

Interim Core Map Documentation for the Florida Skullcap

Version 1

Review Completed: August 2025

Core Map Developer: Compliance Services International (CSI) on behalf of Bayer CropScience.

Species Summary

The Florida skullcap (*Scutellaria floridana*; Entity ID 997) is a dicotyledonous threatened plant found in Florida. The U.S. Fish and Wildlife Service (FWS) has not assigned designated critical habitat for the Florida skullcap. This species primarily inhabits wet longleaf pine flatwoods and wet prairies within grassy seepage bog communities at the edge of forested or shrubby wetlands. Additional habitat information is provided in **Appendix 1**.

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 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 reflect the views of EPA or its staff.

The core map developed for this species can be used to develop pesticide use limitation areas (PULAs). This core map incorporates information developed by FWS and made available to the public. This core map may be revised in the future to incorporate species expert feedback from FWS and new data on this species as it becomes available.

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

Description of Core Map

The core map for the Florida skullcap is biological information type, based on known location information of the species and its range. The most recent 5-Year Review (FWS 2024) includes a map of areas where the species is known to occur. Additional known location information from iNaturalist, the Global Biodiversity Information Facility (GBIF) and NatureServe databases were useful for comparison purposes for these general locations included in the core map but were not otherwise used in core map development.

The core map developed in this document for the Florida skullcap spans 14,027 acres (Figure 1). A summary of acreage

by National Landcover Database (NLCD 2021) land use type is provided in

Table 1.

Based on EPA’s “best professional judgment classification” system, CSI has graded this core map as “moderate” because assumptions were made when connecting species life history and/or biological needs (habitat preferences) to a Geographical Information System (GIS) dataset, in this case the LANDFIRE dataset (LANDFIRE 2023). The species inhabits wet longleaf pine flatwoods and wet prairie areas; the LANDFIRE Existing Vegetation type (EVT) layer was queried for all classes with one or more of the words “bog,” “flatwoods,” and “savanna.” Further review also added the “East Gulf Coastal Plain Wet Prairie” class. Additionally, some areas of occupancy were represented using a partly manual approach, identifying point locations before applying geoprocessing techniques. More information about this classification system and its definitions can be found in the core map process document (EPA 2024).

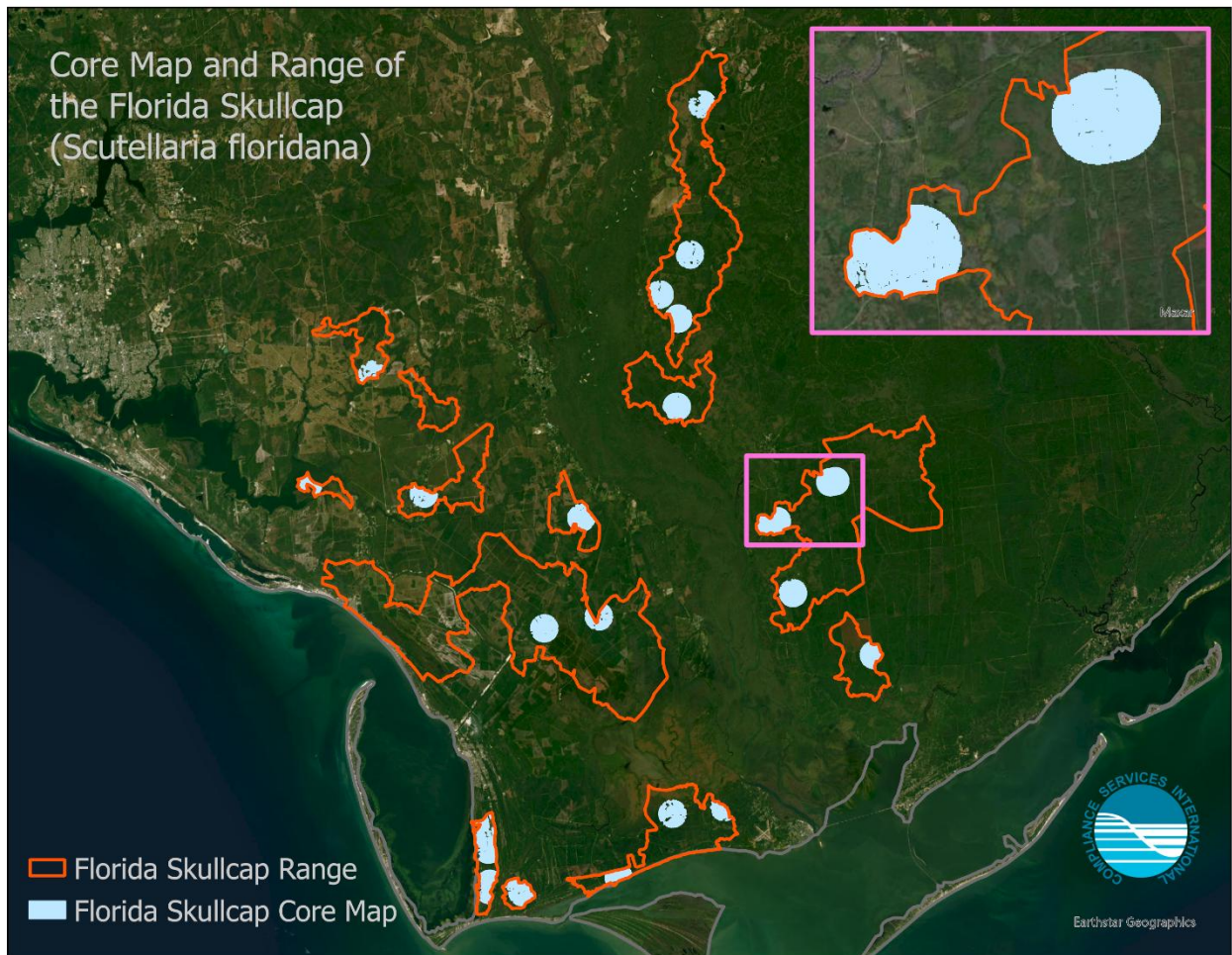


Figure 1. Interim core map for the Florida skullcap (*Scutellaria floridana*; Entity ID 997). The core map spans 14,027 acres, while the range is 159,489 acres.

Table 1. Acres by National Land cover Database (NLCD 2021) class within the core map of the Florida skullcap. Total core map area (based on NLCD pixel count): 14,038 acres¹

NLCD_Land_Cover_Class	Acres
Woody wetlands	11,222
Evergreen Forest	1,589
Emergent Herbaceous Wetlands	891
Developed, Open Space	163
Shrub/Scrub	69
Herbaceous	42
Developed, low intensity	32
Developed, Medium intensity	12
Barren land	10
Deciduous Forest	5
Open Water	3
Hay/Pasture	-

Evaluation of Known Location Information

There were four evaluated datasets with known location information:

- Depictions of locations provided by FWS
- Occurrence locations in iNaturalist
- Occurrence locations in GBIF
- Occurrence locations in NatureServe

Compliance Services International evaluated these datasets before developing the core map. Overall, there were eight usable research-grade observations found in iNaturalist². The GBIF dataset comprised seventeen georeferenced observations, six of which were considered usable based on the criteria described below. Both datasets were useful to identify extant population sites for the Florida skullcap, but did not represent significant improvements in capturing or supplementing areas missing from FWS. The iNaturalist and GBIF datasets were somewhat redundant because the iNaturalist observations comprised all the GBIF observations.

The FWS location information provided significant refinement from species range. These areas were converted into usable spatial data to form the extent of the core map. Further refinements to this extent were made based on species range and the biological information/habitat needs of the species.

NatureServe public element occurrence (EO) data were also evaluated and were used for comparison purposes with other datasets.

¹ This acreage is slightly different from the core map acreage (14,027) due to the pixelation of NLCD land cover. The core map is not developed exclusively from raster data.

² According to iNaturalist, an observation is designated as “research grade” if it 1) is verifiable with date, coordinates, photos/sounds, and not captive; 2) achieves community agreement defined as “more than 2/3 of identifiers needs to agree on the species level ID or lower;” and 3) “must pass a data quality assessment, which includes checks for accurate date and location, evidence of a wild organism, and clear evidence of the organism itself”

(<https://help.inaturalist.org/en/support/solutions/articles/151000169936-what-is-the-data-quality-assessment-and-how-do-observations-qualify-to-become-research-grade->).

Approach Used to Create Core Map

The core map was developed using EPA's process for developing core maps for species listed by the FWS and their designated critical habitat (referred to as "the process"). This core map was developed by CSI using the four steps described in the process document:

1. Compile available information for a species
2. Identify core map type from among the following defined types: critical habitat, range, and biological information. From EPA, summaries of each core map type are provided below (EPA 2024).
3. Develop the core map for the species
4. Document the core map.

For step 1, CSI compiled available information for the Florida skullcap from FWS, as well as observation information available from various publicly available sources including FWS documents, iNaturalist, GBIF, and NatureServe. The information compiled for the Florida skullcap is included in **Appendix 1**. Influential information that impacted the development of the core map include:

- Descriptions of known locations from FWS
- Description of the species habitat from the 2009 5-Year Review: The primary habitat of the Florida skullcap is wet longleaf pine flatwoods and wet prairie, within the grassy seepage bog communities at the edge of forested or shrubby wetlands, a habitat defined as a fire-dependent community. It is also found in the ecotones between mesic flatwoods and swamps sites or grassy margins of wetland habitats, and somewhat disturbed wetland savanna. The Florida skullcap can be found growing in full sun or light shade, and in low nutrient, acid, or sandy soil (FWS 1994, Jenkins et al. 2007). It is locally abundant in the [Apalachicola National Forest] (ANF) and the [St. Joseph Bay State Buffer Preserve] (SJBSBP), where fire management is maintained. This species has a strong flowering response to recent burns (Negron-Ortiz, 2009, pers. observ.), blooming most abundantly in the spring or summer following a fire' (FWS 2009).

For step 2, CSI used the compiled information including the species range, known locations, and habitat location information to determine the core map type. Compliance Services International compared the known location data to the range and found that known locations from FWS (circular mapped areas) were useful refinements of species range, identifying areas of potential occupancy within a vast range.

Review of the available data also suggested that the core map could be further refined using mappable habitat information. To represent the species' habitat, the LANDFIRE dataset was used to identify habitat classes associated with the species habitat description above; using the "EVT_NAME" field, four unique land cover types were selected from the subset of classes falling within the core map extent: East Gulf Coastal Plain Near-Coast Pine Flatwoods, East Gulf Coastal Plain Near-Coast Pine Wet Flatwoods, East Gulf Coastal Plain Wet Prairie, and East Gulf Coastal Plain Wet Savanna. These land cover types represent the habitat inhabited by the Florida skullcap. Spatial raster classes were converted to polygonal spatial data and clipped to the species extent.

For step 3, CSI used the best-available data sources to generate the core map. Data sources are discussed in EPA's core map process document. For this interim core map, CSI followed EPA's decision framework to arrive at a core map type of biological information. Designated critical habitat was quickly eliminated as a core map type because the Florida skullcap does not have designated critical habitat. The range core map

type was not selected because the species range is not refined.

Geographical areas known to be inhabited by the Florida skullcap were identified in FWS documentation; these areas represent the outer boundary (“extent”) considered for core map development. The LANDFIRE database was clipped to this extent and reclassified to create a layer representing potential habitat for the Florida skullcap; this reclassified layer was converted to a polygon layer as a usable core map. **Appendix 2** provides more details on the GIS analysis and data used to generate the core map.

Discussion of Approaches and Data that were Considered but not Included in Core Map

National Wetlands Inventory (NWI)

CSI selected LANDFIRE over the National Wetlands Inventory (NWI) to represent habitat areas for a species living in bogs, flatwoods, and savannah. Since this species can be found in savannahs and flatwoods in addition to bogs, it made more sense to use a single dataset, LANDFIRE, to capture the greater diversity of landscapes it inhabits. LANDFIRE's comprehensive and detailed vegetation data provide extensive information on land cover, vegetation types, and ecological systems, which help to more accurately map and understand these terrestrial habitats. This approach also avoids the complexity of combining LANDFIRE and NWI datasets, offering a more holistic and streamlined representation of the species' habitat requirements.

Appendix 1. Information compiled for the Florida skullcap

1. Recent FWS documents

- 5-Year Review (2009): https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/1357.pdf.
- 5-Year Review (2019): https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/2802.pdf.
- 5-Year Review (2024): https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/12090.pdf.
- Recovery Plan (1994): https://ecos.fws.gov/docs/recovery_plan/940622.pdf.

2. Background information

- Status: Federally listed as threatened in 1992.
- Resiliency, redundancy, and representation were not evaluated for this species.
- Habitat, Life History, and Ecology
 - Habitat: 'The primary habitat of Florida skullcap is wet longleaf pine flatwoods and wet prairie, within the grassy seepage bog communities at the edge of forested or shrubby wetlands, a habitat defined as a fire-dependent community. It is also found in the ecotones between mesic flatwoods and swamps sites or grassy margins of wetland habitats, and somewhat disturbed wetland savanna. Florida skullcap can be found growing in full sun or light shade, and in low nutrient, acid, or sandy soil (FWS 1994, Jenkins et al. 2007).

It is locally abundant in the ANF and the SJBSBP, where fire management is maintained. This species has a strong flowering response to recent burns (Negrón-Ortiz, 2009, pers. observ.), blooming most abundantly the spring or summer following a fire' (FWS 2009).
 - Pollinators: 'Bumblebees, megachilids and halictids are probably important pollinators. Plants flower from mid-April through early December and principally after a fire. All members of the genus are recognized as a monophyletic clade' (FWS 2019).
- Taxonomy
 - *Scutellaria*, commonly known as skullcap, comprises about 360 species distributed from Europe, the U.S., and East Asia. This genus of the *Lamiaceae* includes mints, basil, rosemary, and lavender. All members of the *Scutellaria* are recognized as a monophyletic clade (Ranjbar and Mahmoudi 2013), and therefore, they are good taxonomic entities. We are not aware of any changes to the taxonomy of this entity, and it is still considered valid by the Service and the scientific community' (FWS 2024).
- Relevant Potential Pesticide Use Sites
 - 'Herbicide. We no longer consider this a threat to Florida skullcap because mowing is now the common practice to maintain ROWs in Florida, although this threat was mentioned in the Recovery Plan. Franklin County allows only "spot treatment" due to impacts concerning the Apalachicola National Forest and waters within Apalachicola Bay and River basin.' (FWS 2024).

- Relevant Recovery Criteria and Actions (FWS 2024)
 - Delisting Criteria:

‘The recovery plan of 22 June 1994, “Recovery Plan for four plants of the lower Apalachicola Region, Florida: *Euphorbia telephioides* (telephus spurge), *Macbridea alba* (white birds-in-a-nest), *Pinguicula ionantha* (Godfrey’s butterwort), and *Scutellaria floridana* (Florida skullcap)” includes a recovery objective for delisting the species as well as one recovery criterion to adequately protect and manage 15 populations distributed throughout the species’ historical range for 10 years. This recovery criterion addresses factors A and B. Factor C is not relevant to *S. floridana*. Factors D and E, although relevant to this species, were not addressed by the Recovery Plan. This criterion has not been met’ (FWS 2024).
 - Recommendations for Future Actions
 1. Address continued monitoring and management.
 - a. Continue the long-term monitoring in the Apalachicola National Forest sites and set up plots in other sites such as St. Joseph Bay State Buffer Preserve, Tate’s Hell State Forest, and Lathrop Bayou.
 - b. As sea levels rise, saltwater intrusion increases in duration, frequency, and spatial extent. To assess the effect of salinity on *S. floridana*, sites where intrusion of salt water occurs should be considered for long-term monitoring.
 - c. Develop a stand-alone plan for managing listed plants at the Apalachicola National Forest and Tate’s Hell State Forest and integrate it to their Management Plans.
 2. Conduct surveys/inventories on targeted sites. Based on Hanco et al. (2023), the genetic study showed that stem counts alone may not accurately reflect abundance in populations with low clonal richness; one individual can be composed of dozens of stems. It appears that on average, ten adjacent stems generally represent 1–2 unique individuals, suggesting that stem counts are usually equivalent to ten times the true population size.
 - a. Gulf County. Thorough surveying of populations located on private lands (North Gulf Co., Fig. 1, sites with yellow and black symbols) is recommended to determine whether *S. floridana* and corresponding habitat are still present. *This action is a priority for this species.*
 - b. In-depth investigation of clonal reproduction and management history of the four populations on public lands (Box-R Wildlife Management Area 1, Apalachicola National Forest 5, Tate’s Hell State Forest 1, and St. Joseph Bay State Buffer Preserve 1; Fig. 1) that possess very low genetic diversity and evidence of inbreeding.
 3. Conduct surveys/inventories on potentially new sites (targeting recently burned sites). This action can include the use of species distribution modeling methods to initially determine potential sites, with subsequent validation or inspection of the sites for plants.
 4. Manage Rights-of-way (ROWs) Continue fostering conservation practices for utility and highway ROWs with the Forest Service, Florida Department of

Transportation, and the Service; a management plan should be developed and implemented.

5. Establish (or continue) frequent growing-season fire regimes (i.e., 3- to 5-year interval) on selected areas such as the Apalachicola National Forest, St. Joseph Bay State Buffer Preserve, Tate’s Hell State Forest, and Lathrop Bayou to maintain optimal conditions of populations. Re-visit sites shortly after a burn event, and mark and count individual ramets. Populations tend to be more evident after a fire event (Negrón-Ortiz 2023).

3. Range

- Size: 159,492 acres
- Historical Range (FWS 1994)
 - The lower Apalachicola region of Florida (in Gulf, Franklin and Libert counties).
- Current Range (FWS 2024)
 - ‘Florida skullcap is presently located in four Florida panhandle counties (i.e., Bay, Franklin, Gulf, and Liberty counties).’

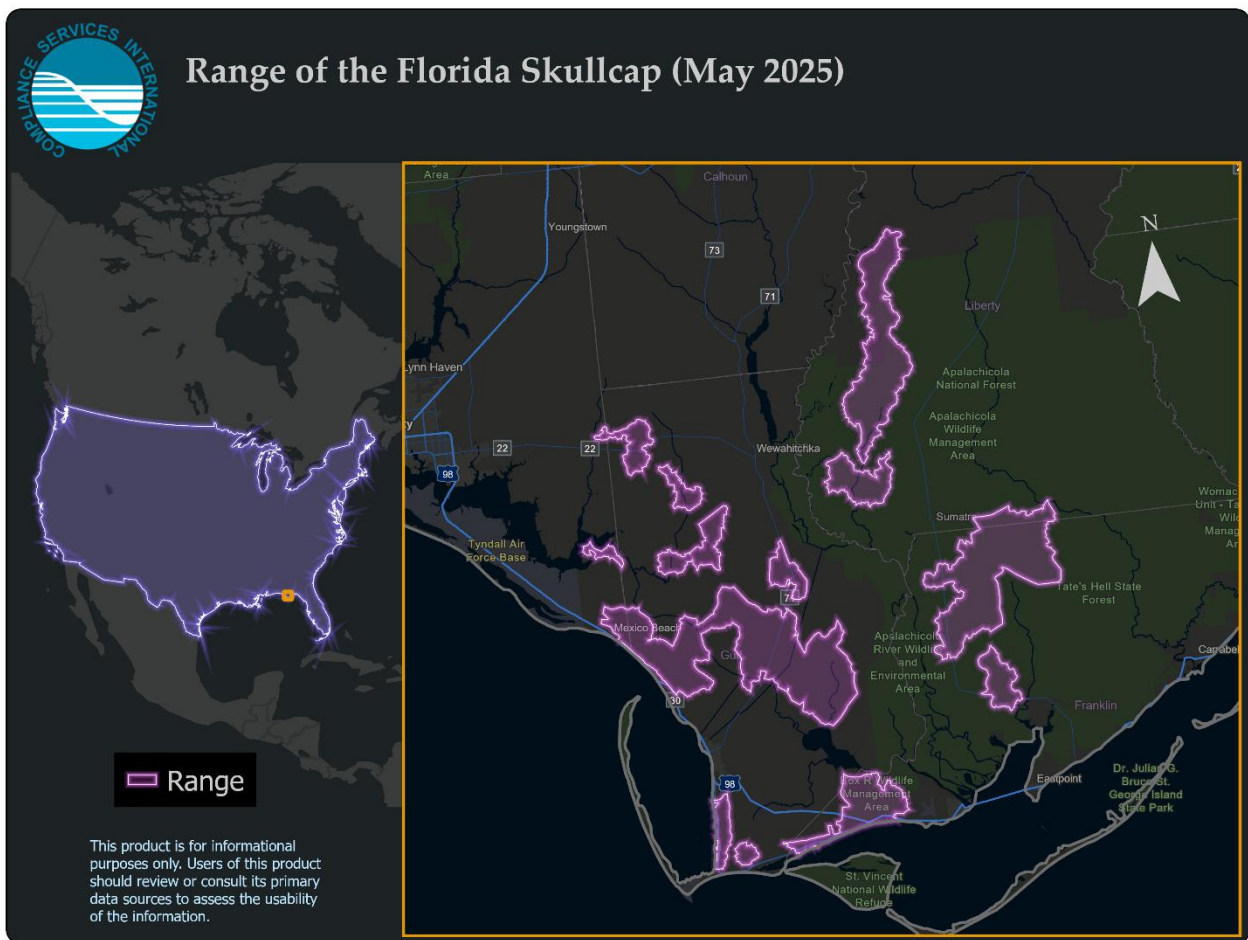


Figure 2. Range of the Florida skullcap (FWS 2025).

4. Description of Critical Habitat

This species does not have a designated critical habitat.

5. Known Locations

- FWS (2024)
 - 'This plant, based on best available information, is known from four counties with the populations primarily found on the Apalachicola National Forest (Fig. 1). At present, we have 19 protected occurrences across the species' range with multiple source features (or subpopulations) that overlap or are in proximity to each other. Apart from Apalachicola National Forest, which currently has nine protected EOs (H. Rosner-Katz, FNAI, 2024, pers. comm.), no long-term monitoring or annual surveys have been initiated for other *S. floridana* sites. The most comprehensive survey across the species' range was conducted in 2021 (Hanko et al. 2023). Ten of the historically secured EOs are located on public lands outside the Apalachicola National Forest (ANF; Service 2009): three EOs on the St. Joseph Bay State Buffer Preserve (Gulf County); one EO at Lathrop Bayou, Bay County; three EOs at Tate's Hell State Forest, two EOs at Box-R Wildlife Management Area, and one EO at Apalachicola River Wildlife Environmental Area, Franklin County. Management plans have been developed and implemented by the: 1) Bureau of Land Management (BLM) for the Lathrop Bayou (BLM 2003), and 2) Florida Department of Environmental Protection for the St. Joseph Bay State Buffer Preserve. Long-term monitoring has not been initiated' (FWS 2024).

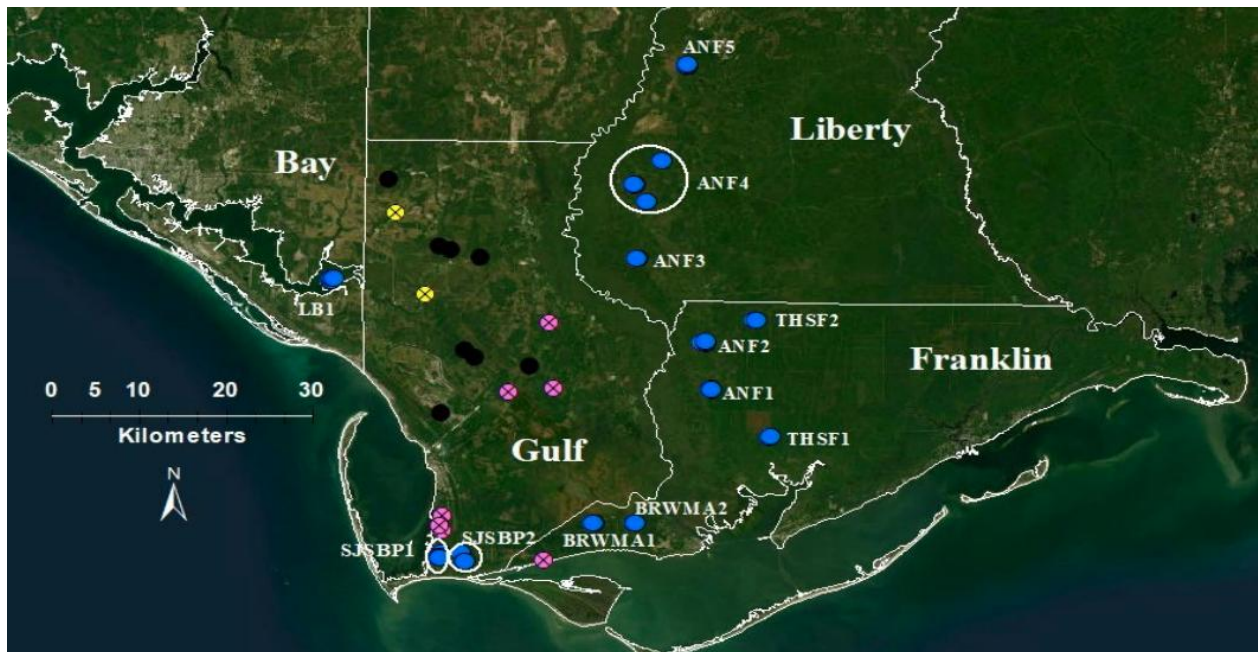


Figure 3. Locations of known occurrences of *S. floridana*, 2021 surveys. Symbols: black = officially extirpated sites; yellow = sites that were inaccessible; pink = sites without individuals; blue = sites with *S. floridana* plants. Copied from Figure 1 of the most recent 5-Year Review (FWS 2024).

- GBIF: <https://www.gbif.org/species/5341377>
 - GBIF includes 125 occurrence records; 17 of which are georeferenced. Six of these had usable coordinate data based on these criteria:

- U.S. only (excludes Canada)
 - Latitude and longitude precision were both 3+ decimal places.
 - Coordinate uncertainty values no greater than 30 km.
 - Relative recency (2010-present)
 - Must include date information.
 - No “preserved specimen” observations; only “human observation.”
 - The 6 usable coordinates were mapped against the species range to evaluate their utility in representing species extent. All usable GBIF coordinates are originally sourced from iNaturalist, which also had more records. Therefore, the GBIF dataset was not used for core map development.
- iNaturalist: https://www.inaturalist.org/observations?taxon_id=168711
 - iNaturalist includes eight total observations, all of which are research-grade with usable coordinate data based on these criteria:
 - U.S. only (excludes Canada)
 - Latitude and longitude precision were both 3+ decimal places.
 - Relative recency (2010-present)
 - Observation description did not include the text “intentionally incorrect.”
 - Public positional accuracy value no greater than 30 km³.
 - This did not result in the exclusion of any records.
 - The PPA value represents the positional uncertainty of the coordinate. This value was used as the buffer distance for iNaturalist points, to ensure that the actual position of the observation is captured.
 - Locations are consistent with GBIF, which is expected because all the GBIF observations are imported from iNaturalist. There are eight observations in inland areas within the range that are not represented by the GBIF dataset.
 - There are no iNaturalist locations outside of the range of the Florida skullcap, after considering the coordinates’ positional uncertainty.
 - The iNaturalist data do not significantly improve upon or supplement the known location areas provided by FWS in the most recent 5-Year Review for the species (FWS 2024).
- NatureServe Explorer: <https://explorer.natureserve.org/>
 - Available public occurrence information from NatureServe Explorer aligns with the information from iNaturalist and GBIF.
 - EOs were consistent with the range and core map given the data scale and precision.

³ For “obscured” observations, public positional accuracy (PPA) represents the diagonal of a 0.2 x 0.2 arc cell. See the iNaturalist geoprivacy page for more details on this and related terms [What is geoprivacy? What does it mean for an observation to be obscured? : iNaturalist Help](#).

Appendix 2. GIS Data Review and Method to Develop Core Map

The core map for this species is based on biological information, which includes the habitat used by this species found within a spatial extent based on the known location information for extant populations of Florida skullcap. The core map identifies all areas within the extent (described below) matching the species habitat description from **Appendix 1**. Professional judgment was used to match Existing Vegetation Type (EVT) classes in the LANDFIRE dataset as described below (LANDFIRE 2023). LANDFIRE is regarded as a high quality national-level dataset that is appropriate to identify vegetation types and ecosystems that are suitable habitat for plant species such as the Florida skullcap.

1. References and Software

- LANDFIRE (2023): <https://landfire.gov/data/FullExtentDownloads>.
- Software used: ArcGIS Pro version 3.2.
- FWS 5-Year Review (2024): https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/20472.pdf.
- FWS Species Range: <https://ecos.fws.gov/ecp/species/2240>.

2. Datasets Used in Core Map Development

2.1. Range

The range for this species was last updated by FWS on March 21, 2023. A shapefile including species range for all listed species was downloaded from the FWS ECOS website on May 5, 2025. The shapefile was converted to a feature class stored in a file geodatabase and reprojected to WKID #102008 (“North America Albers Equal Area Conic”).

1. Using an ArcGIS Web Map the species was queried based on the ECOS listed “Entity ID” of 997 and exported as a feature class to a temporary file geodatabase as a standalone Entity ID-specific layer.
2. The area of the range was calculated automatically by loading it into the software (ArcGIS Pro version 3.2) and reading its area from the attribute table (“Shape_Area”), then converting its units (square meters) into acres with a conversion factor of 0.000247105.

This shapefile was added to an ArcGIS Pro map and compared against the known location information areas from FWS in its 5-year review (FWS 2024). The range was used to establish the outer boundary (“extent”) of the core map by clipping known location information (a buffered points layer) by this range. More details on the geoprocessing steps used are provided in **Appendix 2.3**.

2.2. FWS 5-Year Review

The most recent 5-Year Review includes the most up-to-date information about extant population locations of the Florida skullcap (FWS 2024). These sites are catalogued in the document’s Figure 1 (Figure 3 of this document). A spatial layer of these locations was created by CSI and incorporated into the development of the core map extent using the procedure detailed in **Appendix 2.3**.

Some of the known locations in Figure 3 are identified as “officially extirpated sites.” These sites were judged to not be reliable areas of species presence and were therefore excluded from core map development.

2.3. LANDFIRE

Once the species extent was established using the most recent 5-Year Review document, the LANDFIRE 2023 database was used to identify areas within the extent corresponding to the habitat of the Florida skullcap. The EVT layer was clipped to the core map extent and professional judgment was used to identify land cover types associated with the species' habitat. Land cover selections for the Florida skullcap are listed in Table 2.

Table 2. LANDFIRE EVT classes associated with the habitat of the Florida skullcap within its extent (LANDFIRE 2023).

EVT_NAME
East Gulf Coastal Plain Near-Coast Pine Flatwoods
East Gulf Coastal Plain Near-Coast Pine Wet Flatwoods
East Gulf Coastal Plain Wet Prairie
East Gulf Coastal Plain Wet Savanna

The "Value" field associated with these land cover classes was used during the reclassification process stage in Step 2 of the "Refinement based on Biological Information" procedure given in **Appendix 2**, Section 3.2.

3. Creating the Core Map

3.1. Defining Extent

The core map extent for the Florida skullcap was developed using known location information from FWS, using georeferencing and other techniques. During spatial data development, it was observed that the EO location data shown in Figure 3 can be well-approximated by estimating their center and applying a radius of 1000 m to create a circle overlapping the underlying feature. CSI additionally thought it appropriate to implement an additional 200 m to this distance (so, 1,200 m in total) to account for uncertainty associated with manual steps taken, and display resolution. The resulting distance conservatively captures the areas represented by these roughly circular shapes.

1. Save an image of Figure 1 of the most recent 5-Year Review (FWS 2024; Figure 3 of this document) to a workspace ("FS.png").
2. Use the Raster To Geodatabase tool to import the saved image ("FS.png") into a file geodatabase, saved as "FS".
3. In a georeferencing session, fit the previous image ("FS") to a window zoomed into the vicinity of the species range, render it partially transparent (70% transparency was used) and use control points to reorient the image to be aligned with identifiable features in the background. Save edits.
4. Create an empty points feature class ("FS_pts") and navigate to Edit/Create to create new points features. Use the Point tool to manually create points centered as precisely as possible on the centers of the circles identifying extant populations in the georeferenced layer. Save edits.
5. Use the Pairwise Buffer tool to buffer the points from the previous layer ("FS_pts") by 1,200 m and save as a new feature class, "FS_pts_pb1200m".
6. Use the Pairwise Dissolve tool to dissolve features from the previous layer ("FS_pts_pb1200m") into a layer with a single feature, saved as "FS_pts_pb1200m_pd".
7. Use the Pairwise Clip tool to clip the feature from the previous layer ("FS_pts_pb1200m_pd") by the species range ("FS_range") and save as a new layer, "FS_pts_pb1200m_pd_pcRange".
8. (Optional) Export the feature from the previous layer ("FS_pts_pb1200m_pd_pcRange") and save as a new layer recognizable as the spatial extent of the core map, "FS_extent".

3.2. Refinement based on Biological Information

The total extent of the Florida skullcap core map, which comprises known locations, includes a significant area and number of different land cover types that do not align with descriptions of Florida skullcap habitat. To improve confidence in the core map, a refinement based on biological information was applied to the core map extent.

The best-available dataset for suitable species habitat was found to be the LANDFIRE dataset. This spatial layer was used as a refinement of the core map area as follows:

1. Load the LANDFIRE Existing Vegetation Type (“LF2023_EVT_240_CONUS”) layer into a GIS.
2. Use the Clip Raster tool to clip the “LF2023_EVT_240_CONUS” layer by the species extent (“FS_extent”). Examine the “EVT_NAME” field to identify land cover types associated with habitat descriptions of the Florida Skullcap. Positive identifications are given in Table 2. Save as a new Layer “LF_crExtent”. Choose to output this layer in the preferred projection, WKID #102008.
3. Use the Reclassify tool to reclassify the previous layer (“LF_crExtent”) to identify areas of Florida Skullcap habitat. Assign a value of “1” for acceptable land cover types, and “NODATA” for all others. Save as a new layer, “LF_crExtent_rec”.
4. Use the Raster to Polygon tool to convert the previous layer (“LF_crExtent_rec”) into a polygonal spatial layer, saved as “LF_crExtent_rec_r2p”.
5. Use the Pairwise Dissolve tool to dissolve the previous layer (“LF_crExtent_rec_r2p”) into a feature class with a single shape, saved as “LF_crExtent_rec_r2p_pd”.
6. (Optional) Export the previous layer “LF_crExtent_rec_r2p_pd” as a new layer identifiable as the species core map (“FS_CoreMap”).

3.3. Cultivated Lands-based Refinement

The Florida skullcap is not expected to be found in agricultural areas, so a refinement to exclude areas of agriculture would have been appropriate. However, it was observed that the output from the last geoprocessing step above (“LF_crExtent_rec_r2p_pd”) did not contain any cultivated areas according to NLCD 2021 (

Table 1). Therefore, the step of removing cultivated areas > 25 acres was considered unnecessary and thus was not performed.

References

Documents

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Spatial Data & Software

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