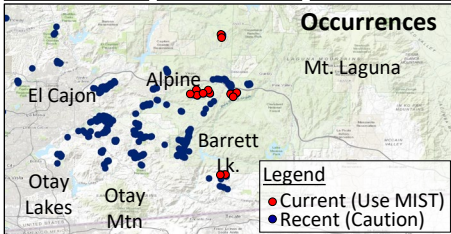
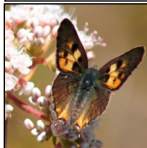


Endangered Species:

Hermes copper butterfly

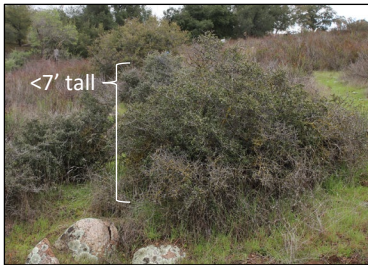
Consult with READ



Description: A small (~1") brown & orange butterfly with short hindwing tails. The under side of the wings is yellow-orange with black dots. Flight season May-July.

Habitat: Scrublands containing its host plant, **spiny redberry**.

Protection: Hermes copper spends most of its life as an egg on woody host plants. It does not recover well after fire. At current sites exclude fire if possible, if not, use MIST & avoid fire retardant if able. At recent locations protect spiny redberry.



To protect Hermes,
protect its host plant,
spiny redberry.



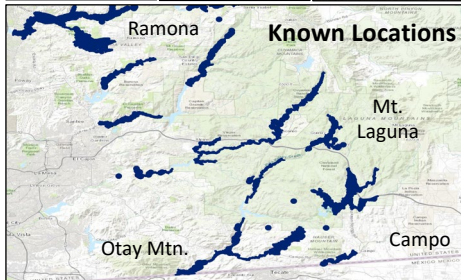
Angular branching pattern
creates a spiny appearance



Endangered Species:

Arroyo toad

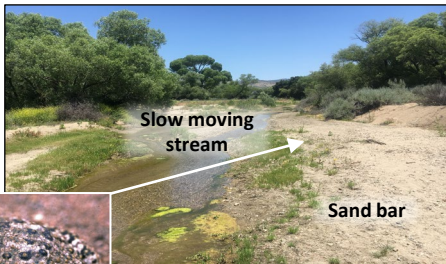
Consult with READ



Description: A small toad (~3 inches long), brownish-tan to greenish-brown body with dark- and yellow-colored spots. NO white stripe down its back (unlike western toads). Primarily active at night. Adults active at night; juveniles can be active during the day.

Habitat: Slow moving streams with shallow pools, sandbars, stream terraces, sandy creek beds & wetland vegetation.

Protection: Arroyo toads are rarely visible, but they are present. Avoid disturbance in habitats listed above year-round.



Photos courtesy of Chris Brown

Endangered Habitat:

Vernal pools

Consult with READ



Mima mound

Vernal pool

Topsoil w/ basins

Impermeable hardpan/ clay

Subsoil

Description: Vernal pools are temporary pools created by rainwater. These do not drain due to a layer of soil that prevents absorption, but dry as summer progresses. Pools fill during winter and spring rains but are dry most of the year.

Significance: Vernal pools are home to rare plants and animals that have evolved to take advantage of these temporary pools.

Protection: To protect vernal pools avoid disturbing the soil structure in and around the pools. Do not use fire retardant.

Known Locations:



Endangered Species:

Quino checkerspot butterfly

Consult with READ



Adult



Larva

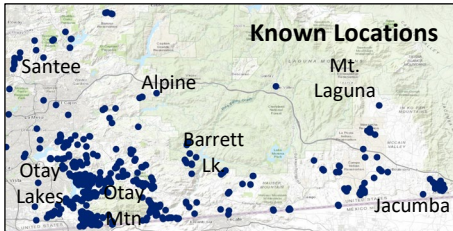


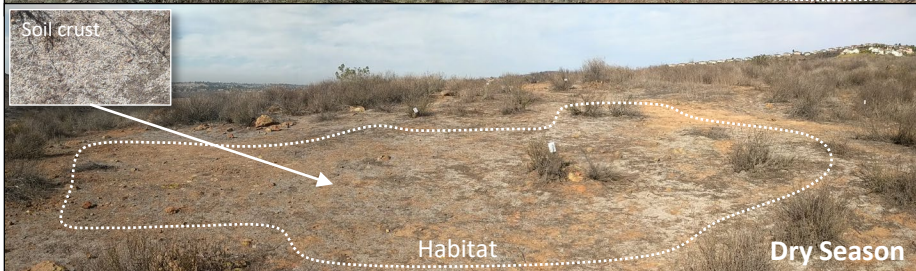
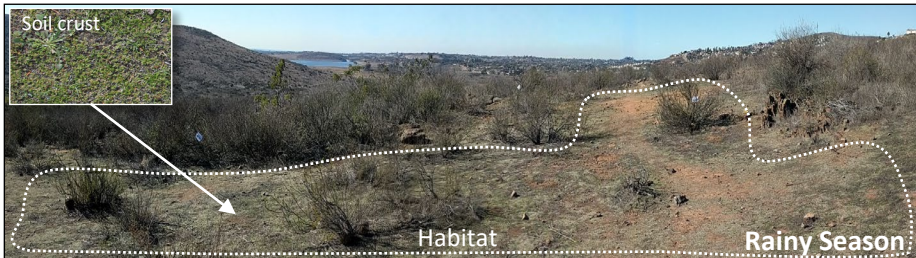
Description: A small (~1") orange, white and black butterfly. Larvae are up to 1", black, with orange spikes on their back.

Habitat: Patchy, open scrublands with several meters between shrubs. Often (not always) associated with soil crusts and clay soils. Found on rounded ridges and hilltops, gently rolling hills, & valley bottoms. During fire season Quino is dormant but present as larva.

Protection: Avoid ground disturbance in scrub openings and soil crusts.

Known Locations

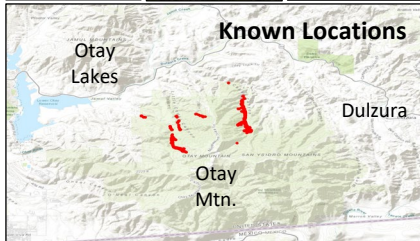




Endangered Species:

Mexican flannelbush

Consult with READ



Description: Tall shrub or small tree, 5-21 feet tall. Unbranched near the ground. Patchy gray bark on trunk and stems. Thick, leathery, dark green leaves and large, bright yellow flowers that are visible March-June .

Habitat: Chaparral vegetation and Tecate cypress forests in canyon bottoms and on slopes above canyon bottoms. North side of Otay Mountain.

Protection: Avoid cutting Mexican flannelbush and ground disturbance in areas supporting flannelbush on Otay Mountain.



Canyon Bottoms



Flowers



Leaves



Mexican Flannelbush & Tecate Cypress



Tecate Cypress Forest



**Trunk
& Bark**

Rare Species:

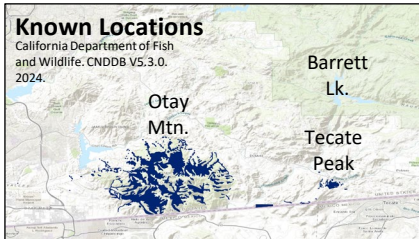
Tecate Cypress

Consult with READ



Known Locations

California Department of Fish
and Wildlife. CNDDB V5.3.0.
2024.



Description: Multi-trunked shrub to tree, < 30 feet tall. Smooth, grey to cherry-red or mahogany-brown peeling bark. Leaves light to dark green. Small, round, dull gray to brown seed cones.

Habitat: Chaparral, riparian vegetation, and Tecate cypress forests in canyon bottoms; stream beds; and north-facing slopes. Uncommon on dry, south-facing slopes.

Protection: Avoid heavy equipment in areas supporting Tecate cypress.



Canyon Bottom & Riparian



Cones



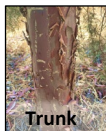
Leaves



Tecate Cypress Forest



Hillsides & Slopes



Trunk



Stem