

**American chaffseed (*Schwalbea americana*) Recovery Plan**  
**Link to the Recovery Plan:** [https://ecos.fws.gov/docs/recovery\\_plan/950929c.pdf](https://ecos.fws.gov/docs/recovery_plan/950929c.pdf)

**Original Approved:** 9/25/1995

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**DRAFT AMENDMENT 1**

We have identified the best available information that indicates the need to amend recovery criteria for *Schwalbea americana* (American chaffseed), hereafter called *Schwalbea* since the recovery plan was completed in 1995. In this proposed amendment, we synthesize the adequacy of the existing recovery criteria, define amended recovery criteria, and describe the rationale supporting the proposed recovery plan amendment. The proposed modification is shown as an addendum that supplements the recovery plan, superseding only Section/Part II of the recovery plan, pp. 27-28. Recovery plans are a non-regulatory documents that provide guidance on how best to help recover species.

**For**  
**U.S. Fish and Wildlife Service**  
**Southeast Region**  
**Charleston, South Carolina**

**September 2018**

**METHODOLOGY USED TO COMPLETE THE RECOVERY PLAN AMENDMENT**

The amendment to the 1995 Recovery Plan was accomplished using information obtained from the 2018 5-year review (USFWS 2018), 1995 Recovery Plan (USFWS 1995), unpublished field survey reports, and peer-reviewed scientific publications. After the draft 2018 5-year review was completed, delisting criteria were developed. The 2018 5-year review helped define what constitutes a self-sustaining population by analyzing the history/trend of extant populations in comparison with historic/extirpated populations over a 10 to 20 year period. In addition, *Schwalbea* populations were delineated using NatureServe’s Habitat-based Plant Element Occurrence Delimitation Guidance, removing duplicate element occurrence/site records. The U.S. Fish and Wildlife Service held an External Partner Call on August 13<sup>th</sup>, 2018, with the U.S. Forest Service, Department of Defense-Fort Bragg, North Carolina Natural Heritage Program, South Carolina Department of Natural Resources, Joseph W. Jones Ecological Center, and The Nature Conservancy, to discuss the best available information for the species.

**ADEQUACY OF RECOVERY CRITERIA**

Section 4(f)(1)(B)(ii) of the Endangered Species Act (Act) requires that each recovery plan shall incorporate, to the maximum extent practicable, “objective, measurable criteria which, when met, would result in a determination...that the species be removed from the list.” Legal

challenges to recovery plans (see *Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995)) and a Government Accountability Audit (GAO-06-463R *Endangered Species Recovery*, April 6, 2006) have also affirmed the need to frame recovery criteria in terms of threats assessed under the five factors.

## Recovery Criteria

See previous version of criteria in the recovery plan, pp. 27-34 (available at [https://ecos.fws.gov/docs/recovery\\_plan/950929c.pdf](https://ecos.fws.gov/docs/recovery_plan/950929c.pdf).)

## Synthesis

At one time, *Schwalbea* occurred along the entire Eastern Seaboard (with the exception of Maine and New Hampshire) from Massachusetts south to Florida and along the entire Gulf Coast from Florida west to Texas, and the inland states of Kentucky and Tennessee. The range of *Schwalbea* has greatly constricted with the species only occurring in eight states along the Eastern seaboard and Gulf Coast (MA, NJ, NC, SC, GA, FL, LA, and AL). The status of this species from the time of listing to present day has been one of decline (1995: 72 occurrences; 2008: 53 occurrences; 2018: 43 populations). Further, most states only have 2-3 populations and only three states (NC, SC, and GA) contain more than five populations. Threats to this species, habitat destruction/modification, and fire suppression, continue across its range (Glitzenstein et al. 2016, p. 303, Fuller 2016, p. 17).

Delisting criteria were not developed (USFWS 1995, pp. 27-34) because at that time, what constitutes a geographically distinct, self-sustaining *Schwalbea* population was unknown. However the analysis for the 2018 5-year review helped define geographically distinct self-sustaining populations.

To determine how many geographically distinct, self-sustaining populations of *Schwalbea* remained across the Eastern Seaboard and Gulf Coast, population trends across a 23-year time period (1995-2018), and element occurrence/site records were analyzed during the 2018 5-year review. Reconciliation of element occurrence records and delimitation of populations using NatureServe's Habitat-based Plant Element Occurrence Delimitation Guidance (1-to-3 km (0.6 to 1.9 miles) separation distance, depending on habitat features, e.g., roads, riparian areas) yielded 43 extant, geographically distinct populations. Forty-one out of the 43 extant *Schwalbea* populations occur on protected land with long-term protection secured through management plans on Federal and State property and landowner agreements (e.g., Safe Harbor Agreements) and conservation easements on private land, illustrating that long-term protection of populations continues to serve as an important component of the species recovery (USFWS 1995, p. 38, USFWS 2018). Further, populations with 100 to 200 individuals demonstrated greater resiliency, i.e., remaining extant over a 10 to 20 year time period in comparison with populations containing <50 individuals. Currently, 20 *Schwalbea* populations are considered geographically distinct, self-sustaining populations with long-term protection (USFWS 2018).

## AMENDED RECOVERY CRITERIA

Recovery criteria serve as objective, measurable guidelines to assist in determining when an endangered species has recovered to the point that the protections afforded by the Act are no longer necessary. Delisting is the removal of a species from the Federal Lists of Endangered and Threatened Wildlife and Plants. The term “endangered species” means any species (species, sub-species, or discrete population segment [DPS]) that is in danger of extinction throughout all or a significant portion of its range.” The term “threatened species” means any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Revisions to the Lists, including delisting or downlisting a species, must reflect determinations made in accordance with sections 4(a)(1) and 4(b) of the Act. Section 4(a)(1) requires that the Secretary determine whether a species is an endangered species or threatened species (or not) because of threats to the species. Section 4(b) of the Act requires that the determination be made “solely on the basis of the best scientific and commercial data available.” Thus, while recovery plans provide important guidance to the Service, States, and other partners on methods of minimizing threats to listed species and measurable objectives against which to measure progress towards recovery, they are guidance and not regulatory documents.

Recovery criteria should help indicate when we would anticipate that an analysis of the species’ status under section 4(a)(1) would result in a determination that the species is no longer an endangered species or threatened species. A decision to revise the status of or remove a species from the Federal Lists of Endangered and Threatened Wildlife and Plants, however, is ultimately based on an analysis of the best scientific and commercial data then available, regardless of whether that information differs from the recovery plan, which triggers rulemaking. When changing the status of a species, we first propose the action in the *Federal Register* to seek public comment and peer review, followed by a final decision announced in the *Federal Register*.

### Amended Recovery Criteria

We are providing recovery criteria for the American chaffseed recovery plan (USFWS 1995), which will supersede (replace) the existing downlisting criteria (pp. 27-34). The below recovery criteria describes a recovered species, or a species that should be considered for removal from the List of Endangered and Threatened Plants (50 CFR 17).

1. Protection via a conservation mechanism is achieved for 50 geographically distinct, self-sustaining populations. (Addresses listing factors A, D, and E).
2. Protected populations will be distributed to include all of the states currently supporting *Schwalbea*, and at least four populations in the northern portion of the species range (Massachusetts to Virginia). (Addresses listing factors A, D, and E)
3. The land management plans or agreements for the 50 protected *Schwalbea* populations must include management objectives that abate threats to *Schwalbea* such as fire suppression, hog damage, and/or silviculture practices. (Addresses listing factors A, D, and E).

## Rationale for Amended Recovery Criteria

The downlisting criteria, pp. 27-28, provided in the 1995 Recovery Plan (USFWS 1995), adequately address and curtail the threats to the species' survival, including the threatened destruction, modification or curtailment of *Schwalbea*'s habitat or range, and inadequacy of existing regulatory mechanisms. However, what constitutes a self-sustaining population was not known at the time of Recovery Plan's preparation. The Recovery Plan states that "a delisting objective will be defined when the research activities identified under Recovery Tasks 4 and 5 have been completed" (p. 28). Recovery Task 4 includes investigating the species' biology: (4.1) Conduct research to determine more complete information on life history, (4.2) Continue research on population demography, and (4.3) Determine minimum viable population size. Recovery Task 5 includes investigating genetic variability. Although Recovery Tasks 4 and 5 have only been partially completed, two decades of monitoring and survey data helped determine what constitutes a resilient or self-sustaining population that allowed the development of delisting criteria.

Fifty geographically distinct, self-sustaining populations, with four viable populations in the northern portion of the species' range ensures adequate redundancy and representation across the species' range. Population sizes with 100-200 individuals appear more resilient and may withstand stochastic events better than populations with <50 individuals; therefore, population sizes of at least 100 individuals are required to maintain long-term viability. The amended recovery criteria define what constitutes a self-sustaining and geographically distinct population, making the recovery criteria measurable and quantitative.

## LITERATURE CITED

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