

Core Map Documentation for the Florida Brickell-Bush (*Brickellia mosieri*)

ArcGIS Pro 3.3 was used to perform all spatial operations.

Draft Core Map Developer: Tessengerlo Kerley Inc./GESTF

Date Uploaded to EPA's GeoPlatform: October 2025

This core map has been reviewed by the U.S Fish and Wildlife Service (FWS)

EPA Review Notes

The developers created this core map using the U.S. Environmental Protection Agency's (EPA) process available at: <https://www.epa.gov/endangered-species/process-epa-uses-develop-core-maps-pesticide-use-limitation-areas>. EPA reviewed the draft core map and documentation and evaluated if: (1) the map and documentation are consistent with the agency's process; (2) areas included or excluded from the core map are consistent with the biology, habitat, and/or recovery needs of the species; (3) data sources are documented and appropriate; and (4) the GIS data and mapping process are consistent with the stated intention of the developer. EPA agrees that this map is a reasonable depiction of core areas for this species and was consistent with the agency's mapping process. This documentation was not prepared by EPA, and EPA may have edited this documentation for clarity or other purposes. Some views included in this documentation may not necessarily be the views of EPA or its staff.

The core map developed for this species has been reviewed by FWS species expert. EPA intends to use this core map to develop pesticide use limitation areas (PULAs). This core map incorporates information developed by FWS and made available to the public as well as input from FWS species expert. This core map may be revised in the future as additional relevant information becomes available.

This core map does not replace or revise any range or designated critical habitat developed by FWS.

Basis for Core Map: The draft PULA map for this species is based on critical habitat.

Level of Best Professional Judgement (EPA scale): 2-Limited; the core map is based on critical habitat. Some areas of the species range are not included in the core based on review of the species data.

Uncertainties/Needs: No major data gaps. FWS species lead has confirmed that critical habitat should be the core map.

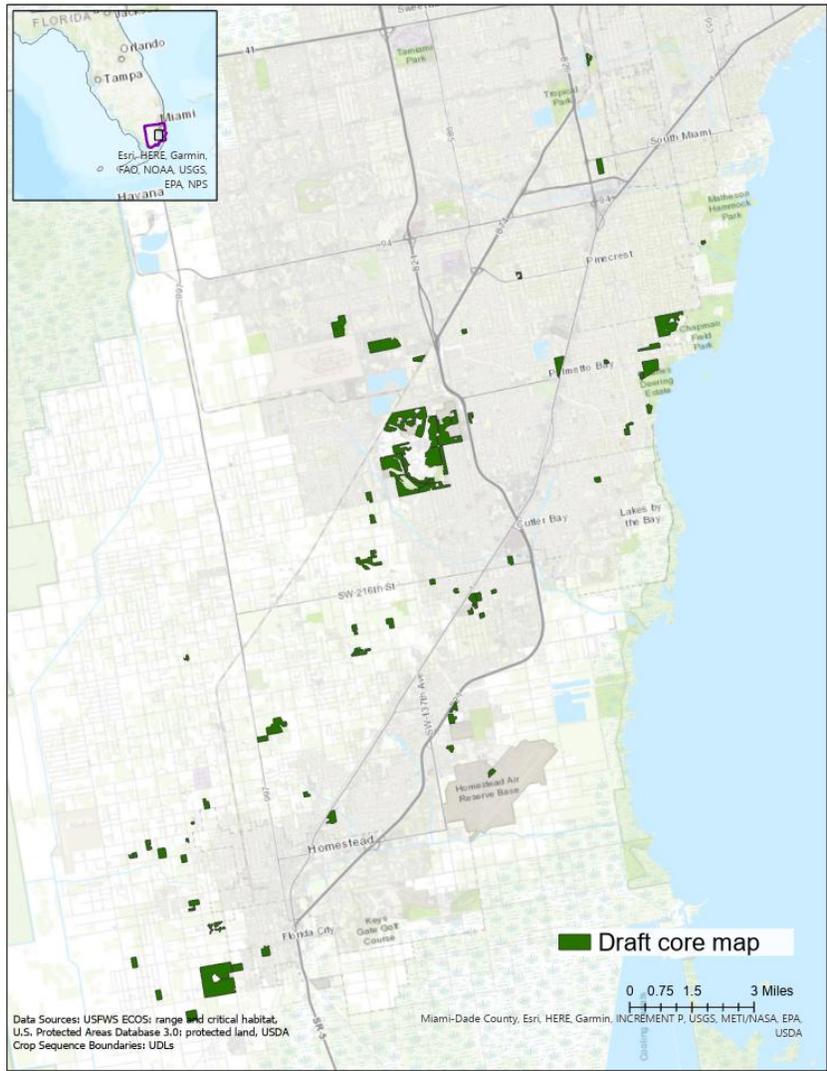


Figure 1. Core map for the Florida brickell-bush based on critical habitat.

Percentage of Core Map Represented by NLCD¹ Land Covers and Associated Example Pesticide Use Sites/Types

Example pesticide use sites/types	NLCD Class/Value	% Area	Total area for landcover type
Forestry	Deciduous Forest (41)	0	15
Forestry	Evergreen Forest (42)	15	15
Forestry	Mixed Forest (43)	0	15
Agriculture	Pasture/Hay (81)	0	26
Agriculture	Cultivated Crops (82)	26	26
Mosquito adulticide, residential	Open space, developed (21)	27	43
Mosquito adulticide, residential	Developed, Low intensity (22)	14	43
Mosquito adulticide, residential	Developed, Medium intensity (23)	2	43
Mosquito adulticide, residential	Developed, High intensity (24)	0	43
Invasive species control	Woody Wetlands (90)	12	14
Invasive species control	Emergent Herbaceous Wetlands (95)	0	14
Invasive species control	Open water (11)	0	14
Invasive species control	Grassland/herbaceous (71)	0	14
Invasive species control	Scrub/shrub (52)	2	14
Invasive species control	Barren land (rock/sand/clay; 31)	0	14
Total Acres	Core Map Acres	~ 2,637 acres	

¹ Dewitz, J., 2023, National Land Cover Database (NLCD) 2021 Products: U.S. Geological Survey data release, <https://doi.org/10.5066/P9JZ7AO3>

Key Core Area Inputs

Sourced from most up-to-date documentation available on [ECOS](#).

Habitat	Descriptions/Datasets
Range	Last updated 2022
Critical habitat	Designated 2015. Consists of pine rockland habitat outside of Everglades National Park
Suitable habitat	Pine rockland habitat outside of Everglades National Park in Miami-Dade County, Florida
Known locations (General Descriptions)	2023 5-yr review: 14 populations currently considered extant, as well as several populations categorized as “possibly extant” and “presumed extant”
Element occurrences	Global Biodiversity Information Facility (GBIF), iNaturalist, and NatureServe were searched for occurrence data, however the occurrences found did not impact the core map.

Datasets Used in Core Map Development

- ECOS Datasets:
 - Most recent species range: https://ecos.fws.gov/docs/species/shapefiles/usfws_Q09E_P01_Brickellia_mosieri_current_range.zip
 - Most recent species critical habitat downloaded via aggregate feature class, current update status checked on individual species page: https://ecos.fws.gov/docs/crithab/zip/FCH_Brickellia_mosieri_20150817.zip
 - Florida Brickell-bush (*Brickellia mosieri*) 5-Year Status Review: 2023 https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/9516.pdf
- Other GIS Datasets:
 - Florida Cooperative Landcover dataset v3.7 <https://myfwc.com/research/gis/wildlife/cooperative-land-cover/>

Deciding Factors for Core Map Formation

- The range is county-wide, but species habitat only includes pine rockland.
- Critical habitat consists of pine rockland habitat outside of Everglades National Park in Miami-Dade County. Critical habitat correlates well with this species’ pine rockland habitat, as seen in Figure 2.
- FWS species expert has confirmed that critical habitat is appropriate to use as the core map.

Core Map Development

- Most recent species range and critical habitat shapefiles were downloaded from ECOS.
- Core map is the same as the critical habitat shapefile.

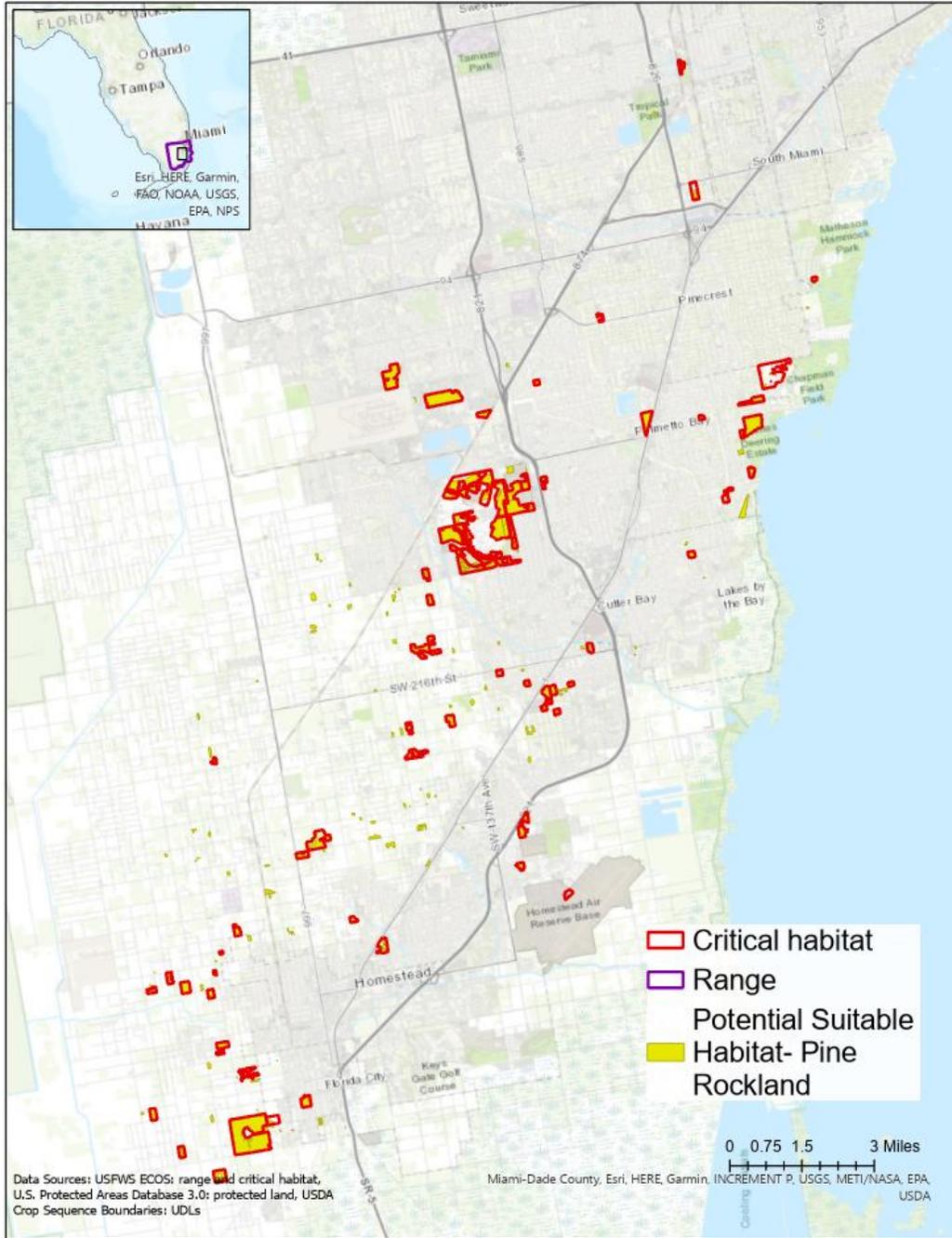


Figure 2. Critical habitat in relation to pine rockland suitable habitat.

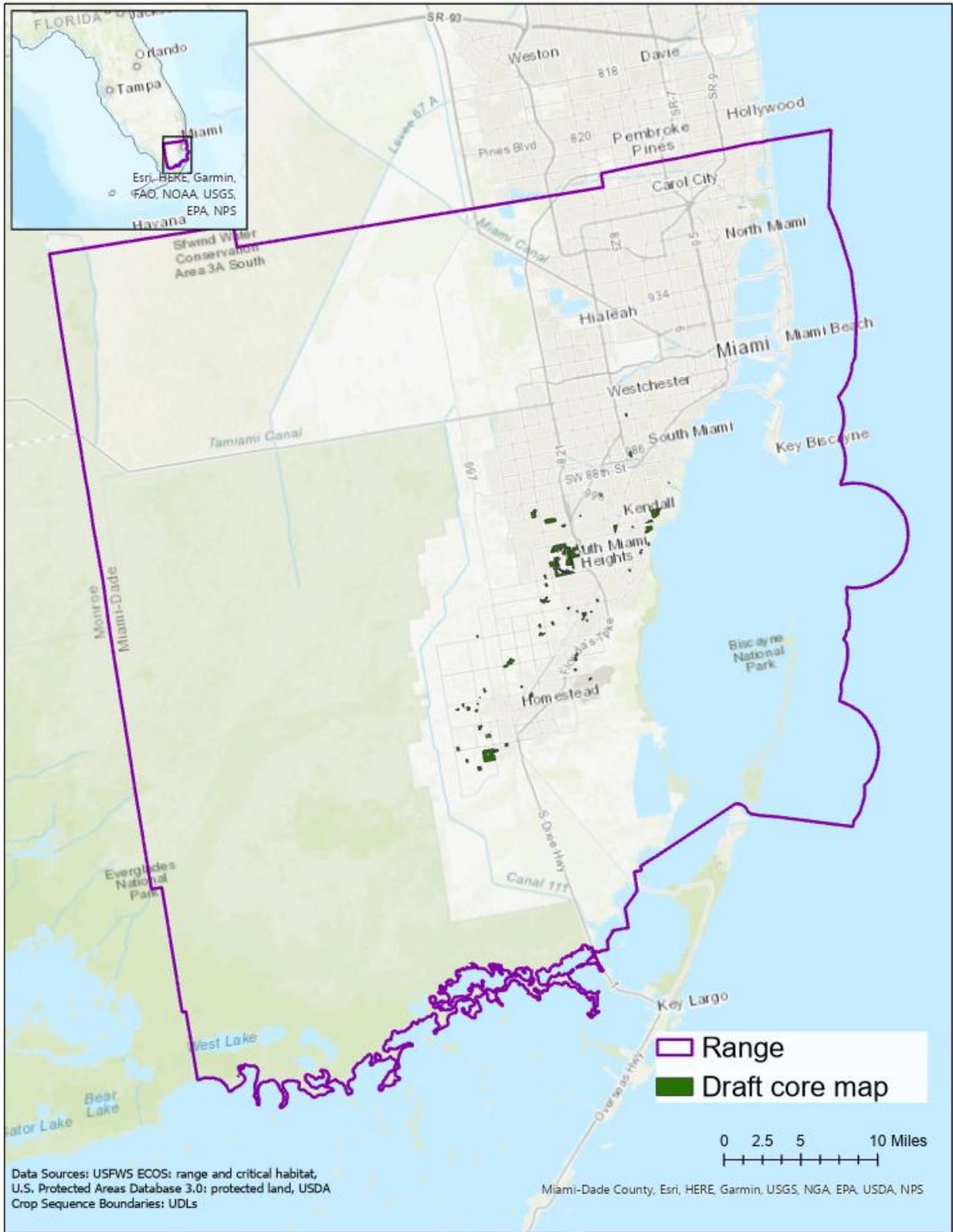


Figure 3. FBB range in relation to draft core map. Draft core map based on critical habitat.