

## Appendix 7 Vegetation Management of Tidal Marsh Edges, San Francisco Estuary

**Cooper, W.S. 1927. Vegetational development upon alluvial fans in the vicinity of Palo Alto, California. Ecology 7:325-473.**

**Excerpt:** description of historic conditions of south San Francisco Bay terrestrial-tidal marsh ecotone vegetation, based on field work 1913-1915 and interviews with G.F. Beardsley, resident 1867-1870 and 1873-1874, and historic map evidence.

**Beardsley:** “The salt marsh region. First there was the great salt mrash, with all its winding sloughs and creeks, covered with samphire grass [*Salicornia/Sarcocornia*] and tufts of *Grindelia*: next was a line of natural salt pan; next again was a strip of land of varying width, from a few hundred yards to one fourth mile, covered with a short, wiry, hard grass [*Distichlis*] and a plant [composite/aster family] growing from 6 to 15 inches high, densely covered with short leaves having sharp points [*Centromadia pungens*, spikeweed]. The plant when dry or nearly dry was nearly impossible to walk through and hard to drive animals through. The uncultivated fields...up to the Alviso Road, were also covered with this stuff.

**Cooper:** “...a sort of bird’s-eye view, of the valley vegetation as it was before the inrodes due to the whites, say at the time of Vancouver’s visit. The map (Fig. 3) has been prepared from all available sources: present vegetation relict evidence, the Geological Survey map, early narratives, and especially Mr. Beardsley’s description. It may be accepted as a faithful representation of the original vegetation in its broader features. The zonal arrangement is very apparent: first the salt marsh; next, the open meadow-like belt dominated by *Centromadia*, *Hemizonia*, and other composites, with willow thickets along the stream courses, in the slight depressions of the surface, and around occasional ponds; third, the belt of oaks, open and park-like in the main but with low shrubby undergrowth in certain portions, its outliers mainly *Quercus lobata*, with *Q. agrifolia* dominating the larger masses, and probably occasional opening with herbaceous growth or chapparal...Salt Marsh and Willow-Composite Community occupy the region between sea level and the 25 foot contour.