

(i) Bid opening for sealed bid acquisitions; or

(ii) Receipt of the special notification from the contracting officer (see 15.503(a)(2)) that identifies the apparently successful offeror for negotiated acquisitions, including—

(A) Partial set-asides and reserves of multiple-award IDIQ contracts; and

(B) Orders that are set-aside under an unrestricted multiple-award IDIQ contract (except for orders and blanket purchase agreements placed under a Federal Supply Schedule contract (see 8.405 and paragraph (d)(5) of this section)); or

(iii) Receipt of notification using other communication means when written notification is not required.

(2) A protest may be made orally if it is confirmed in writing and received by the contracting officer within the 5-day period or by letter postmarked no later than 1 business day after the oral protest.

(3) A protest may be made in writing if it is delivered to the contracting officer by hand, mail, facsimile, email, express or overnight delivery service.

(4) Except as provided in paragraph (d)(6) of this section, a protest filed by the contracting officer or SBA is always considered timely whether filed before or after award.

(5) A protest under a Multiple Award Schedule will be timely if received by SBA at any time prior to the expiration of the contract period, including renewals.

(6) A protest filed before bid opening, or notification to offerors of the selection of the apparent successful offeror, will be dismissed as premature by SBA.

* * * * *

■ 3. Amend section 19.306 by revising paragraph (e)(1)(ii) and adding paragraph (e)(1)(iii) to read as follows:

19.306 Protesting a firm’s status as a HUBZone small business concern.

* * * * *

- (e) * * *
- (1) * * *

(ii) For negotiated acquisitions, by the close of business on the fifth business day after notification by the contracting officer of the apparently successful offeror, including—

(A) Orders placed under multiple-award indefinite-delivery indefinite-quantity (IDIQ) contracts where the contracting officer requested rerepresentation for the order (see 13 CFR 126.801(d)(1)); and

(B) Orders set aside for HUBZone small businesses under multiple-award IDIQ contracts that are not partially or totally set aside or reserved for

HUBZone small business concerns (see 13 CFR 126.801(d)(1)), except for orders and blanket purchase agreements placed under a Federal Supply Schedule contract (see 8.405 and 19.302(d)(5)); or

(iii) Receipt of notification using other communication means when written notification is not required.

* * * * *

- 4. Amend section 19.307 by—
- a. Removing from paragraph (e)(1)(i) “(in sealed bid acquisitions); or” and adding “for sealed bid acquisitions; or” in its place;
- b. Revising paragraph (e)(1)(ii); and
- c. Adding paragraph (e)(1)(iii).

The revision reads as follows:

19.307 Protesting a firm’s status as a service-disabled veteran-owned small business concern.

* * * * *

- (e) * * *
- (1) * * *

(ii) To be received by close of business on the fifth business day after notification by the contracting officer of the apparently successful offeror for negotiated acquisitions, including—

(A) Orders placed under multiple-award IDIQ contracts where the contracting officer requested rerepresentation for the order (see 13 CFR 134.1004(a)(3)(ii)); and

(B) Orders set aside for service-disabled veteran-owned small businesses under multiple-award IDIQ contracts that are not partially or totally set aside or reserved for service-disabled veteran-owned small business concerns (see 13 CFR 134.1004(a)(3)(i)), except for orders and blanket purchase agreements placed under a Federal Supply Schedule contract (see 8.405 and 19.302(d)(5)); or

(iii) Receipt of notification using other communication means when written notification is not required.

* * * * *

- 5. Amend section 19.308 by—
 - a. Removing from paragraph (e)(1)(i) “(in sealed bid acquisitions); or” and adding “for sealed bid acquisitions; or” in its place;
 - b. Revising paragraph (e)(1)(ii); and
 - c. Adding paragraph (e)(1)(iii).
- The revision reads as follows:
- 19.308 Protesting a firm’s status as an economically disadvantaged women-owned small business concern or women-owned small business concern eligible under the Women-Owned Small Business Program.**

* * * * *

- (e) * * *
- (1) * * *

(ii) To be received by the close of business by the fifth business day after notification by the contracting officer of

the apparent successful offeror for negotiated acquisitions including—

(A) Orders placed under multiple-award IDIQ contracts where the contracting officer requested rerepresentation for the order (see 13 CFR 127.603(c)(1)); and

(B) Orders set aside for EDWOSB or WOSB concerns under multiple-award IDIQ contracts that are not partially or totally set aside or reserved for EDWOSB or WOSB concerns (see 13 CFR 127.603(c)(1)), except for orders and blanket purchase agreements placed under a Federal Supply Schedule contract (see 8.405 and 19.302(d)(5)); or

(iii) Receipt of notification using other communication means when written notification is not required.

* * * * *

[FR Doc. 2023–21317 Filed 10–2–23; 8:45 am]

BILLING CODE 6820–EP–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2023–0158; FF09E21000 FXES1111090FEDR 234]

RIN 1018–BG40

Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Short-Tailed Snake

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the short-tailed snake (*Lampropeltis extenuata*), a snake species from peninsular Florida, as a threatened species under the Endangered Species Act of 1973, as amended (Act). This determination also serves as our 12-month finding on a petition to list the short-tailed snake. After a review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the short-tailed snake as a threatened species with a rule issued under section 4(d) of the Act (“4(d) rule”). If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act’s protections to the species.

DATES: We will accept comments received or postmarked on or before December 4, 2023. 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 November 17, 2023.

ADDRESSES: *Written comments:* 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-2023-0158, 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-2023-0158, 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/florida-ecological-services/library> and at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0158.

FOR FURTHER INFORMATION CONTACT: Lourdes Mena, Classification and Recovery Division Manager, U.S. Fish and Wildlife Service, Florida Ecological Services Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL 32256-7517; telephone: 352-749-2462. 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. For a summary of the rule, please see the "rule summary document" in docket FWS-R4-ES-2023-0158 on <https://www.regulations.gov>.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act (16 U.S.C. 1531 *et seq.*), 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 short-tailed snake meets the Act's definition of a threatened species; therefore, we are proposing to list it as such. Listing a species as an endangered or threatened species 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 list the short-tailed snake as a threatened species with a rule issued under section 4(d) of 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 short-tailed snake is a threatened species due to the following threats: loss and degradation of habitat from urbanization and other historical and ongoing land use changes (such as agriculture and mining) and lack of habitat management (such as lack of prescribed fire in an ecosystem-appropriate interval). The effects of climate change are also likely to exacerbate the impact of other threats on the short-tailed snake.

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary), to the maximum extent prudent and determinable, to designate critical habitat concurrent with listing. 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.

We determined that designating critical habitat for the short-tailed snake is prudent but not determinable. We will coordinate with partners to obtain data sufficient to perform the required analysis of the impacts to inform our critical habitat designation. When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

Information Requested

We intend that any final action 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) The species' biology, range, 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 range, including distribution patterns and the locations of any additional populations of this species;

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

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(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 this species.

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

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

(4) The reasons why any habitat should or should not be determined to be critical habitat for the short-tailed snake as provided by section 4 of the Act, including physical or biological features within the areas that are occupied or specific areas outside the geographic areas that are occupied that are essential for the conservation of the species.

(5) Whether we should consider evaluating populations of the short-tailed snake as distinct population segments.

(6) Information on regulations that may be necessary and advisable to provide for the conservation of the short-tailed snake and that we can consider in developing a 4(d) rule for the species; in particular, we seek information concerning the extent to which we should include any of the Act's section 9 prohibitions in the 4(d) rule or whether we should consider any additional exceptions from the prohibitions in the 4(d) rule.

(7) Whether the measures outlined in the proposed 4(d) rule are necessary and advisable for the conservation of the short-tailed snake. We particularly seek comments concerning:

(a) Whether we should include a provision excepting incidental take resulting from habitat management activities that maintain or restore short-tailed snake habitat including implementation of prescribed fire, actions to reduce the threat of invasive species including feral hogs, or other activities that result in more suitable habitat conditions for the species.

(b) Whether we should include a provision excepting incidental take from silviculture practices and forestry activities that follow best management practices and how those practices should be described including spatial or temporal restrictions or deterrents, or additional best management practices.

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 we receive during the comment period as well as any information that may become available after the publication of this proposal. Based on the new information we receive (and, if relevant, any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the 4(d) rule if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions to include prohibiting additional activities if we conclude that those additional activities are not compatible with conservation of the species. 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 species. 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 July 11, 2012, the Service received a petition from the Center for Biological Diversity and six individual petitioners, requesting that we list 53 species of reptiles and amphibians, including the short-tailed snake, as endangered or threatened species under the Act (CBD 2012, entire). On September 18, 2015, we published in the **Federal Register** (80 FR 56423) a 90-day finding that the petition contained substantial information indicating that listing the short-tailed snake may be warranted. This document constitutes our 12-month finding on the July 11, 2012, petition to list the short-tailed snake under the Act.

Peer Review

A species status assessment (SSA) team prepared an SSA report for the short-tailed snake. The SSA team was composed of Service biologists and contracted assistance, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting 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, we solicited independent scientific review of the information contained in the short-tailed snake SSA report. We sent the SSA report to six 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 additional information, clarifications, and suggestions, including recommendations regarding the effects of temperature, impacts of feral hogs and silvicultural practices implemented without best management practices, and other editorial suggestions. No substantive changes to our analysis and conclusions within the SSA report were deemed necessary, and peer reviewer comments are addressed in version 1.0 of the SSA report.

1. Proposed Listing Determination

Background

A thorough species description and review of the taxonomy, habitat and life history, and historical and current range and distribution of the short-tailed snake is presented in the SSA report (Service 2021, pp. 5–8).

The short-tailed snake is a small colubrid (the most common family of snakes) with an average length ranging from 31–53 centimeters (cm) (12–21 inches (in)) that occurs in xeric uplands (e.g., sandhill, scrub, and xeric hammock) associated with central ridge formations in central peninsular Florida. Prior to 2000, the species was known to occur in 17 Florida counties. It has been documented in 11 of those counties since 2000.

Information regarding the short-tailed snake's natural history, life history, and habitat use is limited. The short-tailed snake is a fossorial species (*i.e.*, it lives primarily underground) that requires loose, well-drained, sandy soils associated with xeric uplands that include an open canopy of widely spaced trees and shrubs with ample areas of exposed soils. These habitat features allow the species to burrow and live underground. The short-tailed snake requires sufficient prey that includes small snakes, such as the Florida crowned snake (*Tantilla relicta*); the Florida worm lizard (*Rhineura floridana*); and skink species. Each of

the species' populations needs a sufficient number of individuals within habitat patches of adequate area and quality, and all the populations need connectivity for genetic exchange. Connectivity requires suitable habitat that is relatively unfragmented by roads and characterized by wide, undisrupted habitat corridors. Unfragmented habitat allows for long-distance dispersal over time (generations) that could contribute to the maintenance of gene flow across the range. A lack of periodic gene flow between populations can exacerbate impacts of various stressors and reduce the genetic diversity necessary for adaptation. Dispersal of individual short-tailed snakes is not well known; however, long-distance dispersal (greater than 5 kilometers (km) (3.1 miles (mi))) is likely rare (Enge 2021a, pers. comm.; Moler 2021, pers. comm.). Movement across areas of unsuitable habitat is thought to be limited to 1 km (0.6 mi).

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. In 2019, jointly with the National Marine Fisheries Service, the Service issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019). On the same day, the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 FR 44753; August 27, 2019).

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 now and in the foreseeable future.

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. The term “foreseeable future” extends only so far into the future as we can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define the foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’ biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

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 short-tailed snake 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 FWS–R4–ES–2023–0158 on <https://www.regulations.gov> and at <https://www.fws.gov/office/florida-ecological-services/library>.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species’ current and future condition, to assess the species’ overall viability and the risks to that viability. We analyze these factors both individually and cumulatively to determine the current condition of the species and project the future condition of the species under several plausible future scenarios.

Species Needs

We assessed the best available information to identify the physical and biological needs to support all life stages for the short-tailed snake. We identified the specific ecological needs for individuals to survive and reproduce, as well as needs to support viable populations (see table 1, below). Much of the life history and habitat needs of the short-tailed snake are unknown or assumed to be similar to genus or family characteristics. We determined the main elements essential to the survival and reproductive success of short-tailed snake individuals: sandy soils, cover, and adequate prey. Populations require the same elements as individuals, and connectivity between populations is important for breeding and dispersal, even though individuals are otherwise limited in longer distance movements.

TABLE 1—THE ECOLOGICAL REQUISITES FOR SURVIVAL AND REPRODUCTIVE SUCCESS OF SHORT-TAILED SNAKE INDIVIDUALS AND POPULATIONS

Life stage	Survival and reproductive requisites	Resource function (BFSD) ¹	Description
Egg, Juvenile, Adult	Sandy soils	All	Supports burrowing and fossorial characteristics. Provides refuge from predation, creates needed microclimate conditions; supports prey species. The type of habitat and cover used changes seasonally.
Juvenile, Adult	Cover	All	
Juvenile, Adult	Adequate prey	F	Adult ² : Small snakes (e.g., Florida crowned snake) and lizards. Juvenile ² : unknown, but likely invertebrates.
Adult	Connectivity between suitable habitats.	B, D	Supports genetic exchange.

¹ The function of each resource or circumstance is indicated (Breeding—B; Feeding—F; Sheltering—S; Dispersal—D).

² Juveniles are snakes less than 30 centimeters (cm) in length, and adults are those 30 cm or longer.

Factors Influencing Species Viability

The following discussion provides a summary of the primary factors that affect or may affect the current and future condition of the short-tailed snake. The best available information indicates that the loss and degradation of habitat from urbanization and other land use changes, such as agriculture and mining, is the primary threat to the species. Below, we address this primary threat and the individual and cumulative effects of potential threats, while also considering conservation measures that may provide protections to the species.

Urbanization

Human population growth in an area leads to increased commercial and residential development. Population growth in Florida is not evenly distributed, and predicted land use change from undeveloped (e.g., agriculture and natural areas) to developed is most significant in central Florida (Carr and Zwick 2016, p. 5). Between 1980 and 2020, all Florida counties within the known range of the short-tailed snake have experienced significant growth in human populations, with the largest increases occurring in Hernando, Lake, Gilchrist, and Orange Counties (331, 250, 212, and 201 percent, respectively), and this growth is expected to continue in the future, with increases ranging between 1 and 70 percent by 2045. The largest increases are anticipated in Highlands, Lake, Orange, and Pasco Counties within the species' range (70, 46, 39, and 32 percent, respectively) (Florida Office of Economic and Demographic Research (FEDR) 2020, entire).

Compared to historical conditions, Florida's xeric upland natural communities are extensively reduced, altered, and, in many areas, isolated. This is particularly evident in longleaf pine-dominated sandhills and scrub communities on the ridges of central Florida and the Gulf Coast of Florida (Kautz et al. 1993, p. 141; Enge et al. 2003, p. 11; Kautz et al. 2007, p. 21). In 1987, sandhills covered approximately 2.4 percent of Florida, which reflects an 88 percent loss from an estimated coverage of 20 percent in 1936. Scrub communities declined 59 percent in coverage during the same period (Kautz et al. 1993, p. 143). In a 14-year period from 1989 to 2003, 11 percent of sandhill and 10 percent of scrub natural communities were lost to urbanization or other land uses, with 4 percent of each of these habitats lost to agriculture (Kautz et al. 2007, p. 19). Future losses of sandhill and scrub habitats where the

short-tailed snake occurs are expected as Florida's human population continues to increase and development expands (Carr and Zwick 2016, entire).

Road construction and expansion and the resulting traffic associated with urbanization and development can cause direct mortality of short-tailed snakes. Although road mortality affects individuals and populations of short-tailed snakes adjacent to roads, individual short-tailed snakes typically move short distances, making it more likely that individuals immediately adjacent to roads would be susceptible to vehicular mortality, particularly during seasonal periods of high surface activity (Florida Fish and Wildlife Conservation Commission (FWC) 2011, p. 5; FWC 2013, p. 5). Most short-tailed snake populations are not adjacent to roadways, and given the species' mostly short-distance movements, effects of roads are likely limited. We primarily focus our analyses on the threat of habitat fragmentation from roads. Observed short-tailed snake mortality on roadways indicates that roads may act as a barrier to dispersal. Roads are prominent features of urbanized and developing areas and contribute to the isolation and fragmentation of snake populations even when road use is avoided by snakes. As urbanization and development increase, snakes may be more likely to attempt road crossings as pressures to disperse increase, habitat patch sizes decrease, and urban edge to habitat area ratios increase (Breining et al. 2004, 2011, and 2012, entire).

Urbanization also creates conditions favorable to the establishment and spread of nonnative, invasive species in areas adjacent to and nearby short-tailed snake habitat. Nonnative, invasive plants have the potential to alter and degrade natural communities and influence short-tailed snakes through habitat degradation. Sandhills in some areas of the species' range are impacted by the invasion of the nonnative cogon grass (*Imperata cylindrica*). Predation from nonnative species, such as red imported fire ants (*Solenopsis invicta*), feral hogs (*Sus scrofa*), and domestic dogs (*Canis lupus familiaris*) and cats (*Felis catus*), is known to cause direct mortality to reptiles and likely impacts short-tailed snake individuals or populations. Short-tailed snakes occur in areas of urbanization where suitable, connected habitat remains. However, we do not have information on whether the species can persist in urbanized areas where suitable habitat has been altered or information on the long-term trend of the species' occurrences in urbanized areas (FWC 2013, p. 5; Enge 2021a, pers. comm.).

In sum, urbanization impacts many wildlife species through the loss and fragmentation or degradation of habitat (including encroachment, succession, and invasive species), increased road mortality, increased human persecution, and increased predation by domestic animals (such as feral and free-roaming cats and dogs). While research is lacking to quantify the effects of urbanization on the short-tailed snake, continued urbanization is expected to continue to drive habitat loss and degradation in the species' range. Highly urbanized areas are not likely to support healthy populations of the short-tailed snake (Enge et al. 2003, p. 11; Enge 2016, p. 4; FWC 2019, p. 3); however, this species has been observed in subdivisions within xeric uplands that retain some natural ground cover components likely to support populations of prey species, such as the Florida crowned snake (Campbell and Moler 1992, p. 153; FWC 2013, p. 24; FWC 2019, p. 2). There are also records of short-tailed snake observations from roadways, carports, woodsheds, foundation excavations, driveways, yards (e.g., pools), and within a home in a developed area (Krysko et al. 2019, pp. 473–475; FWC 2020, unpaginated; Enge 2021b, pers. comm.).

Land Use and Management

Short-tailed snakes are unlikely to maintain viability in areas affected by the removal of native landcover, reduction of prey, or the alteration of soil characteristics (e.g., loose, sandy soil) required for fossorial species. Therefore, changes in land use and management impact short-tailed snakes at the individual level and, to some degree, at the population level as discussed further below.

Agriculture

Agriculture is a significant portion of Florida's economy, and agricultural land use includes cattle grazing, improved pasture, row cropping, and citrus and hay production. Between 1989 and 2003, the intensification of agricultural land use in central Florida was notable, particularly the conversion of natural and semi-natural land cover types to agriculture (Kautz et al. 2007, pp. 21–22). As of 2020, approximately 24 percent of Florida (3.9 million hectares (ha) (9.7 million acres (ac))) was in agricultural production, consisting of 47,400 commercial farms (e.g., cropland and rangeland) with an average farm size of 205 acres (USDA 2022, unpaginated). A large portion of the short-tailed snake's range includes areas of improved pasture and cropland/pasture landcover types. The level of

historical impacts of these cover types and associated land uses on the short-tailed snake are uncertain, but likely reduced the availability and connectivity of suitable upland habitat. The stressor of agriculture is expected to be ongoing and affect the species in the future, but to a lesser extent as much of the prime upland agricultural land has already been developed. Within the range of the short-tailed snake, conversion to cropland is projected to make up small proportion of the projected habitat loss (2 to 3 percent) (Service 2021, p. 64).

The high, dry natural communities needed by the short-tailed snake also are favorable for citrus production (Campbell and Moler 1992, p. 152). Approximately 262,000 ha (648,000 ac) of citrus are identified within the range of the short-tailed snake. While the presence of citrus groves results in habitat loss (Florida Natural Areas Inventory (FNAI) 2001, p. 2), it is possible that short-tailed snakes can persist in groves where pockets of natural cover and soil conditions are present or where higher quality habitat is adjacent. Additionally, overall citrus production has declined over the last 19 years in Florida, with citrus-bearing grove area declining from more than 750,000 acres in 2000 to around 381,000 acres in 2020, primarily due to losses associated with disease (Court et al. 2021, pp. 4, 23) and pressure from residential and commercial development. Citrus groves have been converted to residential and commercial development within the range of the species and the potential for future conversion of citrus land to development exists, as does the potential for citrus groves to lie fallow. Although we do not have information to spatially or temporally project the extent and magnitude of citrus grove conversion, the impact on the species is expected to be negative where short-tailed snakes occur in citrus groves that are converted to more urbanized landscapes.

Mining

Mining occurs in the range of the short-tailed snake and contributes to localized habitat fragmentation and loss. Phosphate, limestone, sand, gravel, and heavy minerals are mined extensively in Florida, and these practices are expected to continue. Mining activities include the removal of vegetation. The top 15 to 30 feet of earth (*e.g.*, overburden) is removed, followed by extraction of the mineral or ore-bearing layer that often contains a heavy sand component (Florida Department of Environmental Protection (FDEP) 2021,

unpaginated). Mining practices in general remove vegetation, alter soil profiles, and destroy habitat (Volk et al. 2017, p. 58), and areas where these practices occur no longer support the short-tailed snake. Within the range of the species, mining of sand and gravel is expected to continue into the future with some additional mining of limestone, phosphate, and heavy minerals in the short-tailed snake's range. Although mining may affect the habitat and individuals or populations of short-tailed snake, the loss of suitable habitat due to mining practices rangewide is expected to be limited (1 to 2 percent of expected suitable habitat loss).

While sand mining is likely to continue to increase with urbanization (sand is the principal component in concrete and glass building materials), expansion of sand mining in some counties (*e.g.*, Lake County) is restricted (Beiser 2019, p. 3; Silvas 2021, unpaginated). In addition, the Green Swamp area within Polk and Lake Counties is designated as an "Area of Critical State Concern," a designation that provides protections to valuable hydrologic functions in the area (FDEP 2020, unpaginated). Phosphate mines occupy more than 182,108 ha (450,000 ac) within the State, and phosphate mining occurs on the margin of the known range of the short-tailed snake, with the largest phosphate mines within the short-tailed snake's range occurring in Polk and Hillsborough Counties. Although we do not have information that mining practices have resulted in the extirpation of short-tailed snake occurrences, areas within the short-tailed snake's range that have been mined using earth removal techniques do not meet the species' life-history requirements and are not expected to support the species.

Silviculture

Many areas of natural and planted pine and hardwood forests in Florida are managed for the production of a wide variety of forest products. The State has approximately 7 million ha (17 million ac) of forestland, representing 50 percent of its total land area; approximately two-thirds of these forestlands are in private ownership (Florida Department of Agriculture and Consumer Services (FDACS) 2021, p. 8). Forestlands managed for timber and other forest products are most typically represented by pine plantations (*e.g.*, pineland cover type). A comparison of pineland cover type between 1989 and 2003 shows a loss of some pineland areas to urbanization but otherwise minimal change in overall extent (Kautz

et al. 2007, pp. 18–19, 22). Projected future increases in silvicultural land uses are expected to impact an additional 2,100 ha (5,200 ac) of short-tailed snake habitat as calculated using data derived from the FOREcasting SCENarios of Land Use Change model (FORE-SCE; described in chapter 5 of the SSA report (Service 2021, pp. 58–60)).

Little is known about the impacts of silvicultural activities (*e.g.*, thinning, clear cuts, site treatments, selected tree species, tree densities, and rotation length) on the short-tailed snake. Typically, forest management practices in working forests incorporate best management practices. Although some management activities may cause short-term habitat degradation, many management regimes may also enhance short-tailed snake habitat (*e.g.* long rotation, frequent fire return intervals).

Habitat Management

Habitat management practices incompatible with the short-tailed snake's needs include absent or infrequent fire management; mechanical activities that disturb soil; and management objectives that favor heavy shrub layers, closed canopy conditions, or excessive leaf litter accumulations. These activities have the potential to alter or degrade short-tailed snake habitat. The best available information indicates that these threats are acting at the population level and impacting the overall species (Service 2021, pp. 30–32).

Effects of Climate Change

The primary climate-related threat to the short-tailed snake is alteration and loss of habitat. Sea level rise in coastal areas will displace the human population to higher elevation areas. This displacement will potentially exacerbate habitat destruction for upland species, such as the short-tailed snake, through further urbanization and development.

Vegetation communities representative of short-tailed snake habitat (*e.g.*, sandhill, scrub, and xeric hammock) are expected to respond to rising temperatures, variable precipitation patterns, and subsequent alteration to fire regimes with a shift in natural community structure over time (U.S. Federal Government 2021, unpaginated). Additionally, there likely will be a more limited burn window for fire management due to rising temperatures and declining fuel moisture, particularly during the growing season (Kupfer et al. 2020, pp. 774–775). A more limited burn window may result in less prescribed fire

(habitat management) implemented in short-tailed snake habitat, leading to detrimental succession and more closed canopy and accumulated leaf litter conditions.

Natural fire return intervals associated with short-tailed snake habitat vary among natural community types, with the fire frequency in intact sandhill communities in Florida ranging between 1 and 3 years (FNAI 2010, pp. 9, 47). The fire return frequency in scrub natural community variants (*e.g.*, oak scrub, rosemary scrub, and sand pine scrub) ranges between 3 and 70 years with the longer intervals being associated with sand pine scrub (FNAI 2010, pp. 9, 51). In the absence of naturally occurring fires, active habitat management actions (such as the application of prescribed fire, mechanical vegetation management, and herbicide use) are necessary for the restoration, maintenance, and conservation of these communities. In sandhill communities, the germination and/or flowering of fire-dependent plant species (*e.g.*, longleaf pine, wiregrass) would be impacted by the changes in fire frequency and timing (Shappell and Koontz 2015, p. 351; Baruzzi et al. 2021, p. 7). Additionally, a reduction or lack of prescribed fire as a result of a reduced burn window coupled with increased evapotranspiration rates from increased temperatures could lead to excessive accumulations of fuel and result in more frequent and intense wildfires. Direct mortality from high-intensity fires in scrub habitat are a concern of species' experts (Enge 2021a, pers. comm.); high-intensity fires could become more prevalent with the expected effects of climate change.

Rising temperatures and shifting precipitation patterns can alter short-tailed snake habitat independent of alterations to the fire regime. Drought and heat stress caused by increased temperatures can promote insect outbreaks and plant mortality. In pine communities, such as sandhills, higher winter air temperatures promote overwintering success in southern pine beetle larvae, and higher annual air temperatures can result in more generations of the southern pine beetle per year (Hain et al. 2011, pp. 16–17). Additionally, severe drought stress reduces resin production in coniferous trees and greatly increases the susceptibility of trees to beetle infestation. Nonnative, invasive species (*e.g.*, cogon grass, red imported fire ant) are often more tolerant of drought and heat stress. The nonnative species' ranges are expected to expand with climate change, increasing their potential to alter and degrade short-

tailed snake habitat (Chen et al. 2014, p. 5; Hamidavi et al. 2021, p. 383).

Climate change could also have more direct impacts on short-tailed snakes. As a fossorial species, extreme weather events and associated flooding events can cause direct mortality (*e.g.*, drowning) of individuals. Additionally, climate change could alter the distribution and abundance of preferred prey species, as well as alter substrate and soil conditions that may become unsuitable (*e.g.*, too wet or too dry) or unavailable (*e.g.*, flooded) for short-tailed snakes. Poor habitat conditions, including altered soil conditions or limited prey items, may cause individuals of the species to experience reduced fitness, mating and clutch failure, and increased risk of predation. Catastrophic flooding has the potential to displace or extirpate local populations, making recolonization difficult in fragmented landscapes (Tupy 2021, pers. comm.). Additionally, the sex of offspring is often determined by nest temperature for many reptile species. It has not been documented if sex determination is temperature-dependent for the short-tailed snake. If the species' sex determination is temperature-dependent, increasingly warming temperatures have the potential to skew sex ratios, resulting in low reproductive rates, inbreeding depression, or both (Mitchell and Janzen 2010, p. 131; Tupy 2021, pers. comm.).

Additional Considerations

Small, Isolated Populations

Short-tailed snake occurrence records indicate patchy and fragmented distribution in suitable upland habitats (*e.g.*, sandhills, scrub, and xeric hammock) in peninsular Florida. The available information indicates the species does not occur in large populations, and the apparently small populations may be inherent to the species based on its life-history characteristics and needs. In many species, small population size along with population isolation often leads to reduced genetic diversity as a result of inbreeding, which, in turn, results in increased susceptibility to disease and parasites, reduced reproductive fitness, reduced evolutionary potential, and reduction in the overall ability to withstand stochastic events (Frankham 1995, p. 309; Frankham 2005, pp. 132–135). These deleterious effects associated with small population size can exacerbate the negative influences of habitat degradation and further impact resiliency. However, there is no genetic information available to suggest

that small population is currently influencing short-tailed snake viability.

Collection and Intentional Killing

As with all snakes, humans kill snakes maliciously or out of fear, and these losses can contribute to population declines (FWC 2011, p. 5). Short-tailed snake interactions with humans are more likely where the snake is found in residential areas with sufficient groundcover but are limited compared to interactions with species active in the daytime (the fossorial nature of the short-tailed snake means it rarely appears above ground and does so even more rarely during the day) (FWC 2011, p. 4). The best available information does not indicate that illegal collection of short-tailed snakes for pets is occurring or that there are impacts to the species from intentional killing.

Cumulative and Synergistic 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.

Conservation Efforts and Regulatory Mechanisms

Below, we summarize the known conservation measures and existing regulatory mechanisms affecting the short-tailed snake or its habitat (Service 2021, pp. 38–40).

Existing Protections

The short-tailed snake is listed by the State of Florida as a threatened species, and, as such, no person may take (*e.g.*, harm or harass), possess, or sell short-tailed snakes or parts of their nests or eggs without a permit (Florida Administrative Code, chapter 68A–27) (FWC 2016, p. 78; FWC 2021, p. 7, 11). Additionally, through the above-referenced State rule, the FWC has incorporated species' conservation measures and developed permitting guidelines to provide information on the species' range and intentional and incidental take (FWC 2019, entire).

Through the tracking of permits involving the short-tailed snake, we are aware of the occurrences and level of take of the species in Florida.

Land Protection and Stewardship

Short-tailed snake habitat occurs on lands in public and private ownership with varying levels of habitat management. An estimated 48 percent of potential short-tailed snake habitat (*e.g.*, habitat identified as suitable for the species in an FWC habitat suitability model (Enge et al. 2016, entire); for more information on habitat modeling, see Service 2021, pp. 18–19) occurs on protected lands under Federal, State, or local government ownership or lands subject to conservation easements. Protected lands are less likely to experience threats associated with urbanization and other land uses (*e.g.*, agriculture, mining, and intensive silviculture that does not implement best management practices) than lands in private ownership. In addition, protected lands are often more likely to receive increased habitat management compared to private lands.

The short-tailed snake occurs on Federal lands (*e.g.*, Ocala National Forest), in State parks, in preserves and geological sites (*e.g.*, Wekiwa Springs, Ichetucknee Spring, San Felasco Hammock, Devil's Millhopper) (Hammerson 2016, pp. 10–11), and in State forests (*e.g.*, Withlacoochee) where land management occurs in accordance with area management plans. Habitat management on military installations (*e.g.*, Avon Park Air Force Range), in National Forests (*e.g.*, Ocala National Forest), and in National Wildlife Refuges (*e.g.*, Lake Wales Ridge National Wildlife Refuge) is implemented in accordance with integrated natural resources management plans (INRMP), forest plans, and comprehensive conservation plans, respectively. Although management plans do not manage specifically for short-tailed snake, habitat management actions including control of invasive plants and application of prescribed fire at appropriate intervals in sandhill and scrub habitats are expected to benefit the species' habitat and short-tailed snakes that occur in the area (USAF Park INRMP 2004, pp. 61–62, 68; USDA 2017, pp. 7, 14). Additionally, short-tailed snake habitat occurs in county and city parks and preserves.

Not all habitat management practices implemented on protected lands benefit the short-tailed snake (*e.g.*, silviculture that does not implement best management practices or improperly implements best management practices) (Hammerson 2016, pp. 10–11).

Conservation Measures on Private Lands

Privately owned lands account for approximately 52 percent (259,674 ha (641,668 ac)) of short-tailed snake habitat. In Florida, the FWC's Landowner Assistance Program provides technical and financial assistance to private landowners to implement conservation practices for wildlife on their lands (FWC 2013, p. 14). The Service's Partners for Fish and Wildlife (PFW) program provides similar incentives to private landowners for the conservation of wildlife and associated habitat. Where conservation practices occur in sandhill and scrub habitat within the short-tailed snake's range, benefits to the species are expected. Between 2010 and 2021, the PFW program alone funded approximately 3,400 ha (8,500 ac) of habitat restoration and management projects in sandhill and scrub communities within the species' range.

In 2015, FDACS and FWC collaboratively developed Florida's Agriculture Wildlife Best Management Practices for State Imperiled Species to promote sound agricultural land use and natural resource conservation and to reduce the potential for incidental take of State-imperiled species (FDACS 2015, p. ii). As of 2021, approximately 28 landowners in counties where the short-tailed snake occurs submitted notices of intent to implement conservation practices on approximately 172,004 ha (425,031 ac) of privately owned land (FDACS 2020, p. 1). The spatial information needed to assess the overlap of the area where the conservation practices will occur and short-tailed snake populations is not available. Therefore, we are not able to accurately project the extent to which these best management practices will influence the short-tailed snake or its habitat, but nonetheless encourage the implementation of conservation actions in silviculture and agriculture in Florida.

Current Condition

For the purposes of the SSA, we delineated analysis units based on the FWC's habitat suitability index (HSI) (Enge et al. 2016, pp. 12–15, 17–20), historical and current species' occurrences, and barriers to dispersal and movement. We included contiguous habitat within 5 km (3.1 mi) of occurrence records. A total of 245 records (136 historical (pre-2000) and 109 recent (2000–2021)) for the short-tailed snake were provided by FWC (FWC 2020, unpaginated) and were used to build the HSI. New records (*e.g.*, 2021) conveyed to the Service during

the SSA process were manually added to this database; these very recent records are included in the summary of records presented here. We also relied on FWC's HSI to delineate the extent and condition of suitable habitat within the range of the short-tailed snake. Some areas of identified suitable habitat contain very few records of occurrence; however, we rely on identified suitable habitat in our analysis and note that lack of occurrences may not preclude presence given the species' highly cryptic and fossorial nature and its small size, as well as the lack of established survey methods.

The delineation process resulted in 19 analysis units, with 8 units containing only historical (pre-1973) records and categorized as likely extirpated (see figure 1, below). We also identified 30 analysis units that contain only suitable habitat with no occurrence records, and we categorized these as unknown status. We do not include these units in our analysis but identified them in the delineation process to inform potential future conservation or recovery efforts. We conducted our analyses of current and future condition on the 11 delineated current analysis units and the 8 likely extirpated units.

To assess the current viability of the short-tailed snake, we considered the species' life-history needs and habitat requirements. Population estimates for the short-tailed snake are not available, but assessments of short-tailed snake habitat loss and degradation note a greater than 30 percent decline in the overall area of suitable habitat from approximately 1989 to 2003 (FWC 2011, p. 10). Our assessment of current species' resiliency includes the best available information regarding the species' population characteristics and the condition of the physical environment where the species occurs. We made qualitative assessments of the current resiliency of each analysis unit by evaluating a demographic factor (combined occupancy and timing of records) and four habitat factors (fragmentation, habitat quantity, habitat quality, and extent of protected lands) (see table 2, below). The occupancy factor categorizes each of the 245 occurrence records based on number of records in the analysis unit and the timing of those records as an indication of our confidence that the record represents continued presence of the species. Road density refers to the density of primary and secondary roads in a unit and addresses the level of fragmentation of the habitat by the threat of roads and associated mortality. Habitat quality includes the current area of habitat ranked as either moderate or

high quality in the existing FWC HSI model and serves as a baseline for future projections (change in habitat metrics from current condition). We remove currently urbanized areas from the HSI as fossorial species can be driven to the surface in unsuitable habitat (e.g.,

concrete pads, human dwellings, roadways, areas with significant root structure), resulting in observations in largely unsuitable areas. Therefore, we expect metrics related to habitat are the most appropriate to assess current condition and provide a necessary

baseline for future condition projections. We anticipate the protected lands in a unit have preserved habitat conditions in the past, affecting short-tailed snake resiliency, and are expected to provide a reduced level of threat of urbanization and development.

TABLE 2—DEMOGRAPHIC AND HABITAT RESILIENCY FACTORS USED TO ASSESS CURRENT RESILIENCY FOR SHORT-TAILED SNAKE ANALYSIS UNIT

[Each analysis unit was scored as high (4), medium (3), low (2), or very low (1) for each population factor and habitat factor]

Parameter	Condition categories			
	Very low (1)	Low (2)	Moderate (3)	High (4)
Demographic Factors				
Occupancy	Likely extirpated or unknown.	One or more records pre-2000, or a single record 2000–2021.	One or more records 2000–2010 and a single record 2011–2021.	Records 2000–2011 and records 2011–2021.
Habitat Factors				
Road Density (km of roads/1,960 ha).	More than 0.5	0.5–0.31	0.3–0.11	Less than or equal to 0.1.
Habitat Quantity (ha)	Less than 10,000	10,000–50,000	50,001–100,000	More than 100,000.
Habitat Quality (percent of unit area).	Less than 50 of area in moderate or high condition.	50–69	70–89	Greater than or equal to 90.
Protection (percent of unit area).	Less than 5	5–24	25–50	Greater than 50.

We developed resiliency condition scores for each short-tailed snake analysis unit to assess the species' current condition across its range. We weighted the demographic factor equally with the combined four habitat factors to reflect the importance of species presence and the lack of available information regarding the species' precise requirements for optimal habitat condition.

In our assessment of current viability, 2 of 11 analysis units exhibit high resiliency, 4 analysis units exhibit

moderate resiliency, 4 analysis units exhibit low resiliency, and 1 exhibits very low resiliency (see figure 1, below). The two highly resilient analysis units occur in the central portion of the known range with one moderately resilient unit interposed. Analysis units exhibiting low or very low current resiliency generally occur in the periphery of the range. Moderate and highly resilient analysis units comprise 379,804 ha (938,516 ac), or 76 percent (31 and 45 percent, respectively), of the

total current habitat extent. The proportion of protected lands (lands in public ownership or management or in conservation easements) varies across the analysis units. The highest proportion of protected lands occurs in Units 1 and 3, with 53 and 17 percent of rangewide protected lands, respectively (see table 3, below). Therefore, Units 1 and 3, combined, include approximately 70 percent of the rangewide protected lands, and these units exhibit high current resiliency.

TABLE 3—ANALYSIS UNITS, RESILIENCY, AREAL EXTENT OF HABITAT, THE PROPORTION OF THE OVERALL SPECIES' RANGE EACH UNIT REPRESENTS, AND THE PROPORTION OF RANGEWIDE PROTECTED LANDS THAT OCCUR IN EACH UNIT

Unit No.	Name	Resiliency score	Total habitat (ha)	Percentage of range (percent)	Percentage of rangewide protected lands (percent)
7	Bell Ridge and Sante Fe River	Moderate	57,652	11	3
4	Brooksville Ridge North	Moderate	64,801	13	4
3	Brooksville Ridge South	High	85,215	17	17
12	Fairfield Hills NE	Moderate	7,141	1	2
14	Fairfield Hills NW	Very Low	5,667	1	0
22	Hillsborough River NW	Moderate	155	0	0
6	Lake Wales Ridge South	Low	47,138	9	6
10	Manatee River	Low	10,921	2	2
1	Mount Dora Ridge	High	139,348	28	53
8	Ocala Hill	Moderate	25,492	5	2
5	Trail Ridge	Low	59,631	12	10
15	Unnamed	Extirpated	* 37	.....	.....
30	Unnamed	Extirpated	* 72	.....	.....
31	Unnamed	Extirpated	* 11	.....	.....

TABLE 3—ANALYSIS UNITS, RESILIENCY, AREAL EXTENT OF HABITAT, THE PROPORTION OF THE OVERALL SPECIES' RANGE EACH UNIT REPRESENTS, AND THE PROPORTION OF RANGEWIDE PROTECTED LANDS THAT OCCUR IN EACH UNIT—Continued

Unit No.	Name	Resiliency score	Total habitat (ha)	Percentage of range (percent)	Percentage of rangewide protected lands (percent)
45	Tarpon Springs	Extirpated	* 1 .....	.....	.....
47	St. Petersburg	Extirpated	* 0 .....	.....	.....
48	Unnamed	Extirpated	* 0 .....	.....	.....
49	Unnamed	Extirpated	* 0 .....	.....	.....
2	Unnamed	Extirpated	* 0 .....	.....	.....
Total .....	.....	.....	503,161	100	100

Note: Total numbers may not sum due to rounding.

*Habitat in likely extirpated analysis units is not included in the total identified suitable habitat.

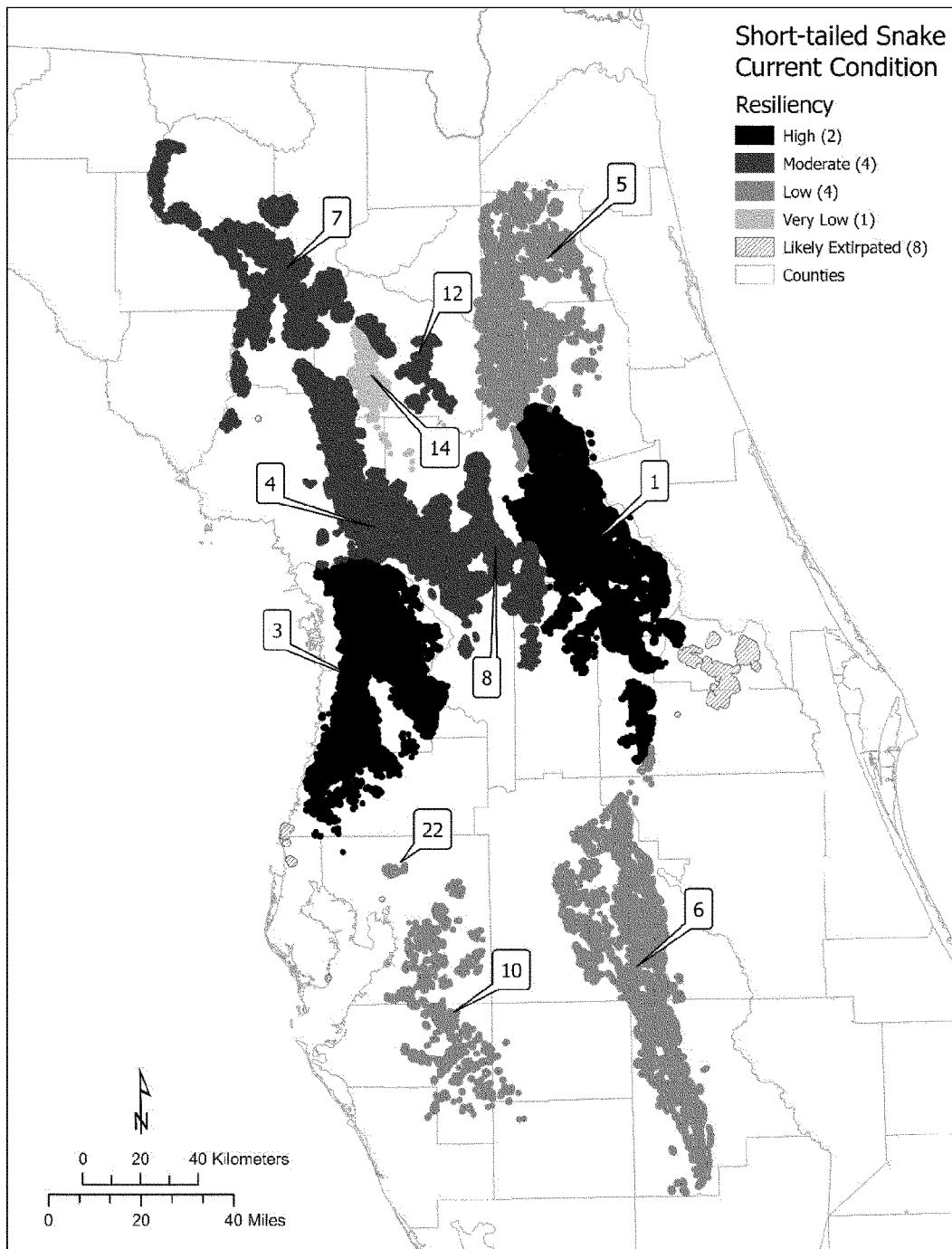


Figure 1. Distribution of 19 short-tailed snake analysis units and current resiliency class. The 11 delineated units with suitable habitat and occurrences since 1973 are numbered, and the 8 delineated units with pre-1973 occurrences are categorized as “likely extirpated” for the purposes of our analysis.

To gauge the extent of suitable habitat rangewide, we also assessed the relative proportion of suitable habitat as identified in the FWC HSI (Service 2021, pp. 18–19). Rangewide, 45 percent of the area in the 11 delineated current analysis units (*i.e.*, not including the 8 likely extirpated units) was identified as being highly suitable in the FWC HSI. Additionally, 31 percent of analysis unit area was moderately suitable, 23 percent was in a low suitability class, and 1 percent was in a very low suitability class. The proportion of suitable habitat in each analysis unit was assessed as a parameter in our current resiliency analysis, but rangewide, 76 percent of identified habitat is highly or moderately suitable for the species based on the FWC model.

Current Redundancy and Representation

Species-level redundancy for the short-tailed snake is likely reduced from historical levels due to range contraction. However, 6 of 11 units are in moderate or high current resiliency, and units are distributed across the historical and current range of the species. We have determined that current redundancy is moderate and sufficient to support species' viability. Current representation for the species is also likely reduced from historical levels due to range contraction and loss of populations. The short-tailed snake occurs in a variety of ecological habitats (*e.g.*, sandhill, scrub, and xeric hammock) and is characterized by morphologically distinct groupings. Although information regarding genetic variation in the species is limited, we expect that the distributional and morphological variation is indicative of the species' ability to adapt to changing environmental condition (adaptive capacity). We have determined that species-level current representation for the short-tailed snake is also moderate and sufficient to support current species' viability.

Future Condition

We assessed the short-tailed snake's future viability under three future scenarios. We modeled these scenarios at 2050 and 2070 based on confidence in models and projections of factors influencing the species' viability, and certainty in predictions of the species' response to those factors. In addition, these timesteps encompass several estimated lifespans of the species (estimated at 10 years, generation time of 6 years), giving the species sufficient time to respond to impacts to reproduction, genetic effects, and fragmentation of habitat.

Changes from the current habitat condition are expected in the future from urbanization and development and from conversion of suitable habitat to less suitable landcover use (*i.e.*, cropland and mining). We anticipate those changes to habitat condition will impact the resiliency of the short-tailed snake. We lack demographic data for the short-tailed snake and are unable to project future demographic condition based on the available occurrence records for the species. We evaluated projected changes to two habitat factors (habitat quality and habitat quantity) and the species' likely responses to those changes. To project the threat of urbanization and impacts to short-tailed snake, we used the SLEUTH model (SLEUTH is an acronym for the spatial inputs used in the model, which are slope, land cover, excluded regions, urban land cover, transportation, and hill shade) to determine the probability of urbanization. Areas with a higher probability of being developed (we selected 90 percent) will likely be urbanized under even the lowest impact scenario (almost sure to be developed), while areas with a lower probability of urbanization (20 percent) are expected to be developed under a high impact scenario. Similarly, we used the FORE–SCE model to project land use in the future, specifically landcover types that are most likely to exclude occurrences

of short-tailed snake (cropland and mining). The two FORE–SCE projection storylines incorporated in our analysis include the A2 storyline (reflective of representative concentration pathway (RCP) 8.5 and a higher emissions scenario) and B2 (reflective of RCP 4.5 and a lower emissions scenario) (Nakićenović et al. 2000, entire; Sohl et al. 2014, entire). To encompass a range of plausible climate change scenarios, we provide a high and low climate change-related land use projection based on the RCP 8.5/special report emissions scenario (SRES) A2 and RCP 4.5/SRES B1 scenarios, respectively. In presenting this range, our purpose is to provide bounds on the range of plausible outcomes, and we do not imply that an outcome in the middle of the range is the most likely outcome. For each of our time points (years 2050 and 2070) in the low and moderate development scenario we assess SRES B1 and assess SRES A2 under the high development scenario. To project habitat quality and quantity in the future, we recalculated the areas of suitable habitat in each analysis unit by removing from the current condition those areas projected to be urbanized or to be converted into cropland or mining use.

We weighted the factor of habitat quantity to account for expected increases in road density related to urbanization. This resulted in a weight of 2 for habitat quantity compared to 1 for habitat quality. We categorized resiliency class using the same scale as the current resiliency analysis. The three future scenarios included: (Scenario A) low development, (Scenario B) moderate development, and (Scenario C) high development (Table 4). The species' representation and redundancy were predicted under the three future scenarios and two timesteps by assessing the resiliency, number, and distribution of short-tailed snake analysis units across the species' range.

TABLE 4—THREE PLAUSIBLE FUTURE SCENARIOS USED TO PROJECT SHORT-TAILED SNAKE RESILIENCY AND THE LEVELS OF HABITAT QUANTITY AND HABITAT QUALITY FACTORS IN EACH SCENARIO

Resiliency factor (weight)	Scenario A: low development	Scenario B: moderate development	Scenario C: high development
Habitat Quantity (2)	Habitat removed from current habitat suitability index based on: Greater than or equal to 90 percent probability of urbanization (SLEUTH). Conversion to cropland or mining (FORE–SCE SRES B1).	Habitat removed from current habitat suitability index based on: Greater than or equal to 50 percent probability of urbanization (SLEUTH). Conversion to cropland or mining (FORE–SCE SRES B1).	Habitat removed from current habitat suitability index based on: Greater than or equal to 20 percent probability of urbanization (SLEUTH). Conversion to cropland or mining (FORE–SCE SRES A2).
Habitat Quality (1)	Percent of high or moderate quality habitat in the analysis unit.	Percent of high or moderate quality habitat in the analysis unit.	Percent of high or moderate quality habitat in the analysis unit.

For these projections, high condition analysis units were defined as those with high resiliency at the end of the predicted time horizon (at years 2050 and 2070). Units in high resiliency are expected to persist into the future and sustain populations, beyond year 2050 or 2070, and can withstand demographic and environmental

stochastic events. Units in moderate resiliency were defined as having lower resiliency than those in high condition but are still expected to persist beyond year 2050 or 2070 and sustain populations in the wild. Units in moderate condition typically have smaller habitat extents or have lower habitat conditions than those in high

condition or both (table 5). Finally, those units in low to very low condition were defined as having low resiliency and are less likely to withstand stochastic events. As a result, low to very low condition units were characterized as less likely to be able to sustain populations in the wild beyond either 30 or 50 years.

TABLE 5—HABITAT CONDITIONS CHARACTERISTIC OF MODERATE AND HIGHLY RESILIENT ANALYSIS UNITS

Parameter	Habitat condition	
	Moderate	High
Connectivity (km of roads/1,960 ha of analysis unit suitable habitat).	0.3–0.11 km/1,960 ha	Less than or equal to 0.1 km/1,960 ha.
Habitat Extent (ha of suitable habitat in analysis unit)	50,001–100,000 ha	Greater than 100,000 ha.
Habitat Quality (Percent of analysis unit in moderate or highly suitable habitat in HSI).	70–89 percent	90 percent or greater.
Protected Lands (Percent of Analysis Unit Area)	25–50 percent	Greater than 50 percent.

Under all future scenarios and in both future time horizons, we expect the resiliency of analysis units and the representation and redundancy of the species to decline. The resiliency of short-tailed snake analysis units declines across all scenarios by year 2050, with habitat loss continuing at a slower rate through year 2070. However, in the three future scenarios and both timesteps, one analysis unit is projected to exhibit high resiliency (Unit 1, Mount Dora Ridge) and one is projected to exhibit moderate resiliency (Unit 3, Brooksville Ridge South) (see figures 2 and 3, below). The two units projected to remain in high and moderate resiliency encompass the majority of protected lands in the range of the species. Nine of the 11 analysis units are projected to exhibit low or very low resiliency in all future scenarios at both timesteps. However, 55 to 68 percent of current suitable habitat is projected to remain on the landscape in the species'

range. The analysis unit projected to remain in high resiliency (Unit 1) composes 36–42 percent of this spatial habitat extent depending on the scenario and timestep. Similarly, the unit projected to remain in moderate resiliency (Unit 3) composes 17–18 percent of future suitable habitat. Our future condition analysis did not project additional analysis unit extirpation, although the eight extirpated units are expected to remain extirpated as no suitable habitat remains in these areas. The number of analysis units in low or very low resiliency is comparable across future scenarios and timesteps, with the expected impacts to the species (primarily urbanization) occurring under all three scenarios by the earlier timestep of 2050. Under scenarios A and B, in 2050 and 2070, our future condition analysis projects one unit will remain in high resiliency, one high resiliency unit will shift to moderate resiliency, four units will exhibit low

resiliency, and five units will exhibit very low resiliency. Under Scenario C (higher impact scenario) in 2050 and 2070, our future condition analysis projects one unit will remain in high resiliency, one high resiliency unit will shift to moderate resiliency, three units will exhibit low resiliency, and six units will exhibit very low resiliency.

We expect declines in representation in the future due to fragmentation of suitable habitat and decreased connectivity within and among analysis units. Similarly, we expect declines in redundancy as resiliency decreases in the future. Although no analysis unit extirpations are projected, the contributions of analysis units in low and very low resiliency to species-level redundancy is limited in the future. Representation and redundancy are projected to be reduced compared to current levels.

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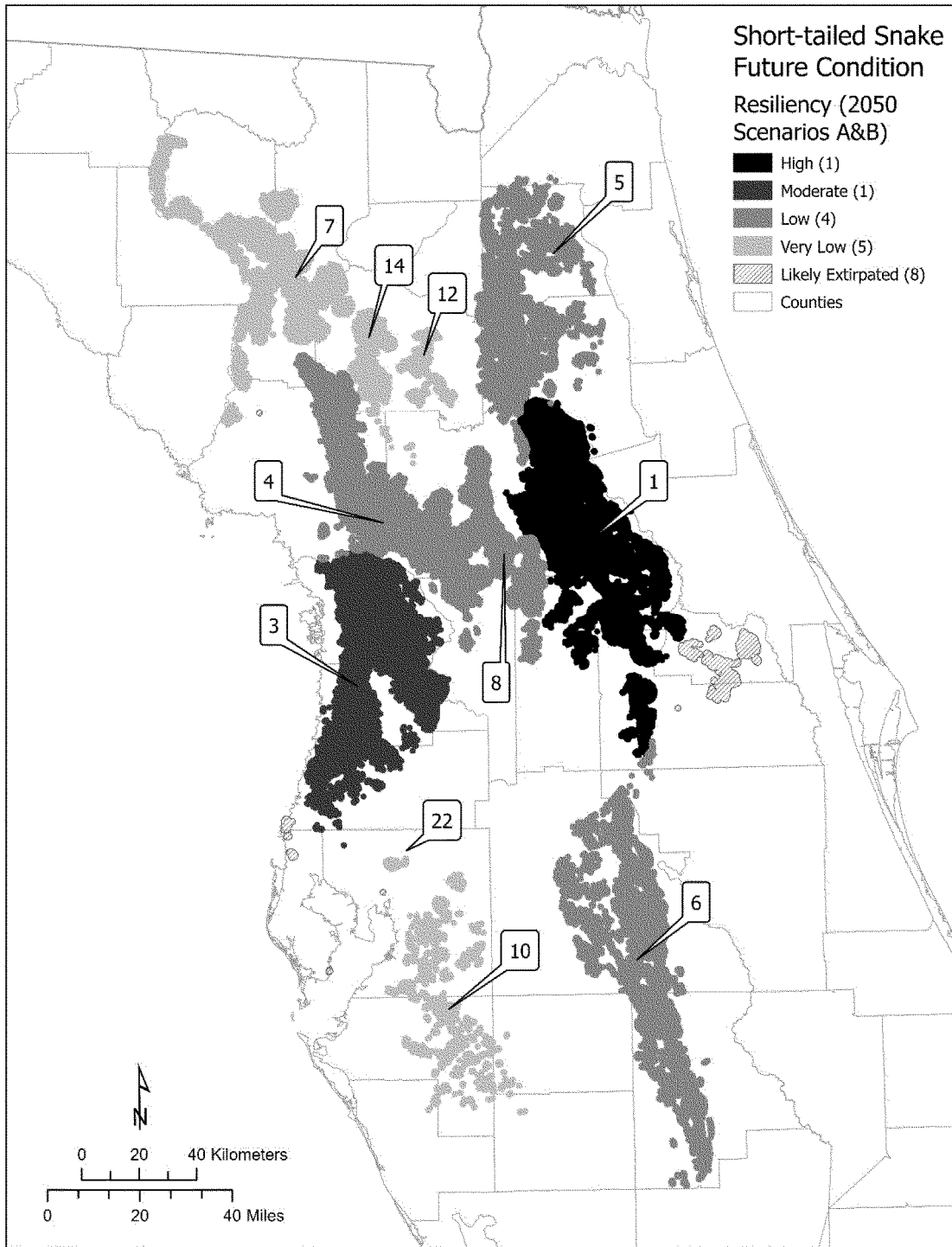


Figure 2. Short-tailed snake analysis unit resiliency at year 2050 under scenarios A (low development) and B (moderate development). Analysis unit resiliency classes are not projected to change in 2070, although the trend in habitat loss continues in all scenarios.

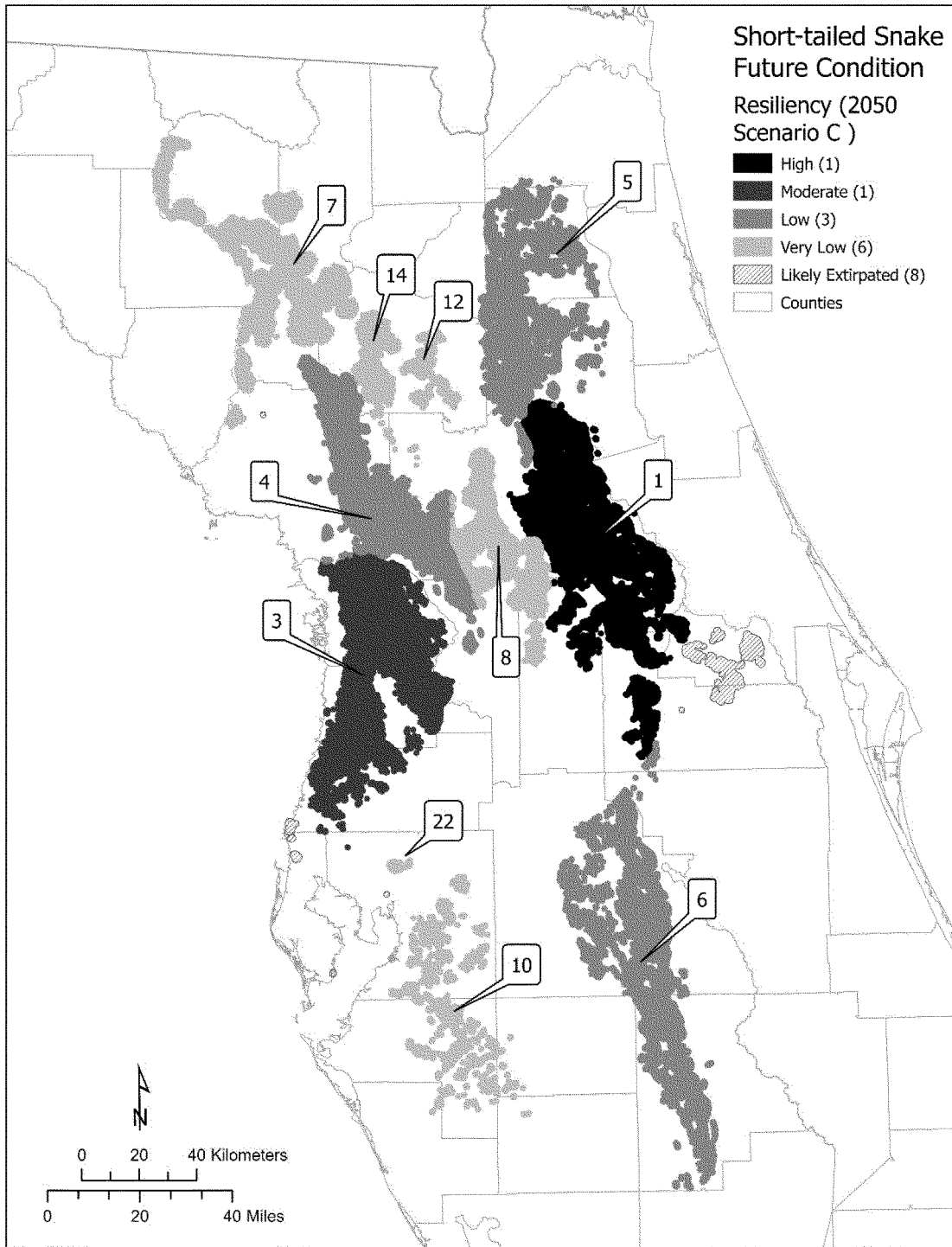


Figure 3. Short-tailed snake analysis unit resiliency at year 2050 under Scenario C (high development). Analysis unit resiliency classes are not projected to change in 2070, although the trend in habitat loss continues.

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Determination of Short-Tailed Snake’s Status

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

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act’s section 4(a)(1) factors, we found that the short-tailed snake does not meet the definition of an endangered or threatened species throughout all of its range. In our assessment of viability for the short-tailed snake, we considered the impacts of habitat loss and degradation (Factor A); habitat management (Factor A); nonnative, invasive species (Factors A and C); climate change (Factor E); disease (Factor C); collection (Factor B); intentional killing (Factor E); and small, isolated populations (Factor E). Furthermore, we considered the existing regulatory mechanisms (Factor D) and conservation measures and their effect on the identified threats and the status of the species. Of the threats considered, habitat loss and degradation were identified as the primary threats impacting populations and the species now and into the future. Urbanization and associated development, including roads, is the key driver of habitat loss and degradation and landcover change within the species’ range. Urbanization and development are expected to increase within the range of the species in Florida as the human population increases there in the future. Sandhill and scrub habitats that do not experience habitat management (or natural fire) experience succession and become less suitable for short-tailed snake. Invasive species encroachment on suitable habitat where the short-tailed snake occurs negatively impacts the species as well. The effects of climate change act to exacerbate the effect of other threats. The individual and synergistic negative impacts to the short-tailed snake are expected to

increase in the future, including fragmentation of suitable habitat, increased road density, reduced habitat management actions (prescribed fire), and increased nonnative and invasive species. The effects of climate change on short-tailed snake are unclear, but include effects to vegetation, natural and prescribed fire, prey species, and perhaps reproduction through skewed sex ratios. The effects of climate change are expected to increase in the future.

The species’ current representation has likely decreased from its historical representation as evidenced by the loss of eight analysis units across the range of the species. However, the species occurs in a variety of habitats (including sand and scrub) and exhibits morphologically distinct groupings across its range. We expect that these ecological and morphological variations indicate sufficient adaptive capacity in the species. Due to the species’ behavioral characteristics (fossorial and limited dispersal and its need for loose sandy soils), the short-tailed snake may be limited in its capacity to shift in space in a changing environment. The species is currently represented by six analysis units that exhibit moderate or high resiliency, and these six units are distributed across the range of the species. Despite the reductions from historical condition with extirpations of very small units, we have determined that the species’ current representation and redundancy are moderate, and the species has sufficient ability to adapt to changing environmental conditions (representation) and withstand catastrophic events (redundancy).

As discussed above, the primary threat to the species is the loss and degradation of habitat (e.g., urbanization and other land use changes, such as agriculture and mining), and this impacts the current resiliency of the species across its range. Although the species is negatively impacted by the loss and degradation of habitat within our assessment of current resiliency, 2 of 11 analysis units exhibit high resiliency, 4 analysis units exhibit moderate resiliency, 4 analysis units exhibit low resiliency, and 1 analysis unit exhibits very low resiliency. The two high resiliency analysis units encompass a large area (224,563 ha (554,907 ac)) in the center of the known range of the short-tailed snake, and these two units encompass 70 percent of the protected lands in the species’ range. Further, the areal extent of moderate and high resilience analysis units encompasses approximately 32 percent and 46 percent, respectively, of the total identified current habitat. The analysis units exhibiting low (4 analysis

units) or very low (1 analysis unit) resiliency occur at the periphery of the species’ range, are generally smaller in size, and encompass less suitable habitat than the remaining analysis units.

Although the species is impacted by threats rangewide, the short-tailed snake exhibits sufficient resiliency, redundancy, and representation to support species’ viability. Overall, no current threat is acting at an extent or severity such that the short-tailed snake is at risk of extinction throughout all of its range. Thus, after assessing the best available information, we conclude that the short-tailed snake is not in danger of extinction throughout all of its range.

Therefore, we proceed with determining whether the short-tailed snake is likely to become endangered within the foreseeable future throughout all of its range. Under three analyzed plausible future scenarios and in both future time horizons of 2050 and 2070, we expect habitat quantity and quality to decline. We rely on established models of projected landcover change, urbanization, and climate change to inform our future condition analysis. Declining habitat conditions are expected to negatively affect the short-tailed snake, although we do not have information available to accurately project the demographic condition of the species in the future. As described above, resiliency of 9 of 11 analysis units is projected to decline, and the species-level representation and redundancy are expected to decline as a result. The impacts of urbanization and development and other threats are projected to occur across the range by year 2050, with habitat loss continuing at a slower rate through year 2070. However, in all future scenarios and both timesteps, one analysis unit is projected to remain in high resiliency (Unit 1, Mount Dora Ridge), and another is projected to exhibit moderate resiliency (Unit 3, Brooksville Ridge South). The two analysis units projected in high and moderate resiliency encompass 45 percent of current identified suitable habitat and 53 to 60 percent of projected suitable habitat in the foreseeable future (depending on scenario and timestep). The two very large, high and moderately resilient analysis units also encompass 70 percent of the protected lands in the species’ range, where the threat of urbanization and development is somewhat reduced. Our future condition analysis did not project analysis unit extirpation.

Although the resiliency of short-tailed snake analysis units is expected to be negatively affected by the threat of

habitat loss, degradation, and fragmentation in the foreseeable future, the species will maintain high and moderate resiliency in an area that encompasses almost half of the current suitable habitat now and in the future. Representation and redundancy are projected to be reduced compared to current levels but sufficient to support species' viability in the future. After assessing the best available information, we conclude that the short-tailed snake is not likely to become endangered within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range

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. Therefore, we proceed to evaluating whether the species is an endangered or threatened species 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.

In undertaking this analysis for short-tailed snake, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify portions of the range where the species may be endangered.

We evaluated the range of the short-tailed snake to determine if the species is in danger of extinction now in any portion of its range (*i.e.*, if it meets the Act's definition of an endangered species) or is likely to become an endangered species within the foreseeable future in any portion of its range (*i.e.*, if it meets the Act's definition of a threatened species). 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 Act's definition of an endangered or threatened species.

As discussed above and in our SSA report, we have information on eight analysis units with short-tailed snake

occurrences before 1972 with little or no associated suitable habitat that we have determined are likely extirpated. For the purposes of considering portions of the short-tailed snake's range, we reviewed the analysis units we identified in the SSA report. We did not consider the eight likely extirpated analysis units in our future scenario modeling, as we do not anticipate that these units will contribute to the future viability of the species. Accordingly, when conducting our analysis to determine whether the species may be in danger of extinction in a significant portion of its range, we consider these very small (121 ha) likely extirpated units to be lost historical range and do not consider areas of lost historical range to be a significant portion of the range. We already take into account the effects that the loss of these units have on the current and future viability of short-tailed snake in our rangewide determination. This is consistent with our 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 37577).

For the short-tailed snake, we first considered whether there are any portions of the species' current range that may have a different status. We first considered whether the species may be in danger of extinction in a significant portion of its range. As discussed under *Status Throughout all of Its Range*, above, the primary current threats to the short-tailed snake are habitat destruction or modification from urbanization and other incompatible land uses, such as cropland and mining. We examined those threats along with the effects from climate change, disease, and cumulative effects, and we considered whether conservation efforts and regulatory mechanisms ameliorated any of the effects. These factors and threats influence the short-tailed snake rangewide; however, we identified five analysis units as a portion where the species is currently in low or very low resiliency condition (*e.g.*, analysis units 5, 6, 10, 14, and 22) and that may have a different status than the remainder of the range. These units comprise 11.9, 9.4, 2.2, 1.1, and 0.03 percent of the geographic area of the short-tailed snake's range respectively, and 25 percent of the range collectively. These analysis units are currently in lower resiliency conditions than other units throughout the species' range due to impacts from increased habitat loss (*e.g.*, urbanization and incompatible land use) and habitat fragmentation (*e.g.*, increased road density). The impacts to

the short-tailed snake and the species' response to the threats described have led to low or very low resiliency in these analysis units. The best scientific and commercial information indicates that these analysis units may have a different status than those in the remainder of the species' range.

We then proceeded to the significance question, asking whether this portion of the range (*i.e.*, "5 analysis units portion"; analysis units 5, 6, 10, 14, and 22) is significant. The Service's most recent definition of "significant" within agency policy guidance has been invalidated by court order (see *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018)). In undertaking this analysis for the short-tailed snake, we considered whether the 5 analysis units portion of the species' range may be significant based on its biological importance to the overall viability of the short-tailed snake. Therefore, for the purposes of this analysis, when considering whether this portion is significant, we considered whether the portion may (1) occur in a unique habitat or ecoregion for the species; (2) contain high-quality or high-value habitat relative to the remaining portions of the range, for the species' continued viability in light of the existing threats; (3) contain habitat that is essential to a specific life-history function for the species and that is not found in the other portions (for example, the principal breeding ground for the species); or (4) contain a large geographic portion of the suitable habitat relative to the remaining portions of the range for the species.

Individually, the five units that make up the identified portion are generally small and occur on the periphery of the range where the habitat conditions are less suitable. Collectively, the portion of the range containing the 5 analysis units portion does not make up a large geographic portion of the suitable habitat (25 percent) relative to the remaining portions of the range. In addition, this portion does not have any areas of habitat that are unique or contain high-quality or high-value habitat relative to the remaining portions of the range. The 5 analysis units portion does not contain habitat that is essential to a specific life-history function. Overall, we found no substantial information that would indicate that the 5 analysis units portion constitutes a portion of the range that may be significant in terms of its overall contribution to the species' resiliency, redundancy, and representation, or that it is significant in terms of high-quality habitat or otherwise important for the

species' life history. As a result, we determined that the 5 analysis units portion does not constitute a significant portion of the range where the species is endangered. Accordingly, the short-tailed snake is not in danger of extinction within a significant portion of its range and does not meet the definition of an endangered species.

We next considered whether the short-tailed snake is likely to become an endangered species within the foreseeable future in a significant portion of its range (*i.e.*, if it meets the Act's definition of a threatened species). As described under *Status Throughout All of Its Range*, above, urbanization and development have impacted the short-tailed snake's viability through habitat loss and degradation and the associated reduced ability to effectively manage or maintain suitable habitat. The risks to the species associated with the negative effects of land use change on its habitat are likely to continue into the foreseeable future. These factors and threats influence the short-tailed snake rangewide; however, the threats are projected to have a more pronounced effect in 9 of the 11 non-extirpated analysis units such that they may have a different status than the remainder of the range within the foreseeable future. This geographic area (north/south portion) includes the nine areas delineated in the SSA report as Units 4 through 8, 10, 12, 14, and 22 (all non-extirpated units except Units 1 and 3) (Service 2021, entire). Although threats are similar throughout the species' range, the species' future response appears more pronounced in the nine analysis units in the northwest portion. For example, future resiliency for all nine analysis units is projected to be low or very low in all scenarios at both timesteps in the future. These units exhibit a greater decline of resiliency than the remaining portions of the range. The nine analysis units in the north/south portion generally have a lower proportion of moderate or highly suitable habitat in the future, as well as a lower proportion of protected areas within the analysis unit. The nine units in the north/south portion of the range are projected to have a higher degree of habitat degradation and habitat loss due to urbanization. Given the projected decline in resiliency in predicted future conditions within these nine analysis units, the best available scientific and commercial information indicates that the north/south portion, including analysis units 4 through 8, 10, 12, 14, and 22, is a portion that is likely to be in danger of extinction within the foreseeable future. The reductions in

resiliency across these units will also affect the species' ability to recover from future catastrophic events (redundancy) and the species' capacity to adapt to future expected environmental changes (representation).

We then proceeded to the significance question, asking whether this portion of the range (*i.e.*, north/south portion including analysis units 4 through 8, 10, 12, 14, and 22) is significant. As discussed above, the Service's most recent definition of "significant" within agency policy guidance has been invalidated by court order (see *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018)). In undertaking this analysis for the short-tailed snake, we considered whether the north/south portion of the species' range may be significant based on its biological importance to the overall viability of the short-tailed snake. Therefore, for the purposes of this analysis, when considering whether this portion is significant, we considered whether the portion may (1) occur in a unique habitat or ecoregion for the species; (2) contain high-quality or high-value habitat relative to the remaining portions of the range, for the species' continued viability in light of the existing threats; (3) contain habitat that is essential to a specific life-history function for the species and that is not found in the other portions (for example, the principal breeding ground for the species); or (4) contain a large geographic portion of the suitable habitat relative to the remaining portions of the range for the species.

The north/south portion, consisting of nine analysis units, constitutes approximately 55 percent of the identified current suitable habitat across the short-tailed snake's range (278,599 of 503,161 hectares); and therefore is a large geographic area relative to the remaining portions of the range. Therefore, having assessed the north/south portion's biological significance in terms of the habitat considerations described above, we find the best available information indicates this portion is significant to the short-tailed snake.

Accordingly, having determined that the north/south portion of the species' range is (1) significant, and (2) likely to become in danger of extinction within the foreseeable future, we find that the short-tailed snake is likely to become an endangered species within the foreseeable future in a significant portion of its range. Accordingly, it meets the Act's definition of a threatened species. This is consistent with the courts' holding in *Desert*

Survivors v. Department of the Interior, 321 F. Supp. 3d 1011 (N.D. Cal. 2018), and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

Determination of Status

Our review of the best available scientific and commercial information indicates that the short-tailed snake meets the Act's definition of a threatened species. Therefore, we propose to list the short-tailed snake as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

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 Florida 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 this species is 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 State of Florida would be eligible for Federal funds to implement management actions that promote the protection or recovery of the short-tailed snake. 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 short-tailed snake is 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 this 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 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 (see 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 that 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 is listed or the relevant critical habitat is designated, a conference opinion may be adopted as a biological opinion and serve as compliance with section 7(a)(2) of the Act.

Examples of discretionary actions for the short-tailed snake that may be subject to conference and consultation procedures under section 7 of the Act are land management or other landscape-altering activities on Federal lands administered by the Department of Defense, U.S. Forest Service, and U.S. Fish and Wildlife Service, as well as actions on State, Tribal, local, or private

lands 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 a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from 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.

It is the policy of the Service, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the extent known at the time a species is listed, specific activities that will not be considered likely to result in violation of section 9 of the Act. To the extent possible, activities that will be considered likely to result in violation will also be identified in as specific a manner as possible. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. Although most of the prohibitions in section 9 of the Act apply to endangered species, sections 9(a)(1)(G) and 9(a)(2)(E) of the Act prohibit the violation of any regulation issued under section 4(d) of the Act pertaining to any threatened species of fish or wildlife, or threatened species of plant, respectively. Section 4(d) of the Act directs the Secretary to promulgate protective regulations that are necessary and advisable for the conservation of threatened species. As a result, we interpret our policy to mean that, when we list a species as a threatened species, to the extent possible, we identify activities that will or will not be considered likely to result in violation of the protective regulations under section 4(d) for that species.

At this time, for the short-tailed snake, we are unable to identify specific activities that will or will not be considered likely to result in violation of section 9 of the Act beyond what is already clear from the descriptions of the proposed prohibitions and exceptions that would be established by protective regulation under section 4(d) of the Act (see II. Proposed Rule Issued Under Section 4(d) of the Act, below).

Questions regarding whether specific activities would constitute violation of section 9 of the Act should be directed to the Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

II. Proposed Rule Issued Under Section 4(d) of the Act

Background

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. The U.S. Supreme Court has noted that statutory language similar to the language in section 4(d) of the Act authorizing the Secretary to take action that she “deems necessary and advisable” affords a large degree of deference to the agency (see *Webster v. Doe*, 486 U.S. 592, 600 (1988)). 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. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting one or more of the prohibitions under section 9.

The courts have recognized the extent of the Secretary’s discretion under this standard to develop rules that are appropriate for the conservation of a 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 *Alesea 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).

The provisions of this proposed 4(d) rule would promote conservation of the short-tailed snake by encouraging management of the habitat for the species in ways that facilitate conservation for the species. The provisions of this proposed rule are one of many tools that we would use to promote the conservation of the short-tailed snake. This proposed 4(d) rule would apply only if and when we make final the listing of the short-tailed snake as a threatened species.

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 with a species-specific 4(d) rule. For example, as with an endangered species, if a Federal agency determines that an action is “not likely to adversely affect” a threatened species, it will require 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).

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 short-tailed snake’s conservation needs. As discussed previously in Summary of Biological Status and Threats, we have

concluded that the short-tailed snake is likely to become in danger of extinction within the foreseeable future primarily due to habitat loss and degradation as a result of urbanization, development, and other land use changes (e.g., agriculture and mining) and a lack of habitat management (e.g., lack of prescribed fire in an ecosystem-appropriate fire interval and encroachment of invasive species). 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 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 short-tailed snake.

The protective regulations we are proposing for the short-tailed snake incorporate prohibitions from section 9(a)(1) to address the threats to the species. Section 9(a)(1) prohibits the following activities for endangered wildlife: 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. This protective regulation would provide for the conservation of the short-tailed snake by including all of these prohibitions because the short-tailed snake is at risk of extinction within the foreseeable future and putting these prohibitions in place would help to prevent further declines and preserve the species’ remaining populations.

In particular, this proposed 4(d) rule would provide for the conservation of the short-tailed snake 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 short-tailed snake, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

The exceptions to the prohibition on take for the short-tailed snake would include all of the general exceptions to the prohibition on take of endangered wildlife, as set forth at 50 CFR 17.21(c)(2) through (4), along with other standard exceptions to the prohibitions (see Proposed Regulation Promulgation, below). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

We are also considering additional exceptions to prohibitions including incidental take resulting from habitat management activities that maintain or restore short-tailed snake habitat including implementation of prescribed fire, actions to reduce the threat of invasive species such as feral hogs, or other activities that result in more suitable habitat conditions for the species. We are also considering a provision excepting incidental take from silviculture practices and forestry activities that follow best management practices. As described in Information Requested, we are soliciting comments from the public regarding specific prohibitions and exceptions to prohibitions of take of the short-tailed snake that we may consider in developing the final 4(d) rule for the species.

Despite the 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 (see 50 CFR 17.32).

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 his or her agency for such purposes, would be able to conduct activities designed to conserve short-tailed snake that may result in otherwise prohibited take without additional authorization.

Nothing in this proposed 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or our ability to enter into partnerships for the management and protection of the short-tailed snake. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between us and other Federal agencies, where appropriate. 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

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 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 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 the 4(d) rule. 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, or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Critical Habitat Determinability

We determine that critical habitat is prudent. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Data sufficient to perform required analyses are lacking, or
- (ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.”

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is

located. For the short-tailed snake, the species’ needs can be inferred from habitat where it occurs but are not well known. In addition, a careful assessment of the economic impacts that may occur due to a critical habitat designation is ongoing. Until these efforts are complete, information sufficient to perform a required analysis of the impacts of the designation is lacking. Therefore, we conclude that the designation of critical habitat for the short-tailed snake is prudent, but not determinable at this time. The Act allows the Service an additional year to publish a critical habitat designation that is not determinable at the time of listing (16 U.S.C. 1533(b)(6)(C)(ii)).

Required Determinations

Clarity of the Rule

We are required by Executive Orders (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.

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), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior’s manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes 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 coordinated with Tribes in the SSA development process and prior to the publication of this proposed rule. We will continue to work with Tribal entities during the development of a proposed rule for the designation of critical habitat for the short-tailed snake.

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 Florida 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 Florida 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, in paragraph (h), amend the List of Endangered and Threatened Wildlife by adding an entry for “Snake, short-tailed” 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	*	*	*	*
* Snake, short-tailed	* <i>Lampropeltis extenuata</i>	* Wherever found	* T	* [Federal Register citation when published as a final rule]; 50 CFR 17.42(r). ^{4d}
* 	* 	* 	* 	*

■ 3. As proposed to be amended at 85 FR 61700 (September 30, 2020), 86 FR 18014 (April 7, 2021), 86 FR 62434 (November 9, 2021), 86 FR 66624 (November 23, 2021), and 87 FR 58648 (September 27, 2022), § 17.42 is further amended by adding paragraph (r) to read as follows:

§ 17.42 Special rules—reptiles.

* * * * *

(r) Short-tailed snake (*Lampropeltis extenuata*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to short-tailed snake. Except as provided under paragraph (r)(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.

Janine Velasco,

Acting Director, U.S. Fish and Wildlife Service.

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