

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

[Docket No. FWS-R4-ES-2022-0125;  
FF09E21000 FXES1111090FEDR 223]

RIN 1018-BE48

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully), *Digitaria pauciflora* (Florida pineland crabgrass), *Chamaesyce deltoidea* ssp. *pinetorum* (pineland sandmat), and *Dalea carthagensis* var. *floridana* (Florida prairie-clover)**

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

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully), *Digitaria pauciflora* (Florida pineland crabgrass), *Chamaesyce deltoidea* ssp. *pinetorum* (pineland sandmat), and *Dalea carthagensis* var. *floridana* (Florida prairie-clover) under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 179,680 acres (72,714 hectares) for Everglades bully, 177,879 acres (71,985 hectares) for Florida pineland crabgrass, 8,867 acres (3,588 hectares) for pineland sandmat, and 179,300 acres (72,560 hectares) for Florida prairie-clover in Monroe, Collier, and Miami-Dade Counties, Florida, fall within the boundaries of the proposed critical habitat designations. If we finalize this rule as proposed, it would extend the Act's protections to the species' critical habitats. We also announce the availability of a draft economic analysis (DEA) of the proposed designations of critical habitat for these four plant species.

**DATES:** We will accept comments received or postmarked on or before December 13, 2022. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by November 28, 2022.

**ADDRESSES:**

*Written comments:* You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <https://www.regulations.gov>. In the Search box, enter FWS-R4-ES-2022-0125, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on "Comment."

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R4-ES-2022-0125; U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church VA 22041-3803.

We request that you send comments only by the methods described above. We will post all comments on <https://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Information Requested, below, for more information).

*Availability of supporting materials:* For the proposed critical habitat designations, the coordinates or plot points or both from which the maps are generated are included in the decision file for these critical habitat designations and are available at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2022-0125 and on the Service's website at <https://www.fws.gov/office/florida-ecological-services/library>. Additional supporting information that we developed for these critical habitat designations will be available on the Service's website, at <https://www.regulations.gov>, or both.

**FOR FURTHER INFORMATION CONTACT:**

Lourdes Mena, Classification and Recovery Division Manager, U.S. Fish and Wildlife Service, Florida Ecological Services Field Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL 32256; by telephone 904-731-3134; or by facsimile 904-731-3045. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:****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 and revisions of critical habitat can only be completed by issuing a rule through the Administrative Procedure Act rulemaking process.

*What this document does.* This document proposes to designate critical habitat for one plant species, Florida prairie-clover, that is listed as an endangered species under the Act and for three plant species, Everglades bully, Florida pineland crabgrass, and pineland sandmat that are listed as threatened species under the Act (see listing rule at 82 FR 46691, October 6, 2017).

*The basis for our action.* Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific and commercial data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

*Draft economic analysis of the proposed designations of critical habitat.* We have prepared an analysis of the probable economic impacts of the proposed critical habitat designations and related factors. In this document, we announce the availability of the draft economic analysis and seek additional public review and comment.

*Public comment.* We are seeking comments and soliciting information from the public on our proposed designations to make sure we consider the best scientific and commercial information available in developing our final designations. Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. We will respond to substantive comments we receive during the comment period in our final rule.

*Peer review.* In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of determination

under section 4 of the Act, including listing determinations and critical habitat designations, we are seeking comments from independent specialists. The purpose of peer review is to ensure that our critical habitat designations are based on scientifically sound data, assumptions, and analyses. The peer reviewers have expertise in the biology, habitat, and threats to the species addressed in this proposed rule. We have invited these peer reviewers to comment on our specific assumptions and conclusions in this critical habitat proposal during the public comment period for this proposed rule (see **DATES**, above).

### Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including information regarding the following factors that the regulations identify as reasons why designation of critical habitat may be not prudent:

(a) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species; or

(b) Such designation of critical habitat would not be beneficial to the species. In determining whether a designation would not be beneficial, the factors the Services may consider include but are not limited to: Whether the present or threatened destruction, modification, or curtailment of a species’ habitat or range is not a threat to the species, or whether any areas meet the definition of “critical habitat.”

(2) Specific information on:

(a) The amount and distribution of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover habitat;

(b) Any additional areas occurring within the range of the species, *i.e.*, south and central Florida, that should be included in the designations because they (i) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management

considerations, or (ii) are unoccupied at the time of listing and are essential for the conservation of the species because they have potential to successfully support introduced or reintroduced populations of these species;

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(d) Whether we have appropriately identified the physical or biological features that are essential to the conservation for each species.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover and proposed critical habitat.

(5) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts and any additional information regarding probable economic impacts that we should consider.

(6) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designations, and the related benefits of including or excluding specific areas.

(7) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. If you think we should exclude any additional areas, please provide information supporting a benefit of exclusion.

(8) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a final critical habitat

determination. Section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific data available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <https://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <https://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <https://www.regulations.gov>.

Because we will consider all comments and information we receive during the comment period, our final designations may differ from this proposal. Based on the new information we receive (and any comments on that new information), our final designations may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, or may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion.

### Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

### Previous Federal Actions

On October 11, 2016, we proposed to list Florida prairie-clover as an endangered species and Everglades bully, Florida pineland crabgrass, and

pineland sandmat as threatened species under the Act (81 FR 70282). On October 6, 2017, we published our final determination in the **Federal Register** (82 FR 46691) and added Florida prairie-clover as an endangered species and Everglades bully, Florida pineland crabgrass, and pineland sandmat as threatened species to the List of Endangered and Threatened Plants at 50 CFR 17.12(h). At the time of our proposal, we determined that critical habitat was prudent, but not determinable, because we lacked specific information on the impacts of our designation. In our final listing rule (82 FR 46691; October 6, 2017), we stated we were in the process of obtaining information on the impacts of the designation. All previous Federal actions for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover are outlined in our proposed listing rule for the four plant species (81 FR 70282; October 11, 2016).

It is our intent to discuss in this proposed rule only those topics directly relevant to the designation of critical habitat for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover. For more information on the taxonomy, life history, habitat, population descriptions, and factors affecting the species for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover, please refer to the October 11, 2016, proposed listing rule (81 FR 70282) and the October 6, 2017, final listing rule (82 FR 46691) for these species.

### Background

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for threatened and endangered species. In 2019, jointly with the National Marine Fisheries Service, the Service issued final rules that revised the regulations in 50 CFR parts 17 and 424 regarding how we add, remove, and reclassify threatened and endangered species and the criteria for designating listed species' critical habitat (84 FR 45020 and 84 FR 44752; August 27, 2019).

However, on July 5, 2022, the U.S. District Court for the Northern District of California vacated the 2019 regulations (*Center for Biological Diversity v. Haaland*, No. 4:19-cv-05206-JST, Doc. 168 (N.D. Cal. July 5,

2022) (*CBD v. Haaland*), reinstating the regulations that were in effect before the effective date of the 2019 regulations as the law governing species classification and critical habitat decisions.

Accordingly, in developing the analysis contained in this proposal, we applied the pre-2019 regulations, which may be reviewed in the 2018 edition of the Code of Federal Regulations at 424.02 and 424.12(a)(1) and (b)(2)). Because of the ongoing litigation regarding the court's vacatur of the 2019 regulations, and the resulting uncertainty surrounding the legal status of the regulations, we also undertook an analysis of whether the proposal would be different if we were to apply the 2019 regulations. That analysis, which we described in a separate memo in the decisional file and posted on <https://www.regulations.gov>, concluded that we would have reached the same proposal if we had applied the 2019 regulations because under either regulatory scheme we find that critical habitat is prudent for the four plant species and that the occupied areas proposed for critical habitat are adequate to ensure the conservation of the species. The amount and distribution of critical habitat we are proposing for designation in occupied areas would allow existing and future established populations of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover to maintain their existing distributions; expand their distributions into suitable nearby areas (needed to offset habitat loss and fragmentation); increase the size of each population to a level where the threats of genetic, demographic, and normal environmental uncertainties are diminished; and maintain their ability to withstand local or unit-level environmental fluctuations or catastrophic events. Accordingly, we have not identified unoccupied areas that are essential for the conservation of the species at this time.

On September 21, 2022, the U.S. Circuit Court of Appeals for the Ninth Circuit stayed the district court's July 5, 2022, order vacating the 2019 regulations until a pending motion for reconsideration before the district court is resolved (*In re: Cattlemen's Ass'n*, No. 22-70194). The effect of the stay is that the 2019 regulations are currently the governing law. Because a court order requires us to submit this proposal to the **Federal Register** by September 30, 2022, it is not feasible for us to revise the proposal in response to the Ninth Circuit's decision. Instead, we hereby adopt the analysis in the separate memo that applied the 2019 regulations as our

primary justification for the proposal. However, due to the continued uncertainty resulting from the ongoing litigation, we also retain the analysis in this preamble that applies the pre-2019 regulations and we conclude that, for the reasons stated in our separate memo analyzing the 2019 regulations, this proposal would have been the same if we had applied the 2019 regulations.

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land

ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would likely result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement “reasonable and prudent alternatives” to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act’s definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act’s definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to

the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the listing rules and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts’ opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

#### Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations

(50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) currently in effect state that a designation of critical habitat is not prudent when one or both of the following situations exist:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species; or

(ii) Such designation of critical habitat would not be beneficial to the species. In determining whether a designation would not be beneficial, the factors the Services may consider include, but are not limited to: Whether the present or threatened destruction, modification, or curtailment of a species’ habitat or range is not a threat to the species, or whether any areas meet the definition of “critical habitat.”

No imminent threat of take attributed to collection or vandalism was identified under Factor B for these species in the final listing rule (82 FR 46691; October 6, 2017), nor has such a threat been identified since, and identification and mapping of critical habitat is not expected to initiate or increase the degree of any such threat. In our listing determination for these species, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to these species. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) has been met, we have determined that the designation of critical habitat is prudent for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover.

#### Critical Habitat Determinability

Having determined that designation of critical habitat is prudent for each species, under section 4(a)(3) of the Act we must find whether critical habitat for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.”

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

At the time of our proposal, we determined that critical habitat was prudent, but not determinable because we lacked specific information on the impacts of our designation (81 FR 70282; October 11, 2016). In our final listing rule, we stated we were in the process of obtaining information on the impacts of the designation (82 FR 46691; October 6, 2017). We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where these species are located. At this time, we are proposing to designate critical habitat, to the maximum extent prudent, for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover.

### Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. Following vacatur of the 2019 regulations, our regulations now in effect at 50 CFR 424.02 define “physical or biological features” as the features that support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species

consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential features to support the life history of the species.

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

We derive the specific physical or biological features essential to Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover from studies of these plants’ habitat, ecology, and life history as described below. Additional information can be found in the October 11, 2016, proposed listing rule (81 FR 70282) and October 6, 2017, final listing rule (82 FR 46691) for these species. We have determined that the following physical or biological features are essential to the conservation of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie.

#### *Everglades Bully, Florida Pineland Crabgrass, and Pineland Sandmat*

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

*Plant Community and Competitive Ability*—Everglades bully and Florida pineland crabgrass occur in pine rockland and marl prairies, as well as the ecotone between these habitats in Collier, Miami-Dade, and Monroe Counties (Gann et al. 2006, p. 12; Bradley et al. 2013, p. 4; Gann 2015, p. 30; Maschinski et al. 2002, p. 79), whereas pineland sandmat occurs only in communities classified as pine rockland habitat in Miami-Dade and Monroe Counties (Bradley and Gann 1999, p. 24). Detailed descriptions of these communities and their associated native plant species for Everglades bully, Florida pineland crabgrass, and pineland sandmat are provided under Background in the October 11, 2016, proposed listing rule (81 FR 70282) and

under Summary of Biological Status and Threats in the October 6, 2017, final listing rule (82 FR 46691). These habitats and their associated plant communities provide vegetation structure that allows for adequate growing space, moisture, sunlight, pollinators, and a competitive regime that is required for Everglades bully, Florida pineland crabgrass, and pineland sandmat to persist and spread. Pine rocklands and marl prairies are fire-maintained ecosystems characterized by an open canopy and understory and a limestone substrate (often exposed). Open canopy conditions are required to allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of Everglades bully, Florida pineland crabgrass, and pineland sandmat (Ross and Ruiz 1996, pp. 5–6; Bradley and Saha 2009, p. 4). These species also require a calcareous limestone substrate that varies from nearly bare to thin layers or small pockets of shallow soil to provide suitable growing conditions (e.g., pH, nutrients, anchoring, and proper drainage). As a result of these marginal soil conditions, plants such as Everglades bully, Florida pineland crabgrass, and pineland sandmat rely on sparse competition and periodic disturbance to thrive and persist. This combination of ecosystem characteristics (i.e., open canopy with a partially exposed limestone substrate and periodic disturbance) occurs only in pine rockland habitats (as opposed to rockland hammock, which occurs in conjunction with pine rockland and has a limestone substrate but a closed canopy) and marl prairie habitats.

In Miami-Dade County, development and agriculture have reduced pine rockland habitat by 90 percent in mainland south Florida. Recent vegetation mapping in Everglades National Park (ENP) indicates there are a total of 14,211 acres (ac) (5,751 hectares (ha)) of pine rocklands remaining in ENP, which includes the largest remaining area of pine rockland (approximately 10,895 ac (4,409 ha)) in Florida (Long Pine Key) (Ruiz et al. 2022). Outside of ENP, pine rockland habitat decreased from approximately 185,329 ac (75,000 ha) in the early 1900s to only 3,707 ac (1,500 ha) in 2014 (Possley et al. 2014, p. 154) and 2,275 ac (921 ha) in 2019 (USGS 2019, p. 28), leaving only about 1.2 percent of the pine rocklands on the Miami Rock Ridge remaining. Further, much of what is left are small remnants scattered throughout the Miami metropolitan area, isolated from other natural areas

(Herndon 1998, p. 1). The extreme rarity of high-quality pine rockland habitat supporting Everglades bully, Florida pineland crabgrass, and pineland sandmat and marl prairie habitat supporting Everglades bully and Florida pineland crabgrass elevates the importance of disturbed remnant sites that still retain some pine rockland species.

We consider pine rockland and adjacent ecotonal areas to be primary habitat for Everglades bully, Florida pineland crabgrass, and pineland sandmat. Similarly, we also consider marl prairie and adjacent ecotonal areas to be primary habitat for Everglades bully and Florida pineland crabgrass. Therefore, based on the information above, we identify upland habitats consisting of pine rocklands and adjacent ecotonal areas to be a physical or biological feature essential to the conservation of Everglades bully, Florida pineland crabgrass, and pineland sandmat. Additionally, we identify upland habitats consisting of marl prairie and adjacent ecotonal areas to be a physical or biological feature essential to the conservation of Everglades bully and Florida pineland crabgrass.

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

*Climate (Temperature and Precipitation)*—Everglades bully, Florida pineland crabgrass, and pineland sandmat require adequate rainfall and do not tolerate prolonged freezing temperatures. The climate of south Florida where Everglades bully, Florida pineland crabgrass, and pineland sandmat occur is characterized by distinct wet and dry seasons, a monthly mean temperature above 64.4 degrees (°) Fahrenheit (F) (18 °Celsius (C)) in every month of the year, and annual rainfall averaging 30 to 60 inches (in) (75 to 150 centimeters (cm)) (Gabler et al. 1994, p. 211). Areas of pine rockland that are adjacent to wetlands may experience prolonged flooded periods lasting up to 60 days, while those at higher elevation have shorter or no annual flooding period (Florida Natural Areas Inventory (FNAI) 2010, p. 2). Freezes can occur in the winter months but are very infrequent at this latitude in Florida. Therefore, based on the information above, we determined a subtropical humid climate (Miami-Dade County) or tropical humid climate (Collier and Monroe Counties) to be an essential physical feature for Everglades bully, Florida pineland crabgrass, and pineland sandmat.

*Soils*—Substrates supporting Everglades bully, Florida pineland crabgrass, and pineland sandmat are composed of oolitic limestone that is at or very near the surface (Kernan and Bradley 1996, p. 2). Solution holes occasionally form where the surface limestone is dissolved by organic acids. There is typically very little soil development, consisting primarily of accumulations of low-nutrient sand, marl, clayey loam, and organic debris found in solution holes, depressions, and crevices on the limestone surface (FNAI 2010, p. 62). However, these species can be found at the northern end of the Miami Rock Ridge, where the substrate includes extensive sandy pockets, beginning from approximately North Miami Beach and extending south to approximately SW 216 Street (which runs east-west approximately one-half mile south of Quail's Roost Pineland) (Service 1999, p. 3–162).

These substrates provide anchoring, nutrients, moisture regime, and suitable soil chemistry for Everglades bully, Florida pineland crabgrass, and pineland sandmat; they facilitate a community of associated plant species that creates competition, which allows these species to persist and spread. Therefore, based on the information above, we identify substrates derived from calcareous limestone (often exposed with little soil development) that provide nutritional requirements and suitable growing conditions (e.g., pH, nutrients, anchoring, and drainage) to be an essential physical feature for Everglades bully, Florida pineland crabgrass, and pineland sandmat.

*Hydrology*—Pine rocklands occur on relatively flat, moderately to well drained terrain from 6 to 21 feet (ft) (2 to 7 meters (m)) above sea level. Drainage varies according to the porosity of the limestone substrate but is generally rapid. Consequently, most sites are wet for only short periods following heavy rains. During the rainy season, however, some sites may be shallowly inundated by slow-flowing surface water for up to 60 days each year (hydroperiods) (FNAI 2010, p. 62). Marl prairies also are dependent on short hydroperiods (up to 60 days). Longer hydroperiods favor the development of peat and the dominance of sawgrass while shorter hydroperiods permit the invasion of woody species (FNAI 2010, p. 108). Therefore, based on the information above, we identify pine rockland habitat with short hydroperiods (up to 60 days) to be an essential feature for Everglades bully, Florida pineland crabgrass, and pineland sandmat. Additionally, we identify marl prairie habitat with short

hydroperiods (up to 60 days) to be an essential habitat feature for Everglades bully and Florida pineland crabgrass.

#### Cover or Shelter

Everglades bully, Florida pineland crabgrass, and pineland sandmat occur in open to semi-open canopy habitats. Pine rockland is characterized by an open canopy of *Pinus elliottii* var. *densa* (South Florida slash pine), with a limited subcanopy (Snyder et al. 1990, p. 253). Marl prairie is characterized by a sparsely vegetated, grass-dominated community. Although the vegetative community is diverse, most marl prairie plant species contribute little cover, and over 90 percent of the cover is contributed by only two or three dominant species in any given area (FNAI 2010, p. 108). The spatial and temporal distribution of open canopy areas varies in these habitats based on time since the last disturbance, such as fire, caused canopy openings.

An open canopy and understory are required to allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of Everglades bully, Florida pineland crabgrass, and pineland sandmat. Therefore, based on the information above, we identify vegetation composition and structure characterized by an open to semi-open canopy that allows for sufficient sunlight and space for individual growth and population expansion to be an essential feature for Everglades bully, Florida pineland crabgrass, and pineland sandmat.

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

Little is known about the life history of Everglades bully, Florida pineland crabgrass, and pineland sandmat, including pollination biology, seed production, or dispersal. Reproduction is sexual, with new plants generated from seeds. Therefore, insect pollination is likely important to these species' reproduction, and declines in pollinator visitation may cause decreased seed or fruit production of Everglades bully, Florida pineland crabgrass, and pineland sandmat, which could lead to lower seedling establishment and numbers of mature plants.

The pine rocklands, marl prairies, and adjacent ecotonal habitats identified above as essential features provide a plant community with associated plant species that foster a competitive regime suitable to Everglades bully, Florida pineland crabgrass, and pineland sandmat and contain adequate open space for the recruitment of new plants. Associated plant species in these habitats attract and provide cover for

insect pollinators required for Everglades bully, Florida pineland crabgrass, and pineland sandmat pollination (for more information, see Background in the October 11, 2016, proposed listing rule (81 FR 70282) and Summary of Biological Status and Threats in the October 6, 2017, final listing rule (82 FR 46691)).

Therefore, based on the information above, we identify pine rockland and adjacent ecotonal areas containing the presence of native pollinators for natural pollination and reproduction to be an essential feature for Everglades bully, Florida pineland crabgrass, and pineland sandmat. Additionally, we identify marl prairie and adjacent ecotonal areas containing the presence of native pollinators for natural pollination and reproduction to be an essential feature for Everglades bully and Florida pineland crabgrass.

#### Habitats Representative of the Historical, Geographic, and Ecological Distributions of the Species

Everglades bully, Florida pineland crabgrass, and pineland sandmat continue to occur in habitats that are protected from incompatible human disturbance, which are habitats representative of the species' historical, geographical, and ecological distributions, although their ranges have been reduced. These species are still found in pine rocklands, and, in addition, Everglades bully and Florida pineland crabgrass are still found in marl prairies, along with the ecotonal regions between these two habitat types. As described above, these habitats provide a community of associated plant and animal species that are compatible with Everglades bully, Florida pineland crabgrass, and pineland sandmat. In addition, these habitats provide the vegetation structure that provides adequate sunlight levels and open space for plant growth and regeneration, and substrates with adequate moisture availability and suitable soil chemistry needed for these species. Representative communities are located on Federal, State, local, and private conservation lands that implement conservation measures benefitting the species.

**Disturbance Regime**—Pine rockland and marl prairie habitats that could or currently support Everglades bully, Florida pineland crabgrass, and pineland sandmat depend on natural disturbance regimes from hurricanes or fires to open the canopy in order to provide light levels sufficient to support the species. The historical frequency and magnitude of hurricanes and fire have allowed for the persistence of

Everglades bully, Florida pineland crabgrass, and pineland sandmat by occasionally creating areas of open canopy. In the absence of disturbance, these habitats may have closed canopies, resulting in areas lacking enough available sunlight to support Everglades bully, Florida pineland crabgrass, and pineland sandmat. Most of these areas can be restored if habitats are managed with a combination of mechanical hardwood removal and prescribed fire. We consider wildfire to be the natural disturbance factor for pine rocklands, marl prairies, and adjacent ecotonal areas. Therefore, we identify habitats that are subjected to periodic natural (*e.g.*, hurricanes, fire) or unnatural (*e.g.*, prescribed fire) disturbance regimes to maintain open canopy conditions in pine rocklands, marl prairies, and adjacent ecotonal areas as essential habitat features for Everglades bully, Florida pineland crabgrass, and pineland sandmat.

#### Summary of Physical or Biological Features Essential to the Conservation of Everglades Bully, Florida Pineland Crabgrass, and Pineland Sandmat

Based on the best available science related to the life history and ecology of these species, as outlined in the discussion above, we have determined that the following physical or biological features are essential to the conservation of Everglades bully and Florida pineland crabgrass:

South Florida pine rockland, marl prairie, and adjacent ecotonal areas:

(1) Consisting of calcareous limestone substrate (often exposed with little soil development) that provides nutritional requirements and suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and drainage);

(2) Characterized by an open to semi-open canopy and understory with a high proportion of native plant species to provide for sufficient sunlight to permit growth and flowering;

(3) Subjected to a monthly mean temperature characteristic of the subtropical humid classification in Miami-Dade County or the tropical humid classification in Collier and Monroe Counties and short hydroperiods ranging up to 60 days each year;

(4) Subjected to periodic natural (*e.g.*, hurricanes, fire) or unnatural (*e.g.*, prescribed fire) disturbance regimes to maintain open canopy conditions; and

(5) Containing the presence of native pollinators for natural pollination and reproduction.

Based on the best available science related to the life history and ecology of the species, as outlined in the

discussion above, we have determined that the following physical or biological features are essential to the conservation of pineland sandmat:

South Florida pine rockland and adjacent ecotonal areas:

(1) Consisting of calcareous limestone substrate (often exposed with little soil development) that provides nutritional requirements and suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and drainage);

(2) Characterized by an open canopy and understory with a high proportion of native pine rockland plant species to provide for sufficient sunlight to permit growth and flowering;

(3) Subjected to a monthly mean temperature characteristic of the subtropical humid classification in Miami-Dade County and short hydroperiods ranging up to 60 days each year;

(4) Subjected to periodic natural (*e.g.*, hurricanes, fire) or unnatural (*e.g.*, prescribed fire) disturbance regimes to maintain open canopy conditions; and

(5) Containing the presence of native pollinators for natural pollination and reproduction.

#### Florida Prairie-Clover

Space for Individual and Population Growth and for Normal Behavior

**Plant Community and Competitive Ability**—Florida prairie-clover occurs in Collier, Miami-Dade, and Monroe Counties in communities classified as pine rockland, marl prairie, rockland hammock, and coastal berm, in addition to disturbed sites adjacent to these habitats, such as roadsides and mowed areas still dominated by native species (Bradley and Gann 1999, p. 3; Gann 2015, p. 26). These communities and their associated native plant species are described in the October 11, 2016, proposed listing rule (81 FR 70282) and the October 6, 2017, final listing rule (82 FR 46691). These habitats and their associated plant communities provide vegetation structure that allows for adequate growing space, moisture, sunlight, pollinators, and a competitive regime that is required for Florida prairie-clover to persist and spread. The plant also requires a calcareous limestone substrate that varies from nearly bare to thin layers or small pockets of shallow soil to provide suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and proper drainage). As a result of these marginal soil conditions, plants such as Florida prairie-clover rely on sparse competition and periodic disturbance to thrive and persist.

As discussed above for Everglades bully, Florida pineland crabgrass, and

pineland sandmat, pine rocklands and marl prairies are fire-maintained ecosystems characterized by an open canopy and understory and a limestone substrate (often exposed). Rockland hammock is a species-rich tropical hardwood forest on upland sites in areas where limestone is very near the surface and often exposed. Coastal berms are landscape features found along low-energy coastlines in south Florida and the Florida Keys. Coastal berm is a short forest or shrub thicket found on long, narrow, storm-deposited ridges (sand dunes) of loose sediment formed by a mixture of coarse shell fragments, pieces of coralline algae, and other coastal debris.

Like Everglades bully, Florida pineland crabgrass, and pineland sandmat, open canopy conditions are required to allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of Florida prairie-clover. These conditions are maintained by fire in pine rocklands and marl prairies. In rockland hammocks, only the edges and canopy disruption in the interior provide enough sunlight for Florida prairie-clover. Canopy disruption on rockland hammocks can occur due to natural events such as hurricanes and storm surge. Human disturbance, especially mowing, also maintains suitable conditions in disturbed areas. The plant also requires a limestone substrate to provide suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and proper drainage). This combination of ecosystem characteristics (*i.e.*, open canopy and limestone substrate) occurs in pine rocklands, along edges and gaps in rockland hammocks, and in coastal berm.

Disturbed areas that support Florida prairie-clover consist of sites that formerly were pine rocklands or rockland hammocks, but in most cases have no remaining pine or hardwood canopy because of previous disturbance (clearing or scraping). These include roadsides, firebreaks, levees, and other areas that are infrequently mowed, or have no tree canopy but retain native herbs and grass species (Bradley 2006, p. 37; Bradley and Gann 1999, p. 61).

Loss of pine rockland habitat in Miami-Dade and Monroe Counties is discussed above for the other three species. Habitat modification and destruction from residential and commercial development have severely impacted rockland hammocks and coastal berm that support Florida prairie-clover. Rockland hammocks were once abundant in Miami-Dade and Monroe Counties but are now considered imperiled locally and

globally (FNAI 2010, pp. 24–26). Development and agricultural pressures in south Florida have resulted in significant reductions of rockland hammock (Phillips 1940, p. 167; Snyder et al. 1990, pp. 271–272; FNAI 2010, pp. 24–26).

The extreme rarity of high-quality pine rockland, rockland hammock, and coastal berm habitat supporting Florida prairie-clover in Miami-Dade and Monroe Counties elevates the importance of disturbed remnant sites that still retain some habitat values. We consider pine rocklands; marl prairies; edges or gaps in rockland hammocks; and coastal berm to be the primary habitats for Florida prairie-clover. However, adjacent disturbed areas currently supporting the species are considered more important when adjacent pine rocklands, marl prairie, rockland hammocks, or coastal berm do not support an existing population, or are of insufficient size or connectivity to support a population of Florida prairie-clover. Therefore, based on the information above, we identify upland habitats consisting of pine rocklands, marl prairie, rockland hammocks, coastal berm, and adjacent disturbed areas to be an essential habitat feature for Florida prairie-clover.

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

*Climate (Temperature and Precipitation)*—Florida prairie-clover requires adequate rainfall and does not tolerate prolonged freezing temperatures. The climate of south Florida where Florida prairie-clover occurs is classified as tropical humid and subtropical humid, as described above for Everglades bully, Florida pineland crabgrass, and pineland sandmat. Rainfall within the range of Florida prairie-clover varies from an annual average of 60–65 in (153–165 cm) in the northern portion of the Miami Rock Ridge to an average of 35–40 in (89–102 cm) in the lower Florida Keys (Snyder et al. 1990, p. 238). Freezes can occur in the winter months but are very infrequent at this latitude in Florida. Therefore, based on the information above, we determined this type of climate to be an essential habitat feature for Florida prairie-clover.

*Soils*—Substrates supporting Florida prairie-clover are composed of oolitic limestone that is at or very near the surface. Solution holes occasionally form where the surface limestone is dissolved by organic acids. There is typically very little soil development, consisting primarily of accumulations of low-nutrient sand, marl, clayey loam,

and organic debris found in solution holes, depressions, and crevices on the limestone surface (FNAI 2010, p. 62). However, Florida prairie-clover can be found at the northern end of the Miami Rock Ridge, where the substrate includes extensive sandy pockets, beginning from approximately North Miami Beach and extending south to approximately SW 216 Street (which runs east-west approximately one-half mile south of Quail Roost Pineland) (Service 1999, p. 3–162). Rockland hammock occurs on a thin layer of highly organic soil covering limestone on high ground that does not regularly flood (FNAI 2010, pp. 24–26). In coastal berms, deep, calcareous sandy soils are the typical substrate of this habitat.

These substrates provide anchoring, nutrients, moisture regime, and suitable soil chemistry for Florida prairie-clover, and they facilitate a community of associated plant species that create a competitive regime that allows Florida prairie-clover to persist and spread. Therefore, based on the information above, we identify substrates derived from calcareous limestone (often exposed with little soil development in pine rocklands; with a thin to thick organic soil layer in the case of rockland hammocks; deep, calcareous soils in coastal berm) that provide nutritional requirements and suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and drainage) that provide anchoring and nutritional requirements to be an essential feature for Florida prairie-clover.

*Hydrology*—Pine rocklands occur on relatively flat, moderately to well drained terrain from 2 to 7 meters above sea level. Drainage varies according to the porosity of the limestone substrate but is generally rapid. Consequently, most sites are wet for only short periods following heavy rains. During the rainy season, however, some sites may be shallowly inundated by slow-flowing surface water for up to 60 days each year (FNAI 2010, p. 62). Marl prairies also are dependent on short hydroperiods up to 60 days. Longer hydroperiods favor the development of peat and the dominance of sawgrass; shorter hydroperiods permit the invasion of woody species (FNAI 2010, p. 108). Therefore, based on the information above, we identify pine rockland, rockland hammock, marl prairie, and coastal berm habitats with short hydroperiods (up to 60 days) to be an essential habitat feature for Florida prairie-clover.

#### Cover or Shelter

As previously mentioned, Florida prairie-clover occurs in pine rocklands,

marl prairies, rockland hammocks, and coastal berms, and in adjacent disturbed areas, in Monroe and Miami-Dade Counties (Bradley and Gann 1999, p. 3). Pine rockland is characterized by an open canopy of South Florida slash pine, with a limited subcanopy (Snyder et al. 1990, p. 253). Marl prairie is a sparsely vegetated, grass-dominated community. Although the vegetative community is diverse, most marl prairie plant species contribute little cover and over 90 percent of the cover is contributed by only two or three dominant species in any given area (FNAI 2010, p. 107). The open canopy and understory of pine rocklands and marl prairies allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of Florida prairie-clover (Ross and Ruiz 1996, pp. 5–6; Bradley and Saha 2009, p. 4).

Rockland hammock forest floor is largely covered by leaf litter and may have an organic soil layer of variable depth. Rockland hammocks typically have larger, more mature trees in the interior and deep organic soil layer in the interior, while the margins can be almost impenetrable in places with dense growth of smaller shrubs, trees, and vines and shallow organic soil layer. Mature hammocks may be open beneath a tall, well-defined canopy and subcanopy. More commonly, in less mature or disturbed hammocks, dense woody vegetation of varying heights from canopy to short shrubs is often present. Herbaceous species are occasionally present and generally sparse in coverage (FNAI 2010, pp. 24–26).

Coastal berm is a short forest or shrub thicket found on long, narrow, storm-deposited ridges (sand dunes). Structure and composition of the vegetation is variable depending on height and time since the last storm event. The most stable berms may share some tree species with rockland hammocks, but generally have a greater proportion of shrubs and herbs. This is a structurally variable community that may appear in various stages of succession following storm disturbance, from scattered herbaceous beach colonizers to a dense stand of tall shrubs (FNAI 2010, pp. 73–74).

Disturbed areas that are adjacent to pine rocklands, marl prairies, rockland hammocks, and coastal berms that support Florida prairie-clover may have little to no pine or hardwood canopy, but may have an herbaceous layer dominated by native herbs and grasses. Usually these are former (remnant) pine rocklands or rockland hammocks that have a history of disturbance (clearing or scraping). These sites tend to be

infrequently (every 2 to 3 months) mowed areas adjacent to existing pine rocklands or rockland hammocks, such as roadsides and fields. These areas provide the open conditions required by Florida prairie-clover (Bradley 2006, p. 37).

Therefore, based on the information above, we identify vegetation composition and structure characterized by an open canopy and understory that allows for adequate sunlight and space for individual growth and population expansion, to be an essential habitat feature for Florida prairie-clover.

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

Little is known about the life history of Florida prairie-clover, including pollination biology, seed production, or dispersal. Reproduction is sexual, with new plants generated from seeds. This species likely requires insect visitation for pollination, although there is limited information on this.

The pine rocklands, marl prairies, rockland hammocks, coastal berms, and adjacent disturbed habitats identified above as physical or biological features provide a plant community with associated plant species that foster a competitive regime suitable to Florida prairie-clover and contain adequate open space for the recruitment of new plants. Associated plant species in these habitats attract and provide cover for insect pollinators required for Florida prairie-clover pollination (for more information, see Background in the October 11, 2016, proposed listing rule (81 FR 70282) and Summary of Biological Status and Threats in the October 6, 2017, final listing rule (82 FR 46691)).

Therefore, based on the information above, we identify pine rockland, marl prairie, rockland hammock, and coastal berm habitats, and adjacent disturbed areas, containing the presence of native pollinators for natural pollination and reproduction to be essential habitat features for Florida prairie-clover.

#### Habitats Representative of the Historical, Geographic, and Ecological Distributions of the Species

Florida prairie-clover continues to occur in habitats that are representative of the species' historical, geographical, and ecological distribution, although its range has been reduced. The species is currently found in pine rocklands, marl prairies, rockland hammocks, and coastal berms, and it also occurs in adjacent disturbed areas. As described above, these habitats provide a community of associated plant and animal species that are compatible with

Florida prairie-clover, vegetation structure that provides adequate sunlight levels and open space for plant growth and regeneration, and substrates with adequate moisture availability and suitable soil chemistry. Representative communities are located on Federal, State, local, and private conservation lands that implement conservation measures benefitting the species.

*Disturbance Regime*—Pine rockland habitat that could or that currently supports Florida prairie-clover depends on a disturbance regime of wild or prescribed fire to open the canopy in order to provide light levels sufficient to support Florida prairie-clover. The historical frequency and magnitude of fire allowed for the persistence of Florida prairie-clover by maintaining an open canopy and understory and preventing succession (transition) of pine rocklands to hardwood-dominated community (rockland hammock). In the absence of fire, some areas of pine rockland may have closed canopies, resulting in areas lacking enough available sunlight to support Florida prairie-clover. Most of these areas can be restored if habitats are managed with a combination of mechanical hardwood removal and prescribed fire.

Rockland hammock is susceptible to fire, frost, canopy disruption, and ground water reduction. Rockland hammock can be the advanced successional stage of pine rockland, especially in cases where rockland hammock is adjacent to pine rockland. In such cases, when fire is excluded from pine rockland for 15 to 25 years, it can succeed to rockland hammock vegetation. Historically, rockland hammocks in south Florida evolved with fire in the landscape; fire most often extinguished near the edges when it encountered the hammock's moist microclimate and litter layer. However, rockland hammocks are susceptible to damage from fire during extreme drought or when the water table is lowered. In these cases, fire can cause tree mortality and consume the organic soil layer. Rockland hammocks are also sensitive to the strong winds and storm surge associated with infrequent hurricanes (FNAI 2010, p. 25).

Coastal berms are deposited by storm waves along low-energy coasts. Their distance inland depends on the height of the storm surge. Coastal berms that are deposited far enough inland and remain long-undisturbed may in time succeed to hammock. This is a structurally variable community that may appear in various stages of succession following storm disturbance, from scattered herbaceous beach

colonizers to a dense stand of tall shrubs (FNAI 2010, p. 73).

The sparsely vegetated edges or interior portions laid open by canopy disruption are the areas of rockland hammock and coastal berm that have light levels sufficient to support Florida prairie-clover. However, the dynamic nature of these habitats means that areas not currently open may become open in the future because of canopy disruption from hurricanes, while areas currently open may develop denser canopy over time, eventually rendering those portions of rockland hammock or coastal berm unsuitable for Florida prairie-clover.

Disturbed sites that support Florida prairie-clover are typically maintained by infrequent mowing. Mowing is similar in effect to fire in that it limits encroachment of hardwood species and maintains open canopy conditions suitable for Florida prairie-clover. We consider fire to be the natural disturbance factor for pine rocklands and marl prairie; periodic hurricanes and storm surge are the natural disturbance factors for rockland hammock and coastal berm. In adjacent disturbed areas currently supporting the species, mowing serves some of the ecological function of fire and maintains suitable habitat conditions (open canopy) for the species.

Therefore, based on the information above, we identify periodic natural (*e.g.*, fire, hurricanes, and storm surge) or unnatural (*e.g.*, prescribed fire, mowing) disturbance regimes that maintain open canopy conditions to be essential habitat features for Florida prairie-clover.

#### Summary of Physical or Biological Features Essential to the Conservation of Florida Prairie-Clover

Based on the best available science related to the life history and ecology of the species, as outlined in the discussion above, we have determined that the following physical or biological features are essential to the conservation of Florida prairie-clover:

South Florida pine rockland, marl prairie, rockland hammock, and coastal berm habitat and adjacent disturbed areas:

(1) Consisting of limestone substrate that provides nutritional requirements and suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and drainage);

(2) Characterized by an open canopy and understory with a high proportion of native plant species to provide for sufficient sunlight to permit growth and flowering;

(3) Subjected to a monthly mean temperature characteristic of the

subtropical humid classification in Miami-Dade County or the tropical humid classification in Collier and Monroe Counties and short hydroperiods ranging up to 60 days each year;

(4) Subjected to periodic natural (*e.g.*, fire, hurricanes, and storm surge) or unnatural (*e.g.*, prescribed fire, mowing) disturbance regimes to maintain open canopy conditions; and

(5) Containing the presence of native pollinators for natural pollination and reproduction.

#### Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover may require special management considerations or protection to reduce threats related to habitat loss, fragmentation, and modification primarily due to development; inadequate fire management; nonnative plants; hurricanes and storm surge; changes in disturbance regime; and sea level rise. (For an in-depth discussion of threats, see Summary of Biological Status and Threats in the October 11, 2016, proposed listing rule (81 FR 70282) and Summary of Factors Affecting the Species in the October 6, 2017, final listing rule (82 FR 46691)).

Some of these threats (*e.g.*, habitat loss, inadequate fire management) can be addressed by special management considerations or protection while others (*e.g.*, sea level rise, hurricanes, storm surge) are beyond the control of landowners and managers. However, even when landowners or land managers may not be able to control all the threats, they may be able to address the results of the threats. Habitat loss is a primary threat to Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover. For example, in Miami-Dade County, development and agriculture have reduced pine rockland habitat by 90 percent in mainland south Florida. Recent vegetation mapping in ENP indicates there are a total of 14,211 ac (5,751 ha) of pine rocklands remaining in ENP, which includes the largest remaining area of pine rockland (approximately 10,895 ac (4,409 ha)) in Florida (Long Pine Key) (Ruiz et al.

2022). Outside of ENP, pine rockland habitat decreased from approximately 185,329 ac (75,000 ha) in the early 1900s to only 3,707 ac (1,500 ha) in 2014 (Possley et al. 2014, p. 154) and 2,275 ac (921 ha) in 2019 (USGS 2019, p. 28), leaving only about 1.2 percent of the pine rocklands on the Miami Rock Ridge remaining, and much of what is left are small remnants scattered throughout the Miami metropolitan area, isolated from other natural areas (Herndon 1998, p. 1). Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover occur on a mix of private and publicly owned lands, most of which are managed for conservation.

Habitat fragmentation can have negative effects on populations, especially rare plants, and can affect survival and recovery (Aguilar et al. 2006, pp. 968–980; Aguilar et al. 2008, pp. 5177–5188; Potts et al. 2010, pp. 345–352). In general, habitat fragmentation causes habitat loss, habitat degradation, habitat isolation, changes in species composition, changes in species interactions, increased edge effects, and reduced habitat connectivity (Fahrig 2003, pp. 487–515; Fischer and Lindenmayer 2007, pp. 265–280). Habitat fragments are often functionally smaller than they appear because edge effects (such as increased nonnative, invasive species or wind speeds) impact the available habitat within the fragment (Lienert and Fischer 2003, p. 597).

Populations of these species that occur on private land or non-conservation public land are vulnerable to habitat loss, while populations on conservation lands are vulnerable to the effects of habitat degradation if disturbance regimes are disrupted (*e.g.*, through inadequate fire management or change in management practices on disturbed sites that support the species). Prolonged lack of fire in pine rockland typically results in succession to rockland hammock, and displacement of native species by invasive, nonnative plants often occurs. While Florida prairie-clover also occurs in rockland hammocks, the change from pine is a significant concern because pine rocklands are an extremely rare habitat. Changes in management practices at disturbed sites may include changes in mowing frequency or height, herbicide use, deposition of fill material, and sodding. Further development and degradation of pine rocklands, marl prairies, rockland hammock, and coastal berm increase fragmentation and decrease the conservation value of the remaining functioning habitats. In addition, pine rocklands and marl

prairies are expected to be further degraded and fragmented due to anticipated sea level rise, which would fully or partially inundate these habitats, and cause increases in the salinity of the water table and soils resulting in vegetation shifts in additional pine rocklands in South Florida. Some existing pine rockland, marl prairie, rockland hammock, and coastal berm areas are also projected to be developed for housing as the human population grows and adjusts to changing sea levels.

In summary, the features essential to the conservation of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover may require special management considerations or protection to reduce threats and conserve these features. Actions that could ameliorate threats include, but are not limited to:

- (1) Increase habitat restoration and management efforts, including fire management and nonnative plant control;
- (2) Protect, restore, or enhance inland or higher elevation habitats where these species occur and are predicted to be unaffected or less affected by sea-level rise;
- (3) Augment existing small populations; and
- (4) Conduct annual or seasonal monitoring efforts, or conduct monitoring prior to, but coordinated with, habitat and fire management planning to refine management efforts over time.

#### **Criteria Used To Identify Critical Habitat**

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

We are proposing to designate critical habitat in areas within the geographical area occupied by these species at the time of their listing in 2017. We are not currently proposing to designate any areas outside the geographical area occupied by these species at the time of listing in 2017 because we have not identified any unoccupied areas that meet the definition of critical habitat.

#### *Ranges*

##### *Everglades Bully*

The historical range of Everglades bully includes Collier, Miami-Dade, and Monroe Counties, Florida. There are currently 14 extant populations of Everglades bully across these 3 counties. In Miami-Dade County, of 13 historical records for Everglades bully, 11 populations were extant at the time of listing, while 2 (Grant Hammock and Nixon-Smilely Preserve) were extirpated at the time of listing (Bradley et al. 2013, p. 1). The largest population (10,000–100,000 individuals) of Everglades bully in Miami-Dade County occurs at Long Pine Key in ENP (Hodges and Bradley 2006, p. 42; Gann et al. 2006, p. 11; Gann 2015, p. 9). In Monroe and Collier Counties, of two historical records for Everglades bully, two populations were extant at the time of listing in the Lostman's Pines section of Big Cypress National Preserve (BCNP; Monroe County). Since listing, an additional population was discovered in BCNP (extending into Collier County) that owing to the size and maturity of plants, was clearly extant at the time of listing (Lange et al. 2022, pp. 7–8).

The species was historically collected as far south as Key Largo, in the Florida Keys, but was extirpated at the time of listing and is still extirpated from the island. The species was not found during recent surveys of pine rocklands on Key Largo (Hodges and Bradley 2006, p. 42) or elsewhere in the Florida Keys (Gann et al. 2002, p. 526; Corogin and Judd 2014, p. 412).

Six out of 14 extant Everglades bully populations have fewer than 100 individuals (low resiliency). These small populations are at risk of adverse effects from reduced genetic variation, an increased risk of inbreeding depression, and reduced reproductive output. Many of these populations are small and isolated from each other, decreasing the likelihood that they could be naturally re-established if extinction from one location occurred.

##### *Florida Pineland Crabgrass*

The historical range of Florida pineland crabgrass consists of central and southern Miami-Dade County along the Miami Rock Ridge, from the southern Miami to Long Pine Key region of ENP (Bradley and Gann 1999, p. 49) and BCNP in mainland Monroe County (Bradley et al. 2013, p. 2). The current range of Florida pineland crabgrass includes two extant populations, one in ENP (Miami-Dade County) and another in BCNP (mainland Monroe County). Since listing, surveys in BCNP have revealed that the population is more

extensive than was known at the time of listing (Lange et al. 2022, p. 8). Outside these areas, of five historical records for Florida pineland crabgrass on Miami Rock Ridge, all were extirpated at the time of listing and remain extirpated.

The extant Florida pineland crabgrass population in ENP has 100,000–200,000 individuals (Gann 2015, p. 142; Maschinki and Lange 2015, p. 18), and the extant population in BCNP has more than 10,000 individuals (Bradley 2005 pers comm.), which suggests some level of resiliency. However, these two populations are isolated from one another, and redundancy is reduced from historical levels as several populations in Miami-Dade County have been extirpated. This increases the risk from catastrophic events and decreases the likelihood that they could naturally re-establish if extinction from one location occurred.

##### *Pineland Sandmat*

The historical range of pineland sandmat includes Miami-Dade County, Florida, specifically within the southern portion of the Miami Rock Ridge, from the Richmond Pine Rocklands of southern Miami to the Long Pine Key region of ENP (Bradley and Gann 1999, p. 24). The current range of pineland sandmat includes 20 extant populations in Miami-Dade County, although 98 percent of the pine rocklands outside of the ENP have been lost to development. In Miami-Dade County, of 21 historical records for pineland sandmat, 20 populations were extant at the time of listing, while 1 (Larry Penny Thompson Park) was extirpated at the time of listing (J. Possley 2011, pers. comm.). The largest population of pineland sandmat in Miami-Dade County occurs at ENP.

Ten out of 20 extant pineland sandmat populations have fewer than 100 individuals (low resiliency). These small populations are at risk of adverse effects from reduced genetic variation, an increased risk of inbreeding depression, and reduced reproductive output. Many of these populations are small and isolated from each other, decreasing the likelihood that they could be naturally re-established in the event that extinction from one location would occur.

##### *Florida Prairie-Clover*

The historical range of Florida prairie-clover includes Miami-Dade, Monroe, Collier, and Palm Beach Counties (Gann et al. 2015, pp. 25–26). There have been no reports of this plant from Palm Beach County since 1918 (Bradley and Gann 1999, p. 42).

In Miami-Dade County, of 12 historical records for Florida prairie-clover, 7 populations were extant at the time of listing, while 4 (Castellow Hammock, the Coral Gables area, Cox Hammock, and ENP) were considered extirpated at the time of listing (Bradley and Gann 1999, pp. 42–43; Maschinski et al. 2014, p. 39), and the status of one population (Pineland south of Miami River) was unknown (Bradley 2005 pers. comm.). In the final listing rule (82 FR 46691), the ENP populations were considered extirpated because the last official record was from 1964. Surveys were sporadic since that time, however, suitable habitat remained, and the species was recorded at ENP in 2018. Given the dynamic nature of this species and its response to localized disturbances, it likely occurs somewhat cryptically until mowing or fire produces suitable conditions for the species to be readily observed. Therefore, since Florida prairie-clover was found at ENP in 2018, only a year after listing, and was not introduced, we assume the species occurred at ENP at the time of listing in 2017.

The largest populations of Florida prairie-clover in Miami-Dade County occur at Crandon Park, Charles Deering Estate, and R. Hardy Matheson Preserve, with population sizes ranging from 98 to 500 plants (Maschinski et al. 2015, pp. 30–32) at each location.

In Monroe and Collier Counties, Florida prairie-clover is extant only within BCNP, where there is at least one population (Pernas 2021, pers. comm.).

The current range of Florida prairie-clover consists of 9 extant populations; 8 in Miami-Dade County, including at least one in ENP, and at least one extant population in Monroe and Collier Counties in BCNP (Pernas 2021, pers. comm.). Many of these populations are small and isolated from each other, decreasing the likelihood that they could be naturally re-established if extinction from one location occurred.

We anticipate that full recovery for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover will require continued protection of the remaining extant populations and habitat and augmenting extant populations. It may also require reestablishing populations in occupied areas to provide connectivity among populations to there are adequate numbers of plants and stable populations. This will help to reduce the chance that catastrophic events, such as storms, will simultaneously affect all known populations. However, some of the historical locations no longer contain suitable habitat, and thus are not

proposed as designated critical habitat. Accordingly, we have not identified unoccupied areas that are essential for the conservation of the species at this time.

#### *Conservation Strategy*

In considering our proposal of critical habitat, we identified the following conservation strategy for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover:

- (1) Conserve existing populations with sufficient native habitat;
- (2) Work with partners to conserve existing populations, and implement efforts that will benefit the species and its habitat; and
- (3) Augment existing populations and facilitate establishment/re-establishment of populations into suitable protected habitat.

To facilitate the application of our conservation strategy and goals for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover, we utilized the Shaffer and Stein (2000) methodology for conserving imperiled species known as the ‘three Rs’: representation, resiliency, and redundancy. Resiliency is the ability to sustain populations through the natural range of favorable and unfavorable conditions. Representation ensures adaptive capacity within a species and allows it to respond to environmental changes. This can be facilitated by conserving not just genetic diversity, but also the species’ associated habitat type and plant communities. Redundancy ensures an adequate number of sites with resilient populations such that the species has the ability to withstand catastrophic events. Implementation of this methodology has been widely accepted as a reasonable conservation strategy (Tear et al. 2005, p. 841).

The amount and distribution of critical habitat we are proposing for designation in occupied areas would allow existing and future established populations of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover to:

- (1) Maintain their existing distributions;
- (2) Expand their distributions into suitable nearby areas (needed to offset habitat loss and fragmentation);
- (3) Use habitat depending on habitat availability (response to changing nature of coastal habitat, including sea level rise) and support genetic diversity;
- (4) Increase the size of each population to a level where the threats of genetic, demographic, and normal

environmental uncertainties are diminished; and

- (5) Maintain their ability to withstand local or unit-level environmental fluctuations or catastrophic events.

#### *Everglades Bully*

Resiliency will continue to be limited by the reduced amount of pine rockland and marl prairie habitats remaining in Miami-Dade, Collier, and Monroe Counties. All Everglades bully populations, outside of ENP and BCNP, are on small remnant pine rockland and marl prairie and adjacent ecotonal areas (less than 1,000 ac (404 ha)) in Miami-Dade County. Therefore, the resiliency of the populations and redundancy of the species will continue to be influenced by the amount of habitat remaining in the Monroe, Collier, and Miami-Dade Counties. We are proposing to designate critical habitat units that contain the physical or biological features essential to the conservation of the species and that support extant populations at the time of listing. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing any unoccupied areas as critical habitat.

#### *Florida Pineland Crabgrass*

Resiliency will continue to be limited by the reduced amount of pine rockland and marl prairie habitats remaining in Miami-Dade, Collier, and Monroe Counties. All habitat for the historical Florida pineland crabgrass populations, outside of ENP and BCNP, is now on small remnant pine rockland, marl prairie, and ecotonal areas in Miami-Dade County. We are proposing critical habitat units that contain the physical or biological features essential to the conservation of the species and supported extant populations at the time of listing. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing unoccupied areas as critical habitat.

#### *Pineland Sandmat*

Resiliency will continue to be limited by the reduced amount of pine rockland habitat remaining in Miami-Dade County. Most of the pineland sandmat populations, outside of ENP, are on small remnant pine rockland sites and adjacent ecotonal areas. Therefore, the resiliency of the populations and redundancy of the species will continue

to be influenced by the amount of habitat remaining in the Miami-Dade County. We are proposing to designate as critical habitat for the pineland sandmat all pine rocklands remaining within the historical range of the species where the species was extant at the time of listing and that contain the physical or biological features essential to the conservation of the species. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing any unoccupied areas as critical habitat.

Resiliency will continue to be limited by the reduced amount of pine rockland, marl prairie, rockland hammock, and coastal berms habitats remaining in Miami-Dade, Collier, and Monroe Counties. Most Florida prairie-clover populations are on small remnant pine rockland sites and adjacent disturbed areas, with population sizes only ranging from the tens to hundreds of individuals. Five of the eight extant population have fewer than 25 individuals. Therefore, the resiliency of the populations and redundancy of the species will continue to be influenced by the amount of habitat remaining in the Monroe, Collier, and Miami-Dade Counties. We are proposing critical habitat units that contain the physical or biological features essential to the conservation of the species and supported extant populations at the time of listing. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing any unoccupied areas as critical habitat.

#### *Sources of Data to Identify Critical Habitat Boundaries*

We have determined that all areas known to be occupied at the time of listing should be proposed for critical habitat designation because all occupied sites are necessary to conserve the species. To determine the location and boundaries of occupied critical habitat, the Service used the following sources of data and information for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover:

(1) Species occurrence spatial data and ArcGIS geographic information system (GIS) software to spatially depict the location and extent of documented populations of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover;

(2) Reports prepared by FNAI, Fairchild Tropical Botanical Garden (FTBG), Institute for Regional Conservation (IRC), National Park Service (NPS), and Florida Department of Environmental Protection (FDEP);

(3) Historical records found in reports and associated voucher specimens housed at herbaria, all of which are referenced in the above-mentioned reports;

(4) Digitally produced habitat maps provided by Miami-Dade, Collier, and Monroe Counties; and

(5) Aerial images of Miami-Dade, Collier, and Monroe Counties. The presence of pine rocklands and marl prairie was determined using GIS and spatial data depicting the current habitat status. These habitat data for Miami-Dade County were developed by Miami-Dade Department of Environmental Protection (DERM), for the Natural Forest Community (NFC) program, and include pine rocklands and marl prairie. Pine rockland, rockland hammock, and coastal berm habitat follow predictable landscape patterns and have a recognizable signature in the aerial imagery. Aerial imagery was utilized to identify these habitats in Monroe and Collier Counties and disturbed areas adjacent to marl prairie, pine rocklands, rockland hammock, and coastal berm.

We delineated critical habitat unit boundaries using the following criteria:

(1) The delineation included space to allow for the successional nature of the habitats (*i.e.*, gain and loss of areas with sufficient light availability due to disturbance of the vegetation, driven by natural events such as inundation and hurricanes and through prescribed fire), and habitat transition or loss due to sea level rise.

(2) All areas (*i.e.*, physical or biological features) may require special management to be able to support a higher density of the plants within the occupied space. These areas generally are habitats where some of the habitat features have been degraded or lost through natural or human causes. These areas would help to offset the anticipated loss and degradation of habitat occurring or expected from the effects of climate change (such as sea level rise) or due to development.

(3) The areal extent of a plant population is dynamic over time within suitable habitat, while a survey represents a snapshot in time. Unsurveyed areas near mapped populations likely support plants currently or did in the past.

#### *Areas Occupied at the Time of Listing*

The proposed occupied critical habitat designation for Everglades bully,

Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover focuses on areas within the plants' historical ranges that have retained the essential habitat features that will allow for the maintenance and expansion of existing populations. The proposed occupied critical habitat units were delineated around extant populations at the time of listing. These units include the mapped extent of the population that contains one or more of the essential physical or biological features essential to the conservation of the species.

For areas within the geographic area occupied by Everglades bully and Florida pineland crabgrass at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) Pine rockland and marl prairie habitat, and the transitional areas (ecotones) between these and other vegetation types that was occupied by the species at the time of listing; and

(2) Presence of suitable habitat and physical or biological essential features.

For Everglades bully, five occupied units are being proposed as critical habitat. These five units encompass the 14 extant populations of Everglades bully in Collier, Monroe, and Miami-Dade Counties. We consider pine rockland and marl prairies to be the primary habitat for Everglades bully. Adjacent ecotonal areas currently supporting the species are also considered essential when adjacent pine rocklands and marl prairies do not support an existing population or are of insufficient size or connectivity to support a population of the species. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing unoccupied critical habitat for the Everglades bully.

For Florida pineland crabgrass, two occupied units are being proposed as critical habitat. These two units encompass the two extant populations of Florida pineland crabgrass in Monroe and Miami-Dade Counties. We consider pine rockland and marl prairies to be the primary habitat for Florida pineland crabgrass. Adjacent ecotonal areas currently supporting the species are also considered essential when adjacent pine rocklands and marl prairies do not support an existing population or are of insufficient size or connectivity to support a population of the species. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of

the species. Accordingly, we are not proposing unoccupied critical habitat for the Florida pineland crabgrass.

For areas within the geographic area occupied by pineland sandmat at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) Pine rockland habitat and the transitional areas (ecotones) between pine rocklands and adjacent habitat that was occupied by the species at the time of listing;

(2) Pine rockland habitat that is currently occupied by the species; and

(3) Presence of essential physical or biological features.

For pineland sandmat, three occupied units are being proposed as critical habitat. These three units encompass the 20 extant populations of pineland sandmat in Miami-Dade County. We consider pine rockland to be the primary habitat for pineland sandmat. Adjacent ecotonal areas currently supporting the species are also considered essential when adjacent pine rocklands do not support an existing population or are of insufficient size or connectivity to support a population of the species. We have not identified any specific areas outside the geographical area occupied by the species at the time it was listed that are essential for the conservation of the species. Accordingly, we are not proposing unoccupied critical habitat for the pineland sandmat.

For areas within the geographic area occupied by Florida prairie-clover at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) Pine rockland, marl prairie, rockland hammock, and coastal berm habitat and the transitional areas (ecotones) between these and other vegetation types that was occupied by the species at the time of listing;

(2) Pine rockland, marl prairie, rockland hammock, and coastal berm habitat that is currently occupied by the species; and

(3) Presence of essential physical or biological features.

For Florida prairie-clover, four occupied units are being proposed as critical habitat. These four units encompass the eight extant populations of Florida prairie-clover in Collier and Miami-Dade Counties. We consider pine rockland, marl prairie, rockland hammock, and coastal berm to be the primary habitats for Florida prairie-clover. Adjacent disturbed areas currently supporting the species are also considered essential when adjacent pine rockland, marl prairie, rockland hammock, and coastal berm habitats do

not support an existing population or are of insufficient size or connectivity to support a population of the species. In addition, because we have determined that occupied habitat is sufficient to conserve the species, we did not propose any unoccupied areas as critical habitat.

In summary, for areas within the geographical area occupied by Everglades bully and Florida pineland crabgrass, at the time of listing, we delineated critical habitat unit boundaries around extant populations at the time of listing and also evaluating habitat suitability of pine rockland and marl prairie habitats within the historical range of the plants. We retained those areas that contain some or all of the essential physical or biological features essential to the conservation of the species and that may require special management. For areas within the geographical area occupied by pineland sandmat at the time of listing, we delineated critical habitat unit boundaries around extant populations at the time of listing and also evaluating habitat suitability of pine rockland habitat within the historical range of the plant. We retained those areas that contain some or all of the essential physical or biological features essential to the conservation of the species and that may require special management. For areas within the geographical area occupied by Florida prairie-clover at the time of listing, we delineated critical habitat unit boundaries around extant populations at the time of listing and also evaluating habitat suitability of pine rockland, marl prairie, rockland hammock, and coastal berm habitats within the historical range of the plant. We retained those areas that contain some or all of the essential physical or biological features essential to the conservation of the species and that may require special management.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features essential to the conservation of the plants, nor are they essential to the conservation of the species themselves. 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 proposed rule have been excluded by text in the proposed rule and are not proposed for designation as

critical habitat. Therefore, if the critical habitat is finalized as proposed, 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 designations are defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under Proposed Regulation Promulgation. We include more detailed information on the boundaries of the critical habitat designations in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on <https://www.regulations.gov> at Docket No. FWS-R4-ES-2022-0125, on our internet site at <https://www.fws.gov/office/florida-ecological-services/library>, and at the field office responsible for the designations (see **FOR FURTHER INFORMATION CONTACT**, above).

#### **Proposed Critical Habitat Designation for Everglades Bully**

We are proposing to designate approximately 179,680 ac (72,714 ha) in five units as critical habitat for Everglades bully. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Everglades bully. All areas with known extant populations at the time of listing are proposed for designation as critical habitat. Some units currently may contain multiple populations, but the number can vary over a 1- to 5-year period due to the dynamic nature of this species in response to disturbance. The five areas we propose as critical habitat are:

(1) EB1, Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida;

(2) EB2, Everglades National Park, Miami-Dade County, Florida;

(3) EB3, Richmond Pine Rocklands, Miami-Dade County, Florida;

(4) EB4, Quail Roost Pineland, Miami-Dade County, Florida; and

(5) EB5, Navy Wells, Miami-Dade County, Florida.

Land ownership within the proposed critical habitat consists of Federal (86 percent), State (0.1 percent), County (13 percent), and private and other (1 percent). Other lands include areas for which ownership information is unclear or unavailable. Table 1 shows these units by land ownership, area, and occupancy.

TABLE 1—PROPOSED CRITICAL HABITAT UNITS FOR EVERGLADES BULLY, INCLUDING TOTAL AREA, AREA BY LAND OWNERSHIP, AND OCCUPANCY

[All areas rounded to the nearest whole acre (ac) and hectare (ha).]

Unit	Total ac (ha)	Federal ac (ha)	State ac (ha)	County ac (ha)	Private/ other ac (ha)	Occupied
EB1—Big Cypress National Preserve.	169,885 (68,750)	146,014 (59,090)	0 (0)	22,411 (9,070)	1,460 (591)	Yes.
EB2—Everglades National Park ....	7,994 (3,235)	7,860 (3,181)	0 (0)	0 (0)	133 (54)	Yes.
EB3—Richmond Pine Rocklands	987 (399)	191 (77)	0 (0)	609 (247)	187 (76)	Yes.
EB4—Quail Roost Pineland .....	256 (104)	0 (0)	103 (42)	47 (19)	107 (43)	Yes.
EB5—Navy Wells .....	558 (226)	0 (0)	74 (30)	324 (131)	160 (65)	Yes.
Total .....	179,680 (72,714)	154,065 (62,348)	177 (72)	23,391 (9,467)	2,048 (829)	
Percent of Total .....		86	0.1	13	1	

Note: Area sizes may not sum due to rounding or minor mapping discrepancies.

Approximately 5.4 percent (9,763 ac (3,951 ha)) of the lands contained within units proposed as critical habitat for Everglades bully are already designated critical habitat for other federally listed species. Most of the lands proposed in this rule that are not designated as critical habitat for other federally listed species occur in the BCNP.

We present brief descriptions of the proposed critical habitat units and the justification for why they meet the definition of critical habitat for Everglades bully, below. All proposed critical habitat units were occupied at the time of listing and are currently occupied. All units contain all the physical or biological features, including suitable climate, hydrology, substrate, associated native plant species, and disturbance regimes, essential to the conservation of the species.

Unit EB1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida

Unit EB1 consists of approximately 169,885 ac (68,750 ha) in Collier, Miami-Dade, and Monroe Counties, Florida. The unit is comprised of lands in BCNP, including Federal lands in BCNP (146,014 ac (59,090 ha)) and County lands (22,411 ac (9,070 ha)) and parcels in private or other ownership (1,460 ac (591 ha)) within BCNP.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, off-road vehicle use, oil and gas exploration and extraction, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Everglades bully.

This unit is part of lands contained within the BCNP. Within this unit, as

part of their 2019 Fire Management Plan (NPS 2019), the NPS conducts nonnative species control and prescribed fire in areas that could support Everglades bully.

Unit EB1 does not contain previously designated critical habitat. The federally threatened eastern indigo snake (*Drymarchon couperi*), federally endangered Florida panther (*Puma (=Felis) concolor coryi*), and federally endangered Florida bonneted bat (*Eumops floridanus*) occur in this unit.

Unit EB2: Everglades National Park, Miami-Dade County, Florida

Unit EB2 consists of approximately 7,994 ac (3,235 ha) in Miami-Dade County. The unit is comprised of Federal lands in ENP (ENP) (7,860 ac (3,181 ha)) and parcels in private or other ownership (133 ac (54 ha)). The unit includes Long Pine Key and some of the surrounding areas in ENP.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Everglades bully.

This unit is part of lands contained within the ENP. Within this unit, as part of their General Management Plan (NPS 2015), the NPS conducts nonnative species control and prescribed fire in areas that support or could support Everglades bully.

The entirety of Unit EB2 is designated critical habitat for the federally endangered Bartram’s scrub-hairstreak (*Strymon acis bartrami*) and Florida leafwing (*Anaea troglodyta floridalis*) butterflies. The federally threatened eastern indigo snake occurs in this unit.

Unit EB3: Richmond Pine Rocklands and Surrounding Areas, Miami-Dade County, Florida

Unit EB3 consists of approximately 987 ac (399 ha) in Miami-Dade County. The unit is comprised of Federal lands owned by the U.S. Coast Guard, U.S. Army Corps of Engineers, Federal Bureau of Prisons, and National Oceanic and Atmospheric Administration (191 ac (77 ha)); County lands within and adjacent to Larry and Penny Thompson Park, Martinez Preserve, Zoo Miami, and Eachus Pineland (609 ac (247 ha)); and parcels in private or other ownership, including the preserve and mitigation area associated with the Coral Reef Commons Habitat Conservation Plan (HCP) (187 ac (76 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Everglades bully. Within this unit, the Miami-Dade DERM conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County. The U.S. Coast Guard also conducts nonnative species control and mechanical vegetation treatments on their property in this unit. The actions help improve habitat that supports Everglades bully.

Within this unit, approximately 109.3 ac (44.2 ha) of land owned by Coral Reef Commons is proposed for critical habitat designation for Everglades bully. Everglades bully is a covered species under the Coral Reef Commons Habitat Conservation Plan. Because Everglades bully is a covered species under the Coral Reef Commons HCP and the preserve and mitigation area within this

proposed critical habitat unit are being managed for the conservation of the species and pine rockland habitat, the on-site preserve and the off-site mitigation area are being considered for exclusion from critical habitat under section 4(b)(2) of the Act (please refer to Consideration of Impacts Under Section 4(b)(2) of the Act, below).

The entirety of unit EB3 is designated critical habitat for the following federally endangered species: Carter's small-flowered flax (*Linum carteri* var. *carteri*), Florida brickell-bush (*Brickellia mosieri*), and Bartram's scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake and federally endangered Florida bonneted bat occur in this unit.

Unit EB4: Quail Roost Pineland and Surrounding Areas, Miami-Dade County, Florida

Unit EB4 consists of approximately 256 ac (104 ha) in Miami-Dade County. The unit is comprised of State lands within Quail Roost Pineland, Goulds Pineland and Addition, and Silver Palm Groves Pineland (103 ac (42 ha)); County lands, including Medsouth Park, Black Creek Forest, and Rock Pit #46 (47 ac (19 ha)); and parcels in private ownership (107 ac (43 ha)), including Porter-Russell Pineland owned by the Tropical Audubon Society.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical

vegetation treatments are all actions that help improve habitat that supports Everglades bully. Within this unit, DERM conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County.

The entirety of unit EB4 is designated critical habitat for the federally endangered Carter's small-flowered flax and Florida brickell-bush, and much of the area is designated critical habitat for the federally endangered Bartram's scrub-hairstreak butterfly. The federally threatened eastern indigo snake and federally endangered Florida bonneted bat occur in this unit.

Unit EB5: Navy Wells Pineland Preserve and Surrounding Areas, Miami-Dade County, Florida

Unit EB5 consists of approximately 558 ac (226 ha) of habitat in Miami-Dade County. The unit is comprised of State lands within Florida City Pineland, Palm Drive Pineland, Navy Wells Pineland Preserve (portion), and Navy Wells Pineland #39 (74 ac (30 ha)); County/local lands, including Navy Wells Pineland Preserve (portion) and Sunny Palms Pineland (324 ac (131 ha)); and parcels in private ownership (160 ac (65 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports

Everglades bully. Within this unit, DERM conducts nonnative species control, prescribed fire, and mechanical vegetation treatments on lands owned by Miami-Dade County.

The entirety of unit EB5 is designated critical habitat for the following federally endangered species: Carter's small-flowered flax, Florida brickell-bush, and Bartram's scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake and federally endangered Florida bonneted bat occur in this unit.

**Proposed Critical Habitat Designation for Florida Pineland Crabgrass**

We are proposing to designate approximately 177,879 ac (71,985 ha) in two units as critical habitat for Florida pineland crabgrass. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Florida pineland crabgrass. The two areas we propose as critical habitat are:

- (1) FPCG1, Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida; and
- (2) FPCG2, Everglades National Park, Miami-Dade County, Florida.

Land ownership within the proposed critical habitat consists of Federal (86 percent), County (13 percent), and private and other (1 percent). Other lands include areas for which ownership information is unclear or unavailable. Table 2 shows these units by land ownership, area, and occupancy.

TABLE 2—PROPOSED CRITICAL HABITAT UNITS FOR FLORIDA PINELAND CRABGRASS, INCLUDING AREA, AREA BY LAND OWNERSHIP, AND OCCUPANCY

[All areas rounded to the nearest whole acres (ac) and hectares (ha).]

Unit	Total ac (ha)	Federal ac (ha)	State ac (ha)	County ac (ha)	Private/ other ac (ha)	Occupied
FPCG1—Big Cypress National Preserve.	169,885 (68,750)	146,014 (59,090)	0 (0)	22,411 (9,070)	1,460 (591)	Yes.
FPCG2—Everglades National Park	7,994 (3,235)	7,860 (3,181)	0 (0)	0 (0)	133 (54)	Yes.
Total .....	177,879 (71,985)	153,874 (62,271)	0 (0)	22,411 (9,070)	1,593 (645)	
Percent of Total .....		86	0	13	1	

**Note:** Area sizes may not sum due to rounding or minor mapping discrepancies.

Approximately 5 percent (8,894 ac (3,599 ha)) of the area proposed as critical habitat for Florida pineland crabgrass is also currently designated under the Act as critical habitat for the federally endangered Bartram's scrub-hairstreak and Florida leafwing butterflies.

We present brief descriptions of the proposed critical habitat units and the

justification for why they meet the definition of critical habitat for Florida pineland crabgrass, below.

Unit FPCG1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida. All proposed critical habitat units were occupied at the time of listing and are currently occupied. All units contain all the physical or biological features,

including suitable climate, hydrology, substrate, associated native plant species, and disturbance regimes, essential to the conservation of the species.

Unit FPCG1 consists of approximately 169,885 ac (68,750 ha) in Collier, Miami-Dade, and Monroe Counties. The unit is comprised of Federal lands in BCNP (146,014 ac (59,090 ha)), County

lands (22,411 ac (9,070 ha)), and parcels in private or other ownership (1,460 ac (591 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, off-road vehicle use, oil and gas exploration and extraction, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida pineland crabgrass.

This unit is part of lands within BCNP. Within this unit, as part of their 2019 Fire Management Plan (NPS 2019), the NPS conducts nonnative species control and prescribed fire in areas that support or could support Florida pineland crabgrass.

Unit FPCG1 does not contain previously designated critical habitat. The federally threatened eastern indigo snake, federally endangered Florida panther, and federally endangered Florida bonneted bat occur in this unit.

Unit FPCG2: Everglades National Park, Miami-Dade County, Florida

Unit FPCG2 consists of approximately 7,994 ac (3,235 ha) in Miami-Dade County. The unit is comprised of Federal lands in ENP (7,860 ac (3,181

ha) and parcels in private or other ownership (133 ac (54 ha)). The unit includes Long Pine Key and some of the surrounding areas in ENP.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida pineland crabgrass.

This unit is part of lands within ENP. Within this unit, as part of their General Management Plan (NPS 2015), the NPS conducts nonnative species control and prescribed fire in areas that support or could support Florida pineland crabgrass.

The entirety of unit FPCG2 is designated critical habitat for the federally endangered Bartram’s scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake, federally endangered Florida panther, and federally endangered Florida bonneted bat occur in this unit.

**Proposed Critical Habitat Designation for Pineland Sandmat**

We are proposing to designate approximately 8,867 ac (3,588 ha) in

three units as critical habitat for pineland sandmat. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for pineland sandmat. All areas with known extant populations at the time of listing are proposed for designation as critical habitat. The units currently may contain multiple populations, but the number can vary over a 1- to 5-year period due to the dynamic nature of this species in response to disturbance. The three areas we propose as critical habitat are:

- (1) PS1, Everglades National Park, Miami-Dade County, Florida;
- (2) PS2, Camp Owaissa Bauer, Miami-Dade County, Florida; and
- (3) PS3, Navy Wells, Miami-Dade County, Florida.

Land ownership within the proposed critical habitat consists of Federal (89 percent), State (1 percent), County (5 percent), and private and other (5 percent). Other lands include areas for which ownership information is unclear or unavailable. Table 3 shows these units by land ownership, area, and occupancy.

**TABLE 3—PROPOSED CRITICAL HABITAT UNITS FOR PINELAND SANDMAT, INCLUDING AREA, AREA BY LAND OWNERSHIP, AND OCCUPANCY**

[All areas rounded to the nearest whole acre (ac) and hectare (ha).]

Unit	Total ac (ha)	Federal ac (ha)	State ac (ha)	County ac (ha)	Private/ other ac (ha)	Occupied
PS1—Everglades National Park ....	7,994 (3,235)	7,860 (3,181)	0 (0)	0 (0)	133 (54)	Yes.
PS2—Camp Owaissa Bauer .....	315 (127)	0 (0)	49 (20)	145 (59)	122 (49)	Yes.
PS3—Navy Wells .....	558 (226)	0 (0)	74 (30)	310 (125)	174 (70)	Yes.
Total .....	8,867 (3,588)	7,860 (3,181)	123 (50)	455 (184)	429 (173)	
Percent of Total .....		89	1	5	5	

**Note:** Area sizes may not sum due to rounding or small mapping discrepancies.

Approximately 99.9 percent (8,854 ac (3,583 ha)) of the lands contained within units proposed as critical habitat for pineland sandmat are already designated critical habitat for other federally listed species.

We present brief descriptions of the proposed critical habitat units and the justification for why they meet the definition of critical habitat for pineland sandmat, below. All proposed critical habitat units were occupied at the time of listing and are currently occupied. All units contain all the physical or biological features, including suitable climate, hydrology, substrate, associated native plant species, and disturbance

regimes, essential to the conservation of the species.

Unit PS1: Everglades National Park, Miami-Dade County, Florida

Unit PS1 consists of approximately 7,994 ac (3,235 ha) in Miami-Dade County. The unit is comprised of Federal lands in ENP (7,860 ac (3,181 ha)) and parcels in private or other ownership (133 ac (54 ha)). The unit includes Long Pine Key and some of the surrounding areas in ENP.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species

control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports pineland sandmat.

This unit is part of lands within ENP. Within this unit, as part of their General Management Plan (NPS 2015), the NPS conducts nonnative species control and prescribed fire in areas that support or could support pineland sandmat.

The entirety of unit PS1 is designated critical habitat for the federally endangered Bartram’s scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake, federally endangered Florida panther, and federally endangered Florida bonneted bat occur in this unit.

Unit PS2: Camp Owaissa Bauer and Surrounding Areas, Miami-Dade County, Florida

Unit PS2 consists of approximately 315 ac (127 ha) of habitat in Miami-Dade County. The unit is comprised of State lands within Owaissa Bauer Pineland Addition, West Biscayne Pineland, Ingram Pineland, and Fuchs Hammock Addition (49 ac (20 ha)); County lands, including Camp Owaissa Bauer, Pine Island Lake Park, Seminole Wayside Park, and Northrop Pineland (145 ac (59 ha)); and parcels in private ownership (122 ac (49 ha)), including the Pine Ridge Sanctuary (a private conservation area).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports pineland sandmat.

The entirety of unit PS2 is designated critical habitat for the following federally endangered species: Carter's small-flowered flax, Florida brickell-bush, and Bartram's scrub-hairstreak butterfly. The federally threatened eastern indigo snake occurs in this unit.

Unit PS3: Navy Wells Pineland Preserve and Surrounding Areas, Miami-Dade County, Florida

Unit PS3 consists of approximately 558 ac (226 ha) of habitat in Miami-Dade County. The unit is comprised of State lands within Florida City Pineland, Palm Drive Pineland, Navy Wells Pineland Preserve (a portion), and Navy Wells Pineland #39 (74 ac (30 ha)); County lands, including Navy Wells Pineland Preserve (a portion) and Sunny Palms Pineland (310 ac (125 ha)); and parcels in private ownership (174 ac (70 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports pineland sandmat.

The entirety of unit PS3 is designated critical habitat for the following federally endangered species: Carter's small-flowered flax, Florida brickell-bush, and Bartram's scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake occurs in this unit.

**Proposed Critical Habitat Designation for Florida Prairie-Clover**

We are proposing to designate approximately 179,300 ac (72,560 ha) in

four units as critical habitat for Florida prairie-clover. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Florida prairie-clover. All areas with known extant populations at the time of listing are proposed for designation as critical habitat. Some units currently contain multiple populations, but the number can vary over a 1- to 5-year period due to the dynamic nature of this species in response to disturbance. The four areas we propose as critical habitat are:

- (1) FPC1, Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida;
- (2) FPC2, Everglades National Park, Miami-Dade County, Florida;
- (3) FPC3, U.S. Department of Agriculture (USDA) Subtropical Horticultural Research Station, Miami-Dade County, Florida; and
- (4) FPC4, Crandon Park, Miami-Dade County, Florida.

Land ownership within the proposed critical habitat consists of Federal (86.2 percent), State (0.7 percent), County (12.6 percent), and private and other (0.5 percent). Other lands include areas for which ownership information is unclear or unavailable. Table 4 shows these units by land ownership, area, and occupancy.

**TABLE 4—PROPOSED CRITICAL HABITAT UNITS FOR FLORIDA PRAIRIE-CLOVER, INCLUDING AREA, AREA BY LAND OWNERSHIP, AND OCCUPANCY**

[All areas rounded to the nearest whole acre (ac) and hectare (ha)]

Unit	Total ac (ha)	Federal ac (ha)	State ac (ha)	County ac (ha)	Private/other ac (ha)	Occupied
FPC1—Big Cypress National Preserve.	169,885 (68,750)	146,014 (59,090)	0 (0)	22,411 (9,070)	1,460 (591)	Yes.
FPC2—Everglades National Park	8,728 (3,532)	8,595 (3,478)	0 (0)	0 (0)	133 (54)	Yes.
FPC3—USDA .....	630 (255)	145 (58)	253 (103)	192 (78)	40 (16)	Yes.
FPC4—Crandon Park .....	57 (23)	0 (0)	0 (0)	57 (23)	0 (0)	Yes.
<b>Total .....</b>	<b>179,300 (72,560)</b>	<b>154,754 (62,627)</b>	<b>253 (103)</b>	<b>22,660 (9,170)</b>	<b>1,633 (661)</b>	
<b>Percent of Total .....</b>		<b>86%</b>	<b>1%</b>	<b>13%</b>	<b>1%</b>	

**Note:** Area sizes may not sum due to rounding or minor mapping discrepancies.

Approximately 4.6 percent of the lands (8,310 ac (3,363 ha)) contained within units proposed as critical habitat for Florida prairie-clover are designated critical habitat for other federally listed species.

We present brief descriptions of the proposed critical habitat units and the justification for why they meet the definition of critical habitat for Florida prairie-clover, below. All proposed critical habitat units were occupied at

the time of listing and are currently occupied. All units contain all the physical or biological features, including suitable climate, hydrology, substrate, associated native plant species, and disturbance regimes, essential to the conservation of the species.

Unit FPC1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida

Unit FPC1 consists of approximately 169,885 ac (68,750 ha) in Collier, Miami-Dade, and Monroe County. The unit is comprised of Federal lands in BCNP (146,014 ac (59,090 ha)), County land (22,411 ac (9,070 ha)), and parcels in private or other ownership (1,460 ac (591 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, off-road vehicle use, oil and gas exploration and extraction, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida prairie-clover.

This unit is part of lands within BCNP. Within this unit, as part of their 2019 Fire Management Plan (NPS 2019), the NPS conducts nonnative species control and prescribed fire in areas that support or could support Florida prairie-clover.

Unit FPC1 does not contain previously designated critical habitat. The federally threatened eastern indigo snake, federally endangered Florida panther, and federally endangered Florida bonneted bat occur in this unit.

Unit FPC2: Everglades National Park, Miami-Dade County, Florida

Unit FPC2 consists of approximately 8,728 ac (3,532 ha) in Miami-Dade County. The unit is comprised of Federal lands in ENP (8,595 ac (3,478 ha) and parcels in private or other ownership (133 ac (54 ha)). The unit includes Long Pine Key and some of the surrounding areas in ENP.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida prairie-clover.

This unit is part of lands within ENP. Within this unit, as part of their General Management Plan (NPS 2015), the NPS conducts nonnative species control and prescribed fire in areas that support or could support pineland sandmat. Most (91.6 percent) of unit FPC2 is designated critical habitat for the federally endangered Bartram's scrub-hairstreak and Florida leafwing butterflies. The federally threatened eastern indigo snake, federally endangered Florida panther, and federally endangered Florida bonneted bat occur in this unit.

Unit FPC3: USDA Subtropical Horticultural Research Station and Surrounding Areas, Miami-Dade County, Florida

Unit FPC3 consists of approximately 630 ac (255 ha) of habitat in Miami-Dade County. The unit is comprised of Federal lands within the USDA Subtropical Horticultural Research Station (145 ac (58 ha)); State lands

within the R. Hardy Matheson Preserve, Ludlam Pineland, Deering Estate at Cutler, and Deering Estate South Addition (253 ac (103 ha)); County lands within Bill Sadowski Park and Matheson Hammock (192 ac (78 ha)); and parcels in private ownership (40 ac (16 ha)).

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida prairie-clover.

The entirety of unit FPC3 is designated critical habitat for the federally endangered Carter's small-flowered flax and Florida brickell-bush. The federally threatened eastern indigo snake occurs in this unit.

Unit FPC4: Crandon Park, Miami-Dade County, Florida

Unit FPC4 consists of approximately 57 ac (23 ha) in Miami-Dade County. The unit is comprised entirely of land owned by Miami-Dade County. The unit includes coastal berm and rockland hammock on the east side of County Road 913 to the shoreline, from the vicinity of the Marjorie Stoneman Douglas Biscayne Nature Center to near the northern tip of the island.

Special management considerations or protection may be required within this unit to address threats of nonnative plant and animal species, lack of fire, and sea level rise. Nonnative species control, prescribed fire, and mechanical vegetation treatments are all actions that help improve habitat that supports Florida prairie-clover.

Unit FPC4 does not contain previously designated critical habitat. The federally threatened eastern indigo snake occurs in this unit.

### 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.

We published a final rule revising the definition of destruction or adverse modification on February 11, 2016 (81 FR 7214). (We also published a revised definition after that (on August 27, 2019)) Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.

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, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

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

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service 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 set forth requirements for Federal agencies to reinstate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action. In such situations, Federal agencies sometimes may need to request reinstatement of consultation with us, but Congress also enacted some exceptions in 2018 to the requirement to reinstate consultation on certain land management plans on the basis of a new species listing or new designation of critical habitat that may be affected by the subject Federal action (see the Consolidated Appropriations Act, 2018 (Pub. L. 115–141), Division O, 132 Stat. 1059 (2018)).

#### *Application of the "Destruction or Adverse Modification" Standard*

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential

to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that we may, during a consultation under section 7(a)(2) of the Act, find are likely to destroy or adversely modify critical habitat for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover include, but are not limited to:

(1) Actions that would significantly alter the hydrology or substrate, such as ditching or filling. Such activities may include, but are not limited to, road construction or maintenance, and residential, commercial, or recreational development.

(2) Actions that would significantly alter vegetation structure or composition, such as clearing vegetation for construction of roads, residential and commercial development, recreational facilities, and trails.

(3) Actions that would introduce nonnative species that would significantly alter vegetation structure or composition. Such activities may include, but are not limited to, residential and commercial development and road construction.

#### **Exemptions**

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

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD), or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act Improvement Act of 1997 (16 U.S.C. 670a) (Sikes Act), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. No DOD lands with a completed INRMP are within the proposed critical habitat designations for Everglades bully, Florida pineland crabgrass, pineland sandmat, or Florida prairie-clover.

#### **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 designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (hereafter, the "2016 Policy"; 81 FR 7226, February 11, 2016), both of which were developed jointly with the National Marine Fisheries Service (NMFS). We also refer to a 2008 Department of the Interior Solicitor's opinion entitled, "The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act" (M–37016). We explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise discretion to exclude the area only if such exclusion would not result in the extinction of the species. In making the determination to exclude a particular area, 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. We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

#### *Consideration of Economic Impacts*

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific activities for the benefit of the species and its habitat within the areas

proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.”

The “without critical habitat” scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (*e.g.*, under the Federal listing as well as other Federal, State, and local regulations). The baseline, therefore, represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.*, conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. Section 3(f) of E.O. 12866 identifies four criteria when a regulation is considered a “significant” rulemaking, and requires additional analysis, review, and approval if met. The criterion relevant here is whether the designation of critical habitat may have an economic effect of greater than \$100 million in any given year (section 3(f)(1)). Therefore, our consideration of economic impacts uses a screening analysis to assess whether a designation

of critical habitat for these species is likely to exceed the economically significant threshold.

For these particular designations, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from the proposed designations of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover (IEc 2021, entire). We began by conducting a screening analysis of the proposed designations of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.*, absent critical habitat designation) and includes probable economic impacts where land and water use may be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. The presence of the listed species in occupied areas of critical habitat means that any destruction or adverse modification of those areas is also likely to jeopardize the continued existence of the species. Therefore, designating occupied areas as critical habitat typically causes little if any incremental impacts above and beyond the impacts of listing the species. Accordingly, the screening analysis focuses on areas of unoccupied critical habitat. The screening analysis also assesses whether units are unoccupied by the species and thus may require additional management or conservation efforts as a result of the critical habitat designation for the species; these additional efforts may incur incremental economic impacts. This screening analysis combined with the information contained in our IEM are what we consider our draft economic analysis (DEA) of the proposed critical habitat designations for Everglades bully, Florida pineland crabgrass, pineland sandmat, and

Florida prairie-clover; our DEA is summarized in the narrative below.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designations. In our evaluation of the probable incremental economic impacts that may result from the proposed designations of critical habitat for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover, first we identified, in the IEM dated August 30, 2021, probable incremental economic impacts associated with the following categories of activities:

- (1) Federal lands management (National Park Service, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, U.S. Coast Guard, U.S. Army Corps of Engineers);
- (2) Roadway and bridge construction and maintenance;
- (3) Oil and gas exploration and extraction;
- (4) Commercial or residential development; and
- (5) Recreation (including construction and maintenance of recreation infrastructure).

We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover are present, Federal agencies already are required to consult with the Service under section 7 of the Act on activities they authorize, fund, or carry out that may affect the species. If we finalize this proposed critical habitat designation, consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

In our IEM, we attempted to clarify the distinction between the effects that will result from the species being listed and those attributable to the critical habitat designation (*i.e.*, difference between the jeopardy and adverse modification standards) for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover. Because the designation of critical habitat for these species is being proposed several years after these species were listed under the Act, data from our consultation history are available to help us discern which

conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. The following specific circumstances help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would likely adversely affect the essential physical or biological features of occupied critical habitat are also likely to adversely affect these species. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for these species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of these proposed designations of critical habitat.

Approximately 179,680 ac (72,714 ha) in five units in Collier, Monroe, and Miami-Dade Counties, Florida, are being proposed for designation as critical habitat for the Everglades bully. All five units are occupied by Everglades bully. Approximately 177,879 ac (71,985 ha) in two units in Collier, Monroe, and Miami-Dade Counties, Florida, are being proposed for designation as critical habitat for Florida pineland crabgrass; both units are occupied by the species. Approximately 8,867 ac (3,588 ha) in three units in Miami-Dade County, Florida, are being proposed for designation as critical habitat for pineland sandmat. All three units are occupied by pineland sandmat. Approximately 179,300 ac (72,560 ha) in four units in Collier, Monroe, and Miami-Dade Counties, Florida, are being proposed for designation as critical habitat for Florida prairie-clover. All four units are occupied by Florida prairie-clover. Land ownership across the units for all four plants includes Federal lands (85 percent), State of Florida lands (less than 1 percent), county lands (13 percent), and private lands (1 percent). The majority of the proposed area for Everglades bully, Florida pineland crabgrass, and Florida prairie-clover is within BCNP. Approximately 6 percent of the total proposed designated critical habitat area for all four plants overlaps with existing designated critical habitat for other species.

Because all of the area proposed for designation is occupied, most actions that may adversely affect designated critical habitat would also adversely affect the species, and it is unlikely that any additional conservation efforts would be recommended to address the

adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of these four plants. Therefore, only administrative costs are expected in the proposed critical habitat designation. While the analysis for adverse modification of critical habitat will require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant.

The economic costs of critical habitat designation for these four plants will most likely be limited to additional administrative efforts to consider adverse modification in section 7 consultations. This finding is based on the following factors: (1) All of the proposed critical habitat units for the four plants are considered occupied by the species; (2) a number of additional baseline protections exist for the species due to the presence of other listed species and designated critical habitats, with approximately 6 percent of the proposed critical habitat overlapping with designated critical habitat for other species; and (3) nearly 100 percent of the proposed critical habitat is occupied by other federally listed species, including Florida panther and Florida bonneted bat. Several management plans and conservation plans also provide baseline protections to the species in proposed critical habitat areas.

In total, approximately 20 formal consultations, 123 informal consultations, and 29 technical assistance efforts that will include the four plants are anticipated to occur during the next 10 years in proposed critical habitat areas, with costs to the Service and Federal action agencies of approximately \$43,600 annually. Although the specific geographic distribution of these costs is uncertain, it appears likely that most costs would occur in the BCNP units, which comprises 94 percent of proposed critical habitat in total for these four plants.

Potential private property value effects are possible due to public perception of impacts to private lands. The designation of critical habitat may cause some developers or landowners to perceive that private lands will be subject to use restrictions or litigation from third parties, resulting in costs. However, any costs associated with public perception are speculative and not possible to quantify. Further, only 1 percent of the proposed critical habitat designations is privately owned land, leading to at-most nominal incremental

costs arising from changes in public perception of lands included in the designations.

The total annual incremental costs of critical habitat designation for these four plants are anticipated to be approximately \$43,600 per year, and economic benefits are also anticipated to be small. Therefore, critical habitat designation for these four plants is unlikely to generate costs or benefits exceeding \$100 million in a single year, and this rule is unlikely to meet the threshold for an economically significant rule, with regard to costs under E.O. 12866.

We are soliciting data and comments from the public on the DEA discussed above, as well as all aspects of this proposed rule and our required determinations. During the development of final designations, we will consider the information presented in the DEA and any additional information on economic impacts received during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designations under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of these species.

#### **Exclusions**

##### *Exclusions Based on 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 analysis of the probable economic impacts of the proposed critical habitat designations and related factors. At this time, we are not considering any exclusions based on economic impacts.

During the development of final designations, we will consider any additional economic impact information received through the public comment period, and as such, areas may be excluded from the final critical habitat designations under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

##### *Consideration of National Security Impacts*

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DOD installation that is in the process of revising its INRMP for a newly listed species or a species

previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), then national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of "critical habitat." However, the Service must still consider impacts on national security, including homeland security, on those lands or areas not covered by section 4(a)(3)(B)(i) because section 4(b)(2) requires the Service to consider those impacts whenever it designates critical habitat. Accordingly, if DOD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns, or we have otherwise identified national-security or homeland-security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

However, we cannot automatically exclude requested areas. When DOD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, it must provide a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If we conduct an exclusion analysis because the agency provides a reasonably specific justification or because we decide to exercise the discretion to conduct an exclusion analysis, we will defer to the expert judgment of DOD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national-security and homeland-security

concerns in analyzing the benefits of exclusion.

We have evaluated whether any of the lands within the proposed designations of critical habitat are owned by DOD or DHS or could lead to national-security or homeland-security impacts if designated. Below, we describe the areas within the proposed designations that are owned by DOD or DHS or for which designation could lead to national-security or homeland-security impacts. For each area, we describe the available information indicating whether we have reason to consider excluding the area from the designations. If, during the comment period, we identify or receive information about additional areas for which designations may result in incremental national-security or homeland-security impacts, then we may consider conducting a discretionary exclusion analysis to determine whether to exclude those additional areas under authority of section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

#### DHS Land Parcel

We have determined that some lands within the Richmond Pine Rocklands and surrounding areas unit (Unit EB3) of the proposed designation of critical habitat for Everglades bully are owned, managed, or utilized by the U.S. Coast Guard, which is part of the DHS.

The U.S. Coast Guard property is separated into two main areas: the Communication Station (COMMSTA) Miami and the Civil Engineering Unit (CEU). The COMMSTA houses transmitting and receiving antennas. The CEU plans and executes projects at regional shore facilities, such as construction and post-disaster assessments.

The U.S. Coast Guard parcel contains approximately 100 ac (40 ha) of standing pine rocklands. The remainder of the site, outside of the developed areas, is made up of scraped pine rocklands that are mowed three to four times per year for maintenance of a communications antenna field. While disturbed, this scraped area maintains sand substrate and many native pine rockland species, including documented occurrences of Everglades bully. As of the drafting of this proposed rule, the U.S. Coast Guard parcel has a draft management plan that includes management of pine rockland habitats, including vegetation control and prescribed fire and protection of lands from further development or degradation, and is anticipated to be finalized in late 2022. In addition, the

standing pine rockland area is partially managed through an active recovery grant to the Institute for Regional Conservation. Under this grant, up to 39 ac (16 ha) of standing pine rocklands will undergo invasive vegetation control.

Based on a review of the specific mission of the U.S. Coast Guard facility in conjunction with the measures and efforts set forth in the draft management plan to preserve pine rockland habitat and protect sensitive and listed species, we have determined that it is unlikely that the critical habitat, if finalized as proposed, would negatively impact the facility or its operations. As a result, we do not anticipate any impact on national security. Consequently, the Secretary does not intend to exercise her discretion to exclude any areas from the final designations based on impacts on national security. We will, however, review this determination, in light of any new information and public comments we receive prior to making a decision in the final rule.

#### DOD Land Parcel

As discussed above, we have determined that the U.S. Army Corps of Engineers (Corps), a branch of the DOD, retains ownership over a 121-ac (49-ha) parcel in Unit EB3 of the proposed designation of critical habitat for Everglades bully. More than 85 ac (34 ha) of this parcel are forested but not managed for preservation of natural resources. The Corps does not have an INRMP or any specific management plan for the Everglades bully or its habitat covering these lands. Activities conducted on this site are unknown, but we do not anticipate any impact on national security.

Following our process for coordinating with Federal partners, we contacted the DOD and DHS about this designation and shared the IEM for their feedback. Neither agency identified any potential national-security impact, nor requested an exclusion from critical habitat based on potential national-security impacts. Consequently, the Secretary does not intend to exercise her discretion to exclude any areas from the final designations based on impacts on national security. However, if through the public comment period we receive information regarding impacts on national security or homeland security from designating particular areas as critical habitat, then as part of developing the final designations of critical habitat, we may consider conducting a discretionary exclusion analysis to determine whether to exclude those areas under authority of section 4(b)(2) of the Act and our

implementing regulations at 50 CFR 424.19.

#### *Consideration of 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 discussed above. To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are permitted conservation plans covering the species in the area—such as HCPs, safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs)—or whether there are non-permitted conservation agreements and partnerships that may be impaired by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation. We also consider any State, local, or other impacts that might occur because of the designation. When analyzing other relevant impacts of including a particular area in a designation of critical habitat, we weigh those impacts relative to the conservation value of the particular area. To determine the conservation value of designating a particular area, we consider a number of factors, including, but not limited to, the additional regulatory benefits that the area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

In the case of Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover, the benefits of critical habitat include public awareness of the presence of these four plant species and the importance of habitat protection, and, where a Federal nexus exists, habitat protection for the four species due to protection from destruction or adverse modification of critical habitat. Continued implementation of an ongoing management plan that provides conservation equal to or more than the protections that result from a critical habitat designation would reduce those benefits of including that specific area in the critical habitat designation.

After identifying the benefits of inclusion and the benefits of exclusion,

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

#### *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitat. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an “enhancement of survival” permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. The Service also provides enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis based on permitted conservation plans (e.g., CCAAs, SHAs, and HCPs), we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the CCAA/SHA/HCP meets all of the following three factors (see the 2016 Policy for additional details):

a. The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is and has been fully implementing the commitments and

provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

c. The CCAA/SHA/HCP specifically addresses that species’ habitat and meets the conservation needs of the species in the planning area.

The proposed critical habitat designations include areas that are covered by the following permitted plan providing for the conservation of Everglades bully: Coral Reef Commons HCP.

*Coral Reef Commons Habitat Conservation Plan*—In preparing this proposal, we have determined that lands associated with the Coral Reef Commons HCP within Unit EB3 for Everglades bully (Richmond Pine Rocklands and surrounding areas) are included within the boundaries of the proposed critical habitat.

Coral Reef Commons is a mixed-use community, which consists of 900 apartments, retail stores, restaurants, and parking. In 2017, a HCP and associated permit under section 10 of the Act was developed and issued for the Coral Reef Commons development.

As part of the HCP and permit, an approximately 53-ac (21-ha) on-site preserve (same as the area for proposed critical habitat designation) was established under a conservation encumbrance that will be managed in perpetuity for pine rockland habitat and sensitive and listed species, including Everglades bully.

The Center for Southeastern Tropical Advanced Remote Sensing (CSTARS) site is an offsite mitigation area for Coral Reef Commons comprised of 57 ac (23 ha). Both the on-site preserve and the off-site mitigation area are being managed to maintain healthy pine rockland habitat through the use of invasive, exotic plant management; mechanical treatment; and prescribed fire. Since initiating the Coral Reef Commons HCP, pine rockland restoration efforts have been conducted within all of the management units in both the on-site preserves and the off-site mitigation area. A second round of prescribed fire began in February 2021. Currently, the on-site preserves meet or exceed the success criteria described in the HCP.

Critical habitat within (EB3) that is associated with the Coral Reef Commons HCP is limited to the on-site preserves and off-site mitigation area. Based on a cursory review of the HCP and proposed critical habitat for Everglades bully, we do not anticipate requesting any additional conservation measures for this species beyond those that are currently in place. Therefore, at this time, we are considering excluding those specific lands associated with the Coral Reef Commons HCP that are in the preserve and off-site mitigation area from the final designation of critical habitat for Everglades bully. However, we will more thoroughly review the HCP, its implementation of the conservation measures for Everglades bully and its habitat therein, and public comment on this issue prior to finalizing critical habitat, and, if appropriate, in the final rule, exclude from critical habitat for Everglades bully those lands associated with the Coral Reef Commons HCP that are in the on-site preserves and off-site mitigation area.

We have determined that there are no additional HCPs or other management plans for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover.

#### Tribal Lands

Several Executive Orders, Secretarial Orders, and policies concern working with Tribes. These guidance documents generally confirm our trust responsibilities to Tribes, recognize that Tribes have sovereign authority to control Tribal lands, emphasize the importance of developing partnerships with Tribal governments, and direct the Service to consult with Tribes on a government-to-government basis.

A joint Secretarial Order that applies to both the Service and the National Marine Fisheries Service (NMFS)—Secretarial Order 3206, *American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act* (June 5, 1997) (S.O. 3206)—is the most comprehensive of the various guidance documents related to Tribal relationships and Act implementation, and it provides the most detail directly relevant to the designation of critical habitat. In addition to the general direction discussed above, the appendix to S.O. 3206 explicitly recognizes the right of Tribes to participate fully in any listing process that may affect Tribal rights or Tribal trust resources; this includes the designation of critical habitat. Section 3(B)(4) of the appendix requires the Service to consult with affected Tribes “when considering the designation of

critical habitat in an area that may impact tribal trust resources, tribally-owned fee lands, or the exercise of tribal rights.” That provision also instructs the Service to avoid including Tribal lands within a critical habitat designation unless the area is essential to conserve a listed species, and it requires the Service to “evaluate and document the extent to which the conservation needs of the listed species can be achieved by limiting the designation to other lands.”

Our implementing regulations at 50 CFR 424.19 and the 2016 Policy are consistent with S.O. 3206. When we undertake a discretionary exclusion analysis, in accordance with S.O. 3206 we consult with any Tribe whose Tribal trust resources, Tribally owned fee lands, or Tribal rights may be affected by including any particular areas in the designation, and we evaluate the extent to which the conservation needs of the species can be achieved by limiting the designation to other areas. When we undertake a discretionary 4(b)(2) exclusion analysis, we always consider exclusion of Tribal lands, and give great weight to Tribal concerns in analyzing the benefits of exclusion.

However, S.O. 3206 does not override the Act’s statutory requirement of designation of critical habitat. As stated above, we must consult with any Tribe when a designation of critical habitat may affect Tribal lands or resources. The Act requires us to identify areas that meet the definition of “critical habitat” (*i.e.*, areas occupied at the time of listing that contain the essential physical or biological features that may require special management or protection and unoccupied areas that are essential to the conservation of a species), without regard to land ownership. While S.O. 3206 provides important direction, it expressly states that it does not modify the Secretary’s statutory authority under the Act or other statutes.

There are no Tribal lands in the proposed critical habitat designations for Everglades bully, Florida pineland crabgrass, pineland sandmat, and Florida prairie-clover.

#### Summary of Exclusions Considered Under 4(b)(2) of the Act

At this time, we are considering excluding those specific lands associated with the Coral Reef Commons HCP that are in the preserve and off-site mitigation area from the final designation of critical habitat for Everglades bully (unit ES3). In conclusion, we specifically solicit comments on the inclusion or exclusion of such areas.

During the development of final designations, we will consider any information currently available or received during the public comment period regarding other relevant impacts of the proposed designations and will determine whether these or any other specific areas should be considered for exclusion from the final critical habitat designations under authority of section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19 and the 2016 Policy.

#### Required Determinations

##### *Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

##### *Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA 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 proposed 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 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 these proposed designations as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking

itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designations. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designations will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designations would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designations would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not foresee any energy development projects, supply, distribution, or use that may affect or be affected by the proposed critical habitat for pineland sandmat. There may be energy development projects (*i.e.*, oil and gas exploration and extraction activities) at BCNP that may affect or be affected by the proposed critical habitat for Everglades bully, Florida pineland crabgrass, and Florida prairie-clover. However, in our evaluation of potential economic impacts, we did not find that the proposed critical habitat

designations for Everglades bully, Florida pineland crabgrass, and Florida prairie-clover would 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 finding:

(1) This proposed rule would 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 would significantly or uniquely affect small governments. The government lands being proposed for critical habitat designation are owned by the State of Florida, Miami-Dade and Monroe Counties, and numerous Federal agencies (USCG, NOAA, Corps, FBP, USDA, and NPS). None of these government entities fit the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required.

#### *Takings—Executive Order 12630*

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

critical habitat do not pose significant takings implications for lands within or affected by the designations.

#### *Federalism—Executive Order 13132*

In accordance with E.O. 13132 (federalism), this proposed 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 the proposed critical habitat designations with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the proposed rule does not have substantial direct effects either on the States, or on the relationship between the Federal government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designations may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for 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 State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

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

#### *Civil Justice Reform—Executive Order 12988*

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that this proposed rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2)

of the order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the physical or biological features essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed 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 rulemaking does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) is not required. We may not conduct or sponsor and you are 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 (NEPA; 42 U.S.C. 4321 et seq.) 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)).

#### *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.

As discussed above (see “Tribal Lands” under Exclusions), we have determined that no Tribal lands fall within the boundaries of the proposed critical habitat designations for Everglades bully, Florida pineland crabgrass, pineland sandmat, or Florida prairie-clover, so no Tribal lands would be affected by the proposed designations of critical habitat for these species.

**References Cited**

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov> and upon request from the Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authors**

The primary authors of this proposed rule are the staff members of the Fish

and Wildlife Service’s Florida Ecological Services Field Office.

**List of Subjects in 50 CFR Part 17**

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

**Signing Authority**

Martha Williams, Director of the U.S. Fish and Wildlife Service, approved this action on September 20, 2022, for publication. On September 30, 2022, Martha Williams authorized the undersigned to sign the document electronically and submit it to the Office of the Federal Register for publication as an official document of the U.S. Fish and Wildlife Service.

**Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

**PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

■ 1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

■ 2. In § 17.12, amend paragraph (h) by revising the entries for “*Chamaesyce deltoidea* ssp. *pinetorum*”, “*Dalea carthagenensis* var. *floridana*”, “*Digitaria pauciflora*”, and “*Sideroxylon reclinatum* ssp. *austrofloridense*” in the List of Endangered and Threatened Plants under FLOWERING PLANTS, to read as follows:

**§ 17.12 Endangered and threatened plants.**

\* \* \* \* \*  
(h) \* \* \*

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
FLOWERING PLANTS				
* <i>Chamaesyce deltoidea</i> ssp. <i>pinetorum</i> .	* Pineland sandmat .....	* Wherever found .....	T	* 82 FR 46691, 10/6/2017; 50 CFR 17.96(a). <sup>CH</sup>
* <i>Dalea carthagenensis</i> var. <i>floridana</i> .	* Florida prairie-clover .....	* Wherever found .....	E	* 82 FR 46691, 10/6/2017; 50 CFR 17.96(a). <sup>CH</sup>
* <i>Digitaria pauciflora</i> .....	* Florida pineland crabgrass .....	* Wherever found .....	T	* 82 FR 46691, 10/6/2017; 50 CFR 17.96(a). <sup>CH</sup>
* <i>Sideroxylon reclinatum</i> ssp. <i>austrofloridense</i> .	* Everglades bully .....	* Wherever found .....	T	* 82 FR 46691, 10/6/2017; 50 CFR 17.96(a). <sup>CH</sup>
* .....	* .....	* .....	*	* .....

■ 3. In § 17.96, amend paragraph (a) by:

- a. Adding an entry for “Family Euphorbiaceae: *Chamaesyce deltoidea* ssp. *pinetorum*, (pineland sandmat)” following the entry for “Family Ericaceae: *Gonocalyx concolor*”;
- b. Adding an entry for “Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover)” following the entry for “Family Fabaceae: *Astragalus pycnostachyus* var. *lanosissimus* (Ventura Marsh milk-vetch)”;

■ c. Adding an entry for “Family Poaceae: *Digitaria pauciflora* (Florida pineland crabgrass)” following the entry

- for “Family Plantaginaceae: *Penstemon debilis* (Parachute penstemon)”;
- and
- d. Adding an entry for “Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully)” following the entry for “Family Rubiaceae: *Catesbaea melanocarpa* (no common name)”.

The additions read as follows:

**§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*  
\* \* \* \* \*

Family Euphorbiaceae: *Chamaesyce deltoidea* ssp. *pinetorum* (pineland sandmat)

(1) Critical habitat units are depicted for Miami-Dade County, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the pineland sandmat are South Florida pine rockland and adjacent ecotonal areas:

(i) Consisting of calcareous limestone substrate (often exposed with little soil development) that provides nutritional requirements and suitable growing conditions (e.g., pH, nutrients, anchoring, and drainage);

(ii) Characterized by an open canopy and understory with a high proportion of native pine rockland plant species to

provide for sufficient sunlight to permit growth and flowering;

(iii) Subjected to a monthly mean temperature characteristic of the subtropical humid classification in Miami-Dade County and short hydroperiods ranging up to 60 days each year;

(iv) Subjected to periodic natural (e.g., hurricanes, fire) or unnatural (e.g., prescribed fire) disturbance regimes to maintain open canopy conditions; and

(v) Containing the presence of native pollinators for natural pollination and reproduction.

(3) Critical habitat does not include human-made 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 the effective date of the final rule.

(4) Data layers defining map units were created using ESRI ArcGIS mapping software. The projection used was Albers Conical Equal Area (Florida Geographic Data Library), North American Datum (NAD) 1983 High Accuracy Reference Network (HARN). 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

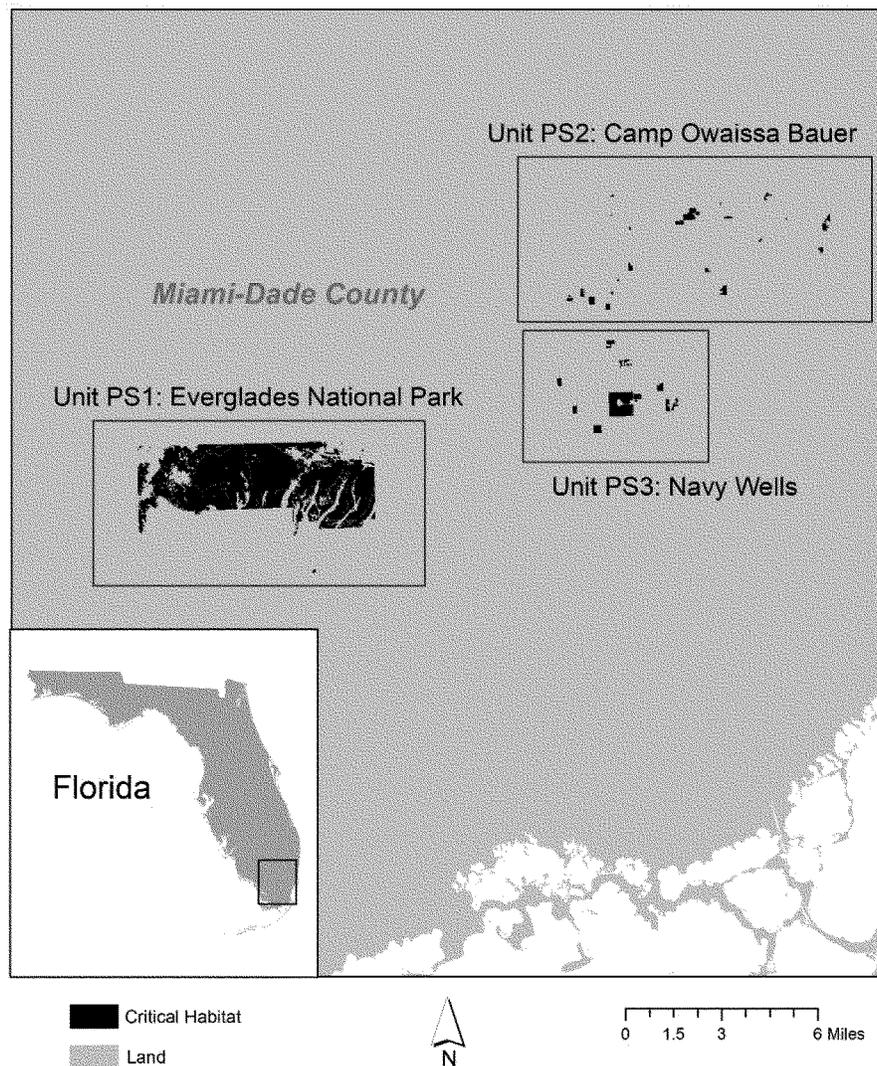
is based are available to the public at the Service's internet site at <https://www.fws.gov/office/florida-ecological-services>, at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2022-0125, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map of critical habitat units for pineland sandmat follows:

Figure 1 to Family Euphorbiaceae: *Chamaesyce deltoidea* ssp. *pinetorum* (pineland sandmat) paragraph (5)

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### Index of Critical Habitat Units for Pineland Sandmat (*Chamaesyce deltoidea* ssp. *pinetorum*) Miami-Dade County, Florida



(6) PS1: Everglades National Park, Miami-Dade County, Florida.

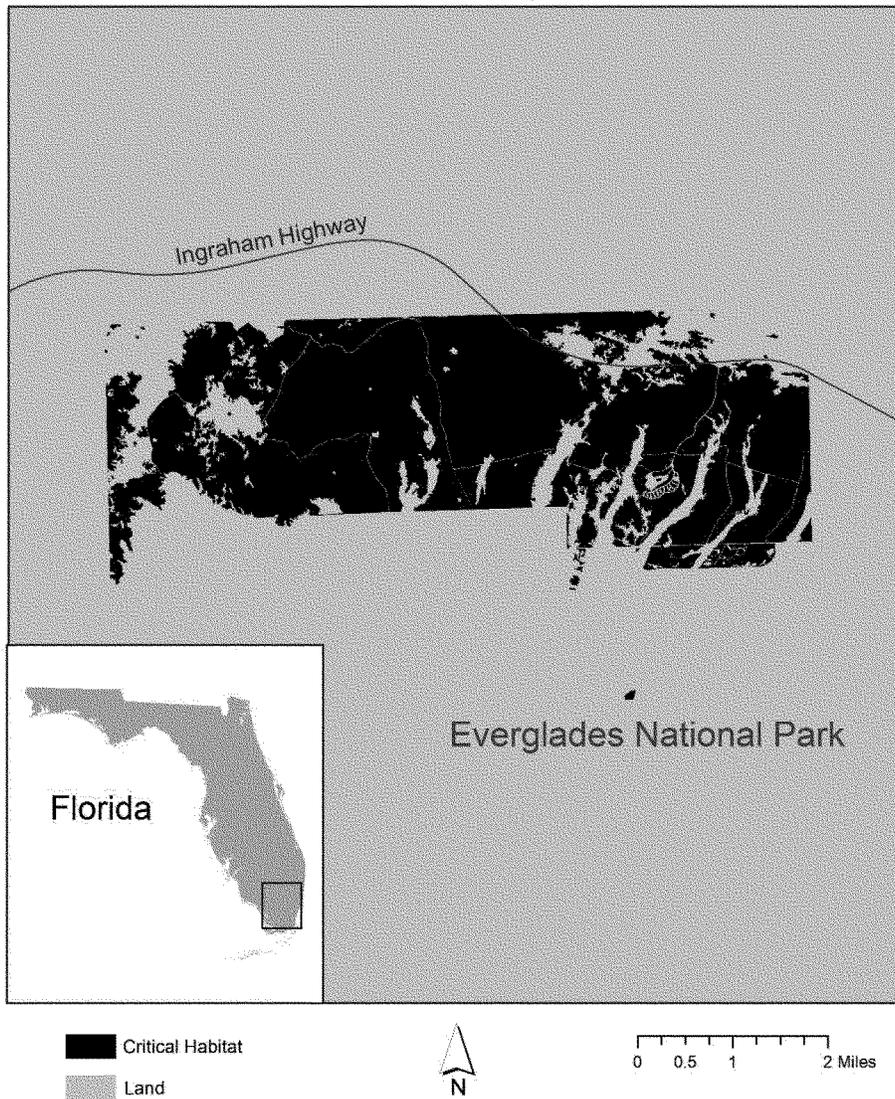
(i) Unit PS1 consists of approximately 7,994 acres (ac) (3,235 hectares (ha)) in

Miami-Dade County, Florida. This unit is comprised of lands on Long Pine Key

and surrounding areas in Everglades National Park.  
 (ii) Map of Unit PS1 follows:

Figure 2 to Family Euphorbiaceae:  
*Chamaesyce deltoidea* ssp. *pinetorum*  
 (pineland sandmat) paragraph (6)(ii)

**Map of Critical Habitat Unit PS1: Everglades National Park  
 Pineland Sandmat (*Chamaesyce deltoidea* ssp. *pinetorum*)  
 Miami-Dade County, Florida**



(7) PS2: Camp Owaissa Bauer and surrounding areas, Miami-Dade County, Florida.

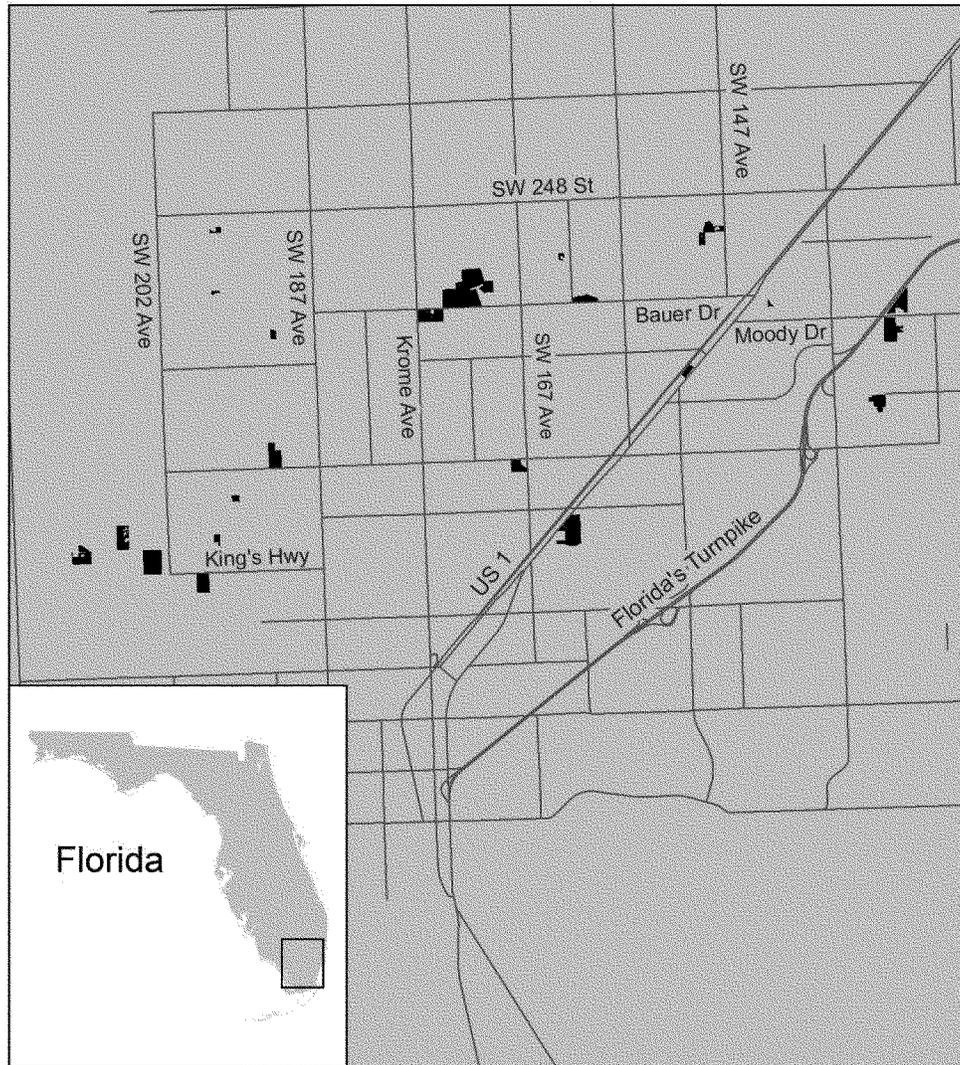
(i) Unit PS2 consists of approximately 315 ac (127 ha) of habitat in Miami-

Dade County, Florida. This unit is bordered on the north by SW 248 Street, on the south by SW 312 Street, on the east by SW 112 Avenue, and on the west by SW 217 Avenue.

(ii) Map of Unit PS2 follows:

Figure 3 to Family Euphorbiaceae:  
*Chamaesyce deltoidea* ssp. *pinetorum*  
 (pineland sandmat) paragraph (7)(ii)

Map of Critical Habitat Unit PS2: Camp Owaissa Bauer  
 Pineland Sandmat (*Chamaesyce deltoidea* ssp. *pinetorum*)  
 Miami-Dade County, Florida



(8) PS3: Navy Wells Pineland Preserve and surrounding areas, Miami-Dade County, Florida.

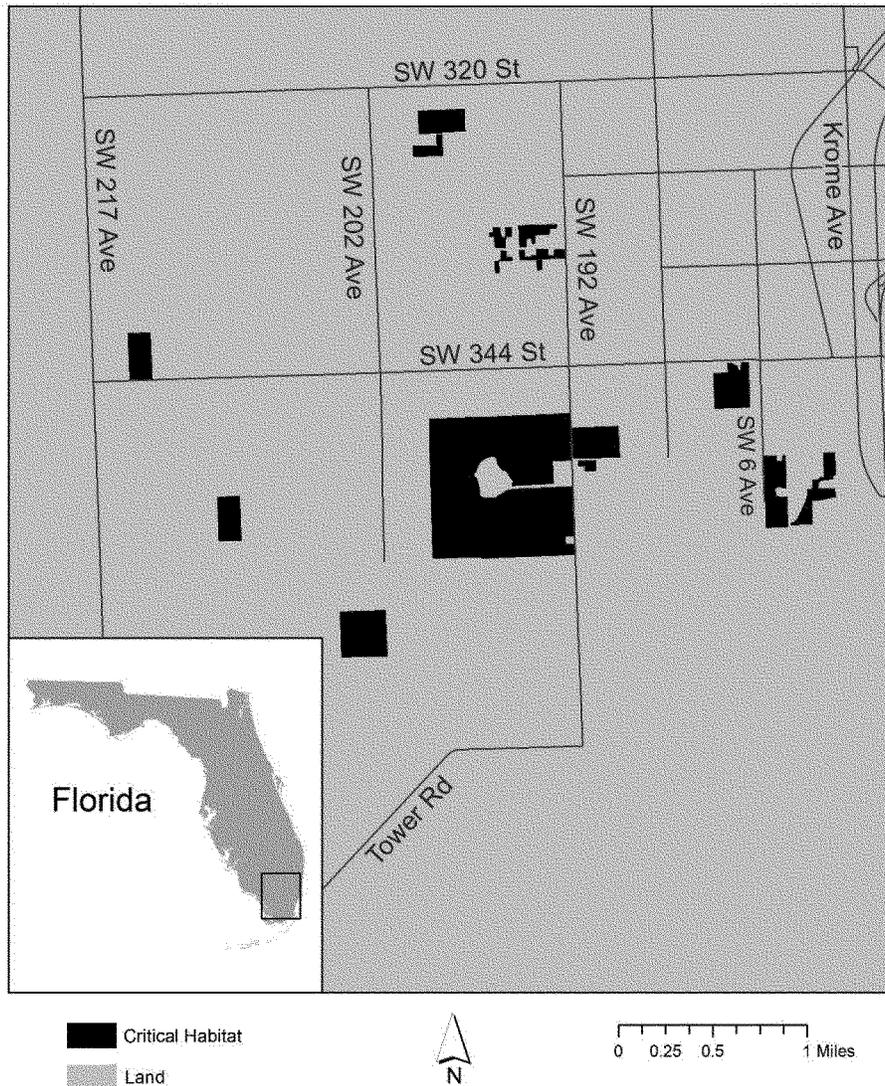
(i) Unit PS3 consists of approximately 558 ac (226 ha) of habitat in Miami-

Dade County, Florida. This unit is bordered on the north by SW 320 Street, on the south by SW 368 Street, on the east by U.S. 1 (South Dixie Highway), and on the west by SW 217 Avenue.

(ii) Map of Unit PS3 follows:

Figure 4 to Family Euphorbiaceae: *Chamaesyce deltoidea* ssp. *pinetorum* (pineland sandmat) paragraph (8)(ii)

**Map of Critical Habitat PS3: Navy Wells  
Pineland Sandmat (*Chamaesyce deltoidea* ssp. *pinetorum*)  
Miami-Dade County, Florida**



\* \* \* \* \*

Family Fabaceae: *Dalea carthagensis* var. *floridana* (Florida prairie-clover)

(1) Critical habitat units are depicted for Collier, Miami-Dade County, and Monroe Counties, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Florida prairie-clover are South Florida pine rockland, marl prairie, rockland hammock, and coastal berm habitat and adjacent disturbed areas:

(i) Consisting of limestone substrate that provides nutritional requirements and suitable growing conditions (e.g., pH, nutrients, anchoring, and drainage);

(ii) Characterized by an open canopy and understory with a high proportion of native plant species to provide for sufficient sunlight to permit growth and flowering;

(iii) Subjected to a monthly mean temperature characteristic of the subtropical humid classification in Miami-Dade County or the tropical humid classification in Collier and Monroe Counties and short hydroperiods ranging up to 60 days each year;

(iv) Subjected to periodic natural (e.g., fire, hurricanes, and storm surge) or unnatural (e.g., prescribed fire, mowing) disturbance regimes to maintain open canopy conditions; and

(v) Containing the presence of native pollinators for natural pollination and reproduction.

(3) Critical habitat does not include human-made 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 the effective date of the final rule.

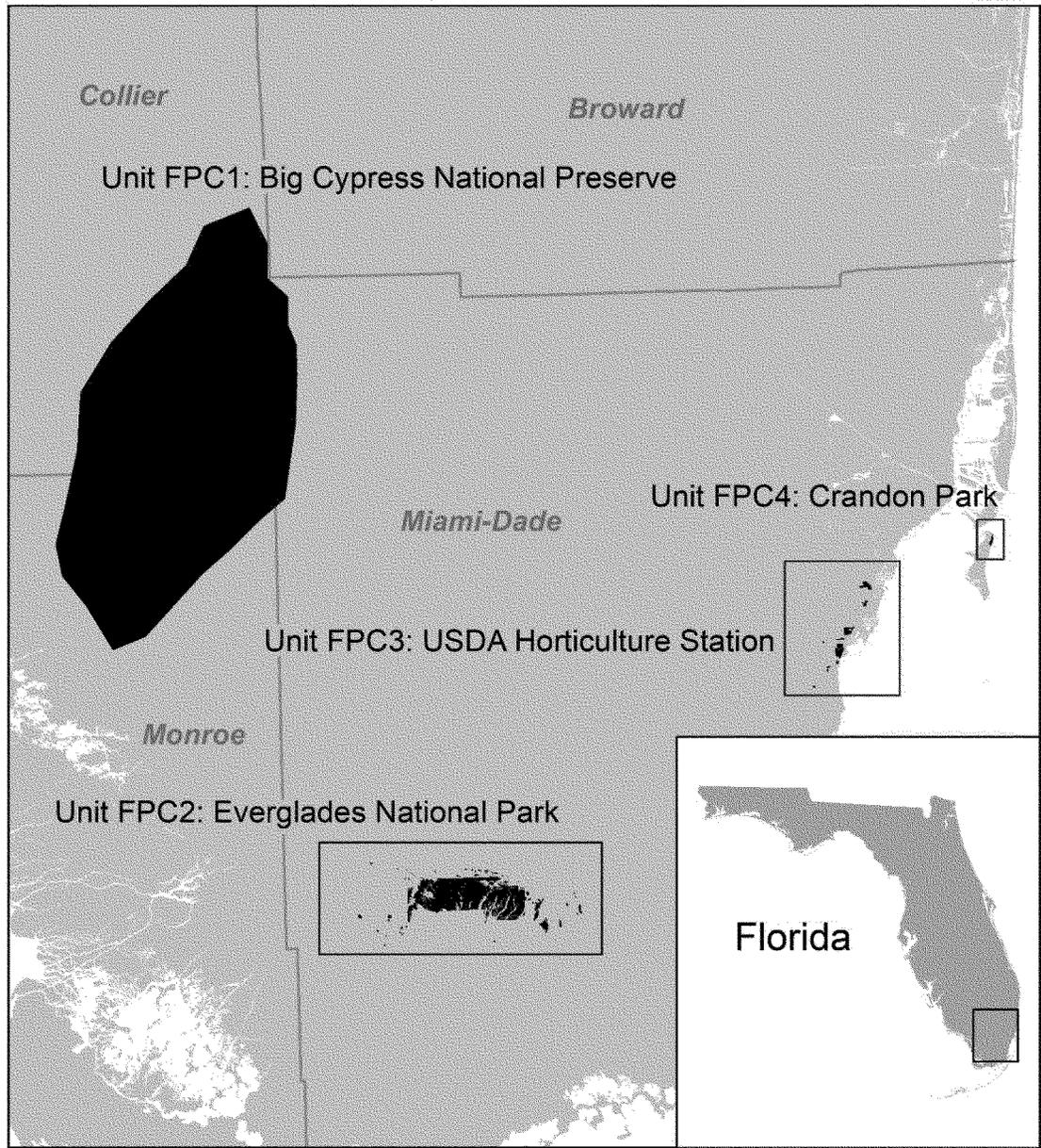
(4) Data layers defining map units were created using ESRI ArcGIS mapping software. The projection used was Albers Conical Equal Area (Florida Geographic Data Library), North American Datum (NAD) 1983 High Accuracy Reference Network (HARN). The maps in this entry, as modified by any accompanying regulatory 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 <https://www.fws.gov/office/florida-ecological-services>, at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2022-0125,

and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map of all critical habitat units for Florida prairie-clover follows: Figure 1 to Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover) paragraph (5)

### Index Map of Critical Habitat Units for Florida Prairie-Clover (*Dalea carthagenensis* var. *floridana*) Collier, Monroe, and Miami-Dade Counties, Florida



■ Critical Habitat  
■ Land



0 4 8 16 Miles

(6) FPC1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida.

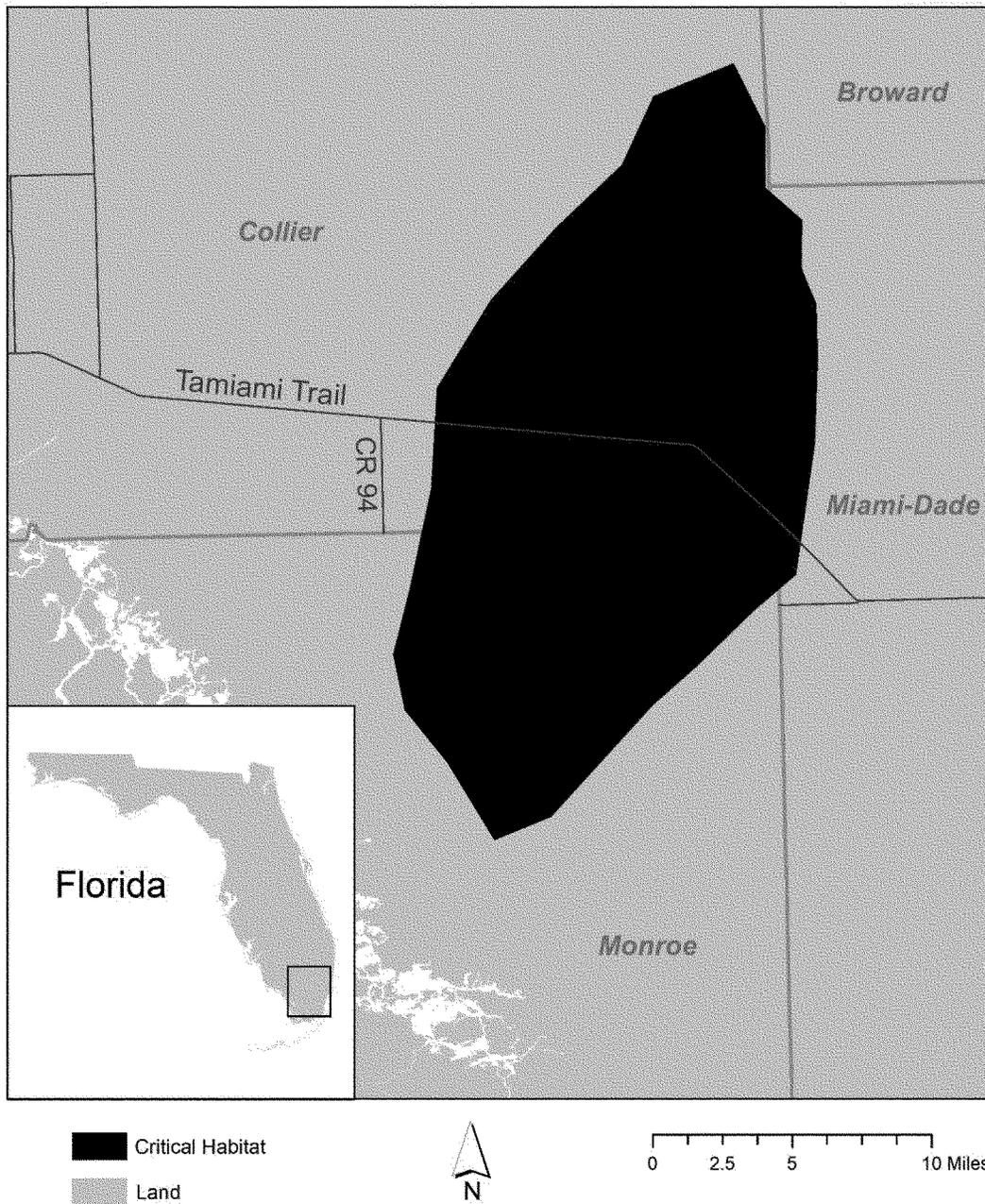
(i) Unit FPC1 consists of approximately 169,885 acres (ac)

(68,750 hectares (ha)) in Collier, Miami-Dade, and Monroe County, Florida. The unit is comprised of lands primarily in Big Cypress National Preserve.

(ii) Map of Unit FPC1 follows:

Figure 2 to Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover) paragraph (6)(ii)

**Map of Critical Habitat Unit FPC1: Big Cypress National Preserve  
Florida Prairie-Clover (*Dalea carthagenensis* var. *floridana*)  
Collier, Monroe, and Miami-Dade Counties, Florida**



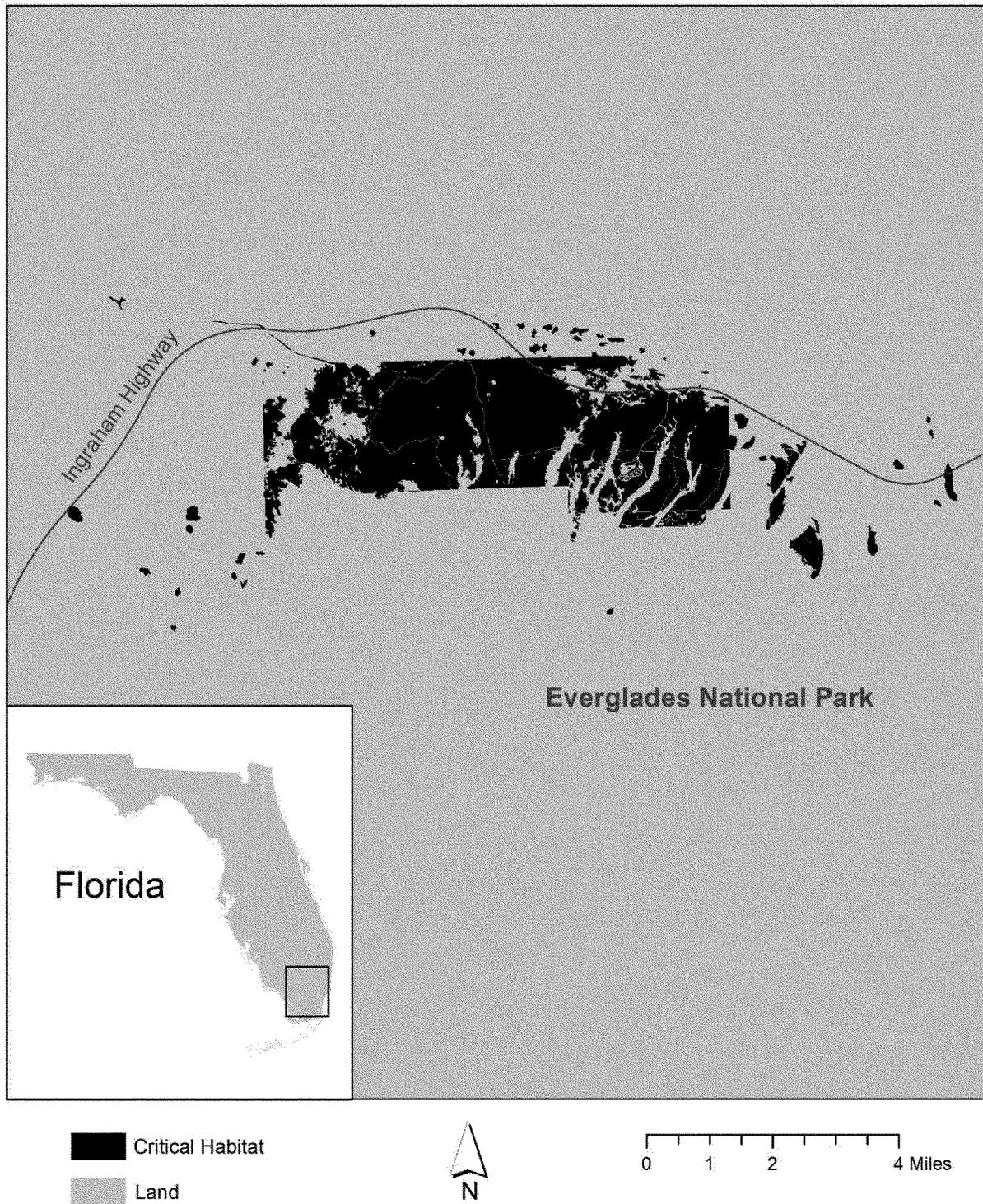
(7) FPC2: Everglades National Park, Miami-Dade County, Florida.

(i) Unit FPC2 consists of approximately 8,728 ac (3,532 ha) in

Miami-Dade County, Florida. This unit is comprised of lands on Long Pine Key and surrounding areas in Everglades National Park.

(ii) Map of Unit FPC2 follows:  
Figure 3 to Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover) paragraph (7)(ii)

# Map of Critical Habitat Unit FPC2: Everglades National Park Florida Prairie-Clover (*Dalea carthagenensis* var. *floridana*) Miami-Dade County, Florida

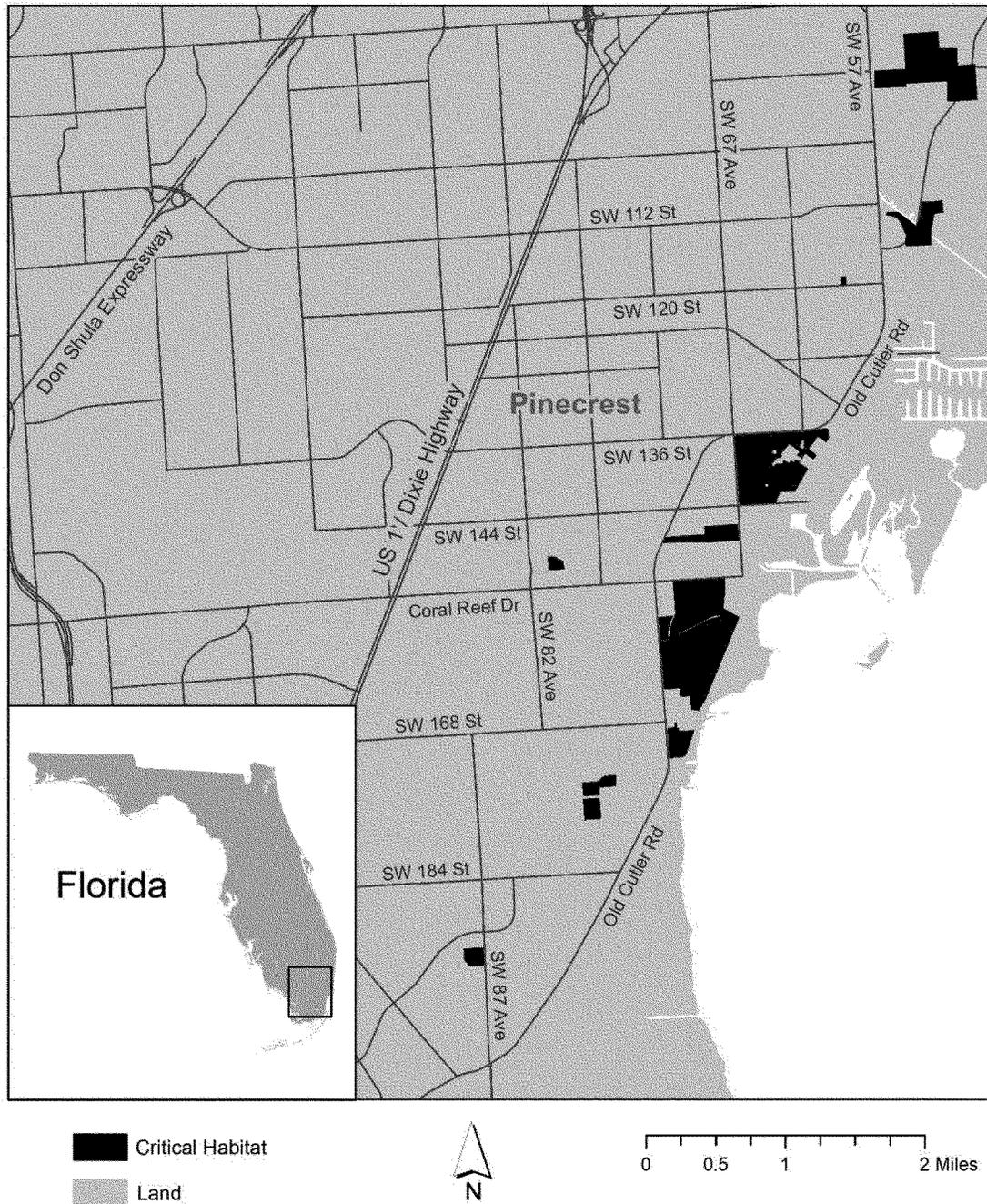


(8) FPC3: U.S. Department of Agriculture Subtropical Horticultural Research Station and surrounding areas, Miami-Dade County, Florida.

(i) Unit FPCG3 consists of approximately 630 ac (255 ha) of habitat in Miami-Dade County, Florida.  
(ii) Map of Unit FPC3 follows:

Figure 4 to Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover) paragraph (8)(ii)

## Map of Critical Habitat Unit FPC3: USDA Horticulture Station Florida Prairie-Clover (*Dalea carthagenensis* var. *floridana*) Miami-Dade County, Florida



(9) Unit FPC4: Grandon Park, Miami-Dade County, Florida.

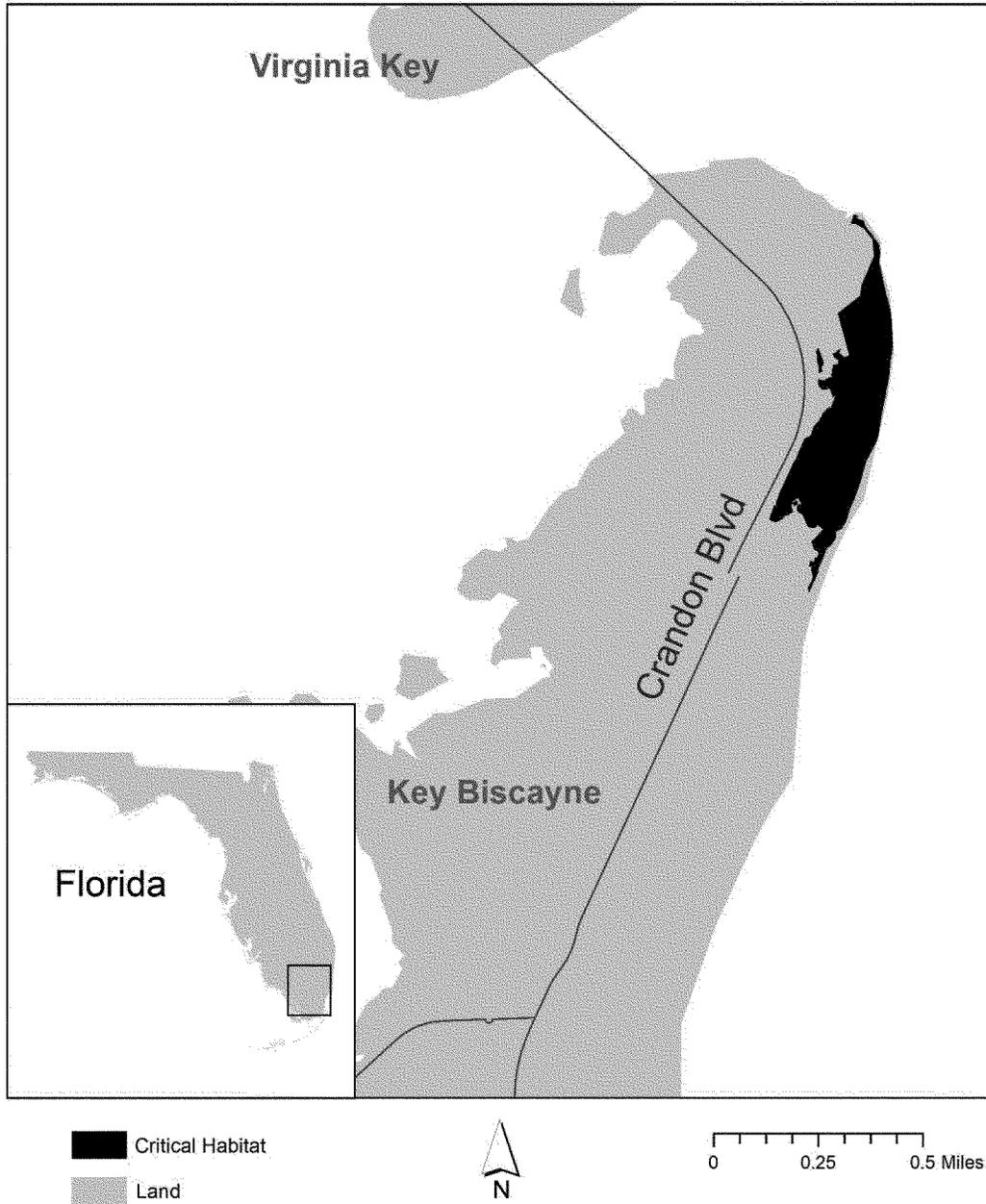
(i) Unit FPC4 consists of approximately 57 ac (23 ha) in Miami-Dade County, Florida. The unit includes coastal berm and rockland hammock on

the east side of County Road 913 to the shoreline, from the vicinity of the Marjorie Stoneman Douglas Biscayne Nature Center to near the northern tip of the island.

(ii) Map of Unit FPC4 follows:

Figure 5 to Family Fabaceae: *Dalea carthagenensis* var. *floridana* (Florida prairie-clover) paragraph (9)(ii)

Map of Critical Habitat Unit FPC4: Crandon Park  
 Florida Prairie-Clover (*Dalea carthagenensis* var. *floridana*)  
 Miami-Dade County, Florida



\* \* \* \* \*

Family Poaceae: *Digitaria pauciflora*  
 (Florida pineland crabgrass)

(1) Critical habitat units are depicted for Collier, Miami-Dade, and Monroe Counties, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Florida pineland crabgrass are South Florida pine rockland, marl prairie, and adjacent ecotonal areas:

(i) Consisting of calcareous limestone substrate (often exposed with little soil development) that provides nutritional requirements and suitable growing conditions (e.g., pH, nutrients, anchoring, and drainage);

(ii) Characterized by an open to semi-open canopy and understory with a high proportion of native plant species to provide for sufficient sunlight to permit growth and flowering;

(iii) Subjected to a monthly mean temperature characteristic of the

subtropical humid classification in Miami-Dade County or the tropical humid classification in Collier and Monroe Counties and short hydroperiods ranging up to 60 days each year;

(iv) Subjected to periodic natural (e.g., hurricanes, fire) or unnatural (e.g., prescribed fire) disturbance regimes to maintain open canopy conditions; and

(v) Containing the presence of native pollinators for natural pollination and reproduction.

(3) Critical habitat does not include human-made 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 the effective date of the final rule.

(4) Data layers defining map units were created using ESRI ArcGIS mapping software. The projection used was Albers Conical Equal Area (Florida Geographic Data Library), North

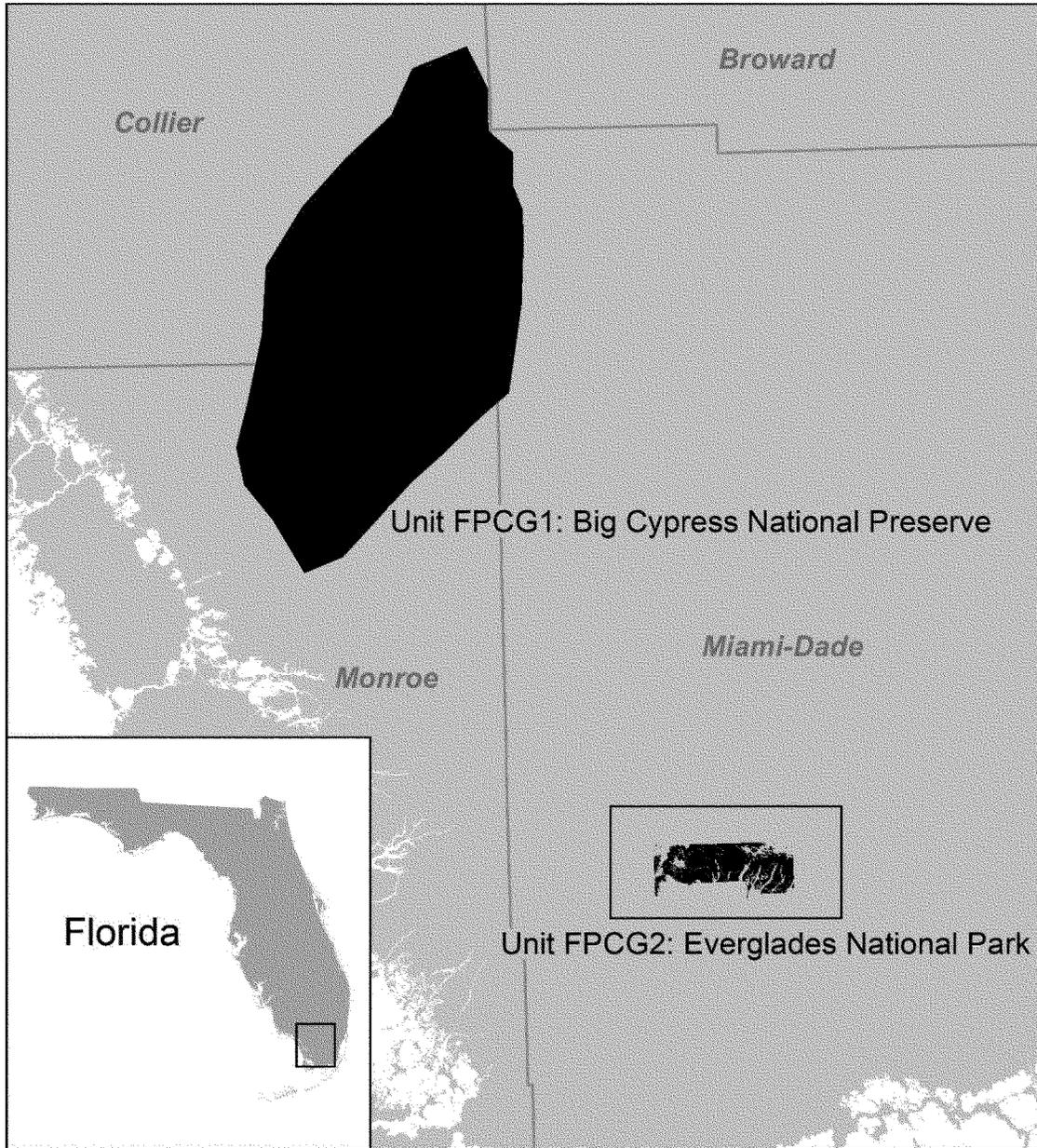
American Datum (NAD) 1983 High Accuracy Reference Network (HARN). The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site at <https://www.fws.gov/office/florida-ecological-services>, at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2022-0125,

and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map of all critical habitat units for Florida pineland crabgrass follows:

Figure 1 to Family Poaceae: *Digitaria pauciflora* (Florida pineland crabgrass) paragraph (5)

### Index Map of Critical Habitat Units for Florida Pineland Crabgrass (*Digitaria pauciflora*) Collier, Monroe, and Miami-Dade Counties, Florida



Critical Habitat  
 Land



0 3.5 7 14 Miles

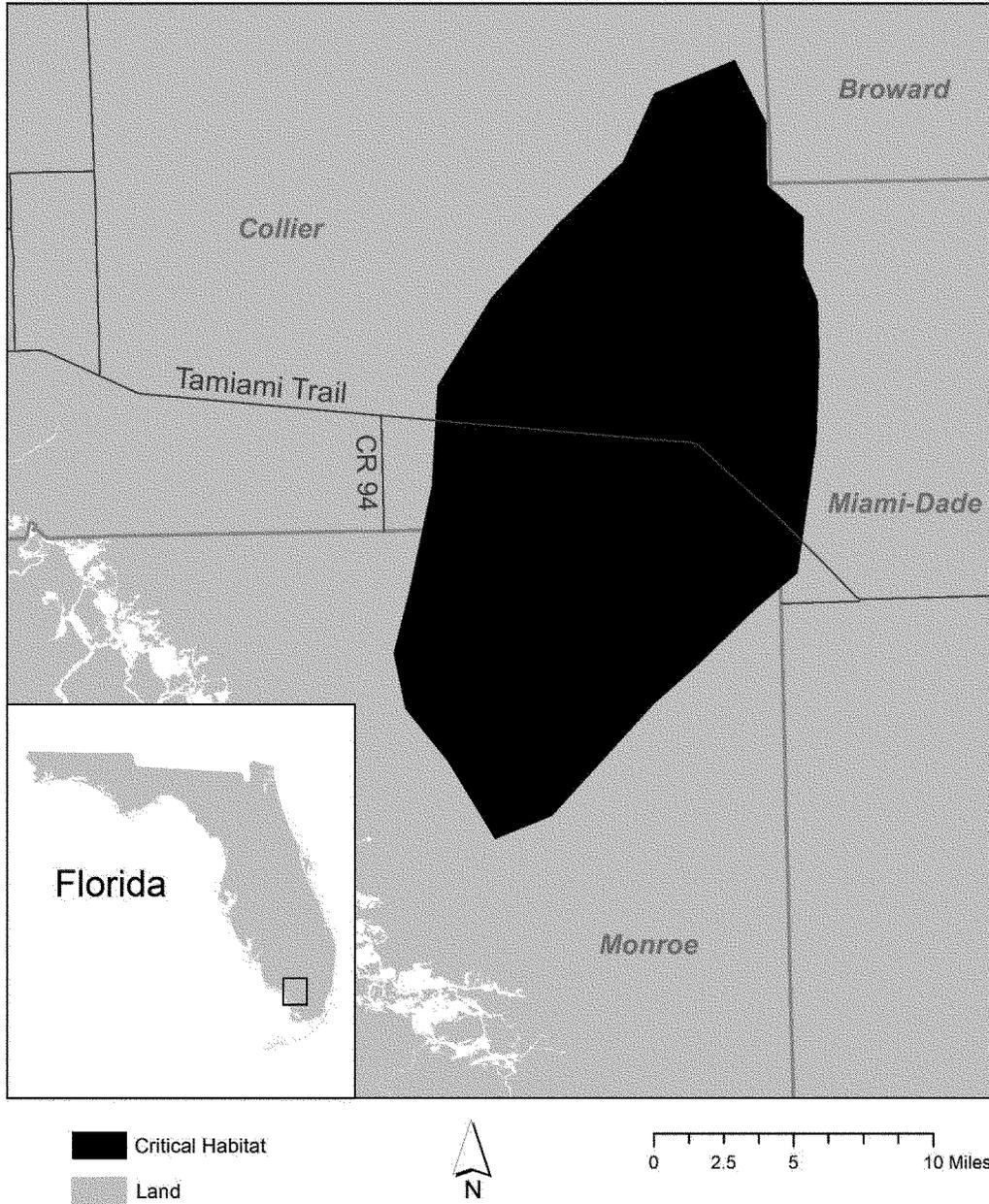
(6) FPCG1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida.

(i) Unit FPCG1 consists of approximately 169,885 acres (ac)

(68,750 hectares (ha)) in Collier, Miami-Dade, and Monroe Counties, Florida. This unit is comprised of lands primarily in Big Cypress National Preserve.

(ii) Map of Unit FPCG1 follows: Figure 2 to Family Poaceae: *Digitaria pauciflora* (Florida pineland crabgrass) paragraph (6)(ii)

### Map of Critical Habitat Unit FPCG1: Big Cypress National Preserve Florida Pineland Crabgrass (*Digitaria pauciflora*) Collier, Monroe, and Miami-Dade Counties, Florida



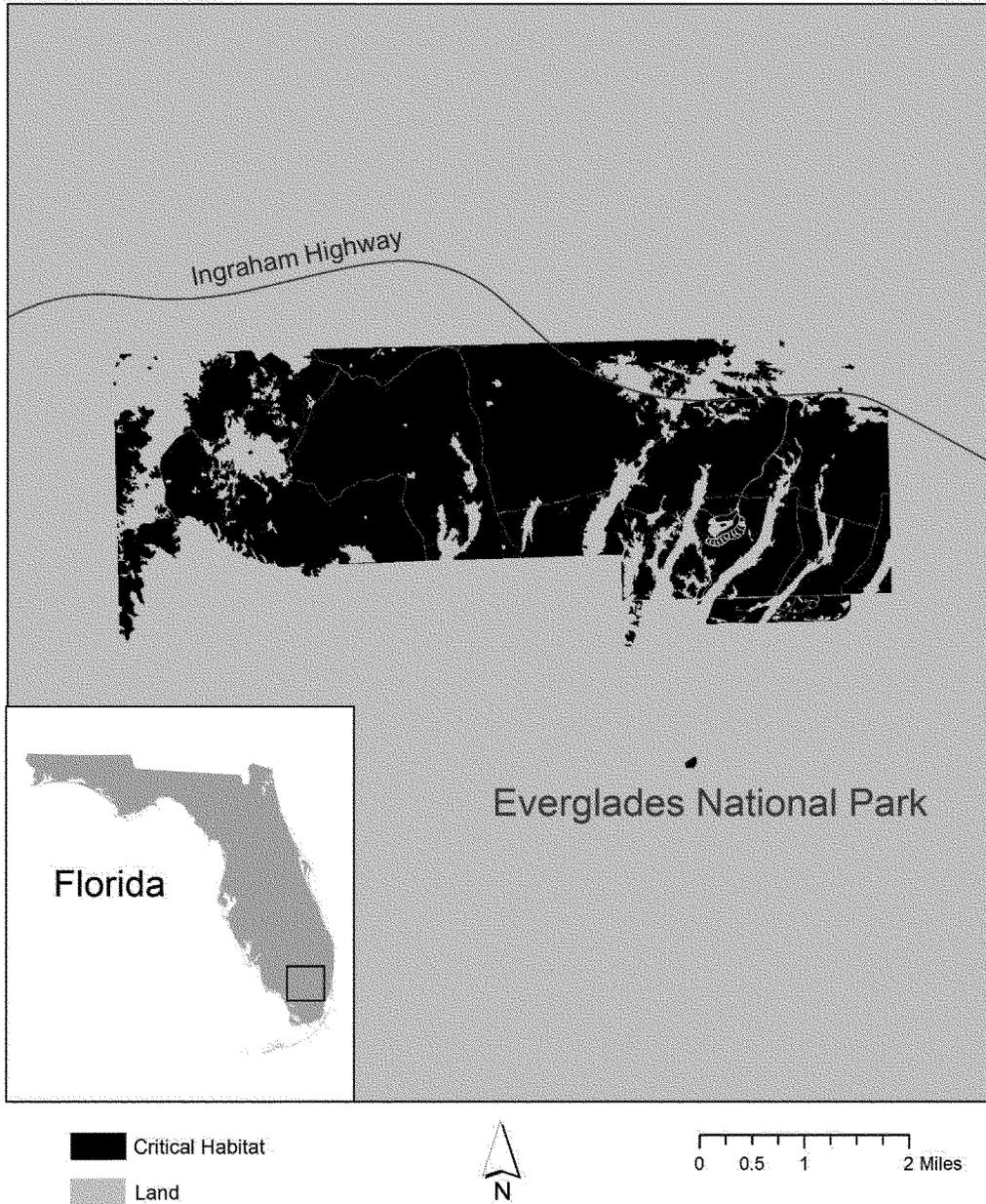
(7) FPCG2: Everglades National Park, Monroe County, Florida.

(i) Unit FPCG2 consists of approximately 7,994 ac (3,235 ha) in

Miami-Dade County, Florida. This unit is comprised of lands on Long Pine Key and surrounding areas in Everglades National Park.

(ii) Map of Unit FPCG2 follows: Figure 3 to Family Poaceae: *Digitaria pauciflora* (Florida pineland crabgrass) paragraph (7)(ii)

## Map of Critical Habitat Unit FPCG2: Everglades National Park Florida Pineland Crabgrass (*Digitaria pauciflora*) Miami-Dade County, Florida



\* \* \* \* \*

Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully)

(1) Critical habitat units are depicted for Collier, Miami-Dade, and Monroe Counties, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the Everglades bully are South Florida pine rockland, marl prairie, and adjacent ecotonal areas:

(i) Consisting of calcareous limestone substrate (often exposed with little soil development) that provides nutritional requirements and suitable growing conditions (e.g., pH, nutrients, anchoring, and drainage);

(ii) Characterized by an open to semi-open canopy and understory with a high proportion of native plant species to provide for sufficient sunlight to permit growth and flowering;

(iii) Subjected to a monthly mean temperature characteristic of the subtropical humid classification in

Miami-Dade County or the tropical humid classification in Collier and Monroe Counties and short hydroperiods ranging up to 60 days each year;

(iv) Subjected to periodic natural (e.g., hurricanes, fire) or unnatural (e.g., prescribed fire) disturbance regimes to maintain open canopy conditions; and

(v) Containing the presence of native pollinators for natural pollination and reproduction.

(3) Critical habitat does not include human-made 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 the effective date of the final rule.

(4) Data layers defining map units were created using ESRI ArcGIS mapping software. The projection used was Albers Conical Equal Area (Florida Geographic Data Library), North American Datum (NAD) 1983 High Accuracy Reference Network (HARN).

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 <https://www.fws.gov/office/florida-ecological-services/library>, at <https://www.regulations.gov> at Docket No. FWS-R4-ES-2022-0125, and at the field office responsible for this

designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index maps of all critical habitat units for Everglades bully follows:

Figure 1 to Family Sapotaceae:  
*Sideroxylon reclinatum* ssp.  
*austrofloridense* (Everglades bully)  
paragraph (5)

**Index Map 1 of Critical Habitat Units for Everglades Bully  
(*Sideroxylon reclinatum* ssp. *austrofloridense*)  
Collier, Monroe, and Miami-Dade Counties, Florida**

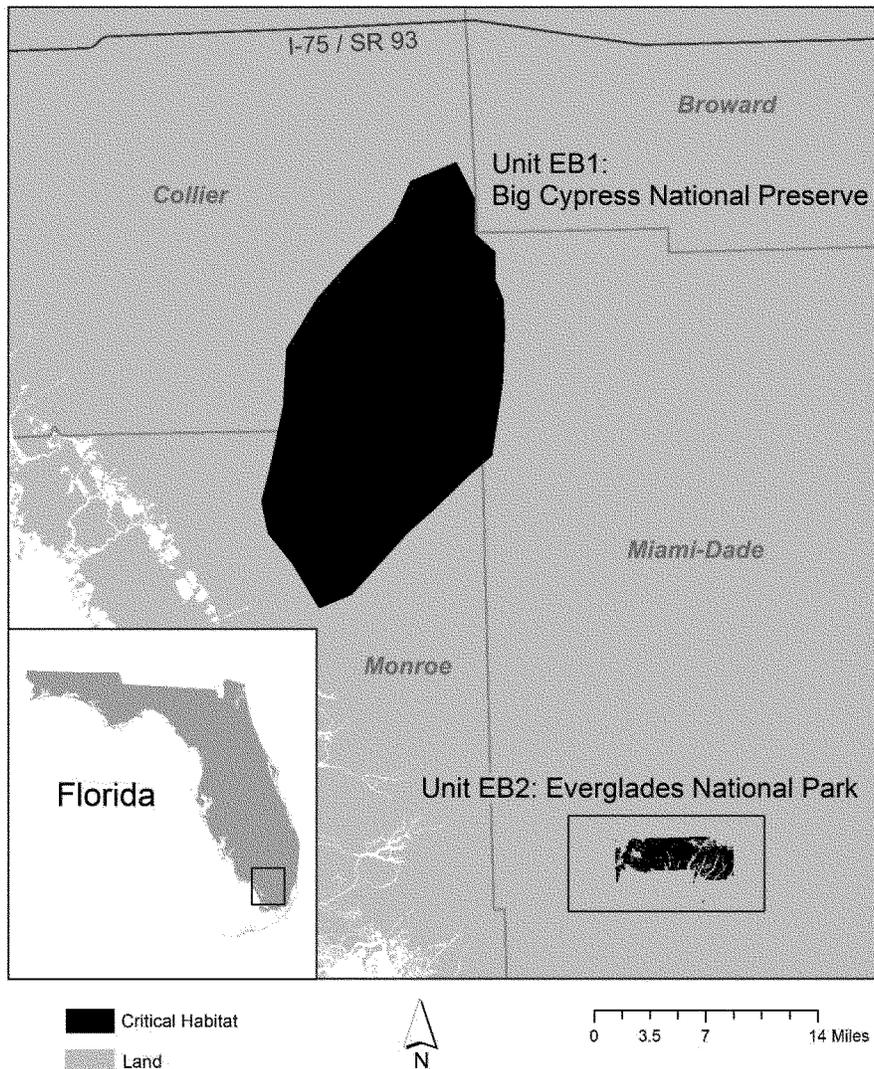
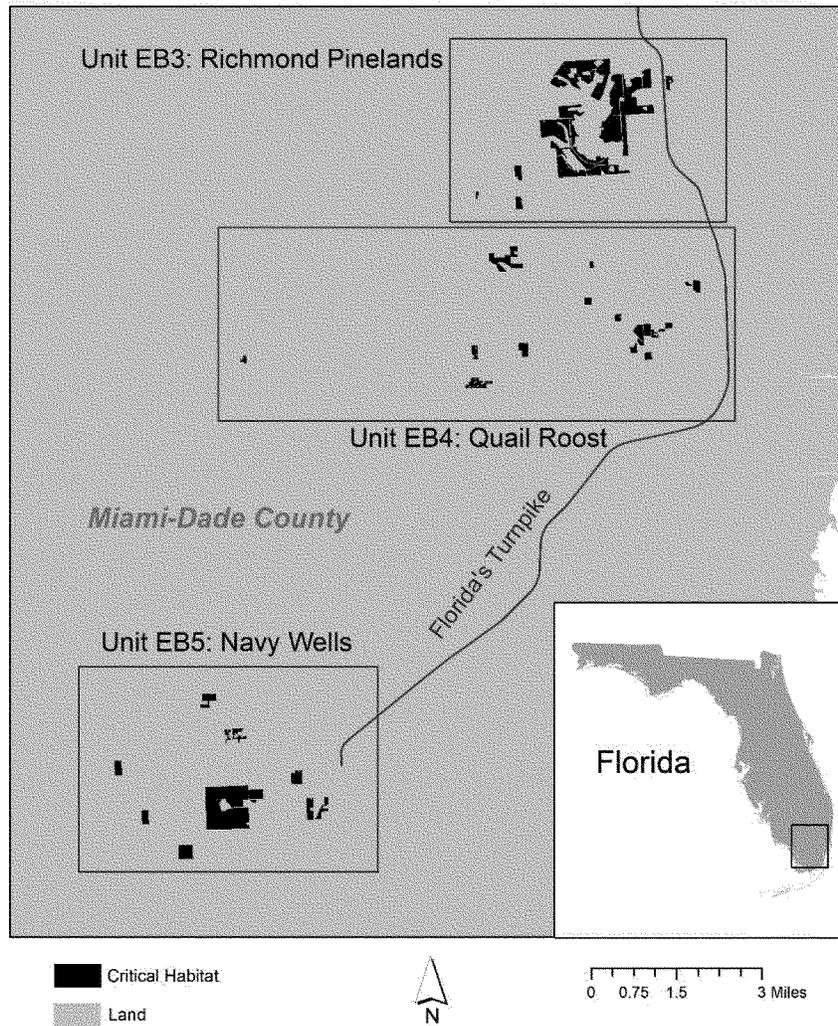


Figure 2 to Family Sapotaceae:  
*Sideroxylon reclinatum* ssp.

*austrofloridense* (Everglades bully)  
paragraph (5)

Index Map 2 of Critical Habitat Units for Everglades Bully  
*(Sideroxylon reclinatum ssp. austrofloridense)*  
 Miami-Dade County, Florida



(6) Unit EB1: Big Cypress National Preserve, Collier, Miami-Dade, and Monroe Counties, Florida.

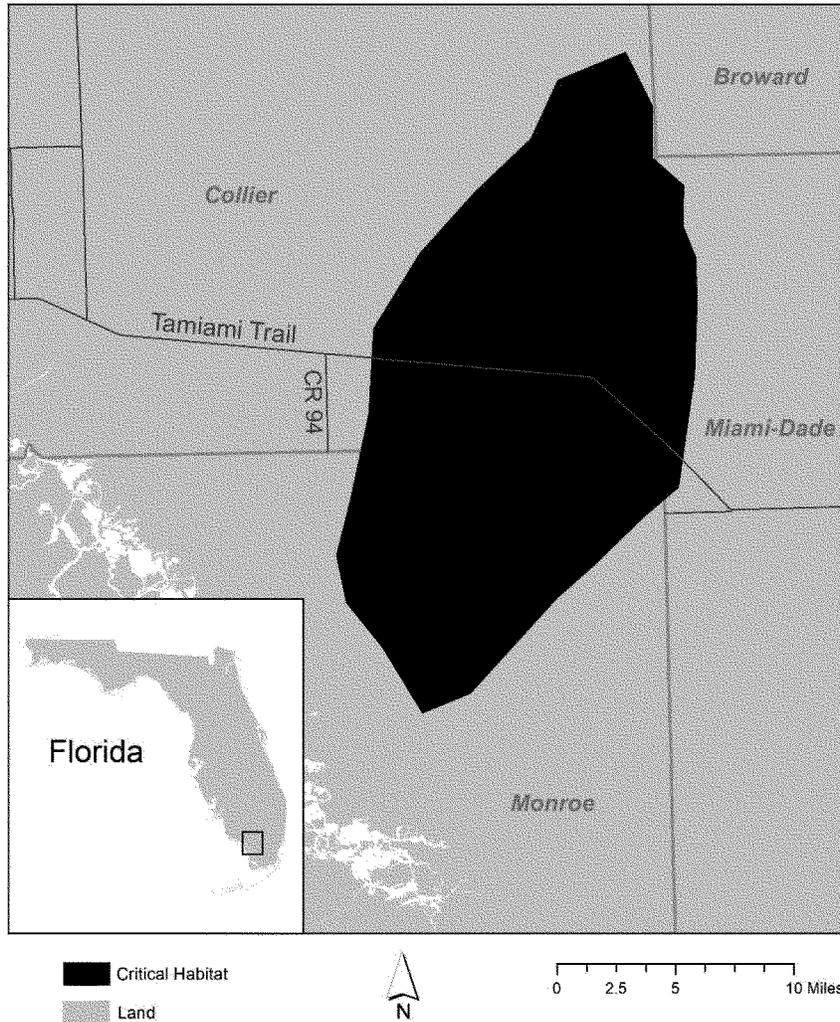
(i) Unit EB1 consists of 169,885 ac (68,750 ha) in Collier, Miami-Dade, and

Monroe County, Florida. The unit is comprised of lands primarily in Big Cypress National Preserve.

(ii) Map of Unit EB1 follows:

Figure 3 to Family Sapotaceae: *Sideroxylon reclinatum ssp. austrofloridense* (Everglades bully) paragraph (6)(ii)

Map of Critical Habitat Unit EB1: Big Cypress National Preserve  
 Everglades Bully (*Sideroxylon reclinatum* ssp. *austrofloridense*)  
 Collier, Monroe, and Miami-Dade Counties, Florida



(7) Unit EB2: Everglades National Park, Miami-Dade County, Florida.

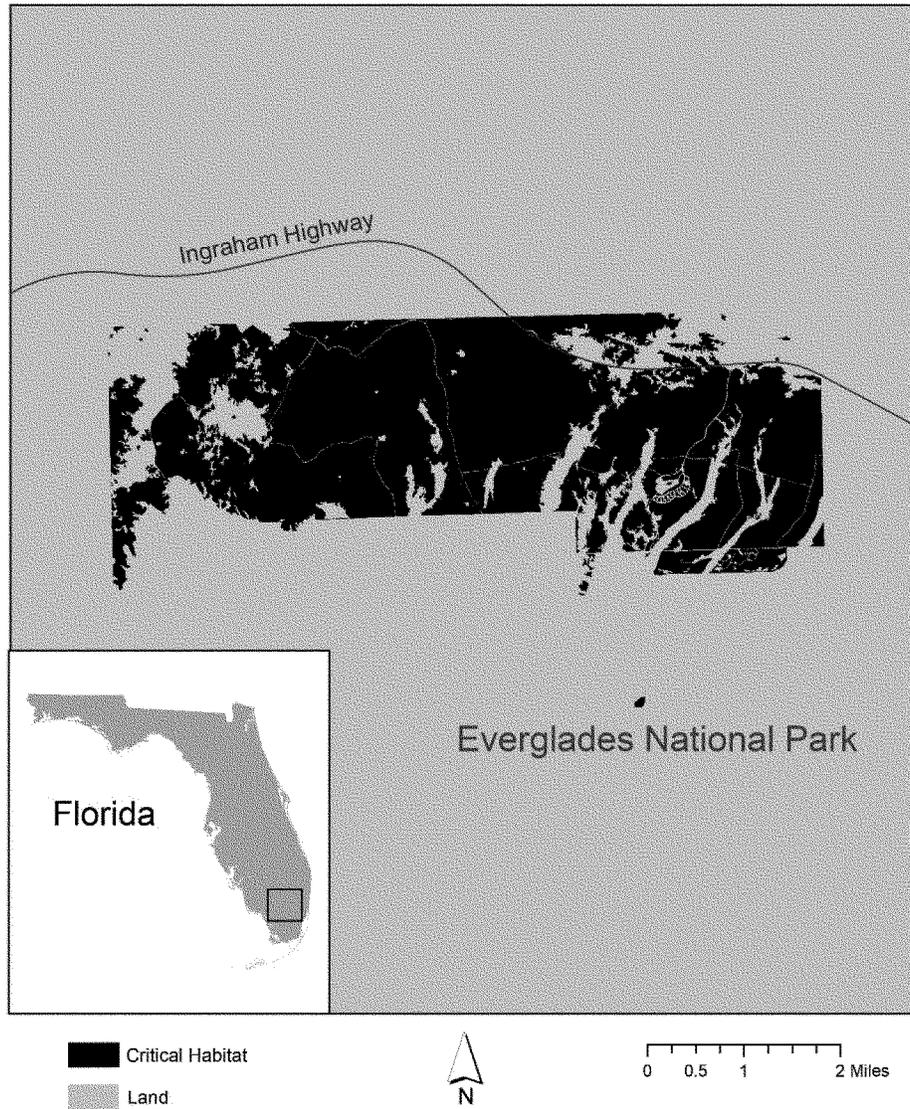
(i) Unit EB2 consists of approximately 7,994 ac (3,235 ha) in Miami-Dade County, Florida. This unit is comprised

of lands on Long Pine Key and surrounding areas in Everglades National Park.

(ii) Map of Unit EB2 follows:

Figure 4 to Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully) paragraph (7)(ii)

Map of Critical Habitat Unit EB2: Everglades National Park  
 Everglades Bully (*Sideroxylon reclinatum* ssp. *austrofloridense*)  
 Miami-Dade County, Florida



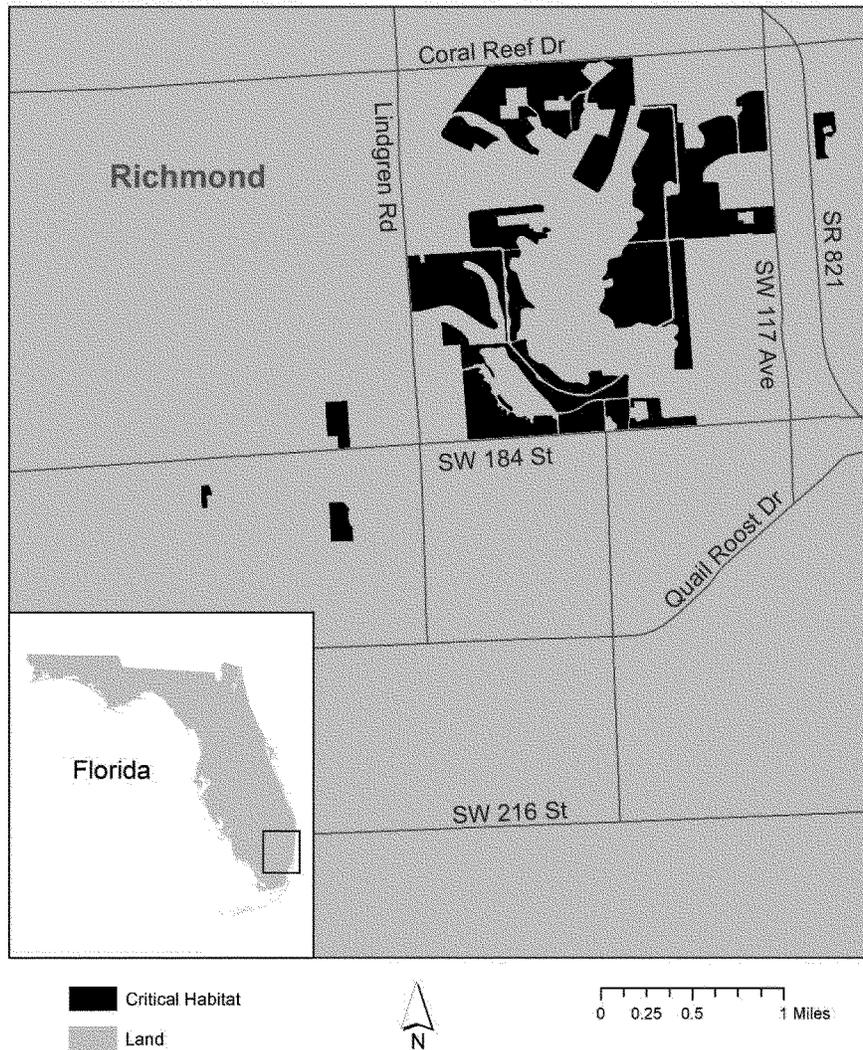
(8) Unit EB3: Richmond Pinelands and surrounding areas, Miami-Dade County, Florida.

(i) Unit EB3 consists of approximately 987 ac (399 ha) in Miami-Dade County, Florida. This unit is bordered on the

north by SW 152 Street (Coral Reef Drive), on the south by SW 200 St (Quail Drive/SR 994), on the east by U.S. 1 (South Dixie Highway), and on the west by SW 177 Avenue (Krome Avenue).

(ii) Map of Unit EB3 follows: Figure 5 to Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully) paragraph (8)(ii)

Map of Critical Habitat Unit EB3: Richmond Pinelands  
 Everglades Bully (*Sideroxylon reclinatum* ssp. *austrofloridense*)  
 Miami-Dade County, Florida



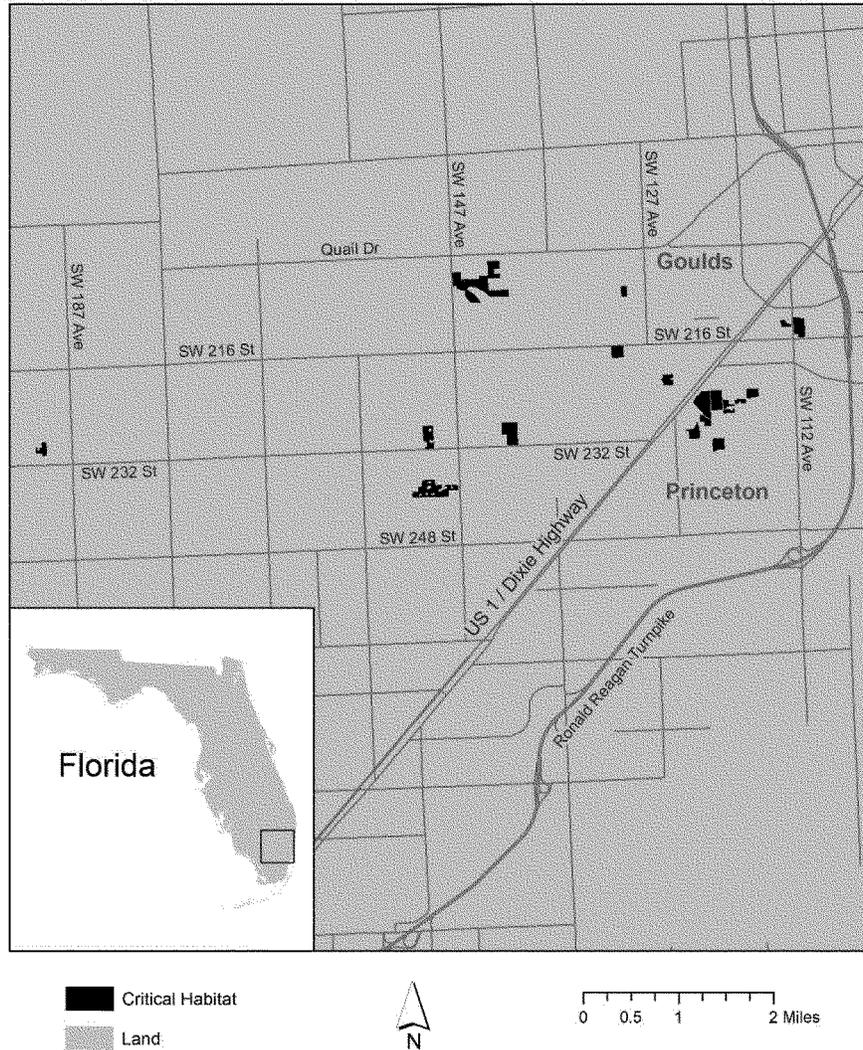
(9) Unit EB4: Quail Roost Pineland and surrounding areas, Miami-Dade County, Florida.

(i) Unit EB4 consists of approximately 256 ac (104 ha) in Miami-Dade County,

Florida. This unit is bordered on the north by SW 200 St (Quail Drive/SR 994), on the south by SW 248 Street, on the east by the Florida Turnpike, and on the west by SW 194 Avenue.

(ii) Map of Unit EB4 follows: Figure 6 to Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrofloridense* (Everglades bully) paragraph (9)(ii)

Map of Critical Habitat Unit EB4: Quail Roost  
 Everglades Bully (*Sideroxylon reclinatum* ssp. *austrifloridense*)  
 Miami-Dade County, Florida



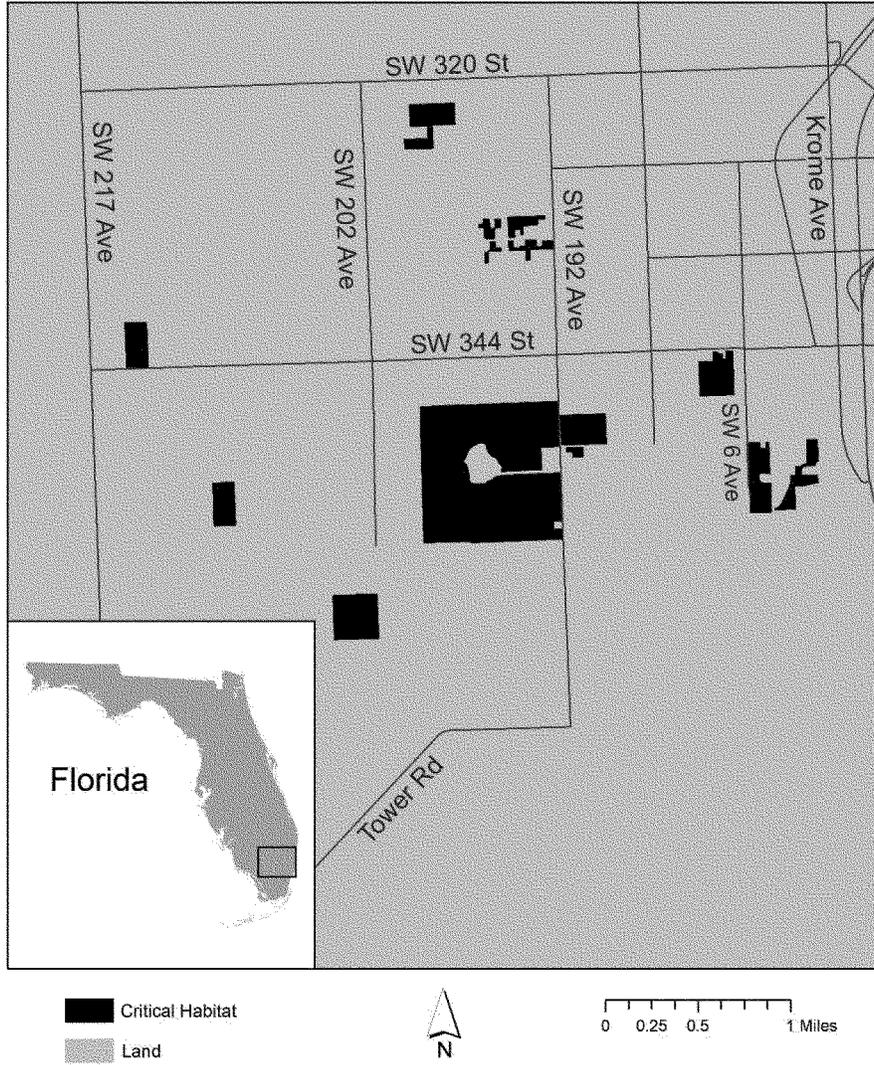
(10) Unit EB5: Navy Wells Pineland Preserve and surrounding areas, Miami-Dade County, Florida.

(i) Unit EB5 consists of approximately 558 ac (226 ha) of habitat in Miami-

Dade County, Florida. This unit is bordered on the north by SW 320 Street, on the south by SW 368 Street, on the east by U.S. 1 (South Dixie Highway), and on the west by SW 217 Avenue.

(ii) Map of Unit EB5 follows: Figure 7 to Family Sapotaceae: *Sideroxylon reclinatum* ssp. *austrifloridense* (Everglades bully) paragraph (10)(ii)

Map of Critical Habitat Unit EB5: Navy Wells  
Everglades Bully (*Sideroxylon reclinatum* ssp. *austrofloridense*)  
Miami-Dade County, Florida



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**Madonna Baucum,**  
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*Fish and Wildlife Service.*  
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