



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2014–0065; 4500090023]

RIN 1018–BD52

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Black Pinesnake

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the black pinesnake (*Pituophis melanoleucus lodingi*) under the Endangered Species Act (Act). In total, approximately 324,679 acres (131,393 hectares) in Forrest, George, Greene, Harrison, Jones, Marion, Perry, Stone, and Wayne Counties, Mississippi, and in

Clarke County, Alabama, fall within the boundaries of the critical habitat designation.

The effect of this regulation is to designate critical habitat for the black pinesnake under the Act.

DATES: This rule becomes effective on [**INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION**].

ADDRESSES: This final rule is available on the internet at <http://www.regulations.gov> at Docket No. FWS–R4–ES–2014–0065 and at <http://www.fws.gov/mississippiES/>.

Comments and materials we received, as well as some supporting documentation we used in preparing this rule, are available for public inspection at <http://www.regulations.gov>.

All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Mississippi ES Field Office, 6578 Dogwood View Parkway, Jackson, MS; telephone 601–321–1122.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at <http://www.regulations.gov> at Docket No. FWS–R4–ES–2014–0065, and at the Mississippi Field Office at <http://www.fws.gov/mississippiES/> (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service website and Field Office set out above, and may also be included in the preamble and at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Stephen Ricks, Field Supervisor, U.S. Fish and Wildlife Service, Mississippi Fish and Wildlife Office, 6578 Dogwood View Parkway, Jackson, MS; telephone 601–321–1122.

If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This document is a final rule to designate critical habitat for the black pinesnake. Under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), if we determine that a species species is endangered or threatened, we must designate critical habitat to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule. We, the U.S. Fish and Wildlife Service (Service), listed the black pinesnake as a threatened subspecies, with a rule issued under section 4(d) of the Act, on October 6, 2015. On March 11, 2015, we published in the Federal Register a proposed critical habitat designation for the black pinesnake (80 FR 12846). Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat.

The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the black pinesnake.

We are designating a total of approximately 324,679 acres (ac) (131,393 hectares(ha)) in eight units as critical habitat in Alabama and Mississippi.

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from six knowledgeable individuals with scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best scientific data available. These peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final designation of critical habitat. We also considered all comments and information received from the public during the comment period for the proposed designation of critical habitat.

Previous Federal Actions

On October 7, 2014 (79 FR 60406), we published a proposed rule to list the black pinesnake as threatened. On, March 11, 2015 (80 FR 12846), we published a proposed rule to designate critical habitat for the subspecies. On October 6, 2015 (80 FR 60468), we published the final listing rule, which added the black pinesnake to the List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations at 50 CFR 17.11(h). On October 11, 2018 (83 FR 51418), we reopened the public comment period on the proposed critical habitat designation and associated draft economic analysis to revise two units proposed in the original designation and to announce public informational meetings on the proposed designation.

We published public notices in the Hattiesburg American on October 18, 2018, and the Clarke County Democrat on October 18, 2018. We held the two public informational meetings within the subspecies' range with one in Hattiesburg, Mississippi, on October 22, 2018, and a second one on October 24, 2018 in Thomasville, Alabama.

All other previous Federal actions for the black pinesnake are described in one or more of the documents discussed above.

Summary of Comments and Recommendations

We requested written comments from the public on the initial and revised proposed designation of critical habitat for the black pinesnake during two comment periods. The first comment period, associated with the proposed critical habitat designation and notification of the availability of the associated draft economic analysis (80 FR 12846), opened on March 11, 2015, and closed on May 11, 2015. The second comment period, announcing a revised proposed designation (83 FR 51418), opened on October 11, 2018 and closed on November 13, 2018. We contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties, and invited them to comment on the proposed critical habitat designation and draft economic analysis during these comment periods. We also received comments during our two informational meetings held during the last open comment period in October 2018 in addition to addressing landowners' questions and concerns.

During the first comment period, we received 184 written comments directly addressing the proposed critical habitat designation or the draft economic analysis. During the second comment period, we received 15 comments directly addressing the

revised proposed critical habitat designation or the draft economic analysis. All substantive information provided during comment periods either has been incorporated directly into this final determination or is addressed in our responses below.

Peer Review

In accordance with our peer review policy published in the *Federal Register* on July 1, 1994 (59 FR 34270), we solicited expert opinions from six knowledgeable individuals with scientific expertise that included familiarity with this or related subspecies, the geographic region in which the subspecies occurs, and conservation biology principles. We received responses from all six of the peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding critical habitat for the black pinesnake. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

Comment 1: Peer reviewers provided additional information and suggestions for clarifying and improving the accuracy of the information in the “Physical or Biological Features (PBFs)” and “Criteria Used to Identify Critical Habitat” sections of the proposed rule.

Our Response: We appreciate these corrections and suggestions and have made

changes to this final rule to reflect the peer reviewers' input. The significant changes are listed as part of the "**Summary of Changes from Revised Proposed Rule,**" below.

Comment 2: Two peer reviewers stated that our characterization of "open canopy" as ≤ 70 percent canopy coverage in our discussion of target suitable black pinesnake habitat, under the "Physical or Biological Features" section, and as a component of PBF 1, was not appropriate. They stated that studies have shown that pinesnakes more frequently use areas with < 50 percent canopy coverage, which are more conducive to the production of an "abundant, diverse native groundcover."

Our Response: The literature varies as to what exact percentage of canopy closure constitutes an open canopy. Therefore, we have removed any reference to a specific value for canopy coverage that is characteristic of optimal habitat for the black pinesnake in this final rule. We have focused instead on the habitat metrics of percent mid-story cover and percent herbaceous groundcover, which are the more important indicators of optimal habitat for this subspecies and are the by-products provided by an appropriately open-canopied forest, and revised our characterization of PBF 1 accordingly.

Comment 3: Several peer reviewers questioned our usage of an elevation threshold as a PBF necessary for the conservation of the black pinesnake.

Our Response: We agree with the reviewers that, while almost all locations of black pinesnakes (96%) were found to be above 150-ft elevation during radio-telemetry studies (see data sources in "Physical or Biological Features" section), this should be interpreted as an observation rather than a habitat requirement necessary for the conservation of the subspecies. Thus, the elevation threshold has been removed as a PBF in our final designation.

Comment 4: Two peer reviewers and several public commenters stated that the 1990 record date for determining unit occupancy was questionable, and another public commenter stated that there were too few observations in two units to conclude that the areas still supported a population. One of these peer reviewers suggested the date of his most recent study (1998) was more appropriate than 1990. Conversely, other peer reviewers stated that not having records for a number of years in an area was not sufficient evidence to support the claim that black pinesnakes have been extirpated from there if some suitable habitat still exists.

Our Response: As we discussed in “Population Estimates and Status” section, and also in our response to Comment 6 in our final listing rule published in the *Federal Register* on October 6, 2015 (80 FR 60468), we used records dating back to the 1990s, which corresponds to the information used by black pinesnake researchers to evaluate habitat suitability and site occupancy across the range. Because comprehensive surveys of these areas are rare, we included this same dataset to meet the requirement of using the best scientific data available; using records of pinesnakes found only after 1998 would not meet this standard because they did not have a corresponding habitat suitability analysis that was key to our delineating critical habitat. These records and the researchers’ reports, combined with new records and our more recent habitat analysis, represent our most informed evaluation of these areas, specifically since there have not been recent range-wide trapping efforts targeting this subspecies.

We are not suggesting that the individual pinesnakes documented in the 1990s are the same ones occupying the units today; a population persisting at the site would likely be made up of the progeny of the pinesnakes documented previously. For our initial

analysis of all potential critical habitat areas, the pinesnake records were the primary indicator that the area could support the subspecies, followed by a thorough analysis using updated GIS habitat information of the units. If we found that sufficient forested habitat was still present and available in the vicinity of where the pinesnakes had been documented, we determined that there was a reasonable likelihood that black pinesnake populations still occur in those areas. Evidence supporting this line of reasoning is a record of a black pinesnake documented in July of 2015 in Unit 7 (Jones Branch, Clarke County, Alabama), verifying that pinesnakes still persist on the site even though our other records (four) were from the mid-1990s and surveys in 2008–2009 (Barbour 2009, p. 12) had failed to locate pinesnakes at this site with the notation that suitable habitat existed.

Comment 5: Two peer reviewers suggested we provide further discussion on why all currently known locations were not designated critical habitat and why the eight critical habitat units are considered suitable and sufficient for the subspecies' conservation.

Our Response: We began our analysis in areas where at least two black pinesnakes had been documented within close proximity to one another (detailed in “Criteria Used to Identify Critical Habitat” section, below), since these areas have the highest potential of containing a population. Coupled with an examination of available habitat, we believe this focused analysis resulted in the appropriate number, size, and proximity of critical habitat units necessary for the long-term conservation of the subspecies. Several areas with black pinesnake records were located in areas with only small amounts of available habitat, lacking the PBFs essential for the long-term persistence of the subspecies, primarily from fragmentation due to urbanization or other

incompatible land uses. In these areas, where we established that suitable habitat had disappeared in proximity to pinesnake locality records, we concluded that the area could no longer support a population of black pinesnakes in the long term and, therefore, would not be important for its recovery. We conclude that we can assure the species' long-term conservation with focused recovery and protection efforts in the eight critical habitat units designated.

Comment 6: Two peer reviewers stressed the importance of habitat corridors and their contribution to recovery, and one peer reviewer suggested that connectivity corridors between units be included as critical habitat whenever possible, specifically stating the need for such corridors between Units 3 and 4b and Units 1 and 2.

Our Response: We acknowledge that connectivity between populations is a key component of maintaining lasting conservation for many species, and it is our assessment that some of the larger critical habitat units contain enough area where several viable populations of black pinesnakes could persist and be connected. It is important to identify areas where migration between populations may be possible for exchange of genetic material. Our methodology for choosing and delineating critical habitat units (see our response to *Comment 5* above and the "Criteria Used to Identify Critical Habitat" section, below) is based on an assessment of areas occupied by black pinesnakes, with sufficient habitat available in a forested condition to maintain a viable population, based on our analysis of PBFs, population structure, and reserve area requirements. Each critical habitat unit separately is capable of supporting a viable population of black pinesnakes, and the unit boundaries were limited by both natural and manmade barriers such as rivers and highways as well as presence of essential habitat features.

Connectivity between areas with known pinesnake records was maximized where these PBFs persisted, and delineation of critical habitat unit outer boundaries represents where such features were no longer found.

Comment 7: Four peer reviewers and several others commented on our discussion relating to the viability of black pinesnake populations and the subsequent calculation of a minimum reserve area used in our critical habitat determination. Two of these peer reviewers disagreed with our use of non-overlapping activity ranges in our minimum reserve area estimate, based on our statement of territoriality in black pinesnakes, which they disputed. Despite comments on our lack of viability analysis information, two peer reviewers stated they supported our minimum reserve area estimate, saying that it was as precise as could be given our limited information, but that our recommendation of 5,000 acres should definitely be considered a minimum size threshold.

Our Response: We acknowledge that information such as species viability indices related to abundance and reproductive success would contribute to refining minimum reserve area, but such information is lacking for this subspecies. Under the Act, we are charged with using the best available scientific data in designation of critical habitat. However, in response to comments, we reevaluated our estimate of the minimum reserve area for the black pinesnake by conducting additional literature review and analysis and have provided additional discussion (see “Space for Individual and Population Growth and for Normal Behavior” section, below). Upon further investigation of territoriality in black pinesnakes, we concluded that it had not been proven conclusively; therefore, we adjusted our models to calculate minimum reserve area estimates using partially overlapping polygons instead of non-overlapping polygons.

We corroborated our value of minimum reserve area (discussed in “Criteria Used To Identify Critical Habitat”, below) using a population size of 50 individuals, as this number has been previously proposed as a minimum effective population size for many vertebrate species (Franklin 1980, p. 147). Similar to a method used for Florida pinesnakes (*P.m. mugitus*) by Miller (2008, pp. 27–28), we digitized 50 150-acre (40.5-ha) polygons, and partially overlapped them to get a total reserve area. The 150-acre size represents black pinesnake mean home ranges described in the literature (Duran 1998a, p. 19; Yager *et al.* 2005, p. 27). This exercise using varying degrees of overlap between the home range polygons yielded total estimates between 4,500 to 6,000 ac (1,619 to 2,428 ha), thereby supporting our initial estimate of a 5,000-acre minimum reserve area.

Comment 8: One peer reviewer requested that the activity of stumping be included in our adverse modification standard language as an activity that significantly alters the suitability of habitat for the black pinesnake and should prompt consultation with the Service. Pine stump holes have been specifically highlighted as one of the principal PBFs necessary for the conservation of the subspecies; therefore, the importance of protecting them cannot be overstated. The adverse modification standard in our proposed rule mentions activities that would significantly alter the suitability of pinesnake habitat, including silvicultural activities that involve ground disturbance, but the peer reviewer felt the list of activities should be more specific.

Our Response: As we discussed in our final listing rule published in the *Federal Register* on October 6, 2015 (80 FR 60468), we replaced “activities causing ground disturbance” with a more focused statement of those “activities causing significant subsurface disturbance” under the possible section 9 violations, and for consistency have

made the same change to our list of possible activities that may result in adverse modification in this final critical habitat rule. There are several types of activities that can be termed “stumping” and not all would necessarily cause significant subsurface disturbance. One of these is a practice of harvesting green pine stumps, whereby several lateral roots are cut prior to the stump being extracted. In this particular activity, those lateral roots are left intact to eventually rot or burn out to become tunnels and potential pinesnake refugia. However, other types of stumping involving whole root ball removal (where all roots are forcibly extracted) would meet the definition of significant subsurface disturbance. Therefore, this type of activity will be clarified and added to the adverse modification section below.

Comment 9: Two peer reviewers stated that within our “Criteria Used to Identify Critical Habitat” section, the 100-meter buffer placed along all Class 1 and 2 roads to help delineate critical habitat units was arbitrary and not based on any literature pertaining to the distance where effects from roads impact snake populations.

Our Response: The 100-meter buffer given to all Class 1 and 2 roads in our designation of critical habitat units was not based on the maximum distance where impacts from roads affect black pinesnake populations (see “Criteria Used To Identify Critical Habitat” section). The roads themselves were deleted from the critical habitat polygons the same way attempts were made to avoid other urban structures, and a buffer was placed on either side of these major roads large enough to encompass most rights-of-way, commercial businesses, and residences. Through spatial analysis and aerial imagery this distance was approximately 100 meters, so that value was used as a buffer around roads for the purpose of delineating the unit polygons and ensuring that the lands that we

included in critical habitat did not include areas that we determined did not contribute to the conservation of the species.

Federal Agency Comments

Comment 10: The Department of Defense, Army National Guard (DoD) opposed designation of critical habitat in areas within the Camp Shelby Joint Forces Training Center (hereafter Camp Shelby) in Forrest, George, and Perry Counties, Mississippi. DoD is concerned that the designation may delay or impair the ability of the Army to conduct effective training (due to the requirement for additional consultation); may require restrictions for training exercises; and will subsequently limit the installation's utility for military training. Currently, most of Camp Shelby is designated for military use under a Special Use Permit (permit) from the U.S. Forest Service (USFS), and DoD is requesting that all of Camp Shelby be excluded from black pinesnake critical habitat, as authorized by section 4(b)(2) of the Act, due to significant national security concerns.

Our Response: The Department of Defense has an permit from USFS to conduct military exercises within critical habitat Unit 3 on the De Soto National Forest in Forrest, George, and Perry Counties, Mississippi. Lands within this permit area that overlap with Unit 3 and are owned by the State of Mississippi or DoD (4,054 ac [1,641 ha]) are exempted from critical habitat designation due to their inclusion in Camp Shelby's Integrated Natural Resources Management Plan (INRMP; see *Application of Section 4(a)(3) of the Act* under **Exemptions**, below). Additionally, in the proposed critical habitat rule (80 FR 12846 published in the *Federal Register* on March 11, 2015), we proposed excluding the area known as the Camp Shelby Impact Area (4,647 ac [1,880

ha]) under section 4(b)(2) of the Act. Further assessment of the area has expanded the section excluded under section 4(b)(2) to include not just the Impact Area, but also the lands surrounding it, known as the Camp Shelby Impact Area Buffer Zone (total acreage of 14,862 ac [6,014 ha]) (see *Exclusions Based on Impacts on National Security and Homeland Security* under **Exclusions**, below).

The lands in this zone encompass a large percentage of the artillery ranges on the installation; therefore, they are prone to regular range fires that maintain it as highly suitable black pinesnake habitat. While evaluating this area, we determined that because it would continue to be maintained as suitable pinesnake habitat due to the range fires, and because the Service has discretion in removing lands from critical habitat when designating them would impact national security and homeland security, that the removal of these lands was appropriate. Some of these lands overlap with those exempted under section 4(a)(3), so the total area in Unit 3 on Camp Shelby that is either excluded or exempted from critical habitat designation with this final critical habitat designation is 18,901 ac (7,649 ha). As to the remaining area, the Service does not expect critical habitat to affect ongoing military operations over and above the existing protections resulting from the listing of the subspecies.

Because the entire critical habitat unit is considered occupied by the black pinesnake, the Service anticipates that impacts from critical habitat will be limited to administrative impacts (IEc 2014). Any additional incremental impacts to military activities are not expected because areas we designated as black pinesnake critical habitat areas on Camp Shelby are within the same habitats shared by other listed species (i.e., gopher tortoise, dusky gopher frog (critical habitat), red-cockaded woodpecker). As

discussed in the economic analysis, the Service anticipates only 2 formal consultations and fewer than 13 informal consultations on military operations at Camp Shelby that will consider pinesnake critical habitat. The results of the economic analysis further supports that the additional per-consultation administrative effort is likely to be minor for both formal and informal consultations; therefore, these efforts are unlikely to result in time delays.

Comments from States

Section 4(b)(5)(A)(ii) of the Act requires the Service to give actual notice of any designation of lands that are considered to be critical habitat to the appropriate agency of each State in which the species is believed to occur, and invite each such agency to comment on the proposed regulation. Only the Louisiana Department of Wildlife and Fisheries (LDWF) provided comment specifically on the proposed critical habitat designation, stating that it did not support designation of critical habitat in Louisiana due to a lack of current occurrence data for the black pinesnake, which was consistent with our proposed designation.

Public Comments

General Comments Issue 1: Procedural and Legal Issues

Comment 11: Several commenters stated that the Service should not designate critical habitat on private lands.

Our Response: According to section 4(a)(3)(A) of the Act, the Secretary of the Interior shall, to the maximum extent prudent and determinable, concurrently with

making a determination that a species is an endangered species or a threatened species, designate critical habitat for that species. As directed by the Act, we proposed as critical habitat those areas occupied by the species at the time of listing and that contain the physical or biological features essential for the conservation of the species, which may require special management considerations or protection.

Although the Act does not provide for any distinction between landownerships in those areas that meet the definition of critical habitat, it does allow the Secretary to exclude specific areas from the final critical habitat designation if the benefits of excluding it outweigh the benefits of including it in critical habitat, unless that exclusion would result in the extinction of the species. In this instance, no private lands were excluded from the designation, although lands on Camp Shelby were excluded due to national security impacts.

The designation of critical habitat on private land has no impact on individual landowner activities unless they involve Federal funding, permits or activities. Critical habitat designation does not affect land ownership or establish a refuge, reserve, preserve or other conservation area. Critical habitat designation informs landowners and the public of which specific areas are important to black pinesnake conservation and recovery, but landowners will not be required to convert their land to longleaf pine forests or to conduct black pinesnake monitoring as a result of this designation.

Comment 12: A private forestry association stated that critical habitat designation was unnecessary because the section 4(d) rule provided for the protection of the black pinesnake.

Our Response: When a species is federally listed, protections go into effect, both

for the species and its habitat. In 2015, the Service listed the black pinesnake with a 4(d) rule, which exempted certain management activities from take prohibitions under section 9 of the Act that provided an overall conservation benefit to the species [refer to our October 6, 2015, final listing rule (80 FR 60468)]. However, the Service has an additional obligation under the Act to designate critical habitat for a listed species when prudent and determinable. Critical habitat designation focuses on the overall recovery needs of the species and provides additional protection to a species, as Federal agencies are required to ensure that projects they authorize, fund, or undertake do not adversely modify or destroy critical habitat. Our economic analysis (IEc 2014a), in concluding that the incremental impacts from critical habitat designation were minimal, cited the extensive baseline protection provided to the species based on its listing and presence in the units. However, critical habitat provides other benefits to the species, including serving to educate the public of the potential conservation value of an area, which aids in focusing and promoting conservation efforts.

Comment 13: Several commented that the Service failed to contact all landowners potentially affected by the proposed designation of critical habitat.

Our Response: The Act requires that we publish the proposed regulation in the *Federal Register*, give actual notice of the proposed regulation to each affected State and county (*i.e.*, those in which the species is believed to occur) and appropriate professional organizations, and publish a summary of the proposed regulation in a newspaper of general circulation in each area of the country where the species is believed to occur. We attempted to ensure that as many people as possible would be aware of the proposed critical habitat designation and draft economic analysis by issuing press releases to major

media in the affected area, submitting newspaper notices for publication within areas of proposed critical habitat, and directly notifying affected State and Federal agencies, environmental groups, State Governors, Federal and State elected officials, county commissions, academia, and interested parties. Additionally, we opened a second comment period, for which we sent out notifications to commenters from the first comment period that supplied their contact information. We went further in our communication efforts by announcing and holding two public informational meetings on our proposed critical habitat designation in areas central to the proposed critical habitat lands. By these actions, we have complied with or exceeded all of the notification requirements of the Act and the Administrative Procedure Act (5 U.S.C. subchapter II).

General Comments Issue 2: Science

Comment 14: A number of commenters stated that there was adequate critical habitat being designated in Mississippi on the De Soto National Forest (Federal lands); therefore, it was not necessary to have any critical habitat units on private lands in Clarke County, Alabama.

Our Response: As discussed in response to *Comment 11* above, the statutory definition of critical habitat does not include considering land ownership. Critical habitat is a conservation tool, whose measures contribute to reaching recovery until the point at which the measures provided under the Act are no longer necessary. This is a broader standard than simply survival and requires the Service to designate critical habitat that will support recovery of the species. De Soto National Forest (DNF) represents only one area within the distribution of the black pinesnake. DNF has the

most robust populations and is crucial to the persistence of the species; however, recovery of the species will require populations of black pinesnakes distributed across the species' range, representative of its genetic variability. The location of populations across a broader range will provide for population expansion and also serve as a buffer in the event of local catastrophic events (also see *Comment 5*, above). A critical habitat designation helps to protect the areas, under various land ownerships, necessary to conserve a species. Critical habitat has value in requiring the Service to analyze and present more detailed information about the specific features of habitat that a species needs than is required for listing, thereby increasing knowledge to share with Federal agencies—and, in turn, increasing their effectiveness to conserve a listed species.

Comment 15: Several commenters stated that a recovery plan was needed prior to designating critical habitat, and in the absence of a recovery plan, the benefits of the critical habitat designation were questionable.

Our Response: During the process of developing a recovery plan, as required by section 4(f) of the Act, the Service determines the threshold that must be met to establish when a species is no longer “endangered” or “threatened.” The Service has not yet completed a recovery plan for the black pinesnake, and thus, this threshold has not been identified. However, the Act does not require that recovery criteria be established as a precondition to designating critical habitat. Section 3(5)(A)(i) of the Act defines the term “critical habitat” as 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 essential to the conservation of the species and which may require special management considerations or protection. Thus, the Act directs us to designate critical habitat at the

time that a species is listed, to the extent prudent and determinable, and does not allow for us to postpone such action until a recovery plan can be developed, which usually occurs within a few years of listing. The Act does not provide additional guidance on how to determine what habitat is essential for the conservation of the species, nor does it require a minimum population and habitat viability analysis for critical habitat designation. In this case, the Secretary has discretion in determining what is essential for the conservation of a species based on the best available information. The identification of multiple populations known to be occupied at the time of listing is critical to protect the species from extinction and provide for the species' eventual recovery. Therefore, the Service believes that all the areas designated as critical habitat meet the definition under section 3(5)(A) of the Act. If the Service gains knowledge of additional areas that meet the definition of critical habitat, then under section 4(a)(3)(A)(ii) of the Act, the Secretary may revise the designation, as appropriate. The Service has articulated a basis for designating each unit as critical habitat under the individual unit descriptions in the "Final Critical Habitat Designation" section below.

General Comments Issue 3: Private Land Issues

Comment 16: A number of commenters stated that critical habitat designation on private land would prevent timber management on those lands or dictate that they be managed in a way to benefit the black pinesnake. One commenter specified that they will now need to undertake modified management practices (*e.g.*, elimination of clearcutting on ridgetops, conversion to longleaf pine forest, and adjustments to stocking levels). Another commenter stated that designation on private lands would prohibit beneficial

practices to improve wildlife and natural resources, such as invasive species control and feral hog control.

Our Response: When prudent, the Service is required to designate critical habitat under the Act; however, the Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation (see response to *Comment 11*, above). We acknowledge that special management consideration or protection is needed to maintain the PBFs; however, critical habitat designation does not require proactive implementation of restoration, recovery, enhancement or other special management measures by private landowners; in other words, it does not shift the responsibility of recovery to the private landowner. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat. Management to control invasive species is expected to improve habitat for the black pinesnake and, therefore, would be encouraged within designated critical habitat and throughout the range of the subspecies, but would not be required.

Comment 17: Several commenters stated that proposed critical habitat Units 7 and 8 in Clarke County, Alabama, do not meet the criteria established for critical habitat since they do not contain all the PBFs described in the rule. Commenters stated that much of the area in both units had been converted to loblolly pine at higher densities to increase

economic gain, thus creating conditions that do not support black pinesnakes. One commenter stated that Unit 8 also does not have the correct soils as described in PBF 3. Another commenter requested that several hundred acres of land under Unit 2 be removed due to the presence of wetlands and its management for pine production.

Our Response: During the process of delineating critical habitat, the Service assesses habitat to determine if it is essential for the conservation of a listed species. In order to meet the criteria of “essential,” the Service describes the PBFs such as those needed for normal feeding, breeding, sheltering, and population growth. Following publication of the proposed critical habitat rule, and a review of comments, we revised the PBFs slightly (see *Comments 1* and *2*). Only one PBF needs to be found in a specific area for that area to be considered critical habitat; however, we have determined that all PBFs, as currently described, are present in all designated units (see discussions under “Final Critical Habitat Designation”). This does not mean that we expect every acre within a unit to be characterized as having all the PBFs consistently throughout. Portions of the critical habitat units that do not have the total PBF requirements for black pinesnakes (*e.g.*, wetlands and urban areas), although they are within a critical habitat polygon, are not considered critical habitat for the subspecies. Our analysis of soil maps, assessments in monitoring reports (Barbour 2009, p. 13), and soil suitability reports (Service 2012) support our conclusion that Unit 8 contains suitable soils described in PBF3.

Comment 18: Several commenters suggest the designation of critical habitat creates disincentives for landowners to manage their forest stands in a manner beneficial to the species (*e.g.*, by restoring and conserving longleaf pine forests). The reasoning

behind this is the idea that by “creating” unsuitable habitat a landowner would not have to contend with any perceived regulatory issues with the Federal Government. As an example of this effect, one organization notes past experience with the listing of the red-cockaded woodpecker (RCW), where landowners shortened stand rotations in order to avoid providing favorable habitat for the species. As further evidence of the disincentivizing effect of regulatory interventions, a second organization states that since 2017, the number of longleaf pine acres planted annually throughout Mississippi as part of a State-run cost-share program has decreased by more than half compared to the previous 5-year average, and that this decrease was directly attributable to the listing of the black pinesnake.

Our Response: We are aware of the changes in land management practices that resulted from the listing of the RCW. Because critical habitat has not been designated for the RCW, these effects were based solely on the decision to list the species under the Act. In light of these continued perceptions, we feel it is important to reiterate that, in the absence of a Federal nexus, the designation of critical habitat has no direct regulatory impact on private landowners. As discussed in the response to *Comment 16* above, critical habitat designation does not mean a private landowner has a new obligation for recovery of that species, nor does it mean that it must maintain habitat suitable for that species. Many landowners who have economic objectives as a higher priority than wildlife objectives probably do not have much suitable habitat for black pinesnakes anyway; however, if they choose to manage for the species there are cost-share programs available that assist with managing for the native ecosystem (longleaf pine forest), as well as Safe Harbor Agreements with the Service.

Referencing the latter part of the comment about a decrease in longleaf pine acres planted, there have been several fluctuations in numbers of acres in longleaf pine planted on private lands since the black pinesnake was listed under the Act in 2015 (80 FR 60486). There was a 125% increase in longleaf establishment acres on private lands in Mississippi in the year following the pinesnake being listed (2016 versus 2015; America's Longleaf Restoration Initiative), and although acreages reported in 2017 and 2018 were back down close to those reported in 2015, there are many variables affecting fluctuations in acreage of longleaf pine trees planted year-to-year. These variables include saturated markets, reduced capacity of various agencies (*e.g.*, reduced workforce or resources), and re-focusing agency resources on management (*e.g.*, prescribed fire, thinning) instead of longleaf establishment; therefore, to associate acreage fluctuations with a single event (*i.e.*, the listing of the black pinesnake) would be inaccurate. Under Natural Resources Conservation Service (NRCS) Farm Bill programs in Mississippi promoting longleaf pine to private landowners (*i.e.*, Longleaf Pine Initiative and Working Lands for Wildlife), twice as many acres of longleaf pine were established in 2018 versus 2017 (Costanzo 2019, p. 1), supporting the argument that the listing of the black pinesnake under the Act has not disincentivized private landowners from creating habitat suitable for the subspecies.

General Comments Issue 4: Economic Analysis

Comment 19: One commenter asked whether an economic analysis had been conducted for the black pinesnake critical habitat designation.

Our Response: The Service conducted an economic analysis for designation of black pinesnake critical habitat, which began by preparing an “Incremental Effects Memorandum” (IEM) describing how critical habitat for the black pinesnake will be implemented. This memorandum provided the basis for a screening analysis of potential economic impacts of the proposed critical habitat rule, prepared by independent consultants. The combination of the IEM and the screening analysis, titled “Screening Analysis of Likely Economic Impacts of Critical Habitat Designation for the Black Pinesnake,” (IEc 2014a) represents the Service’s economic analysis. Both documents were released for public comment with the proposed rules on March 11, 2015, and again on October 11, 2018. The minor changes proposed in the second comment period (83 FR 51418, October 11, 2018) were not substantial enough to justify producing a revised Economic Screening Analysis (see *Comment 21*, below).

Comment 20: One commenter stated that the Service should consider costs associated with listing in the economic analysis.

Our Response: Section 4(b)(1) of the Act specifically states that determinations for listing are to be based solely on the best scientific and commercial information available after conducting a review of the status of the species and after taking into account conservation measures by States or foreign nations. As mandated in section 4(b)(2), our economic analysis considers the economic impacts of the proposed critical habitat designation involving evaluating “without critical habitat” baseline versus the “with critical habitat” scenario (see *Consideration of Economic Impacts* section for additional discussion) to ensure that we are capturing costs associated with designation of critical habitat as required by the statute.

Comment 21: Several commenters expressed concern that the economic analysis had underestimated the economic impacts of the designation of critical habitat. One commenter stated that an economic analysis that fails to account for any effect on private lands is incomplete and fails to meet the requirements of the Act.

Our Response: The economic analysis forecasts the likely costs and benefits of the critical habitat designation for the black pinesnake using the best readily available information, and the commenters did not provide additional information that could be used to revise this analysis. Because the entirety of critical habitat is occupied by the pinesnake, significant baseline protections already exist throughout the proposed designation due to its status as a threatened species under the Act (see *Comment 12*, above). We find that the section 7-related costs of designating critical habitat for the pinesnake are likely to be limited to additional administrative effort to consider adverse modification in consultation and are likely to be less than \$190,000 in the first year following the publication of the final rule (the year with the highest anticipated costs). This is due to the anticipation of no direct impacts of the designation to forestry, which is the main land use (see our response to *Comment 16*, above). The economic analysis prepared for this rule includes the costs to private landowners of future section 7 consultations and bounds the potential diminution of property values by estimating the total value of these acres. In addition, the economic analysis investigates the possible impacts of public perception (*e.g.*, reductions in land value based on the perception that critical habitat imposes use limitations on private property) using the total value of developable land near the proposed designation. As described in section 4 of the

economic analysis, data limitations prevent the quantification of possible perception-related effects or its attenuation rate.

Comment 22: Commenters suggested that with the October 2018 reopening of the public comment period, the Service added acreage to proposed critical habitat without balancing considerations of the economic issues resulting from this designation.

Our Response: On October 11, 2018, the Service reopened the public comment period for the May 11, 2015, proposed designation of critical habitat for the black pinesnake. At that time, we proposed revised boundaries for Unit 8 (Fred T. Stimpson Special Opportunity Area (SOA)) in Clarke County, Alabama, resulting in smaller acreage on private land and more acres on State-owned land, with a net increase of approximately 279 acres. As described in the October 11, 2018, *Federal Register* document, we determined that some of the best habitat, located at the southern end of the Stimpson SOA, had not been incorporated in Unit 8, and other land located at the northern end of the unit had been included in error. Federal nexuses are rare within State SOAs, thus additional consultations, as associated with section 7 costs in the newly added area, are unlikely. We concluded that these minor adjustments in the Unit 8 boundary were not significant enough to warrant a new economic analysis.

Comment 23: Many commenters expressed concern that the designation of critical habitat for the black pinesnake would affect the ability of private landowners, including small landowners, to manage their lands for forestry and timber harvest. In particular, several commenters expressed concern that the designation of critical habitat would affect landowners' ability to generate income from their lands, noting that this could have

cascading effects on future generations, local property tax revenue, and the local economy.

Our Response: The Service acknowledges that private forestry is an important aspect of the local economy. As noted earlier in *Comment 16*, the Act does not authorize the Service to regulate private actions on private lands or establish specific land management standards or prescriptions for private landowners. We do not anticipate that critical habitat designation will affect current timber management activities since critical habitat designation applies only to those actions with a Federal nexus (funding, authorization, or action by a Federal agency) that would destroy or adversely modify critical habitat. Section 1 of the economic analysis identifies the activities considered for the analysis, including timber management. Section 3 of the economic analysis outlines the substantial baseline protections afforded the pinesnake throughout the critical habitat area. These baseline protections result from the 2015 listing of the pinesnake, with the section 4(d) rule, under the Act; the presence of the species in all critical habitat units; as well as overlap with habitat of other listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the pinesnake are likely limited to additional administrative effort on the part of Federal agencies. The Service does not anticipate requesting modifications for forest management activities on private lands because of the designation of critical habitat. As a result, impacts to income or tax revenue described by the commenters are not anticipated.

Comment 24: Multiple commenters expressed concern that the designation of critical habitat for the pinesnake could decrease the value of designated lands. In

particular, one commenter stated that, given the choice between two identical properties, an investor will invariably purchase the property with no critical habitat over one designated as critical habitat. The commenter went on to state that a methodology for estimating these costs must be developed and used.

Our Response: The Service recognizes that such effects are possible. Specifically, section 4 of the economic analysis considers possible perception-related effects of critical habitat designation on the value of private property. The analysis acknowledges that public attitudes about the limits and costs that the Act may impose can cause real economic effects to the owners of property, regardless of whether such limits are actually imposed. These effects may result from the perception that critical habitat will preclude, limit, or slow development, or somehow alter the highest and best use of the property. As described in section 4 of the economic analysis, data limitations prevent the quantification of the possible incremental reduction in private property values or its attenuation rate. However, section 4, footnote 45 references a separate memorandum (IEc 2014b) prepared for the Service providing additional detail. In that memorandum, titled “Supplemental Information on Land Values—Critical Habitat Designation for the Black Pinesnake,” the economic consultants review the available literature to identify existing methods for estimating the impact of public perception of the encumbrance imposed by critical habitat on private property values, and the limitations of available data. Furthermore, the memorandum provides a detailed analysis of the total value of potentially affected private acres using two separate data sources of forest land values in Mississippi and Alabama. By providing an estimate of the total value of potentially affected private acres, we provide an upper bound on the possible magnitude of this

impact.

However, the analysis also describes the uncertainty associated with this upper bound and several factors that suggest the actual magnitude of the portion of the effect attributable to the critical habitat designation will be lower. These factors include the community's experience with the Act, understanding of the degree to which future section 7 consultations could delay or affect land use activities, and substantial baseline conservation already in place for the black pinesnake due to its listed status, as well as protections for the federally listed gopher tortoise, red-cockaded woodpecker, and dusky gopher frog.

Comment 25: Some commenters requested that landowners be compensated for loss of private property rights or financial losses that could happen as a result of the designation of critical habitat for the black pinesnake.

Our Response: As stated previously in *Comment 16*, the critical habitat designation does not authorize the Service to regulate private actions on private lands, nor is it considered confiscation of private property. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Critical habitat designation also does not establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. Thus, the designation of critical habitat does not deny anyone economically viable use of their property.

Our economic analysis concluded that financial impacts from critical habitat for the pinesnake are likely limited, borne primarily by the Service and Federal action

agencies. Although it is possible (see response to *Comment 24*, above) that public perception of potential regulatory constraints imposed by critical habitat could also adversely affect property values, a similar effect could result from the listing of the species, or the presence of other listed species and critical habitat designations.

Comment 26: Commenters expressed concern that the designation of critical habitat would reduce land managers' flexibility in managing forested habitat on the State of Mississippi's 16th Section lands and on Wildlife Management Areas (WMAs) to meet their respective objectives. Forests on 16th Section lands are highly valued timber tracts that are intensively managed to provide a significant amount of income for public schools in Mississippi, and WMAs are often owned by multiple landowners and managed for varied economic and wildlife objectives.

Our Response: The Service acknowledges the importance to local communities of income generated on 16th Section lands from silvicultural activities, as well as the importance to the public of WMAs for hunting, fishing, recreation, and other uses. As discussed in *Comment 16*, we do not anticipate that critical habitat designation will affect current habitat management activities, particularly with respect to timber management, because critical habitat designation only applies to those actions with a Federal nexus (funding, authorization, or action by a Federal agency) that would destroy or adversely modify critical habitat.

Comment 27: One commenter states it is speculative to conclude that a Federal nexus is unlikely to be triggered on private forest lands. Federal consultation has been triggered in the context of family-owned timberlands in the past and will likely continue to occur in the future.

Our Response: The Service agrees with the statement that consultations have occurred on private land in the past and will likely occur in the future. However, consultation with the Service is not done directly with the private landowner; it is done with the responsible Federal agency (action agency) involved in the Federal permit, license, or funding. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species. Instead, it is to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat. Examples of actions that are subject to the section 7 consultation process are 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.*)), but even where the action is likely to destroy or adversely modify critical habitat, the Service works with the agency and landowners to amend the project to enable it to proceed without adversely affecting critical habitat. Most Federal projects are likely to go forward, but some may be modified to minimize adverse effects to the species and its critical habitat.

Summary of Changes from Revised Proposed Rule

We reviewed the above-described site-specific comments related to critical habitat for this subspecies, completed our analysis of areas considered for exclusion under section 4(b)(2) of the Act and for exemptions under section 4(a)(3) of the Act,

reviewed our analysis of the PBFs essential to the long-term conservation of the black pinesnake, reviewed the application of our criteria for identifying critical habitat across the range of this subspecies to refine our designation, and completed the economic analysis of the designation as proposed. This final rule incorporates changes to our proposed critical habitat rule based on the comments that we received, and have responded to in this document, and considers efforts to conserve the black pinesnake.

As a result, our final designation of critical habitat reflects the following changes from the March 11, 2015, proposed rule (80 FR 12846) and the October 11, 2018, revisions to the proposed designation (83 FR 51418):

- Primary Constituent Elements (PCEs) are referred to as Physical and Biological Features (PBFs) in our final rule.
- Based on information we received from peer reviewers, we removed the reference to territoriality in the subspecies; although there is some evidence that black pinesnakes may exhibit territoriality, it has not been demonstrated definitively.
- The habitat management activity of clearcutting was removed from the list of activities seen as threats to the black pinesnake and its habitat. While we recognize that some clearcut harvesting may have a negative impact on black pinesnake habitat, at other times it is a necessary management tool to restore a forest to a condition suitable for pinesnakes and other native wildlife. This is consistent with the language in our final listing rule.
- We have refined our description of PBF 1 to remove the characterization of “open canopy” pine forest as a specific percentage and have instead relied on the percentage metrics for mid-story and groundcover (within an open-canopied pine forest)

to best define the habitat structure important to the subspecies.

- We have revised PBF 2 and removed the reference to topographic features, specifically the elevation threshold of 150 ft (46 m) or greater. PBF 2 now only references refugia sites since the elevation threshold was determined to be more of an observation rather than a habitat requirement.

- Throughout the descriptions of PBFs, we removed specific characterization of these features within longleaf pine forests. Although longleaf pine is the preferred canopy species for the long-term conservation of the black pinesnake (see the final listing rule published in the *Federal Register* on October 6, 2015 (80 FR 60468)), we recognize that it is primarily the structure of the forest that provides for the PBFs, and this structure is not exclusive to longleaf pine forests. However, these features must occur within areas historically dominated by longleaf pine.

- Within Unit 3 (Camp Shelby), we excluded the Camp Shelby Impact Area (4,647 ac [1,880 ha]), as proposed in our original critical habitat rule (80 FR 12846, March 11, 2015), and upon further assessment of this area excluded additional acreage known as the Camp Shelby Impact Area Buffer Zone for a total exclusion of 14,862 ac (6,014 ha) of Camp Shelby lands under section 4(b)(2) of the Act (see *Exclusions Based on Impacts on National Security and Homeland Security* under **Exclusions**, below).

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 Federal agencies 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 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 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. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would 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 and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the specific features that support the life-history needs of the species, including but not limited to, water characteristics, soil type,

geological features, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

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. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation.

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 species status assessment (SSA) document 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) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. 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 this species. Similarly, critical habitat designations made on the basis of the best available information at the time of

designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

On August 27, 2019, we published a final rule in the Federal Register (84 FR 45020) to amend our regulations concerning the procedures and criteria we use to designate and revise critical habitat. That rule became effective on September 26, 2019, but, as stated in that rule, the amendments it sets forth apply to “rules for which a proposed rule was published after September 26, 2019.” We published our proposed critical habitat designation for the black pinesnake on March 11, 2015 (80 FR 12846); therefore, the amendments set forth in the August 27, 2019, final rule at 84 FR 45020 do not apply to this final designation of critical habitat for the black pinesnake.

Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features (PBFs) that are essential to the conservation of the species and which may require special management considerations or protection. For example, physical features might include gravel of a particular size required for spawning, alkali soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or a particular level of nonnative species consistent with

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

We derive the specific PBFs essential for the black pinesnake from studies of the subspecies and other similar species' habitat, ecology, and life history as described below. Additional information can be found in the final listing rule published in the *Federal Register* on October 6, 2015 (80 FR 60468) and the proposed critical habitat rule published in the *Federal Register* on March 11, 2015 (80 FR 12846). We have determined that the following PBFs are essential for the black pinesnake:

Space for Individual and Population Growth and for Normal Behavior

Telemetry studies and previous records indicate that the black pinesnake prefers an open canopy, a reduced midstory, and a dense herbaceous cover typical of a classic longleaf pine forest (see the "Habitat" and "Life History" sections of the final listing rule). An abundant herbaceous groundcover is typical of those areas characterized by a

more open-canopied condition, as a byproduct of the increased amount of sunlight reaching the forest floor. As an ectotherm (an organism that regulates its body temperature (*i.e.*, thermoregulates) primarily by exchanging heat with its surroundings), the black pinesnake requires this open condition to provide thermoregulatory opportunities, and possibly to provide proper incubation temperatures for nests.

Studies of black pinesnakes have supported this subspecies' preference for a relatively open canopy and reduced mid-story shrub cover (Duran 1998b, pp. 4–8; Baxley *et al.* 2011, p. 154). Values for these landscape features reflecting habitat structure have been estimated for the black pinesnake by looking to habitat conditions described for the threatened gopher tortoise (*Gopherus polyphemus*), a species sharing the same habitat within the same geographic range in the longleaf pine ecosystem. Management plans for the tortoise include targets for open-canopied upland longleaf pine forest with shrub cover of <10 percent, and a herbaceous groundcover of at least 40 to 50 percent (Florida Fish and Wildlife Conservation Commission (FWCC) 2012, p. 42; U.S. Forest Service 2014, p. 14; Service 2014, p. 1). These same metrics are all indicative of the forest structure in suitable black pinesnake habitat as well.

Longleaf pine ecosystems have historically been maintained with fire, as it is necessary for exposing bare mineral soil for seed germination, increasing nutrient content in forage species, and reducing competition of hardwood species (DeBerry and Pashley 2008, pp. 20–21). Prescribed burning during the growing season (late spring to early summer) is more effective at controlling mid-story hardwood vegetation, thereby promoting a more abundant herbaceous groundcover; however, some understory plants respond positively to fires in the dormant season as well (Knapp *et al.* 2009, p. 2).

Therefore, fire regimes should optimally incorporate variability in their seasonality and intensity, as a heterogeneous fire regime is likely to maximize plant biodiversity (Knapp *et al.* 2009, p. 3). Management of upland longleaf pine forests should include a fire return interval of 1 to 3 years (FWCC 2012, p. 42; U.S. Forest Service 2014, p. 14), primarily conducted in the growing season but with variable seasonality and intensity in the fire regime to promote the open-canopied condition and abundant, diverse forage species that sustain the prey base (small mammals) for black pinesnakes.

A broad distribution of home ranges has been estimated from various telemetry studies, from a mean Minimum Convex Polygon (MCP) (a mathematical tool for determining home range boundaries by connecting the outer location points) value of 106 acres (ac) (43 hectares (ha)) for adult female pinesnakes (Duran 1998a, p. 19) to a mean MCP value of 551 ac (223 ha) for adult male pinesnakes (Baxley and Qualls 2009, p. 287). The maximum home range reported for an individual black pinesnake in the literature is 979 ac (396 ha) for an adult male, and the maximum distance between consecutive locations in a telemetry study (reported as a straight-line distance) was 1.3 miles (2.1 kilometers) (Baxley and Qualls 2009, pp. 287–288). Examination of MCP areas for black pinesnakes occupying the same general area shows very little overlap of home ranges, potentially providing some evidence for territoriality (Duran 1998a, p. 15) although more research is needed.

The minimum amount of habitat necessary to support a viable black pinesnake population (known as the minimum reserve area) has not previously been determined, and estimating those parameters can be quite challenging, primarily based on the elusive nature of the subspecies (Wilson *et al.* 2011, pp. 42–43). We estimated a minimum black

pinenake reserve area by modeling the total area covered by two partially overlapping, circular activity ranges whose radius equals the maximum known movement distance for the subspecies (1.3 miles (2.1 km); see discussion under *Criteria Used To Identify Critical Habitat*). The resulting area of 5,000 ac (2,023 ha) is considered to be a minimum population reserve area for the black pinenake, as long as the area is not highly fragmented (see discussion under *Criteria Used to Identify Critical Habitat*). Fragmentation by roads, urbanization, or incompatible habitat conversion continues to be a major threat affecting the subspecies (see *Factor E. Other Natural or Manmade Factors Affecting Its Continued Existence* in the final listing rule).

We corroborated this value of minimum reserve area using a method previously used for Florida pinenakes (*P.m. mugitus*). Miller (2008, pp. 27–28) calculated a minimum reserve area of approximately 7,413 ac (3,000 ha) by overlaying the non-overlapping home ranges of 50 Florida pinenakes, using this population number because it has been previously proposed as a minimum effective population size for many vertebrate species (Franklin 1980, p. 147). Our analysis using this same population size (50) was adjusted to use partially overlapping polygons (instead of non-overlapping) that were approximately 150 ac (40.5 ha) in size, representing the mean home range for black pinenakes described in the literature (Duran 1998a, p. 19; Yager *et al.* 2005, p. 27). This modeling exercise using varying degrees of overlap between the polygons yielded total estimates between 4,500 to 6,000 ac (1,619 to 2,428 ha), thereby supporting our initial estimate of a 5,000-acre minimum reserve area.

For further comparison we investigated the population requirements of another large-bodied, wide-ranging snake with expansive home ranges that is also a longleaf pine

ecosystem specialist, the threatened eastern indigo snake (*Drymarchon couperi*; listed as *Drymarchon corais couperi*). Moler (1992, p. 185) recommended that large tracts of land ($\geq 2,500$ ac (1,012 ha)) should be protected in order to have a high probability of sustaining populations of eastern indigo snakes long term. Sytsma *et al.* (2012, pp. 39–40) estimated a reserve area of 10,000 ac (4,047 ha) to be sufficiently large to support a small population of eastern indigo snakes. Although the eastern indigo snake's home ranges are larger than the black pinesnake's, these studies support the need for sizeable areas to support large, wide-ranging snake species sensitive to landscape fragmentation. Thus, based on these estimates of eastern indigo snake reserve area, and the available long-distance movement data and home range sizes for the black pinesnake, we believe that 5,000 ac (2,023 ha) of suitable habitat is an appropriate estimate of the minimum reserve area for a population of black pinesnakes.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Black pinesnakes consume a variety of food, including nestling rabbits (*Sylvilagus aquaticus*), bobwhite quail (*Colinus virginianus*) and their eggs, and eastern kingbirds (*Tyrannus tyrannus*) (Vandeventer and Young 1989, p. 34; Yager *et al.* 2005, p. 28); however, rodents represent the most common type of prey. The majority of documented prey items are hispid cotton rats (*Sigmodon hispidus*), various mice species (*Peromyscus* spp.), and to a lesser extent eastern fox squirrels (*Sciurus niger*) (Rudolph *et al.* 2002, p. 59; Yager *et al.* 2005, p. 28). The hispid cotton rat was the most frequently trapped small mammal within black pinesnake home ranges (Duran 1998a, p. 34), and the core home ranges of telemetered black pinesnakes had higher mammal abundance

(especially hispid cotton rats) compared with areas on the periphery of the snakes' home ranges (Baxley and Qualls 2009, p. 291).

To provide the refugia and food needed to support the rodent prey base of black pinesnakes, the habitat must have an abundant herbaceous groundcover. Bluestem grasses (*Andropogon* and *Schizachyrium* sp.) typically represent the dominant groundcover species of the open-canopied longleaf pine habitat within the geographic range of the black pinesnake, and bluestem grass stems are a primary food of the hispid cotton rat (Miller and Miller 2005, p. 202). Black pinesnakes more frequently occupy forested habitats with significantly higher cover of herbaceous understory vegetation and avoid areas with significantly higher percentages of leaf litter (Duran 1998a, p. 11; Baxley *et al.* 2011, p. 161; Smith 2011, pp. 86 and 100).

Therefore, based on the information above, we identify open-canopied pine forest habitat, historically dominated by longleaf pine and maintained by frequent fires, a reduced midstory (<10 percent), and a diverse and abundant native herbaceous groundcover (>40 percent) to be the PBFs necessary for the conservation of the black pinesnake. These pine forests should be primarily unfragmented and occupy at least 5,000 ac (2,023 ha) in area.

Cover or Shelter

Black pinesnakes spend a majority of their time below ground (Duran 1998a, p. 12; Yager *et al.* 2005, p. 27; Baxley and Qualls 2009, p. 288). The subterranean environments most commonly used by black pinesnakes are burned-out or rotted-out pine stump holes (Duran 1998a, p. 12; Yager *et al.* 2005, p. 27; Baxley and Qualls 2009, p.

288). Where pine stumps have become limited, black pinesnakes may use gopher tortoise and nine-banded armadillo (*Dasyus novemcinctus*) burrows more frequently; however, the large diameters of these burrows might allow access to a wide array of potential predators (Rudolph *et al.* 2007, p. 563).

Rudolph *et al.* (2007, pp. 560–565) excavated five black pinesnake winter refugia (overwintering sites) used for significant periods of time from late fall through early spring. They were found to be located exclusively in chambers formed by the decay and burning of longleaf pine stumps and root tunnels, at depths of 3.5 to 14 inches (in) (9 to 35 centimeters (cm)) below the surface (Rudolph *et al.* 2007, pp. 560–561). There is evidence for site fidelity towards specific winter refugia sites in the genus *Pituophis*, specifically for northern pinesnakes. Burger *et al.* (2012, p. 600) documented hibernacula use by northern pinesnakes over a 26-year period in New Jersey, and they determined that even when known hibernacula do not get used for a year, those hibernacula have a 37 percent chance of being used the following year. Data on black pinesnake habitat use document site fidelity in this subspecies as well: black pinesnakes have been shown to return to the same general location during monitoring and even to the same stump hole (Yager *et al.* 2006, pp. 34–36; Baxley and Qualls 2009, p. 288). These data on microhabitat use reinforce the importance of locating and protecting known refugia, regardless of the seasonality of their use.

Therefore, based on the information above, we identify the presence of naturally burned-out or rotted-out pine stumps and their associated root systems within historically longleaf-dominated pine forests, to be a PBF for this subspecies.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Very little information on breeding and egg-laying of wild black pinesnakes is available. Lyman *et al.* (2007, pp. 40–42) documented mating activities at the entrance to armadillo burrows, and Lee (2007, p. 93) described mating in a pair of black pinesnakes above ground, but in the vicinity of a rotted-out pine root system that the pair subsequently occupied. The only documented natural nest for the subspecies is a clutch of six recently hatched black pinesnake eggs found 29 in (74 cm) below the soil surface at the end of a juvenile gopher tortoise burrow (burrow width: 2.5 in (6 cm)) in Perry County, Mississippi (Lee *et al.* 2011, p. 301). The microhabitat within the tortoise burrow likely provides a suitable microclimate for egg incubation in warm climate areas (Lee *et al.* 2011, p. 301). Female northern pinesnakes excavate tunnels and nest chambers for egg deposition (Burger and Zappalorti 1992, p. 331), but it is unknown whether female black pinesnakes excavate their own nests or only use and modify existing tunnels.

Since there is only one documented natural black pinesnake nest, it is unknown whether the subspecies exhibits nest site fidelity; however, nest site fidelity has been described for other *Pituophis* species and subspecies. Burger and Zappalorti (1992, pp. 333–335) conducted an 11-year study of nest site fidelity of northern pinesnakes in New Jersey and documented the exact same nest site being used for 11 years in a row, evidence of old eggshells in 73 percent of new nests, and recapture of 42 percent of female snakes at prior nesting sites.

In addition to the stump holes and associated root systems commonly used by adult black pinesnakes (Duran 1998a, p. 12; Yager *et al.* 2005, p. 27; Baxley and Qualls

2009, p. 288), yearling and young juvenile black pinesnakes frequently use small mammal burrows, specifically eastern mole (*Scalopus aquaticus*) tunnels, as retreat sites (Lyman *et al.* 2007, pp. 39–41). Because of this documented use and modification of existing burrow and tunnel systems, it is necessary for black pinesnakes to have access to areas with sandy soils for ease of excavation.

Appropriate soils have been described for the gopher tortoise and are recognized as one of their key habitat requirements, as they allow for burrow excavation and nest development (Ernst *et al.* 1994, p. 466). Gopher tortoises typically occur where soils have high sand content, low clay content, and little to no stones or gravel; the soils are often well-drained, and are deep to a water table (Service 2012, p. 3). When sufficient sunlight reaches the forest floor, sandy soils also promote herbaceous groundcover (component of PBF 1) as food for rodents (primary prey of the black pinesnake), and provide the appropriate environment for egg incubation and hatching (Service 2012, p. 3). Because black pinesnakes share a requirement for sandy soils with the gopher tortoise, and the two occur within the same habitat, characteristics of suitable gopher tortoise soils can also be used to describe appropriate black pinesnake soils. These soil characteristics include: (1) No flooding or ponding; (2) <15 percent medium and coarse gravel fragments; (3) >60 in (152 cm) depth to seasonal high water table (elevation to which the ground or surface water can be expected to rise due to a normal or wet season); (4) >60 in (152 cm) depth to the hardpan (dense layer of soil impervious to plant roots and water); (5) textural components equaling >30 percent sand and <35 percent clay; and (6) a slope <15 percent (Service 2012, p. 6). The association of black pinesnakes using these soil types is corroborated by Duran (1998b, p. 15), which showed that snakes spent

most of their time on well-drained soils determined to be appropriate for gopher tortoises.

Therefore, based on the information above, we identify sandy, well-drained soils characteristic of historically longleaf-dominated upland pine forest to be a PBF for this subspecies. These specific soil series and related soil associations have the following characteristics: No flooding or ponding; <15 percent medium and coarse gravel fragments; >60 in (152 cm) depth to seasonal high water table; >60 in (152 cm) depth to the hardpan; textural components equaling >30 percent sand and <35 percent clay; and a slope <15 percent.

Summary of Physical or Biological Features

We have determined the following PBFs for the black pinesnake:

(1) PBF 1: *Tract size and habitat structure*. A pine forest, historically dominated by longleaf pine and maintained by frequent fire, primarily having the following characteristics:

- (a) An open canopy that sustains a reduced woody mid-story (<10 percent cover) and abundant, diverse, native herbaceous groundcover (at least 40 percent cover); and
- (b) Minimum of 5,000 ac (2,023 ha) of mostly unfragmented habitat.

(2) PBF 2: *Refugia sites*. Naturally burned-out or rotted-out pine stumps and their associated root system tunnels, in pine forests historically dominated by longleaf pine.

(3) PBF 3: *Soils*. Deep, sandy, well-drained soils characteristic of longleaf pine forests:

- (a) No flooding or ponding;
- (b) <15 percent medium and coarse gravel fragments;

- (c) >60 in (152 cm) depth to seasonal high water table;
- (d) >60 in (152 cm) depth to the hardpan;
- (e) Textural components equaling >30 percent sand and <35 percent clay; and
- (f) A slope <15 percent.

Additional information can be found in the final listing rule and the proposed critical habitat designation for the black pinesnake.

Special Management Considerations or Protection

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

All areas designated as critical habitat require some level of management to address the current and future threats to the black pinesnake and to maintain the PBFs. Special management of the upland longleaf pine forest would be needed to ensure an open canopy, reduced mid-story, and abundant herbaceous groundcover (PBF 1); underground refugia for snakes to occupy (PBF 2); and relatively unfragmented tracts of pine forests (PBF 1).

A detailed discussion of activities affecting the black pinesnake and its habitat can be found in the final listing rule published in the *Federal Register* on October 6, 2015 (83 FR 51418). The features essential to the conservation of this subspecies may require special management considerations or protection to reduce threats posed by: Land use conversion, primarily urban development and conversion to agriculture and pine

plantations; timber management practices such as disking, bedding, and stumping involving whole root ball removal that may cause significant subsurface disturbance; fire suppression and low fire frequencies; random effects of drought or floods; encroachment of invasive species; fragmentation from new roads or development; road mortality; and creation of utility pipelines and powerlines.

Management activities that could ameliorate these threats include (but are not limited to): maintaining critical habitat areas as open pine habitat (preferably longleaf pine); conducting forestry management using frequent prescribed burning (1 to 3 years) with seasonal variability; avoiding intensive site preparation that would disturb or destroy pine stumps or stump holes; avoiding the practice of bedding when planting trees; reducing planting densities to create or maintain an open canopied forest with abundant herbaceous groundcover; maintaining forest underground structure such as gopher tortoise burrows and small mammal burrows; and retaining large tracts of unfragmented pine forest by protecting sites from development and new road construction. More information on the special management considerations for each critical habitat unit is provided in the individual unit descriptions below.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b) we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical

habitat. As discussed below, we are not designating any areas outside the geographical area occupied by the species because we have determined that occupied areas are sufficient for the conservation of the species.

Areas Occupied at the Time of Listing

We began our determination of which areas to designate as critical habitat for the black pinesnake with an assessment of the critical life-history components of the subspecies, as they relate to habitat. We reviewed the available information pertaining to historical and current distributions, life histories, and habitat requirements of this subspecies. We focused on the identification of large tracts of remaining unfragmented open pine habitat in our analysis because they are requisite sites for population survival and conservation and their disappearance in the environment is one of the primary reasons that the black pinesnake is declining. Our sources included surveys, unpublished reports, and peer-reviewed scientific literature prepared by the Alabama Department of Conservation and Natural Resources; Alabama Natural Heritage Program; Mississippi Department of Wildlife, Fisheries, and Parks Natural Heritage Program; and black pinesnake researchers. Other sources are Service data and Geographic Information System (GIS) data (such as species occurrence data, elevation contours, soils, transportation, urban areas, National Wetland Inventory, 2011 National Land Cover Database, aerial imagery, ownership maps, and U.S. Geological Survey (USGS) Terrestrial Ecosystems data).

For estimation of activity ranges of black pinesnakes, we used a modified methodology of establishing species occurrence areas, which was informed by the

methodology the New Jersey Department of Environmental Protection (NJDEP) uses for northern pinesnakes. These areas are derived by placing circular buffers around documented locations, in order to approximate typical activity ranges (NJDFW 2009, p. 17). There are unproven assumptions that underlie this method, such as that pinesnakes have circular activity ranges, and that the occurrence location represents the center of that individual's range; however, given the lack of representative telemetry data for many areas, this is one approach to estimate activity ranges.

We placed circular buffers around recent black pinesnake location points (post-1990) from the sources listed above, with a radius equaling the maximum known movement distance (1.3 miles (2.1 km)) to approximate the activity range of each snake (3,400 ac (1,376 ha)). The 1990 date was used as it coincides with dates chosen by black pinesnake researchers who conducted habitat assessments at what were considered recently and historically occupied locations (Duran and Givens 2001, pp. 5–9). Using GIS, we located all areas where at least two black pinesnake activity ranges overlapped, and identified those as potential populations. Outside of these activity ranges, if the area was forested and met the soils criteria, that area was considered contiguous habitat and included in potential population boundaries.

We identified 11 populations using this method: 6 in Mississippi and 5 in Alabama. These populations were then assessed in regard to impacts from nearby fragmentation sources such as major roads, wetlands and open water, incompatible land use (such as agricultural conversion), and urban development.

Soils determined to be suitable habitat for the gopher tortoise were used as a surrogate to determine suitable soils for the black pinesnake, as these species both occupy

deep, sandy soils of upland longleaf pine forest. A team of biologists and soil scientists from the Service and the Natural Resources Conservation Service, with input from staff from the U.S. Forest Service, developed a model to classify soils throughout the gopher tortoise's federally listed range (Service 2012, pp. 1–37). These specific soil characteristics are detailed in the *Physical or Biological Features for the Black Pinesnake* section, above.

To analyze potential impacts from roads and exclude areas around roads that do not provide quality habitat for the black pinesnake, a transportation layer was used with GIS, specifically examining Class 1 and 2 roads. Class 1 roads are hard-surface highways, including Interstate and U.S. numbered highways, primary State routes, and all controlled access highways; Class 2 roads include secondary State routes, primary county routes, and other highways that connect principal cities and towns. Both of these road classifications have a high probability of causing permanent black pinesnake population fragmentation and were excluded. Population boundaries were buffered at least 100 meters from all Class 1 and 2 roads in order to exclude not just the roadways themselves, but also to exclude the area capturing rights-of-way, residences, and businesses along these major roads. Major wetland areas and streams were avoided in determining population boundaries, and these generally were consistent with changes in elevation. To analyze the fragmentation effects from incompatible land uses (including but not limited to urbanization), recent aerial imagery and the 2011 National Land Cover Database (NLCD) were used. By selecting the evergreen forest layers from NLCD, it was possible to delineate large tracts of remaining pine forested habitat, and concurrent analysis from the aerial imagery further removed areas with agricultural fields, housing developments,

and urban areas.

We calculated that the total area covered by two partially overlapping activity ranges (5,000 ac (2,023 ha)) would be considered a minimum population reserve area, as long as the area was not highly fragmented. This is not to say that two snakes are considered a viable population, but that this area estimate should be considered a minimum value. As was discussed in *Space for Individual and Population Growth and for Normal Behavior* (above), this estimate of minimum reserve area was corroborated by modeling 50 polygons (150 acres in size to reflect mean black pinesnake home range size) at various levels of overlap, which resulted in a similar reserve area estimate of 5,000 acres.

Once all the above analyses were complete, the level of fragmentation in each population was assessed. If fragmentation within a population boundary limited the suitable habitat to the point where less than 5,000 ac (2,023 ha) of contiguous forested habitat was available, that population was no longer considered potentially viable and was removed from critical habitat consideration.

Using the above-described process, 8 of the 11 populations examined met the criteria for consideration as critical habitat: all 6 of the populations in Mississippi and 2 of the 5 in Alabama. Five of the six Mississippi populations occur at least partially on the De Soto National Forest, the largest of which is located almost exclusively on the Camp Shelby Special Use Permit area, and the sixth occurs primarily on the Marion County Wildlife Management Area (WMA). All six populations meet the criteria of appropriate size; contiguous, pine-dominated, forested habitat; soils; and minimal fragmentation. The Service has determined that these sites contain the PBFs that are essential for the

conservation of the black pinesnake.

Both of the Alabama populations that met the criteria to be considered critical habitat are located in Clarke County and include a population primarily located on lands previously identified as the Scotch WMA and a population located at the Fred T. Stimpson SOA. SOAs are State-owned properties, typically smaller than Wildlife Management Areas in acreage, that offer a different hunting format to reduce pressure and increase the quality of the hunt. Three other populations, in Washington and Mobile Counties, each have two black pinesnake records from the last 25 years, but due to urban and agricultural fragmentation no longer contain the PBFs.

The critical habitat designation does not include all forested areas known to have been occupied by the subspecies historically; instead, it focuses on occupied areas within the current range that have retained the necessary PBFs that will allow for the maintenance and expansion of existing populations. Further, as discussed in the **Critical Habitat** section above, we recognize that designation of critical habitat might not include all habitat areas that we may eventually determine are necessary for the recovery of the subspecies and that for this reason, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not promote the recovery of the subspecies.

Areas Not Occupied at the Time of Listing

We are not designating any areas outside the geographical areas occupied by the black pinesnake at the time of listing. The units within the area occupied by the subspecies at the time of listing are representative of the current geographical range and

include both the core population areas of black pinesnakes, as well as remaining peripheral population areas. We determined that there was sufficient area for the conservation of the subspecies within the occupied areas determined above.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for the black pinesnake. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands; nor all lands covered under the Camp Shelby Integrated Natural Resources Management Plan (INRMP), which are exempted from critical habitat designation (see *Application of Section 4(a)(3) of the Act* under **Exemptions**, below); nor all lands within the Camp Shelby Impact Area Buffer Zone, which are excluded from critical habitat designation (see *Exclusions Based on Impacts on National Security and Homeland Security* under **Exclusions**, below). Thus, any such lands inadvertently left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

Eight units, one of which was divided into two subunits, were designated. All eight units contain all of the physical or biological features necessary to support life-history functions essential to the conservation of the black pine snake, namely: unfragmented tracts of pine forest of sufficient size and structure (PBF 1); suitable

underground refugia sites (PBF 2); and deep, sandy soils (PBF 3).

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion.

We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on <http://www.regulations.gov> at Docket No. FWS–R4–ES–2014–0065, on our Internet sites <http://www.fws.gov/mississippiES/>, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

Final Critical Habitat Designation

We are designating approximately 324,679 ac (131,393 ha) in eight units (one unit divided into two subunits) as critical habitat for the black pinesnake. Those eight units are: (1) Ovett, (2) Piney Woods Creek, (3) Cypress Creek, (4A) Maxie, (4B) Maxie, (5) Howison, (6) Marion County WMA, (7) Jones Branch, and (8) Fred T. Stimpson SOA.

Table 1 provides the location, approximate area, and land ownership of each critical habitat unit.

Table 1. Critical habitat units for black pinesnake. [Area estimates reflect all land within critical habitat unit boundaries.]

Unit	Counties	Ownership*			Total Area
		Federal	State	Private	
MISSISSIPPI					
1—Ovett	Jones, Wayne	40,639 ac (16,446 ha)		6,540 ac (2,647 ha)	47,179 ac (19,093 ha)

2—Piney Woods Creek	Perry, Wayne	17,744 ac (7,181 ha)		4,645 ac (1,880 ha)	22,389 ac (9,061 ha)
3—Cypress Creek	Forrest, George, Greene, Perry	115,315 ac (46,666 ha)	1,768 ac (716 ha)	14,357 ac (5,810 ha)	131,440 ac (53,192 ha)
4A—Maxie	Forrest, Stone	8,914 ac (3,607 ha)		6,303 ac (2,551 ha)	15,217 ac (6,158 ha)
4B—Maxie	Forrest, Perry, Stone	28,232 ac (11,425 ha)		16,079 ac (6,507 ha)	44,311 ac (17,932 ha)
5—Howison	Stone, Harrison	9,430 ac (3,816 ha)		3,519 ac (1,424 ha)	12,949 ac (5,240 ha)
6—Marion County WMA	Marion		5,587 ac (2,261 ha)	6,270 ac (2,537 ha)	11,857 ac (4,798 ha)
ALABAMA					
7—Jones Branch	Clarke			33,395 ac (13,515 ha)	33,395 ac (13,515 ha)
8—Fred T. Stimpson SOA	Clarke		3,843 ac (1,555 ha)	2,100 ac (850 ha)	5,943 ac (2,405 ha)
Total Area		220,273 ac (89,141 ha)	11,197 ac (4,531 ha)	93,208 ac (37,720 ha)	324,679 ac (131,393 ha)

*Notes: Area sizing may not sum due to rounding. Also, no lands owned by local government agencies are being designated as critical habitat.

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

Unit 1: Overtt—Jones and Wayne Counties, Mississippi

Unit 1 encompasses approximately 47,179 ac (19,093 ha) on Federal and private land in Jones and Wayne Counties, Mississippi. This unit is located between the Bogue Homo River and Thompson Creek, is approximately 2.0 mi (3.2 km) northeast of Overtt, and is mostly within the boundary of the Chickasawhay Ranger District of the De Soto National Forest (DNF). It is located just east of State Highway 15, west of Salem Road, north of the intersection of State Highway 15 and County Road 205, and approximately

1.3 mi (2.1 km) south of the intersection of Freedom Road and Forest Road.

The majority of this unit (40,639 ac (16,446 ha)) is on Federal lands within the DNF, with the remainder of the unit (6,540 ac (2,647 ha)) on private land.

There are records of eight black pinesnakes located within Unit 1 since 1990. Many of these are located on the higher ridges within the unit boundary, but are within close enough proximity to each other (with contiguous habitat between) for all of them to belong to the same breeding population. Habitat management on the section of this unit owned by the U.S. Forest Service (86 percent) is performed under the Revised Land and Resource Management Plan for National Forests in Mississippi (U.S. Forest Service 2014, 207 pp.). This forest plan contains objectives for the threatened gopher tortoise and endangered red-cockaded woodpecker (*Picoides borealis*), both of which occur on Unit 1. These objectives include restoring and opening up canopy conditions in areas with sandy soils and in mature and old-growth pine forests and woodlands, with 1- to 3-year fire intervals; however, the management practices outlined in this plan do not specifically target all of the habitat requirements of the black pinesnake.

Threats to the black pinesnake and its habitat in Unit 1 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; utility easements; road mortality; and encroachment of invasive species.

Unit 2: Piney Woods Creek—Wayne and Perry Counties, Mississippi

Unit 2 encompasses approximately 22,389 ac (9,061 ha) on Federal and private land located primarily in Wayne County, Mississippi, with a small portion extending into Perry County, Mississippi. This unit is located between Thompson Creek and Piney Woods Creek, is approximately 4.0 mi (6.4 km) west of Clara, and is mostly within the boundary of the Chickasawhay Ranger District of the DNF. It is located 2.3 mi (3.7 km) north of the intersection of Camp Eight Road and Will Best Road, and 0.4 mi (0.6 km) southeast of the intersection of Clara-Strengthford Road and Clara-Strengthford Reservoir Road.

The majority of this unit (17,744 ac (7,181 ha)) is on Federal lands within the DNF, with the remainder of the Unit (4,645 ac (1,880 ha)) on private land.

There are records of five black pinesnakes located within Unit 2 since 1990. Many of these are located on the higher ridges within the unit boundary, but are within close enough proximity to each other (with contiguous habitat between) for all of them to belong to the same breeding population. Habitat management on the section of this unit owned by the U.S. Forest Service (79 percent) is performed under the Revised Land and Resource Management Plan for National Forests in Mississippi (U.S. Forest Service 2014, 207 pp.) (see discussion under Unit 1, above).

Threats to the black pinesnake and its habitat in Unit 2 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to

agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 3: Cypress Creek—Forrest, Perry, George, and Greene Counties, Mississippi

Unit 3 is the largest of all the units, encompassing approximately 131,440 ac (53,192 ha) on Federal, State, and private land in Forrest, Perry, George, and Greene Counties, Mississippi. This unit is located north of Black Creek (Cypress Creek runs into part of the unit, but is not a barrier to gene flow), and is approximately 3.0 mi (4.8 km) east of McLaurin, 1.8 mi (2.9 km) south of New Augusta, and 4.6 mi (7.4 km) northwest of Benndale. Unit 3 is mostly within the installation boundary of Camp Shelby on the De Soto Ranger District of the DNF, and is bordered by State Highways 26 and 57 and U.S. Highways 49 and 98.

The majority of this unit (115,315 ac (46,666 ha)) is on Federal lands, with another 1,768 ac (716 ha) on State lands; and the remainder (14,357 ac (5,810 ha)) on private land. This unit contains 4,054 ac (1,641 ha) of State- and Department of Defense (DoD)-owned lands that are covered under the Camp Shelby INRMP, which are exempted from critical habitat designation (see *Application of Section 4(a)(3) of the Act* under **Exemptions**, below). The unit also contains a total of 14,862 ac (6,014 ha) of USFS-owned land within the Camp Shelby Impact Area and its associated buffer zone, which are excluded under section 4(b)(2) of the Act (see ***Exclusions Based on Impacts on National Security and Homeland Security*** under **Exclusions**, below).

There are over 100 records of black pinesnakes located within Unit 3 since 2004, as compiled by The Nature Conservancy's Camp Shelby Field Office. Many of these are

located on the higher ridges within the unit boundary, but are within close enough proximity to each other (with contiguous habitat between) for all of them to belong to the same breeding population. Habitat management on the section of this unit owned by the U.S. Forest Service is performed under the Revised Land and Resource Management Plan for National Forests in Mississippi (U.S. Forest Service 2014, 207 pp.). In addition to containing objectives for the threatened gopher tortoise and endangered red-cockaded woodpecker, both of which occur on Unit 3 (see discussion under Unit 1, above), it also includes objectives for the endangered dusky gopher frog (*Rana sevosa*), which has three critical habitat units totaling 961.8 ac (389.2 ha), also located within Unit 3. Forest plan objectives for the dusky gopher frog include upland forest management to restore and improve open-canopied conditions compatible with black pinesnake habitat requirements.

Threats to the black pinesnake and its habitat in Unit 3 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 4: Maxie—Forrest, Perry, and Stone Counties, Mississippi

Unit 4 encompasses a total of approximately 59,528 ac (24,090 ha) on Federal and private land in Forrest, Perry, and Stone Counties, Mississippi. Located south of Black Creek and 3.0 mi (4.8 km) north of Wiggins, this unit is bisected into two subunits

(4A and 4B) by U.S. Highway 49. Both subunits are buffered from U.S. Highway 49 by at least 328 ft (100 m). The close proximity of black pinesnake records with adjacent suitable habitat would have made Unit 4 a single unit following the criteria for designation of critical habitat if not for the presence of U.S. Highway 49, which is a significant source of fragmentation and is potentially restricting gene flow between the two subunits.

Subunit 4A is located between Double Branch and U.S. Highway 49 in Forrest and Stone Counties, Mississippi. It is 0.3 mi (4.8 km) northwest of Bond and 0.5 mi (0.8 km) southwest of Maxie, and is located mostly within the boundary of the De Soto Ranger District of the DNF. Most of this subunit (8,914 ac (3,607 ha)) is on Federal lands within the DNF, with the remainder of the subunit (6,303 ac (2,551 ha)) on private land. There are records of two black pinesnakes located within subunit 4A since 1990. These are located on the eastern edge of the subunit, but have contiguous habitat with the rest of the area.

Subunit 4B is located between Black Creek and U.S. Highway 49 in Forrest, Perry, and Stone Counties, Mississippi. It is directly adjacent to Maxie on the western border, and is located mostly within the boundary of the De Soto Ranger District of the DNF. Most of this subunit (28,232 ac (11,425 ha)) is on Federal lands within the DNF, with the remainder of the subunit (16,079 ac (6,507 ha)) on private land. There are records of four black pinesnakes located within subunit 4B since 1990. These are located on the higher ridges of the subunit, but have contiguous habitat with the rest of the area.

Habitat management on the section of these subunits owned by the U.S. Forest Service (86 percent) is performed under the Revised Land and Resource Management

Plan for National Forests in Mississippi (U.S. Forest Service 2014, 207 pp.). This forest plan contains objectives for the threatened gopher tortoise, which occurs on both subunits of Unit 4. These objectives include restoring and opening up canopy conditions in areas with sandy soils with 1- to 3-year fire intervals; however, the management practices outlined in this plan do not specifically target the habitat requirements of the black pinesnake. Subunit 4B also contains two units designated as critical habitat for the endangered dusky gopher frog, totaling 598.6 ac (242.2 ha) (see discussion of Unit 3, above, for more about forest plan objectives for the gopher frog).

Threats to the black pinesnake and its habitat in Unit 4 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 5: Howison—Stone and Harrison Counties, Mississippi

Unit 5 encompasses approximately 12,949 ac (5,240 ha) on Federal and private land in Harrison and Stone Counties, Mississippi. This unit is located between Tuxachanie Creek and U.S. Highway 49, approximately 0.4 mi (0.6 km) east of Howison and 1.3 mi (2 km) southeast of McHenry, and this unit is mostly within the boundary of the De Soto Ranger District of the DNF. The unit is bordered on the northern edge by E. McHenry Road and on the western edge by U.S. Highway 49 (buffered from the highway

by at least 328 ft (100 m)).

The majority of this unit (9,430 ac (3,816 ha)) is on Federal lands within the DNF, with the remainder of the unit on private lands (3,519 ac (1,424 ha)) lands.

There are records of seven black pinesnakes located within Unit 5 since 1990. Many of these are located on the higher ridges within the unit boundary, but are within close enough proximity of each other (with contiguous habitat between) for all of them to belong to the same breeding population. Habitat management on the section of this unit owned by the U.S. Forest Service is performed under the Revised Land and Resource Management Plan for National Forests in Mississippi (U.S. Forest Service 2014, 207 pp.). This forest plan contains objectives for the threatened gopher tortoise, which occurs on Unit 5 (see discussion for Unit 4, above).

Threats to the black pinesnake and its habitat in Unit 5 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 6: Marion County WMA—Marion County, Mississippi

Unit 6 encompasses approximately 11,856 ac (4,798 ha) on State and private land in Marion County, Mississippi. This unit is located between the Upper Little Creek and Lower Little Creek, 7.0 mi (11 km) southeast of Columbia. It is located 0.8 mi (1.3 km)

north of State Highway 13, and 2.6 mi (4.2 km) south of U.S. Highway 98.

Approximately half of Unit 6 is within the Marion County WMA.

The unit is divided between State lands (5,587 ac (2,261 ha)) and private lands (6,270 ac (2,537 ha)).

There are records of two black pinesnakes located within Unit 6 since 1990. These are both located on the WMA, although there is contiguous suitable habitat across the remainder of the unit. Regulations on the WMA include prohibitions of wildlife harassment; however, there are no habitat management activities occurring at the WMA that specifically target the habitat requirements of the black pinesnake.

Threats to the black pinesnake and its habitat in Unit 6 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 7: Jones Branch—Clarke County, Alabama

Unit 7 encompasses approximately 33,395 ac (13,515 ha) of private land in Clarke County, Alabama. This unit is bordered by Salitpa Creek to the south, Tallahatta Creek to the north, and Harris Creek to the west. It is located approximately 2.7 mi (4.3 km) southeast of Campbell and 1.1 mi (1.8 km) north of the intersection of Old Mill Pond Road and Reedy Branch Road.

There are records of five black pinesnakes located within Unit 7 since 1994, including one as recently as 2015. Many of these are located on the higher ridges within the unit boundary, but are within close enough proximity to each other (with contiguous habitat between) for all of them to belong to the same breeding population. Most of this unit is managed by Scotch Land Management, LLC; however, there are no management practices on this unit that specifically target the habitat requirements of the black pinesnake.

Threats to the black pinesnake and its habitat in Unit 7 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Unit 8: Fred T. Stimpson SOA—Clarke County, Alabama

Unit 8 encompasses approximately 5,943 ac (2,405 ha) on State and private land in Clarke County, Alabama. This unit is located between Sand Hill Creek and the Tombigbee River, is approximately 1 mi (1.6 km) north of Carlton, and is 1.0 mi (1.6 km) south of the intersection of County Road 15 and Christian Vall Road. The southern two-thirds of this unit is on the Fred T. Stimpson SOA. Over 60 percent of the unit (3,843 ac (1,555 ha)) is on State lands, with the remainder of the unit (2,100 ac (850 ha)) on private land.

There are records of two black pinesnakes located within Unit 8 since 1992. These are both located on the SOA, although there is contiguous suitable habitat across the remainder of the unit. There are no habitat management practices outlined at the site that specifically target the habitat requirements of the black pinesnake.

Threats to the black pinesnake and its habitat in Unit 8 that may require special management considerations or protection of the PBFs include: Fire suppression and low fire frequencies; detrimental forestry practices that could cause significant subsurface disturbance such as disking, bedding, or whole root ball stump removal; land use conversion and fragmentation, primarily urban development and conversion to agriculture and pine plantations; gas, water, electrical power, and sewer easements; road mortality; and encroachment of invasive species.

Effects of Critical Habitat Designation

Section 7 Consultation

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

We published a final regulation with a new definition of destruction or adverse modification on August 27, 2019 (84 FR 45020). Destruction or adverse modification

means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are 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 or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

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

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50

CFR 402.02) as alternative actions identified during consultation that:

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

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

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the “Adverse Modification” Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that result in a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of the black pinesnake. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the black pinesnake. These activities include, but are not limited to:

(1) Forestry management actions in pine habitat that would significantly alter the suitability of black pinesnake habitat. Such activities include, but are not limited to: Silvicultural activities such as disking and bedding that involve significant subsurface disturbance, or stumping involving whole root ball removal; conversion to densely stocked pine plantations; and chemical applications (pesticides or herbicides) that are either unlawful or that are not directly aimed at hazardous fuels reduction, mid-story

hardwood control, or noxious weed control. These activities could destroy or alter the pine forest habitats and refugia necessary for the growth and development of black pinesnakes, and may reduce populations of the snake's primary prey (rodents), either through direct extermination or through loss of the forage necessary to sustain the prey base.

(2) Actions that would significantly fragment black pinesnake populations. Such activities include, but are not limited to: Conversion of timber land to other uses (agricultural, urban/residential development) and construction of new structures. These activities could lead to degradation or elimination of forest habitat, limit or prevent breeding opportunities between black pinesnakes, limit access to familiar refugia or nesting sites within individual home ranges, and increase the frequency of road mortality from road crossings.

Exemptions

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

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides that the Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed one INRMP developed by military installations located within the range of the critical habitat designation for the black pinesnake to determine if it met the criteria for exemption from critical habitat under section 4(a)(3) of the Act. The following area consists of Department of Defense lands with a completed, Service-approved INRMP within the critical habitat designation.

Approved INRMP

Camp Shelby Joint Forces Training Center (Camp Shelby), 4,054 ac (1,641 ha)

Camp Shelby is located in Forrest, George, and Perry Counties, near the town of Hattiesburg, Mississippi, and contains habitat with features essential to the conservation of the black pinesnake. The primary mission of Camp Shelby is to train U.S. Army soldiers (National Guard and Reserve) for combat and combat-related missions. Training activities at Camp Shelby primarily include troop bivouacking, wheeled vehicle maneuvers, artillery firing exercises, and tank training maneuvers.

Camp Shelby is composed of property belonging in four different categories: Department of Defense (DoD), State, United States Forest Service (USFS), and private land. The main part of Camp Shelby's training area belongs to the USFS and is operated under a special use permit (permit) from the USFS granted in 2007 for 20 years. The DoD and State lands are managed by the Mississippi Army National Guard (MSARNG) in support of the military mission, and the Camp Shelby INRMP addresses integrative management on these lands only (MSARNG 2014, p. 13). These DoD and State lands, included in the INRMP, with habitat features essential to the conservation of the black pinesnake, total approximately 4,054 ac (1,641 ha). We have examined the INRMP and determined that it outlines conservation measures for the black pinesnake, as well as management plans for important upland habitats at Camp Shelby. Conservation measures outlined in the INRMP for the black pinesnake at Camp Shelby include: Research on life history, habitat requirements, and habitat use; monitoring; prescribed burning and longleaf pine restoration programs, including increasing the frequency of growing season burns, reducing canopy closure and basal area, and restoring the natural

fire regime; protecting and maintaining downed deadwood and pine stumps (when not identified as a safety hazard); and implementation of education programs for users of Camp Shelby (geared towards minimizing the negative impacts of vehicular mortality on the black pinesnake and other species) (MSARNG 2014, pp. 92–94). The INRMP will continue to be reviewed annually to monitor the effectiveness of the plan, and be reviewed every 5 years to develop revisions and updates as necessary.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Camp Shelby INRMP and that conservation efforts identified in the INRMP will provide a benefit to the black pinesnake. Therefore, DoD and State lands within this installation, which are covered under the INRMP, are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 4,054 ac (1,641 ha) of habitat in this final critical habitat designation because of this exemption.

Exclusions

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

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical

habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation or the continuation, strengthening, or encouragement of partnerships. In the case of the black pinesnake, the benefits of critical habitat include public awareness of the presence of black pinesnake and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for the black pinesnake due to the protection from destruction or adverse modification of critical habitat. Additionally, continued implementation of an ongoing management plan that provides equal to or more conservation than a critical habitat designation would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. We consider a variety of factors, including but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the

future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

As discussed below, based on the information provided by entities seeking exclusion, as well as additional public comments received, we determined that certain lands were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. Specifically, we are excluding the Camp Shelby Impact Area and the associated buffer zone (14,862 ac [6,014 ha]), located within Unit 3, from designation of critical habitat for the black pinesnake (see discussion under *Exclusions Based on Impacts on National Security and Homeland Security*, below).

Exclusions Based on Economic Impacts

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum

(IEM) and screening analysis, which, together with our narrative and interpretation of effects, constitutes our draft economic analysis (DEA) of the proposed critical habitat designation and related factors (IEc 2014). The analysis, dated May 2, 2014, was made available for public review from March 11, 2015, through May 11, 2015 (80 FR 12846), and again from October 11, 2018, through November 13, 2018 (83 FR 51418). The DEA addressed probable economic impacts of critical habitat designation for the black pinesnake. Following the close of the comment periods, we reviewed and evaluated all information submitted during the comment periods that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Information relevant to the probable incremental economic impacts of critical habitat designation for the black pinesnake is summarized below and available in the final economic analysis (also referred to below as the screening analysis) for the black pinesnake (IEc 2014a), available at <http://www.regulations.gov>.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the black pinesnake in the May 2, 2014, IEM we identified probable incremental economic impacts associated with the following categories of activities: (1) Federal lands management (U.S. Forest Service); (2) forest management; (3) agriculture; (4) development; (5) silviculture/timber; (6) transportation activities; and (7) utilities. We considered each industry or category individually. Additionally, we considered whether the activities have any Federal involvement.

Critical habitat designation does not affect activities that do not have any Federal involvement; designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the black pinesnake is present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the federally threatened subspecies, and consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into that consultation process.

In our IEM, we attempted to clarify the distinction between the effects that would result from the subspecies being listed and those attributable to the critical habitat designation (*i.e.*, difference between the jeopardy and adverse modification standards) for the black pinesnake's critical habitat. The following specific circumstances assisted in our evaluation: (1) The essential PBFs identified for critical habitat are the same features essential for the life requisites of the subspecies, and (2) any actions that would result in sufficient harm or harassment to constitute jeopardy to the black pinesnake would also likely adversely affect the essential physical and biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this subspecies. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this critical habitat designation.

The critical habitat designation for the black pinesnake consists of eight units, one of which is divided into two subunits, encompassing approximately 324,679 ac (131,393 ha) in Mississippi and Alabama. Included lands are under Federal, State, and private ownership, and all are within the area occupied by the black pinesnake at the time of

listing. Federal land is predominant in Units 1 through 5. Federal lands make up from 58 to 90 percent of the acreage in these units, which account for approximately 68 percent of the total critical habitat acreage. Privately owned land is present in all eight units and ranges from 10 percent to a high of 100 percent in one unit. Private lands account for approximately 29 percent of the total critical habitat acreage. Approximately 14,862 ac (6,014 ha) of the originally proposed critical habitat designation in one unit has been excluded under section 4(b)(2) of the Act due to a national security concern (see *Exclusions Based on Impacts on National Security and Homeland Security*, below).

All lands in the critical habitat designation for the black pinesnake are currently occupied by the subspecies. In these areas any actions that may affect the subspecies or its habitat would also affect designated critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the black pinesnake. Therefore, only administrative costs are expected in the critical habitat designation. While this additional analysis will require time and resources by both the Federal action agency and the Service, we conclude that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant.

The entities most likely to incur incremental costs are parties to section 7 consultations, including Federal action agencies and, in some cases, third parties, most frequently State agencies or municipalities. Activities we expect will be subject to consultations that may involve private entities as third parties are residential and commercial development that may occur on private lands; however, cost to private

entities within these sectors is expected to be minor as most of the critical habitat is in Federal ownership (68 percent) and only 29 percent of the lands are privately owned. According to a review of consultation records, the additional administrative cost of addressing adverse modification during the section 7 consultation process ranges from approximately \$410 to \$9,000 per consultation. Based on the project activity identified by relevant action agencies and comparison to the consultation history for species that co-occur or share habitat with the black pinesnake, the number of future formal consultations is likely to be five or fewer in the year immediately following the final designation. In addition, up to 60 informal consultations and five technical assists could occur annually following the designation. Thus, the incremental administrative burden resulting from the designation is likely to be less than \$190,000 in this first year, the year with the highest anticipated costs; therefore, the costs would not be significant.

In summary, the probable incremental economic impacts of the black pinesnake critical habitat designation are expected to be limited to additional administrative efforts as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This finding is based on the following factors:

(1) All critical habitat is occupied by the subspecies; thus, the presence of the subspecies results in significant baseline protection under the Act.

(2) Project modifications requested by the Service to avoid jeopardy to the subspecies would be the same as those likely to avoid adverse modification of critical habitat.

(3) Critical habitat would be unlikely to increase the number of consultations as a result of the awareness by Federal agencies of the need to consult for the listed

subspecies, as well as the past involvement of key action agencies in consultations for co-occurring species.

(4) The designation also receives baseline protection from the presence of two other federally listed species (gopher tortoise and red-cockaded woodpecker) that have habitat needs similar to those of the pinesnake.

(5) The designation also receives baseline protection from overlap with designated critical habitat for the dusky gopher frog.

A supplemental document to the DEA, prepared by IEc (2014b), investigated possible effects on the value of private lands within critical habitat from the public perception that the designation posed restrictions on the use of these lands. Land ownership data suggested that the designation intersected about 65,000 acres of privately owned lands. Due to existing data limitations regarding the probability that such effects will occur and the likely degree to which property values will be incrementally affected by this designation (above and beyond possible perception effects resulting from the presence of co-occurring listed species, including the pinesnake, gopher tortoise, red-cockaded woodpecker, and dusky gopher frog, as well as its critical habitat), we are unable to estimate the magnitude of perception-related costs resulting from this designation.

Based on the above-described consideration of the economic impacts of the critical habitat designation, the Secretary is not exercising his discretion to exclude any areas from this designation of critical habitat for the black pinesnake based on economic impacts.

A copy of the IEM and screening analysis with supporting documents may be

obtained by contacting the Mississippi Field Office (see **ADDRESSES**) or by downloading from the field office's website at <http://www.fws.gov/mississippiES/> or the Internet at <http://www.regulations.gov>.

Exclusions Based on Impacts to National Security and Homeland Security

Section 4(a)(3)(B)(i) of the Act (see discussion above) may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of "critical habitat." Nevertheless, when designating critical habitat under section 4(b)(2) of the Act, the Service must consider impacts on national security, including homeland security, on lands or areas not covered by section 4(a)(3)(B)(i). Accordingly, we will always consider for exclusion from the designation areas for which DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns.

We cannot, however, automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, it must provide a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols

and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If the agency provides a reasonably specific justification, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national-security and homeland-security concerns in analyzing the benefits of exclusion.

Camp Shelby Joint Forces Training Center Impact Area and Buffer Zone

After review of public comments and additional consideration, we are excluding from critical habitat designation for the black pinesnake the Camp Shelby Joint Forces Training Center Impact Area (Impact Area) and its associated buffer zone, occupying a portion (14,862 ac (1,880 ha)) of Unit 3 in Perry County, Mississippi, under section 4(b)(2) of the Act. In the paragraphs below, we provide a detailed analysis of our decision to exclude this land.

The Impact Area of Camp Shelby Joint Forces Training Center (Camp Shelby) is a 4,647-ac (1,880-ha) area operated by the MSARNG for training and maneuver

exercises in an area of the De Soto National Forest within Unit 3 located in Perry County, Mississippi. The MSARNG uses this area under a permit from the U.S. Forest Service, who is the primary landowner and manager within the installation boundary. The Impact Area, which is located in the center of Camp Shelby and in the northern portion of Unit 3, has been used for artillery training for decades. As a result, access of any kind is prohibited in this impact area due to the high risk of encountering unexploded ordnance.

Surrounding the impact area is a buffer zone delineated by the following roads:

Grapevine Road on the west; South Tank Trail on the south; Red Hill Road on the east; and Davis Range Road on the north. All roads leading into this buffer zone are gated and locked, with restricted public access and only allowed through coordination with Camp Shelby Range Control. This buffer zone (14,862 ac (6,014 ha) including the impact area) contains most of the artillery ranges on the installation; therefore, much of this landscape burns almost annually due to range fires. Portions of the acreage within this area overlap with those lands covered under the Camp Shelby INRMP (see *Approved INRMP* under the **Exemptions** section, above).

Benefits of Inclusion

We are not able to demonstrate any benefit to including this area in the critical habitat designation for the black pinesnake. Access into this area is restricted for human safety and to maintain effective military training; therefore, the educational benefit associated with identifying specific areas as critical habitat as a means to provide the public with areas of potential conservation value is not realized here. Furthermore, because of the restricted access, there are likely no habitat-altering activities taking place

in this area at the scale that would affect the physical and biological features essential to the conservation of this subspecies. To the contrary, due to the nature of military use in this area, it experiences frequent fires, which promote optimal conditions for the black pinesnake.

Benefits of Exclusion

The benefits of excluding approximately 14,862 ac (6,014 ha) of U.S. Forest Service lands that encompass the Impact Area and its associated buffer zone of Camp Shelby are significant. Foremost, access into this area is restricted due to the high risk of encountering unexploded ordnance and to maintain safety and security of military operations; thus, there is limited opportunity to implement habitat management. However, as stated above, the area experiences frequent fires due to the concentration of artillery ranges there, and this is the preferred management technique for maintaining optimal habitat conditions for the black pinesnake. In addition, the black pinesnake receives secondary conservation benefits from management of adjacent lands for the threatened gopher tortoise. Lands within the Impact Area and its associated buffer zone encompass a large percentage of the area used for artillery training on Camp Shelby, providing soldiers with essential combat skills that they use on the battlefield. We believe that excluding these U.S. Forest Service lands on Camp Shelby from critical habitat designation would alleviate any potential impacts that a designation of critical habitat could have on MSARNG and the military's ability to maintain national security.

Benefits of Exclusion Outweigh the Benefits of Inclusion

Though access to the Impact Area and its associated buffer zone is restricted, an analysis of GIS and aerial imagery determined that this area contains the physical and biological features essential to the conservation of the black pinesnake, thereby meeting the definition of critical habitat under the Act. This area is also contiguous with other critical habitat with known occurrences for the black pinesnake. In making our decision to exclude the Impact Area and its associated buffer zone, we considered several factors: Restricted access due to a human safety issue; the apparent maintenance of physical and biological factors essential to the conservation of the subspecies from frequent burning due to the nature of the artillery ranges in the area; protection from habitat loss associated with land conversion; and potential impacts to national security associated with a critical habitat designation. We determined there are significant benefits to excluding these lands from critical habitat designation and were unable to demonstrate a benefit to including these lands in the designation. Therefore, we have determined that the benefits of exclusion of approximately 14,862 ac (6,014 ha) of the Impact Area and its associated buffer zone of Camp Shelby from the critical habitat designation outweigh the benefits of including these lands.

Exclusion Will Not Result in Extinction of the Subspecies

The exclusion of this portion (14,862 ac (6,014 ha)) from the total critical habitat designation in Unit 3 (135,494 ac (54,833 ha)) will have minimal to no adverse effect on the subspecies. Adjacent lands contain habitat for the black pinesnake and are part of the designation. Maintenance of appropriate habitat for the black pinesnake with frequent

fires is likely to continue in this area due to the use of this area for artillery training. The jeopardy standard of section 7 of the Act and routine implementation of conservation measures through the section 7 process provide additional assurances that the subspecies will not become extinct as a result of this exclusion. Thus, it is our determination that the exclusion of the Camp Shelby Impact Area and its associated buffer zone lands from the final designation of critical habitat for the black pinesnake will not result in the extinction of the subspecies.

Based on this analysis, under section 4(b)(2) of the Act, the Secretary has exercised his discretion to exclude the Camp Shelby Impact Area and its associated buffer zone within Unit 3 from the final critical habitat designation as a result of impacts to national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements, or candidate conservation agreements with assurances, or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of tribal conservation plans and partnerships and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no permitted conservation plans or other non-permitted conservation agreements or partnerships for the black pinesnake, and the final designation does not include any tribal lands or tribal trust resources. We anticipate no impact on tribal lands, partnerships, permitted or non-permitted plans or agreements from this critical habitat designation. Accordingly, the Secretary is not exercising his discretion to exclude any areas from this final designation based on other relevant impacts.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The Executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Executive Order 13771

This rule is not an E.O. 13771 (“Reducing Regulation and Controlling Regulatory Costs”) (82 FR 9339, February 3, 2017) regulatory action because this rule is not significant under E.O. 12866.

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

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade

entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

The Service’s current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the Agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7 only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this

rulemaking, the Service certifies that the final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive order that outlines nine outcomes that may constitute “a significant adverse effect” when compared to not taking the regulatory action under consideration.

The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with black pinesnake conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

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

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

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

program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because it would not produce a Federal mandate of \$100 million or greater in any year; that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. Consequently, we do not believe that the critical habitat designation would significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

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

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant federalism effects. A federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies in Alabama and Mississippi. We did not receive written comments

from Alabama or Mississippi specifically on the critical habitat designation. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the National Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

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

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the black pinesnake. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act in connection with designating critical habitat under the Act.

We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

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), Executive Order 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 recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial 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 determined that no tribal lands are affected by the designation.

References Cited

A complete list of all references cited is available on the Internet at <http://www.regulations.gov> and upon request from the black pinesnake (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this rulemaking are the staff members of the Mississippi Field Office.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

Accordingly, we 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; 4201–4245, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for “Pinesnake, black” under “REPTILES” in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
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* * * * *				
REPTILES				
* * * * *				
Pinesnake, black	<i>Pituophis melanoleucus lodingi</i>	Wherever found	T	80 FR 60468, 10/6/2015; 50 CFR 17.42(h) ^{4d} ; 50 CFR 17.95(c). ^{CH}
* * * * *				

* * * * *

3. In § 17.95, amend paragraph (c) by adding an entry for “BLACK PINESNAKE (*PITUOPHIS MELANOLEUCUS LODINGI*)” after the entry for “ST. CROIX GROUND LIZARD (*AMEIVA POLOPS*)” to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(c) * * *

BLACK PINESNAKE (*PITUOPHIS MELANOLEUCUS LODINGI*)

(1) Critical habitat units are depicted for Forrest, George, Greene, Harrison, Jones, Marion, Perry, Stone, and Wayne Counties, Mississippi, and Clarke County, Alabama, on the maps in this entry.

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

(i) *Tract size and habitat structure.* A pine forest, historically dominated by longleaf pine and maintained by frequent fire, primarily having the following characteristics:

(A) An open canopy that sustains a reduced woody mid-story (<10 percent cover) and abundant, diverse, native herbaceous groundcover (at least 40 percent cover); and

(B) Minimum of 5,000 ac (2,023 ha) of mostly unfragmented habitat.

(ii) *Refugia sites.* Naturally burned-out or rotted-out pine stumps and their associated root system tunnels, in pine forests historically dominated by longleaf pine.

(iii) *Soils.* Deep, sandy, well-drained soils characteristic of longleaf pine forests:

(A) No flooding or ponding;

(B) <15 percent medium and coarse gravel fragments;

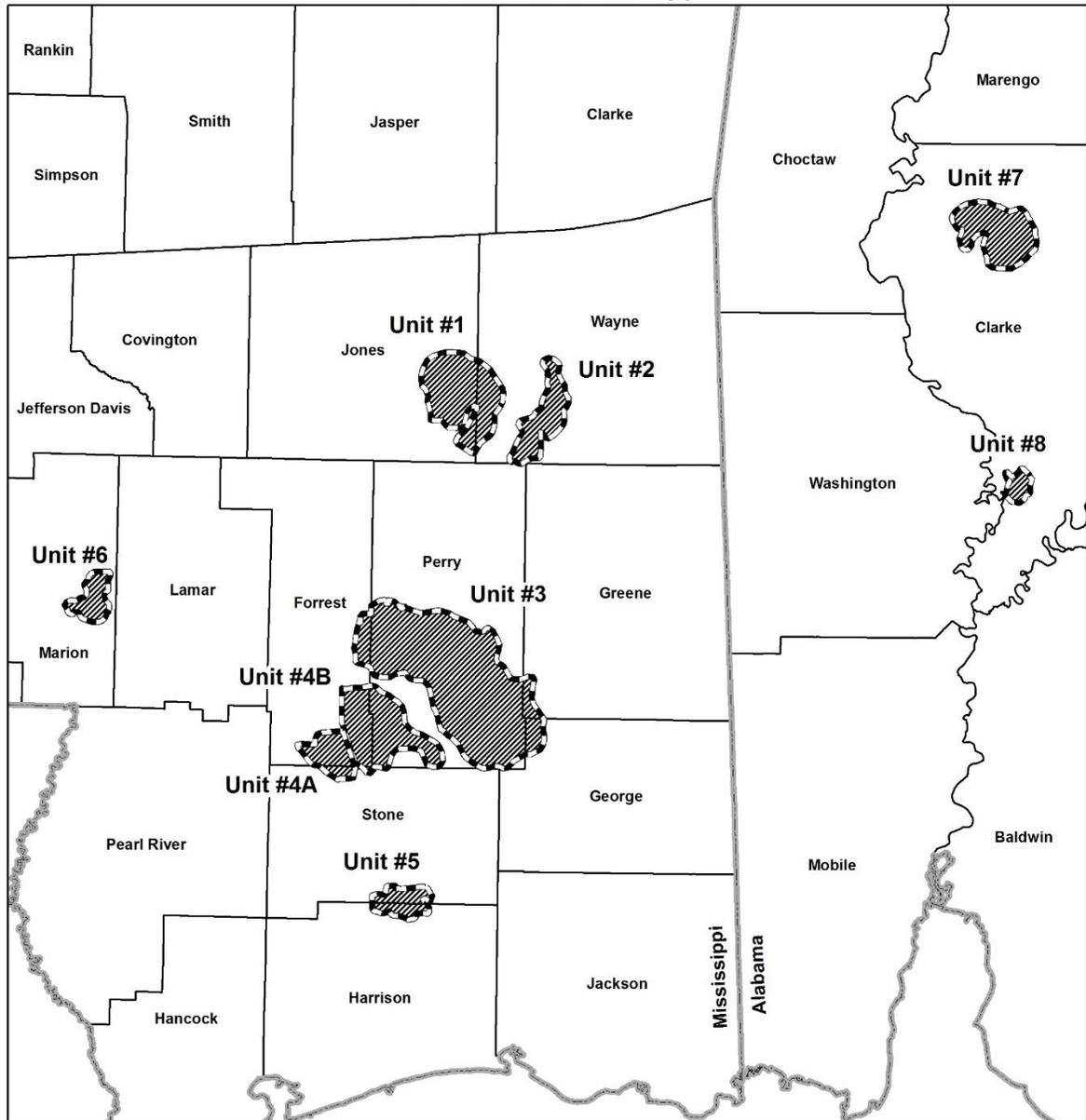
- (C) >60 in (152 cm) depth to seasonal high water table;
- (D) >60 in (152 cm) depth to the hardpan;
- (E) Textural components equaling >30 percent sand and <35 percent clay; and
- (F) A slope <15 percent.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [**INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION**]. In addition, State and Department of Defense lands covered under the Camp Shelby Integrated Natural Resources Management Plan (INRMP) are not considered critical habitat in Unit 3; nor are U.S. Forest Service lands within the Camp Shelby Impact Area Buffer Zone.

(4) *Critical habitat map units.* Data layers defining map units were developed from USGS 7.5' quadrangles, and critical habitat units were then developed using Universal Transverse Mercator Zone 15N coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at <http://www.fws.gov/mississippiES/>, at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2014-0065, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) *Note:* Index map follows:

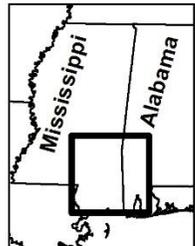
Index Map of Critical Habitat Units for the Black Pinesnake Alabama and Mississippi



0 10 20 40 60 80 Kilometers

0 10 20 40 60 80 Miles

	Critical Habitat
	State Boundary
	County Boundary



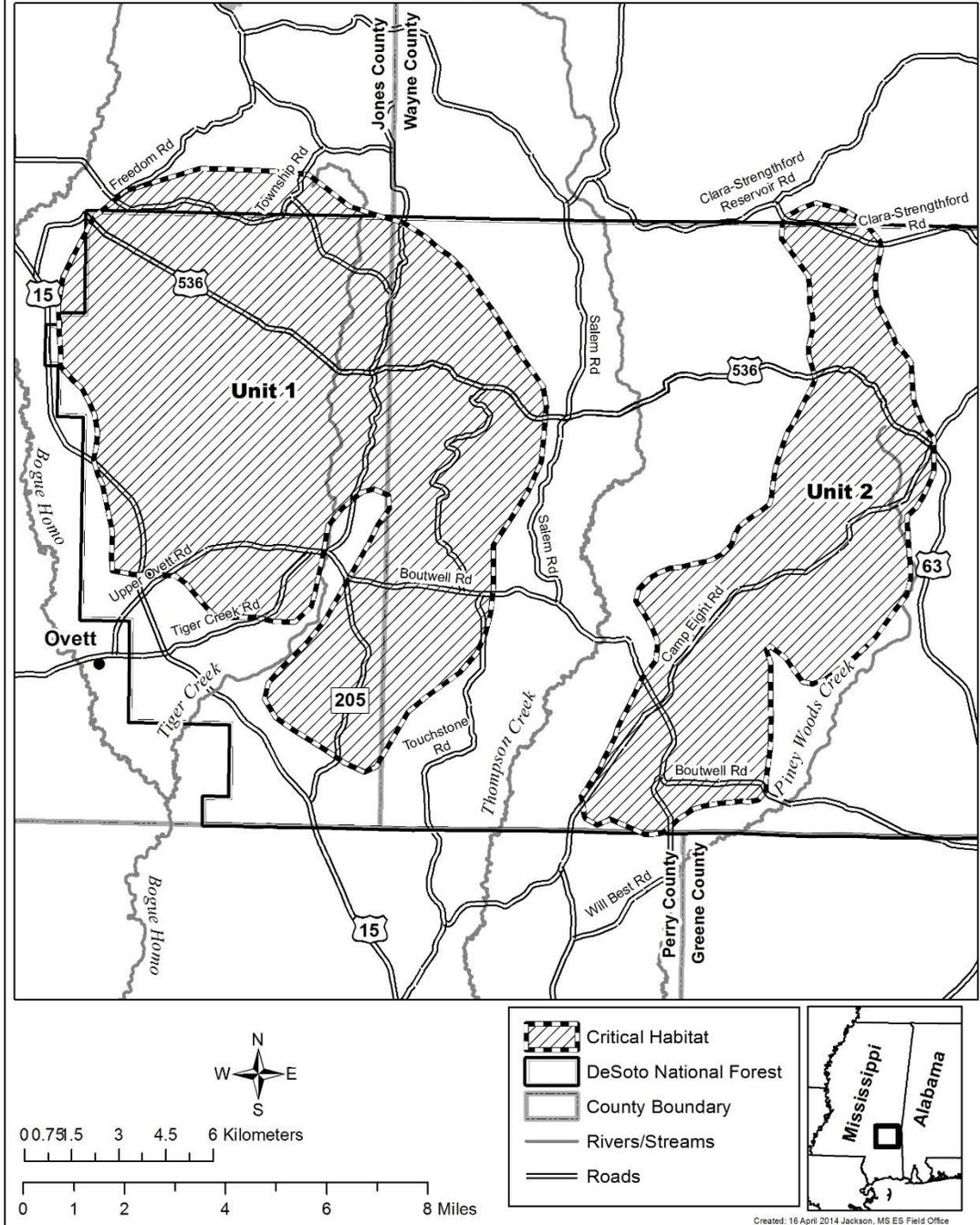
Created: 1 May 2018 Jackson, MS ES Field Office

(6) Unit 1: Ovet—Jones and Wayne Counties, Mississippi.

(i) Unit 1 encompasses approximately 47,179 ac (19,093 ha) on Federal and private land in Jones and Wayne Counties, Mississippi. The majority of this unit (40,639 ac (16,446 ha)) is on Federal lands within the De Soto National Forest, with the remainder of the unit (6,540 ac (2,647 ha)) on private land. This unit is located between the Bogue Homo River and Thompson Creek, is approximately 2.0 mi (3.2 km) northeast of Ovet, and is mostly within the boundary of the Chickasawhay Ranger District of the De Soto National Forest. It is located just east of State Highway 15, west of Salem Road, north of the intersection of State Highway 15 and County Road 205, and approximately 1.3 mi (2.1 km) south of the intersection of Freedom Road and Forest Road.

(ii) Map of Units 1 (Ovet) and 2 (Piney Woods Creek) follows:

**Units 1 and 2 Critical Habitat for the Black Pinesnake
Jones, Perry and Wayne Counties, Mississippi**



Created: 16 April 2014 Jackson, MS ES Field Office

(7) Unit 2: Piney Woods Creek—Perry and Wayne Counties, Mississippi.

(i) Unit 2 encompasses approximately 22,389 ac (9,061 ha) on Federal and private land located primarily in Wayne County, Mississippi, with a small portion extending into Perry County, Mississippi. The majority of this unit (17,744 ac (7,181 ha)) is on Federal lands within the De Soto National Forest, with the remainder of the Unit (4,645 ac (1,880 ha)) on private land. This unit is located between Thompson Creek and Piney Woods Creek, is approximately 4.0 mi (6.4 km) west of Clara, and is mostly within the boundary of the Chickasawhay Ranger District of the De Soto National Forest. It is located 2.3 mi (3.7 km) north of the intersection of Camp Eight Road and Will Best Road, and 0.4 mi (0.6 km) southeast of the intersection of Clara-Strengthford Road and Clara-Strengthford Reservoir Road.

(ii) Map of Unit 2 (Piney Woods Creek) is provided at paragraph (6)(ii) of this entry.

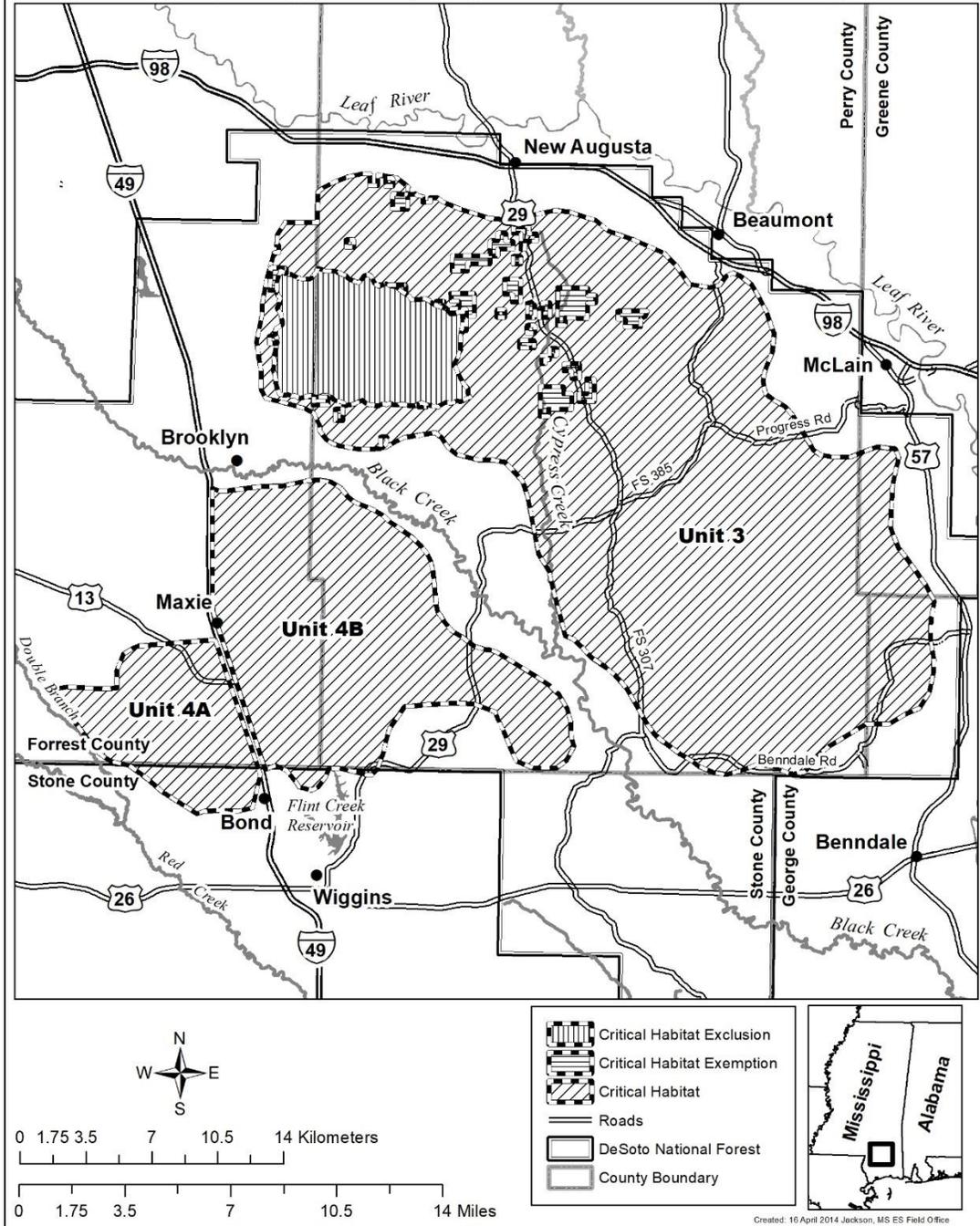
(8) Unit 3: Cypress Creek—Greene, George, Forrest, and Perry Counties, Mississippi.

(i) This unit is located north of Black Creek (Cypress Creek runs into part of the unit, but is not a barrier to gene flow), and is approximately 3.0 mi (4.8 km) east of McLaurin, 1.8 mi (2.9 km) south of New Augusta, and 4.6 mi (7.4 km) northwest of Benndale. Unit 3 is mostly within the installation boundary of Camp Shelby on the De Soto Ranger District of the De Soto National Forest, and is bordered by State Highways 26 and 57 and U.S. Highways 49 and 98. The majority of this unit (115,315 ac (46,666 ha)) is on Federal lands, with another 1,768 ac (716 ha) on State lands, and the remainder (14,357 ac (5,810 ha)) on private land. This unit contains 4,054 ac (1,641 ha) of State-

and Department of Defense (DoD)-owned lands (covered under the Camp Shelby INRMP) that are exempted from critical habitat designation; and 14,862 ac (6,014 ha) of U.S. Forest Service-owned lands excluded from critical habitat designation.

(ii) Map of Units 3 (Cypress Creek) and 4 (Maxie) follows:

**Units 3, 4A and 4B Critical Habitat for the Black Pinesnake
Forrest, George, Greene, Perry and Stone Counties, Mississippi**



(9) Unit 4: Maxie—Forrest, Perry, and Stone Counties, Mississippi.

(i) Subunit 4A—Forrest and Stone Counties, Mississippi. Subunit 4A is located between Double Branch and U.S. Highway 49 in Forrest and Stone Counties, Mississippi. It is 0.3 mi (4.8 km) northwest of Bond and 0.5 mi (0.8 km) southwest of Maxie, and is located mostly within the boundary of the De Soto Ranger District of the De Soto National Forest. Most of this subunit (8,914 ac (3,607 ha)) is on Federal lands within the De Soto National Forest, with the remainder of the subunit (6,303 ac (2,551 ha)) on private land.

(ii) Subunit 4B—Forrest, Perry, and Stone Counties, Mississippi. Subunit 4B is located between Black Creek and U.S. Highway 49 in Forrest, Perry, and Stone Counties, Mississippi. It is directly adjacent to Maxie on the western border, and is located mostly within the boundary of the De Soto Ranger District of the De Soto National Forest. Most of this subunit (28,232 ac (11,425 ha)) is on Federal lands within the De Soto National Forest, with the remainder of the subunit (16,079 ac (6,507 ha)) on private land.

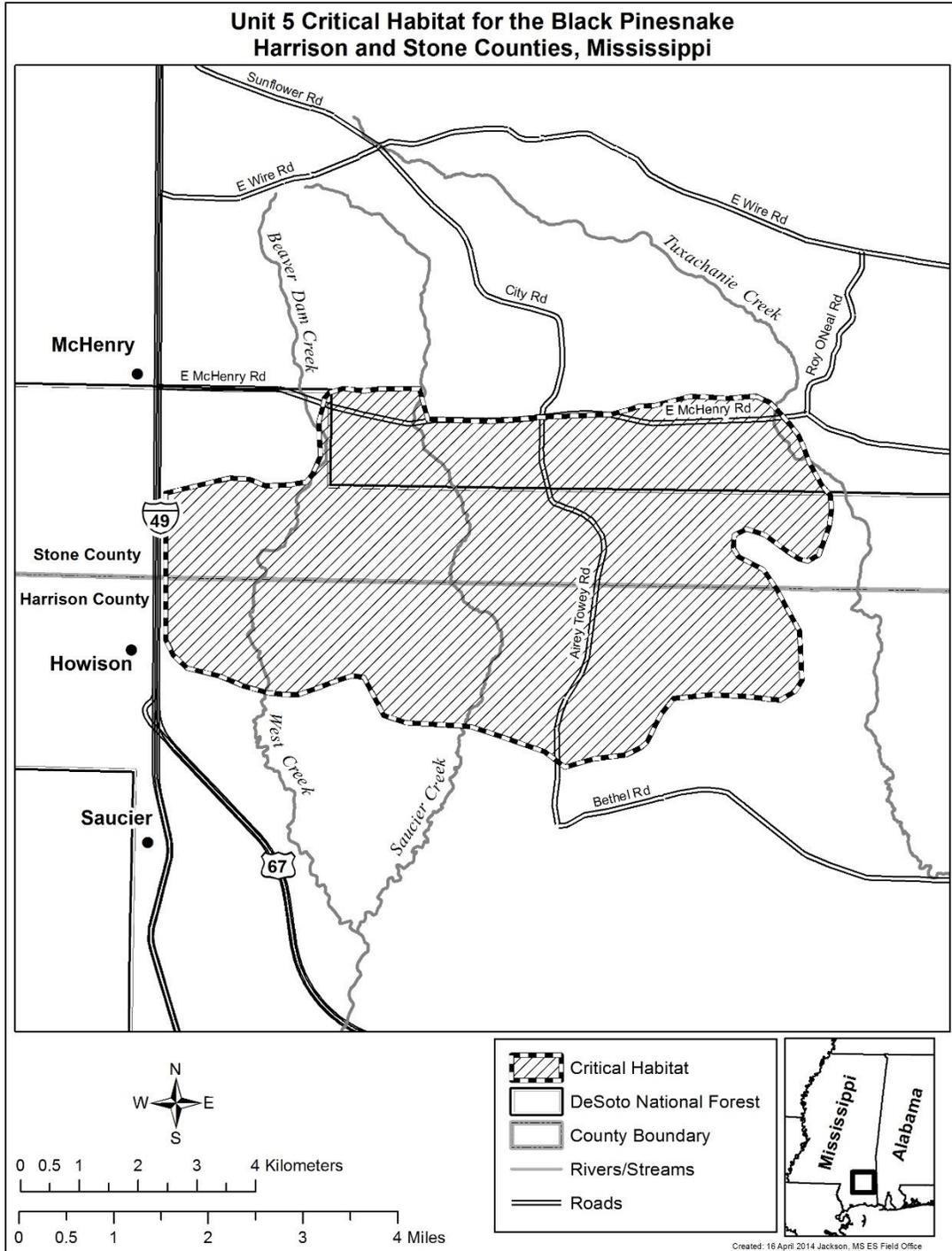
(iii) Map of Unit 4 (Maxie) is provided at paragraph (8)(ii) of this entry.

(10) Unit 5: Howison—Harrison and Stone Counties, Mississippi.

(i) Unit 5 encompasses approximately 12,949 ac (5,240 ha) on Federal and private land in Harrison and Stone Counties, Mississippi. The majority of this unit (9,430 ac (3,816 ha)) is on Federal lands within the De Soto National Forest, with the remainder of the unit on private lands (3,519 ac (1,424 ha)). This unit is located between Tuxachanie Creek and U.S. Highway 49, approximately 0.4 mi (0.6 km) east of Howison and 1.3 mi (2 km) southeast of McHenry. The unit is bordered on the northern edge by E. McHenry Road and on the western edge by U.S. Highway 49 (buffered from the highway by at

least 328 ft (100 m)).

(ii) Map of Unit 5 (Howison) follows:

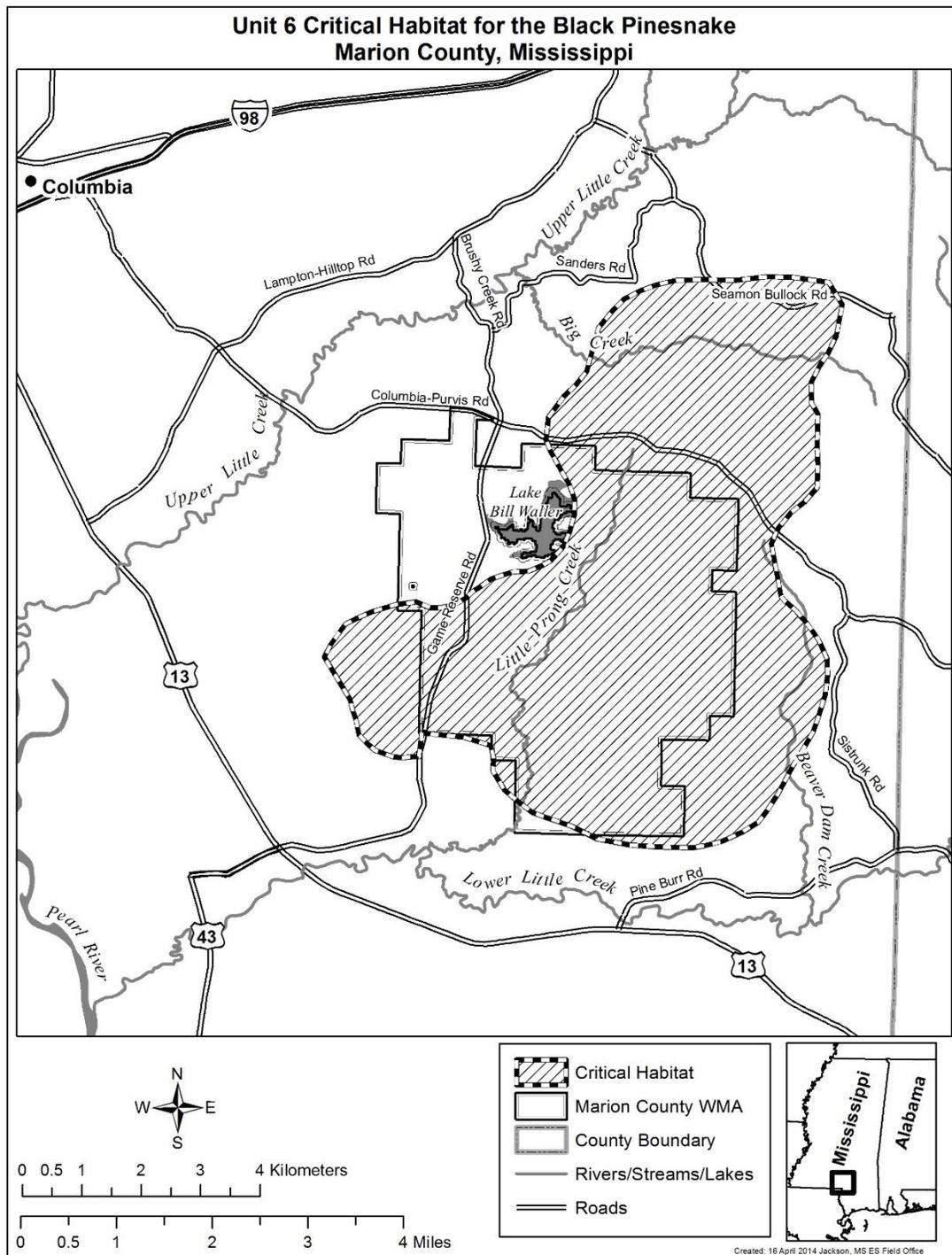


(11) Unit 6: Marion County Wildlife Management Area (WMA)—Marion

County, Mississippi.

(i) Unit 6 encompasses approximately 11,856 ac (4,798 ha) on State and private land in Marion County, Mississippi. The unit is divided between State lands (5,587 ac (2,261 ha)) and private lands (6,270 ac (2,537 ha)). This unit is located between the Upper Little Creek and Lower Little Creek, 7.0 mi (11 km) southeast of Columbia. It is located 0.8 mi (1.3 km) north of State Highway 13, and 2.6 mi (4.2 km) south of U.S. Highway 98. Approximately half of Unit 6 is within the Marion County Wildlife Management Area.

(ii) Map of Unit 6 (Marion County WMA) follows:



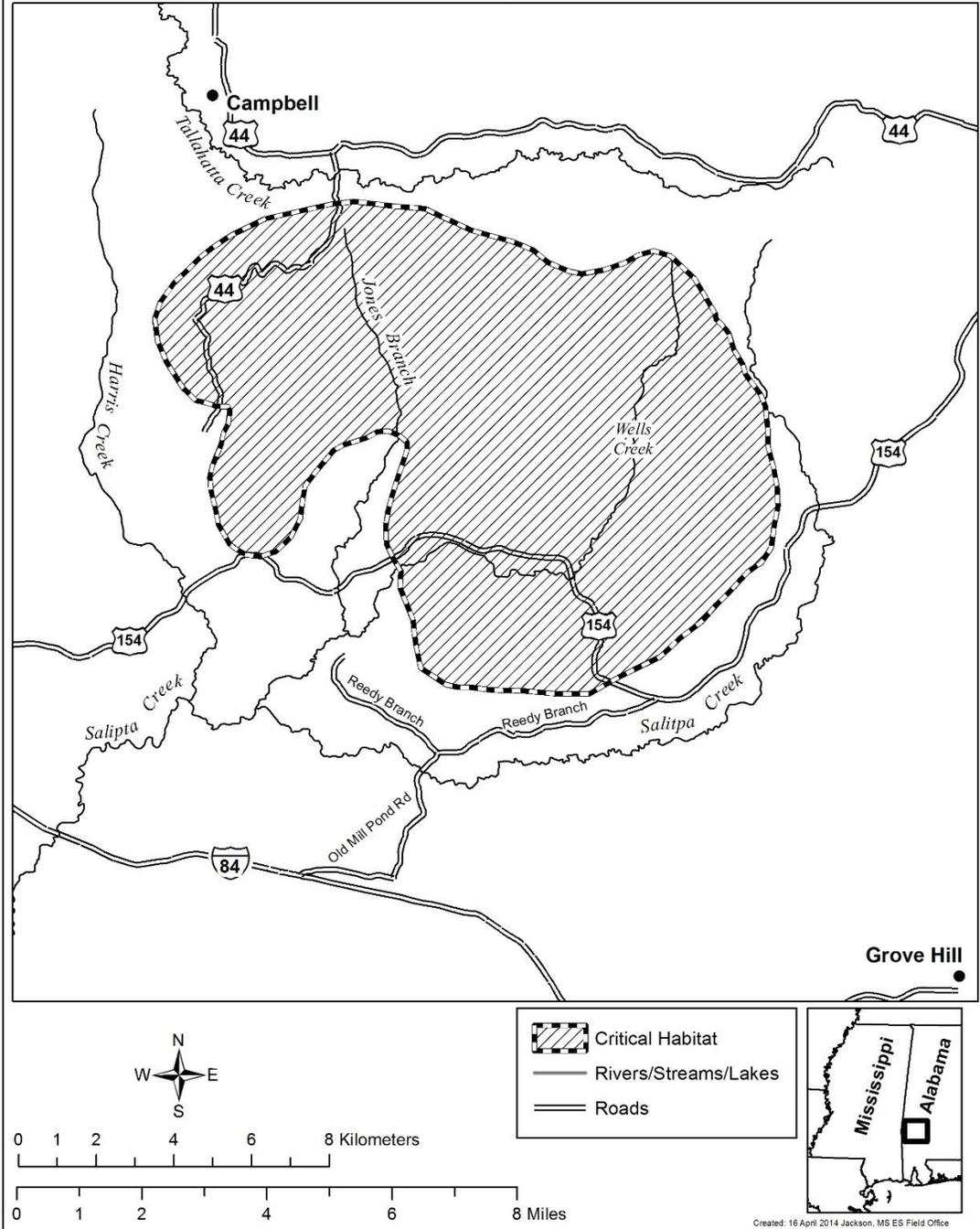
(12) Unit 7: Jones Branch—Clarke County, Alabama.

(i) Unit 7 encompasses approximately 33,395 ac (13,515 ha) of private land in Clarke County, Alabama. This unit is bordered by Salitpa Creek to the south, Tallahatta

Creek to the north, and Harris Creek to the west. It is located approximately 2.7 mi (4.3 km) southeast of Campbell and 1.1 mi (1.8 km) north of the intersection of Old Mill Pond Road and Reedy Branch Road.

(ii) Map of Unit 7 (Jones Branch) follows:

**Unit 7 Critical Habitat for the Black Pinesnake
Clarke County, Alabama**



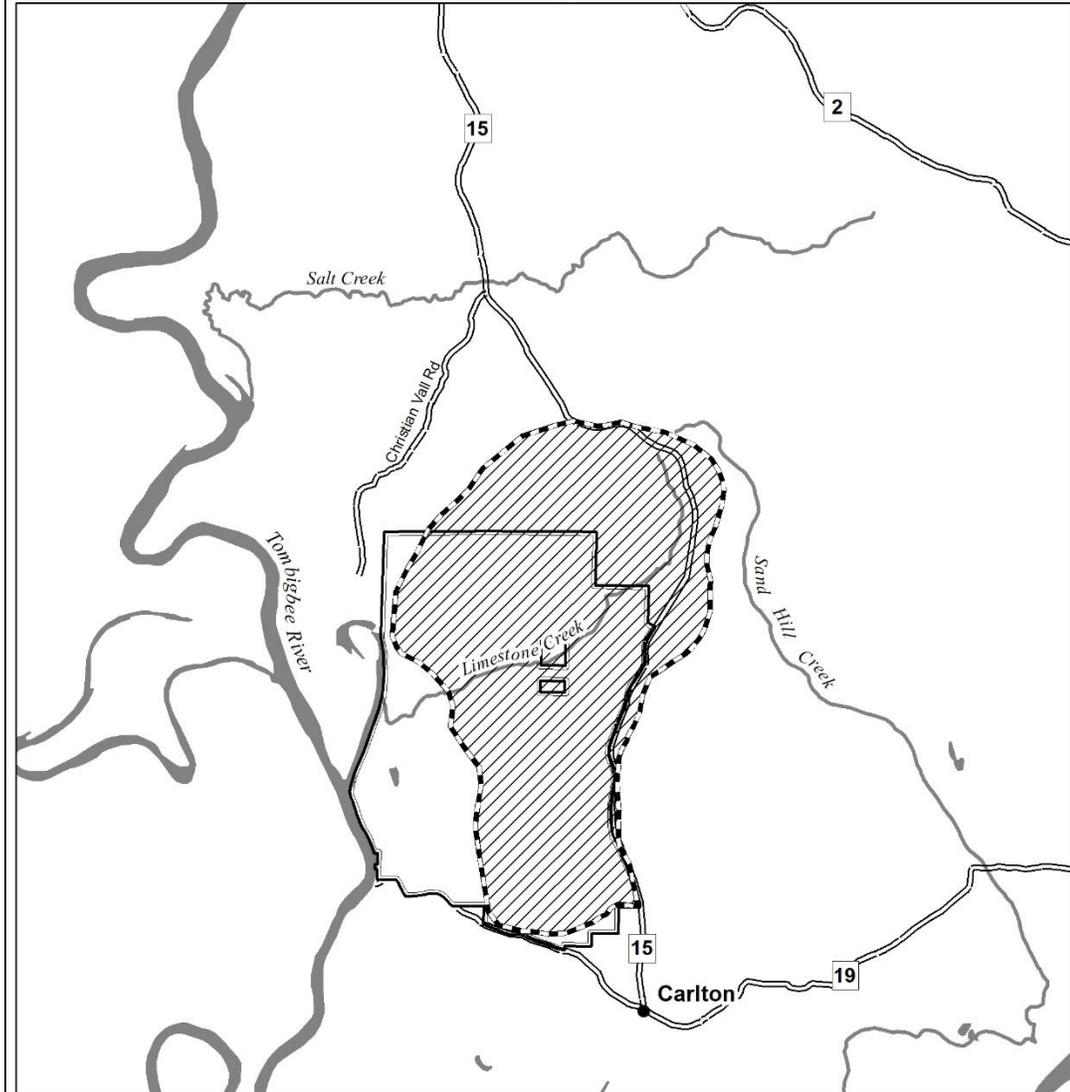
Created: 16 April 2014 Jackson, MS ES Field Office

(13) Unit 8: Fred T. Stimpson Special Opportunity Area (SOA)—Clarke County, Alabama.

(i) Unit 8 encompasses approximately 5,943 ac (2,405 ha) on State and private land in Clarke County, Alabama. Over 60 percent of the unit (3,843 ac (1,555 ha)) is on State lands, with the remainder of the unit (2,100 ac (850 ha)) on private land. This unit is located between Sand Hill Creek and the Tombigbee River, is approximately 1 mi (1.6 km) north of Carlton, and is 1.0 mi (1.6 km) south of the intersection of County Road 15 and Christian Vall Road. The southern two-thirds of this unit is on the Fred T. Stimpson SOA.

(ii) Map of Unit 8 (Fred T. Stimpson SOA) follows:

**Unit 8 Critical Habitat for the Black Pinesnake
Clarke County, Alabama**



0 0.75 1.5 3 4.5 6 Kilometers

0 0.75 1.5 3 4.5 6 Miles

-  Critical Habitat
-  Fred T. Stimpson SOA
-  Rivers/Streams/Lakes
-  Roads



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Dated: January 28, 2020.

Aurelia Skipwith,

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

Billing Code 4333-15

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