Slender rush-pea
(Hoffmannseggia tenella)
5-Year Review:
Summary and Evaluation

Photo credit: Texas Parks and Wildlife Department

U.S. Fish and Wildlife Service
Texas Coastal Ecological Services Field Office
Corpus Christi, Texas
August 2022

5-YEAR REVIEW
Slender rush-pea *(Hoffmannseggia tenella)*

1.0 GENERAL INFORMATION

1.1 Listing History

Species: *Hoffmannseggia tenella*
Date listed: November 1, 1985
FR citation(s): 50 FR 45614
Classification: Endangered (no critical habitat designated)

1.2 Methodology used to complete the review:

In accordance with section 4(c) (2) of the Endangered Species Act of 1973, as amended (Act), the purpose of a 5-year review is to assess each threatened species and endangered species to determine whether its status has changed, and it should be classified differently or removed from the Lists of Threatened and Endangered Wildlife and Plants. The U.S. Fish and Wildlife Service (Service) evaluated the biology and status of the slender rush-pea (*Hoffmannseggia tenella*) as part of the 2018 Texas Coastal Bend Shortgrass Prairie Multi-Species Recovery Plan: Including slender rush-pea and South Texas ambrosia (*Ambrosia cheiranthifolia*) (2018 Recovery Plan; Service, 2018). Since the publication of the 2018 Recovery Plan, Texas Department of Transportation (TXDOT) produced a report entitled: *Year 3 Monitoring Report for Slender Rush-Pea (Hoffmannseggia tenella), and South Texas Ambrosia (Ambrosia cheiranthifolia) US Highway 77, Kleberg County, Texas* (TxDOT, 2021). Information and analyses from these two documents were used to inform this 5-year review.

The U.S. Department of Agriculture (USDA), Texas A&M University (TAMU), TXDOT, Texas Parks and Wildlife Department (TPWD), and the Naval Air Station Kingsville (NASK) were contacted to request any information we should consider in our review. Additionally, we conducted a literature search and a review of information in our files. No new information was found past the 2018 Recovery Plan and the 2021 report previously mentioned. During our literature search, we located a report entitled: *Collaborative Partnership Agreement Biological Assessment, Biological and Conference Opinion, and Conference Report Between the Texas Natural Resources Conservation Service and the U.S. Fish and Wildlife Service Associated with Actions on Private Lands within a Specific Geographic Area of Texas* (NRCS, 2020); however, this document contained no new information on the species since the 2018 Recovery Plan.

1.3 FR Notice citation announcing the species is under active review:

Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews of 35 Species in the Southwest. March 04, 2022. 87 FR 5834.

2.0 REVIEW ANALYSIS

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of "endangered species" or "threatened species." The Act defines an "endangered species" as a species that is "in danger of extinction throughout all or a significant portion of its range," and a "threatened species" as a species that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The Act requires that we determine whether a species meets the definition of "endangered species" or "threatened species" due to any of the five factors.

The identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an "endangered species" or a "threatened species." In assessing whether a species meets either definition, we must evaluate all identified threats by considering the expected response of the species, and the effects of the threats—considering those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all the threats on the species as a whole. We also consider the cumulative effect of the threats considering those actions and conditions that will have positive effects on the species—such as any existing regulatory mechanisms or conservation efforts. The Service recommends whether the species meets the definition of an "endangered species" or a "threatened species" only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

2.1 Updated Information and Current Species Status

The 2018 Recovery Plan and the 2008 Slender Rush-pea 5-Year Review (Service, 2008) contained an extensive review of the species biology, taxonomy, distribution, ecology, trends, and threats. Within this section, we provide new information not previously presented in either of these documents.

2.1.1 Biology and Habitat:

We have very little new information on the biology and habitat of the slender rush-pea since the publication of the 2018 Recovery Plan. Overall, slender rush-pea abundance has declined since 2018. Surveys conducted from 2018 to 2021 at 7 sites (B, C, D, E, F, H, and J as shown in Figure 1) supporting slender rush-pea showed that plants at 3 of those sites (D, E, and J) decreased in abundance, plants at 1 site (F) remained stable, and plants at 3 sites (B, C, and H) started and ended with no plants (TXDOT, 2021). Observations of slender rush-pea were made outside of 2 survey sites (B, H) (TXDOT, 2021); however, we do not know how many plants were observed.

2.1.2 Threats Analysis (threats, conservation measures, and regulatory mechanisms):

As identified in the 2018 Recovery Plan, the greatest threats to the slender rush-pea are habitat loss, fragmentation, and degradation (Listing Factor A) caused primarily by the invasion of nonnative grasses as well as other sources (e.g., alteration of natural fire

regimes, herbicide use, mowing, grazing) (Service 2018). Other current or potential threats to the slender rush-pea include the inadequacy of existing regulations (Listing Factor D) as well as small population size, climate change, and limited knowledge of pollination biology (Listing Factor E). We have no new information on threats to the species since the 2018 Recovery Plan.

2.2 Synthesis:

After reviewing the best available scientific information, we conclude that slender rush-pea remains an endangered species. The evaluation of threats affecting the species under the factors in 4(a)(1) of the Act and analysis of the status of the species in our 2018 Recovery Plan and 2008 5-Year Review remains an accurate reflection of the species status.

3.0 RESULTS

3.1 Recommended Classification:

____ Downlist to Threatened
____ Uplist to Endangered
____ Delist (*Indicate reasons for delisting per 50 CFR 424.11):*
____ *The species is extinct*
____ *The species does not meet the definition of an endangered species or a threatened species (i.e., is recovered, or new information on status and threats indicate species does not meet definitions)*
____ *The listed entity does not meet the statutory definition of a species.*
_X_ No change is needed

3.2 New Recovery Priority Number:

No change. The species recovery priority number 2 (indicating that there is a high degree of threat, but that recovery potential is also high) remains unchanged.

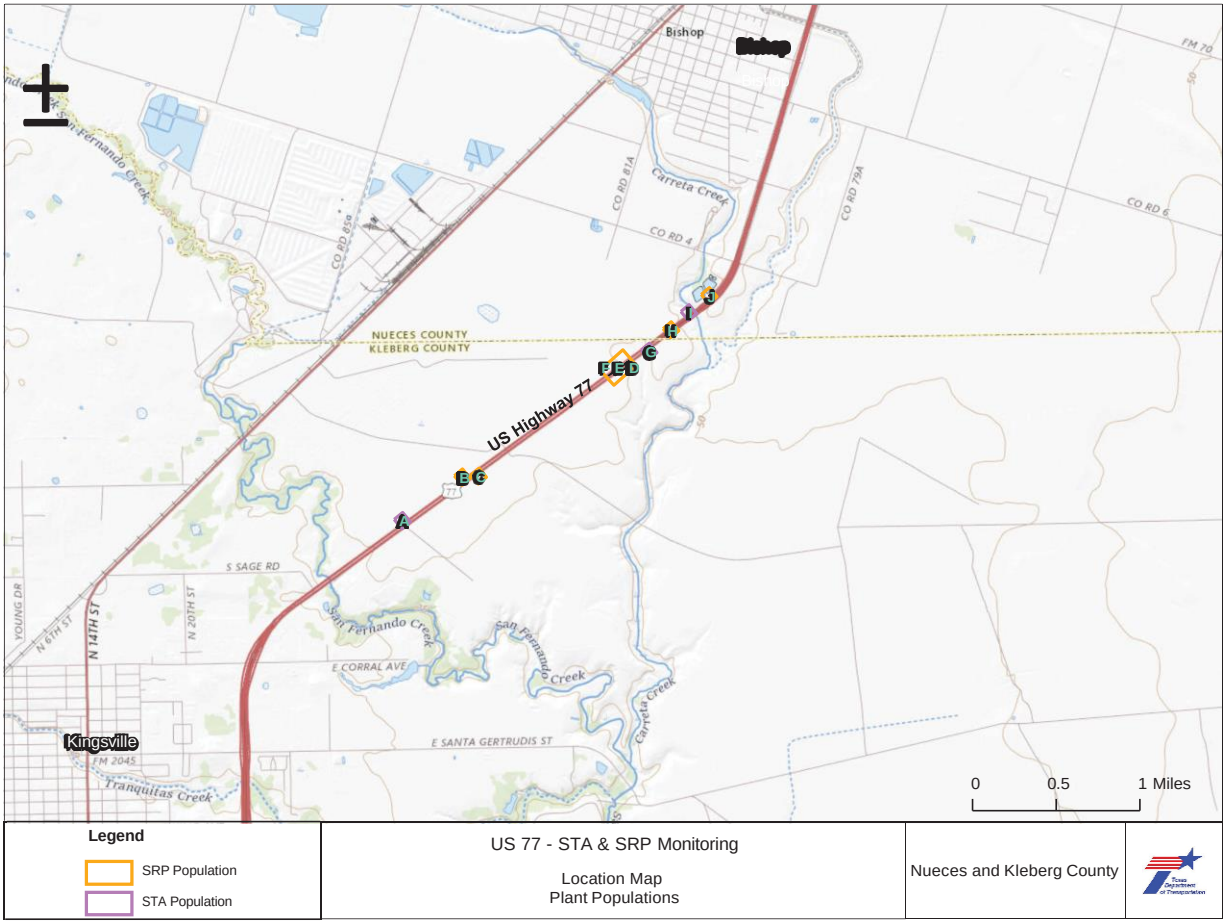
Brief Rationale:

The 2018 Recovery Plan and 2008 5-Year Review represents our evaluation of the best available scientific information, including the resource needs and the current and future condition of the species. There is no new information that would change the classification of slender rush-pea.

4.0 RECOMMENDATIONS FOR FUTURE ACTIONS

The 2018 Recovery Plan includes actions that are needed to recover the slender rush-pea. The status of the species is still precarious, and we continue to recommend all the actions be implemented and that conservation partners actively seek funding to implement the actions.

Figure 1. US 77 – South Texas ambrosia and Slender rush-pea monitoring



Map created by Texas Department of Transportation

5.0 REFERENCES

Natural Resources Conservation Service (NRCS). 2020. Collaborative Partnership Agreement Biological Assessment, Biological and Conference Opinion, and Conference Report Between the Texas Natural Resources Conservation Service and the U.S. Fish and Wildlife Service Associated with Actions on Private Lands within a Specific Geographic Area of Texas Consultation No. 02ETTX00-2020-F-3581.

Texas Department of Transportation Corpus Christi District (TxDOT). 2021. Year 3 Monitoring Report for Slender Rush-Pea (*Hoffmannseggia tenella*), and South Texas Ambrosia (*Ambrosia cheiranthifolia*) US Highway 77, Kleberg County, Texas. Biological Opinion (BO) / Consultation No. 21410-2010-F-0119.

U.S. Fish and Wildlife Service (Service). 2022. Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews of 35 Species in the Southwest. 87 Fed. Reg. 5834. Feb. 02, 2022.

U.S. Fish and Wildlife Service (Service). 2018. Texas Coastal Bend Shortgrass Prairie Multi-Species Recovery Plan: Including Slender Rush-Pea (*Hoffmannseggia tenella*) and South Texas Ambrosia (*Ambrosia cheiranthifolia*). Albuquerque, New Mexico. U.S. Fish and Wildlife Service. 2008. Slender rush-pea (*Hoffmannseggia tenella*) 5-Year Review: Summary and Evaluation. Corpus Christi, TX. 130 pg.

U.S. Fish and Wildlife Service (Service). 2008. Slender rush-pea (*Hoffmannseggia tenella*) 5-Year Review: Summary and Evaluation. Corpus Christi Ecological Services Field Office, Corpus Christi, TX. 25 pg.

U.S. FISH AND WILDLIFE SERVICE

5-YEAR REVIEW of Slender rush-pea (*Hoffmannseggia tenella*)

Current Classification: Endangered

Recommendation resulting from the 5-Year Review:

____ Downlist to Threatened
____ Uplist to Endangered
____ Delist
__X__ No change needed

Appropriate Listing/Reclassification Priority Number, if applicable:

FIELD OFFICE APPROVAL:

Lead Field Supervisor, Fish and Wildlife Service, Texas Coastal Ecological Services Field Office:

Approve CHARLES ARDIZZONE Digitally signed by CHARLES ARDIZZONE Date: 2022.08.04 11:43:05 -05'00'