

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[Docket No. FWS–R4–ES–2013–0030]**

**[4500030113]**

**RIN 1018–AZ55**

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for  
Georgia Rockcress**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, designate critical habitat for *Arabis georgiana* (Georgia rockcress) under the Endangered Species Act of 1973, as amended (Act). In total, we are designating approximately 297 hectares (732 acres) of riparian, river bluff habitat in Georgia, including parts of Gordon, Floyd, Harris, Muscogee, and Clay Counties, and in

Alabama, including parts of Bibb, Dallas, Elmore, Monroe, Sumter, and Wilcox Counties, as critical habitat for this species.

**DATES:** This rule is effective 12 October, 2014

**ADDRESSES:** This final rule is available on the Internet at <http://www.regulations.gov> and <http://www.fws.gov/athens/>. Comments and materials we received, as well as some supporting documentation we used in preparing this final 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, Georgia Ecological Services Office, 105 Westpark Dr., Suite D, Athens, GA 30606; telephone 706-613-9493; facsimile 706-613-6059.

The coordinates or plot points or both from which the critical habitat maps are generated are included in the administrative record for this rulemaking and are available at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2013-0030, at <http://www.fws.gov/athens/>, and at the Ecological Services Office in Athens, Georgia, (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we may develop for this rulemaking 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/or at <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Don Imm, Field Supervisor, U.S. Fish and Wildlife Service, 105 Westpark Dr., Suite D, Athens, GA 30606; telephone 706-613-9493;

facsimile 706-613-6059. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

## **SUPPLEMENTARY INFORMATION:**

We will refer to *Arabis georgiana* by its common name, Georgia rockcress, in this final rule.

### **Executive Summary**

*Why we need to publish a rule.* Under the Act, when we determine that any species is an endangered or threatened species, we must designate critical habitat, to the maximum extent prudent and determinable. Designations of critical habitat can only be completed by issuing a rule in the **Federal Register**.

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.

In total, we are designating 17 critical habitat units with approximately 297 hectares (732 acres) of riparian, river bluff habitat for the species. Five critical habitat units are located in Georgia, including parts of Gordon, Floyd, Harris, Muscogee, and Clay Counties, and 12 critical

habitat units in Alabama, including parts of Bibb, Dallas, Elmore, Monroe, Sumter, and Wilcox Counties.

*The basis for our action.* Under the Act, if we intend to list a species as endangered or threatened throughout all or a significant portion of its range, we are required to promptly publish a proposal in the **Federal Register** to list the species as endangered or threatened and make a determination on our proposal within 1 year. We are required under the Act to designate critical habitat, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act concurrently with listing.

Elsewhere in today's **Federal Register**, we publish a final rule listing the species as a threatened species under the Act.

*We have prepared an economic analysis of the designation of critical habitat.* We have prepared an analysis of the economic impacts of the critical habitat designation and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on May 9, 2014 (79 FR 26679), allowing the public to provide comments on our analysis. We address the comments in this final designation.

*Peer review and public comment.* We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. Specifically, we obtained opinions from three knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and whether or not we used the best available information. 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 into this final designation. We also considered all comments and information received from the public during the comment period, and we held a public hearing on May 28, 2014.

### **Previous Federal Actions**

Please refer to the proposed listing rule for the Georgia rockcress (78 FR 56192, September 12, 2013) for a detailed description of previous Federal actions concerning this species.

### **Summary of Comments and Recommendations**

We requested written comments from the public on the proposed designation of critical habitat for the Georgia rockcress during two comment periods. The first comment period opened with the publication of the proposed rule (78 FR 56506) on September 12, 2013, and closed on November 12, 2013. The second comment period, during which we requested (79 FR 26679) comments on the proposed critical habitat designation and associated draft economic analysis (DEA), opened May 9, 2014, and closed on June 9, 2014. We received no comments during a public hearing in Columbus, Georgia, on May 28, 2014. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and DEA.

During the first comment period, we received one comment letter from the public addressing the proposed critical habitat designation. During the second comment period, we received one comment letter from the public addressing the proposed critical habitat designation. Comments received from the public stated opinions that were not focused on the issue. No substantive comments were received on this rule from the public in either of the comment periods. We also received a letter of support from the State of Georgia.

### *Peer Review*

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

We reviewed all comments received from the peer reviewers for substantive issues and new information regarding critical habitat for the Georgia rockcress. The peer reviewers generally concurred with our methods and conclusions. They provided only editorial comments, which are incorporated into the final rule as appropriate.

### **Summary of Changes from Proposed Rule**

In August 2014, Fort Benning, in which proposed critical habitat units 14A and 14B are located, completed a revision to its integrated natural resources management plan (INRMP), which includes specific measures for the Georgia rockcress and its habitat. We determine that the revised INRMP provides a benefit to the species. Pursuant to section 4(a)(3) of the Act (16 U.S.C. 1531 et seq.), lands covered by the revised INRMP are exempt from the final designation. We have exempted Units 14A Fort Benning (GA) and 14B Fort Benning (AL) from this final designation of critical habitat.

Additionally, we have made corrections to acreages and unit numbers in the proposed rule. In the proposed rule, we listed Unit 7A as having 12 hectares (ha) (29 acres (ac)) and Unit 9B as having 13 ha (21 ac), and the total area of designated critical habitat was 323 ha (786 ac). The corrected numbers are 11 ha (26 ac) for Unit 7A and 13 ha (32 ac) for Unit 9B; with the exemption of Units 14A and 14B (25 ha (61 ac)), the total area of critical habitat is 297 ha (732 ac). Furthermore, due to the exemption of the Fort Benning units from the critical habitat designation, the remaining units have been renumbered in the final rule as Units 1 through 17 by shifting some of them up one number (i.e., 15A became 14A, 15B became 14B, and so forth). The revised unit numbers and their descriptions can be found in the **Final Critical Habitat Designation** section later in this rule.

## **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.

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 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, but to 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 principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

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. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial 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 developed during the listing process for the species. Additional information sources may include 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 insure 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.

### *Physical or Biological Features*

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, 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 essential to the conservation of the species and which may require special management

considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the specific physical or biological features required for Georgia rockcress from studies of this species' habitat, ecology, and life history, as described below.

#### Space for Individual and Population Growth and for Normal Behavior

Georgia rockcress is known from the Lower Gulf Coastal Plain, Upper Gulf Coastal Plain, Red Hills, Black Belt, Piedmont, and the Ridge and Valley Physiographic Provinces (Schotz 2010, p. 6; Allison 1995, p. 6), generally occurring within regions underlain or otherwise influenced by sandstone, granite, and limestone (Moffett 2007, p. 1; Schotz 2010, p. 6). This species occurs on soils that are circumneutral to slightly basic (or buffered) and is primarily associated with high bluffs along major river courses, with dry-mesic to mesic soils of open, rocky, woodland and forested slopes, including shallow soil accumulations on rocky bluffs, ecotones of sloping rock outcrops, and sandy loam along eroding riverbanks (Moffett 2007, p. 1; Schotz 2010, p. 6). The habitat supports a relatively closed to open canopy of deciduous trees with a rich diversity of grasses and forbs characterizing the herb layer (Schotz 2010, p. iii).

Therefore, we identify well-drained soils that are buffered or circumneutral to be a physical or biological feature for this species.

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

Georgia rockcress generally occurs on steep river bluffs often with shallow soils overlaying rock or with exposed rock outcroppings. These specialized soil conditions result in micro-disturbances, such as sloughing soils with limited accumulation of leaf litter or canopy gap dynamics, possibly with wind-thrown trees, which provide small patches of exposed mineral soil in a patchy distribution across the river bluff (Schotz 2010, p. 6). Georgia rockcress is a poor competitor (Allison 1995, p. 8; Moffett 2007, p. 4; Schotz 2010 p. 9); therefore, small-scale disturbances are critical for this species. Exposed mineral soil provides for seed to soil contact for good germination and allows Georgia rockcress to occupy habitat with limited competition for light, mineral, and water resources. Therefore, we identify large river bluffs with steep slopes and/or shallow soils that are subject to localized disturbances to be a physical or biological feature for this species.

#### Cover, Shelter, and Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Georgia rockcress generally occurs at sites with a substantial, mixed-level canopy with spatial heterogeneity, which provides for mixed sunlight and shade throughout the day and impedes invasive species. The habitat supports a relatively closed to open canopy of *Juniperus virginiana* (eastern red cedar), *Ostrya virginiana* (American hophornbeam), *Quercus*

*muehlenbergii* (chinquapin oak), *Fraxinus americana* (white ash), *Acer barbatum* (southern sugar maple), and *Cercis canadensis* (eastern redbud) with a rich diversity of grasses and forbs characterizing the herb layer (Schotz 2010, p. iii). Georgia rockcress generally occurs on sites with a mature canopy providing partial shading (Moffett 2007, p. 4). Although Georgia rockcress can survive deep shade primarily as a vegetative rosette without flowering or fruiting (Allison 1995, p. 7; Moffett 2007, p. 4; Schotz 2010, p. 10), it cannot reproduce in heavily shaded conditions. It is often the mature trees grown on shallow soils that are subject to wind throw. Therefore, we identify a mature, mixed-level canopy with spatial heterogeneity to be a physical or biological feature for this species.

#### Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

While Georgia rockcress needs small-scale disturbances to exploit, the species is a poor competitor and is easily outcompeted by aggressive competitors. Natural large-scale disturbances, such as fire and catastrophic flooding, are unlikely to occur on the steep river bluffs occupied by Georgia rockcress. Edge effects may penetrate as far as 175 meters (m) (574 feet (ft)), resulting in changes in community composition (Gehlhausen et al. 2000, p. 21). Aspect is an important factor in determining how forest microclimate and vegetation are influenced by the external environment (Gehlhausen et al. 2000, p. 30) and likely plays an important role on bluff habitat inhabited by Georgia rockcress. Edge effects are reduced by a protective vegetative border with buffers eliminating most microhabitat edge effects (Honu and Gibson 2006, p. 255; Gehlhausen et al. 2000, p. 32). Management strategies for the control of invasive plants should

encourage canopy closure of greater than 85 percent for forested stands (Honu and Gibson 2006, p. 255). Therefore, we identify the intact habitat that is buffered to impede the invasion of nonnatives to be a physical or biological feature for this species.

### **Primary Constituent Elements for the Georgia rockcress**

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of Georgia rockcress in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

The critical habitat is designed to provide sufficient habitat to maintain self-sustaining populations of Georgia rockcress. We believe the conservation of Georgia rockcress is dependent upon the protection and management of sites where existing populations grow, and the maintenance of normal ecological functions within these sites. Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to Georgia rockcress are:

(1) Large river bluffs with steep and/or shallow soils that are subject to localized disturbances that limit the accumulation of leaf litter and competition within the Lower Gulf Coastal Plain, Upper Gulf Coastal Plain, Red Hills, Black Belt, Piedmont, and Ridge and Valley Physiographic Provinces of Georgia and Alabama.

(2) Well-drained soils that are buffered or circumneutral generally within regions underlain or otherwise influenced by granite, sandstone, or limestone.

(3) A mature, mixed-level canopy with spatial heterogeneity, providing mottled shade and often including species such as eastern red cedar, America hophornbeam, chinquapin oak, white ash, southern sugar maple, and redbud with a rich diversity of grasses and forbs characterizing the herb layer.

(4) Intact habitat that is fully functional (i.e., with mature canopy and discrete disturbances) and buffered by surrounding habitat to impede the invasion of competitors.

#### *Special Management Considerations or Protection*

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. A fully functioning bluff habitat (i.e., with mature canopy and discrete disturbances) is required to provide the features essential to the conservation of this species and may require special management considerations or protection to reduce the following threats: Land-clearing activities that alter the canopy, including silvicultural management, building of utility lines, structures, roads, or bridges; construction of reservoirs that inundate habitat; mining activities; or introduction of invasive species that compete directly with Georgia rockcress. Large-scale

disturbances, such as fire or soil-disturbing activities, should be minimized. A mature canopy with spatial heterogeneity should be maintained to impede invasive species while providing an opportunity for localized disturbances as canopy-gap dynamics develop. Invasive species should be eliminated from the critical habitat units. A mature canopy on the bluffs and a surrounding buffer area will help to exclude nonnatives.

#### *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 occupied areas at the time of listing that contain the features essential to the conservation of the species. If after identifying currently occupied areas, a determination is made that those areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e) we then consider whether designating additional areas—outside those currently occupied—are essential for the conservation of the species.

For the Georgia rockcress, we are not designating any areas outside the geographical area occupied by the species because occupied areas are sufficient for the conservation of the species. The 17 critical habitat units capture populations across the known range of the species, providing conservation in six different physiographic provinces in three different river drainages. This effectively protects against the loss of one of the three genetic groups and provides for the

expansion of all known genetic groups in each physiographic province.

In preparing this rule, we reviewed and summarized the current information available on Georgia rockcress; the information used includes known locations, our own site-specific species and habitat information, Statewide Geographic Information System (GIS) coverages (e.g., soils, geologic formations, and elevation contours), the Natural Resources Conservation Service's soil surveys, recent biological surveys and reports, peer-reviewed literature, and discussions and recommendations from Georgia rockcress experts.

As discussed below, when determining critical habitat boundaries we made every effort to avoid including developed areas such as lands covered by water, buildings, pavement, and other structures because such lands lack physical or biological features for Georgia rockcress. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the final rule and are not designated as critical habitat. Therefore, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the maps, as modified by any accompanying regulatory text, presented at the end of this document in the **Regulation Promulgation** section. We include more detailed information on the boundaries of the critical habitat designation in the

preamble of this rule. 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–2013–0030, on our Internet site at <http://www.fws.gov/athens/>, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**, above).

### **Final Critical Habitat Designation**

We are designating 17 units as critical habitat for Georgia rockcress. As described below, the critical habitat areas constitute our current best assessment of areas that meet the definition of critical habitat for Georgia rockcress. All of the designated areas are occupied. Except as noted, all of the units contain all of the PCEs and require special management consideration or protection to address the threats (see discussion above) and to ensure their contribution to the conservation of Georgia rockcress. Unit names were derived from reports generated from previous survey efforts (Schotz 2010, pp. 20-57; Moffett 2007, pp. 5-8; Allison 1999, pp. 3-8; Allison 1995, pp. 18-28), to promote continuity with monitoring efforts. Goat Rock Dam (Unit 14 A/B) provides the highest conservation value to the overall designation, having the largest population outside of Ft. Benning. The other units provide the representation and redundancy needed to support viability of the species across six physiographic provinces and multiple river basins.

TABLE 1. Final critical habitat units for Georgia rockcress.

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

Unit #	Unit Name	County/State	Ownership	Hectares	Acres

1	Fort Tombebee	Sumter/AL	State	6	14
2	Marshalls Bluff	Monroe/AL	Private	11	27
3	Prairie Bluff	Wilcox/AL	Private	13	32
4	Portland Landing River Slopes	Dallas/AL	Private	12	31
5	Durant Bend	Dallas/AL	Private	12	28
6	Murphys Bluff Bridge Cahaba River	Bibb/AL	Private	11	26
7A	Creekside Glades	Bibb/AL	Private	11	26
7B	Little Schulz Creek	Bibb/AL	Private	12	28
8A	Cottingham Creek Bluff	Bibb/AL	Private	22	55
8B	Pratts Ferry	Bibb/AL	Private	11	28
9A	Fern Glade	Bibb/AL	Federal	14	34
9B	Sixmile Creek	Bibb/AL	Private	13	31
10A	Browns Dam Glade North	Bibb/AL	Private	14	35
10B	Browns Dam Glade South	Bibb/AL	Private	15	37
11	McGuire Ford   Limestone Park	Bibb/AL	Private	6	15
12	Fort Toulouse State Park	Elmore/AL	State	7	17
13	Fort Gaines Bluff	Clay/GA	Private	17	42
14A	Goat Rock North	Harris/GA	Private	7	19
14B	Goat Rock South	Harris, Muscogee/GA	Private	24	59

15	Blacks Bluff Preserve	Floyd/GA	Private	37	92
16	Whitmore Bluff	Floyd/GA	Private	17	43
17	Resaca Bluffs	Gordon/GA	Private	5	13
			TOTAL	297	732

Note: Area sizes may not sum due to rounding.

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

*Critical Habitat Unit Descriptions*

We are designating a total of 17 critical habitat units for Georgia rockcress located in Georgia, including parts of Clay, Floyd, Gordon, Harris, and Muscogee Counties, and in Alabama, including parts of Bibb, Dallas, Elmore, Monroe, Wilcox, and Sumter Counties. In order to provide definite legal descriptions of the critical habitat boundaries, we drew polygons around these units, using as criteria the plant’s primary constituent elements, the known extent of the populations, and the elevation contours on the map. We made an effort to avoid developed areas that are unlikely to contribute to the conservation of Georgia rockcress. However, some areas within the boundaries of the mapped units, such as buildings, roads, clearings, lawns, and other urban landscaped areas, do not contain one or more of the primary constituent elements. Accordingly, Federal actions limited to these areas would not trigger consultation under section 7 of the Act, unless they otherwise affect the species or its primary constituent elements in the critical habitat.

#### Unit 1. Fort Tombecbee, Sumter County, Alabama.

The 6-ha (14-ac) Fort Tombecbee unit is approximately 0.5 kilometers (km) (0.3 miles (mi)) northeast of the city of Epes, Alabama, and is owned by the University of West Alabama. This Georgia rockcress occurrence inhabits the crest and steep slopes of a deeply incised stream bank overlooking a small intermittent creek approximately 91 m (300 ft) upstream from its confluence with the Tombigbee River. Livestock grazing was observed during a visit made in May 2010, in a portion of the site where the species was previously observed; it is conceivable that livestock may have further impacted the occurrence. Only four plants were found in 2010 (Schotz 2010, p. 51). The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with road crossings, development and potentially grazing.

#### Unit 2. Marshalls Bluff, Monroe County, Alabama.

The 11-ha (27-ac) Marshall Bluff unit is a privately owned tract 9.6 km (6 mi) southwest of Perdue Hill, Alabama, on the eastern bank of the Alabama River on a high bluff (Marshalls Bluff) overlooking the Alabama River. An abandoned quarry exists approximately 150 m (500 ft) distant to the east, and while the quarry may have destroyed bluff habitat, the quarry currently poses no threat to the occurrence, and there are no plans to expand the quarry (Schotz 2010, p. 22). More than 400 plants were found in 2010. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with mining.

### Unit 3. Prairie Bluff, Wilcox County, Alabama.

Privately owned, the 13-ha (32-ac) Prairie Bluff unit is located along the banks of the Millers Ferry (William “Bill” Dannelly) Reservoir, approximately 1.6 km (1 mi) north of the Lee Long Bridge on State Route 28. Georgia rockcress is scattered along the bluffs and ravines associated with the Alabama River. Nonnative species, most notably *Ligustrum sinense* (Chinese privet) and *Lonicera japonica* (Japanese honeysuckle), threaten this site (Allison 1999, p. 2; Schotz 2010, pp. 54-55). More than 500 plants were found in this unit in 2010; however, some habitat was likely inundated by the reservoir. This site is slated for residential development with lakeside lots, and the infestation of nonnatives will likely become worse. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with roads, development, hydropower, and nonnative species.

### Unit 4. Portland Landing River Slopes, Dallas County, Alabama.

Privately owned, the 12-ha (31-ac) Portland Landing River Slopes unit is located 18 km (11.5 mi) south of Orrville, Alabama, on the south side of the Alabama River at Portland Landing. This occurrence of Georgia rockcress is restricted to the unstable, highly erodible, sandy soils along the bank of the Alabama River. Nonnatives, most notably *Melia azedarach* (Chinaberry or bead-tree), Japanese honeysuckle, and *Pueraria montana* var. *lobata* (kudzu), are present, and although not severe, these nonnatives will persist without active management (Schotz 2010, p. 40). In 2010, 498 Georgia rockcress plants were recorded (Schotz 2010, p. 40). The physical or biological features essential to the conservation of the species in this unit may

require special management considerations or protection to address threats associated with timber harvest, hydropower, and nonnative species.

#### Unit 5. Durant Bend, Dallas County, Alabama.

Privately owned, the 12-ha (28-ac) Durant Bend unit occurs 16 km (10 mi.) east of Selma in a sharp bend on the Alabama River. Fewer than 50 plants were reported in sandy alluvium along the Alabama River under a partially open to filtered canopy in 2010 (Schotz 2010, p. 37). While the majority of plants occur in forested conditions, a small number of plants were observed in relatively open and exposed soils of actively eroding sections of the riverbank. Nonnatives, including Chinese privet and Japanese honeysuckle, are present but not severe. Timber harvesting has recently taken place approximately 46 m (150 ft) north of the site, but it currently has not impacted species' viability or habitat integrity (Schotz 2010, p. 37). The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with timber harvest and nonnative species.

#### Unit 6. Murphys Bluff Bridge Cahaba River, Bibb County, Alabama.

Privately owned, the 11-ha (26-ac) Murphys Bluff Bridge Cahaba River unit is 11.4 km (7 mi) southwest of Centreville, Alabama, and located along the west bank of the Cahaba River downstream (southwest) of the Murphy Road Bridge. Chinese privet, Japanese honeysuckle, and other nonnatives are present, but are relatively sparse. Infestation of nonnative plants could worsen. Timber harvesting has been observed nearby and may pose a potential concern (Schotz 2010, p. 22). Sixteen Georgia rockcress plants were found at this location during the 2010

survey. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with road crossings and nonnative species.

#### Unit 7A. Creekside Glades, Bibb County, Alabama.

Privately owned, the 11-ha (26-ac) Creekside Glades subunit is located 9.6 km (6 mi) north-northeast of Centreville, Alabama, along the banks of Little Schultz Creek. Georgia rockcress occurs in association with a small dolomite glades complex on either side of Little Schultz Creek. The plants (mostly rosettes, i.e., non-reproductive) predominantly occur in the ecotone of the glades and the encompassing woodland, in association with a mix of shrubs and low-growing trees. A smaller number of individuals (mostly mature) can be found in the glades and surrounding woodlands (Allison 1999, p. 2; Schotz 2010, p. 30). This subunit contained 42 plants in 2010. A utility line right-of-way passes through this subunit, and while there is no canopy on the right-of-way, it provides essential supporting habitat such that the right-of-way has not been excluded from critical habitat. The physical or biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats associated with development and utility right-of-way maintenance.

#### Unit 7B. Little Schulz Creek, Bibb County, Alabama.

Privately owned, the 12-ha (28-ac) Little Schulz Creek subunit is located 8.9 km (5.5 mi) north-northeast of Centreville, Alabama. In 2010, 29 plants occurred on limestone outcrops along the west bank of the Cahaba River. The site is characterized as a bouldery limestone woodland situated along a low bluff overlooking the Cahaba River. Georgia rockcress inhabits

shallow soils associated with the bluff, occurring under an open to lightly shaded canopy (Schotz 2010, p. 32). This subunit consisted of 29 plants in 2010. The physical or biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats associated with development and utility right-of-way maintenance.

Unit 8A. Cottingham Creek Bluff and Unit 8B. Pratts Ferry, Bibb County, Alabama.

Privately owned, the Cottingham Creek Bluff subunit is located on the east side of the Cahaba River, upstream of Pratts Ferry Bridge, 10 km (6.2 mi) northeast of Centreville, Alabama. The Pratts Ferry subunit is located on the west side of the Cahaba River, downstream of Pratts Ferry Bridge, 10 km (6.2 mi) northeast of Centreville, Alabama. A small portion (26 percent (5.88 ha (14.5 ac)) of the Cottingham Creek Bluff subunit is owned by The Nature Conservancy (TNC). A small number of plants are confined to an abandoned limestone quarry several hundred feet back from the southeastern side of the river's edge. Chinese privet and Japanese honeysuckle impact this site, particularly in the vicinity of the abandoned quarry. Nonnatives could become worse. Timber harvesting is of potential concern in an area adjacent to the population on the west side of the Cahaba River, which was selectively logged in the 1990s (Allison 1999, p. 3; Schotz 2010, pp. 34-35). Subunit 8A is 22 ha (55 ac), and subunit 8B is 11 ha (28 ac). In 2010, these two subunits together contained 299 Georgia rockcress plants. The physical or biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats associated with road crossings, timber harvest, and nonnative species.

#### Unit 9A. Fern Glade, Bibb County Alabama.

The 14-ha (34-ac) Fern Glade subunit is centered near the confluence of the Little Cahaba River and Sixmile Creek approximately 14.2 km (8.9 mi) northeast of Centreville, Alabama. Twelve percent of the Fern Glade subunit (4.2 ha (1.7 ac)) is owned by TNC, and 79 percent (10.9 ha (27 ac)) of this subunit is part of the Cahaba National Wildlife Refuge. A moderate incursion of invasive Chinese privet and Japanese honeysuckle occurs at this site. Nonnatives will likely become worse (Allison 1999, p. 3; Schotz 2010, p. 26). A small glade on the north side of the Little Cahaba River had 81 Georgia rockcress plants in 2010. The physical or biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats associated with timber harvest and nonnative species.

#### Unit 9B. Sixmile Creek, Bibb County, Alabama.

Privately owned, the Sixmile Creek subunit is located 13.7 km (8.5 mi) northeast of Centreville, 0.8 km (0.5 mi) upstream on Sixmile Creek from its confluence with the Little Cahaba River. The majority of this subunit (96.6 percent or 8.2 ha (20.3 ac)) was acquired by TNC in 2013. This population of Georgia rockcress is on the west side of Sixmile Creek. In a relatively isolated site, Georgia rockcress occupies the upper slope and summit of a steep forested bluff overlooking Sixmile Creek. This 13-ha (31-ac) subunit had 59 Georgia rockcress plants in 2010. The physical or biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats associated with timber harvest and nonnative species.

Unit 10A. Browns Dam Glade North and Unit 10B. Browns Dam Glade South, Bibb County, Alabama.

Privately owned, the Browns Dam Glade subunits are located 15.8 km (9.8 mi) northeast of Centreville, Alabama, on both sides of the Little Cahaba River. Subunit 10A is on the north side of the river, and subunit 10B is in a sharp bend on the south side of the River. More than 96 percent of subunit 10A (13.7 ha (33.8 ac)) and all of subunit 10B are owned by TNC. A combination of open woodland and dolomitic glades characterize the site. An infestation of nonnatives, most notably Chinese privet, occurs at this unit. This site serves as a primitive recreation area for local residents, resulting in some trash disposal and the construction of fire pits (Allison 1999, p. 5; Schotz 2010, pp. 24-25). Subunits 10A and 10B are 14 ha (35 ac) and 15 ha (37 ac), respectively. A complex of dolomitic glades and associated woodlands along both sides of the Little Cahaba River contained 71 Georgia rockcress plants in 2010. The physical or biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats associated with nonnative species.

Unit 11. McGuire Ford/Limestone Park, Bibb County, Alabama.

Privately owned, the McGuire Ford/Limestone Park unit is located 18.7 km (11.6 mi) northeast of Centreville, Alabama, on the southeast side of the Little Cahaba River. A small number of plants occupy shallow soils of low, rocky limestone outcrops along the Little Cahaba River under a lightly shaded canopy of eastern red cedar, chinquapin oak, white ash, Southern sugar maple, and redbud, among others (Allison 1999, p. 5; Schotz 2010, p. 20). This 6-ha (15-ac) unit contained 50 Georgia rockcress plants during the 2010 survey. The physical or

biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with roads, development, and maintenance of a pasture.

#### Unit 12. Fort Toulouse State Park, Elmore County, Alabama.

State-owned, the Fort Toulouse State Park unit is located 16 km (10 mi) north of Montgomery, Alabama, on the south side of the Coosa River. Georgia rockcress is widely scattered along the bluffs overlooking the Coosa River, primarily occupying mesic, sandy soils of upper slopes and crest. Japanese honeysuckle is beginning to severely impact many areas of the site (Allison 1999, p. 2; Schotz 2010, p. 42). This 7-ha (17-ac) unit contained 47 Georgia rockcress plants during the 2010 survey. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with maintenance of a recreational field and nonnative species.

#### Unit 13. Fort Gaines Bluff, Clay County, Georgia.

Privately owned, the Fort Gaines Bluff unit is located 1.5 km (0.9 mi) south of Fort Gaines, Georgia, on the Chattahoochee River. This high, steep, eroding river bank has sandy loam soils and an intact hardwood overstory. Japanese honeysuckle has become severe over much of area (Allison 1995, pp. 18-29; Moffett 2007, p. 9). This 17-ha (43-ac) unit contained 84 Georgia rockcress plants in 2010. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with timber harvest and nonnative species.

Unit 14A. Goat Rock North and Unit 14B. Goat Rock South, Harris and Muscogee Counties, Georgia.

Privately owned, the Goat Rock Dam is 18.5 km (11.5 mi) north of Columbus Georgia. The Goat Rock North subunit is immediately north of Goat Rock Dam on the banks of Goat Rock impoundment, while the Goat Rock South subunit is immediately downstream of Goat Rock Dam along the high bluffs overlooking the Chattahoochee River. All of Goat Rock North subunit and the majority of the Goat Rock South subunit are owned by a corporation that supports conservation efforts for Georgia rockcress. The corporately owned property is provided modest protection in the shoreline management plan, which was developed during Federal Energy Regulatory Commission (FERC) licensing (FERC 2004, pp. 29-30). However, the southernmost portion of the Goat Rock South subunit is privately owned. This high rocky bluff is mostly covered by a mature canopy of trees. A narrow portion of this habitat has a transmission line passing over the top where all woody species have been removed; however, Georgia rockcress plants are scattered in the transmission line right-of-way. This area contains PCEs 1 and 2; therefore, it is included in the final designation. Nonnative species, including Chinese privet and Japanese honeysuckle, have severely impacted this site (Allison 1995, pp. 24-27; Moffett 2007, pp. 6-9). Conservation actions here have included invasive species/woody competition removal (both manually and chemically) to benefit existing Georgia rockcress plants, and prescribed burning to open up new adjacent sites for outplanting enhancement. The Chattahoochee Nature Center (CNC) outplanted approximately 300 Georgia rockcress plants of the Goat Rock genotype at this site in 2008. The local office of TNC has also expressed interest in possibly including this site in their long-range ecosystem planning (Elmore 2010, pp. 1-3).

Subunits 14A and 14B are 7 ha (19 ac) and 24 ha (59 ac), respectively, and contain two or more of the PCEs throughout the subunits. In 2007, approximately 1,000 Georgia rockcress plants were found scattered across these subunits. The physical or biological features essential to the conservation of the species in these subunits may require special management considerations or protection to address threats associated with hydropower, utility line maintenance, and nonnative species.

Unit 15. Blacks Bluff Preserve, Floyd County, Georgia.

Privately owned, the 37-ha (92-ac) Blacks Bluff Preserve unit is located 6.5 km (4.0 mi) southwest of Rome, Georgia, on the Coosa River. Blacks Bluff is in private ownership with a conservation easement on the property. There were 27 Georgia rockcress plants reported on this site in 1995; however, the presence of nonnative species has since extirpated all Georgia rockcress from this site. The Georgia Plant Conservation Alliance (GPCA) and TNC agreed to bolster the existing population with plants grown from seed collected at the two nearby (Ridge and Valley physiographic province) populations, Whitmore Bluff, and Resaca Bluffs. The CNC collected seed and grew 35 plants from Whitmore Bluff and 65 plants from Resaca Bluffs. In 2008, 100 Georgia rockcress plants were planted in this unit, with 84 Georgia rockcress surveyed on this site in 2011 (Goldstrohm 2011, p. 1). This steep bluff with limestone ledges and boulders has a mature deciduous canopy. Multiple sources of disturbance, including an abandoned quarry, have impacted this site and resulted in the establishment of many nonnative species, including Japanese honeysuckle and Nepalese browntop (Allison 1995, pp. 19-20; Moffett 2007, pp. 5-9; Elmore 2010, pp. 1-3). The physical or biological features essential to the conservation

of the species in this unit may require special management considerations or protection to address threats associated with roads, mining, and nonnative species.

#### Unit 16. Whitmore Bluff, Floyd County, Georgia.

Privately owned, the Whitmore Bluff unit is located 6.5 km (4 mi) northeast of Rome, Georgia, on the east bank of the Oostanaula River. This steep bluff with limestone boulders has a mature canopy with *Ulmus alata* (winged elm), *Quercus montana* (chestnut oak), and *Fraxinus americana* (white ash), and an understory including *Hydrangea arborescens* (wild hydrangea), *Toxicodendron radicans* (poison ivy), and *Sedum ternatum* (woodland stonecrop). Japanese honeysuckle has severely impacted this site (Allison 1995, p. 21; Moffett 2007, pp. 6-9; Elmore 2010, pp. 1-3). This 17-ha (43-ac) unit contained 63 Georgia rockcress plants in 1995, but only 12 in 2010. The physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with timber harvest and nonnative species.

#### Unit 17. Resaca Bluffs, Gordon County, Georgia.

Privately owned, the Resaca Bluffs unit is located 0.8 km (0.5 mi) southwest of Resaca, Georgia, immediately east of I-75 along the northern bank of the Oostanaula River. This unit includes a rocky limestone bluff with a mature canopy, including eastern red cedar, *Quercus nigra* (water oak), *Quercus velutina* (black oak), winged elm, white ash, southern sugar maple, and redbud. Nonnative species, including Chinese privet and Japanese honeysuckle, have severely impacted this site (Allison 1995, pp. 22-23; Moffett 2007, pp. 5-9; Elmore 2010, pp. 1-3). This 5-ha (13-ac) unit contained 51 plants in 1995, and 42 in 2010. The physical or

biological features essential to the conservation of the species in this unit may require special management considerations or protection to address threats associated with road crossings, development, and nonnative 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 which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5<sup>th</sup> and 9<sup>th</sup> Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service*, 245 F.3d 434 (5<sup>th</sup> Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on

the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the 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 or 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 alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for Georgia rockcress. As discussed above, the role of critical habitat is to support life-history needs of the 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 Georgia rockcress. These activities include, but are not limited to:

(1) Actions that would significantly alter the canopy. Such activities could include, but are not limited to, silvicultural management, construction of utility lines, creation of pasture or maintained lawn, construction of buildings, and construction of roads or bridges. Invasive

species should be precluded from the critical habitat units. A mature canopy on the bluffs and a surrounding buffer area will help to preclude nonnative and invasive species. Activities that alter the canopy could alter the natural canopy gap dynamic that provides Georgia rockcress a competitive advantage and result in direct or cumulative adverse effects to these individuals and their life cycles.

(2) Actions that would inundate habitat. Construction of a dam downstream of a critical habitat unit could result in the loss of habitat. These activities could alter the functioning bluff habitat and result in direct or cumulative adverse effects to these individuals and their life cycles.

(3) Actions that would significantly alter the soil. Such activities could include, but are not limited to, construction of roads or bridges, construction of buildings (e.g., dams, residential housing, or commercial buildings), and mining activities. These activities would permanently alter the soil that Georgia rockcress is dependent on to complete its life cycle.

## **Exemptions**

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) requires 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: “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 INRMPs developed by military installations located within the range of the proposed critical habitat designation for Georgia rockcress to

determine if the lands are exempt under section 4(a)(3) of the Act.

In 2001, Fort Benning completed its Service-approved INRMP. The installation has revised its INRMP to include specific measures for the Georgia rockcress and its habitat, including monitoring and management for the Georgia rockcress including: Management of feral swine, limiting timber harvest within 200 feet of Georgia rockcress populations, monitoring of known Georgia rockcress populations and surveys for new populations, and monitoring and control of invasive species. The revised INRMP became effective August 2014. In accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the lands within Fort Benning that were originally proposed for critical habitat are subject to the Fort Benning INRMP and that conservation efforts identified in the INRMP will provide a benefit to Georgia rockcress. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 25 ha (61 ac) of habitat in this final critical habitat designation because of this exemption. As described in the proposed critical habitat rule, these lands are located in Chattahoochee County, Georgia, and Russell County, Alabama, south of Columbus, Georgia, on the Chattahoochee River near its confluence with Oswichee Creek and across from its confluence with Red Mill Creek.

#### **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 she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she 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.

### *Consideration of Economic Impacts*

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as 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 we consider our draft economic analysis (DEA) of the proposed critical habitat designation and related factors (U.S. Fish and Wildlife Service 2013; Industrial Economics, Inc. 2014). The analysis, dated April 8, 2014, was made available for public review from May 29, 2014, through June 9, 2014, and a summary of the findings were provided on <http://www.regulations.gov> from May 9, 2014, to June 9, 2014 (79 FR 26679). The DEA addressed potential economic impacts of critical habitat designation for Georgia rockcress. Following the close of the comment period, 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. Additional information relevant to the probable incremental economic impacts of critical habitat designation for the Georgia rockcress

is summarized below and available in the screening analysis for the Georgia rockcress, available at <http://www.regulations.gov>.

In our DEA, we concluded that section 7-related costs of designating critical habitat for the Georgia rockcress are likely to be limited to additional administrative effort to consider possible adverse effects to critical habitat during consultation. This finding is based on several factors, including:

1. Project modifications requested to avoid adverse modification are likely to be the same as those needed to avoid jeopardy in occupied habitat; and
2. All units are considered occupied by the plant, providing significant baseline protection.

The number of future consultations is expected to be at most five in a given year. Unit costs of the administrative effort necessary to address adverse modification of critical habitat during section 7 consultation is estimated to range from approximately \$400 to \$9,000 (2014 dollars, total incremental costs for all parties participating in a single consultation). Thus, the annual administrative burden due solely to the critical habitat designation is unlikely to reach \$100 million. Given the estimates in the screening analysis for the Georgia rockcress, predictions are that costs are unlikely to exceed \$45,000 in a given year (2014 dollars). This is essentially the upper end of the cost for section 7 consultations and is the cost attributable to just the critical habitat.

In other words, the incremental administrative burden resulting from the designation of critical habitat for the Georgia rockcress is unlikely to reach \$100 million in a given year based on the small number of anticipated consultations and per-consultation costs. Furthermore, the designation is unlikely to trigger additional requirements under State or local regulations.

#### *Exclusions Based on Economic Impacts*

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for the Georgia rockcress based on economic impacts.

A copy of the IEM and screening analysis with supporting documents may be obtained by contacting the Georgia Ecological Services Office (see **ADDRESSES**) or by downloading from the Internet at <http://www.regulations.gov>.

#### *Exclusions Based on National Security Impacts or Homeland Security Impacts*

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this final rule, we have exempted from the designation of critical habitat those Department of Defense lands with completed INRMPs determined to provide a benefit to the Georgia rockcress.

We have also determined that the remaining lands within the designation of critical habitat for the species are not owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security or homeland security. Consequently, the Secretary is not exercising her discretion to exclude any areas from this final designation based on impacts on national security or homeland 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 the landowners have developed any habitat conservation plans (HCPs) or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, 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 HCPs or other management plans for the Georgia rockcress, and the final designation does not include any tribal lands or trust resources, and so we anticipate no impact on tribal lands, partnerships, or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her 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.

*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 (SBREFA) 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 firms’ 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 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 this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

We did not receive any substantive comments pertaining to our consideration of the probable incremental economic impacts of this critical habitat designation. Therefore, we affirm our certification that this 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*

On May 18, 2001, the President issued Executive Order 13211 (E.O. 13211; “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use”) on

regulations that significantly affect energy supply, distribution, and use. E.O. 13211 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 draft economic analysis, energy-related impacts associated with Georgia rockcress 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. The government-owned lands being designated as critical habitat are owned by the State of Alabama and the Department of the Interior. None of these government entities meets the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required.

#### *Takings—Executive Order 12630*

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for Georgia rockcress in a takings implications assessment. The economic cost of implementing the rule through section 7 of the Act will most likely be limited to additional administrative effort to consider adverse modification during consultations. According to a review of consultation records and discussions with multiple Service field offices, the additional administrative cost of addressing adverse modification during the section 7 consultation process ranges from approximately \$400 to \$9,000 per consultation (2014 dollars). Based on the project activity identified by relevant action agencies, the number of future consultations is likely to be less than five consultations per year. Thus, the incremental administrative burden resulting from the rule is unlikely to reach \$100 million in a given year, and given the economic analysis we have determined that there are no additional takings

implications. The takings implications assessment concludes that this designation of critical habitat for Georgia rockcress does not pose significant takings implications.

*Federalism—Executive Order 13132*

In accordance with Executive Order 13132 (Federalism), this rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this critical habitat designation with appropriate State resource agencies in Alabama and Georgia. We are not designating any unoccupied areas. The designation of critical habitat in areas currently occupied by the Georgia rockcress will impose no additional restrictions to those that will be put in place by listing the species and, therefore, will have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the 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 local governments in long-range planning (rather than having them 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) will 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*

The Department, in promulgating this rule, has determined that this rule will not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of Executive Order 12988. 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 Georgia rockcress. 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 there are no tribal lands that are occupied by Georgia rockcress at the time of listing that contain the features essential for conservation of the species. Therefore, we are not designating critical habitat for the Georgia rockcress on tribal lands.

## **References Cited**

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2013–0030 and upon request from the Field Supervisor, Ecological Services Office in Athens, Georgia (see **FOR FURTHER INFORMATION CONTACT**).

## **Authors**

The primary authors of this final rulemaking are the staff members of the Ecological Services Office in Athens, Georgia.

## **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—[AMENDED]**

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. In § 17.96, amend paragraph (a) by adding an entry for “*Arabis georgiana* (Georgia rockcress)” in alphabetical order under Family Brassicaceae, to read as follows:

**§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*

\* \* \* \* \*

Family Brassicaceae: *Arabis georgiana* (Georgia rockcress)

(1) Critical habitat units are depicted in Georgia, including Clay, Gordon, Floyd, Harris, and Muscogee Counties, and in Alabama, including Bibb, Dallas, Elmore, Monroe, Sumter, and Wilcox Counties, on the maps in this entry.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *Arabis georgiana* (Georgia rockcress) consist of four components:

(i) Large river bluffs with steep and/or shallow soils that are subject to localized disturbances that limit the accumulation of leaf litter and competition within the Lower Gulf Coastal Plain, Upper Gulf Coastal Plain, Red Hills, Black Belt, Piedmont, and Ridge and Valley Physiographic Provinces of Georgia and Alabama.

(ii) Well-drained soils that are buffered or circumneutral generally within regions underlain or otherwise influenced by granite, sandstone, or limestone.

(iii) A mature, mixed-level canopy with spatial heterogeneity, providing mottled shade and often including species such as *Juniperus virginiana* (eastern red cedar), *Ostrya virginiana* (American hophornbeam), *Quercus muehlenbergii* (chinquapin oak), *Fraxinus americana* (white ash), *Acer barbatum* (southern sugar maple), and *Cercis canadensis* (eastern redbud) with a rich diversity of grasses and forbs characterizing the herb layer.

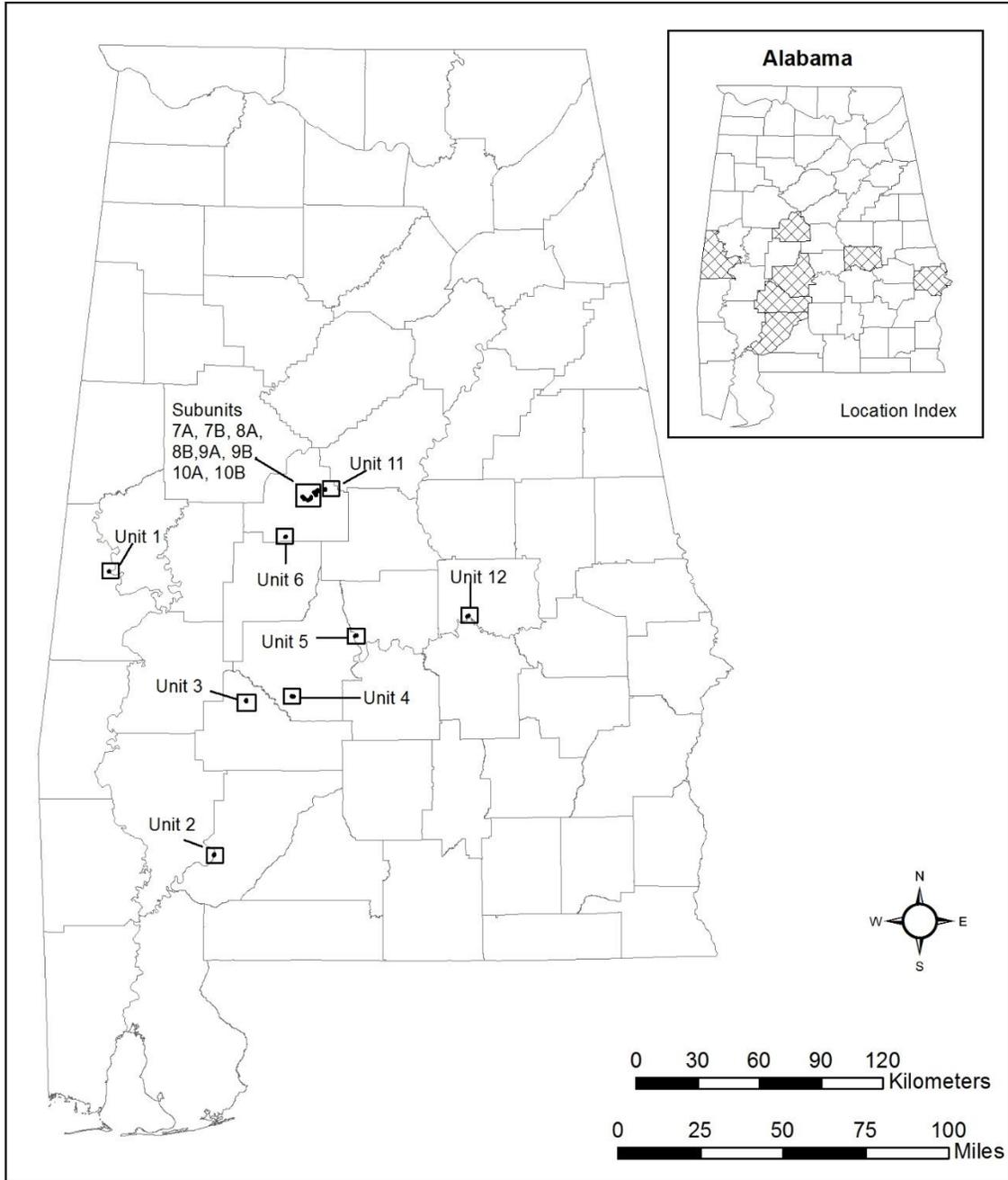
(iv) Intact habitat that is fully functional (i.e., with mature canopy and discrete disturbances) and buffered by surrounding habitat to impede the invasion of competitors.

(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].

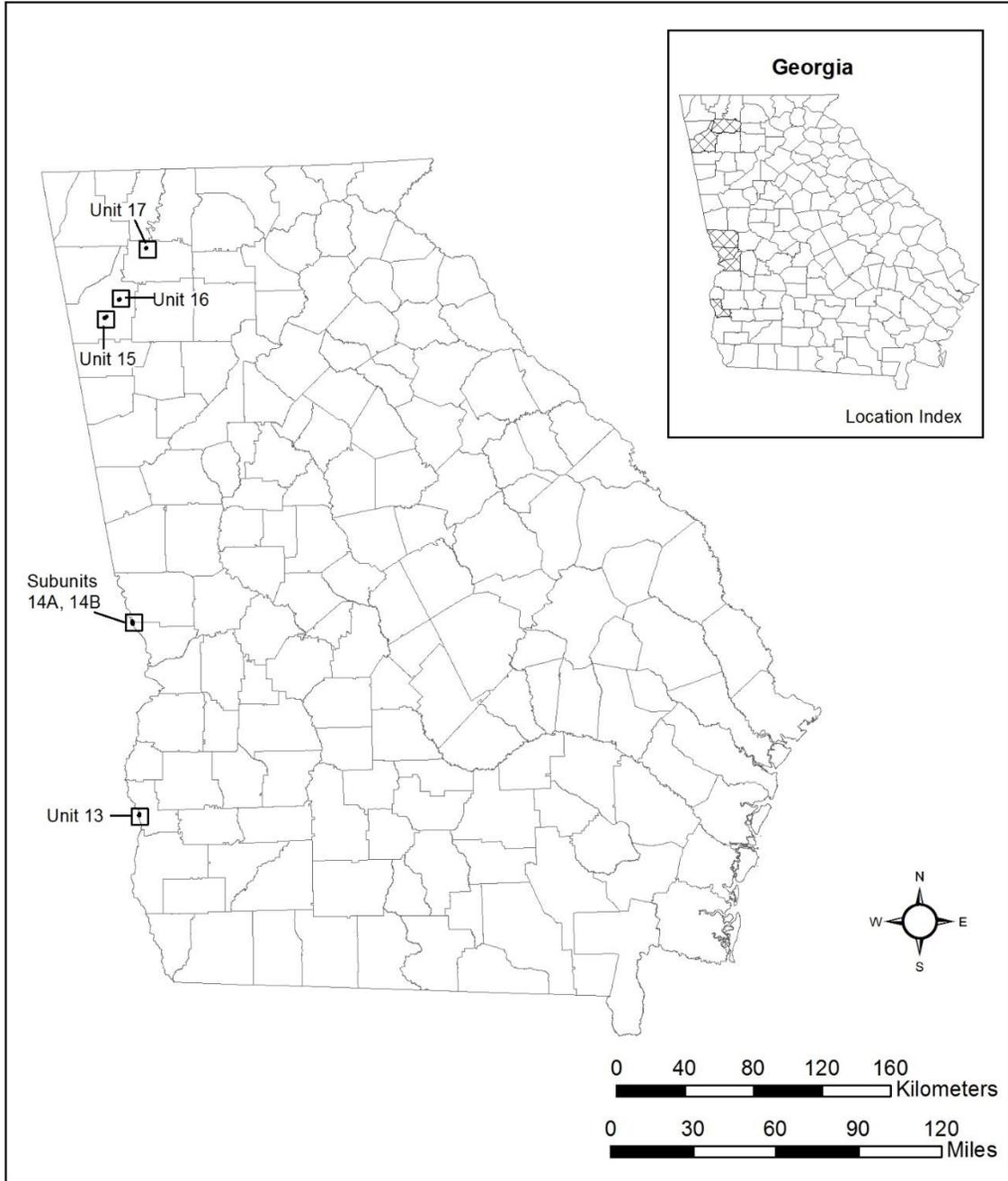
(4) *Critical habitat map units.* Data layers defining critical habitat map units were created using GIS shapefiles of Natural Heritage Element Occurrence (EO) data for *Arabis georgiana* (Georgia rockcress) locations that were provided by the Alabama Department of Conservation and Natural Resources and the Georgia Department of Natural Resources, and 1-meter resolution National Agricultural Imagery Program (NAIP) images from 2009. Each EO feature was buffered by 76 meters (m) (250 feet (ft)) up and down slope and 304.8 m (1,000 ft) laterally. The 76-m (250-ft) buffer was used as a guideline for delineating critical habitat upslope and downslope of the EO feature, with the downslope direction extending 76 m (250 ft) or to the edge of the water, whichever was shorter. The 304.8-m (1,000-ft) buffer was used a guideline for delineating critical habitat adjacent to the EO features along the length of the river. The critical habitat polygons were manually drawn using a mouse on a computer screen by visually checking for PCEs within the buffer areas against 2009 NAIP imagery. The critical habitat polygons were then viewed over the ArcGIS basemap Bing Aerial Imagery as an additional assessment tool for the placement of the critical habitat polygon boundaries. Critical habitat units were mapped using Universal Transverse Mercator (UTM), zone 16N. 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/athens/>, at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2013-0030, and at the Ecological Services Office in Athens, Georgia. 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) Index maps of critical habitat units for *Arabis georgiana* (Georgia rockcress) follow:

# Georgia rockcress Critical Habitat Units, Alabama

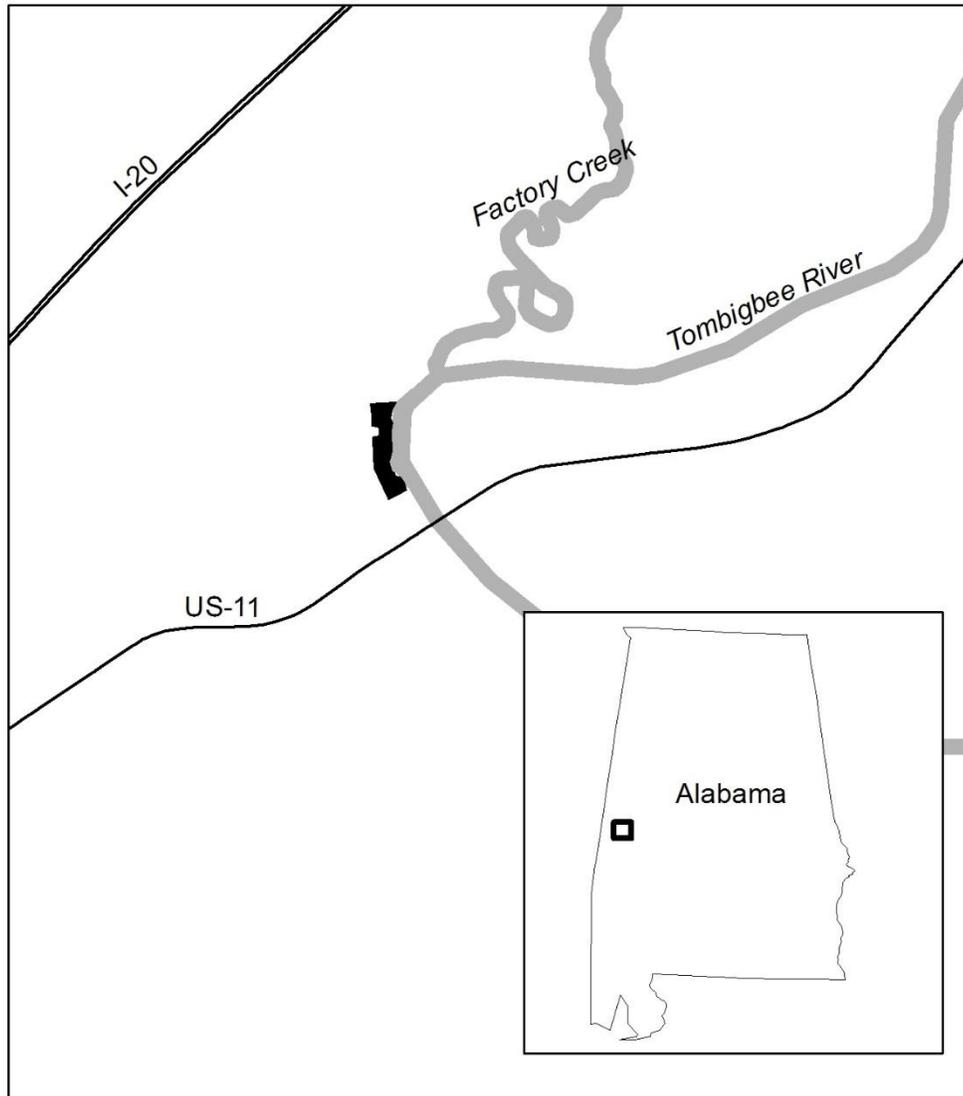


# Georgia rockcress Critical Habitat Units, Georgia

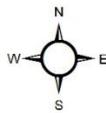


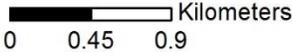
(6) Unit 1: Fort Tombecbee, Sumter County, Alabama. Map of Unit 1 follows:

Unit 1: Fort Tombecbee  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Sumter County, AL



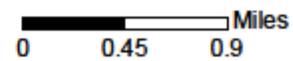
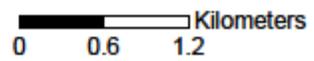
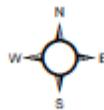
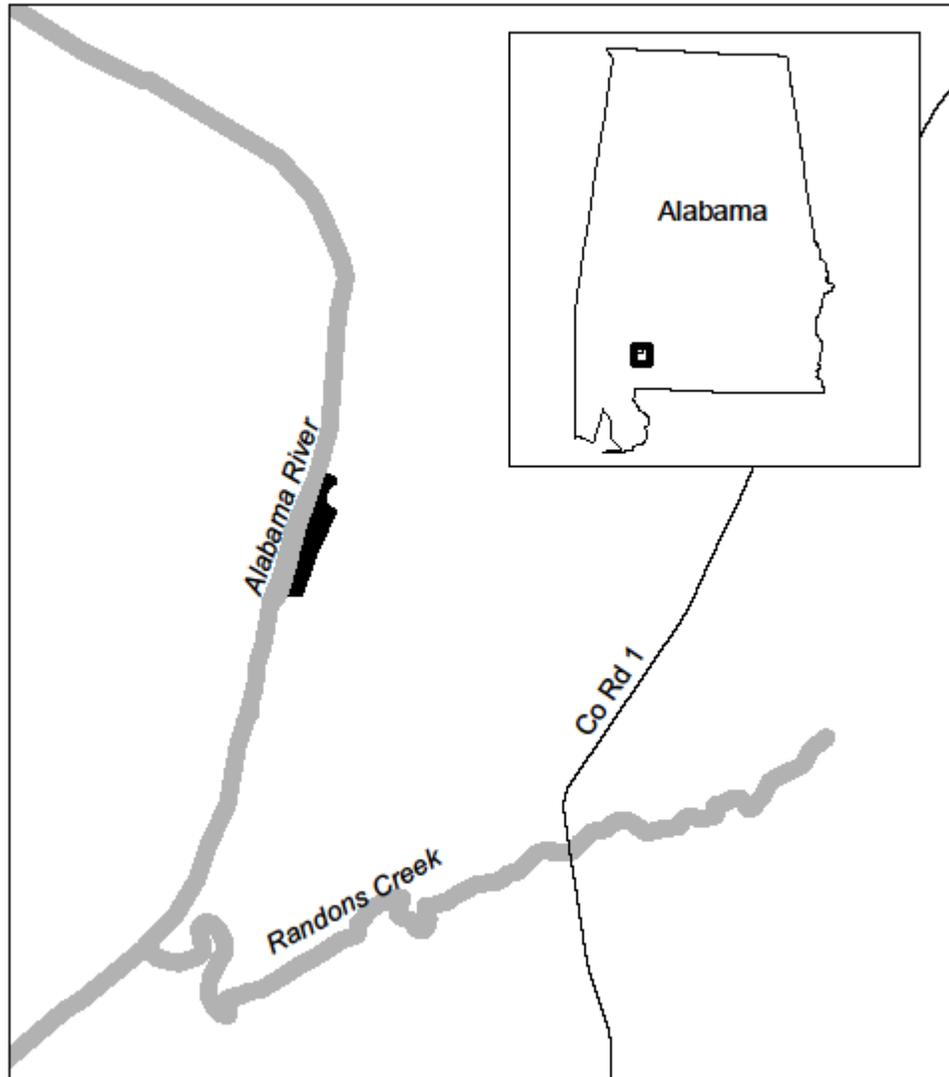
 Critical Habitat  
 Road  
 River



 Kilometers  
0 0.45 0.9  
 Miles  
0 0.35 0.7

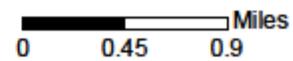
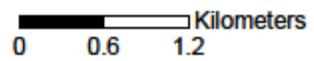
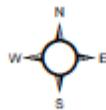
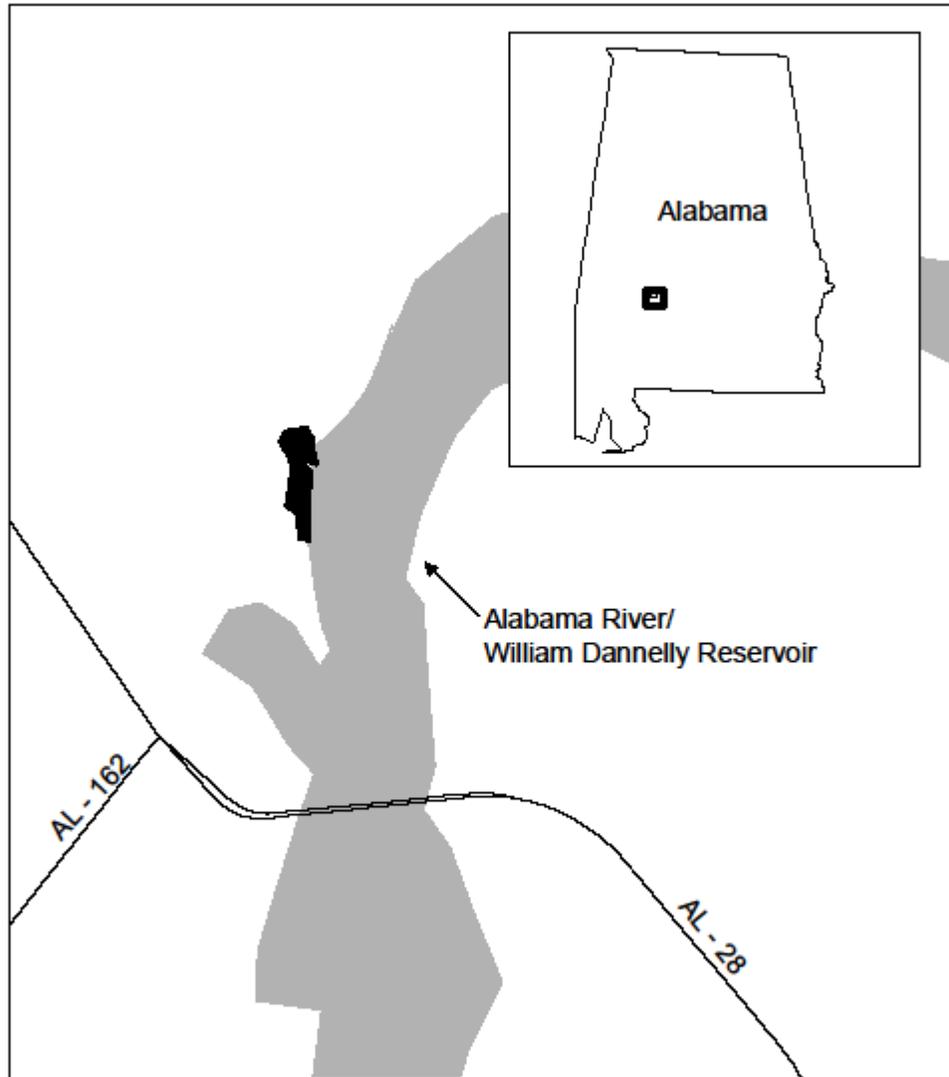
(7) Unit 2: Marshalls Bluff, Monroe County, Alabama. Map of Unit 2 follows:

Unit 2: Marshalls Bluff  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Monroe County, AL



(8) Unit 3: Prairie Bluff, Wilcox County, Alabama. Map of Unit 3 follows:

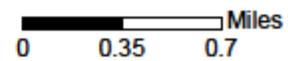
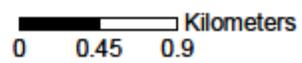
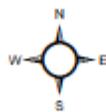
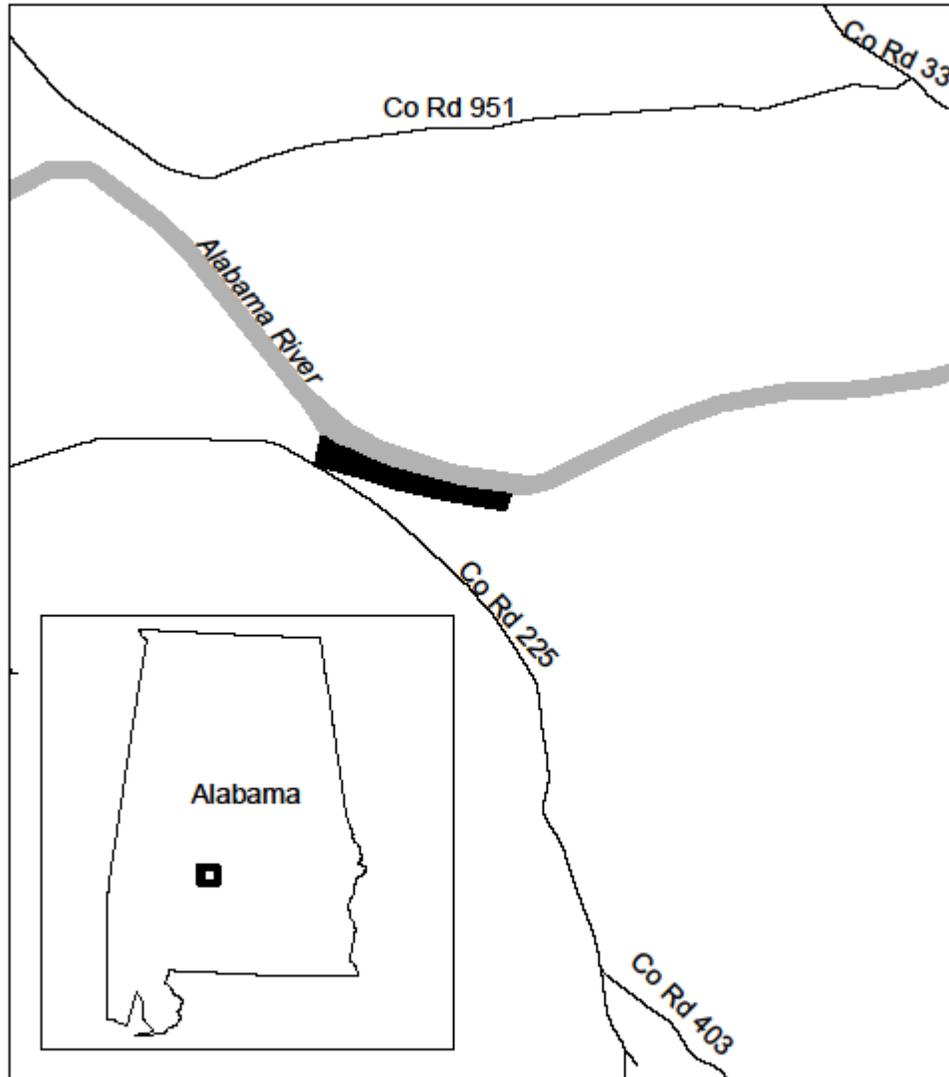
Unit 3: Prairie Bluff  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Wilcox County, AL



(9) Unit 4: Portland Landing River Slopes, Dallas County, Alabama. Map of Unit 4

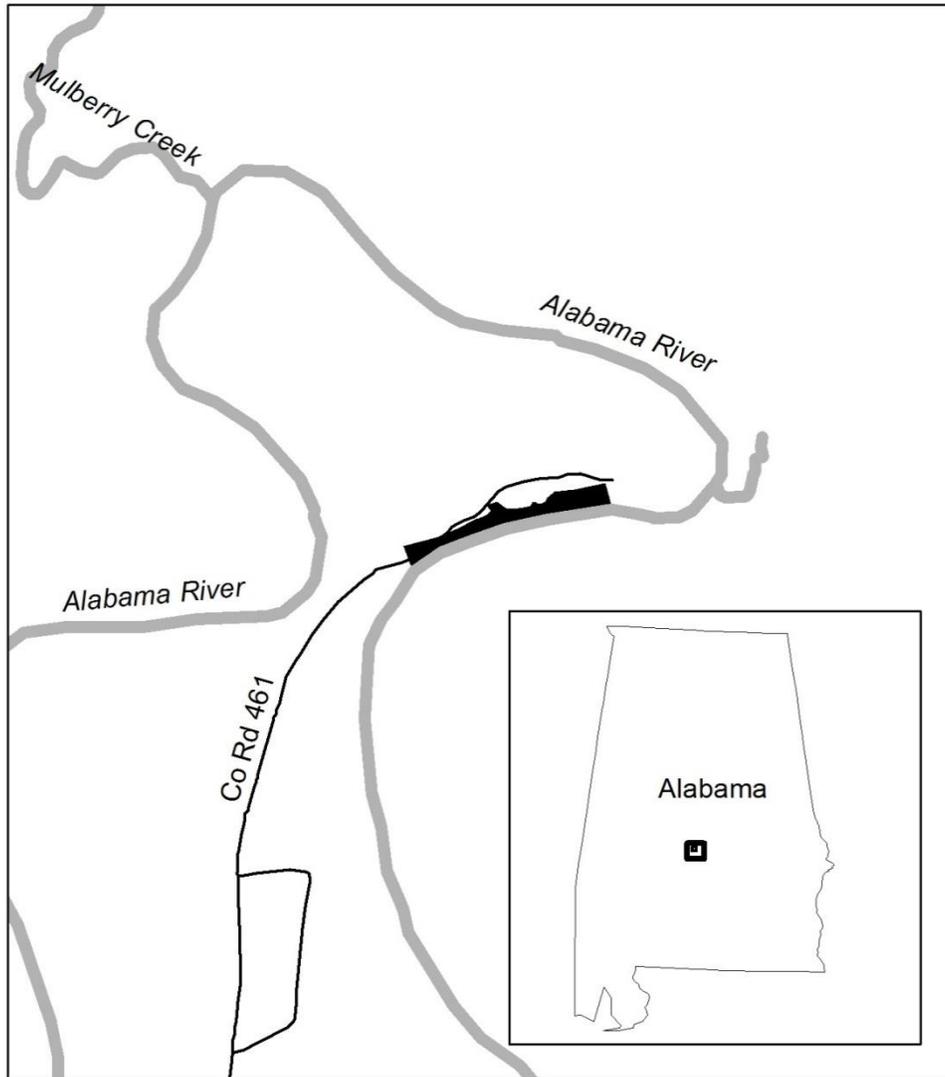
follows:

Unit 4: Portland Landing River Slopes  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Dallas County, AL

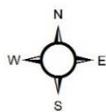


(10) Unit 5: Durant Bend, Dallas County, Alabama. Map of Unit 5 follows:

Unit 5: Durant Bend  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Dallas County, AL



- Critical Habitat
- ~ Road
- ~ River



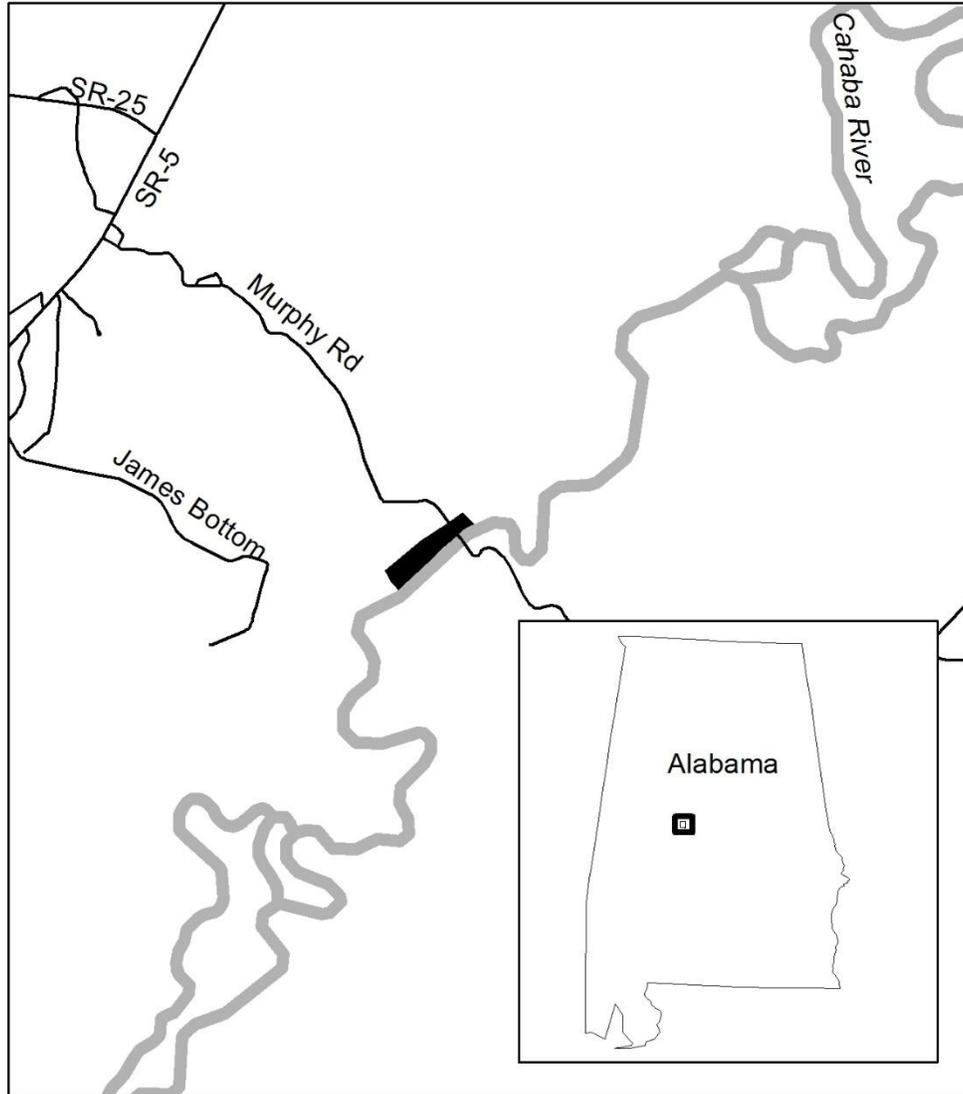
0 0.45 0.9 Kilometers

0 0.35 0.7 Miles

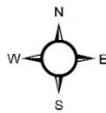
(11) Unit 6: Murphys Bluff Bridge Cahaba River, Bibb County, Alabama. Map of Unit 6

follows:

Unit 6: Murphys Bluff Bridge Cahaba River  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Bibb County, AL



- Critical Habitat
- ~ Road
- ~ River



0 0.6 1.2 Kilometers

0 0.45 0.9 Miles

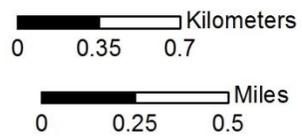
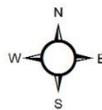
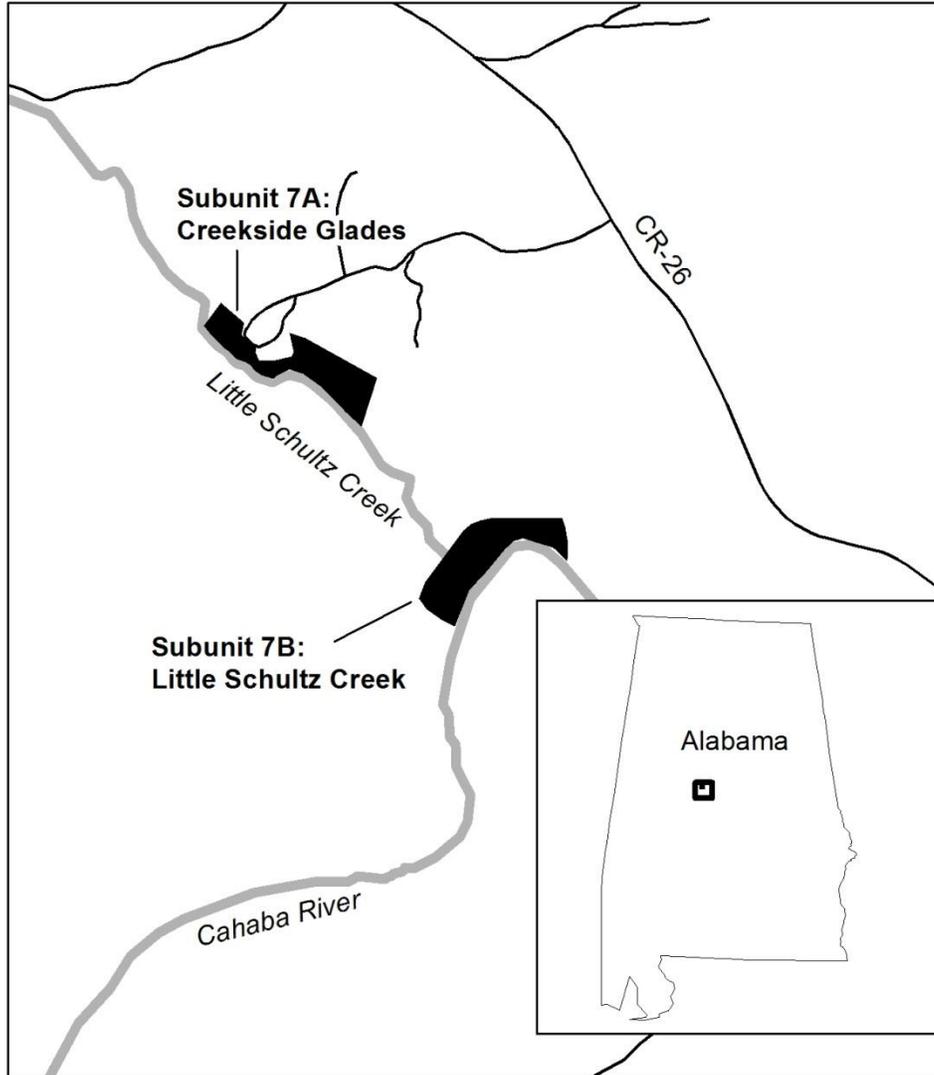
(12) Unit 7, Bibb County, Alabama.

(i) Subunit 7A: Creekside Glades.

(ii) Subunit 7B: Little Schultz Creek.

(iii) Map of Subunits 7A and 7B follows:

Subunits 7A and 7B: Creekside Glades and Little Schultz Creek  
Critical Habitat for *Arabis georgiana* (Georgia Rockcress)  
Bibb County, AL



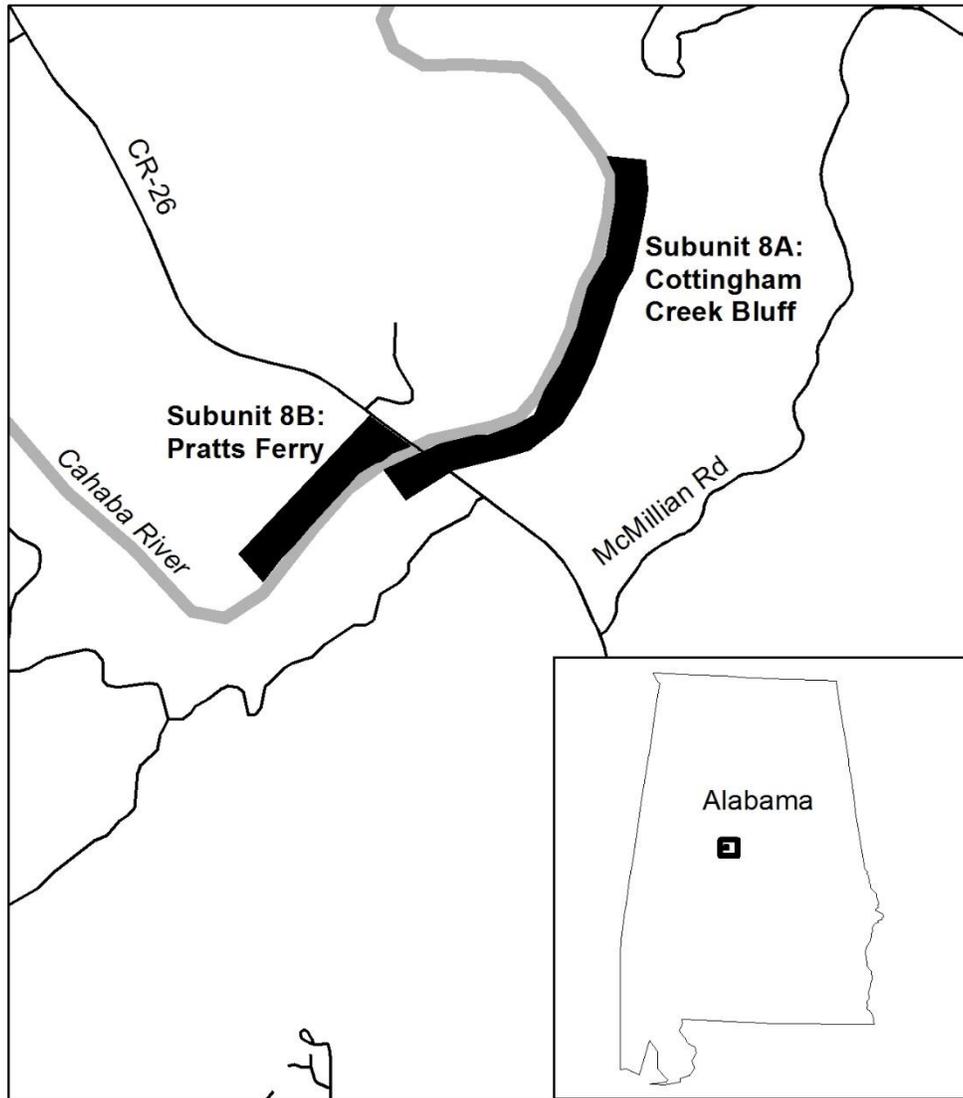
(13) Unit 8, Bibb County, Alabama.

(i) Subunit 8A: Cottingham Creek Bluff.

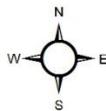
(ii) Subunit 8B: Pratts Ferry.

(iii) Map of Subunits 8A and 8B follows:

Subunits 8A and 8B: Cottingham Creek Bluff and Pratts Ferry  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Bibb County, AL



■ Critical Habitat  
~ Road  
~ River



0 0.35 0.7 Kilometers

0 0.25 0.5 Miles

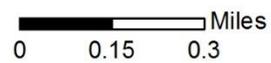
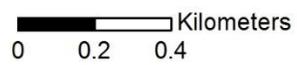
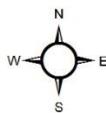
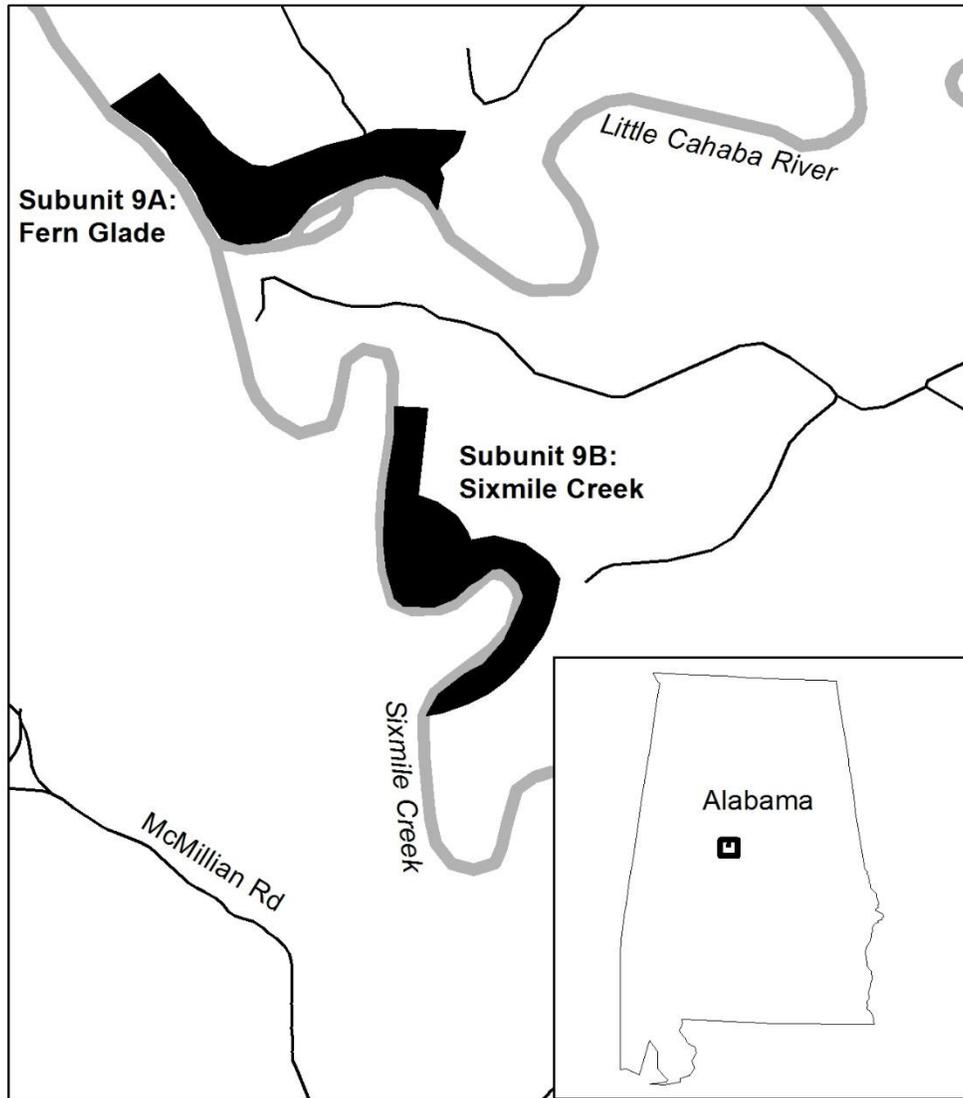
(14) Unit 9, Bibb County, Alabama.

(i) Subunit 9A: Fern Glade.

(ii) Subunit 9B: Sixmile Creek.

(iii) Map of Subunits 9A and 9B follows:

Subunits 9A and 9B: Fern Glade and Sixmile Creek  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Bibb County, AL



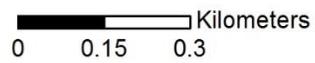
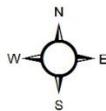
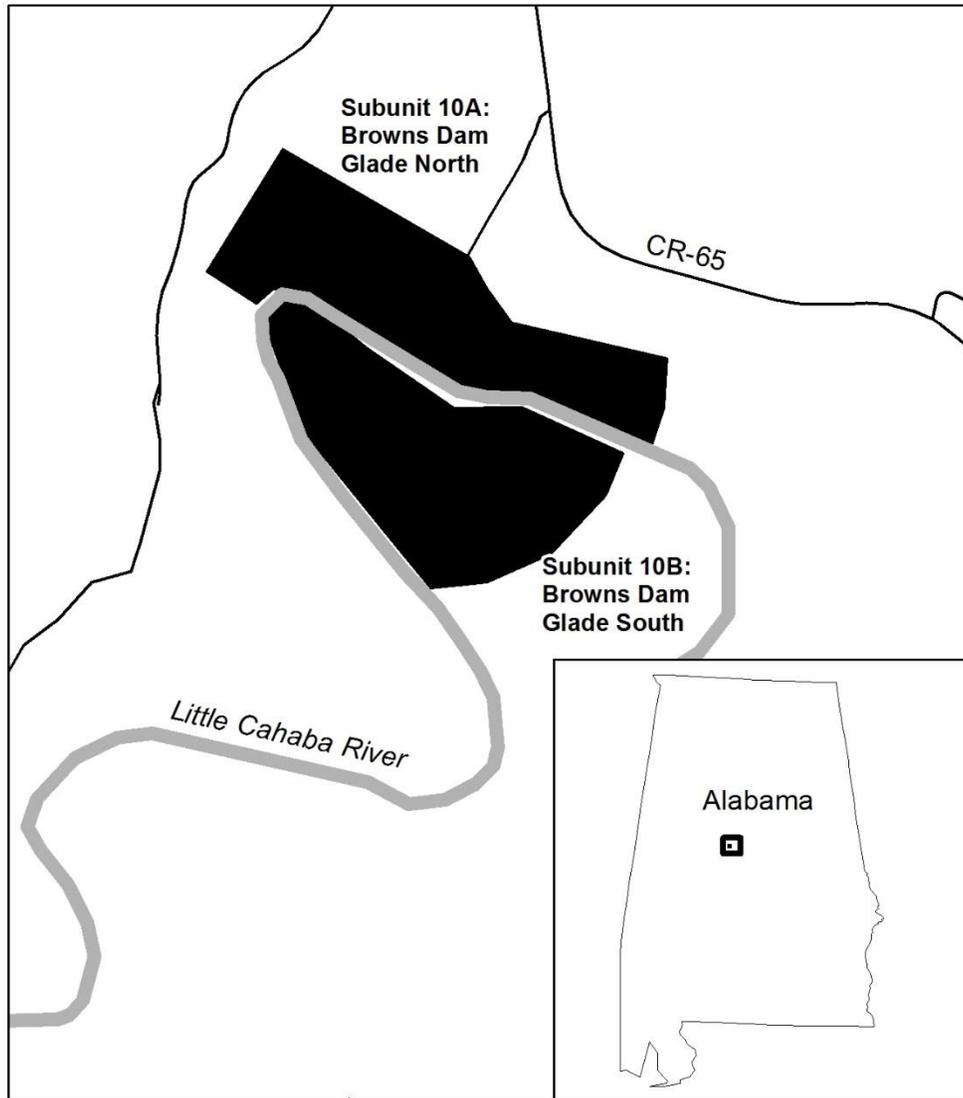
(15) Unit 10, Bibb County, Alabama.

(i) Subunit 10A: Browns Dam Glade North.

(ii) Subunit 10B: Browns Dam Glade South.

(iii) Map of Subunits 10A and 10B follows:

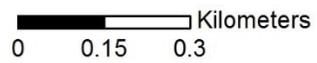
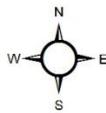
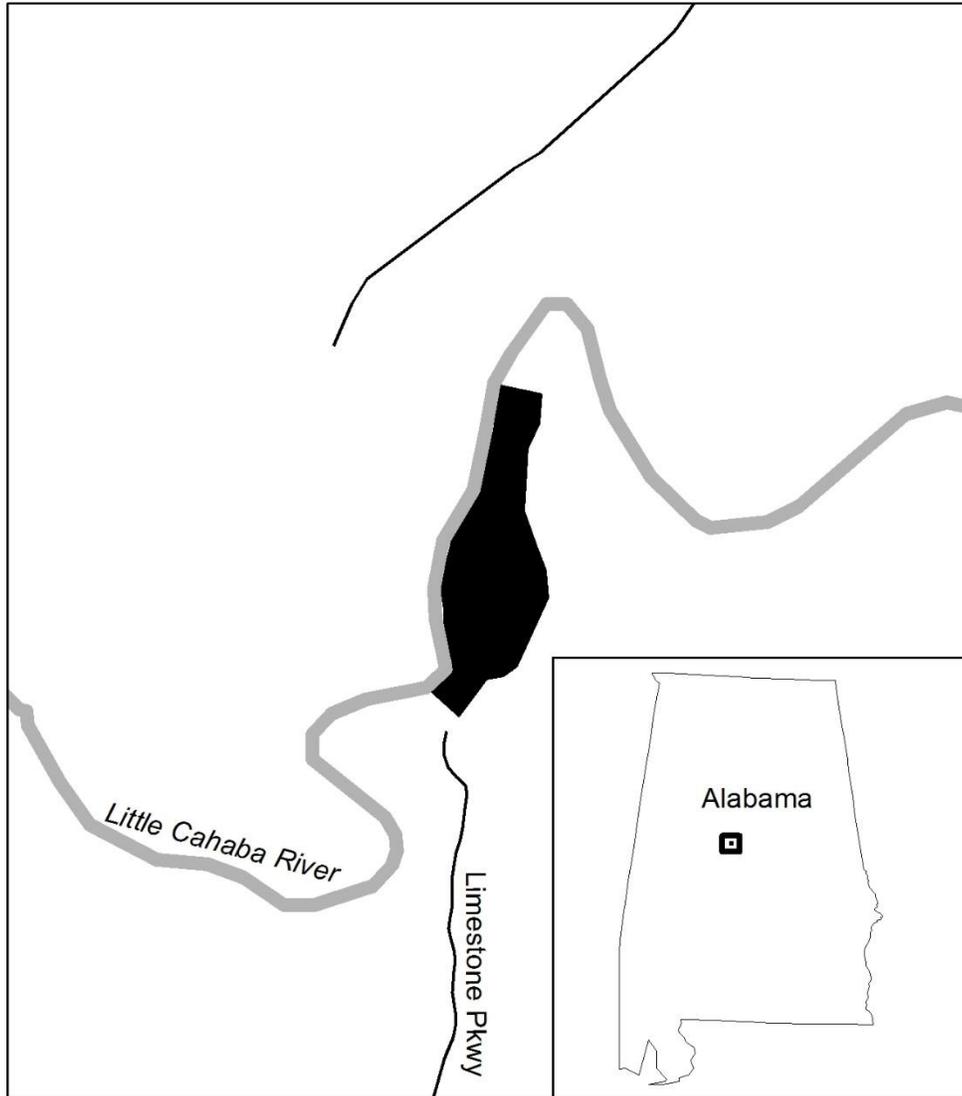
Subunits 10A and 10B: Browns Dam Glade North and Browns Dam Glade South  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Bibb County, AL



(16) Unit 11: McGuire Ford/Limestone Park, Bibb County, Alabama. Map of Unit 11

follows:

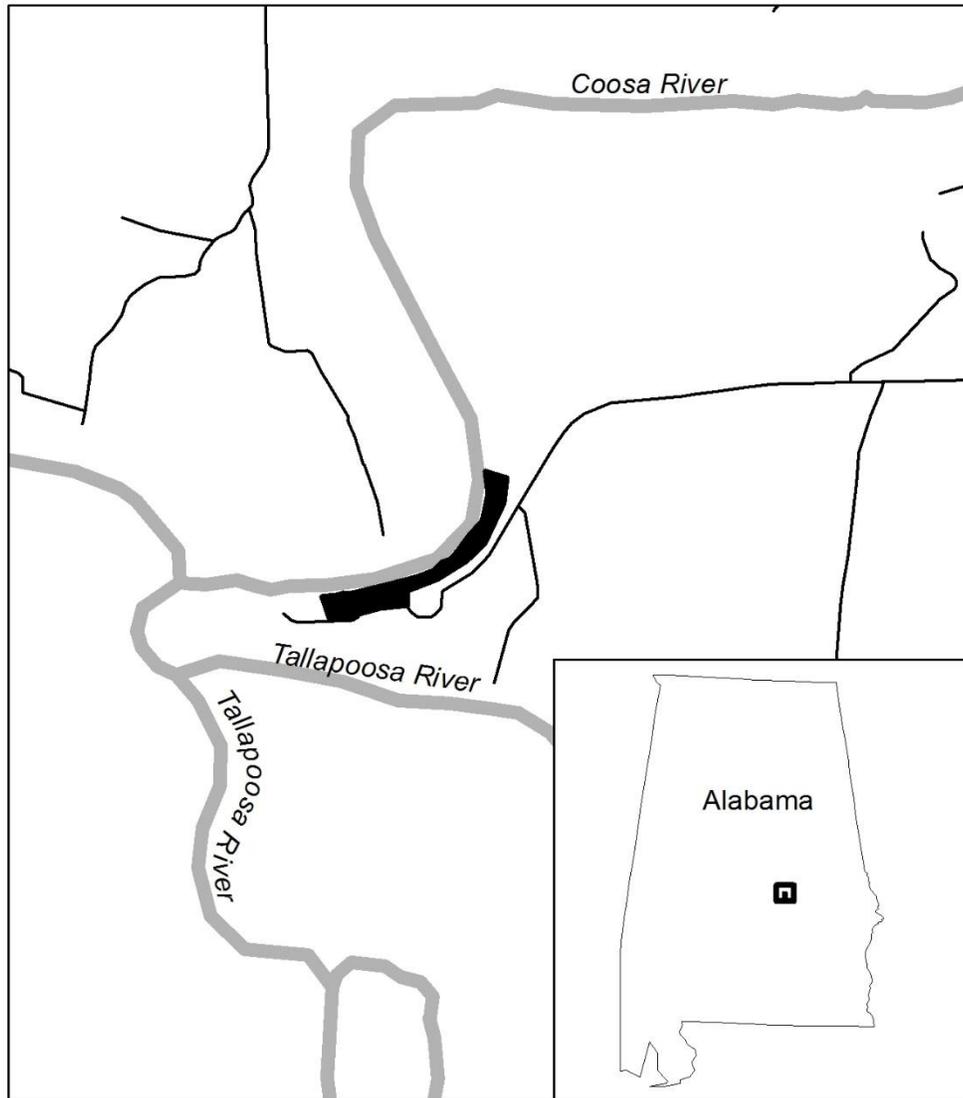
Unit 11: McGuire Ford/Limestone Park  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Bibb County, AL



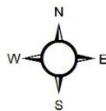
(17) Unit 12: Fort Toulouse State Park, Elmore County, Alabama. Map of Unit 12

follows:

Unit 12: Fort Toulouse State Park  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Elmore County, AL



-  Critical Habitat
-  Road
-  River

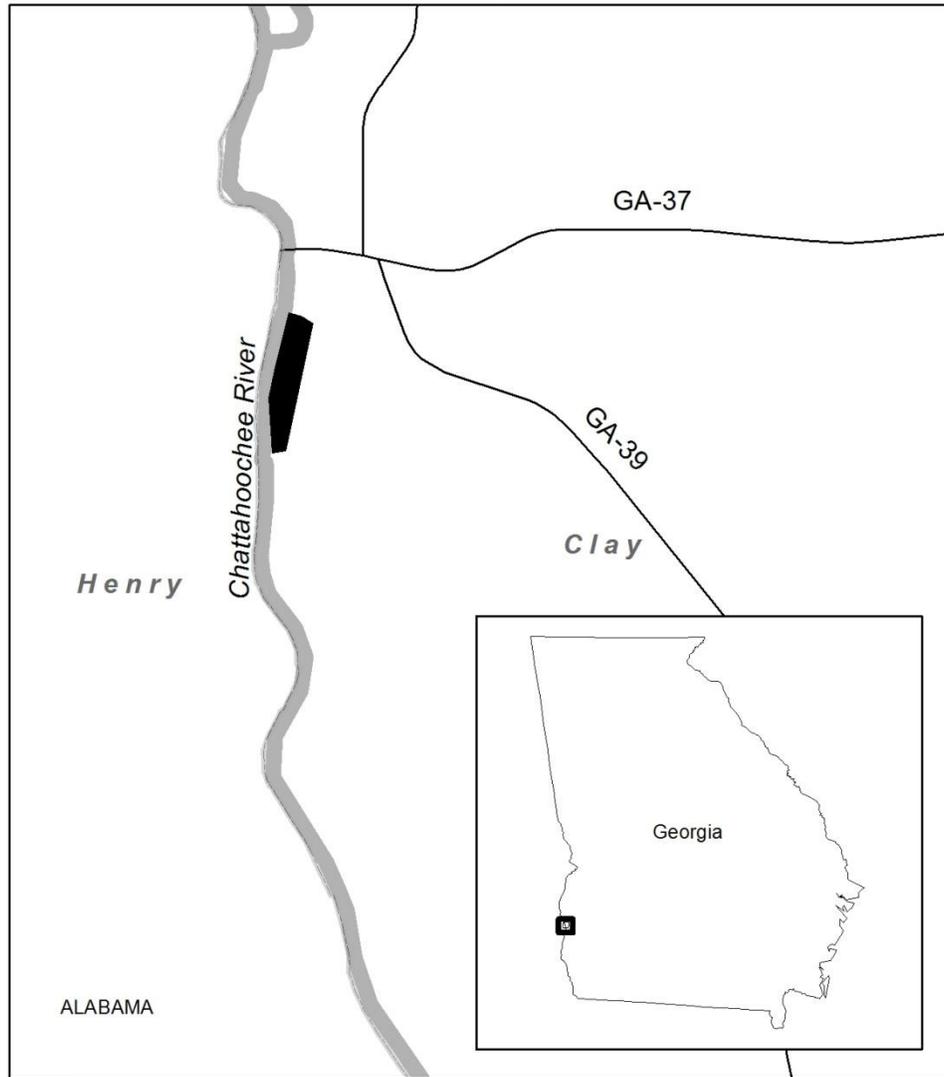


 Kilometers  
0 0.35 0.7

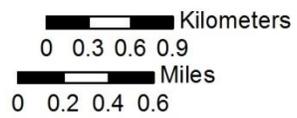
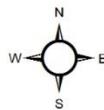
 Miles  
0 0.25 0.5

(18) Unit 13: Fort Gaines Bluff, Clay County, Georgia. Map of Unit 13 follows:

Unit 13: Fort Gaines Bluff  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Clay County, GA



-  County
-  Critical Habitat
-  Road
-  River



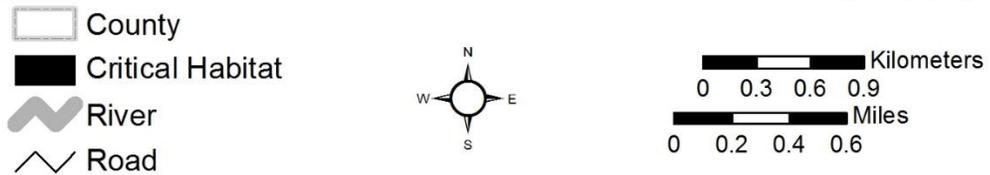
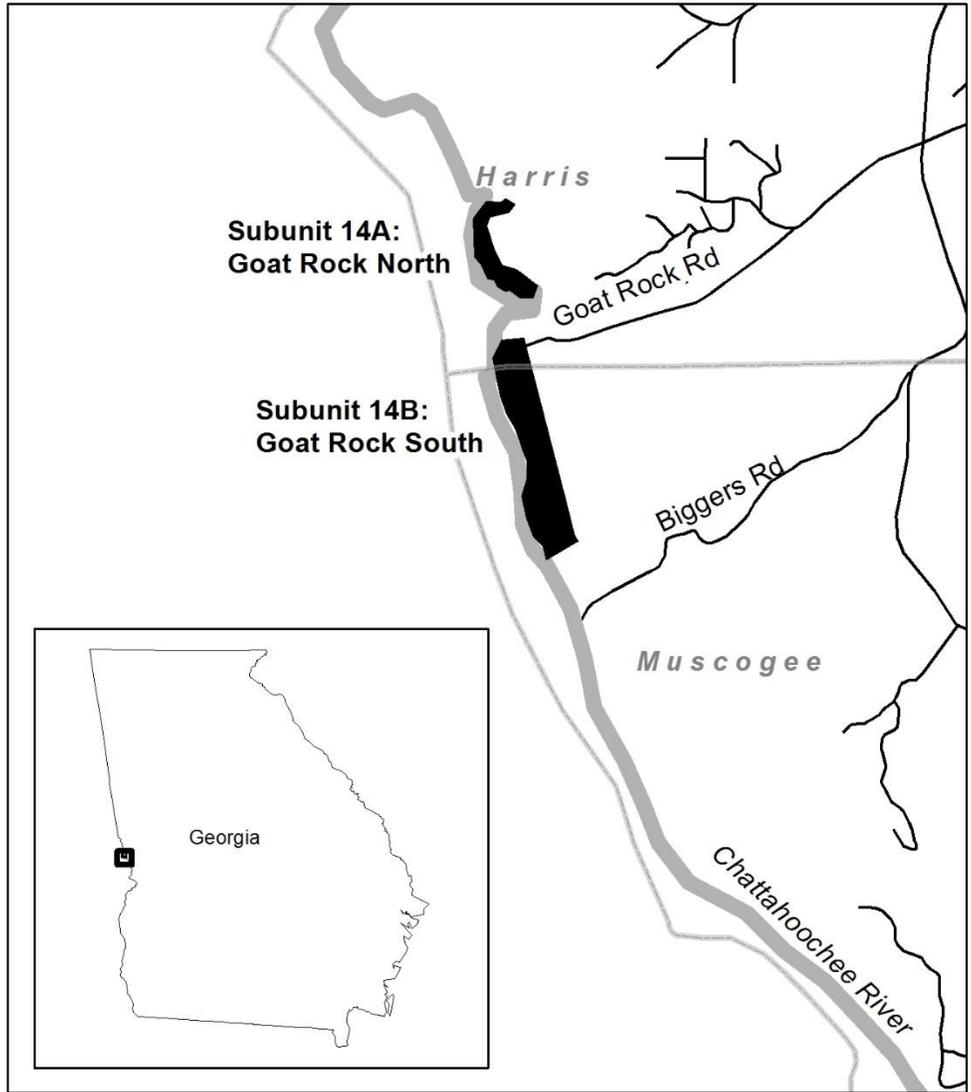
(19) Unit 14, Harris and Muscogee Counties, Georgia.

(i) Subunit 14A: Goat Rock North.

(ii) Subunit 14B: Goat Rock South.

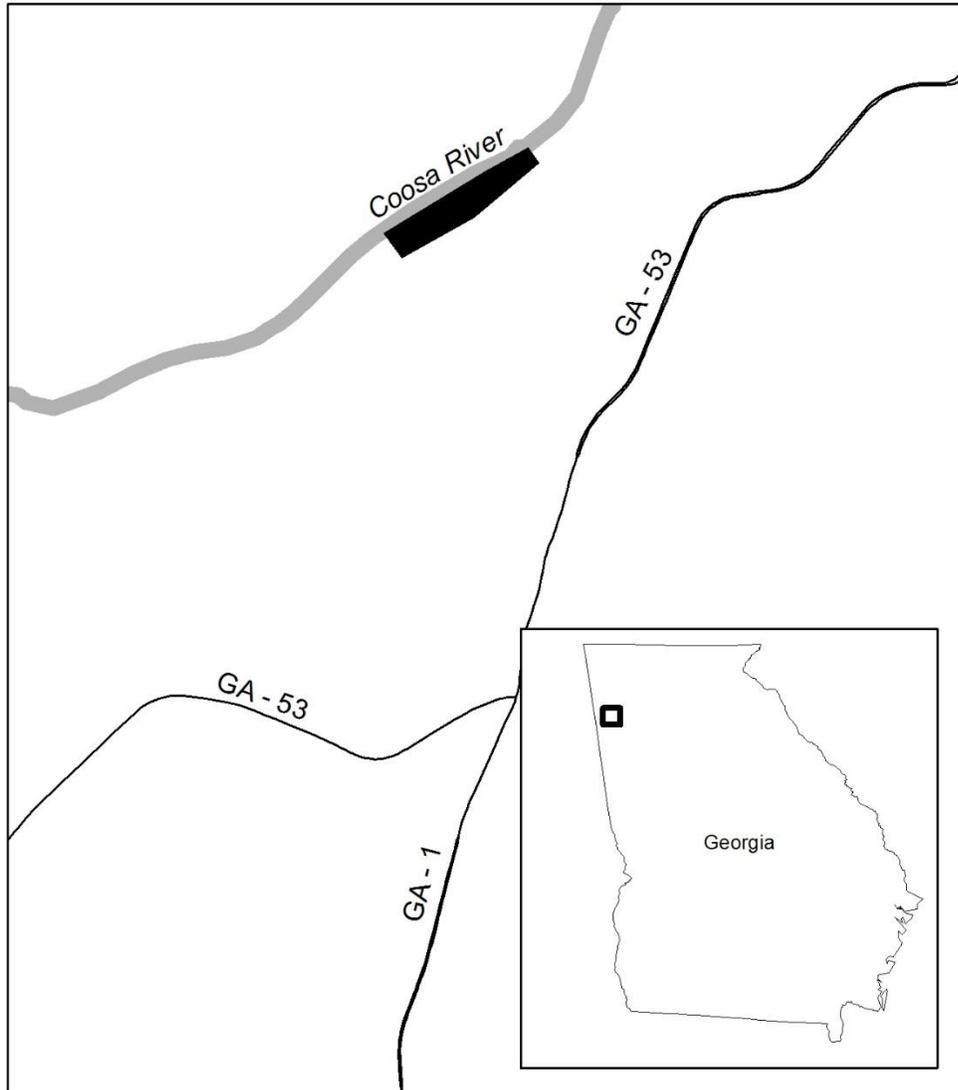
(iii) Map of Subunits 14A and 14B follows:

Subunits 14A and 14B: Goat Rock North and Goat Rock South  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Harris and Muscogee Counties, GA

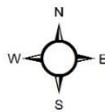


(20) Unit 15: Blacks Bluff Preserve, Floyd County, Georgia. Map of Unit 15 follows:

Unit 15: Blacks Bluff Preserve  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Floyd County, GA

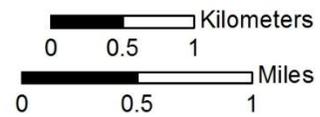
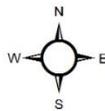
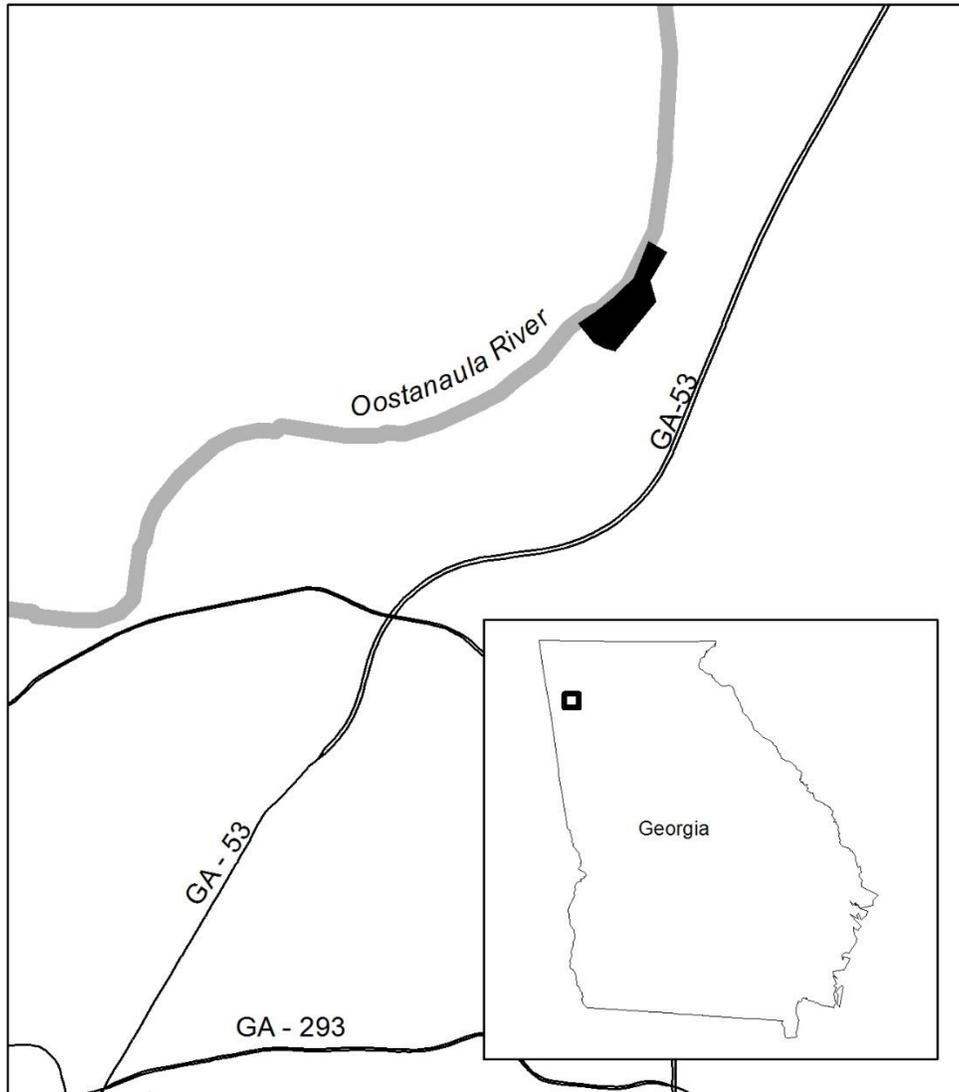


-  Critical Habitat
-  Road
-  River



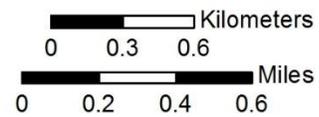
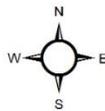
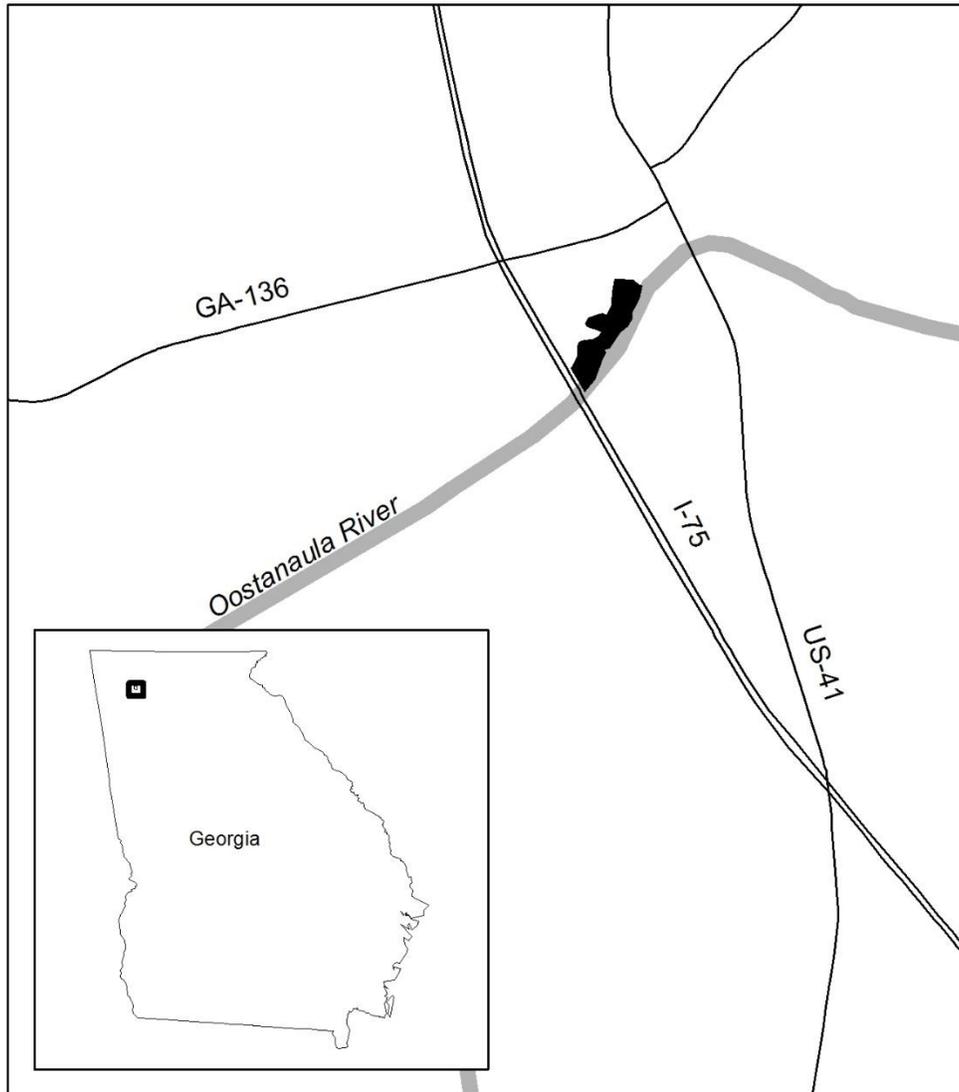
(21) Unit 16: Whitmore Bluff, Floyd County, Georgia. Map of Unit 16 follows:

Unit 16: Whitmore Bluff  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Floyd County, GA



(22) Unit 17: Resaca Bluffs, Gordon County, Georgia. Map of Unit 17 follows:

Unit 17: Resaca Bluffs  
Critical Habitat for *Arabis georgiana* (Georgia rockcress)  
Gordon County, GA



\* \* \* \* \*

Dated: September 2, 2014

Michael J. Bean

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P