

**Draft key to the *Malacothamnus* (Malvaceae) of the San Francisco Bay Area**  
**Including: Alameda, Contra Costa, Merced, San Joaquin, San Mateo,**  
**Santa Clara, Santa Cruz, and Stanislaus Counties, CA**  
**by Keir Morse**  
**Updated Feb. 27, 2022**

Comments, corrections, and questions welcome at [kmorse@rsabg.org](mailto:kmorse@rsabg.org)

This key is based on dry specimen measurements. Estimated measurements for fresh material is included in [square brackets].

1. Flowers drying partially to fully open; calyx lobes  $\geq 6$  [7] mm long - *M. fremontii*

1'. Flowers drying closed; calyx lobes  $< 6$  [7] mm long - 2

2. Rays of stellate hairs on stem distinct to the naked eye,  
longest stem hair rays generally  $> 0.5$  mm; calyx bract length  $\geq 3$  [3.5] mm - *M. arcuatus*

2'. Rays of stellate hairs on stem not distinct to the naked eye,  
longest stem hair rays generally  $\leq 0.5$  mm; calyx bract length  $\leq 3.5$  [4] mm - *M. hallii*

Notes:

- Measurements from dry specimens. Estimated values for fresh specimen measurements in [square brackets] converted by multiplying by 1.2 and then rounding to nearest 0.5. Stellate trichome size should be the same dry or fresh.
- See Calphotos for more images of each species
- Calyx bracts are a whorl of three bracts beneath each calyx.
- Suspected hybrids of *M. hallii* and *M. fremontii* may key to *M. arcuatus*, but often have flowers drying partially open and are mostly known from Contra Costa County where *M. arcuatus* is not known to occur
- Plants where the ranges of *M. arcuatus* and *M. hallii* come together may be intermediate

*M. arcuatus*

- Known to occur in San Mateo, Santa Clara, and Santa Cruz Counties

*M. fremontii*

- Known to occur in Alameda, Contra Costa, San Joaquin, Santa Clara, and Stanislaus Counties
- *M. fremontii* from this region is subspecies *cercophorus* (*M. howellii*) if recognized

*M. hallii*

- Known to occur in Contra Costa, Merced, Santa Clara, and Stanislaus Counties



*Malacothamnus fremontii* – flowers drying open, longer hairs and calyx lobes/bracts

