

TAYLOR MOUNTAIN RANCH PROPERTY
BOTANICAL SURVEY

Prepared for:

**Sonoma County Agricultural Preservation
& Open Space District**
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SONOMA COUNTY
AGRICULTURAL PRESERVATION
AND OPEN SPACE DISTRICT

INTRODUCTION

CRP has completed the June/July 2006 botanical survey of the 823-acre Taylor Mountain Ranch Property, located east of Santa Rosa, California. The property consists of relatively steep north and west facing slopes of Taylor Mountain, ranging from approximately 200 feet to 1,360 feet in elevation and bisected by several seasonal streams. A residential compound, including the site of the historical Kawana Springs Resort, is located near the northern boundary of the property. The property has historically been, and is currently being grazed by cattle. Wildlife habitats on the property include: Annual Grassland, Coastal Oak Woodland, Montane Riparian, Wet Meadow, and Lacustrine (California Department of Forestry, 1988).

METHODOLOGY

The California Natural Diversity Database (CNDDDB), a computerized inventory of the locations of rare, endangered, or threatened plants and animals in California, was queried prior to performing any fieldwork. CRP staff member Rob Evans performed fieldwork at the site on June 21st, July 12th, 19th and 27th, 2006. The survey consisted of walking through the various habitat types on the property and noting plants encountered within each habitat type. An inventory of plant species encountered, along with the habitat type they were found in, is included in this report. The habitat types were mapped onto an air-photo base map (AirPhoto USA, August 2004) utilizing aerial photo interpretation and performing field checks. The Taylor Mountain Botanical Assessment Map is included with this report. The locations of the major infestations of invasive plants encountered during the fieldwork were documented with a hand held GPS unit, utilizing both ESRI ArcPad, and Trimble Pathfinder Office software. Major infestations encountered are depicted on the Taylor Mountain Botanical Assessment Map.

It should be noted that plants flowering in early spring were most likely dormant at the time the fieldwork occurred, and were no longer identifiable. Also, due to grazing of plant material by cattle, plant identification in some areas was limited.

SPECIAL STATUS PLANTS

No special status plant species were encountered during the field survey. The California Native Plant Society (CNPS) lists 18 special status plants occurring within the Santa Rosa Quadrangle, of which Taylor Mountain is located. Most of these species occur primarily within vernal pools on the Santa Rosa plain, or on serpentine soils typically associated with chaparral vegetation. These habitats were not encountered on the property.

It should be noted that numerous seeps occur on the property and have been classified as Wet Meadow habitat type. Several of the special status species listed by CNPS as occurring in mesic areas within "valley and foothill grassland" could possibly occur in this habitat type on the property including: Baker's navarretia (*Navarretia leucocephala*

ssp. *bakeri*), saline clover (*Trifolium depauperatum* var. *hydrophilum*), and Sebastopol meadowfoam (*Limnathes vinculans*). Other species listed that occur in "valley foothill grassland" in more xeric conditions (and sometime serpentine) include big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*), bent-flowered fiddleneck (*Amsinckia lunaris*), and fragrant fritillary (*Fritillaria liliacea*). Of these special status species, only Sebastopol meadowfoam is Federally, or State listed. The remainder of the species mentioned above are listed by CNPS as 1B.2, (endemic to California, and fairly endangered in California).

The Wet Meadow habitat type is considered sensitive because wetlands are regulated under Section 404 of the Clean Water Act. Riparian zones are also regulated under the Clean Water Act, as well as by Sections 1601-06 of the California Department of Fish & Game Code. Wetland plants encountered in these habitat types are noted in the habitat descriptions below. Wetland species, as defined by the U.S. Fish and Wildlife Service (Resource Management Group, 1993) include the following categories:

- 1) Obligate Wetland (OBL) Occurs with an estimated 99% probability in wetlands.
- 2) Facultative Wetland (FACW) Estimated 67%-99% probability of occurrence in wetlands.
- 3) Facultative (FAC) Equally likely to occur in wetlands and nonwetlands (34%-66% probability).
- 4) Facultative Upland (FACU) 67%-99% probability in nonwetlands, 1%-33% in wetlands.
- 5) Obligate Upland (UPL) >99% nonwetlands in California
- 6) No Indicator (NI) Insufficient information available to determine status.

INVASIVE PLANTS

The following invasive plants (Bossard, et. al., 2000) were encountered in the more wildland settings outside of the residential compound on the property: French broom (*Genista monspessulana*), blue gum eucalyptus (*Eucalyptus globules*), Himalayan blackberry (*Rubus discolor*), yellow starthistle (*Centaurea solstitialis*), purple starthistle (*Centaurea calcitrapa*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), milk thistle (*Silybum marianum*), medusahead (*Taeniatherum caput-medusae*), Harding grass (*Pharlaris aquatica*), pennyroyal (*Mentha pulegium*), saltcedar (*Tamarisk* sp.), and periwinkle (*Vinca major*). In addition, English ivy (*Hedera helix*), and Spanish broom (*Spartium junceum*) was noted within the residential compound, along with several of the species listed above.

The locations of some of the major infestations of invasive plants are included on the Taylor Mountain Botanical Assessment Map. Several species are widespread throughout the property, including pennyroyal in the Wet Meadow habitat type, and medusahead, along with both yellow and purple starthistle in the Annual Grassland habitat type.

HABITATS:

The Taylor Mountain Ranch Property is dominated by the Coastal Oak Woodland and Annual Grassland habitat types, with Montane Riparian, Wet Meadow, and Lacustrine habitat types making up the remainder of the property. A description of the habitat types follows. A brief description of the dominant plants encountered within the residential compound is also included. The plant inventory that is included with this report includes the habitat type within which each species was encountered.

Annual Grassland (AGS)

The Annual Grassland habitat type, currently being grazed by cattle on the property, is widespread and consists of primarily annual plant species. Germination typically occurs after the first fall rains, and die off during the hot, dry summer months. It should be noted that some of the early flowering plant species that exist on the property might have already died off by the time the fieldwork for this assessment was performed. Non-native annual grasses are the dominant plants within this habitat type. Also occurring are annual forbs, including many native and non-native wildflowers, perennial native grasses, and an occasional tree or shrub.

Wet Meadow (WTM)

Wet Meadows on the Property, generally surrounded by the Annual Grassland habitat type, are primarily associated with upland springs and seeps. Wet Meadows typically occur where water is at or near the surface most of the growing season. The soils, although they have little or no standing water, have a slow rate of permeability and are often colonized by wetland species.

Cattle currently have access to much of the Wet Meadow habitat type on the property. Vegetation in the Wet Meadow habitat type can consist of a wide variety of plant species. Common genera include *Carex*, *Juncus*, and *Scirpus*. The invasive plant pennyroyal (*Mentha pulegium*) is widespread within the Wet Meadow habitat type on the property. Patches of Himalayan blackberry (*Rubus discolor*) around the perimeter is fairly common. Species encountered that have the wetland status of FAC, FACW, or OBL are listed below. Plants with an asterisk are non-native.

COMMON NAME:

pennyroyal *
spreading rush
brown-head rush
toad rush
green rush
Bolander's rush
dense sedge
nut-grass
pale spikerush
giant horsetail
white brodiaea

SCIENTIFIC NAME:

Mentha pulegium (OBL)
Juncus patens (FAC)
Juncus phaeocephalus (FACW)
Juncus bufonis (FACW)
Juncus effusus (OBL)
Juncus bolanderi (OBL)
Carex densa (OBL)
Cyperus eragrostis (FACW)
Eleocharis macrostachya (OBL)
Equisetum telmateia (OBL)
Triteleia hyacinthina (FACW)

bull clover	<i>Trifolium fucatum</i> (FAC)
blow wives	<i>Achyrachaena mollis</i> (FAC)
mugwort	<i>Artemesia douglasiana</i> (FACW)
prickly lettuce *	<i>Lactuca serriola</i> (FAC)
bristly ox tongue *	<i>Picris echioides</i> (FAC)
prickly sow thistle *	<i>Sonchus asper</i> (FAC)
canchalagua	<i>Centaureum muehlenbergii</i> (FAC)
horehound *	<i>Marrubium vulgare</i> (FAC)
ribgrass *	<i>Plantago lanceolata</i> (FAC)
California oatgrass	<i>Danthonia californica</i> (FACW)
slender hairgrass	<i>Deschampsia elongata</i> (FACW)
meadow barley	<i>Hordeum brachyantherum</i> (FACW)
rabbitfoot grass *	<i>Polypogon monspeliensis</i> (FACW)
fiddle dock *	<i>Rumex pulcher</i> (FAC)
scarlet pimpernel *	<i>Anagallis arvensis</i> (FAC)
annual mountain dandelion	<i>Agoseris heterophylla</i> (FACW)
Himalayan blackberry *	<i>Rubus discolor</i> (FACW)
California blackberry	<i>Rubus ursinus</i> (FACW)
scarlet monkeyflower	<i>Mimulus cardinalis</i> (OBL)
large monkeyflower	<i>Mimulus guttatus</i> (OBL)
beeplant	<i>Scrophularia californica</i> (FAC)
arroyo willow	<i>Salix lasiolepis</i> (FACW)
cattail	<i>Typha latifolia</i> (OBL)
tule	<i>Scirpus</i> sp. (OBL)

Coastal Oak Woodland (COW)

The Coastal Oak Woodland habitat type occurs throughout the property. Coast live oak (*Quercus agrifolia*), Oregon oak (*Quercus garryana*), and California bay-laurel (*Umbellularia californica*) are the dominant tree species, with California buckeye (*Aesculus californica*), blue oak (*Quercus douglasii*), black oak (*Quercus kelloggii*), Douglas-fir (*Pseudotsuga menziesii*), and Pacific madrone (*Arbutus menziesii*) as associates. Big-leaf maple (*Acer macrophyllum*) and Oregon ash (*Fraxinus latifolia*) occur in some of the more mesic areas. The shrub layer is not well developed in most areas and the understory primarily consists of leaf litter. Snowberry (*Symphoricarpos mollis* / *Symphoricarpos albus*), poison oak (*Toxicodendron diversilobum*), wood rose (*Rosa gymnocarpa*), and various fern species are fairly widespread throughout the habitat type. Italian thistle (*Carduus pycnocephalus*) is common where cattle congregate near the Annual Grassland/Coastal Oak Woodland transition zone.

Montane Riparian (MRI)

The Montane Riparian habitat type is highly variable and structurally diverse. The ephemeral streams on the property are typically dominated by California bay-laurel (*Umbellularia californica*), with coast live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), big-leaf maple (*Acer macrophyllum*), and Oregon ash (*Fraxinus latifolia*) as associates. Willows (*Salix lasiolepis* and *Salix exigua*), and cottonwood (*Populus fremontii*) occur as well as the species mentioned above along the perennial

stream located near the northern property boundary. The invasive plants, Himalayan blackberry (*Rubus discolor*), periwinkle (*Vinca major*), and French broom (*Genista monspessulana*) are common along the perennial stream. The native shrub layer is diverse, with snowberry (*Symphoricarpos mollis* / *Symphoricarpos albus*) and poison oak (*Toxicodendron diversilobum*) occurring throughout the habitat type on the property. Species encountered that have the wetland status of FAC, FACW, or OBL are listed below. Plants with an asterisk are non-native.

COMMON NAME:	SCIENTIFIC NAME:
big-leaf maple	<i>Acer macrophyllum</i> (FAC)
western chain fern	<i>Woodwardia fimbriata</i> (FACW)
blue elderberry	<i>Sambucus mexicana</i> (FAC)
spreading rush	<i>Juncus patens</i> (FAC)
green rush	<i>Juncus effusus</i> (OBL)
Bolander's rush	<i>Juncus bolanderi</i> (OBL)
dense sedge	<i>Carex densa</i> (OBL)
nut-grass	<i>Cyperus eragrostis</i> (FACW)
ninebark	<i>Physocarpus capitatus</i> (FACW)
giant horsetail	<i>Equisetum telmateia</i> (OBL)
hedge nettle	<i>Stachys ajugoides</i> (OBL)
mugwort	<i>Artemisia douglasiana</i> (FACW)
sandbar willow	<i>Salix exigua</i> (OBL)
arroyo willow	<i>Salix lasiolepis</i> (FACW)
Fremont cottonwood	<i>Populus fremontii</i> (FACW)
Oregon ash	<i>Fraxinus latifolia</i> (FACW)
California bay-laurel	<i>Umbellularia californica</i> (FAC)
rabbitfoot grass *	<i>Polypogon monspeliensis</i> (FACW)
western lady fern	<i>Athyrium filix-femina</i> (FAC)
stinging nettle	<i>Urtica dioica</i> (FACW)
Himalayan blackberry *	<i>Rubus discolor</i> (FACW)
California blackberry	<i>Rubus ursinus</i> (FACW)
scarlet monkeyflower	<i>Mimulus cardinalis</i> (OBL)
large monkeyflower	<i>Mimulus guttatus</i> (OBL)
beeplant	<i>Scrophularia californica</i> (FAC)

Lacustrine (LAC)

Lacustrine habitats are inland depressions, or dammed channels containing standing water. They are often classified as ponds and/or reservoirs. Vegetation consists of phytoplankton suspended in water. Lacustrine habitats are used by a variety of wildlife including mammals, birds, reptiles, amphibians, and invertebrates. The pond on the property is frequented by cattle which have impacted the surrounding vegetation. Surrounding tree species include Oregon oak (*Quercus garryana*), coast live oak (*Quercus agrifolia*), and California buckeye (*Aesculus californica*).

REFERENCES

Best, et. al. *A Sonoma County Flora*. 1996. California Native Plant Society.

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Hickman, J.C. *The Jepson Manual - Higher Plants of California*. 1993. University of California Press, Berkeley.

Resources Management Group, Inc. 1993. *National List of Plant Species That Occur in Wetlands, Region 10 - California*.