The Grasslands of the Potrero San Pablo and Point Molate Shore

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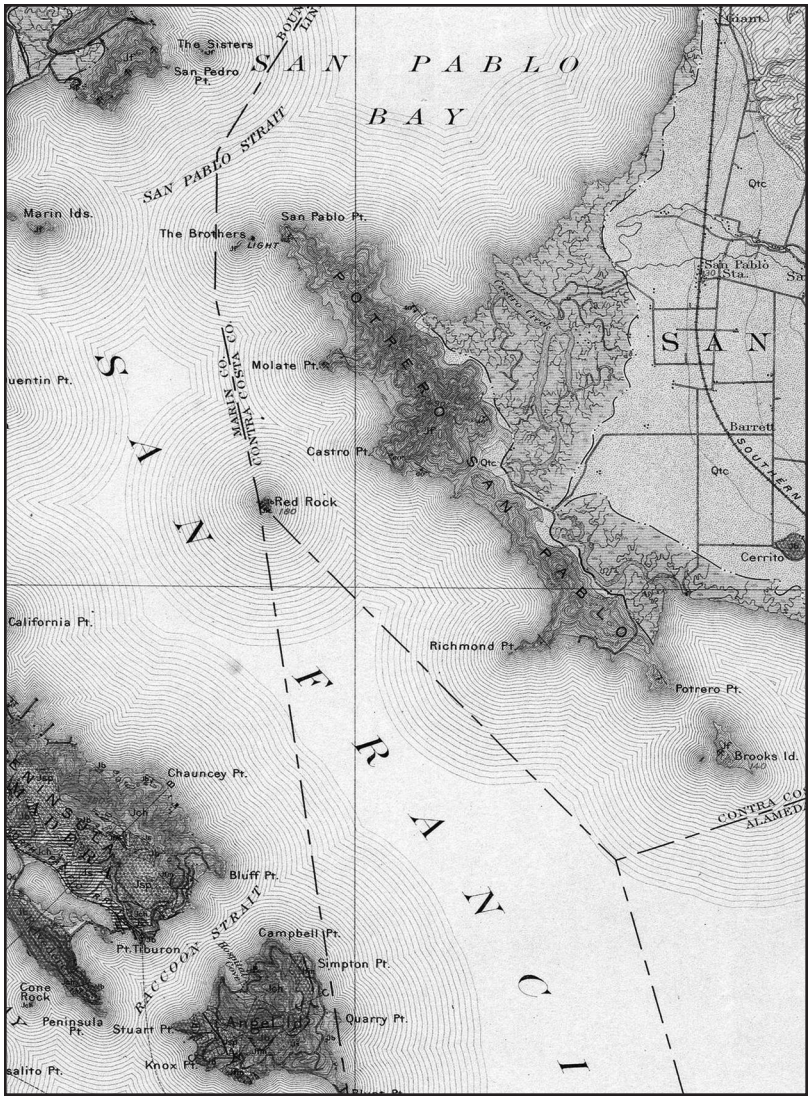
When the first Spanish explorers ventured through the Golden Gate into San Francisco Bay, they mapped out two large bays, one to the south, San Francisco Bay, and one to the north, San Pablo Bay. The gap between the two bays was cut off by a low grassy island mountain barely connected to the East Bay via a large inner maritime marshland that separated the island from the mainland. The mariners named this marsh "Potrero San Pablo" after the Spanish word for "open grassland/meadow" (i.e., *potrero*). On the Marin side of the bay, the mountain topography is higher, dominated by an oak/bay forest and glens of open valley oak, black oak, and Oregon oak woodland with manzanitas and chamise. The eastern end of this range is known as China Point. Between China Point and Potrero San Pablo are the narrows where the waters of the Sacramento and San Joaquin Rivers pass into San Francisco Bay. Today, Potrero San Pablo, including the western shore facing Mt. Tamalpais, is one of the last undeveloped tracts of shoreline habitat in the East Bay where the hills come right down to the water's edge.



San Francisco Quadrangle—AREAL GEOLOGY, U.S. Geological Survey, A.H. Thompson (geographer), Andrew C. Larson (geology), Edition of 1913. *Map provided by Jim Hanson*

I was drawn to explore the Potrero San Pablo grasslands in the early 1970s while searching for local populations of native grasses for restoring the soon-to-be-built Berkeley waterfront park. To my amazement, I found a native red fescue growing in the grasslands. In 1970, no one took much notice of native grasses, and most assumed that any red fescue in the Bay Area was introduced. However, this red fescue was a very special ecotype with thick bluish leaves. I was amazed that it grew vigorously along the shoreline from the water's edge to the top of the Potrero. We named it "Molate fescue" after Point Molate on the western side of the range facing Mt. Tamalpais. I have found myself returning to the Potrero San Pablo/Point Molate shore often and have identified a rich variety of native grasses. Over the years I have led many field trips there because it is one of the best places to see a remnant coastal prairie meet the edge of the Bay.

For over 5,000 years, before the Spanish arrived, the Native Americans harvested abundant shellfish along these shores and marshes, creating large middens. Potrero San Pablo was occupied during the Mexican land grant period, followed by the 49ers and Chinese shrimpers until the early 1900s. The grassland was grazed primarily by horses and cattle. Later in the 20th century, Standard Oil bought a large portion of the Potrero and built an oil refinery that fortunately is largely hidden on the eastern side of the grassland where much of the marsh was filled. One of the earliest and most imposing structures along the Point Molate shore is the large brick building that once housed the Winehaven wine bottling and shipping business at Point Molate from the early 1900s until Prohibition. Later, this area became a Navy base for storing fuels and oil, which was abandoned in the late 1970s.

Point Molate and the surrounding grasslands are uniquely situated. They seem to sit in the rain shadow of Mt. Tamalpais, but they actually receive abundant rainfall during major rain storms, more than the rest of the East Bay shoreline. The bluish Molate fescue ecotype in the Bay Area is found on either side of the Bay, from China Point in Marin County to Point Molate/Potrero San Pablo in the East Bay, and from San Bruno Mountain in San Mateo County to the coast of Pacifica where it grows with tufted hairgrass *(Deschampsia caespitosa)* along Highway 1. There are several forms of the Molate fescue growing along the coast from Big Sur north to

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Point Arena, the Mendocino Coast, and to Arcata and Patrick's Point in Humboldt County.

Geologically and botanically, the Potrero San Pablo ridge is part of the narrow gap between the San Pablo and San Francisco bays. From Point Molate, the summer fogbank can be seen rolling in from the Golden Gate and drifting into San Pablo Bay along the Point Molate shore. The western shoreline stays mostly sunny, with Mt. Tamalpais dominating the distance. Other outlier features include Cerrito Hill in Richmond and the Albany Hill. Molate fescue grows on rocky and loamy coastal soils and is found on the Marin shore in the China Camp State Park grasslands and shore sites.

Any time of day or year the views are beautiful and the sunsets spectacular. Point Molate, by far, has some of the best views of Mt. Tamalpais with all its changes and textures in the sunsets and late afternoon fogs. The special combination of climate and topography has created a vibrant plant community. In addition to the Molate red fescue (*Festuca rubra*), the coastal prairie contains beautiful stands of California oatgrass (*Danthonia californica*), purple needlegrass (*Stipa pulchra*), one-sided bluegrass (*Poa secunda*), California melic (*Melica californica*), Torrey's melic (*Melica torreyana*), California brome (*Bromus carinatus*), blue wildrye (*Elymus glaucus*), squirreltail (*E. elymoides*), including a large hybrid form (*E. x hansenii*), junegrass (*Koeleria macrantha*), California fescue (*Festuca californica*), and the creeping Diego bentgrass (*Agrostis pallens*).

Original/early photograph of the "Molate Fescue" (*Festuca rubra*) along the Potrero San Pablo summit. *Photo: David Amme*

Native woody plant communities include California sagebrush *(Artemisia californica)* and the ubiquitous coyote brush (*Baccharis pilularis*). There are beautiful stands of mule's ears (*Wyethia angustifolia*) and pipevine (*Aristolochia californica*) and a host of large and small understory native woody plants. The primary native trees are coast live oak (*Quercus agrifolia*), bay (*Umbellularia californica*), toyon *(Heteromeles arbutifolia*), and willow (*Salix* spp.). The undisturbed native grassland is very stable. The coyote brush remains in check, unlike most of the disturbed East Bay grasslands that have turned into solid thickets over ten feet tall. This is due primarily to the grassland soil stability and the creeping native *Agrostis pallens* that climbs into the coyote brush keeping the plants small and far apart, often snuffing them out into weak, dying, and dead branches. The most critical threat to the Point Molate grasslands are the large, solid French broom (*Genista monspessulana*) infestations that were spread by road graders.

The plant communities of the Potrero Hills support gray fox, coyotes, mule deer, black-tailed jackrabbits, and an endless variety of native birds including jays, seagulls, buzzards, and several soaring raptors. The subtidal zone supports one of the largest beds of the rare eelgrass, which provides critical habitat for herring to feed and spawn, and a host of other aquatic species, including salmon, Dungeness crab, striped bass, steelhead trout, and starry flounder. In turn, the fish and invertebrates are an important food source for ducks, shorebirds, and the endangered least tern. It is not difficult to imagine such a productive ecosystem and interface.

In 2010, the western side of the Point Molate shore near the Winehaven building was almost made into a huge Indian casino complex with all the trimmings. Fortunately, this was summarily defeated by the City of Richmond voters. However, the Point Molate coast and hills are still not safe. Proposals for condominiums on the shore are still in the works. The California Native Plant Society, CNGA, Sierra Club, and other activist organizations will hopefully band together with the City of Richmond to save this precious resource for future generations.

California Native Grasslands Association

The mission of the California Native Grasslands Association is to promote, preserve, and restore the diversity of California's native grasses and grassland ecosystems through education, advocacy, research, and stewardship.

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