

5-YEAR REVIEW

Kenwood Marsh checker-mallow (*Sidalcea oregana* ssp. *valida*)

GENERAL INFORMATION:

Species: Kenwood Marsh checker-mallow (*Sidalcea oregana* ssp. *valida*)

Date listed: October 22, 1997

FR citation: 83 FR 28251

Classification: Endangered

BACKGROUND:

Most recent status review:

[USFWS]. 2009. *Sidalcea oregana* ssp. *valida* (Kenwood marsh checker-mallow) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Sacramento, California. 15pp. [[CLICK HERE TO VIEW DOCUMENT](#)]

FR Notice citation announcing this status review:

[USFWS] U.S. Fish and Wildlife Service. 2018. Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews for 50 Species in California, Nevada, and the Klamath Basin of Oregon. Federal Register 83:28251 – 28254. [[CLICK HERE TO VIEW DOCUMENT](#)]

ASSESSMENT:

Information acquired since the last status review: This 5-year review was conducted by the U.S. Fish and Wildlife Service's (USFWS) Sacramento Fish and Wildlife Office. Data for this review were solicited from interested parties through a Federal Register notice announcing this review on June 18, 2018, but we did not receive any information regarding this species. We also contacted private landowners and volunteers from the California Native Plant Society (CNPS), who monitor the species, to request data or information we should consider for our review. We used survey information from the California Natural Diversity Database (CNDDDB) maintained by the California Department of Fish and Wildlife. Additionally, we conducted a literature search and a review of information in our own files.

Kenwood Marsh checker-mallow is a perennial herb in the mallow (Malvaceae) family. The plant is a narrow-range endemic, originally reported only from two valleys in Sonoma County, California: the privately owned Kenwood Marsh and Knight's Valley (USFWS 2009). Kenwood Marsh checker-mallow inhabits freshwater marshes and riparian areas at elevations less than 150 meters (USFWS 2009). Failed attempts to establish new colonies in areas thought to be suitable habitat suggest Kenwood Marsh checker-mallow might require specific soil and hydrologic conditions (K. Symonds pers. comm. 2018). Studies are needed to determine what hydrologic/soil conditions allow for successful Kenwood Marsh checker-mallow survival.

During the previous status review (2009) there were two main sites within Kenwood Marsh where the Kenwood Marsh checker-mallow remained extant: at Deerfield Ranch Winery and on an adjacent property. Today, the only confirmed, extant population exists at the Deerfield Ranch Winery (K. Symonds, *in litt.* 2018). Botanists have not surveyed the additional population at Kenwood Marsh for nearly 20 years (Service 2009) and the status of the plant remains unknown at this location. Likewise, no botanical surveys have been done at Knight's Valley in 30 years (CNDDDB 2018; USFWS 2009).

In 2009, only three colonies existed at the Deerfield Ranch Winery (USFWS; A. Rex, *in litt.* 2017). Kenwood Marsh checker-mallow abundance at this location has continued to decline in recent years (A. Rex, *in litt.* 2017; Appendix A). Over the past 25 years, the abundance at the winery has fluctuated from as many as 550 individuals, to as few as 24 (Appendix B; CNDDDB 2018; USFWS 2009). There were once three exclosures protecting the plants from deer browsing. However, non-native, invasive Himalayan blackberries (*Rubus armeniacus*) have overgrown one of the structures (A. Rex, *in litt.* 2017). While site managers plan to remove the invasive plants (R. Rex, pers. comm. 2018), Kenwood Marsh checker-mallow is unlikely to grow in this shaded habitat (K. Symonds, pers. comm. 2018) and as such might no longer grow in the third exclosure.

Threats to the persistence of Kenwood Marsh checker-mallow are currently changes to hydrology, invasive plants, climate change, drought and herbivory due to overabundance of small mammals (USFWS, 2009). Additionally, in recent years native sedges (*Carex sp.*), which naturally co-exist with Kenwood Marsh checker-mallow, have been allowed to grow unchecked in the exclosures (K. Symonds, pers. comm. 2018). This caused a layer of thatch to build up within the plots. Thatch buildup shades the soil and might inhibit the germination and early season growth of Kenwood Marsh checker-mallow (K. Symonds, pers. comm. 2018). In the spring of 2018, CNPS volunteers and landowners removed the thatch from exclosures (A. Rex, pers. comm. 2018). However, thatch build up and poor germination rates continue to threaten the species (K. Symonds, pers. comm. 2018) if active management is not implemented annually.

In 2007, the landowner at Deerfield Ranch Winery entered into a 10-year Wildlife Extension Agreement with the USFWS (USFWS 2009). This agreement has since expired. While the landowner has verbally agreed to continue conservation at the site, there is no official agreement in place to ensure the conservation of this species at this location (R. Rex, *in litt.* 2018). Therefore, the Kenwood Marsh checker-mallow is threatened by land use conversion, should Deerfield Ranch Winery change ownership. The long-term survival of this species relies on the voluntary actions by private landowners within Kenwood Marsh.

At the time of listing, two occurrences of Kenwood Marsh checker-mallow were known to exist with 130 plants between them. In 2018, biologists observed a small population (<100 individuals) at Deerfield Ranch Winery but no abundance survey was done (K. Symonds, pers. comm. 2018). Based on new observations from scientists and volunteers the threats to Kenwood Marsh Checker-mallow have marginally increased since the last status review. However, there has been no change to our understanding of threats to the species, or its distribution.

Conclusions:

The recovery priority number for Kenwood Marsh Checker-mallow is 3C (Endangered and Threatened Species Listing and Recovery Priority Guidelines, 48 FR 43098, 1983). This number indicates that the taxon is a subspecies that faces a high degree of threat and has a high potential for recovery. The “C” indicates conflict with construction, other development projects, or other forms of economic activity. The narrow range and low numbers of the Kenwood Marsh checker-mallow might make it susceptible to a variety of natural and anthropogenic random effects. Currently, there is little information on the possibility of establishing populations outside of Deerfield Ranch Winery. However, we have reason to believe there are ample areas within the historical range of the species where colonies could be established through seeding and outplanting, on both public and private lands.

After reviewing the best available information, we conclude that the Kenwood Marsh checker-mallow 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 the last 5-year review (USFWS 2009) remains an accurate reflection of the species current status.

RECOMMENDATIONS FOR FUTURE ACTIONS

Removing thatch and invasive species from exclosures

Kenwood Marsh checker-mallows grow in full sun on the margins of riparian areas (K. Symonds, pers. comm. 2018). The species is currently threatened by thatch buildup from annual sedges, as well as invasive plants, both of which shade habitat (K. Symonds, pers. comm. 2018; R. Rex, pers. comm. 2018). Manual removal of invasive plants and thatch might be necessary to increase Kenwood Marsh checker-mallow survival. In 2018, Deerfield Ranch Winery staff and volunteers removed thatch and invasive plants from browsing exclosures (A. Rex, pers. comm. 2018). These efforts should take place annually to ensure the survival of Kenwood Marsh checker-mallow.

Locate appropriate areas for new colony establishment

The Kenwood Marsh checker-mallow probably once existed in riparian zones between Kenwood Marsh and Knight’s Valley. Today, the dispersal of this species is restricted by land-use conversion to agriculture and urban areas. However, there might be areas within the historical range where the species could be re-established with seeding and outplanting. Private landowners should be contacted and, if landowners are willing, a management plan should be developed and implemented by the Service or CDFW. Research and public outreach would be needed to determine the feasibility of establishing new colonies in the area.

Population monitoring

Population estimates of Kenwood Marsh checker-mallow are sporadic (CNDDDB; Appendix B). Establishing a protocol for continual, annual population monitoring would help us better understand the species needs and recovery potential.

Lead Field Supervisor, Fish and Wildlife Service

Approve  _____ Date 5/2/2019

LITERATURE CITED

- [CNDDDB] California Natural Diversity Database. 2018. Natural Heritage Division. California Department of Fish and Wildlife, State of California. Element Occurrence Reports for *Sidalcea oregana* ssp. *valida*. Unpublished cumulative data current to 2018.
- [USFWS]. 2018. U.S. Fish and Wildlife Service. Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews for 50 Species in California, Nevada, and the Klamath Basin of Oregon. Federal Register 83:28251 – 28254.
- _____. 2009. *Sidalcea oregana* ssp. *valida* (Kenwood Marsh checkermallow) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Sacramento, California. 15pp.
- _____. 1983. Endangered and Threatened Species Listing and Recovery Priority Guidelines. U.S. Fish and Wildlife Service, Washington, D. C. Federal Register 48:43098-43105.

In Litteris

- Rex, A. 2017. Deerfield Ranch Winery Staff Member. Electronic mail correspondence to Valary Bloom, Sacramento Fish and Wildlife Office, March 8, 2017: Subject: Kenwood Marsh Checkerbloom.
- Rex, A. 2018. Deerfield Ranch Winery Staff Member. Electronic mail correspondence to Elizabeth Bainbridge, Sacramento Fish and Wildlife Office, June 19, 2018. Subject: Kenwood Marsh Checkermallow.
- Rex, R. 2018. Deerfield Ranch Winery operator. Electronic mail correspondence to Elizabeth Bainbridge, Sacramento Fish and Wildlife Office, June 19, 2018. Subject: Kenwood Marsh Checkermallow.
- Symonds, K. 2018. U.S. Fish and Wildlife Service (Retired). Electronic mail correspondence to Elizabeth Bainbridge, Sacramento Fish and Wildlife Office, June 19, 2018. Subject: Sonoma County Plants.

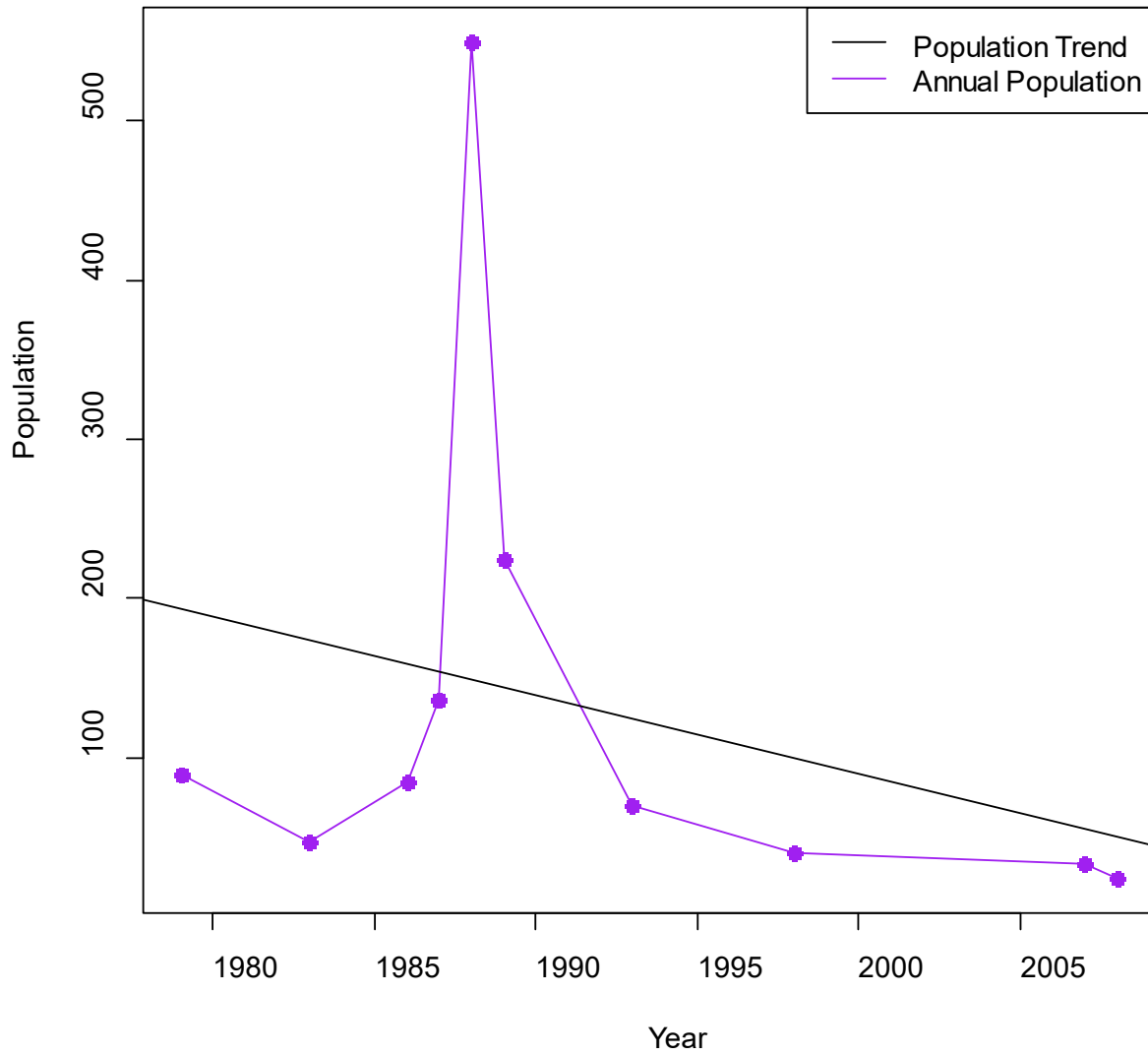
Personal Communication

Rex, R. 2018. Deerfield Ranch Winery operator. Conversation with Elizabeth Bainbridge of the Sacramento Fish and Wildlife Office. July 10, 2018. Subject: Status and Management of the Kenwood Marsh checker-mallow at Deerfield Ranch Winery.

Symonds, K. 2018. U.S. Fish and Wildlife Service (Retired). Conversation with Elizabeth Bainbridge of the Sacramento Fish and Wildlife Office. July 10, 2018. Subject: Status and Management of the Kenwood Marsh checker-mallow at Deerfield Ranch Winery.

Appendix A. Census count data and overall population trend for the Kenwood Marsh checker-mallow at Deerfield Ranch Winery over 25 years. Population count data has been collected sporadically, depending on available resources. These data suggest the species is in decline. No abundance data has been reported to USFWS or CNDDDB since 2008 (CNDDDB 2018)

Population Trends for Kenwood Marsh Checker-mallow



Appendix B. Population count data for Kenwood Marsh checker-mallow. Population counts have been done infrequently during the past few decades. No recent population counts (within the last 10 years) have been submitted to USFWS or CNDDDB.

Year	Population	Source
1979	90	CNDDDB
1983	47	CNDDDB
1996	85	CNDDDB
1987	136	CNDDDB
1988	550	CNDDDB
1989	225	CNDDDB
1993	70	CNDDDB
1998	40	CNDDDB
2007	33	USFWS 2009
2008	24	USFWS 2009