U.S. FISH AND WILDLIFE SERVICE SPECIES ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

Scientific Name:

Arabis georgiana

Common Name:

Georgia rockcress

Lead region:

Region 4 (Southeast Region)

Information current as of:

06/21/2011

Status/Action

___ Funding provided for a proposed rule. Assessment not updated.

___ Species Assessment - determined species did not meet the definition of the endangered or threatened under the Act and, therefore, was not elevated to the Candidate status.

___ New Candidate

_X_ Continuing Candidate

___ Candidate Removal

___ Taxon is more abundant or widespread than previously believed or not subject

___ Taxon not subject to the degree of threats sufficient to warrant issuance of

___ Range is no longer a U.S. territory

___ Insufficient information exists on biological vulnerability and threats to s

___ Taxon mistakenly included in past notice of review

___ Taxon does not meet the definition of "species"

___ Taxon believed to be extinct

___ Conservation efforts have removed or reduced threats

Petition Information

___ Non-Petitioned

_X_ Petitioned - Date petition received: 05/11/2004

90-Day Positive:05/11/2005

12 Month Positive:05/11/2005

Did the Petition request a reclassification? **No**

For Petitioned Candidate species:

Is the listing warranted(if yes, see summary threats below) **Yes**

To Date, has publication of the proposal to list been precluded by other higher priority listing? **Yes**

Explanation of why precluded:

Higher priority listing actions, including court-approved settlements, court-ordered and statutory deadlines for petition findings and listing determinations, emergency listing determinations, and responses to litigation, continue to preclude the proposed and final listing rules for this species. We continue to monitor populations and will change its status or implement an emergency listing if necessary. The Progress on Revising the Lists section of the current CNOR (http://endangered.fws.gov/) provides information on listing actions taken during the last 12 months.

Historical States/Territories/Countries of Occurrence:

- **States/US Territories**: Alabama, Georgia
- **US Counties**:County information not available
- **Countries**:Country information not available

Current States/Counties/Territories/Countries of Occurrence:

- **States/US Territories**: Alabama, Georgia
- **US Counties**: Autauga, AL, Bibb, AL, Dallas, AL, Elmore, AL, Jefferson, AL, Lowndes, AL, Macon, AL, Monroe, AL, Montgomery, AL, Perry, AL, Russell, AL, Shelby, AL, Tallapoosa, AL, Wilcox, AL
- **Countries**:Country information not available

Land Ownership:

Two populations are located on federal lands with one population on the Fort Benning Military Reservation in Chattahoochee County, GA/Russell County, AL; and one on Fort Toulouse/Jackson Park National Historical Site in Elmore County, AL. One population in Georgia (Harris/Muscogee Counties) is located on buffer lands of the Georgia Power Company (Moffett 2007, p. 4). All other populations are on private land, including two on property owned by The Nature Conservancy (Bibb County, AL), and one owned by the University of West Alabama (Sumter County). A reestablished population occurs on Nature Conservancy property in Floyd County, GA.

Lead Region Contact:

ARD - Ecological Services, Lorna Patrick, 850-769-0552, lorna_patrick@fws.gov

Lead Field Office Contact:

Jackson ESFO, Cary Norquist, (601) 321-1128, cary_norquist@fws.gov

Biological Information

Species Description:

Species Description/Taxonomy

Georgia rockcress is a perennial herb up to 90 centimeters (cm) (35 inches (in.)) tall. The basal leaves are oblanceolate, rounded at the apex, toothed on the margins, 4 to 8 cm (2 to 3 in.) long, and with or without long, tapered petioles. The basal leaves usually persist through the fruiting season and have green lower surfaces. The stem leaves are alternate, lanceolate to narrowly elliptic, 1 to 5 cm (0.4 to 2.0 in.) long, and somewhat clasping around the stems. The upper surfaces of the stem leaves have stiff, branched hairs when young and are smoothish when mature. All leaves tend to be finely hairy. The flowers are borne in a terminal inflorescence that is somewhat loosely branched. There are four, white petals which measure 6 to 10 millimeters (mm) (0.2 to 0.4 in.) long. The fruit stands erect as a slender (1 mm or 0.04 in. wide), relatively long (5 to 7 cm or 2 to 3 in.) pod that splits in two, leaving behind a thin, papery, lengthwise partition. Seeds are brownish, oblong, about 2 mm (0.1 in.) long, and are borne in single rows on each side of the partition. Flowering occurs from March to April, with fruiting beginning in May and into early July (Allison 1995, p. 4; Patrick et al. 1995, p.2).

Arabis georgiana was first collected in 1841 by Boykin from the vicinity of the Chattahoochee River in Georgia. Several other collections of this species were made in the late 1800s; however, Harper was the first to document its distinctiveness, after seeing it in fruit in 1901 on the bank of the Chattahoochee River in Stewart County, Georgia (Schotz 2010, p. 2). Harper later described it as a distinct species in 1903 (Allison 1995, p. 4; Schotz 2010, p. 2). The Georgia rockcress was maintained as a distinct species in Hopkins's 1937 monograph of Arabis in the eastern U.S. (Allison 1995, p. 3). In 2003, most of the North American species of Arabis were transferred to the genus Boechera, however, Arabis georgiana was not one of the species transferred (Al-Shehbaz 2003, p. 381). Arabis georgiana appears to be universally accepted as a distinct species (Schotz 2010, p. 1). A detailed listing of key morphological features which separate this Arabis from other similar Southeastern species can be found in Schotz's 2010 status report (p. 4).

Taxonomy:

Habitat/Life History:

Habitat

Arabis georgiana grows in a variety of dry situations, including shallow soil accumulations on rocky bluffs, ecotones of gently sloping rock outcrops, and in sandy loam along eroding riverbanks. It is occasionally found in adjacent mesic woods, but it will not persist in heavily shaded conditions. This species is adapted to high or moderately high light intensities and occurs in areas which are underlain by granite and limestone, thus the soils are circumneutral to slightly basic (Allison 1995, p. 7; Patrick et al. 1995, p. 2; Schotz 2010, p. 6). Arabis georgiana is found with a number of other rare plant species including the federally listed Apios priceana (Priceâ€™s potato-bean) and Marshallia mohrii (Mohrâ€™s Barbaraâ€™s buttons). Additional information on this speciesâ€™ habitat and associated species can be found in Schotzâ€™s 2010 status survey report (pp. 6-8).

Life History

There is little specific information on the life history of this species as no detailed studies have been completed on this species at this time. However, demographic and genetic studies have just recently been initiated on this species by Garcia (in litt. 2011a,b), a graduate student at Columbus State University. Moffett (in litt. 2005) reports that plants germinate easily from seed and reseed readily in a garden environment. Schotz (2010, pp. 8-10) provided some general life history information based on his observations while conducting surveys of Alabama populations and general knowledge on the genus Arabis. Arabis species reproduce from seed produced by insect-mediated pollen exchange between flowers of the same or different plants, by self-pollination, or sometimes by apomixes (seed production without pollination). Since the seeds of Arabis georgiana fall directly from the fruit while still attached to the parent plant, gravity is likely the primary dispersal agent for the species, thereby limiting dispersal distances to a meter or less except in cases of high wind events. Surface water runoff may also assist in moving seeds additional distances from the parent plants. Arabis georgiana arises from a thick rootstock and it is likely this rootstock can live for many years thereby enabling plants to survive by vegetative means when environmental conditions are unfavorable for flowering.

Historical Range/Distribution:

Current and Historical Range

Populations of Arabis georgiana are known from the Coastal Plain, Piedmont, and Ridge and Valley physiographic provinces of Alabama and Georgia;. Extensive searches have been conducted for this species throughout these physiographic provinces in both Alabama and Georgia (Allison 1995, pp. 1-31; Allison 1999, pp. 1-7; Schotz 2010, pp. 1-63). Allison (1995, pp. 18-31) surveyed 205 sites over nine counties in Georgia and discovered only four new populations (a 2 percent success rate); Schotz's (2010, p.12) survey of 28 sites in Alabama yielded the location of only one new population (4 percent success rate), though he discovered an additional new site prior to his 2009-2010 survey (p. iii). The exact number of populations of Arabis georgiana is open to interpretation, but with the use of 1 mile as the defining boundary of a population, 16 native populations are currently documented to occur across Alabama and Georgia. Eleven of these occur solely in Alabama; 4 solely in Georgia; and 1 population extends into both states. Of the 11 populations in Alabama, 6 are in the Ridge and Valley region (all in Bibb County), and 5 occur in the Coastal Plain region including the Black Belt Prairie and Red Hills areas (Dallas, Elmore, Wilcox, Monroe and Sumter Counties). Of the 4 populations found solely in Georgia, 2 occur in the Ridge and Valley region (Floyd and Gordon Counties); 1 population occurs in the Piedmont region (Harris and Muscogee Counties); and 1 population occurs in the Coastal Plain region (Clay County). The one population that extends into both states (Russell County, AL and Chattahoochee County, GA) also occurs in the Coastal Plain region (Allison 1995, pp. 13-14; Allison 1999, pp. 1-7; Moffett in litt. 2005; Moffett 2007, p. 1; Schotz in litt. 2007, 2009; 2010 p. 4). A historical location from Stewart County, Georgia, has not been relocated despite repeated searches, including the most recent attempt in 2005 (Moffett 2007, p. 1). A reestablished population occurs in Floyd County, Georgia.

Current Range Distribution:

Population Estimates/Status:

Arabis georgiana is rare throughout its range. During surveys in 1999, Allison (1999, pp. 1-7) found that populations of this species typically had a limited number of individuals restricted over a small area. Of the nine known localities in Georgia, Allison (1995, pp. 18-28) reported that six sites consisted of only 3 to 25 plants, and the remaining three sites had 51 to 63 individuals. However, a 2007 survey, by Moffett (2007, p. 8), of the six Georgia populations resulted in counts of 5 or fewer plants at one population; 30 to 50 plants at two populations; 150 plants at one population; and two populations with 800 to 1000 plants. In 2009, plants

could not be relocated at one Floyd County, Georgia site and only one plant was seen at another site where 25 to 50 had been documented in 2007 (Elmore 2010, p. 1). In 2007, Moffett (2007, pp. 1-2) indicated that the overall status of the three populations in the Ridge and Valley province (Floyd and Gordon Counties, Georgia) was poor, as these populations tended to be small, and declining in size and vigor. A count in 2011 of the one remaining native Floyd County population and the Gordon County population resulted in 12 and 42 plants, respectively (Garcia in litt. 2011b). The Clay County site had an estimated 112 individuals in 2011 (Garcia in litt. 2011b). The largest population in Georgia is the multi-site Goat Rock Dam complex in the Piedmont province (Harris and Muscogee Counties) with approximately 1000 flowering stems at last census (Moffett 2007, p. 2). Fort Benning also supports a vigorous population with an estimated 1000 plants in 2007 (Moffett 2007, p. 2) and 886 plants counted in 2011 (Garcia in litt. 2011b).

In Alabama, the larger populations are primarily in the Ridge and Valley physiographic province of Alabama, particularly in Bibb County. Allison (1999, pp. 2-4) originally documented this species at 18 localities (representing 7 populations) in Bibb County. However, one of these Bibb County populations was not relocated during surveys in 2001 (Allison 2002, pers. comm.) and plants were not seen at several other sites in this area during visits by the Alabama Natural Heritage Program in 2004 and 2009-2010 (Schotz 2010, p. 13). Population estimates of the Alabama sites from the late 1990s by Allison (1999, pp. 1-7) are as follows: three of the six Bibb County populations had 5 to 20 plants, and the remaining Bibb County populations had 50, 83, and 180 plants; the three Coastal Plain Alabama populations had population sizes of 12, 24, and 51 plants. Schotz (2010, pp. 1-63) revisited all known populations in Alabama and also surveyed potential habitat for new locations. From his 2010 census, he estimated that the population of Arabis georgiana in Alabama does not likely exceed 3,000 individuals occurring over roughly 1.24 ha (3.1 acres) in area. Population sizes ranged from 16 plants to 229 in the Ridge and Valley region populations (Bibb County); several hundred plants were counted at four other populations (Dallas, Wilcox, Monroe, Russell Counties); 42 and 50 at two other populations (Dallas and Elmore Counties); and a low count of 4 plants at the Sumter County site (Schotz 2010, pp. 19-55). Schotz (2010, pp. 17-19) ranked all Alabama sites he visited on a scale of A to D, based on the quality of the site which took into account the number of plants, habitat condition, level of threat, and long-term protection feasibility. Schotz (2010, p. 13) assigned an “A” rank (excellent) to only two sites, one being the Monroe County population and the other being the Fort Benning population shared with Georgia. The rank of “B” (Good) was assigned to five populations; a rank of “C” (marginal) given to three populations; and a “D” rank (poor) assigned to the two remaining sites.

Threats

A. The present or threatened destruction, modification, or curtailment of its habitat or range:

Currently, habitat degradation, more than its outright destruction, is the most serious threat to this species’ continued existence. Most of the Coastal Plain rivers surveyed by Allison (1995, p. 11) were considered unsuitable for Arabis georgiana because their banks had been disturbed to the point where there was no remaining vegetative buffer. Recent habitat degradations (i.e. vegetation denuded and replaced by hard-packed exposed mineral soil) have occurred at several Georgia sites in association with residential development and campsites atop the bluffs (Moffett 2007, pp. 3-4). Disturbance, associated with timber harvesting, road building, and grazing in areas where the plant exists has created favorable conditions for the invasion of exotic weeds in this species’ habitat (see factor E).

One population of Arabis georgiana in Floyd County, Georgia, appears to be a surviving remnant of a once larger population. The primary habitat at this locality has been extensively quarried (Allison 1995, p. 10). It is likely that other populations on rocky bluffs, in the Piedmont and Ridge and Valley provinces, were destroyed by quarrying or impoundments. A recently located population in Monroe County, Alabama is adjacent to an area that was once quarried but quarrying does not appear to be an apparent threat to this

population at this time (Schotz 2010, p. 11). Rock bluffs along rivers have also been favored sites for hydropower dam construction. The construction of a dam in Harris County, Georgia, destroyed a portion of suitable habitat for a population of Arabis georgiana and the current population there may also represent a remnant of a once much larger population (Allison 1995, p. 10).

Historically, suitable habitat for this species was destroyed or degraded due to quarrying, residential development, timber harvesting, road building, recreation and possibly hydropower dam construction. Currently, one of the populations in Georgia is confined to a roadside right-of-way and is currently threatened by roadside maintenance such as mowing and herbicides (Hodges in litt. 2005). Evidence of timber harvesting was observed in close proximity to most of the Alabama populations and thus, is a potential threat to the long-term viability of these populations. Selective timber removal, if done carefully, may benefit the species but clear-cutting and the increased light would promote competition from undesirable weed species (Schotz 2010, p. 10). We have determined that the present or threatened destruction, modification, or curtailment of habitat and range is an ongoing threat of low magnitude to Arabis georgiana.

B. Overutilization for commercial, recreational, scientific, or educational purposes:

Overutilization is not known to pose a threat to this species.

C. Disease or predation:

Limited browsing of plants has been noted (Allison 1995, p. 10; Moffett 2007, p. 3; Schotz 2010, p. 11). However, disease and predation are not thought to be a significant threat to this species.

D. The inadequacy of existing regulatory mechanisms:

Arabis georgiana is listed as Threatened by the State of Georgia (Patrick et al. 1995). This State listing provides legal standing under the Georgia Wildflower Preservation Act of 1973. Georgia law prohibits the removal of this species from public land and regulates the taking and sale of plants from private land. This law also triggers the Georgia Environmental Protection Act process in the event of potential impacts to a population by state activities on state-owned land (Moffett 2007, p. 3); however, the greater problem of habitat destruction and degradation is not addressed by this law. Arabis georgiana is considered imperiled in Alabama by the Alabama Natural Heritage Program (2010) but the state has no protective legislation for plants.

Only two populations are known to occur on Federal land: one population on the Fort Benning Military Reservation in Chattahoochee County, Georgia, and Russell County, Alabama, and one population on Fort Toulouse, Jackson Park National Historic Site in Elmore County, Alabama. Fort Benning is aware of the two sites on their property and is working with The Nature Conservancy to monitor and provide for the conservation of these populations (Elmore in litt. 2010). Protection measures at Fort Toulouse are unknown at this time. Two populations in Bibb County are permanently protected due to their ownership by The Nature Conservancy (TNC) (Schotz 2010, p. 11). With the exception of the permanent protection afforded to the TNC sites and the management ongoing at the Fort Benning population, there are no enforceable protection designations, conservation agreements or management plans known to exist for this species or its habitat (Schotz 2010, p. 11). All sites continue to need active management to combat invasive plants (see factor E.).

In summary, declines in Arabis georgiana have been primarily attributed to habitat degradation which is not regulated by any existing laws which would otherwise protect the individuals of the species. Therefore, we have determined that the threat of inadequate existing regulatory mechanisms is an ongoing threat of moderate magnitude to this species.

E. Other natural or manmade factors affecting its continued existence:

The primary threat to Arabis georgiana is the ongoing degradation of its habitat and the subsequent invasion of exotic plant species. Disturbance of most of the species' known sites has provided opportunities for the invasion of aggressive, non-native plants, especially Japanese honeysuckle (Lonicera japonica). Arabis georgiana is not a strong competitor and is usually found in areas where growth of other plants is restrained due to the shallowness of the soils or the pioneer status of the site (e.g., eroding riverbanks) (Allison 1995, p. 8). However, non-native species are effectively invading these riverbank sites and the long-term survival of the five riverbank populations in the Coastal Plain province is questionable (Allison 1995, p. 11). This species is only able to avoid competition with non-native species where the soil is limited (e.g., rocky bluffs).

Competition from non-native species, exacerbated by adjacent land use changes, likely contributed to the loss of the population at the type locality in Stewart County, Georgia (Allison 1995, p. 28) and possibly to one of the Bibb County, Alabama, populations and several other sites in this general area (Allison in litt. 2002; Alabama Natural Heritage Program 2004, p. 2). Additional populations are also currently being negatively affected by competition with non-native plants. According to Moffett (2007, p. 3), most of the sites in Georgia are being impacted by the presence of invasive plant species, primarily Japanese honeysuckle (Lonicera japonica), Chinese privet (Ligustrum sinense), and Nepalese browntop (Eulalia viminea). Japanese honeysuckle was observed growing on individual plants of Arabis georgiana at three sites visited by Allison in 1995. At a fourth site, plants growing in a mat of Nepalese browntop declined in number from 17 individuals to a single plant (Allison 1995, p. 19). Allison (1995, pp. 18-28; Allison in litt. 1999) considered four other populations to be imminently threatened by the nearby presence of non-native plants. Thus, approximately 40 percent of the populations visited by Allison in 1995 were reportedly threatened by non-native species. Schotz (2010, p. 10) found that the majority of the Arabis georgiana occurrences in Alabama were continuing to be impacted by invasives and Garcia (in litt. 2011b) noted the presence of exotics at all the Georgia populations with her recent surveys.

Populations of Arabis georgiana are healthiest in areas receiving full or partial sunlight as long as these areas are not overrun with exotic plants. This species seems to be able to tolerate moderate shading, but exists primarily as vegetative rosettes in heavily shaded areas (Moffett 2007, p. 4). Those populations occurring in forested areas will decline as the forest canopy closes. Allison (1999, p. 4) attributed the decline of a population in Bibb County, Alabama, to canopy closure. In addition, the small number of individuals at the majority of the sites makes these populations vulnerable to local extinctions from unfavorable habitat conditions such as extreme shading.

In summary, population declines in Arabis georgiana populations have been attributed to competition from exotics and also heavy shading associated with canopy closure. In addition, those populations with only a few individual plants are threatened with local extinction. Therefore, we have determined that other natural or manmade factors currently pose an imminent and high degree of threat to Arabis georgiana.

Conservation Measures Planned or Implemented :

The Service funded a status survey on this species throughout its range in the mid-1990s. The Service's Candidate Conservation Program provided limited funding in 2002 to initiate conservation measures for this species including gathering landowner information, development of site management plans for selected populations on public lands and implementation of non-native plant control. In Alabama, preliminary site visits were conducted in 2002, draft management plans were developed, and exotic removal was initiated at two sites (Alabama Natural Heritage Program 2004, p. 2). In 2003 land ownership information was updated for the Alabama sites. Most of the Alabama sites were visited in the summer of 2004. Revisits to these sites

were conducted from 2008 to 2010, with a final report (Schotz 2010, pp. 1-63). All Georgia sites were visited in 2005 and 2006 (Moffett in litt. 2005; 2007, pp. 1-7). Selected sites in Georgia were visited in 2009 and 2010 with counts made at all Georgia sites in 2011 (Elmore 2010, p. 1, Garcia in litt. 2011a,b).

In 2008 and 2009, a population of this species in Georgia (Georgia Power Goat Rock Dam) was augmented by outplantings and sowing of seeds, grown from previously collected seeds at this site (Elmore in litt. 2009; Elmore 2010, p.1). Monitoring plots have been established for this population and monitoring was initiated in 2010 (Elmore 2010, p. 1). Prescribed burning was implemented at this site in 2004 to aid in invasive species removal. Additional management was conducted at this site the last few years to control the regrowth of invasives (Elmore 2010, p. 1, Moffett 2007, p. 5).

Currently the Chattahoochee Nature Center and Callaway Gardens have material from four Georgia populations. Reestablishment of a Floyd County, Georgia population from parent stock was initiated in 2010 and monitoring conducted in 2011 (Elmore 2010, p. 2, Henning Von Schmeling in litt. 2011). Eighty-four of the original 100 plants were counted with varying levels of success in 2011 (Goldstrohm 2011, p. 1).

In 2010, a Master's student at Columbus State University in Georgia initiated demographic and genetic studies on selected populations of this species in Alabama and Georgia through a grant with the Service (Garcia in litt. 2011a). Garcia plans to also utilize GIS to identify optimal habitat in an attempt to locate additional native populations and assess potential habitat for possible outplantings.

Summary of Threats :

Habitat degradation and the subsequent invasion of exotic species, more than outright habitat destruction, is the most serious threat to this species' continued existence. Disturbance, associated with timber harvesting, road building, and grazing has created favorable conditions for the invasion of exotic plants, especially Japanese honeysuckle (Lonicera japonica), in this species' habitat. A large number of populations are currently or potentially threatened by the presence of exotics. Populations near roadsides are threatened by roadside maintenance practices, particularly herbicides. We find that this species is warranted for listing throughout all its range, and, therefore, find that it is unnecessary to analyze whether it is threatened or endangered in a significant portion of its range.

For species that are being removed from candidate status:

_____ Is the removal based in whole or in part on one or more individual conservation efforts that you determined met the standards in the Policy for Evaluation of Conservation Efforts When Making Listing Decisions(PECE)?

Recommended Conservation Measures :

Continue annual visits to populations, as feasible. Thoroughly survey habitat on public lands to document any new locations of the species; work with landowners, the state, and conservation agencies to develop protection/management plans for all sites, beginning with those located on public land; and implement management on all sites. Obtain additional funding to support surveys and continuation of restoration efforts on sites. As feasible, maintain material/seed from populations as buffer against possible loss of native populations in the wild.

Priority Table

Magnitude	Immediacy	Taxonmomy	Priority
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/Population	3
	Non-imminent	Monotypic genus	4
		Species	5
		Subspecies/Population	6
Moderate to Low	**Imminent**	Monotypic genus	7
		Species	**8**
		Subspecies/Population	9
	Non-Imminent	Monotype genus	10
		Species	11
		Subspecies/Population	12

Rationale for Change in Listing Priority Number:

Magnitude:

The magnitude of threat is not considered high. The species is not considered highly vulnerable as there are 16 populations scattered over 13 counties in the states of Alabama and Georgia and four of these are protected from outright destruction.

Imminence :

The primary threat today consists of competition from exotic plants which is currently affecting most of the Alabama populations and all of the Georgia populations. Though this is considered a gradual threat, the threat is ongoing, thus imminent.

__Yes__ Have you promptly reviewed all of the information received regarding the species for the purpose of determination whether emergency listing is needed?

Emergency Listing Review

__No__ Is Emergency Listing Warranted?

This species is not in imminent danger of becoming extinct. There are 16 populations over two states and several populations are secure. The major threat to this species is from exotic plants which is gradual.

Description of Monitoring:

Species experts, botanists with the state conservation programs, and affected Service field offices were sent copies of the most recent candidate form and asked to provide any new information on this species. Those contacted were as follows: Dr. Mincy Moffett, Georgia Department of Natural Resources (GADNR); Al Schotz of the Alabama Natural Heritage Program; Dr. Wayne Barger of the Alabama Heritage Program in the State Lands Division/Alabama Department of Conservation and Natural Resources; the Service's Daphne, AL and Athens, GA field offices; Henning Von Schmeling of the Chattahoochee Nature Center; and Alicia Garcia, a student at Columbus State University in Georgia.

Alabama sites were last visited in 2010 by the Alabama Natural Heritage. The Georgia sites were all visited and monitored in 2005 or in 2006 (Moffett 2007, pp. 1-7) utilizing funds from the Candidate Conservation Program. An updated status report on the Georgia populations was completed in 2007 by Moffett. Visits were made to selected Georgia sites in 2009 and 2010 and surveys and counts of plants for all Georgia populations was completed in 2011 (Elmore 2010, p. 1, Garcia in litt. 2011a,b). Funding obtained from Candidate Conservation Program has not been adequate to support annual monitoring or restoration efforts on a regular basis; however, monitoring and restoration efforts are occurring at selected Georgia sites by the Georgia Natural Heritage Program, The Nature Conservancy, Georgia Plant Conservation Alliance, and the Chattahoochee Nature Center (Elmore in litt. 2010).

Indicate which State(s) (within the range of the species) provided information or comments on the species or latest species assessment:

Alabama,Georgia

Indicate which State(s) did not provide any information or comment:

none

State Coordination:

Information from Alabama and Georgia has been incorporated into this latest species assessment.

This species is not listed in Alabama's State Wildlife Action Conservation Plan, as is the situation for any plant species (Alabama Department of Conservation and Natural Resources 2005). Georgia lists the Georgia rockcress as a "high priority species" in their State Wildlife Action Plan (Georgia Department of Natural Resources 2005).

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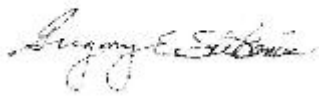
Approval/Concurrence:

Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes, including elevations or removals from candidate status and listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all resubmitted 12-month petition findings, additions or removal of species from candidate status, and listing priority changes.

Approve:  06/22/2011
Date

Concur:  10/07/2011
Date

Did not concur: _____ _____
Date

Director's Remarks: