

Funding from the Alameda Fish and Game Commission, granted in 2019, enabled the Alameda County Resource Conservation District (ACRCD) to partner with East Bay Regional Parks (EBRPD) and the Natural Resources Conservation Service (NRCS) to identify locations where California milkweed (*Asclepias californica*) occurs and to collect seed that was grown by the Watershed Nursery for outplanting on public lands and on private ranches in Alameda County. 2019 progress was summarized in the previously submitted ACRCD report, “Progress Report: Expanding Early-season California Milkweed (*Asclepias californica*) for Monarch Conservation in Alameda County Rangelands”. 2019 accomplishments are briefly re-presented here for context; ACRCD’s summary of 2020 activities beings on page 2.

Summary of activities completed in 2019:

- California milkweed distribution
 - ACRCD and project partners developed the [California Milkweed in the East Bay](#) project in iNaturalist, allowing citizen scientists to collaboratively document occurrences of *A. californica* in Contra Costa County and in Alameda County; this project continues to provide data on *A. californica* observations, improving our understanding of the species habitat requirements and current distribution, in connection with existing records on Calflora.
 - ACRCD and project partners reported the first record of *A. californica* (one stand) on San Francisco Public Utility property in the Alameda Creek Watershed.
- California milkweed protection
 - NRCS consulted with the East Bay Chapter of the California Native Plant Society to bring *A. californica* onto their radar as a rare local species, aiming to increase sighting records and prioritize protection.
- California milkweed seed collection and propagation
 - Based on above-mentioned observations, ACRCD and project partners visited five locations from which to collect *A. californica* seed for species propagation: (1) EBRPD Morgan Territory Regional Preserve (no plants observed); (2) Round Valley Regional Preserve (two plants observed, but no seed available in August 2019); (3) Las Trampas Regional Wilderness (no *A. californica* observed, but *A. speciosa* recorded); (4) private ranch on Mines Rd., East Alameda Co. (17 plants observed, seed collected); and (5) Black Diamond Mines Regional Preserve (8 plants observed, seed collected from 6).

Because late rains caused a delay in bloom and seed production in 2019, ACRCD and project partners delayed seed germination to 2020. This delay was necessary to maximize the growth window for *A. californica* seedlings, allowing outplantings sufficient root structure to increase their chances of survival.

Summary of activities completed in 2020

- *A. californica* seed from Mines Rd. and Black Diamond Mines collections was sown and propagated by The Watershed Nursery; data were collected to assess seed germination and transplant survival rate of seedlings treated under different conditions.
- A drafted, associated propagation and seed survival study (Sardinas et al.; p. 3), is being prepared to summarize this work and will be published as a white paper or in an appropriate local journal, in order to contribute to propagation guidance for this species. Black Diamond Mines germination rates were particularly low, thought to be related to later collection of seed pods from this location.
- NRCS and TWN staff delivered 136 propagated *A. californica* to three ranches along Mines Road, including greenhouse storage, from which final delivery to two additional ranches is scheduled after additional winter rains. For ideal planting conditions, additional winter rains are desired to avoid drought-induced mortality of plants placed in the ground.

Planting of these seedlings is anticipated in early 2021 and will complete grant deliverable as initially described in the ACRCDC grant proposal “Expanding Early-season California Milkweed (*Asclepias californica*) for Monarch Conservation in Alameda County Rangelands”, dated 15 Feb 2019.



Figure 1. Delivery of California milkweed to rancher (M. McElfresh) Watershed Nursery (D. Benner) and NRCS (not pictured), 15 Dec 2020, Mines Rd., Alameda Co., CA. Photo credit – J. Charbonneau, NRCS.by The



Figure 2. California milkweed delivered to ranch on Mines Rd., Dec. 2020, propagated from 2019 seedling collection.

