

**Alameda
manzanita**

*Arctostaphylos
pallida*

State: Endangered 1979
Federal: Threatened 1998

General Habitat:

Alameda manzanita occurs in the Diablo Range of Contra Costa and Alameda Counties where grows on siliceous shales of uplifted marine terraces. It is primarily in manzanita-dominated scrub surrounded by oak woodland and coastal scrub. Associated species include brittleleaf manzanita and shrubby interior live oak. It is also found in the understory of landscaping trees such as Monterey pine and Monterey cypress.

Description:

Alameda manzanita, a member of the heath family (Ericaceae), is a tall, erect, evergreen shrub without a basal burl. It has branchlets with short, bristly hairs, thin, smooth, pale green leaves that clasp the stems, white flowers, and bright red fruits.



Status:

Alameda manzanita, also referred to as pallid manzanita, is found primarily at Sobrante Ridge Preserve and Huckleberry Preserve in Contra Costa and Alameda counties. Sobrante Ridge is completely within a 111-hectare (277-acre) Regional Preserve owned and managed by East Bay Regional Park District. Most of the population at Huckleberry Ridge is within lands owned and managed by East Bay Regional Park District (EBRPD) as part of the 94-hectare (236-acre) Huckleberry Botanic Regional Preserve. Scattered plants within the Huckleberry Ridge population also exist on privately owned lots along Villanova and Manzanita Drives in the City of Oakland. Several other small (natural and planted) populations occur in Alameda or Contra Costa Counties.

Alameda manzanita is addressed in the 2003 Draft Recovery Plan for Chaparral and Scrub Community Species East of San Francisco Bay California. The primary threats to *Arctostaphylos pallida* are the effects of fire suppression, shading, and competition from native and nonnative plants. The species also is threatened by disease, herbicide spraying, hybridization, and the ongoing effects of habitat loss and fragmentation. Possibly the single most important factor limiting the recovery of the *Arctostaphylos pallida* is the continuing suppression of its natural disturbance regime.

It is believed that fire plays a major role in maintaining the health of manzanita stands and the genetic diversity of populations. *Arctostaphylos pallida* is a fire-adapted chaparral shrub that shows signs of decline with great size and age. Fire suppression in the Oakland/Berkeley Hills, in combination with increased browsing of tree and

shrub seedlings and acorns by deer and livestock, has led to structural and compositional change in habitats within the range of *A. pallida*. Open-canopied oak woodlands maintained historically by frequent fire have been converted, in the absence of fire, into closed-canopied woodland-forests dominated by California bay, other native trees, or exotic coniferous or *Eucalyptus* forests. The denser canopies of these forests and woodlands create a microclimate unsuitable for healthy *A. pallida* plants. Additionally, as populations of *A. pallida* dwindle, the negative effects of genetic drift and inbreeding depression may be magnified. Small populations often are subject to increased genetic drift and inbreeding as consequences of their small populations. A loss of genetic variability, and consequent reduction in genetic fitness, provides less opportunity for a species to successfully adapt to environmental change.

Proposed management by East Bay Municipal Utility District includes rectifying some of the shading and competition problems, and collecting seed for greenhouse propagation for the purpose of planting this species in a more manageable location. This area has an extremely high wildfire potential and East Bay Municipal Utility District is considering a plan to remove the woody plants and plant grasses to reduce the fire threat to nearby homes. EBRPD has purchased some small lots that are contiguous with existing park land and that support Alameda manzanita. Removal of non-native trees such as Monterey pine and eucalyptus also benefit the species. However, much of the species' habitat is close to existing homes, and ecological use of fire in this intermix of residential development and wildland is not feasible. Due to past and present fire suppression policies and inactive or ineffective fire management plans, the long-term viability of *Arctostaphylos pallida* is in doubt.