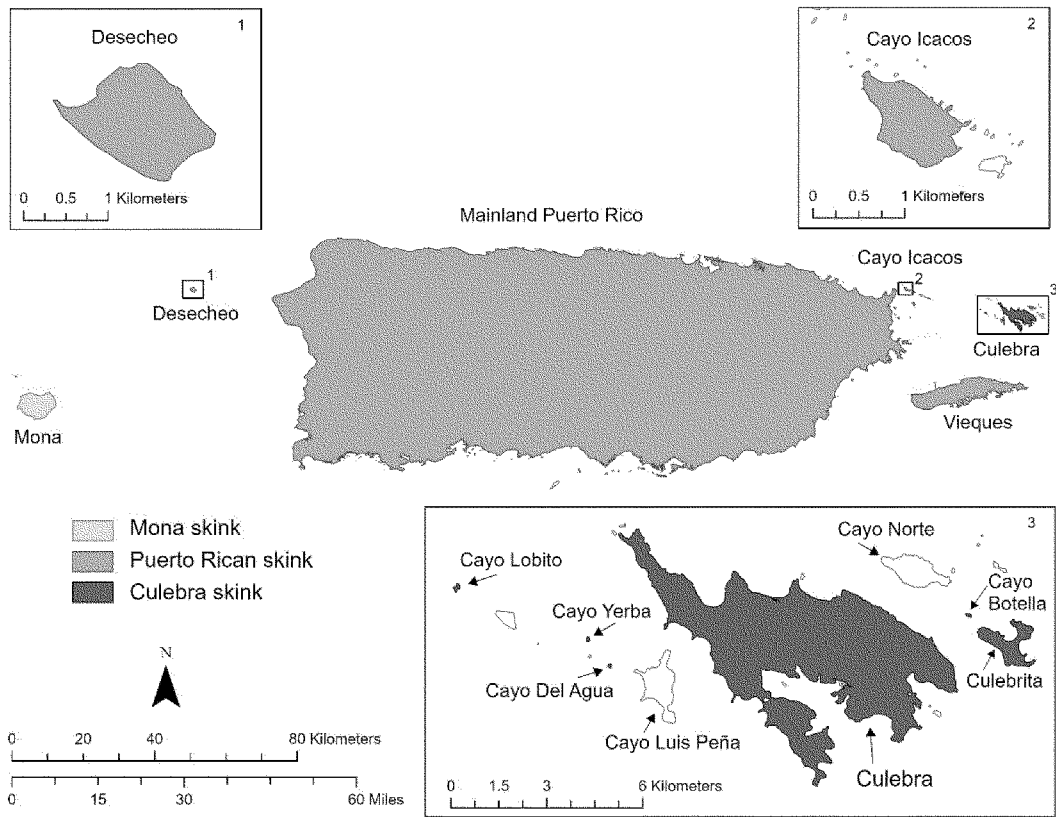


Figure 1. Distribution map for Puerto Rican skink, Mona skink, and Culebra skink.

The Mona skink occurs on only one island, Mona Island, off the west coast of Puerto Rico (figure 1). The current

range of the Culebra skink encompasses the island of Culebra and its surrounding cays (Cayo Agua, Cayo

Botella, Cayo Lobito, and Cayo Yerba), all occurring to the east of the main island of Puerto Rico (figure 1).

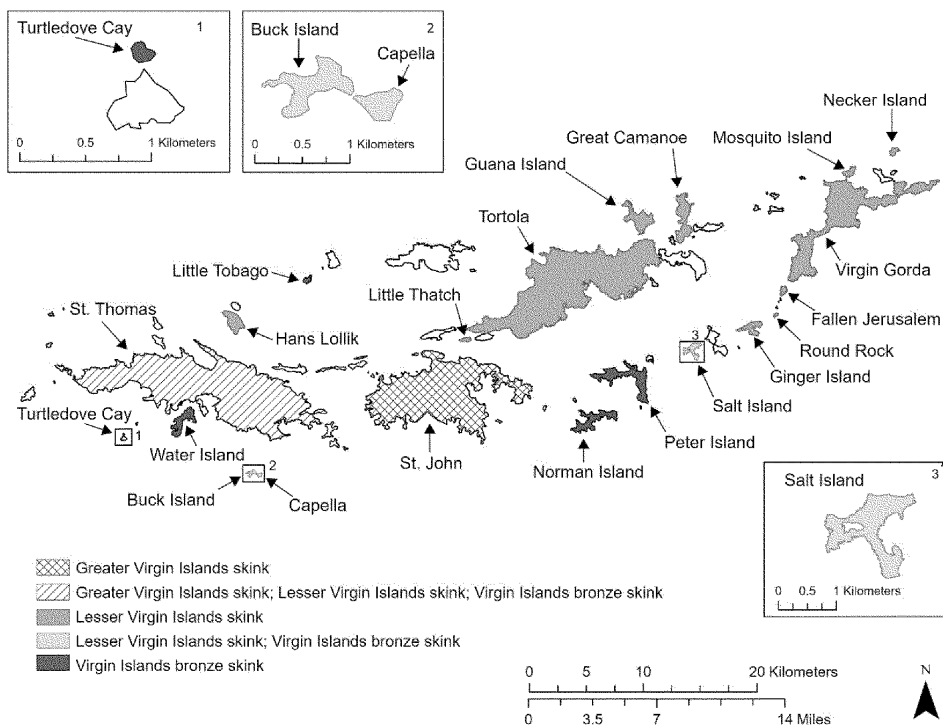


Figure 2. Distribution map for Greater Virgin Islands skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink.

Species that did occur entirely within the USVI include the Greater Virgin Islands skink (figure 2), the Greater Saint Croix skink (figure 3), and the Lesser Saint Croix skink (figure 3), all of which are considered likely extinct. The species that occur in both the USVI and

BVI include the Lesser Virgin Islands skink and the Virgin Islands bronze skink (figure 2). The Lesser Virgin Islands skink has the largest range of all the Caribbean skink species and still occurs in both the USVI (Hans Lollik) and BVI (Guana Island, Mosquito Island,

Tortola) (figure 2). The Virgin Islands bronze skink also had a larger range but is now confined to a few small to medium sized islands in the USVI (Buck Island, Water Island, Turtledove Cay; figure 2).

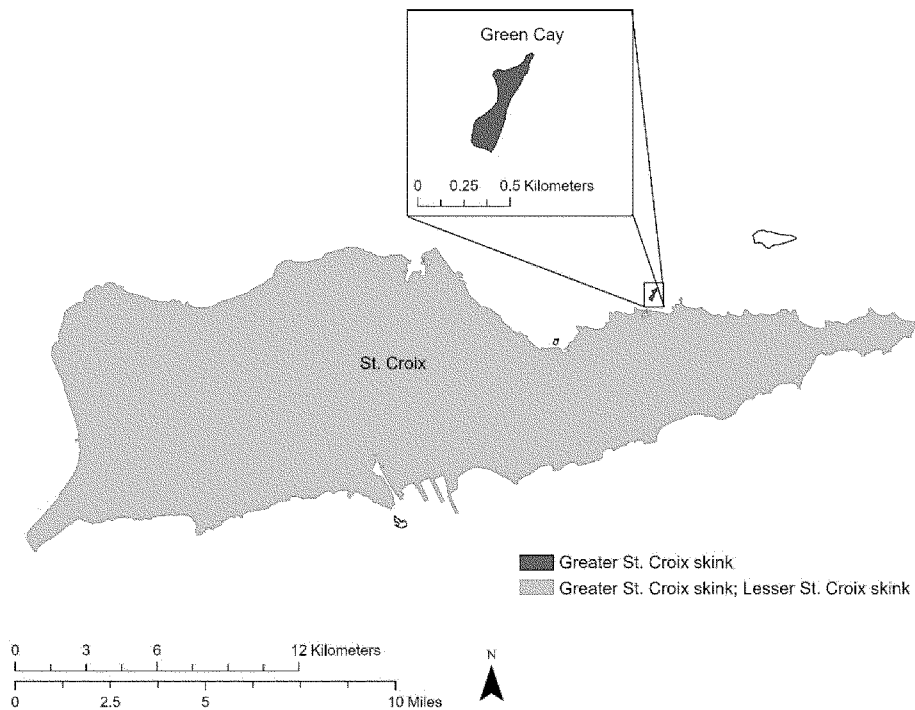


Figure 3. Distribution map for Greater Saint Croix skink and Lesser Saint Croix skink.

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Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and 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.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining

whether a species meets either definition, we must evaluate all identified threats by considering the species’ expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis, which is further described in the 2009 Memorandum Opinion on the foreseeable future from the Department

of the Interior, Office of the Solicitor (M–37021, January 16, 2009; “M–Opinion,” available online at <https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37021.pdf>). The foreseeable future extends as far into the future as the U.S. Fish and Wildlife Service and National Marine Fisheries Service (hereafter, the Services) can make reasonably reliable predictions about the threats to the species and the species’ responses to those threats. We need not identify the foreseeable future in terms of a specific period of time. We 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. In other words, the foreseeable future is the period of time over which we can make reasonably reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction, in light of the conservation purposes of the Act.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the species should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

To assess Puerto Rican skink, Mona skink, Culebra skink, Greater Virgin Islands skink, Lesser Virgin Islands skink, Virgin Islands bronze skink, Greater Saint Croix skink, and Lesser Saint Croix skink viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years); redundancy is the ability of the species to withstand catastrophic events (for example, droughts, large pollution events); and representation is the ability of the species to adapt to both near-term and long-term changes in its physical and biological environment (for example, climate conditions, pathogens). In

general, species viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2018, p. 306). Using these principles, we identified the species’ ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species’ viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species’ life-history needs. The next stage involved an assessment of the historical and current condition of the species’ demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species’ responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time, which we then used to inform our regulatory decision.

The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R4–ES–2024–0154 on <https://www.regulations.gov>.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of each species and their resources, and the threats that influence the species’ current and future conditions, in order to assess the species’ overall viability and the risks to that viability.

Individual, Population, and Species Needs

At the individual level, skinks require suitable foraging, basking, and shelter habitat to survive during each life stage from birth to adulthood, and to successfully reproduce. Individual needs of Caribbean skink species are: (1) trees, shrubs, bushes ground cover/leaf litter, cacti, debris, rocks, and crevices for shelter; (2) basking locations for thermoregulation; and (3) arthropods as a food source (Service 2023, p. 44). Suitable habitat contains substrate that provides refugia, presence of vegetation, vertical spaces, and areas that offer both canopied and exposed sections for basking.

Skink populations are defined as single island units except for mainland Puerto Rico (see *Current Condition Methods*, below). For populations to demonstrate resiliency, the needs of

individual skinks must be met at a larger scale. Specific demographic information on population carrying capacity, birth rates, and reproductive success is lacking for these species. It can be inferred from individual needs that an interbreeding population requires the elements needed by individuals in sufficient quantities and configuration to support multiple individuals and life stages. Given the small size of skink species, patches that can support a population are expected to be relatively small (~3 ac (1.2 ha)), based on the size of the smallest occupied cays. In addition, while there are skink populations that have persisted alongside nonnative predators like cats or rats, in general, populations show higher resiliency where predators are few or absent. Further, nonnative predators are currently absent from small cays where skink populations have persisted (Service 2023, p. 45).

For species’ viability, there must be adequate redundancy (number of resilient populations with distribution and connectivity to allow the species to withstand catastrophic events) and representation (genetic and environmental diversity to allow the species to adapt to changing environmental conditions). The minimum number of resilient populations necessary to sustain each skink species is unknown, but we assume that populations with low resiliency contribute negligibly to overall species’ viability. As island species, the relatively small, patchily distributed, and isolated cays can each support only small numbers of individuals (or separate populations). Redundancy improves with increasing numbers of populations distributed across the species’ range, and connectivity allows connected populations to “rescue” each other after catastrophes. The level of redundancy (distribution) operating within a species is determined by the resiliency (abundance and health) of its populations. Representation, or adaptive capacity, improves with increased genetic and/or ecological diversity within and among populations. Long-term viability requires resilient populations in locations that are protected from the long-term catastrophic but permanent effects of climate change (e.g., sea level rise and effects from catastrophic hurricanes claiming low-lying habitat) and invasion of nonnative predators.

Influences

Influences on the Caribbean skink species vary by location, but threats include nonnative predators, habitat

loss and degradation from development, and sea level rise and storm surge from a changing climate. Positive influences on the Caribbean skink species viability are habitat protection and predator control.

Nonnative Predators

A primary threat to Caribbean skink populations is the presence of nonnative predators including cats (*Felis catus*), rats (*Rattus* sp.), and mongooses (*Herpestes javanicus* or *Urva auropunctata*).

Mongoose are implicated in the decline and loss of several Caribbean skink species (Hedges and Conn 2012, pp. 224–229). Mongooses were introduced to the Caribbean during the late 19th and early 20th centuries with the goal of reducing rat populations. However, the presence of mongooses did not decrease rat densities, and mongooses have become a predator of many native vertebrate and invertebrate species in the Caribbean, including lizards (Wolcott 1953, entire; Witmer et al. 1998, p. 282; Henderson 1992, p. 3). Other reptile species with similar life history traits that are also endemic in the Caribbean have been shown to be vulnerable to mongoose depredation. For example, the endangered St. Croix ground lizard was extirpated from the main island of St. Croix in the 1900s, in part due to mongoose predation (Angeli and Fitzgerald 2021, p. 345). Lizards from the genus *Ameiva* (whiptail lizards) and snakes from the genera *Alsophis* (racers) are also susceptible to mongoose predation because they are diurnal, ground-dwelling, oviparous, active foragers, relatively small (Henderson 1992, p. 7), and easily caught by mongooses. Other than laying eggs (oviparity), these characteristics are shared by the Caribbean skink species.

Feral cats have occurred for hundreds of years throughout the Caribbean near human development and are known to be predators of reptiles on numerous islands (Henderson 1992, p. 2; Service 2023, pp. 46–47). Cats are instinctively natural predators and have been documented killing a variety of lizard species including five-lined skinks (*Plestiodon fasciatus*), broad-headed skinks (*P. laticeps*), and ground skinks (*Scincella lateralis*) (Mitchell and Beck 1992, p. 200). Cats are documented to have preyed on the Mona skink (López-Torres and García 2013, entire) and the Puerto Rican skink (González 2023, pers. comm.).

Rats are known to depredate small lizards on many islands, including the St. Lucia whiptail lizard (*Cnemidophorus vanzoi*), the Belize leaf-tailed gecko (*Phyllodactylus*

insularis) on Half Moon Cay, and blue-tailed skinks (*Cryptoblepharus egeriae*) on Christmas Island (Harper and Bunbury 2015, p. 616). However, the influence of rats on skink populations is unclear. Despite being omnivorous, rats' primary food on islands is arthropods and plants, suggesting that rats may be consuming the food sources of the skinks as well as depleting local vegetation. This consumption would lower the suitability of the habitat while also increasing depredation on the skinks themselves (Harper and Bunbury 2015, pp. 614, 616). Rats have a much more profound effect on skink populations that occur on very small islands and cays. Furthermore, rats are consistently introduced to islands, as they are easily transported by boats (Harper and Bunbury 2015, entire).

Besides direct predation, skinks (as prey) may respond to the presence of predators by increasing their time seeking refuge at the cost of foraging, thermoregulation, and mating (Sih 1994, entire). Further, prey may be less adapted to changes in these pressures because these are introduced species (Martín and López 1999, p. 491). The impacts from nonnative predators are likely more severe on smaller islands because there is often a lower diversity of prey items for predators (Henderson 1992, p. 5).

Habitat Loss and Degradation

Caribbean skinks occur on both private and publicly owned land. Where skinks occur in urban or rural areas, habitat loss and degradation resulting from development is a threat to populations. This is the case for Puerto Rico, Culebra, and the main developed islands in USVI and BVI. For example, in Puerto Rico, human activity has been described as “intensive, pervasive, and fragments natural habitat” (Lugo and Helmer 2004, p. 156). This is particularly true in the northern and eastern portions of the main island of Puerto Rico; however, the central and southern portions of the main island remain largely undeveloped (Gould et al. 2008, p. 91; see figure 4.3 in SSA report (Service 2023, p. 49)). Lands cleared for development would essentially eliminate potential habitat for the skinks and may directly kill individuals as well, particularly if development occurs in or adjacent to suitable skink habitat. And although forest areas have increased in Puerto Rico, unprotected forested areas are vulnerable to urban development, particularly those near or within urban centers (Kennaway and Helmer 2007, p. 376). In the USVI as well, human population growth has resulted in

habitat loss and degradation of natural habitats, and most land is privately owned (Platenberg and Boulon 2006, p. 217).

Skinks are now absent from completely developed urban landscapes that are not adjacent to natural habitat; however, skinks have been seen in and around rural residential areas in Puerto Rico within karst habitat and in residential and developed areas in Culebra (Zegarra 2023, pers. comm.). This could be due to “urban survival” of the skinks, which is the idea that mongooses are less abundant in areas with larger human inhabitation because they are depredated by other nonnatives (e.g., dogs; Hedges and Conn 2012, p. 228). Skinks have also been observed using debris piles (i.e., vegetation and trash) accumulated on the side of roads and trails adjacent to forested habitat, and on human-made rock piles for road construction. As skink habitat is developed and encroached upon, observations of skinks in residential areas may become more common. However, skinks that occur within these areas are more susceptible to impacts from habitat loss as well as more susceptible to nonnative predators or competitors introduced by humans. While deforestation and fragmentation result from development, the extent of impacts to Caribbean skinks may range from low to high depending on each landscape as well as potential increased interactions with nonnative predators causing potential declines in skinks.

Climate Change: Sea Level Rise and Storm Surge

One of the stressors affecting Caribbean skinks and their habitat is the shift in climate impacts occurring because of increasing greenhouse gas (GHG) emissions. The long-term persistence of several small cays in the Caribbean is being challenged by rising sea levels and the increased intensity of storm surges. The main stressors to the skinks and their habitat resulting from climate change are sea level rise (SLR) and increased storm surges.

Relative sea levels have risen approximately 2 mm (0.08 in) per year in Puerto Rico and USVI since mid-20th century, and the rate of rise has been accelerating since the early 2000s (PRCCC 2022, p. 27). This recent acceleration suggests that, of the National Oceanic and Atmospheric Administration (NOAA) SLR scenarios based on different GHG emission scenarios (Sweet et al. 2017, pp. 21–22), the intermediate to high SLR scenarios are more likely to occur than the low and intermediate–low scenarios (Sweet et al. 2017, pp. 33–35; Sweet et al. 2022,

p. 12). For Puerto Rico, the near-term range at 2050 is 1 foot (ft) (0.3 meter (m)) for the intermediate local SLR scenario and 1.6 ft (0.5 m) for the high SLR scenario, and by 2100, the range is projected to be 3.3 ft (1.0 m) for the intermediate SLR scenario and 6.6 ft (2.0 m) for the high SLR scenario (NOAA 2023, entire). Most of the impacts of SLR on Caribbean skinks will likely occur on low-lying cays in the region, beginning with increased saltwater flooding events from more frequent storms.

Most measures of Atlantic hurricane activity have increased substantially since the early 1980s, the period during which high-quality satellite data are available (Service 2023, p. 52). These include measures of intensity, frequency, and duration as well as the number of strongest (Category 4 and 5) storms (Walsh et al. 2014, p. 20). In the future, there is high confidence that SLR will increase storm inundation levels, and medium to high confidence that both precipitation rates and storm intensity will increase in hurricanes globally. In addition, there is medium to high confidence that the proportion of very strong storms (Category 4 and 5) will increase, but less confidence in increased frequency of storms overall (Knutson et al. 2020, p. E303). Strong rainstorms, tropical storms, and hurricanes are natural parts of a tropical ecosystem. However, with intensity, inundation levels, and precipitation all likely to increase, small patches and low-lying habitats are likely at risk. The resiliency of Caribbean skink species will likely be affected in these areas when the quantity and quality of their resources (food, cover) are compromised, particularly if there is not time to recover from previous events or areas are continually reduced over time.

Saltwater surges and short-term flooding of upland habitats from strong storms and hurricanes on low-lying cays likely have and will continue to influence Caribbean skink persistence (Díaz et al. 2022, p. 66). The severity and duration of hurricane impacts to Caribbean skinks and their habitat vary based on the intensity and scale of these storm events. Localized impacts can vary greatly depending upon not only the strength of the storm, but the direction of its approach and how quickly it moves through the area. Storm surges and their intensity can also vary depending on location. In 2017, nine named storms impacted the Caribbean, including Hurricanes Irma and Maria (both Category 5). Irma caused catastrophic storm surges in the USVI although the peak water level is unknown because the tidal gauges in the

area went offline during the storm. Storm tides from Maria measured between 6 ft to 9 ft (1.5 m to 2.7 m) above mean sea level in southwestern Puerto Rico (FEMA 2018, p. i).

Impacts from heavy rainstorms, tropical storms, and hurricanes are part of this tropical islands system. The heavy inundation and even complete overwash of some islands during hurricanes may provide some explanation for the lack of skinks being observed, even when the island has recovered and again contains high-quality suitable skink habitat. Thus, storm events are likely a contributing factor to the low occurrence (historical and current) observed for several of the skink species. Individual skinks may colonize and occupy smaller islands only temporarily until storm events impact that island. Eventual recolonization of impacted islands by skinks is uncertain. Over time, storms could be a factor reducing the persistence of skink populations and thereby reducing the redundancy of the species.

Conservation Efforts and Regulatory Mechanisms

We do not know of any skink-focused conservation actions or efforts. However, any past, current, and future eradication or control of nonnative species is beneficial for the skinks. For example, efforts to control mongoose populations on St. Thomas, St. John, and St. Croix have been attempted, and rats and mongooses were completely eradicated on Buck Island, St. Thomas, USVI (Barun et al. 2011, p. 20). Rats were also eradicated from Monito Island, eliminating that predation threat for the Monito skink and other species on that island (García et al. 2002, entire). Monkeys, goats, and rats were also eradicated from Desecheo Island, a National Wildlife Refuge (Will et al. 2019, entire). Eradication of pigs, cats, and possibly rats is being planned for Mona Island (Service 2023, entire). Permanent eradication of nonnatives is typically most effective on small islands that do not have human development.

As skinks occur both on private and public lands, areas designated as nature reserves or refuges provide high-quality skink habitat as well as protection from development. For example, some of the most consistent skink observations for the Puerto Rican skink are from the Guajataca and Maricao Commonwealth Forests, two areas managed for conservation by the Puerto Rico Department of Natural and Environmental Resources (PRDNER). Skinks were also observed within the Montadero Natural Protected Area

(Quebradillas Municipality, Puerto Rico) managed by the Puerto Rico Conservation Trust. Some of these karst forests are contained within the larger Karst Conservation Zone, a large area in Puerto Rico with stricter land regulations named the Karst Restricted Zone designated by the Puerto Rico Planning Board (Ortiz-Maldonado et al. 2019, entire). This Zone represents 7.2 percent (647 km²) of the total area of Puerto Rico, includes both public and private lands, and was designated as such for conservation purposes by prohibiting land exploitation of any type (Castro-Prieto et al. 2019, p. 59).

The Mona skink has a wide distribution within the Mona Island Nature Reserve, managed for conservation by the PRDNER. The Puerto Rican skink has been reported from the Desecheo NWR, and the Culebra skink occurs within the Culebra NWR specifically within the Monte Resaca area and some of its offshore cays (*i.e.*, Cayo Botella, Cayo Agua, Cayo Lobito, Cayo Yerba).

However, protected habitat does not ensure persistence of skinks, particularly if nonnative mammals are present. Rather, it suggests that habitat destruction or modification in those areas is minimal and less than for habitat that is not protected. For example, the Culebra skink was historically reported from Culebrita Island (part of the Culebra NWR) but is currently considered likely extirpated, most likely due to presence of rats.

Cumulative Effects

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have analyzed the cumulative effects of identified threats and conservation actions on the species. To assess the current and future condition of the species, we evaluate the effects of all the relevant factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative-effects analysis.

Current Condition Methods

We considered all skinks within each island or cay (*i.e.*, outside of mainland Puerto Rico) to be single populations. We assume that each island is geographically isolated and the influences on and threats to Caribbean skinks tend to occur to entire islands

(*e.g.*, nonnative predators are either present or not present). Geographic ranges (*i.e.*, islands considered in these analyses outside of the main island of Puerto Rico) are based on current and historical records of each species.

As for the other Caribbean skink species, limited information is available on the distribution of Puerto Rican skinks on the main island of Puerto Rico. Therefore, we delineated the populations of the Puerto Rican skink on the main island using the recently (2021–2023) collected survey and genetic information to discern what areas could constitute separate populations (Rivera et al 2023, pp. 15–16). Genetic information was obtained via tail clips during surveys. We overlaid populations with potential habitat identified by the Puerto Rico GAP Analysis Project (PRGAP) for the species (Gould et al. 2008, p. 91). Predicted habitat from the GAP model utilized landcover types (*i.e.*, dry forest, woodland, and shrublands) in 2001 that were restricted to at or below 300 m and the few point locations for skinks that were available in 2006. The model is likely not comprehensive given the low number of confirmed skink observations that were available in 2006 and does not include the urban development that has occurred on the main island of Puerto Rico since 2001; we modified the model to include habitats below 500 m based on more recent survey locations and combined it with more recent genetic information from 2021–2023.

Numerous islands with historical skink records have not been surveyed recently, and it is possible that additional individuals and populations are present on these islands or even other islands in the Caribbean. Current data suggest that these species are habitat generalists. Some areas are likely not suitable as habitat for skinks, for example, entirely developed urban areas. However, skinks are also known to occur within some developed and rural areas, particularly if adjacent to suitable habitat. Thus, we considered an island with documented occurrences as a single population, except for mainland Puerto Rico, and we assessed habitat conditions based on characteristics of the entire island. On mainland Puerto Rico, we determined population status based on confirmed occurrence information and amount of potential habitat as determined by the Puerto Rico GAP analysis predicted habitat (Gould et al. 2008, p. 91); these populations were confirmed using the survey and genetic information (Rivera et al. 2023, pp. 15, 16). Survey methodology and reporting has varied significantly from population to population. Even with the

same methodology and reporting, survey success can differ based on external factors like weather conditions, surveyor experience, detection probabilities, threats, or habitat conditions. All these factors contribute to high levels of uncertainty in the presence or absence of skinks within a population.

For each island population, we considered the population “extant” if skinks have been detected there since 2000. The threshold of detection before and after 2000, along with a Bayesian estimate of occurrence, which is a probabilistic model linking skink occurrence to several variables, such as predator presence, island size, maximum elevation, habitat class, human population size, and co-occurring species (see section 5.1.1 of SSA report (Service 2023, pp. 57–59), allows for a more conservative estimate of occurrence (*i.e.*, avoidance of classifying a population as extirpated when it is, in fact, extant). Because extensive surveys have not occurred on islands within the geographic ranges of many of the Caribbean skink species, we utilized Bayesian analyses to assess likelihood of skink existence on individual smaller islands (<5 square kilometers (km²) (500 ha)) with detections pre-2000 to assess if a skink population likely currently occurs there. If a smaller island was known to be occupied by skinks before 2000 and had a Bayesian probability score of ≤ 0.49 , then we considered the status of that island “likely extirpated” and if the score is ≥ 0.50 , we considered the status “unknown.” The exception to this was when islands had been extensively surveyed since 2000 and there have been no detections. Caribbean skinks are cryptic and difficult to detect, and the potential habitats on the larger islands are often difficult to access or survey thoroughly, and predators on some larger islands have seemingly already eliminated skinks (*i.e.*, St. Thomas, St. John, and St. Croix). Additionally, there are few case studies for larger islands for the Bayesian analysis, and the resulting network (*i.e.*, output from analysis) linking variables did a poor job predicting probability of existence on islands >5 km² (500 ha); therefore, we did not try to estimate status of populations on larger islands and considered all islands >5 km² with detections from between 1970 and 2000 to have an “unknown” status (see table 5.2 of the SSA report (Service 2023, p. 61)).

Resiliency is the ability of a species to withstand environmental stochasticity which is normal, year-to-year variations in environmental conditions, as well as

demographic stochasticity; typically, the larger a population and the more individuals present, the more resilient the population. We assume that current threat levels influence the current population size; in other words, threats acting negatively on a population can reduce the overall size of the population, which can then result in a lower ability to withstand environmental and/or demographic stochasticity. Population size is typically used as a reliable indicator of overall resiliency. Due to the cryptic nature of Caribbean skinks and lack of research and survey data, demographic data (*i.e.*, presence/absence, abundance, population trends, population structure) are lacking in most locations. Therefore, the resiliency of the populations relies on habitat metrics such as level of habitat protection, nonnative predator pressure, and risk from storm surge.

Resiliency scores were generated by combining scores for three habitat metrics (Protection, Nonnative Predators, Storm Surge Risk). Each island was assigned a level of habitat protection based on ownership (public/private) and percentage area protected, which represents development risk, and the size of the island. Protected area percentages were assessed using the Protected Areas Database (PAD–US), the Puerto Rico Protected Areas Database, and the World Database for Protected Areas (WDPA) (UNEP–WCMC 2024, unpaginated; USGS 2022, unpaginated; Caribbean Landscape Conservation Cooperative 2016, unpaginated).

The presence of nonnative predators is an important influence on Caribbean skinks, especially when islands are small. Mongooses are known to be especially harmful to small reptiles, particularly in island habitats. The larger the island, the more complex the ecosystem due to a larger diversity of habitats, which can provide multiple patch areas and refugia, more diverse prey items for nonnative predators, and potentially a larger population of skinks (Simberloff 1974, entire; Kohn and Walsh 1994, entire). It is difficult to know when an island is “large enough” so that skinks can persist alongside the presence of nonnative predators, particularly mongooses. The smaller the island, the greater the impact of nonnative predators, including rats. We scored the level of predator pressure for each island based on the type of nonnative predator present and the size of the island. Islands smaller than 15 ha were considered likely extirpated due to a higher risk of predator dispersal.

Finally, we determined the potential impact of storm surges on skink populations. Storm surge heights were

estimated using the sea, lake, and overland surges from hurricanes (SLOSH) model used by the National Weather Service (Jelesnianski et al. 1992, entire). All simulated hurricanes had a forward speed of 15 miles per hour (the closest simulation option to the average hurricane speed of 10.8 miles per hour at 15–20 degrees north latitude; NOAA 2014, unpaginated) in a northwesterly direction, the primary direction of hurricane movement in the skinks’ range. The SLOSH model predicts average storm surge heights for multiple trajectories of a hurricane of the same strength, speed, direction, and

tide to account for uncertainty in the path of any one storm. To determine potential maximum impact for storm surge on each island, we simulated Category 5 hurricanes at mean tide level. For each simulated storm surge, we calculated the percent of each island or cay that lies below that elevation and would thus be inundated (or potentially flooded in cases where lower elevation areas are inland and surrounded by higher elevation areas) (see appendix A of the SSA report (Service 2023, pp. 141–145)). Note that scoring for the island of Puerto Rico is considered to be “no effect” because the skink

populations on Puerto Rico are inland at high elevations and therefore not prone to the same effect from storm surges as other islands (and therefore skink populations) in the Caribbean.

The best available information for each population was gathered from the literature, data sources, and species experts. Each metric was weighed equally. Ultimately, resiliency classifications relied on habitat conditions, as affected by threats. For each metric, populations were assigned a score of –1, 0, or 1, as described below in table 1.

TABLE 1—SCORING OF HABITAT FACTORS TO DETERMINE POPULATION RESILIENCY OF EIGHT CARIBBEAN SKINK SPECIES

Score	Habitat metrics		
	Habitat protection	Nonnative predator pressure	Storm surge risk
–1	Low	High	High: >25% inundated from category 5 hurricane.
0	Moderate	Low	Low: <25% inundated from category 5 hurricane.
1	High	No impact	No effect for main island Puerto Rico.

The scores for all habitat metrics were summed, and final relative population resiliency categories were assigned to each population (except those that are likely extirpated). The range of final scores was evenly divided into the four possible categories: High, Moderate, Low, and Likely Extirpated. Likely extirpated means that all the habitat factors are unfavorable for skink viability and the population is/would be likely extirpated. A low score means that multiple resiliency factors are not favorable for skink viability. Moderate or high scores indicate that multiple habitat factors are conducive to skink population viability on a given island.

Redundancy reduces the species’ extinction risk if a portion of the species’ range is negatively affected by a natural or anthropogenic catastrophic disturbance. For a Caribbean skink species to withstand catastrophic events such as hurricanes or the introduction of nonnative predators, it needs to have multiple, sufficiently resilient populations across its range. We used the Bayesian probability to determine likelihood of existence for each of the islands with historical or current populations to assess redundancy for each species. As described above, the status of the species on each of the islands (extant, likely extirpated, unknown) allowed the assessment of redundancy for each species.

Most of the Caribbean skink species exhibit limited distribution (except Puerto Rican skink) and relative geographic rarity (see appendix E of the SSA report (Service 2023, pp. 174–

196)). Despite these circumstances, they appear to use a wide variety of habitat and structure across islands. They also appear moderately tolerant of human infrastructure and disturbance (e.g., removal of unexploded ordnance (Punte-Rolón and Vega-Castillo 2019, p. 12)), with the exceptions of introduced nonnative predators and direct loss of habitat. There also appear to be no known restrictions to movement throughout the year.

In some cases, genetic representation is limited to a single or very few small islands, while others are represented by multiple populations on large islands and scattered outlying cays; thus, the catastrophic loss of a single island might have substantially different effects on genetic and geographic representation depending on the species. For instance, the Puerto Rican skink has multiple populations, some on a single large island and at least one on a smaller island; therefore, risk associated with catastrophic events (e.g., particularly strong hurricanes and associated storm surge) would likely be distributed across more populations and complete loss of genetic diversity is less likely. However, loss of some populations could reduce genetic diversity of this species.

The Mona skink is distributed on a single large island with both higher elevation and lower elevation sites closer to the coast, while other species, such as Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink, have populations on several small, low-elevation islands. In species where few, small islands contain all

known genetic diversity or where a substantial proportion of sites are located on small islands, risk of losing existing representation and redundancy is likely higher. For instance, catastrophic events (e.g., particularly strong hurricanes, storm surge, and overwash) could eliminate a much higher percentage of the existing genetic diversity within a species if localized skink populations are lost or are represented by only a single location on a small cay or if sea level rise acts with storm surge to remove several small islands over time. Such events could reduce species-level adaptive potential, limiting future ability to respond to changing environmental conditions (Service 2021, pp. 4–5). In addition, many of the traits are still unknown at this time for these species (e.g., population size, competitive ability, site fidelity, age structure, recruitment rate, etc. (Thurman et al. 2020, entire)). Therefore, at present we have an incomplete picture of adaptive capacity for each of the species, and additional knowledge about these traits could further refine our understanding of representation.

Future Conditions Methods

The primary threats to Caribbean skinks in the future are: (1) habitat destruction and modification, (2) nonnative predators, and (3) climate change, specifically SLR, and the increases in intensity, frequency, and duration of hurricane activity. Due to a lack of survey effort in many locations and the cryptic nature of these species,

we assessed the future condition of the habitat quality on islands that have current or historical documentation of skink occurrences. We predicted

resiliency at three future time points: 2050, 2070, and 2100. We considered the same metrics as current condition (habitat protection, predator pressure,

risk from storm surge) as well as predicted SLR for each scenario.

TABLE 2—SCORES OF HABITAT METRICS TO DETERMINE FUTURE RESILIENCY OF EIGHT CARIBBEAN SKINK SPECIES

Score	Habitat metrics			
	Habitat protection	Nonnative predator pressure	Sea level rise (SLR)	Storm surge
- 1	Low	High (extirpation likely on islands <15 ha).	High: >25% inundated from SLR or SLR + storm surge.	High: >25% inundated from SLR + storm surge.
0	Moderate	Low	Moderate or Low: <25% inundated from SLR or SLR + storm surge.	Moderate or Low: >10% but <25% inundated from SLR + storm surge.
1	High	No impact	No effect (Puerto Rico main island only).	

For each influence on future resiliency of each Caribbean skink species (extant populations only), we

scored each habitat factor (table 2), as previously described for current condition, and calculated final scores to

determine the future resiliency of each population, under four possible scenarios (table 3).

TABLE 3—FUTURE SCENARIOS TO DETERMINE THE RESILIENCY OF POPULATIONS OF EIGHT CARIBBEAN SKINK SPECIES

Scenario	Habitat protection	Nonnative predator pressure	Sea level rise (SLR) + storm surge risk
1A	same as current	same as current	Intermediate SLR + Cat3* (2050). Intermediate SLR + Cat5* (2070 & 2100).
1B	same as current	increased pressure	Intermediate SLR + Cat3 (2050). Intermediate SLR + Cat5 (2070 & 2100).
2A	same as current	same as current	High SLR + Cat5.
2B	same as current	increased pressure	High SLR + Cat5.

* Cat3 = Category 3 hurricane; Cat5 = Category 5 hurricane.

Scenario 1A

Under scenario 1A, conditions continue along their current trajectory. The risk of human development (measured here as level of habitat protection) remains the same as current, and populations that are currently impacted by the associated stressors from development remain negatively impacted by these threats. Under this scenario, we calculated impacts under the Intermediate SLR scenario as well as the additional storm surge risk from a Category 3 hurricane (2050 only) and Category 5 hurricane (2070 and 2100), which are expected to represent a higher proportion of hurricanes in the Caribbean into the future (Service 2023, pp. 52–55).

Scenario 1B

Under Scenario 1B, there is an increase in predator pressure on islands where nonnative predators do not currently occur. Impacts to small islands not currently impacted by nonnative predators include the theoretical introduction of nonnative mammalian predators, most likely rats, which can have a profound negative effect on skinks on smaller islands/cays. Because larger islands will continue to have nonnative predators, the risk will

remain unchanged on those islands. The risk of human development (*i.e.*, level of habitat protection) remains the same as current because we do not have data to inform this metric in the future (note, this metric is held constant for all future scenarios). Under this scenario, we calculated impacts under the Intermediate SLR scenario as well as the additional storm surge risk from a Category 3 hurricane (2050 only) and Category 5 (2070 and 2100), which are expected represent a higher proportion of hurricanes in the Caribbean into the future.

Scenario 2A

Under Scenario 2A, habitat protection and nonnative predator risk remain status quo, and SLR and storm surge calculations are based on the High SLR scenario and the storm surge risk from Category 5 hurricanes for all time iterations.

Scenario 2B

Under scenario 2B, impacts of nonnative predators, SLR, and storm surge worsen. Impacts to small islands not currently impacted by nonnative predators include the theoretical introduction of nonnative mammalian predators. Because larger islands will continue to have nonnative predators,

the risk will remain unchanged on those islands, but we expect the impacts to continue to increase since eradication is not feasible and exacerbated as human population sizes increase; therefore, this scenario includes the lowering of habitat protection category by one level. For this scenario we calculated impacts using the High SLR scenario as well as the additional storm surge risk from Category 5 hurricanes.

Puerto Rican Skink

Here, we present both current and future condition analyses results for the Puerto Rican skink. There are currently four known extant Puerto Rican skink populations on the island of Puerto Rico and one on the island of Desecheo. Historical records indicate that Puerto Rican skinks likely occurred on Icacos (1932) and Vieques (1980; figure 2.16; Hedges and Conn 2012, p. 186), and on the main island of Puerto Rico skinks were historically collected in and around San Juan (in 1879, 1880) and Bayamón (in 1919, 1931); the southern coastal areas including Ensenada (in 1915, 1919), North Descalabrado (in 1967), and Cerro del Muerto (in 1980); Cape San Juan (in 1931) which is in extreme northeastern Puerto Rico; and Barrio Coto in the municipality of

Isabela (in 1966), which is near Quebradillas (Hedges and Conn 2012, p. 186). Skink populations in San Juan and Cape San Juan are considered historical and are designated as likely extirpated in our analyses. Three skink specimens, one from Culebra, another from Cayo Norte, and one from Cayo Luis Peña in Puerto Rican skink species; however, there is no genetic information for these three specimens to confirm if Puerto Rican skinks are sympatric with Culebra skinks. Unlike other island populations of skinks, which are much smaller than those on the main island of Puerto Rico, we treat each skink population on the main island of Puerto Rico separately regarding amount of predator pressure and level of protection.

Habitat Protection

For level of protection, we describe the total percentage protected and indicate the percentage that includes the *Zona de Conservación del Carso* (Karst Conservation Zone) due to differences in protection levels as compared to other protected areas. This zone includes both public and privately owned lands, and conservation within this zone cannot be considered conclusive since permits for certain activities within this zone are subject to PRDNER evaluation and there is uncertainty if activities will be allowed or not.

Most of the information for the Quebradillas population is from near and in the Guajataca Commonwealth Forest, which is a subtropical moist forest occurring within the karst landscape in the northwestern municipality of Isabela, Puerto Rico. The Quebradillas population encompasses almost ~42,000 ac (17,000 ha) of predicted habitat, with 73 percent of that area with varied protection designations (67 percent Karst Conservation Zone, 6 percent other protected areas (Service 2023, pp. 74–76)). The high habitat protection in this area is considered to provide a lower development risk, primarily due to restricted development within the Karst Conservation Zone.

The southwest population overlaps with several municipalities where

skinks have been documented, particularly within and around the southern portions of the Maricao Commonwealth Forest (San Germán and Sabana Grande within humid subtropical forests; Rivera et al. 2023, p. 10). This large area of predicted habitat (92,986 ac (37,630 ha)) has 22 percent (6 percent within Karst Conservation Zone, 16 percent other protected areas) of that area being protected.

The third population occurs in south central Puerto Rico in the municipality of Ponce. Of the 6,155 ac (2,491 ha) of predicted habitat in the area, very little is protected (approximately 1 percent); therefore, development risk is high.

In 2022, a skink was collected inside a garage in north central Puerto Rico in the municipality of Florida, an area where skinks had not been detected in the past but includes 19,714 ac (7,978 ha) of predicted skink habitat. A large percentage of this potential habitat is currently protected (88 percent). Of the area protected, 78 percent is within the Karst Conservation Zone and 10 percent is within other protected areas.

Outside of the main island, the only other population known to be extant is on the island of Desecheo off the west coast of Puerto Rico. During surveys in 2010, 2012, and 2016, researchers observed skinks that are presumed to be Puerto Rican skinks (Wolf et al. 2010, p. 5; Herrera-Giraldo and Bermudez 2010, p. 22; Figuerola 2023, pers. comm.). The entire island is a National Wildlife Refuge (NWR) with no development risk.

Predator Pressure

Because the main island of Puerto Rico is occupied by nonnative predators including mongooses, rats, cats, etc., the influence of predator pressure on population resiliency is always present and therefore considered high risk to skinks in all main island populations. Nonnative predators have been eradicated from Desecheo; therefore, there is currently no impact from predator pressure for this population.

Storm Surge Risk

The populations on the main island of Puerto Rico occur inland and are not influenced by storm surge. In addition, Desecheo is an island with high

elevation; therefore, skink populations there are not impacted by the effects of storm surge.

Current Condition Summary

Currently, five of nine (56 percent) known populations are extant, while four (44 percent) are considered likely extirpated (table 4). One population (Desecheo) is in high resiliency condition, and two (Quebradillas and Florida) are in moderate resiliency condition, and these populations are distributed across the northern part of the species' range on Puerto Rico and Desecheo Island; the remaining two populations (Southwest and Ponce) have low resiliency (table 4). Habitat for all populations is generally located at elevations that are not at risk of storm surge or sea level rise. Development is a risk to all populations. Because the main island of Puerto Rico is occupied by nonnative predators including mongoose, rats, cats, and dogs, the influence of predator pressure on population resiliency is always present and therefore considered high risk to skinks. In addition, all current populations are geographically isolated at considerable distance from one another; therefore, it will be difficult for a high or moderate condition population to supplement or rescue another population affected by threats. Thus, current redundancy is low for the Puerto Rican skink.

Given the reduction in historical range, representation has also been reduced from historical condition. However, current populations exist in multiple locations in several different habitat types across Puerto Rico and on Desecheo Island. Based on the genetic analysis, the populations on Puerto Rico may range from small to large effective population sizes with potential for admixture, although there is some evidence of inbreeding within the Florida population (Rivera et al. 2023, p. 20). This apparent genetic diversity across Puerto Rican skink populations contributes to the species' overall adaptive capacity, giving the species the potential to adapt when faced with changes in its current or future environment.

TABLE 4—PUERTO RICAN SKINK CURRENT RESILIENCY SUMMARY

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
Icacos	High (1)	High (– 1)	High (– 1)	Likely extirpated	NA.
Desecheo	High (1)	No Impact (1)	Low (0)	Extant	High (2).
Vieques	High (1)	High (– 1)	Low (0)	Likely extirpated	NA.

TABLE 4—PUERTO RICAN SKINK CURRENT RESILIENCY SUMMARY—Continued

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
Main Island, PR					
San Juan	Low (-1)	High (-1)	Low (0)	Likely extirpated	NA.
Cape San Juan	Moderate (0)	High (-1)	Low (0)	Likely extirpated	NA.
Quebradillas	High (1)	High (-1)	No effect (1)	Extant	Moderate (1).
Southwest	Low (-1)	High (-1)	No effect (1)	Extant	Low (-1).
Ponce	Low (-1)	High (-1)	No effect (1)	Extant	Low (-1).
Florida	High (1)	High (-1)	No effect (1)	Extant	Moderate (1).

As part of the SSA report, we also developed future-condition scenarios to capture the range of uncertainties regarding future threats and the projected responses by the Puerto Rican skink. Our scenarios assumed nonnative predators and further fragmentation from development are the main risks to populations on Puerto Rico and the only future threat to the population on Desecheo would be if predators are introduced, which would cause reduced resiliency (note: it is highly unlikely that mongooses would ever be introduced). Because we determined that the current condition of the Puerto Rican skink is consistent with the Act’s definition of an endangered species (see *Determination of Status—Puerto Rican Skink*, below), we are not presenting the results of the future scenarios in this proposed rule. Please refer to the SSA report (Service 2023, pp. 79–82) for the full analysis of future scenarios.

Mona Skink

The Mona skink is historically and currently known only from Mona Island, a 13,838-ac (5,600-ha) island off the west coast of Puerto Rico. The entire island is a designated nature preserve protected and managed by the PRDNER.

The Mona skink has been consistently detected on the island over time, with the earliest known detection in 1894 to more recent detections in 2021. The species is readily observed on Mona Island, indicating this singular population has maintained a level of resiliency to withstand stochastic events over time. Although the species is limited to one island, there are multiple, interconnected habitat patches occupied across the island (Rivera et al. 2023, p. 12). The species occupies interior areas of the island, which are not subject to storm surge or sea level rise. These habitat patches that do not experience SLR and storm surge threats likely ensure that the species is less susceptible to catastrophic events; however, the species is still vulnerable to other unknown threats given that its range is limited to one island. The one population on Mona Island houses all known genetic diversity for the species; however, genetic evidence is insufficient to determine the level of genetic diversity.

The primary threat driving species’ viability is nonnative predators. Mona Island is currently occupied by nonnative predators (cats and rats).

There are no mongooses or dog predators on the island. Given the larger size of the island and the fact that mongooses are not present, predator pressure was assessed as low for the species. Low does not mean there is no predator pressure but a lower level of predator pressure from cats and rats. Mona Island has a maximum elevation of over 296 feet (ft) (90 meters (m)) and, therefore, most of the island is not susceptible to impacts from storm surge or sea level rise like other low-lying islands. Mona Island has high habitat protection given it is protected and managed by PRDNER, and therefore there are no current impacts from development pressure.

The current resiliency of the one Mona skink population is moderate (table 5). Though the species is known only from Mona Island and is considered a single population, habitat patches are occupied across the island, and the species occupies interior as well as coastal areas of the island. Although the species is impacted by some threats across the range, the Mona skink exhibits sufficient resiliency, redundancy, and representation to support the species’ viability.

TABLE 5—MONA SKINK CURRENT RESILIENCY SUMMARY

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
Mona Island	High (1)	Low (0)	Low (0)	Extant	Moderate (1)

In considering future threats to the species, nonnative predators are the primary driver to the species’ viability in the future. Given the larger size of the island, and that mongooses are not likely to be introduced, predator pressure was assessed as low in the future for the species. Nonnative

predator introductions would be expected to reduce skink numbers on the island, but there are a diversity of habitats and patches, and it is a large island; therefore, predation risk is not likely to eliminate the known population, nor do we expect it to reduce to low resiliency condition in

the future. Impacts from climate change in the future were also assessed as low given the higher elevation of the island. Further, impacts of development pressure to the species are low as Mona Island has high habitat protection given it is protected and managed by PRDNER.

TABLE 6—MONA SKINK FUTURE RESILIENCY SUMMARY FOR FOUR FUTURE SCENARIOS UNDER THREE TIME STEPS
[M = moderate]

Current		2050				2070				2100			
Status	Resiliency	1A	1B	2A	2B	1A	1B	2A	2B	1A	1B	2A	2B
Extant	M	M	M	M	M	M	M	M	M	M	M	M	M

The projected future resiliency of skinks on Mona Island is assessed as moderate (table 6), given the future level of threats to the species. The future range of the Mona skink is limited to one island; however, it is still expected to have moderate resiliency to withstand stochastic events. Although the species is impacted by several threats across the range, the Mona skink exhibits sufficient resiliency, redundancy, and representation to support the species' future viability.

Culebra Skink

The Culebra skink currently occupies five islands including Culebra and several of the small cays surrounding Culebra Island. Culebra skinks were historically found on Isla Culebrita, the largest cay near Culebra, but they have not been seen there since 1936 likely because it is a small to medium sized

island with nonnative predators. Observations on the cays surrounding Culebra Island, including Cayo Agua, Cayo Botella, Cayo Lobito, and Cayo Yerba are recent (since 2017).

The small cays currently occupied by skinks are very small (<10 ac (<4 ha)), are not currently occupied by any nonnative predators, and are protected from development. Much of the land on each cay is low elevation (*i.e.*, less than 33 ft (10 m)) making them susceptible to storm surge, with projected Category 3 storms at 5 ft (1.52 m) and Category 5 storms at 6 ft (1.83 m) (see table 8.3 and appendix A of the SSA report; Service 2023, pp. 92, 142). Culebra Island is inhabited by people, and there is development on parts of the island, except in areas that are protected, primarily within the Culebra NWR. Although mongooses have not been observed, other nonnative predators

including cats and rats occur there. Culebra Island has a higher average elevation (~646 ft (197 m)) than the smaller cays and is less susceptible to storm surge risk currently.

Each of the small cays currently occupied by Culebra skinks is relatively similar; each cay is protected and not currently occupied by nonnative mammalian predators. However, because they each have low elevations and are small in size, the risk of impacts from storm surge is high, and therefore they currently have moderate resiliency (table 7). Even though the Culebra skink on Culebra Island is less impacted by storm surge and has large tracts of protected areas, it has moderate current resiliency because several nonnative predators occupy the island. In addition, skinks occur partially on unprotected lands, which are vulnerable to development.

TABLE 7—CULEBRA SKINK CURRENT RESILIENCY SUMMARY

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
Isla Culebrita	High (1)	Low (0)	Low (1)	Likely extirpated	NA
Cayo Botella	High (1)	No impact (1)	High (-1)	Extant	Moderate (1)
Cayo Agua	High (1)	No impact (1)	High (-1)	Extant	Moderate (1)
Cayo Lobito	High (1)	No impact (1)	High (-1)	Extant	Moderate (1)
Cayo Yerba	High (1)	No impact (1)	High (-1)	Extant	Moderate (1)
Culebra	Moderate (0)	Low (0)	Low (0)	Extant	Moderate (0)

Currently, the Culebra skink has multiple populations in moderate resiliency condition across its known range (table 7). The number and

distribution of these sufficiently resilient populations enable the species to withstand both stochastic and catastrophic events. The range is not

large, and many of the islands are small, but the species currently has substantial genetic representation in the form of separate islands.

TABLE 8—CULEBRA SKINK CURRENT AND FUTURE RESILIENCY SUMMARY

[NA = not applicable, as likely extirpated populations do not have resiliency; M = moderate; X = extirpated.]

Population	Current		2050				2070				2100			
	Status	Resiliency	1A	1B	2A	2B	1A	1B	2A	2B	1A	1B	2A	2B
Isla Culebrita	Likely extirpated	NA												
Cayo Botella	Extant	Moderate	M	X	M	X	M	X	X	X	X	X	X	X
Cayo Agua	Extant	Moderate	M	X	M	X	M	X	M	X	M	X	X	X
Cayo Lobito	Extant	Moderate	M	X	M	X	M	X	M	X	M	X	M	X
Cayo Yerba	Extant	Moderate	M	X	M	X	M	X	M	X	M	X	X	X
Culebra	Extant	Moderate	M	Low	M	Low	M	Low	M	Low	M	Low	M	Low

By 2050, resiliency of each of the populations will change only if predator pressure is increased (see "B" scenarios

in table 8). Since most of the populations are on small cays, the addition of a predator will almost

certainly mean the extirpation of skinks within a short time. Results are similar for 2070 except Cayo Botella will

become too small to support a population of skinks under the High SLR scenario (Scenario 2A, table 8). By 2100, nearly all the small cays (except for Cayo Lobito) will be classified as extirpated under the High SLR scenario (Scenario 2A) and skinks on Cayo Botella will likely be extirpated under both Intermediate and High SLR scenarios (table 8). The main risk on the main island of Culebra is the increased predator pressure and continued habitat modification. The addition of any predator to the small cays would likely lead to the skinks being quickly extirpated.

Future redundancy and representation of Culebra skink is expected to be reduced by 2100 under most scenarios, ultimately with the loss of smaller cays due to a combination of predator introduction and SLR/storm surge. Only two populations are expected to remain (Culebra and possibly Cayo Lobito) by 2100 if predators are not introduced to the small cays; therefore, redundancy at 2100 would be limited. There is evidence of genetic clustering (*i.e.*, grouping of similar genes) between populations on Culebra, but the actual genetic structure of skinks on Culebra is still largely unknown (Rivera et al. 2023, p. 15). Culebra has some diverse habitats, and skinks have been seen in both the coast and upland forests. Coastal areas will likely be impacted by sea level rise. Therefore, representation is expected to be substantially reduced across the range by 2100 under three of four future scenarios.

Greater Virgin Islands Skink

The Greater Virgin Islands skink is believed to be historically distributed in the USVI on St. John and St. Thomas (Hedges and Conn 2012, p. 210). It is possible that the Greater Virgin Islands skink occurred in the BVI as well. The species likely had patchy distribution across its range, and its small size, cryptic coloration, and secretive behavior could account for its lack of

detection. If observed, it could be misidentified as the sympatric Lesser Virgin Islands skink or Virgin Islands bronze skink, but lack of observations of any skinks on St. John or St. Thomas make misidentification less probable.

The Greater Virgin Islands skink has not been seen in nearly 150 years since the last specimen was cataloged in 1877, despite considerable herpetological survey work through the Virgin Islands (Hedges and Conn 2012, p. 210). There are six known museum specimens, collected in 1779–1799, 1834, 1845–1846, and 1877 (Hedges and Conn 2012, p. 207). Because the species has long been believed to be extirpated from the main islands of St. John and St. Thomas, not many targeted surveys have been undertaken to look for skinks on either island. From 1986 to 2023, qualified researchers and wildlife agency staff invested considerable efforts in looking for other herpetofauna that would almost certainly document opportunistic encounters of any herp species, and no known documentation of skinks exist (Service 2023, pp. 150–151). Herp survey efforts on St. Thomas do not appear to be as extensive as those on St. John, but optimal habitat on St. Thomas is known to be fragmented by extensive human development (Platenberg and Harvey 2010, p. 548), and the consensus from the herpetology community is that there are no known skinks on the island of St. Thomas. Given what is known about the life history and habitat associations of *Spondylurus* skinks, it is reasonable to assume that skinks would have been detected given the extent of survey efforts in optimal habitats on both islands of St. Thomas and St. John (see chapter 9 and appendix B–I of the SSA report (Service 2023, pp. 100, 146–152)).

Skinks that once occurred on the islands of St. Thomas and St. John faced a primary threat from the introduced mongoose, a predator that has been implicated in the extinction of the Greater Virgin Islands skink (Hedges

and Conn 2012, p. 210; Hedges 2013, p. 1). The invasive predator was introduced as a biological control of rats in sugar cane fields in the late nineteenth century, immediately resulting in a mass extinction of skinks and other reptiles (Hedges and Conn 2012, p. 4). The ground-dwelling and diurnal habits of skinks make them particularly susceptible to mongoose predation.

Based on the best scientific and commercial information available, it is highly unlikely that an individual of Greater Virgin Islands skink could be extant but undetected; therefore, we presume that the species is likely extinct.

Lesser Virgin Islands Skink

Lesser Virgin Islands skink was historically known to occur on 15 islands within the USVI and BVI. The populations on three historically occupied islands, making up approximately 43 percent of the species' historical range, are considered likely extirpated, including St. Thomas, the largest island in the USVI, and two islands in BVI (Necker Island and Great Camanoe Island). The status of seven populations (Capella Island, Buck Island (St. Thomas), Little Thatch Island, Fallen Jerusalem, Salt Island, Round Rock Island, and Ginger Island) are currently unknown, primarily because recent surveys have not been conducted, and very little information is known about these islands. However, there is a high likelihood that skinks could be extirpated on these islands given the nonnative predator threat on surrounding islands and the short distance of the seven islands to those with known predator presence. Given the potential for these threats and likely extirpation of skinks, we assumed that these seven unknown populations do not contribute to the resiliency, redundancy, and representation for the species and thus were not considered as contributing to overall species viability.

TABLE 9—LESSER VIRGIN ISLANDS SKINK CURRENT RESILIENCY SUMMARY

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated and unknown populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
USVI					
Capella Island	High (1)	No impact (1)	Low (0)	Unknown	NA
Buck Island	High (1)	No impact (1)	Low (0)	Unknown	NA
Hans Lollik	Low (– 1)	Low (0)	Low (0)	Extant	Low (– 1)
St. Thomas	Moderate (0)	High (– 1)	Low (0)	Likely extirpated	NA
BVI					
Little Thatch Island.	Low (– 1)	Low (0)	Low (0)	Unknown	NA
Fallen Jerusalem	High (1)	Unknown	Low (0)	Unknown	NA

TABLE 9—LESSER VIRGIN ISLANDS SKINK CURRENT RESILIENCY SUMMARY—Continued

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated and unknown populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
Salt Island	Moderate (0)	Low (0)	Low (0)	Unknown	NA
Round Rock Island.	High (1)	Unknown	High (-1)	Unknown	NA
Ginger Island	Low (-1)	Unknown	Low (0)	Unknown	NA
Guana Island	Low (-1)	Low (0)	Low (0)	Extant	Low (-1)
Necker Island	Low (-1)	Low (0)	Low (0)	Likely extirpated	NA
Great Camanoe Island.	Moderate (0)	Low (0)	Low (0)	Likely extirpated	NA
Mosquito Island ...	Low (-1)	No impact (1)	Low (0)	Extant	Moderate (0)
Virgin Gorda	Moderate (0)	High (-1)	Low (0)	Extant	Low (-1)
Tortola	Moderate (0)	High (-1)	Low (0)	Extant	Low (-1)

Currently, the species is considered extant on 5 of the 15 islands: 1 in USVI (Hans Lollik) and 4 in BVI (Guana, Mosquito, Virgin Gorda, and Tortola) (table 9). Of the five, four have low resiliency, and one has moderate resiliency. Hans Lollik, the one extant population in the USVI, currently has low resiliency due to lack of habitat protection (privately owned) and predator pressure (rats present). In the BVI, one population is currently moderate, and three are low resiliency. There are mixed levels of habitat protection for the islands in the BVI; thus, development pressure is a risk to the species. In addition, each island has variable impacts from nonnative predators, and the two larger islands (Tortola and Virgin Gorda) have mongooses present. All islands have low impacts from storm surge due to the average height of these islands all being above 60 m (197 ft).

Together, the extirpated and low-resiliency populations represent 94 percent of the range of the Lesser Virgin Islands skink. Given the reduction in historical range, the species' redundancy and representation

(adaptive capacity) have been greatly reduced from historical condition. Current redundancy, or distribution of populations with sufficient resiliency to withstand catastrophic events, is very low for this species as there is only one moderate-resiliency population remaining. Given the limited range, any catastrophic event would likely negatively impact all existing populations, thus the species is unlikely to withstand catastrophic events.

As part of the SSA report, we also developed future-condition scenarios to capture the range of uncertainties regarding future threats and the projected responses by the Lesser Virgin Islands skink. Our scenarios assumed nonnative predators are the main risk to populations which would cause reduced resiliency (note: it is highly unlikely that mongooses would ever be introduced). Because we determined that the current condition of the Lesser Virgin Islands skink is consistent with the Act's definition of an endangered species (see *Determination of Status—Lesser Virgin Islands Skink*, below), we are not presenting the results of the future scenarios in this proposed rule.

Please refer to the SSA report (Service 2023, pp. 108–117) for the full analysis of future scenarios.

Virgin Islands Bronze Skink

Virgin Islands bronze skink was historically known to occur on nine islands within the USVI and BVI. Four populations, making up approximately 96 percent of the species' historical range, are considered likely extirpated, including St. Thomas, the largest island in the USVI, and three islands in BVI (Little Tobago Island, Norman Island, and Peter Island). Currently, three of the nine islands are extant, all within the USVI (Buck Island, Turtledove Cay, and Water Island); there are no known extant populations occurring in BVI. The status of two populations (Capella Island and Salt Island) are currently unknown, primarily because recent surveys have not been conducted and very little information is known about these islands. Thus, we assumed that these two populations do not contribute to the resiliency, redundancy, and representation for the species and thus were not considered as contributing to overall species viability.

TABLE 10—VIRGIN ISLANDS BRONZE SKINK CURRENT RESILIENCY SUMMARY

[Numbers in parentheses are metric scores (see table 1), summed to provide overall resiliency. NA = not applicable, as likely extirpated and unknown populations do not have resiliency.]

Population	Habitat protection	Predator pressure	Risk from storm surge	Status	Resiliency
USVI					
Buck Island	High (1)	No impact (1)	Low (0)	Extant	High (2)
Capella Island	High (1)	No impact (1)	Low (0)	Unknown	NA
Turtledove Cay	High (1)	No impact (1)	Low (0)	Extant	High (2)
Water Island	Low (-1)	Low (0)	Low (0)	Extant	Low (-1)
St. Thomas	High (1)	High (-1)	Low (0)	Likely extirpated	NA
BVI					
Little Tobago Island.	High (1)	Low (0)	Low (0)	Likely extirpated	NA
Salt Island	Moderate (0)	Low (0)	Low (0)	Unknown	NA
Norman Island	Low (-1)	Low (0)	Low (0)	Likely extirpated	NA
Peter Island	Low (-1)	Low (0)	Low (0)	Likely extirpated	NA

Of the three extant populations, two were assessed to have high resiliency while one was assessed to have low resiliency (table 10). Water Island, the largest island (489 ac (198 ha)) with an extant population, is currently occupied by nonnative predators (rats) and privately owned, and therefore has low resiliency. Buck Island and Turtledove Cay have high resiliency due to high levels of habitat protection and no current predator pressure, as nonnative predators were eradicated previously, and the islands' elevations are not at risk from storm surge. Despite having two populations with high resiliency, the Virgin Islands bronze skink is vulnerable to catastrophic events such as the introduction of nonnative predators, primarily due to the extremely small size of the remaining extant islands (*i.e.*, Buck Island and Turtledove Cay are 22 and 32 ac (9 and 13 ha) in size, respectively). Representation (and adaptive capacity) has been greatly reduced due to the loss of historical range and remaining islands making up 4 percent of the species' current range.

As part of the SSA report, we also developed future-condition scenarios to capture the range of uncertainties regarding future threats and the projected responses by the Virgin Islands bronze skink. Our scenarios assumed nonnative predators and SLR are the main risks to populations in the future, which would cause reduced resiliency and eventual extirpation (note: it is highly unlikely that mongooses would ever be introduced). Because we determined that the current condition of the Virgin Islands bronze skink is consistent with the Act's definition of an endangered species (see *Determination of Status—Virgin Islands Bronze Skink*, below), we are not presenting the results of the future scenarios in this proposed rule. Please refer to the SSA report (Service 2023, pp. 122–129) for the full analysis of future scenarios.

Greater St. Croix Skink

The Greater St. Croix skink has been recorded from St. Croix and its satellite island Green Cay, both in the USVI; this is also presumed to be the provenance of several historical specimens with the locality data “West Indies,” suggesting that the skink was endemic to this large island and its satellite (Hedges and Conn 2012, p. 173). No more specific locality data are available, and the species was last recorded from St. Croix in the late 19th century, but this species has a well-documented collection history, and it is consequently “without dispute” that the species historically

occurred on the island (Hedges and Conn 2012, p. 174).

Because the species has long been believed to be extirpated from St. Croix, not many targeted surveys to look for skinks on the island have occurred. Qualified researchers and wildlife agency staff have made several efforts to look for other herpetofauna on both St. Croix and Green Cay that would almost certainly document opportunistic encounters of any herp species, and since 2000, no known documentation of skinks exists (see appendix B–II of SSA report (Service 2023, pp. 154–160)). Given what is known about the life history and habitat associations of *Spondylurus* skinks, it is reasonable to assume that skinks would have been detected given the extent of survey efforts in optimal habitats on St. Croix and Green Cay.

Skinks that once occurred on St. Croix faced a primary threat from the introduced mongoose, a predator that has been implicated in the extinction of the Greater St. Croix skink (Hedges and Conn 2012, p. 174; Hedges 2013, p. 4). The invasive predator was introduced as a biological control of rats in sugar cane fields in the late nineteenth century, immediately resulting in a mass extinction of skinks and other reptiles (Hedges and Conn 2012, p. 4). The ground-dwelling and diurnal habits of skinks have made them particularly susceptible to mongoose predation.

Based on the best scientific and commercial information available, it is highly unlikely that an individual of Greater St. Croix skink could be extant but undetected; therefore, we presume that the species is likely extinct.

Lesser St. Croix Skink

The Lesser St. Croix skink is believed to be endemic to the large island of St. Croix in the USVI, which has an area of 230 km² (Hedges and Conn 2012, p. 69). The only known specimen from 1875 was reported with no precise locality data (Hedges and Conn 2012, p. 68). The introduction of mongooses to this island in the late 19th century, and the seeming disappearance of the Greater St. Croix skink at the same time, suggests that the Lesser St. Croix skink is probably now extinct (Hedges and Conn 2012, p. 69).

Because the species has long been believed to be extirpated from St. Croix, not many targeted surveys to look for skinks on the island have occurred. Qualified researchers and wildlife agency staff have made several efforts to look for other herpetofauna that would almost certainly document opportunistic encounters of any herp species (see appendix B–III of SSA

report (Service 2023, pp. 162–168)). Given what is known about the life history and habitat associations of *Capitellum* skinks, it is reasonable to assume that skinks would have been detected given the extent of survey efforts in optimal habitats on St. Croix.

Skinks that once occurred on St. Croix faced threats from habitat loss and predation from the introduced mongoose, a predator that has been implicated in the extinction of the Lesser St. Croix skink (Hedges and Conn 2012, p. 69; Hedges 2013, p. 1) and other lizards. For example, the mongoose is also partly implicated for the extirpation of the endangered St. Croix ground lizard, last seen on the main island of St. Croix in 1964 (Service 1984, entire). The mongoose was introduced as a biological control of rats in sugar cane fields in the late nineteenth century, immediately resulting in a mass extinction of skinks and other reptiles (Hedges and Conn 2012, p. 4). The ground-dwelling and diurnal habits of skinks have made them particularly susceptible to predation by mongooses and cats.

Based on the best scientific and commercial information available, it is highly unlikely that an individual of Lesser St. Croix skink could be extant but undetected; therefore, we presume that the species is likely extinct.

Determination of Status for Eight Caribbean Skink Species

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 meets the definition of an endangered species or a threatened species. The Act defines an “endangered species” as a species in danger of extinction throughout all or a significant portion of its range and a “threatened species” as a species 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 a species meets the definition of 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.

*Status Throughout All of Its Range—
Puerto Rican Skink*

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we assessed the status of the Puerto Rican skink to determine if it meets the Act's definition of an endangered species. The Puerto Rican skink was historically known from three island populations and six populations on the main island of Puerto Rico. Four historical populations, approximately 35 percent of the species' historical range, are considered likely extirpated, including two of the smaller islands within the range.

Of the five extant populations, one of the smaller islands, Desecheo, is currently occupied and has high resiliency based on habitat metrics, including no predators, and the island is protected as an NWR. Predators were previously present on Desecheo and success of eradication efforts was confirmed in 2017. Of note, the last detection record for the Puerto Rican skink on Desecheo Island was in 2016, although there were no surveys conducted on the island during 2021–2023 survey efforts. This population represents 0.19 percent of the extant range.

The remaining four populations occur on the main island of Puerto Rico; two populations currently have moderate resiliency, and two have low resiliency. Habitat for all populations is generally located at elevations that are not at risk of storm surge or sea level rise. Development (Factor A) is a risk to all populations. Because the main island of Puerto Rico is occupied by nonnative predators (Factor C) including mongooses, rats, cats, and dogs, the influence of predator pressure on population resiliency is always present and therefore considered high risk to skinks.

The five extant populations are geographically isolated at considerable distance from one another, and, therefore, it will be difficult for a higher resiliency population to supplement or rescue another population affected by potential catastrophic events. Together, the extirpated and low-resiliency populations represent 75 percent of the range. Given the reduction in historical range, the species' redundancy has been reduced from historical condition, and representation (and adaptive capacity) has also been reduced. The current resiliency, redundancy, and representation indicate that the magnitude and scale of threats are currently impacting the Puerto Rican skink such that it meets the Act's

definition of an endangered species. Thus, after assessing the best available information, we determine that Puerto Rican skink is in danger of extinction throughout all of its range. Because the threats are currently impacting the species such that it is in danger of extinction currently throughout all of its range, it does not meet the Act's definition of a threatened species.

Status Throughout a Significant Portion of Its Range—Puerto Rican Skink

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. We have determined that the Puerto Rican skink is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Puerto Rican skink warrants listing as endangered throughout all of its range, our determination does not conflict with the decision in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020), because that decision related to significant portion of the range analyses for species that warrant listing as threatened, not endangered, throughout all of their range.

Determination of Status—Puerto Rican Skink

Based on the best scientific and commercial data available, we determine that the Puerto Rican skink meets the Act's definition of an endangered species. Therefore, we propose to list the Puerto Rican skink as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

*Status Throughout All of Its Range—
Mona Skink*

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we evaluated the status of the Mona skink to determine if it meets the Act's definition of an endangered species. The Mona skink is historically and currently known only from Mona Island, a 13,838-ac (5,600-ha) island off the west coast of Puerto Rico. The entire island is a designated nature preserve protected and managed by the PRDNER. The Mona skink has been consistently detected on the island over time with the earliest known detection in 1894 to more recent detections in 2021. The species continues to be observed on Mona Island, indicating that the population has maintained a level of

resiliency to withstand stochastic events over time.

The primary threat driving the species' viability is nonnative predators (Factor C). Mona Island is currently occupied by nonnative predators (cats and rats) and also goats and pigs. There are no mongooses or dog predators on the island. Given the larger size of the island and that mongooses are not present, predator pressure was assessed as low for the species. Low does not mean there is no predator pressure but a lower level of predator pressure from cats and rats. Mona Island has a maximum elevation of over 296 ft (90 m) and, therefore, most of the island is not susceptible to impacts from storm surge or sea level rise (Factor E) like other low-lying islands. Mona Island has high habitat protection given it is protected and managed by PRDNER, and therefore there are no current impacts from development pressure (Factor A).

The current resiliency of the one Mona skink population is moderate. Though the species is known only from Mona Island and likely consists of a single population, there are multiple habitat patches occupied across the island and the species occupies interior as well as coastal areas of the island. Although the species is impacted by some threats across the range, the Mona skink exhibits sufficient resiliency, redundancy, and representation to support the species' viability. Overall, no current threat is acting at an extent or severity such that the species is at risk of extinction throughout all of its range. Thus, after assessing the best available information, we conclude that the Mona skink is not in danger of extinction throughout all of its range. Therefore, we proceed with determining whether the Mona skink is likely to become endangered within the foreseeable future throughout all of its range.

In considering future threats to the species, we examined habitat destruction and modification from development risk (Factor A); nonnative predators (Factor C); climate change, specifically SLR (Factor E); and increases in intensity, frequency, and duration of hurricane activity (Factor E) out to the end of the century, or 2100. For the Mona skink, nonnative predators are the primary driver to the species' viability in the future. There is a chance of introduction of additional nonnative predators from tourism, and thus increased predator pressure to the Mona skink in the future. However, ongoing and future funded eradication efforts of nonnative predators is likely to occur. Given the larger size of the

island, and that mongooses are not likely to be introduced, predator pressure was assessed as low in the future for the species. Nonnative predator introductions would be expected to reduce skink numbers on the island, but the island is large and includes a diversity of habitats and patches: therefore, predation risk is not likely to eliminate the known population, nor do we expect it to reduce to low-resiliency condition in the future. Impacts from climate change in the future were also assessed as low for similar reasons as current impacts because most of the island is not susceptible to impacts from SLR or increased hurricane activity. Further, impacts of development pressure to the species are low as Mona Island has high habitat protection given it is protected and managed by PRDNER.

The projected future resiliency of skinks on Mona Island is assessed as moderate, given the future level of threats to the species. The future range of the Mona skink is limited to one island; however, it is still expected to have moderate resiliency to withstand stochastic events. Although the species is impacted by some level of threats across the range, the Mona skink exhibits sufficient resiliency, redundancy, and representation to support the species' future viability. Overall, no projected future threat is acting at an extent or severity such that the species is at risk of extinction throughout all of its range within the foreseeable future. Thus, after assessing the best available information, we conclude that the Mona skink is not likely to become endangered within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range—Mona Skink

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. Having determined that the Mona skink is not in danger of extinction or likely to become so within the foreseeable future throughout all of its range, we now consider whether it may be in danger of extinction or likely to become so within the foreseeable future in a significant portion of its range—that is, whether there is any portion of the species' range for which it is true that both (1) the portion is significant; and (2) the species is in danger of extinction now or likely to become so within the foreseeable future in that portion. Depending on the case, it might be more efficient for us to

address the “significance” question or the “status” question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

In undertaking this analysis for the Mona skink, we chose to address the status question first. We began by identifying portions of the range where the biological status of the species may be different from its biological status elsewhere in its range. For this purpose, we considered information pertaining to the geographic distribution of (a) individuals of the species, (b) the threats that the species faces, and (c) the resiliency condition of populations.

We evaluated the range of the Mona skink to determine if the species is in danger of extinction now or likely to become so within the foreseeable future in any portion of its range. The Mona skink is a narrow endemic that functions as a single, contiguous population and occurs on one 13,838-ac (5,600-ha) island (Mona Island). Thus, there is no biologically meaningful way to break this limited range into portions, and the threats that the species faces affect the species comparably throughout its entire range. As a result, there are no portions of the species' range where the species has a different biological status from its rangewide biological status. Therefore, we conclude that there are no portions of the species' range that warrant further consideration, and the species is not in danger of extinction or likely to become so within the foreseeable future in any significant portion of its range. This does not conflict with the courts' holdings in *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act's Definitions of “Endangered Species” and “Threatened Species” (79 FR 37578; July 1, 2014), including the definition of “significant” that those court decisions held to be invalid.

Determination of Status—Mona Skink

Based on the best scientific and commercial data available, we determine that the Mona skink does not meet the Act's definition of an endangered species or a threatened

species in accordance with sections 3(6) and 3(20) of the Act. Therefore, we find that listing the Mona skink is not warranted at this time.

Status Throughout All of Its Range—Culebra Skink

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we evaluated the status of the Culebra skink to determine if it meets the Act's definition of an endangered species. The Culebra skink historically occupied six islands across the species' known range. Currently, it occupies five islands, including Culebra and four small cays surrounding Culebra. The skink is likely extirpated from Isla Culebrita, as it has not been observed there since 1936. Of the five currently known extant populations, the smaller cays have no predator pressure and are all protected from development. However, because each cay has low elevation and is small in size, it is at high risk of impacts from storm surge (Factor E). Culebra currently has predators (Factor C) present (cats, rats) and a mix of land uses, with expanding developed lands (Factor A) and some protected lands.

The Culebra skink currently has five extant populations with moderate resiliency. The current number and distribution of these sufficiently resilient populations enables the species to withstand both stochastic and catastrophic events. While the range is relatively small and many of the cays are small, the species currently has substantial genetic representation in the form of separate islands. The Culebra skink currently exhibits sufficient resiliency, redundancy, and representation to support viability. Overall, no current threat is acting at an extent or severity such that the species is at risk of extinction throughout all of its range. Thus, after assessing the best available information, we conclude that the Culebra skink is not in danger of extinction throughout all of its range and does not meet the definition of an endangered species.

In the future, sea level rise (Factor E) and storm impacts (Factor E) will be realized, along with increased development pressure (Factor A) on Culebra and increased predator risk (Factor C) across the range. When predators reach the small cays, skink extirpation is imminent. Further, three of the four cays have low elevations such that storm surge risk and sea level rise will result in extirpation of the population on one cay by 2070, and the remaining cays' populations by 2100. Given the future projections, the

number and distribution of skink populations impacted in the future will affect the species' ability to withstand both stochastic and catastrophic events. Therefore, the Culebra skink is projected not to have sufficient resiliency, redundancy, and representation to support the species' viability within the foreseeable future. Thus, after assessing the best available information, we conclude that the Culebra skink is likely to become in danger of extinction throughout all of its range within the foreseeable future.

Status Throughout a Significant Portion of Its Range—Culebra Skink

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species" (hereafter "Final Policy"; 79 FR 37578, July 1, 2014) that provided if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range.

Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the "significance" question or the "status" question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Everson*, we now consider whether the species is in danger of extinction (*i.e.*, endangered) in a significant portion of its range. In undertaking this analysis for Culebra skink, we choose to address the status question first.

We evaluated the range of the Culebra skink to determine if the species is in danger of extinction now in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the definition of an

endangered species. For the Culebra skink, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now in that portion.

The statutory difference between an endangered species and a threatened species is the timeframe in which the species becomes in danger of extinction; an endangered species is in danger of extinction now while a threatened species is not in danger of extinction now but is likely to become so within the foreseeable future. Thus, we considered the time horizon for the threats that are driving the Culebra skink to warrant listing as a threatened species throughout all of its range. We then considered whether these threats or their effects are occurring in any portion of the species' range such that the species is in danger of extinction now in that portion of its range. We examined the following threats: habitat destruction or modification through development risk, nonnative predators, and storm surge, including cumulative effects. Current population resiliency is moderate across the Culebra skink's range. The small cays currently occupied by skinks are small (<10 ac (4 ha)) but are not currently occupied by any nonnative predators and are protected from development. Much of the land on each cay is low elevation (*i.e.*, less than 33 ft (10 m)), making them susceptible to storm surge. The island of Culebra is inhabited by people and there is development throughout the island, except in areas that are protected, primarily the Culebra NWR in the north. Because of the development, there are many nonnative predators including cats and rats, but no mongooses are currently found on the island. The island of Culebra has a higher average elevation (~646 ft (197 m)) than the smaller cays and is less susceptible to storm surge risk currently. Despite differences in impacts of threats, all populations currently have moderate resiliency and have sufficient redundancy such that no portions would meet the Act's definition of an endangered species.

The best scientific and commercial data available indicate that the time horizon on which those threats to the species and the species' response to those threats are likely to occur is the foreseeable future. In addition, the best scientific and commercial data available do not indicate that any of the threats to the species and the species' response to those threats are more immediate in any portions of the species' range.

Therefore, we determine that the Culebra skink is not in danger of extinction now in any portion of its range, but that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This does not conflict with the courts' holdings in *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of "significant" that those court decisions held to be invalid.

Determination of Status—Culebra Skink

Based on the best scientific and commercial data available, we determine that the Culebra skink meets the Act's definition of a threatened species. Therefore, we propose to list the Culebra skink as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Status Throughout All of Its Range—Greater Virgin Islands Skink

When evaluating the possibility of extinction, we attempted to minimize the possibility of either (1) prematurely determining that the species is extinct where individuals exist but remain undetected, or (2) assuming the species is extant when extinction has already occurred. Our determinations of whether the best scientific and commercial data available indicate that a species is extinct included an analysis of the following criteria: detectability of the species, adequacy of survey efforts, and time since last detection. All three criteria require taking into account applicable aspects of the species' life history. Other lines of evidence may also support the determination and be included in our analysis.

In conducting our analyses of whether the Greater Virgin Islands skink is extinct, we considered and thoroughly evaluated the best scientific and commercial data available. We reviewed the information available in our files and other available published and unpublished information. These evaluations include information from recognized experts, Federal and State governments, academic institutions, and private entities.

The Greater Virgin Islands skink was a small lizard known from six specimens collected in the 1800s, with the most recent observation from 1877. The skink's small size, cryptic coloration, and secretive behavior could prevent detection; however, considerable effort to observe other

herpetofauna by qualified researchers has been invested across several decades on both St. Thomas and St. John, where the species once occurred. These multiple survey efforts, while not targeted at skinks, did overlap with potential skink habitat, and would most likely have encountered skinks if they were still extant. The loss of the Greater Virgin Islands skink can be attributed to predation by the mongoose. No skinks have been observed on St. Thomas or St. John for over a century. Based on the best scientific and commercial information available, it is highly unlikely that an individual could be extant but undetected; therefore, we conclude that the Greater Virgin Islands skink is extinct. A detailed discussion of the basis for this finding can be found in appendix B–I of the SSA report (Service 2023, pp. 146–154) and other supporting documents (see **ADDRESSES**, above).

Determination of Status—Greater Virgin Islands Skink

Based on the best scientific and commercial data available, we determine that the Greater Virgin Islands skink is extinct and is therefore not warranted for listing at this time.

Status Throughout All of Its Range—Lesser Virgin Island Skink

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we assessed the status of the Lesser Virgin Islands skink to determine if it meets the Act's definition of an endangered species. The Lesser Virgin Islands skink was historically known to occur on 15 islands within the USVI and BVI. Three historically occupied islands, making up approximately 43 percent of the species' historical range, are considered likely extirpated, including St. Thomas, the largest island in the USVI. The status of seven populations (Capella Island, Buck Island, Little Thatch Island, Fallen Jerusalem, Salt Island, Round Rock Island, and Ginger Island) is currently unknown, primarily because recent surveys have not been conducted and very little information is known about these islands. The best available science indicates that likely threats exist such that these seven populations do not contribute to the resiliency, redundancy, and representation for the species, and thus were not considered as contributing to overall species viability.

Currently, the Lesser Virgin Islands skink is considered extant on 5 of the 15 islands: 1 in USVI (Hans Lollik) and 4 in BVI (Guana, Mosquito, Virgin

Gorda and Tortola). Of the five, four have low resiliency and one has moderate resiliency. Hans Lollik, the one extant population in the USVI, currently has low resiliency due to a lack of habitat protection (privately owned land) (Factor A) and having predator pressure (rats present) (Factor C). In the BVI, one population is currently moderate, and three are low resiliency. The islands in the BVI provide mixed levels of habitat protection; thus, development pressure is a risk. In addition, each island has variable impacts from nonnative predators, and the two larger islands (Tortola and Virgin Gorda) have mongooses present. All islands have low impacts from storm surge due to the average elevation of these islands.

Together, the extirpated and low-resiliency populations represent 94 percent of the range. Given the reduction in historical range, the species' redundancy has been reduced from historical condition, and representation (and adaptive capacity) has also been reduced. The current resiliency, redundancy, and representation indicate that the magnitude and scale of threats are currently impacting the Lesser Virgin Islands skink such that it meets the Act's definition of an endangered species. Thus, after assessing the best available information, we determine that the Lesser Virgin Islands skink is in danger of extinction throughout all of its range. Because the threats are currently impacting the species such that it is in danger of extinction currently throughout all of its range, it does not meet the Act's definition of a threatened species.

Status Throughout a Significant Portion of Its Range—Lesser Virgin Islands Skink

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. We have determined that the Lesser Virgin Islands skink is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Lesser Virgin Islands skink warrants listing as endangered throughout all of its range, our determination does not conflict with the decision in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020), because that decision related to significant portion of the range analyses for species that warrant

listing as threatened, not endangered, throughout all of their range.

Determination of Status—Lesser Virgin Islands Skink

Based on the best scientific and commercial data available, we determine that the Lesser Virgin Islands skink meets the Act's definition of an endangered species. Therefore, we propose to list the Lesser Virgin Islands skink as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

Status Throughout All of Its Range—Virgin Islands Bronze Skink

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we assessed the status of the Virgin Islands bronze skink to determine if it meets the Act's definition of an endangered species. The Virgin Islands bronze skink was historically known to occur on nine islands within the USVI and BVI. Four populations, making up approximately 96 percent of the species' historical range, are considered likely extirpated, including St. Thomas, the largest island in the USVI. Currently, three of the nine islands are extant, all within the USVI; there are no known extant populations occurring in BVI. The status of two populations (Capella Island and Salt Island) are currently unknown, primarily because recent surveys have not been conducted and very little information is known about these islands.

Of the three extant populations, two were assessed to have high resiliency while one was assessed to have low resiliency. Water Island, the largest island (489 ac (198 ha)) with an extant population, is currently occupied by nonnative predators (rats) and privately owned, and therefore has low resiliency. Buck Island and Turtledove Cay have high resiliency due to high levels of habitat protection and no current predator pressure, as nonnative predators were eradicated previously. Despite having two populations with high resiliency, the Virgin Islands bronze skink is vulnerable to catastrophic events, primarily due to the small size of the remaining extant islands (*i.e.*, Buck Island and Turtledove Cay being 22 and 32 ac (9 and 13 ha) in size, respectively). Representation (and adaptive capacity) has been greatly reduced due to the loss of historical range and remaining islands making up 4 percent of the current range.

Given the current resiliency, redundancy, and representation of the Virgin Islands bronze skink, the

magnitude and scale of threats are impacting the species such that it meets the Act's definition of an endangered species. Thus, after assessing the best available information, we determine that the Virgin Islands bronze skink is in danger of extinction throughout all of its range. Because the threats are currently impacting the species such that it is in danger of extinction currently throughout all of its range, it does not meet the Act's definition of a threatened species.

Status Throughout a Significant Portion of Its Range—Virgin Islands Bronze Skink

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. We have determined that the Virgin Islands bronze skink is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Virgin Islands bronze skink warrants listing as endangered throughout all of its range, our determination does not conflict with the decision in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020), because that decision related to significant portion of the range analyses for species that warrant listing as threatened, not endangered, throughout all of their range.

Determination of Status—Virgin Islands Bronze Skink

Based on the best scientific and commercial data available, we determine that the Virgin Islands bronze skink meets the Act's definition of an endangered species. Therefore, we propose to list the Virgin Islands bronze skink as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

Status Throughout All of Its Range—Greater St. Croix Skink

When evaluating the possibility of extinction, we attempted to minimize the possibility of either (1) prematurely determining that the species is extinct where individuals exist but remain undetected, or (2) assuming the species is extant when extinction has already occurred. Our determinations of whether the best scientific and commercial data available indicate that a species is extinct included an analysis of the following criteria: detectability of the species, adequacy of survey efforts, and time since last detection. All three criteria require taking into account

applicable aspects of the species' life history. Other lines of evidence may also support the determination and be included in our analysis.

In conducting our analyses of whether the Greater St. Croix skink is extinct, we considered and thoroughly evaluated the best scientific and commercial data available. We reviewed the information available in our files, and other available published and unpublished information. These evaluations include information from recognized experts, Federal and State governments, academic institutions, and private entities.

The Greater St. Croix skink was a small lizard known to occur in St. Croix and Green Cay. The skink's small size, cryptic coloration, and secretive behavior could prevent detection; however, considerable effort to observe other herpetofauna by qualified researchers has been invested across several decades on St. Croix and Green Cay, where the species once occurred. These multiple survey efforts, while not targeted at skinks, did overlap with potential skink habitat, and would most likely have encountered skinks if they were still extant. The loss of the Greater St. Croix skink can be attributed to predation by the mongoose. No skinks have been observed on St. Croix for over a century, and none have been observed on Green Cay for nearly a quarter of a century. Based on the best scientific and commercial information available, it is highly unlikely that an individual could be extant but undetected. Therefore, we conclude that the Greater St. Croix skink is extinct. A detailed discussion of the basis for this finding can be found in appendix B-II of the SSA report (Service 2023, pp. 154–162) and other supporting documents (see **ADDRESSES**, above).

Determination of Status—Greater St. Croix Skink

Based on the best scientific and commercial data available, we determine that the Greater St. Croix skink is extinct and is therefore not warranted for listing at this time.

Status Throughout All of Its Range—Lesser St. Croix Skink

When evaluating the possibility of extinction, we attempted to minimize the possibility of either (1) prematurely determining that the species is extinct where individuals exist but remain undetected, or (2) assuming the species is extant when extinction has already occurred. Our determinations of whether the best scientific and commercial data available indicate that a species is extinct included an analysis

of the following criteria: detectability of the species, adequacy of survey efforts, and time since last detection. All three criteria require taking into account applicable aspects of the species' life history. Other lines of evidence may also support the determination and be included in our analysis.

In conducting our analyses of whether the Lesser St. Croix skink is extinct, we considered and thoroughly evaluated the best scientific and commercial data available. We reviewed the information available in our files and other available published and unpublished information. These evaluations include information from recognized experts, Federal and State governments, academic institutions, and private entities.

The Lesser St. Croix skink was a small lizard known from only one specimen collected in 1875. The skink's small size, cryptic coloration, and secretive behavior could lower detection probabilities; however, considerable effort to observe other herpetofauna by qualified researchers has been invested across several decades on St. Croix, where the species once occurred. These multiple survey efforts, while not targeted at skinks, did overlap with potential skink habitat, and would most likely have detected skinks if they were still extant. The loss of the Lesser St. Croix skink is mainly attributed to predation by the mongoose in addition to habitat loss. No skinks have been observed on St. Croix for over a century. Based on the best scientific and commercial information available, it is highly unlikely that an individual would be extant but undetected. Therefore, we conclude that the Lesser St. Croix skink is extinct. A detailed discussion of the basis for this finding can be found in appendix B-III of the SSA report (Service 2023, pp. 162–169) and other supporting documents (see **ADDRESSES**, above).

Determination of Status—Lesser St. Croix Skink

Based on the best scientific and commercial data available, we determine that the Lesser St. Croix skink is extinct and is therefore not warranted for listing at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition as a listed species, planning and implementation of recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public

awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies, including the Service, and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

The recovery planning process begins with development of a recovery outline made available to the public soon after a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions while a recovery plan is being developed. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) may be established to develop and implement recovery plans. The recovery planning process involves the identification of actions that are necessary to halt and reverse the species' decline by addressing the threats to its survival and recovery. The recovery plan identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened ("downlisting") or removal from protected status ("delisting"), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery outline, draft recovery plan, final recovery plan, and any revisions will be available on our website as they are completed (<https://www.fws.gov/program/endangered-species>) or from our Caribbean Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a

broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (e.g., restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If these species are listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the Commonwealth of Puerto Rico and Territory of the USVI would be eligible for Federal funds to implement management actions that promote the protection or recovery of the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink. Information on our grant programs that are available to aid species recovery can be found at: <https://www.fws.gov/service/financial-assistance>.

Although the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink are only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on these species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7 of the Act is titled, "Interagency Cooperation," and it mandates all Federal action agencies to use their existing authorities to further the conservation purposes of the Act and to ensure that their actions are not likely to jeopardize the continued existence of listed species or adversely modify critical habitat. Regulations implementing section 7 are codified at 50 CFR part 402.

Section 7(a)(2) states that each Federal action agency shall, in consultation with the Secretary, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Each Federal agency shall review its action at

the earliest possible time to determine whether it may affect listed species or critical habitat. If a determination is made that the action may affect listed species or critical habitat, formal consultation is required (50 CFR 402.14(a)), unless the Service concurs in writing that the action is not likely to adversely affect listed species or critical habitat. At the end of a formal consultation, the Service issues a biological opinion, containing its determination of whether the Federal action is likely to result in jeopardy or adverse modification.

In contrast, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action which *is likely* to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. Although the conference procedures are required only when an action is likely to result in jeopardy or adverse modification, action agencies may voluntarily confer with the Service on actions that may affect species proposed for listing or critical habitat proposed to be designated. In the event that the subject species are listed, or the relevant critical habitats are designated, a conference opinion may be adopted as a biological opinion and serve as compliance with section 7(a)(2).

Examples of discretionary actions for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink that may be subject to conference and consultation procedures under section 7 of the Act are management of Federal lands administered by the National Park Service and the U.S. Forest Service, as well as actions that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*)) or actions funded by Federal agencies such as the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency. Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation. Federal agencies should coordinate with the local Service Field Office (see **FOR FURTHER INFORMATION CONTACT**) with any specific questions on section 7 consultation and conference requirements.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply

to endangered wildlife. The prohibitions of section 9(a)(1) of the Act, codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit or to cause to be committed any of the following acts with regard to endangered wildlife: (1) import into, or export from, the United States; (2) take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) within the United States, within the territorial sea of the United States, or on the high seas; (3) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such wildlife that has been taken illegally; (4) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or (5) sell or offer for sale in interstate or foreign commerce. Certain exceptions to these prohibitions apply to employees or agents of the Service, the National Marine Fisheries Service, other Federal land management agencies, and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits for endangered wildlife are codified at 50 CFR 17.22, and general Service permitting regulations are codified at 50 CFR part 13. With regard to endangered wildlife, a permit may be issued: for scientific purposes, for enhancing the propagation or survival of the species, or for take incidental to otherwise lawful activities. The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

II. Protective Regulations Under Section 4(d) of the Act

Background

As discussed in Available Conservation Measures, section 9 of the Act provides a specific list of prohibitions for endangered species but does not provide these same prohibitions for threatened species. Instead, pursuant to section 4(d) of the Act, for any species listed as a threatened species, the Secretary must issue protective regulations that are “necessary and advisable to provide for the conservation of such species” (these are referred to as “4(d) rules”). Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to

provide for the conservation of species listed as threatened species. Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. With these two sentences in section 4(d), Congress delegated broad authority to the Secretary to determine what protections would be necessary and advisable to provide for the conservation of threatened species, and even broader authority to put in place any of the section 9 prohibitions, for a given species.

Courts have recognized the extent of the Secretary’s discretion under section 4(d) to develop regulations that are appropriate for the conservation of threatened species. For example, courts have upheld, as a valid exercise of agency authority, rules developed under section 4(d) that included limited prohibitions against takings (see *Alsea Valley Alliance v. Lautenbacher*, 2007 WL 2344927 (D. Or. 2007); *Washington Environmental Council v. National Marine Fisheries Service*, 2002 WL 511479 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana v. Verity*, 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, “once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [she] may choose to forbid both taking and importation but allow the transportation of such species” (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

Under our 4(d) authorities, we put in place protections intended to both prevent a threatened species from becoming an endangered species and to promote its recovery. We have two ways to put in place these protections for a threatened species: (1) we can issue a species-specific 4(d) rule (at 50 CFR 17.40–17.47 or 17.73–17.74), which would contain all of the protective regulations for that species; or (2) we can apply a “blanket rule” (for more information, see 89 FR 23919, April 5, 2024), which extends to threatened

species without a species-specific rule all of the prohibitions that apply to endangered species under section 9 (with certain exceptions applicable to threatened species).

Both “blanket rules” and species-specific 4(d) rules explain what is prohibited for a threatened species, thus making the activity unlawful without a permit or authorization under the Act for the prohibited activity unless otherwise excepted in the 4(d) rule (species-specific 4(d) rules may also include affirmative requirements). Section 4(d) rules are therefore directly related to what actions may require permits in the future. As discussed in Available Conservation Measures, permits may be issued for purposes described in our threatened species permitting regulations at 50 CFR 17.32 and 17.72, including for recovery actions, conservation benefit agreements (previously referred to as candidate conservation agreements with assurances and safe harbor agreements), or habitat conservation plans. We may also except otherwise prohibited activities through a 4(d) rule itself, in which case threatened species permits would not be required for those activities. For example, there are two categories of exceptions that we frequently include in 4(d) rules, and these are for otherwise prohibited acts or forms or amounts of “take” that are: (1) unavoidable while conducting beneficial actions for the species, or (2) considered inconsequential (de minimis) to the conservation of the species. For otherwise prohibited take activities that require section 10 permits, programmatic approaches—such as general conservation plans and template habitat conservation plans—may be available as another way for project proponents to comply with take prohibitions or requirements applicable to one or more species while reducing the time that would otherwise be associated with developing individual permit applications. In addition, the Service and project proponents can reduce the need for such permits by developing standardized conservation measures that avoid the risk of “take.”

The provisions of the Culebra skink’s proposed protective regulations under section 4(d) of the Act are one of many tools that we would use to promote the conservation of the Culebra skink. The proposed protective regulations would apply only if and when we make final the listing of the Culebra skink as a threatened species. Nothing in 4(d) rules changes in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability

of the Service to enter into partnerships for the management and protection of the Culebra skink.

As mentioned previously in Available Conservation Measures, section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, even before the listing of any species or the designation of its critical habitat is finalized, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. These requirements are the same for a threatened species regardless of what is included in its 4(d) rule.

Section 7 consultation is required for Federal actions that “may affect” a listed species regardless of whether take caused by the activity is prohibited or excepted by a 4(d) rule (under application of a “blanket rule” or a species-specific 4(d) rule). For example, as with an endangered species, a Federal agency’s determination that an action is “not likely to adversely affect” a threatened species requires the Service’s written concurrence (50 CFR 402.13(c)). Similarly, if a Federal agency determines that an action is “likely to adversely affect” a threatened species, the action will require formal consultation with the Service and the formulation of a biological opinion (50 CFR 402.14(a)). Because consultation obligations and processes are unaffected by 4(d) rules, we may consider developing tools to streamline future intra-Service and inter-agency consultations for actions that result in forms of take that are not prohibited by the 4(d) rule (but that still require consultation). These tools may include consultation guidance, online consultation processes via the Service’s digital project planning tool (Information for Planning and Consultation; <https://ipac.ecosphere.fws.gov/>), template language for biological opinions, or programmatic consultations.

Provisions of the Proposed 4(d) Rule

Exercising the Secretary’s authority under section 4(d) of the Act, we have developed a proposed rule that is designed to address the Culebra skink’s conservation needs. As discussed

previously in Summary of Biological Status and Threats, we have concluded that the Culebra skink is likely to become in danger of extinction within the foreseeable future primarily due to nonnative predators and sea level rise. Section 4(d) requires the Secretary to issue such regulations as she deems necessary and advisable to provide for the conservation of each threatened species and authorizes the Secretary to include among those protective regulations any of the prohibitions that section 9(a)(1) of the Act prescribes for endangered species. We are not required to make a “necessary and advisable” determination when we apply or do not apply specific section 9 prohibitions to a threatened species (In re: Polar Bear Endangered Species Act Listing and 4(d) Rule Litigation, 818 F. Supp. 2d 214, 228 (D.D.C. 2011) (citing *Sweet Home Chapter of Communities for a Great Oregon v. Babbitt*, 1 F.3d 1, 8 (D.C. Cir. 1993), *rev’d on other grounds*, 515 U.S. 687 (1995))). Nevertheless, even though we are not required to make such a determination, we have chosen to be as transparent as possible and explain below why we find that, if finalized, the protections, prohibitions, and exceptions in this proposed rule as a whole satisfy the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the Culebra skink.

The protective regulations we are proposing for the Culebra skink incorporate prohibitions from section 9(a)(1) to address the threats to the species. The prohibitions of section 9(a)(1) of the Act, and implementing regulations codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit or to cause to be committed any of the following acts with regard to any endangered wildlife: (1) import into, or export from, the United States; (2) take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) within the United States, within the territorial sea of the United States, or on the high seas; (3) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such wildlife that has been taken illegally; (4) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or (5) sell or offer for sale in interstate or foreign commerce. This protective regulation includes all of these prohibitions for the

Culebra skink because the Culebra skink is at risk of extinction within the foreseeable future, and putting these prohibitions in place will help to prevent further declines, preserve the species’ remaining populations, and decrease potential synergistic, negative effects from other ongoing or future threats.

In particular, this proposed 4(d) rule would provide for the conservation of the Culebra skink by prohibiting the following activities, unless they fall within specific exceptions or are otherwise authorized or permitted: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce.

Under the Act, “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating take would help preserve the species’ remaining populations, slow their rate of decline, and decrease cumulative effects from other ongoing or future threats. Therefore, we propose to prohibit take of the Culebra skink, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

Exceptions to the prohibition on take would include all of the general exceptions to the prohibition on take of endangered wildlife as set forth in 50 CFR 17.21 and additional exceptions, as described below.

Despite these prohibitions regarding threatened species, we may under certain circumstances issue permits to carry out one or more otherwise-prohibited activities, including those described above. The regulations that govern permits for threatened wildlife state that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. These include permits issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act (50 CFR 17.32). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

In addition, to further the conservation of the species, any employee or agent of the Service, any other Federal land management agency, the National Marine Fisheries Service, a State conservation agency, or a federally recognized Tribe, who is designated by their agency or Tribe for such purposes, may, when acting in the course of their official duties, take threatened wildlife without a permit if such action is necessary to: (i) Aid a sick, injured, or orphaned specimen; or (ii) dispose of a dead specimen; or (iii) salvage a dead specimen that may be useful for scientific study; or (iv) remove specimens that constitute a demonstrable but nonimmediate threat to human safety, provided that the taking is done in a humane manner; the taking may involve killing or injuring only if it has not been reasonably possible to eliminate such threat by live-capturing and releasing the specimen unharmed, in an appropriate area.

We recognize the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist us in implementing all aspects of the Act. In this regard, section 6 of the Act provides that we must cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with us in accordance with section 6(c) of the Act, who is designated by their agency for such purposes, would be able to conduct activities designed to conserve the Culebra skink that may result in otherwise prohibited take without additional authorization.

The proposed 4(d) rule would also provide for the conservation of the species by allowing exceptions that incentivize conservation actions or that, while they may have some minimal level of take of the Culebra skink, are not expected to rise to the level that would have a negative impact (*i.e.*, would have only *de minimis* impacts) on the species' conservation. The proposed exceptions to these prohibitions include predator control or eradication efforts and habitat restoration efforts (described below) that are expected to have negligible impacts to the Culebra skink and its habitat:

(1) Eradication or control of nonnative species such as mongooses, rats, cats, pigs, goats, etc., is beneficial for skinks. Permanent eradication of nonnative species is typically most effective on small islands that do not have human development, as introductions (whether passive or intentional) happen often in the presence of humans. However, any activities intended to reduce or eliminate nonnative species will benefit the Culebra skink.

(2) Habitat management or restoration activities expected to provide a benefit to the Culebra skink and other sensitive species, including removal of nonnative, invasive plants. These activities must be coordinated with and reported to the Service in writing and approved the first time an individual or agency undertakes them or if there are planned changes to the activities.

We ask the public, particularly State agencies and other interested stakeholders that may be affected by the proposed 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that we could provide or use, respectively, to streamline the implementation of this proposed 4(d) rule (see Information Requested, above).

III. Critical Habitat Background

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, we designate a species' critical habitat concurrently with listing the species. Critical habitat is defined in section 3 of the Act as:

(1) 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

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats,

and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3(3) of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live-trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that each Federal action agency ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Rather, designation requires that, where a landowner requests Federal agency funding or authorization for an action that may affect an area designated as critical habitat, the Federal agency consult with the Service under section 7(a)(2) of the Act. If the action may affect the listed species itself (such as for occupied critical habitat), the Federal agency would have already been required to consult with the Service even absent the designation because of the requirement to ensure that the action is not likely to jeopardize the continued existence of the species. Even if the Service were to conclude after consultation that the proposed activity is likely to result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement "reasonable and prudent alternatives" to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied

by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(b)(2) of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas

that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act for the Puerto Rican skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink, or the proposed 4(d) rule for the Culebra skink. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define "physical or biological features essential to the conservation of the species" as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat

characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

Skinks require sufficient suitable habitat to support population needs such as reproductive success, as well as species needs to withstand stochastic and catastrophic events, as well as adaptive capacity to respond to future environmental change. At the individual level, skinks require suitable foraging, basking and shelter habitat to flourish during each life stage from birth to adulthood, and to successfully reproduce. These needs can be met by the following habitat components that are present in low elevation (below 500 m (0.31 mi)) natural (*i.e.*, forest, scrub/shrub, or herbaceous) habitats on the islands within the skinks' ranges: (1) trees, shrubs, bushes, ground cover/leaf litter, cactus, debris, rocks, and crevices; (2) basking locations; and (3) arthropods/insects as a food source. Suitable habitat types can vary, but must contain a substrate that provides refugia, presence of natural vegetation, areas that offer both canopied and

exposed sections for basking, and food resources.

Summary of Essential Physical or Biological Features

We derive the specific physical or biological features essential to the conservation of the four Caribbean skink species (presented in alphabetical order by species common name: Culebra skink, Lesser Virgin Islands skink, Puerto Rican skink, and Virgin Islands bronze skink) from studies of the species' habitat, ecology, and life history as described below. Additional information can be found in the SSA report (Service 2023, pp. 8–20; available on <https://www.regulations.gov> under Docket No. FWS–R4–ES–2024–0154). We have determined that the following physical or biological features are essential to the conservation of each of the skink species, as detailed below.

Culebra Skink

(1) Forest, shrub/scrub, and herbaceous habitat types below 500 m (0.31 mi) elevation on Culebra, Cayo Agua, Cayo Botella, Cayo Lobito, and Cayo Yerba.

(2) Sufficient, appropriate ground cover (including but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

Lesser Virgin Islands Skink

(1) Forest, shrub/scrub, and herbaceous habitat types on Hans Lollik Island, USVI.

(2) Sufficient, appropriate ground cover (including but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

Puerto Rican Skink

(1) Forest and shrub/scrub habitat types below 500 m (0.31 mi) elevation on mainland Puerto Rico and on Desecheo Island.

(2) Sufficient, appropriate ground cover (including but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

Virgin Islands Bronze Skink

(1) Forest, shrub/scrub, and herbaceous habitat types on Buck Island, Turtledove Cay, and Water Island, USVI.

(2) Sufficient, appropriate ground cover (including but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from

temperature extremes, sources of food, and areas for reproduction.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection.

The features essential to the conservation of these species may require special management considerations or protection to reduce threats from nonnative species, habitat loss and degradation, and sea level rise. Special management considerations or protection may be required within critical habitat areas to address these threats. Management activities that could ameliorate these threats include, but are not limited to restoration, protection, and conservation of the habitat and wildlife resources and plant communities. These management activities would protect the physical or biological features for the species and ensure protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are not currently proposing to designate any areas outside the geographical area occupied by the species because we have not identified any unoccupied areas that meet the definition of critical habitat that are essential to the conservation of the species.

Sources of data for these proposed critical habitat designations include information from PRDNER and the U.S. Virgin Islands Department of Planning and Natural Resources and reports from surveys throughout the species' ranges (Service 2023, entire). We have reviewed available information that pertains to the habitat requirements of these species. Sources of information on habitat requirements include surveys of

occupied sites and published peer-reviewed articles, agency reports, and data collected during monitoring efforts (Service 2023, entire).

For areas within the geographical area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) All islands, or for Puerto Rico and Culebra, all areas currently occupied by skinks based on surveys conducted from 2012 to present, using the population definition from the SSA report (Service 2023, p. 57). The timeframe for current was determined to be a 10-year window (since 2012, when analyses were performed in 2022) encompassing recent survey efforts; this timeframe is appropriate given the short lifespan of the species and their known responses to threats, such as nonnative predators. Populations are defined as single island units; however, for mainland Puerto Rico, multiple areas separated by substantial distance show similar levels of genetic differentiation to what we see between islands with the same species (Rivera et al. 2023, pp. 15–16). Therefore, on Puerto Rico we defined multiple populations of Puerto Rican skink (in addition to Desecheo Island).

(2) For Puerto Rico and Culebra, we included suitable habitat below 500-m elevation adjacent to known populations within 6-km diameter hexagons that were used in the Puerto Rico GAP analysis project (Gould et al. 2008, p. 91). Since skinks are habitat generalists, suitable habitat was defined using land cover classes from the Coastal Change Analysis Program 2010 high-resolution imagery for Puerto Rico, including mixed forest, shrub/scrub, and herbaceous vegetation classes (NOAA–OCM 2024a, unpaginated). We omitted all developed areas (including roads), cultivated crops, pasture/hay, and wetland areas.

(3) For USVI, we considered all islands with known skink populations. For Water Island, we included all suitable habitat, which was defined using land cover classes from the Coastal Change Analysis Program 2012 high-resolution imagery for the U.S. Virgin Islands, including all forest classes, shrub/scrub, and herbaceous vegetation classes (NOAA–OCM 2024b, unpaginated). We omitted all developed areas (including roads), cultivated crops, pasture/hay, and wetland areas. The timeframe for current was determined to be a 10-year window (since 2012, when analyses were performed in 2022) encompassing recent survey efforts; this timeframe is appropriate given the short lifespan of

the species and their known responses to threats, such as nonnative predators.

(4) We did not include areas in the BVI, as regulations prohibit the Service from designating critical habitat in non-U.S. areas.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for each of the skink species. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat.

Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We propose to designate as critical habitat lands that we have determined are occupied at the time of listing (*i.e.*, currently occupied) and that contain one or more of the physical or biological features that are essential to support life-history processes of the skink species. All units contain all of the identified physical or biological features and support multiple life-history processes.

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of

this document under Proposed Regulation Promulgation.

Proposed Critical Habitat Designation

Culebra Skink

We are proposing to designate approximately 5,648 ac (2,286 ha) in five units as critical habitat for the Culebra skink. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Culebra skink. The five areas we propose as critical habitat are: (1) Culebra Island Unit, (2) Cayo Botella Unit, (3) Cayo del Agua Unit, (4) Cayo Yerba Unit, and (5) Cayo Lobito Unit. Table 12 shows the proposed critical habitat units, the approximate area of each unit, and land ownership for each unit. All units are considered occupied by the species and contain all of the physical or biological features essential to the conservation of the species.

TABLE 12—PROPOSED CRITICAL HABITAT UNITS FOR THE CULEBRA SKINK
[Area estimates reflect all land within critical habitat unit boundaries.]

Critical habitat unit	Land ownership by type	Size of unit in acres (hectares)	Occupied?
CUL-1 Culebra Island	USFWS	609 (246)	Yes.
	Private	5,022 (2,032)	
CUL-2 Cayo Botella	USFWS	4 (2)	Yes.
CUL-3 Cayo del Agua	USFWS	3 (1)	Yes.
CUL-4 Cayo Yerba	USFWS	3 (1)	Yes.
CUL-5 Cayo Lobito	USFWS	7 (3)	Yes.
Total	5,648 (2,286)	

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Culebra skink, below.

Unit CUL-1: Culebra

Unit CUL-1 consists of 5,631 ac (2,279 ha) of Culebra Island, approximately 18 miles (29 km) east from the northeastern corner of Puerto Rico. The majority of this unit, 89 percent (5,022 ac (2,032 ha)), is composed of private land, while 11 percent (609 ac (246 ha)) is managed for conservation as part of the Culebra NWR (Service 2012a, entire). Less than 1 percent of the private areas is also managed for conservation by PLN, as the Cerro Feliz Natural Protected Area. The primary threat to the skink habitat in Unit CUL-1 is habitat destruction and modification (*e.g.*, urban development, including single family house construction, tourist development projects, and transportation) and predation from nonnative predators,

mainly cats and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit CUL-2: Cayo Botella

Unit CUL-2 consists of the entire Cayo Botella (4 ac (2 ha)), approximately 1 mile (1.6 km) from the northeastern coast of Culebra Island, and in between Isla Culebrita and Cayo Norte. Cayo Botella is managed for conservation as part of the Culebra NWR (Service 2012a, entire). Ongoing management activities include restoration, protection, and conservation of the habitat and wildlife resources and plant communities. Threats to the habitat in this unit are considered minimal since Cayo Botella is managed for conservation; it is closed to the general public, and there are currently no nonnative predators present.

Unit CUL-3: Cayo del Agua

Unit CUL-3 consists of the entire Cayo del Agua (3 ac (1 ha)), approximately 1 mile (1.6 km) from the west coast of Culebra Island and less than 1 mile (1.6 km) west from Cayo Luis Peña. Cayo del Agua is managed for conservation as part of the Culebra NWR (Service 2012a, entire). Ongoing management activities include restoration, protection, and conservation of the habitat and wildlife resources and plant communities. Threats to the habitat in this unit are considered minimal since Cayo del Agua is managed for conservation, it is closed to the general public, and no nonnative predators are currently present.

Unit CUL-4: Cayo Yerba

Unit CUL-4 consists of the entire Cayo Yerba (3 ac (1 ha)), approximately 2 miles (3 km) from the west coast of Culebra Island and less than 1 mile (1.6 km) northwest from Cayo del Agua (Unit CUL-3). Cayo Yerba is managed

for conservation as part of the Culebra NWR (Service 2012a, entire). Ongoing management activities include restoration, protection, and conservation of the habitat and wildlife resources and plant communities. Threats to the habitat in this unit are considered minimal since Cayo Yerba is managed for conservation, it is closed to the general public, and no nonnative predators are currently present.

Unit CUL-5: Cayo Lobito

Unit CUL-5 consists of the entire Cayo Lobito (7 ac (3 ha)), approximately

4 miles (6 km) from the northwest coast of Culebra Island and 3 miles (5 km) northwest from Cayo Yerba (Unit CUL-4). Cayo Lobito is managed for conservation as part of the Culebra NWR (Service 2012a, entire). Ongoing management activities include restoration, protection, and conservation of the habitat and wildlife resources and plant communities. Threats to the habitat in this unit are considered minimal since Cayo Lobito is managed for conservation, it is closed to the general public, and no nonnative predators are currently present.

Lesser Virgin Islands Skink

We are proposing one unit as critical habitat for the Lesser Virgin Islands skink. The critical habitat area we describe below constitutes our current best assessment of areas that meet the definition of critical habitat for the Lesser Virgin Islands skink. The area we propose as critical habitat is the Hans Lollik Island Unit. Table 13 shows the proposed critical habitat unit, the approximate area of the unit, and land ownership for the unit.

TABLE 13—PROPOSED CRITICAL HABITAT UNIT FOR THE LESSER VIRGIN ISLANDS SKINK

[Area estimate reflects all land within critical habitat unit boundaries.]

Critical habitat unit	Land ownership by type	Size of unit in acres (hectares)	Occupied?
LVIS-1 Hans Lollik Island	Private	477 (193)	Yes.

We present a brief description of the unit, and reasons why it meets the definition of critical habitat for the Lesser Virgin Islands skink, below.

Unit LVIS-1: Hans Lollik Island

Unit LVIS-1 consists of the entire Hans Lollik Island (477 (193 ha)), approximately 2 miles (3 km) north from the north-central coast of St. Thomas, USVI. Hans Lollik is a private island managed by Wild Ecology Group for conservation on behalf of its owners, and it contains all the physical and biological features for the species. Ongoing management activities include

trail maintenance and restoration of the habitat and wildlife resources. The primary threat to the skink habitat in Unit LVIS-1 is habitat modification from nonnative goats that degrade and damage the native vegetation. Although development has been proposed in the past (Platenberg and Valiulis 2018, p. 77), there is no current threat to habitat from development.

Puerto Rican Skink

We are proposing to designate approximately 143,947 ac (58,253 ha) in five units as critical habitat for the Puerto Rican skink. The critical habitat

areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Puerto Rican skink. The five areas we propose as critical habitat are: (1) Quebradillas Unit, (2) Florida Unit, (3) Southwest Unit, (4) Ponce Unit, and (5) Desecheo Island Unit. Table 11 shows the proposed critical habitat units, the approximate area of each unit and land ownership for each unit. All units are considered occupied by the species and contain all of the physical or biological features essential to the conservation of the species.

TABLE 11—PROPOSED CRITICAL HABITAT UNITS FOR THE PUERTO RICAN SKINK

[Area estimates reflect all land within critical habitat unit boundaries.]

Critical habitat unit	Land ownership by type	Size of unit in acres (hectares)	Occupied?
PR-1 Quebradillas, PR	Commonwealth (PRDNER)	2,382 (964)	Yes.
	Private	34,711 (14,047)	
PR-2 Florida, PR	U.S. Department of Agriculture	89 (36)	Yes.
	Commonwealth (PRDNER)	822 (333)	
	Private	31,841 (12,886)	
PR-3 Southwest, PR	Commonwealth (PRDNER)	6,913 (2,798)	Yes.
	Private	44,784 (18,123)	
PR-4 Ponce, PR	Commonwealth (PRDNER)	195 (79)	Yes.
	Private	21,855 (8,844)	
PR-5 Desecheo Island	USFWS	355 (144)	Yes.
Total	143,947 (58,253)	

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Puerto Rican skink, below.

Unit PR-1: Quebradillas

Unit PR-1 consists of 37,093 ac (15,011 ha) located in northwest Puerto Rico. This unit is bounded by the selected PR GAP hexagons (Gould et al.

2008, pp. 2–3) that contain forested areas along its north boundary within the Municipalities (east to west) of Camuy, Quebradillas, Isabela, and

Moca, and moving south towards San Sebastián, and east back to Camuy.

Most of this unit, 94 percent (34,711 ac), is composed of private land, while 6 percent (2,382 ac) is considered public and managed for conservation as the Guajataca Commonwealth Forest and the Lago Guajataca Wildlife Refuge. Approximately 2 percent of the private areas are also managed for conservation by Para La Naturaleza (PLN), the management unit of the Puerto Rico Conservation Trust, as the Montadero, Los García, and Terra Firme Natural Protected Areas.

The primary threat to the skink habitat in Unit PR-1 is habitat destruction and modification (e.g., urban development, including single family house construction, large-scale residential projects, tourist development projects, and transportation) and predation from nonnative predators, mainly mongooses, cats, and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit PR-2: Florida

Unit PR-2 consists of 32,752 ac (13,254 ha) located in north-central Puerto Rico. This unit is bounded by the selected PR GAP hexagons (Gould et al. 2008, pp. 2-3) that contain forested areas along its north boundary within the Municipalities (east to west) of Manatí, Barceloneta, and Arecibo, and moving south towards Utuado and Ciales, and east back to Manatí.

Most of this unit, 97 percent (31,841 ac), is composed of private land, while 3 percent (911 ac) is considered public and managed for conservation as the Cambalache Commonwealth Forest. Approximately 6 percent (1,851 ac) of the private areas are also managed for conservation by PLN as part of the Río Encantado Natural Protected Area. Less than 1 percent (89 ac) is managed by the USDA as the Manatí Research Area.

The primary threat to the skink habitat in Unit PR-2 is habitat destruction and modification (e.g., urban development, including single

family house construction, large-scale residential projects, tourist development projects, and transportation) and predation from nonnative predators, mainly mongooses, cats, and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit PR-3: Southwest

Unit PR-3 consists of 51,697 ac (20,921 ha) located in southwestern Puerto Rico. This unit is bounded by the selected PR GAP hexagons (Gould et al. 2008, pp. 2-3) that contain forested areas along its north boundary within the Municipalities (east to west) of Yauco, Maricao, Las Marías, Mayagüez, and San Germán, and moving south towards Cabo Rojo, Lajas, and Sabana Grande, and east back to Yauco.

Most of this unit, 87 percent (44,784 ac), is composed of private land, while 13 percent (6,913 ac) is considered public and managed for conservation as the Maricao and Susúa Commonwealth Forests. Approximately 1 percent (394 ac) of the private areas is also managed for conservation by PLN as part of the Río Maricao Natural Protected Area.

The primary threat to the skink habitat in Unit PR-3 is habitat destruction and modification (e.g., urban development, including single family house construction, large-scale residential projects, tourist development projects, and transportation) and predation from nonnative predators, mainly mongooses, cats, and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit PR-4: Ponce

Unit PR-4 consists of 22,050 ac (8,923 ha) located in south-central Puerto Rico. This unit is bounded by the selected PR GAP hexagons (Gould et al. 2008, pp. 2-3) that contain forested areas across its north and south boundary within the Municipalities (east to west) of Villalba, Juana Díaz, and Ponce.

Most of this unit, 99 percent (21,855 ac), is composed of private land, while

approximately 1 percent (195 ac) is considered public and managed for conservation as the Cerrillos and Toro Negro Commonwealth Forests. Less than 1 percent (86 ac) of a private area known as the Picaflor Conservation Easement is managed by PLN.

The primary threat to the skink habitat in Unit PR-4 is habitat destruction and modification (e.g., urban development, including single family house construction, large-scale residential projects, tourist development projects, and transportation) and predation from nonnative predators, mainly mongooses, cats, and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit PR-5: Desecheo Island

Unit PR-5 consists of the entire Desecheo Island (355 ac (144 ha)) in the Mona Passage, approximately 13 mi (21 km) from the closest point off the west coast of Puerto Rico. Desecheo Island is managed for conservation as a National Wildlife Refuge (Service 2012b, entire), and management activities include restoration, protection, and conservation of the habitat and wildlife resources and plant communities. Threats to the habitat in this unit are considered minimal since Desecheo is managed for conservation, it is closed to the general public, and no nonnative predators are currently present.

Virgin Islands Bronze Skink

We are proposing three units as critical habitat for the Virgin Islands bronze skink. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Virgin Islands bronze skink. The three areas we propose as critical habitat are: (1) Water Island Unit, (2) Buck Island Unit, and (3) Turtledove Cay Unit. Table 14 shows the proposed critical habitat units, the approximate area of each unit, and land ownership for each unit.

TABLE 14—PROPOSED CRITICAL HABITAT UNITS FOR THE VIRGIN ISLANDS BRONZE SKINK

[Area estimates reflect all land within critical habitat unit boundaries.]

Critical habitat unit	Land ownership by type	Size of unit in acres (hectares)	Occupied?
VBIS-1 Water Island	U.S. Territorial Government	93 (38)	Yes.
	Private	247 (100)	
VBIS-2 Buck Island	USFWS	48 (19)	Yes.
VBIS-3 Turtledove Cay	U.S. Territorial Government	4 (2)	Yes.

TABLE 14—PROPOSED CRITICAL HABITAT UNITS FOR THE VIRGIN ISLANDS BRONZE SKINK—Continued
 [Area estimates reflect all land within critical habitat unit boundaries.]

Critical habitat unit	Land ownership by type	Size of unit in acres (hectares)	Occupied?
Total	392 (159)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Virgin Islands bronze skink, below.

Unit VIBS-1: Water Island

Unit VIBS-1 consists of 340 ac (138 ha) of entire Water Island, less than 1 mile (1.6 km) south from the south-central coast of St. Thomas, USVI, and less than 1 mile (1.6 km) west of Hassel Island. Most of this unit, approximately 73 percent (247 ac (100 ha)), is composed of private land, of which approximately 12 percent (30 ac (12 ha)) is managed for conservation by The Nature Conservancy (Gould et al. 2010, entire). Approximately 93 acres (38 ha) are owned by the U.S. Territorial Government, but there is no specific information available to specify the management purpose of those areas. Water Island contains all the physical and biological features for the species. Threats to the skink habitat in Unit VIBS-1 may include habitat destruction and modification (e.g., urban development, including single family house construction, tourist development projects, and transportation) and predation from nonnative predators, mainly cats and rats. Special management considerations to manage nonnative predators and to protect the habitat from development may be required within this unit.

Unit VIBS-2: Buck Island

Unit VIBS-2 consists of the entire Buck Island (48 ac (19 ha)), approximately 2 miles (2 km) south from the southeastern coast of St. Thomas, USVI, and just west of Capella Island. Buck Island is managed for conservation as the Buck Island NWR (Service 2010, entire) and contains all the physical and biological features for the species. The principal management objective is to support migratory bird populations through habitat restoration and management (Service 2010, p. 16). Threats in this unit are considered minimal since Buck Island is managed for conservation and no nonnative predators are currently present.

Unit VIBS-3: Turtledove Cay

Unit VIBS-3 consists of the entire Turtledove Cay (4 ac (2 ha)), also locally known as Little Saba, approximately 3 miles (4.8 km) south from the southwestern coast of St. Thomas, USVI, and approximately 3 miles west from the southern coast of Water Island (Unit VIBS-1). Turtledove Cay is managed for conservation by the Territorial Government (Platenberg and Valiulis 2018, p. 81) and contains all the physical and biological features for the species. Threats in this unit are considered minimal since Turtledove Cay is managed for conservation and no nonnative predators are currently present.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species (50 CFR 402.02).

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to

jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during formal consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and
- (4) Would, in the Service Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinstate consultation. Reinitiation of consultation is required and shall be requested by the Federal agency, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) if a new species is listed or critical habitat designated that may be affected by the identified action. As provided in 50 CFR 402.16, the requirement to reinstate consultations

for new species listings or critical habitat designation does not apply to certain agency actions (e.g., land management plans issued by the Bureau of Land Management in certain circumstances).

Destruction or Adverse Modification of Critical Habitat

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires that our **Federal Register** documents “shall, to the maximum extent practicable also include a brief description and evaluation of those activities (whether public or private) which, in the opinion of the Secretary, if undertaken may adversely modify [critical] habitat, or may be affected by such designation.”

Activities that may be affected by designation of critical habitat for the Puerto Rican skink, the Culebra skink, the Lesser Virgin Islands skink, and the Virgin Islands bronze skink include those that may affect the physical or biological features of each of the species’ critical habitat (see Physical or Biological Features Essential to the Conservation of the Species).

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DoD), or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act Improvement Act of 1997 (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. No DoD lands with a completed INRMP are within the proposed critical habitat designations.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make

revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if the benefits of exclusion outweigh those of inclusion, so long as exclusion will not result in extinction of the species concerned. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (hereafter, the “2016 Policy”; 81 FR 7226, February 11, 2016), both of which were developed jointly with the National Marine Fisheries Service (NMFS). We also refer to a 2008 Department of the Interior Solicitor’s opinion entitled “The Secretary’s Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act” (M–37016).

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise discretion to exclude the area only if such exclusion would not result in the extinction of the species. In making the determination to exclude a particular area, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor. In our final rules, we explain any decision to exclude areas, as well as decisions not to exclude, to make clear the rational basis for our decision. We describe below the process that we use for taking into consideration each category of impacts and any initial analyses of the relevant impacts.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and its habitat within the areas

proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.”

The “without critical habitat” scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (e.g., under the Federal listing as well as other Federal, State, and local regulations). Therefore, the baseline represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.*, conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

Executive Order (E.O.) 14094 amends and reaffirms E.O. 12866 and E.O. 13563 and directs Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. Section 3(f) of E.O. 12866 identifies four criteria when a regulation is considered a “significant regulatory action” and requires additional analysis, review, and approval if met. The criterion relevant here is whether the designation of critical habitat may have an economic effect of \$200 million or more in any given year (section 3(f)(1) of E.O. 12866 as amended by E.O. 14094). Therefore,

our consideration of economic impacts uses a screening analysis to assess whether a designation of critical habitat for Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink is likely to exceed the threshold for a regulatory action significant under section 3(f)(1) of E.O. 12866, as amended by E.O. 14094.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink (IEc 2024, entire). We began by conducting a screening analysis of the proposed designation of critical habitat for each species in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographical areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.*, absent critical habitat designation) and includes any probable incremental economic impacts where land and water use may already be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation.

The presence of the listed species in occupied areas of critical habitat means that any destruction or adverse modification of those areas is also likely to jeopardize the continued existence of the species. Therefore, designating occupied areas as critical habitat typically causes little if any incremental impacts above and beyond the impacts of listing the species. As a result, we generally focus the screening analysis on areas of unoccupied critical habitat (unoccupied units or unoccupied areas within occupied units). Overall, the screening analysis assesses whether designation of critical habitat is likely to result in any additional management or conservation efforts that may incur incremental economic impacts. This screening analysis combined with the

information contained in our IEM constitute what we consider to be our economic analysis of the proposed critical habitat designation for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink; our economic analysis is summarized in the narrative below.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, and Virgin Islands bronze skink, first we identified, in the IEM dated April 16, 2024, probable incremental economic impacts associated with the following categories of activities: (1) Federal lands management (U.S. Fish and Wildlife Service National Wildlife Refuges); (2) roadway construction; (3) dam construction and maintenance; (4) unexploded ordnance management; (5) power grid repairs; and (6) commercial or residential development. We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. If we list the species, in areas where the Puerto Rican skink, Culebra skink, Lesser Virgin Islands skink, or Virgin Islands bronze skink is present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they authorize, fund, or carry out that may affect the species. If, when we list the species, we also finalize this proposed critical habitat designation, Federal agencies would be required to consider the effects of their actions on the designated habitat, and if the Federal action may affect critical habitat, our consultations would include an evaluation of measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we attempted to clarify the distinction between the effects that would result from the species being listed and those attributable to the critical habitat designation (*i.e.*, difference between the jeopardy and adverse modification standards) for the Puerto Rican skink's, Culebra skink's, Lesser Virgin Islands skink's, or Virgin Islands bronze skink's critical habitat.

Because the designation of critical habitat for each is being proposed concurrently with the listing, it has been our experience that it is more difficult to discern which conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. However, the following specific circumstances in this case help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would likely adversely affect the essential physical or biological features of occupied critical habitat are also likely to adversely affect the species itself. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for all four skink species totals approximately 150,464 ac (60,891 ha) in Puerto Rico and the U.S. Virgin Islands, including 143,947 ac (58,253 ha) in 5 units for the Puerto Rican skink, 5,648 ac (2,286 ha) in 5 units for the Culebra skink, 477 ac (193 ha) in 1 unit for the Lesser Virgin Islands skink, and 392 ac (159 ha) in 3 units for the Virgin Islands bronze skink. All lands within the proposed designation are considered occupied by each species. In the proposed areas, any actions that may affect the species or its habitat may also affect designated critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of each skink species. Therefore, only administrative costs are expected for the proposed critical habitat designations.

The entities most likely to incur incremental costs are parties to section 7 consultations, including Federal action agencies and, in some cases, third parties, most frequently State/Territory/Commonwealth agencies or municipalities. Activities we expect would be subject to consultations that may involve private entities as third parties are residential and commercial development that may occur on private lands. The probable incremental economic impacts of the skink critical habitat designations are expected to be

limited to additional administrative effort as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This limitation is due to the entirety of proposed critical habitat areas are considered to be occupied by the species. At approximately \$10,000 or less per consultation, the burden resulting from the designation of critical habitat for each of the four skink species, based on the anticipated annual number of consultations and associated consultation costs, is not expected to exceed \$259,000 (2024 dollars) in most years. The designation is unlikely to trigger additional requirements under Territory, Commonwealth, or local regulations. Thus, the annual administrative burden is relatively low.

Any future probable incremental economic impacts are not likely to exceed \$200 million in any single year, and impacts that are concentrated in any geographical area or sector are not likely as a result of this critical habitat designation. Additionally, as described in the economic analysis, the analysis is likely conservative, thus more likely to overstate than understate the actual number of future actions that will result in future consultations (IEc 2024, p. 13).

We are soliciting data and comments from the public on the economic analysis discussed above. During the development of a final designation, we will consider the information presented in the economic analysis and any additional information on economic impacts we receive during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under the authority of section 4(b)(2) of the Act, our implementing regulations at 50 CFR 424.19, and the 2016 Policy. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Consideration of National Security Impacts

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), then national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of “critical habitat.” However, we must

still consider impacts on national security, including homeland security, on those lands or areas not covered by section 4(a)(3)(B)(i) because section 4(b)(2) of the Act requires us to consider those impacts whenever we designate critical habitat. Accordingly, if DoD, the Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns, or we have otherwise identified national-security or homeland-security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

However, we cannot automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, we must conduct an exclusion analysis if the Federal requester provides information, including a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If we conduct an exclusion analysis because the agency provides a reasonably specific justification or because we decide to exercise the discretion to conduct an exclusion analysis, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national-security and homeland-security concerns in analyzing the benefits of exclusion.

In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for the Puerto Rican skink, the Culebra

skink, the Lesser Virgin Islands skink, and the Virgin Islands bronze skink are not owned or managed by the DoD or DHS. Therefore, we anticipate no impact on national security or homeland security.

Consideration of Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security discussed above. To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are approved and permitted conservation agreements or plans covering the species in the area—such as safe harbor agreements (SHAs), candidate conservation agreements with assurances (CCAAs) or “conservation benefit agreements” or “conservation agreements” (CBAs) (CBAs are a new type of agreement replacing SHAs and CCAAs in use after April 2024 (89 FR 26070; April 12, 2024)) or HCPs—or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation. We also consider any State, local, social, or other impacts that might occur because of the designation.

Summary of Exclusions Considered Under Section 4(b)(2) of the Act

In preparing this proposal, we have determined that no HCPs or other management plans for the Caribbean skink species currently exist, and the proposed designation does not include any Tribal lands or trust resources or any lands for which designation would have any economic or national security impacts. Therefore, we anticipate no impact on Tribal lands, partnerships, or HCPs from this proposed critical habitat designation and thus, as described above, we are not considering excluding any particular areas on the basis of the presence of conservation agreements or impacts to trust resources.

However, if through the public comment period we receive information that we determine indicates that there are potential economic, national security, or other relevant impacts from designating particular areas as critical habitat, then as part of developing the final designation of critical habitat, we will evaluate that information and may

conduct a discretionary exclusion analysis to determine whether to exclude those areas under the authority of section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19. If we receive a request for exclusion of a particular area and after evaluation of supporting information we do not exclude, we will fully describe our decision in the final rule for this action.

Required Determinations

Clarity of the Rule

We are required by E.O.s 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Regulatory Planning and Review (Executive Orders 12866, 13563, and 14094)

Executive Order (E.O.) 14094 amends and reaffirms the principles of E.O. 12866 and E.O. 13563 and states that regulatory analysis should facilitate agency efforts to develop regulations that serve the public interest, advance statutory objectives, and are consistent with E.O.s 12866, 13563, and 14094. Regulatory analysis, as practicable and appropriate, shall recognize distributive impacts and equity, to the extent permitted by law. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

E.O. 12866, as reaffirmed by E.O. 13563 and amended by E.O. 14094, provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will

review all significant rules. OIRA has determined that this rule is not significant.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; title II of Pub. L. 104–121, March 29, 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine whether potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Under the RFA, as amended, as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not

require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare statements of energy effects “to the extent permitted by law” when undertaking actions identified as significant energy actions (66 FR 28355; May 22, 2001). E.O. 13211 defines a “significant energy action” as an action that (i) meets the definition of a “significant regulatory action” under E.O. 12866, as amended by E.O. 14094; and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy. This rule is not a significant regulatory action under E.O. 12866 as amended by 14094 (88 FR 21879, April 11, 2023) as determined by OIRA, and the OIRA administrator has not designated this rule as a significant energy action.

Therefore, this action is not a significant energy action, and there is no requirement to prepare a statement of energy effects for this action.

Unfunded Mandates Reform Act
(2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following finding:

(1) This proposed rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or Tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions are not likely to destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for

an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this proposed rule would significantly or uniquely affect small governments because small governments will be affected only to the extent that any programs or agencies using or issuing Federal funds, Federal permits, or conducting other authorized activities must ensure that their actions will not adversely affect critical habitat. Therefore, a small government agency plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Puerto Rican skink, the Culebra skink, the Lesser Virgin Islands skink, and the Virgin Islands bronze skink in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for the Puerto Rican skink, the Culebra skink, the Lesser Virgin Islands skink, and the Virgin Islands bronze skink, and it concludes that, if adopted, this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this proposed critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the proposed rule does not have substantial direct effects either on the States, or on the relationship between the Federal Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the

Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the physical or biological features essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations and species-specific protective regulations promulgated concurrently with a decision to list or reclassify a species as threatened. The courts have upheld this position (e.g., *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (critical habitat); *Center for Biological Diversity v. U.S. Fish and Wildlife*

Service, 2005 WL 2000928 (N.D. Cal. Aug. 19, 2005) (concurrent 4(d) rule)).

Government-to-Government Relationship With Tribes

In accordance with the President’s memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951, May 4, 1994), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), the President’s memorandum of November 30, 2022 (Uniform Standards for Tribal Consultation; 87 FR 74479, December 5, 2022), and the Department of the Interior’s manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes and Alaska Native Corporations (ANCs) on a government-to-government basis. In accordance with Secretary’s Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. We have determined that no Tribal lands fall within the boundaries of the proposed critical habitat for the Puerto Rican skink, the Culebra skink, the Lesser Virgin Islands skink, and the Virgin Islands bronze skink, so no Tribal lands would be affected by the proposed designation.

References Cited

A complete list of references cited in this rulemaking is available on the

internet at <https://www.regulations.gov> and upon request from the Caribbean Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service’s Species Assessment Team and the Caribbean Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.11, amend paragraph (h) by adding entries for “Skink, Culebra”, “Skink, Lesser Virgin Islands”, “Skink, Puerto Rican”, and “Skink, Virgin Islands bronze” to the List of Endangered and Threatened Wildlife in alphabetical order under REPTILES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* * * * *				
REPTILES				
* * * * *				
Skink, Culebra	<i>Spondylurus culebrae</i>	Wherever found	T	[Federal Register citation when published as a final rule]; 50 CFR 17.42(t); ^{4d} 50 CFR 17.95(c). ^{CH}
Skink, Lesser Virgin Islands	<i>Spondylurus semitaeniatus</i> ...	Wherever found	E	[Federal Register citation when published as a final rule]; 50 CFR 17.95(c). ^{CH}
Skink, Puerto Rican	<i>Spondylurus nitidus</i>	Wherever found	E	[Federal Register citation when published as a final rule]; 50 CFR 17.95(c). ^{CH}
* * * * *				
Skink, Virgin Islands bronze ...	<i>Spondylurus sloanii</i>	Wherever found	E	[Federal Register citation when published as a final rule]; 50 CFR 17.95(c). ^{CH}
* * * * *				

■ 3. Amend § 17.42 by adding paragraph (t) to read as follows:

§ 17.42 Species-specific rules—reptiles.

* * * * *

(t) Culebra skink (*Spondylurus culebrae*).

(1) Prohibitions. The following prohibitions that apply to endangered wildlife also apply to Culebra skink. Except as provided under paragraph (t)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

- (i) Import or export, as set forth at § 17.21(b) for endangered wildlife.
- (ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.
- (iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.
- (iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) Exceptions from prohibitions. In regard to this species, you may:

- (i) Conduct activities as authorized by a permit under § 17.32.
- (ii) Take, as set forth at § 17.21(c)(2) through (c)(4) for endangered wildlife.
- (iii) Take, as set forth at § 17.31(b).
- (iv) Possess and engage in other acts with unlawfully taken wildlife, as set forth at § 17.21(d)(2) for endangered wildlife.

(v) Take incidental to an otherwise lawful action caused by:

(A) Activities to eradicate or control nonnative species such as mongooses, rats, cats, pigs, goats, etc.

(B) Habitat management or restoration activities expected to provide a benefit to the Culebra skink or other sensitive species, including removal of nonnative, invasive plants. These activities must be coordinated with and reported to the Service in writing and approved the first time an individual or agency undertakes them.

4. In § 17.95 amend paragraph (c) by adding entries for the “Culebra Skink (*Spondylurus culebrae*)”, “Lesser Virgin Islands Skink (*Spondylurus semitaeniatus*)”, “Puerto Rican Skink (*Spondylurus nitidus*)”, and “Virgin Islands Bronze Skink (*Spondylurus sloanii*)”, after the entry for “Loggerhead Sea Turtle, Northwest Atlantic Ocean DPS (*Caretta caretta*)”, to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(c) Reptiles

* * * * *

Culebra Skink (*Spondylurus culebrae*)

(1) Critical habitat units are depicted for Culebra Island and surrounding cays in Puerto Rico, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of Culebra skink consist of the following components:

- (i) Forest, shrub/scrub, and herbaceous habitat types below 500 m

(0.31 mi) elevation on Culebra, Cayo Agua, Cayo Botella, Cayo Lobito, and Cayo Yerba.

(ii) Sufficient, appropriate ground cover (including, but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

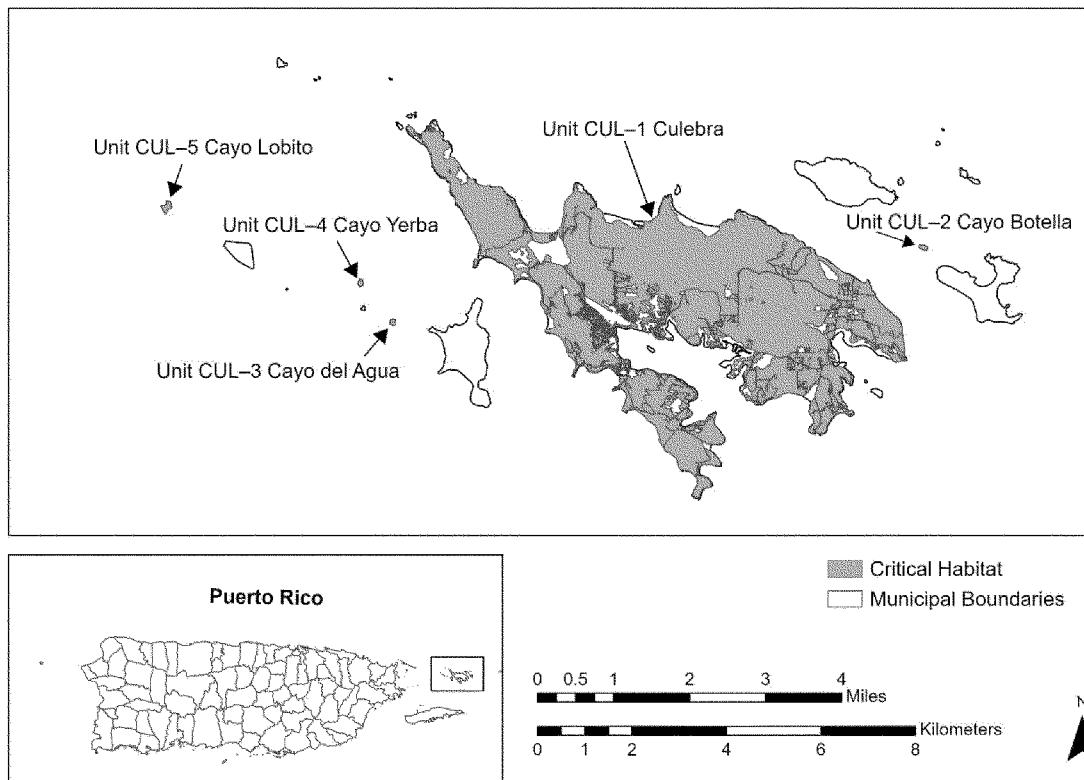
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

(4) Data layers defining map units were created by delineating habitats that contain at least one or more of the physical or biological features defined in paragraph (2) of this entry. We used the digital landcover layer for Puerto Rico created by the National Oceanographic and Atmospheric Administration 2010 Coastal Change Analysis Program 30m land cover dataset over color infrared imagery provided by the United States Army Corps of Engineers. The resulting critical habitat units were then mapped using Contiguous Albers North American Datum 83 coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation.

(5) Index map follows:

Figure 1 to Culebra skink (*Spondylurus culebrae*) paragraph (5)

Index Map: Culebra Skink Critical Habitat



(6) Unit CUL-1: Culebra, Puerto Rico.

(i) Unit CUL-1 consists of 5,631 ac (2,279 ha) of Culebra Island, approximately 18 miles (29 km) east from the northeastern corner of Puerto Rico. The majority of this unit, 89 percent (5,022 ac), is composed of private land, while 11 percent (609 ac) is managed for conservation as part of the Culebra National Wildlife Refuge.

Less than 1 percent of the private areas are also managed for conservation by Para La Naturaleza, as the Cerro Feliz Natural Protected Area.

(ii) Map of Unit CUL-1 is at paragraph (7)(ii) of this entry.

(7) Unit CUL-2: Cayo Botella; Culebra Island, Puerto Rico.

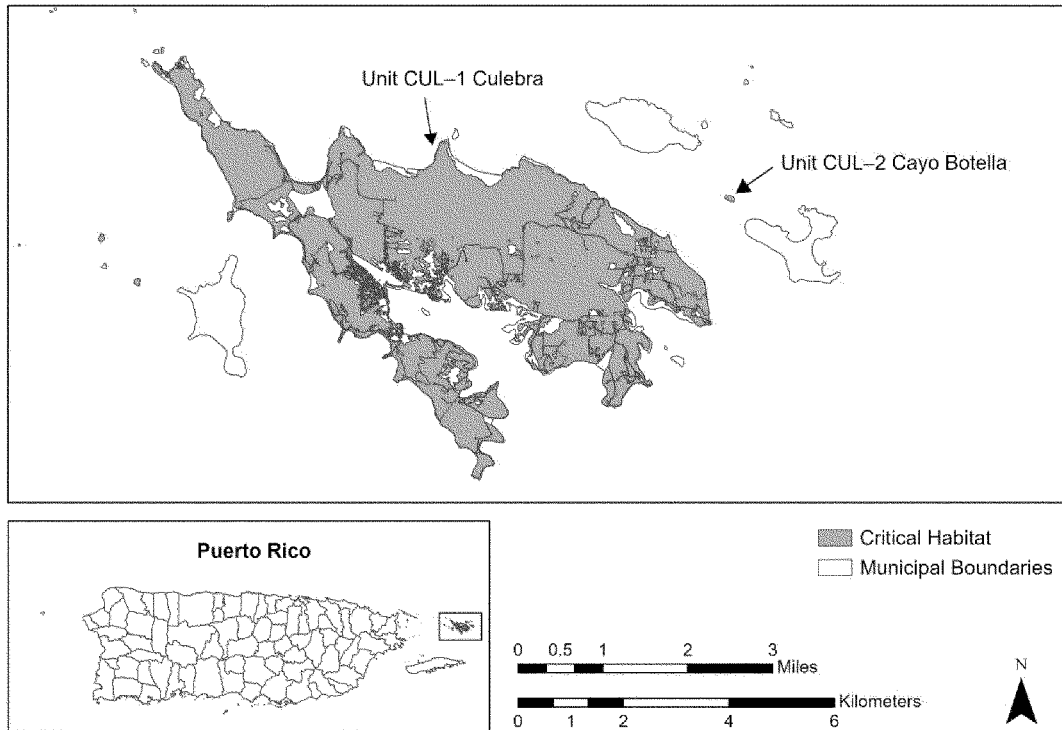
(i) Unit CUL-2 consists of the entire Cayo Botella (4 ac (2 ha)) approximately

1 mile (1.6 km) from the northeastern coast of Culebra Island, and in between Isla Culebrita and Cayo Norte. Cayo Botella is managed for conservation as part of the Culebra National Wildlife Refuge.

(ii) Map of Units CUL-1 and CUL-2 follows:

Figure 2 to Culebra skink (*Spondylurus culebrae*) paragraph (7)(ii)

Critical Habitat for Culebra Skink, Unit CUL-1 Culebra and Unit CUL-2 Cayo Botella, Culebra Island, Puerto Rico



(8) Unit CUL-3: Cayo del Agua; Culebra Island, Puerto Rico.

(i) Unit CUL-3 consists of the entire Cayo del Agua (3 ac (1 ha)), approximately 1 mile (1.6 km) from the western coast of Culebra Island and less than 1 mile (1.6 km) west from Cayo Luis Peña. Cayo del Agua is managed for conservation as part of the Culebra National Wildlife Refuge.

(ii) Map of Unit CUL-3 is at paragraph (10)(ii) of this entry.

(9) Unit CUL-4: Cayo Yerba; Culebra Island, Puerto Rico.

(i) Unit CUL-4 consists of the entire Cayo Yerba (3 ac (1 ha)), approximately 2 miles (3 km) from the western coast of Culebra Island and less than 1 mile (1.6 km) northwest from Cayo del Agua (Unit CUL-3). Cayo Yerba is managed for conservation as part of the Culebra National Wildlife Refuge.

(ii) Map of Unit CUL-4 is at paragraph (10)(ii) of this entry.

(10) Unit CUL-5: Cayo Lobito; Culebra Island, Puerto Rico.

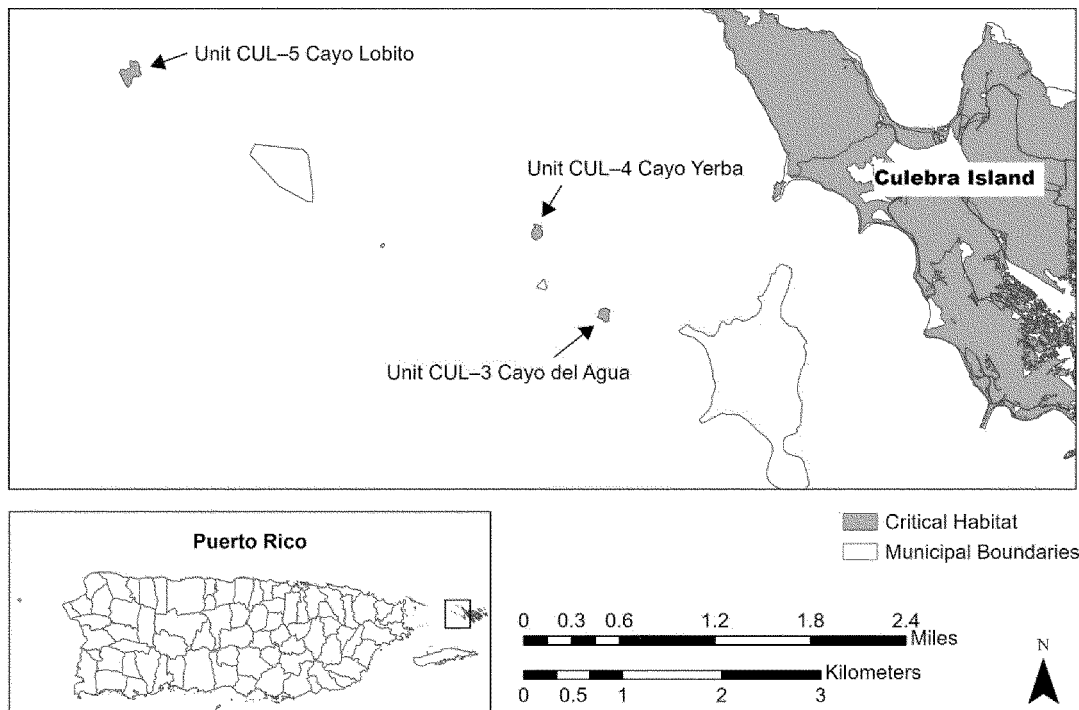
(i) Unit CUL-5 consists of the entire Cayo Lobito (7 ac (3 ha)), approximately

4 miles (6 km) from the northwestern coast of Culebra Island and 3 miles (5 km) northwest from Cayo Yerba (Unit CUL-4). Cayo Lobito is managed for conservation as part of the Culebra National Wildlife Refuge.

(ii) Map of Units CUL-3, CUL-4, and CUL-5 follows:

Figure 3 to Culebra skink (*Spondylurus culebrae*) paragraph (10)(ii)

**Critical Habitat for Culebra Skink, Unit CUL-3 Cayo del Agua,
Unit CUL-4 Cayo Yerba, and Unit CUL-5 Cayo Lobito,
Culebra Island, Puerto Rico**



**Lesser Virgin Islands Skink
(*Spondylurus semitaeniatus*)**

(1) A critical habitat unit is depicted for Hans Lollik Island, United States Virgin Islands, on the map in this entry.

(2) Within this area, the physical or biological features essential to the conservation of Lesser Virgin Islands skink consist of the following components:

(i) Forest, shrub/scrub, and herbaceous habitat types on Hans Lollik Island, United States Virgin Islands.

(ii) Sufficient, appropriate ground cover (including, but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

(4) Data layers defining map units were created by delineating habitats that contain at least one or more of the physical or biological features defined in paragraph (2) of this entry. We used the digital landcover layer for St. Thomas created by the National Oceanographic and Atmospheric Administration 2012 Coastal Change Analysis Program 30m land cover dataset over color infrared imagery provided by the United States Army Corps of Engineers. The resulting critical habitat unit was then mapped

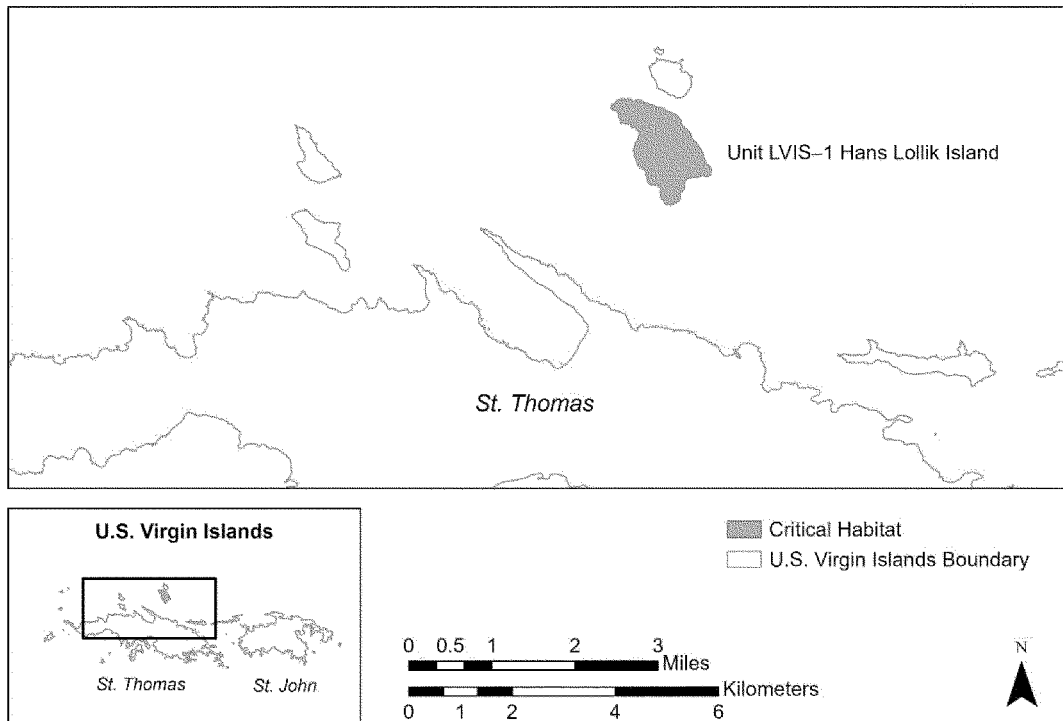
using Contiguous Albers North American Datum 83 coordinates. The map in this entry, as modified by any accompanying regulatory text, establishes the boundaries of the critical habitat designation.

(5) Unit LVIS-1: Hans Lollik Island, United States Virgin Islands.

(i) Unit LVIS-1 consists of the entire Hans Lollik Island (477 (193 ha)), approximately 2 miles (3 km) north from the north-central coast of St. Thomas, United States Virgin Islands. Hans Lollik is a private island managed by Wild Ecology Group for conservation on behalf of its owners.

(ii) Map of Unit LVIS-1 follows: Figure 1 to Lesser Virgin Islands Skink (*Spondylurus semitaeniatus*) paragraph (5)(ii)

Critical Habitat for the Lesser Virgin Island Skink, Unit LVIS-1 Hans Lollik Island, USVI



Puerto Rican Skink (*Spondylurus nitidus*)

(1) Critical habitat units are depicted for Desecheo Island and Puerto Rico, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Puerto Rican skink consist of the following components:

(i) Forest and shrub/scrub habitat types below 500 m (0.31 mi) elevation on mainland Puerto Rico and on Desecheo Island.

(ii) Sufficient, appropriate ground cover (including, but not limited to leaf litter, rocks, and vegetative debris) for

protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

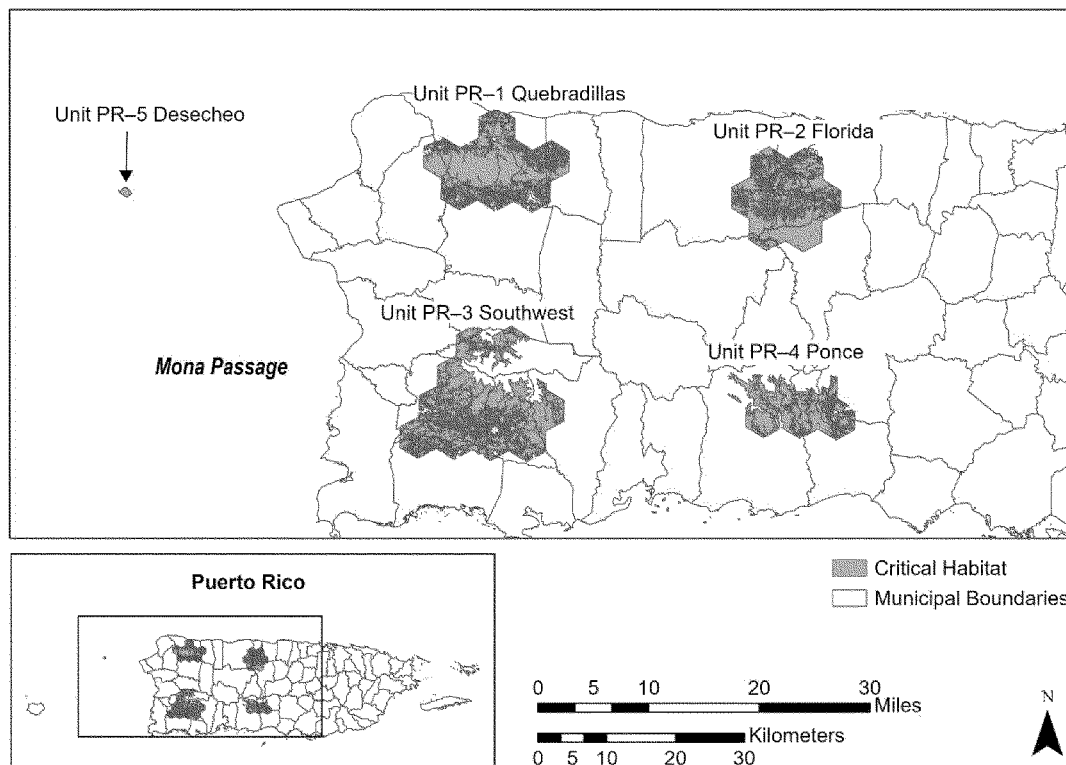
(4) Data layers defining map units were created by delineating habitats that contain at least one or more of the physical or biological features defined in paragraph (2) of this entry. We used the digital landcover layer for Puerto Rico created by the National

Oceanographic and Atmospheric Administration 2010 Coastal Change Analysis Program 30m land cover dataset over color infrared imagery provided by the United States Army Corps of Engineers. The resulting critical habitat units were then mapped using Contiguous Albers North American Datum 83 coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation.

(5) Index map follows:

Figure 1 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (5)

Index Map: Puerto Rican Skink Critical Habitat Units



(6) Unit PR-1: Quebradillas; Municipalities of Camuy, Isabela, Quebradillas, Moca, and San Sebastián, Puerto Rico.

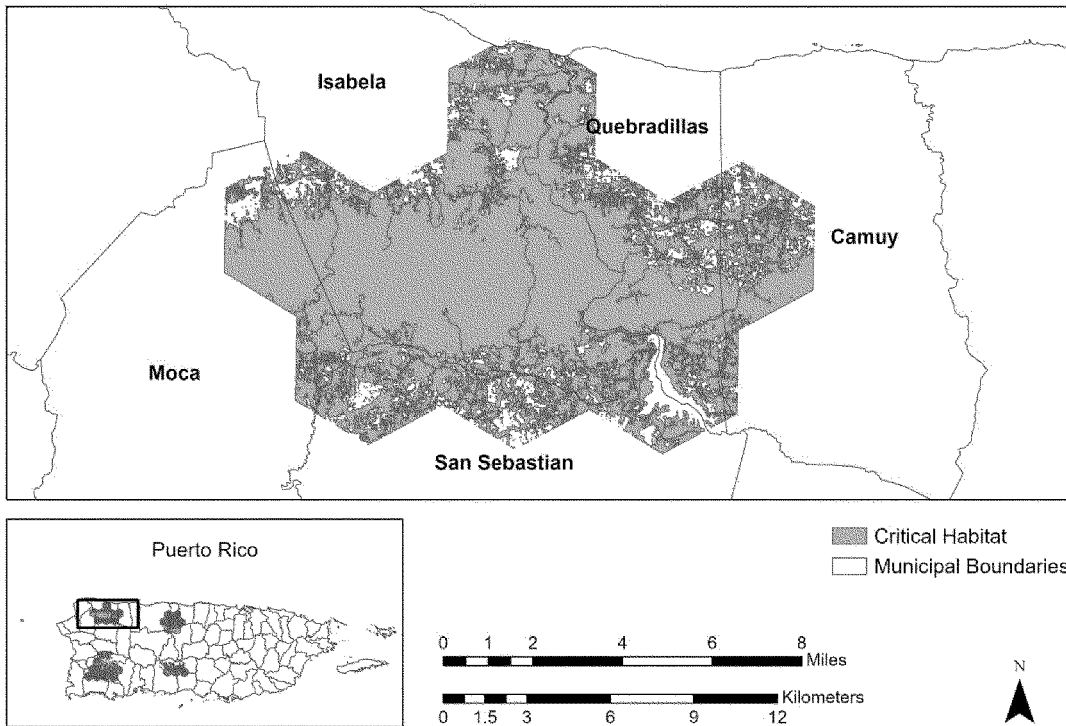
(i) Unit PR-1 consists of 37,093 ac (15,011 ha) located in northwestern Puerto Rico. This unit is bounded by selected Puerto Rican GAP hexagons that contain forested areas along its northern boundary within the

Municipalities (east to west) of Camuy, Quebradillas, Isabela, and Moca, and moving south towards San Sebastián, and east back to Camuy. Most of this unit, 94 percent (34,711 ac), is composed of private land, while 6 percent (2,382 ac) is public and managed for conservation as the Guajataca Commonwealth Forest and the Lago Guajataca Wildlife Refuge.

Approximately 2 percent of the private areas are also managed for conservation by Para La Naturaleza, Puerto Rico Conservation Trust, as the Montadero, Los García, and Terra Firme Natural Protected Areas.

(ii) Map of Unit PR-1 follows: Figure 2 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (6)(ii)

Critical Habitat for Puerto Rican Skink, Unit PR-1 Quebradillas, Municipalities of Camuy, Isabela, Quebradillas, Moca, and San Sebastian, Puerto Rico



(7) Unit PR-2: Florida; Municipalities of Arecibo, Barceloneta, Manati, Florida, Utuado, and Ciales, Puerto Rico.

(i) Unit PR-2 consists of 32,752 ac (13,254 ha) located in north-central Puerto Rico. This unit is bounded by selected Puerto Rico GAP hexagons that contain forested areas along its northern boundary within the Municipalities (east to west) of Manatí, Barceloneta,

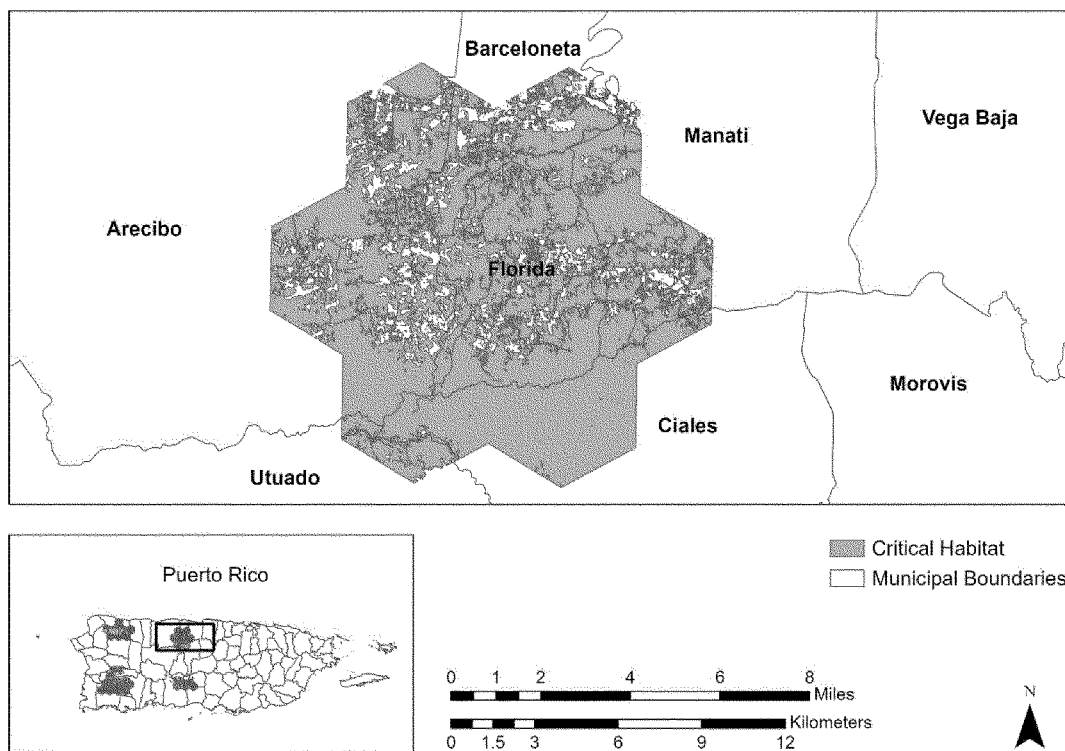
and Arecibo, and moving south towards Utuado and Ciales, and east back to Manatí. Most of this unit, 97 percent (31,841 ac), is composed of private land, while 3 percent (911 ac) is public and managed for conservation as the Cambalache Commonwealth Forest. Approximately 6 percent (1,851 ac) of the private areas are also managed for

conservation by Para La Naturaleza as part of the Río Encantado Natural Protected Area. Less than 1 percent (89 ac) is managed by the USDA as the Manatí Research Area.

(ii) Map of Unit PR-2 follows:

Figure 3 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (7)(ii)

Critical Habitat for Puerto Rican Skink, Unit PR-2 Florida, Municipalities of Arcibo, Barceloneta, Manati, Florida, Utuado, and Ciales, Puerto Rico



(8) Unit PR-3: Southwest; Municipalities of Lajas, San German, Sabana Grande, Maricao, Mayaguez, Las Marias, and Yauco, Puerto Rico.

(i) Unit PR-3 consists of 51,697 ac (20,921 ha) located in southwestern Puerto Rico. This unit is bounded by selected Puerto Rico GAP hexagons that contain forested areas along its northern boundary within the Municipalities

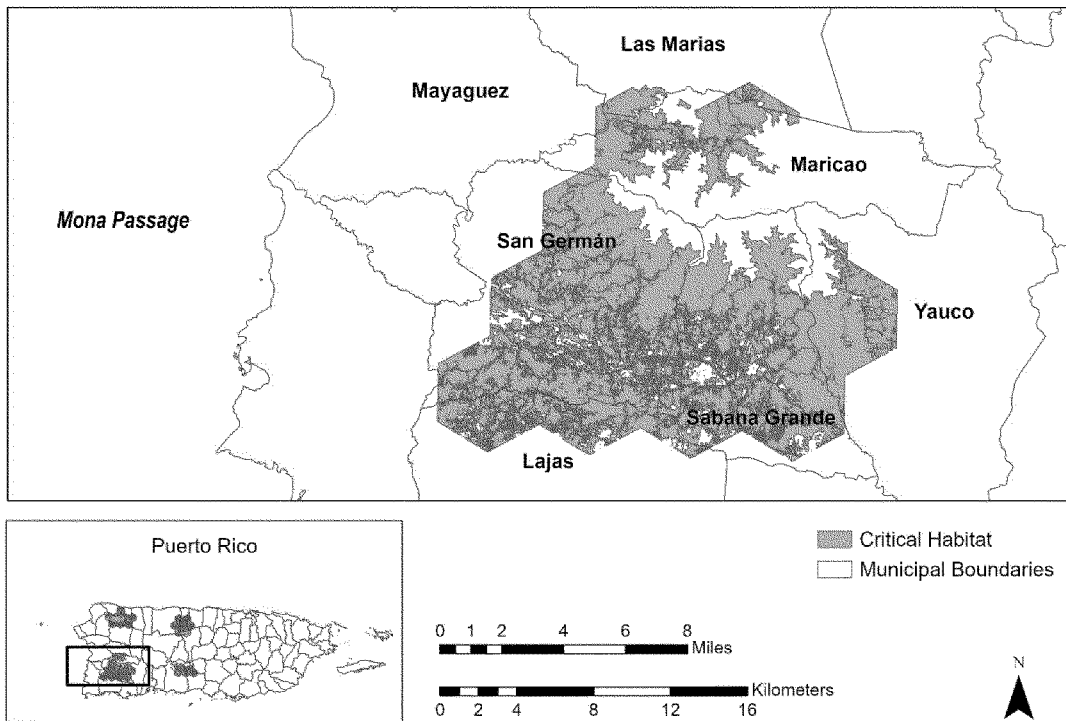
(east to west) of Yauco, Maricao, Las Marías, Mayagüez, and San Germán, and moving south towards Cabo Rojo, Lajas, and Sabana Grande, and east back to Yauco. Most of this unit, 87 percent (44,784 ac), is composed of private land, while 13 percent (6,913 ac) is public and managed for conservation as the Maricao and Susúa Commonwealth

Forests. Approximately 1 percent (394 ac) of the private areas are also managed for conservation by Para La Naturaleza as part of the Río Maricao Natural Protected Area.

(ii) Map of Unit PR-3 follows:

Figure 4 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (8)(ii)

Critical Habitat for Puerto Rican Skink, Unit PR-3 Southwest, Municipalities of Lajas, San Germán, Sabana Grande, Maricao, Mayaguez, Las Marias, and Yauco, Puerto Rico



(9) Unit PR-4: Ponce; Municipalities of Ponce, Juana Díaz, and Villalba, Puerto Rico.

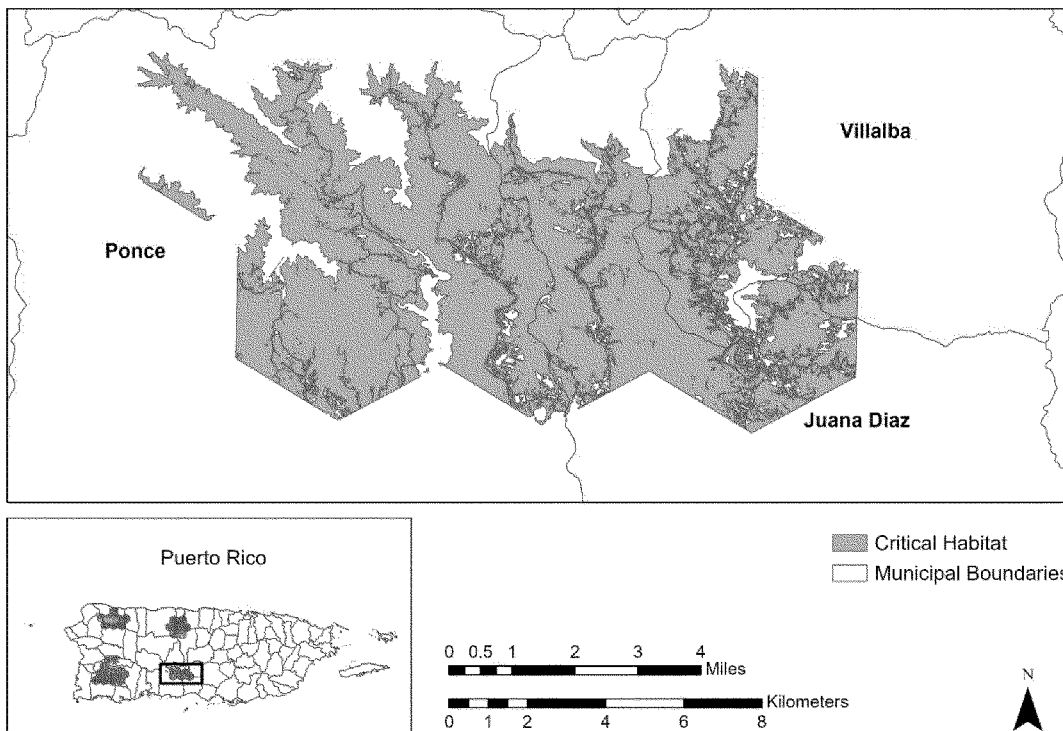
(i) Unit PR-4 consists of 22,050 ac (8,923 ha) located in south-central Puerto Rico. This unit is bounded by selected Puerto Rico GAP hexagons that contain forested areas across its northern and southern boundary within

the Municipalities (east to west) of Villalba, Juana Díaz, and Ponce. This proposed critical habitat includes all forested habitat within this boundary and does not include developed areas. Most of this unit, 99 percent (21,855 ac), is composed of private land, while approximately 1 percent (195 ac) is public and managed for conservation as

the Cerrillos and Toro Negro Commonwealth Forests. Less than 1 percent (86 ac) of a private area known as the Picaflor Conservation Easement is managed by Para La Naturaleza.

(ii) Map of Unit PR-4 follows: Figure 5 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (9)(ii)

Critical Habitat for Puerto Rican Skink, Unit PR-4 Ponce, Municipalities of Ponce, Juana Díaz, and Villalba, Puerto Rico



(10) Unit PR-5: Desecheo Island, Puerto Rico.

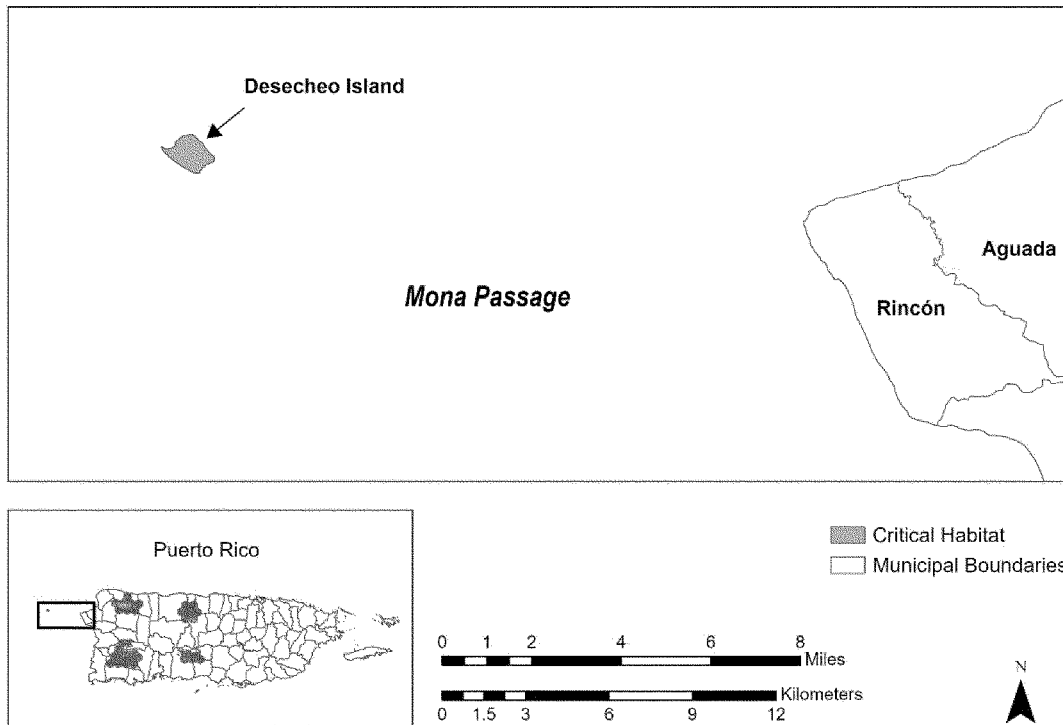
(i) Unit PR-5 consists of the entire Desecheo Island (355 ac (144 ha)) in the Mona Passage, approximately 13 miles

(21 km) from the closest point off the west coast of Puerto Rico. Desecheo Island is managed for conservation as a National Wildlife Refuge.

(ii) Map of Unit PR-5 follows:

Figure 6 to Puerto Rican skink (*Spondylurus nitidus*) paragraph (10)(ii)

Critical Habitat for Puerto Rican Skink, Unit PR-5 Desecheo, Desecheo Island, Puerto Rico



Virgin Islands Bronze Skink (*Spondylurus sloanii*)

(1) Critical habitat units are depicted for Water Island, Buck Island, and Turtledove Cay, U.S. Virgin Islands, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Virgin Islands bronze skink consist of the following components:

(i) Forest, shrub/scrub, and herbaceous habitat types on Buck Island, Turtledove Cay, and Water Island, USVI.

(ii) Sufficient, appropriate ground cover (including, but not limited to leaf litter, rocks, and vegetative debris) for protection from predators, refugia from temperature extremes, sources of food, and areas for reproduction.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

(4) Data layers defining map units were created by delineating habitats that contain at least one or more of the

physical or biological features defined in paragraph (2) of this entry. We used the digital landcover layer for St. Thomas created by the National Oceanographic and Atmospheric Administration 2012 Coastal Change Analysis Program 30m land cover dataset over color infrared imagery provided by the United States Army Corps of Engineers. The resulting critical habitat units were then mapped using Contiguous Albers North American Datum 83 coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation.

(5) Unit VIBS-1: Water Island, United States Virgin Islands.

(i) Unit VIBS-1 consists of 340 ac (138 ha) of Water Island, less than 1 mile (1.6 km) south from the south-central coast of St. Thomas, United States Virgin Islands, and less than 1 mile (1.6 km) west of Hassel Island. Most of this unit, approximately 73 percent (247 ac (100 ha)), is composed of private land, of which approximately 12 percent (30 ac (12 ha)) is managed for conservation by The Nature Conservancy.

Approximately 93 acres (38 ha) are owned by the Territorial Government.

(ii) Map of Unit VIBS-1 is at paragraph (7)(ii) of this entry.

(6) Unit VIBS-2: Buck Island, United States Virgin Islands.

(i) Unit VIBS-2 consists of the entire Buck Island (48 ac (19 ha)), approximately 2 miles (2 km) south from the southeastern coast of St. Thomas, United States Virgin Islands, and just west of Capella Island. Buck Island is managed for conservation as the Buck Island National Wildlife Refuge.

(ii) Map of Unit VIBS-2 is at paragraph (7)(ii) of this entry.

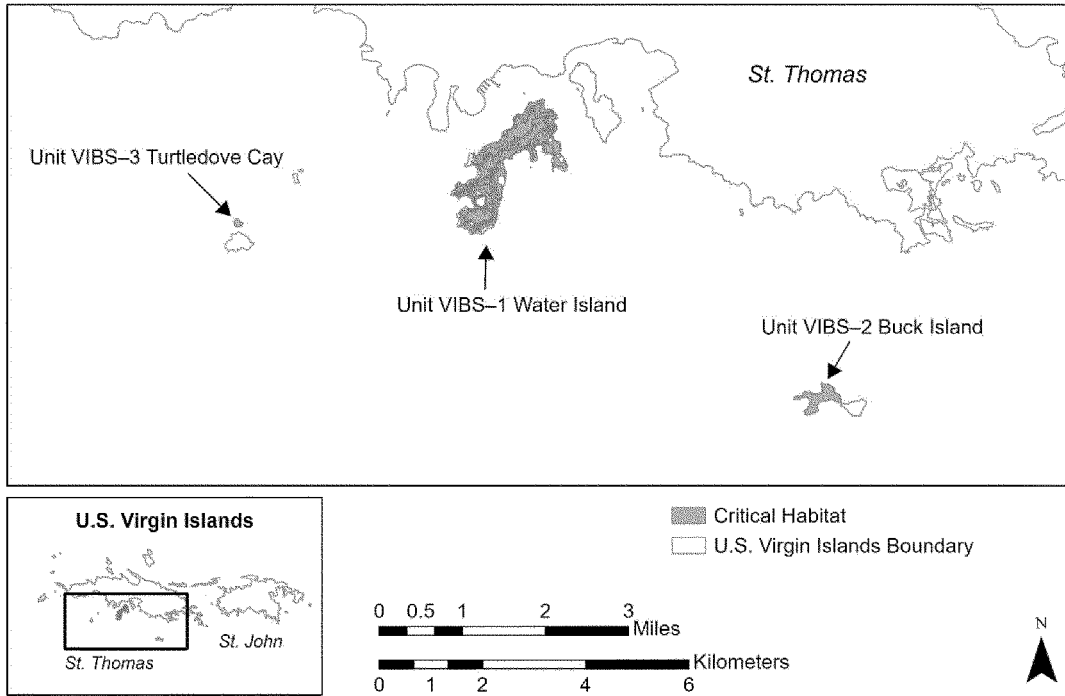
(7) Unit VIBS-3: Turtledove Cay, United States Virgin Islands.

(i) Unit VIBS-3 consists of the entire Turtledove Cay (4 ac (2 ha)), also locally known as Little Saba, approximately 3 miles (4.8 km) south from the southwestern coast of St. Thomas, United States Virgin Islands, and approximately 3 miles west from the southern coast of Water Island (Unit VIBS-1). Turtledove Cay is owned by the Territorial Government.

(ii) Map of Unit VIBS-1, Unit VIBS-2, and Unit VIBS-3 follows:

Figure 1 to Virgin Islands Bronze Skink (*Spondylurus sloanii*) paragraph (7)(ii)

Critical Habitat for Virgin Island Bronze Skink, Unit VIBS-1 Water Island, Unit VIBS-2 Buck Island, and Unit VIBS-3 Turtledove Cay, U.S. Virgin Islands



* * * * *

Martha Williams,
Director, U.S. Fish and Wildlife Service.
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