

Endangered Species:

Arroyo toad

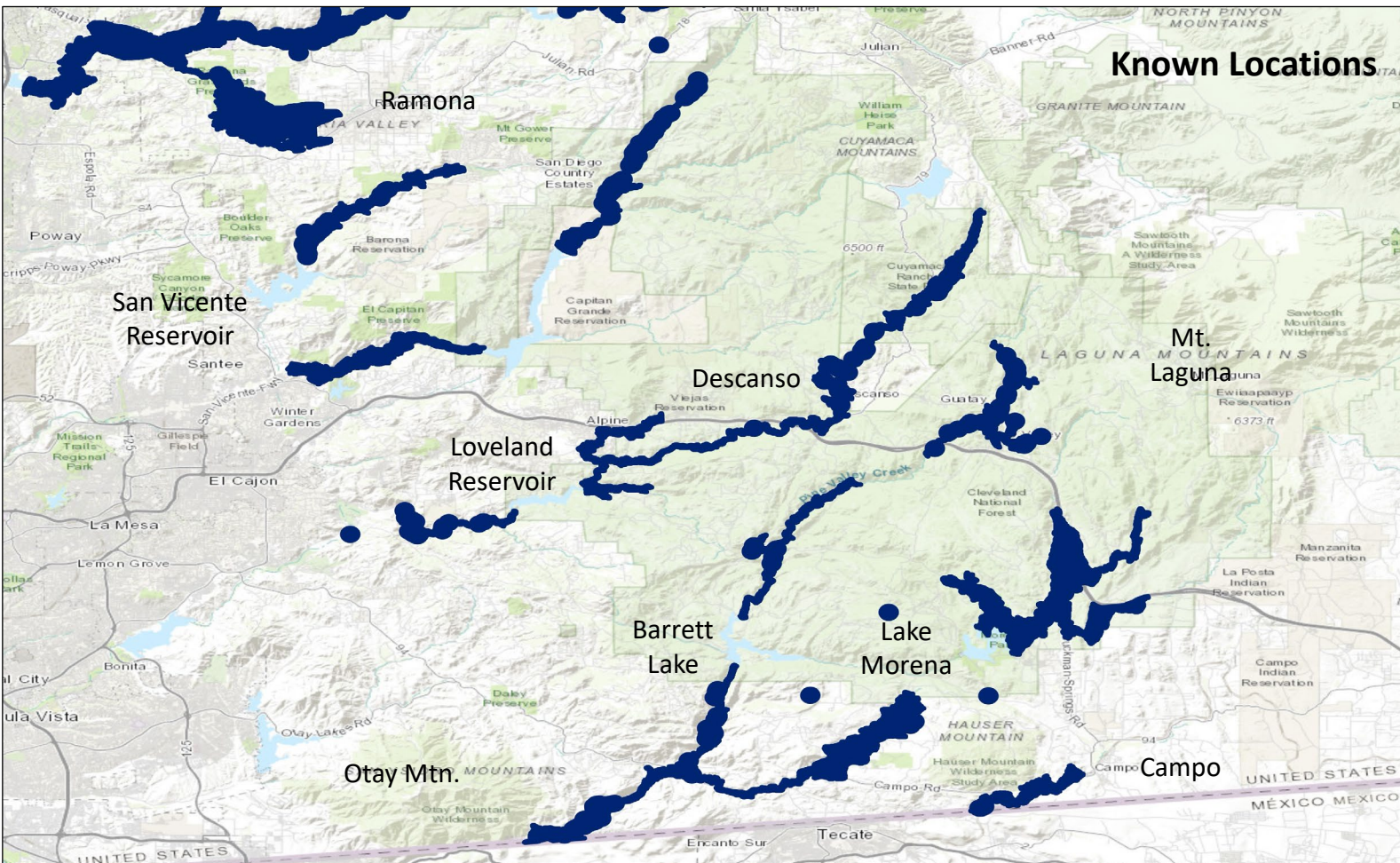
Consult with READ



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). 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.



Endangered Species:

Quino checkerspot butterfly

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Adult

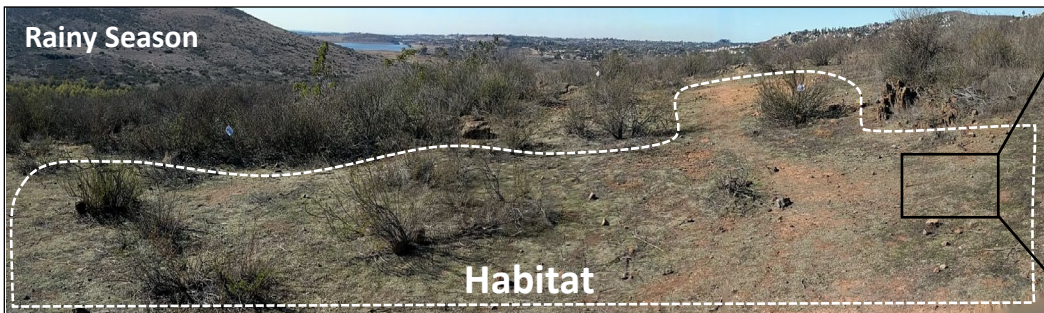


Larva

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.



Rainy Season

Habitat



Soil crust

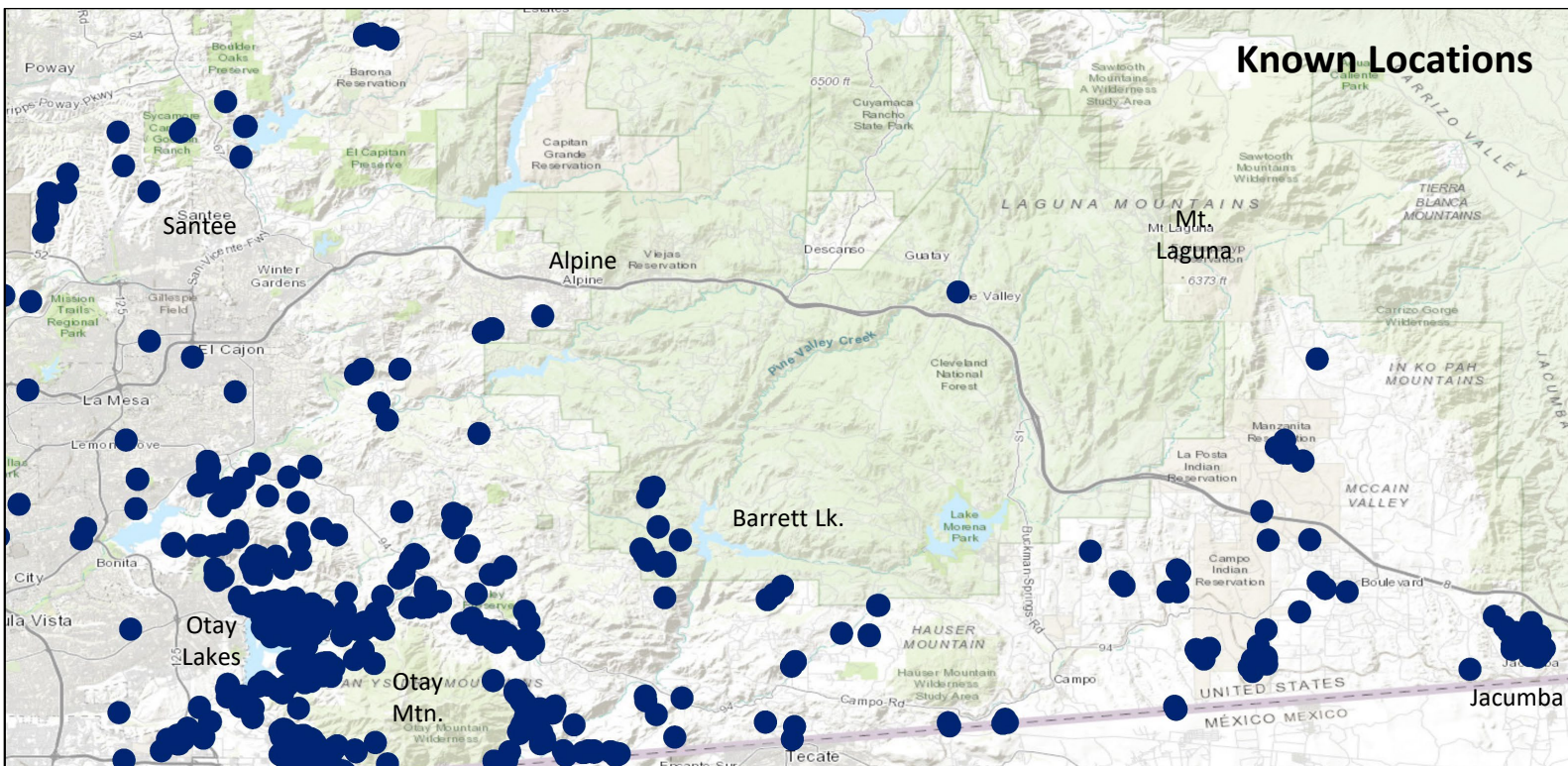


Dry Season

Habitat



Soil crust



Endangered Species:

Hermes copper butterfly

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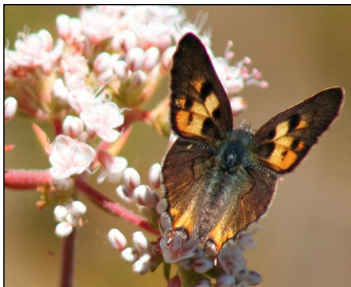


Description: A small (~1") brown & orange butterfly with short hindwing tails. The under side of the wings is yellow-orange with black dots. Flight season May-July.

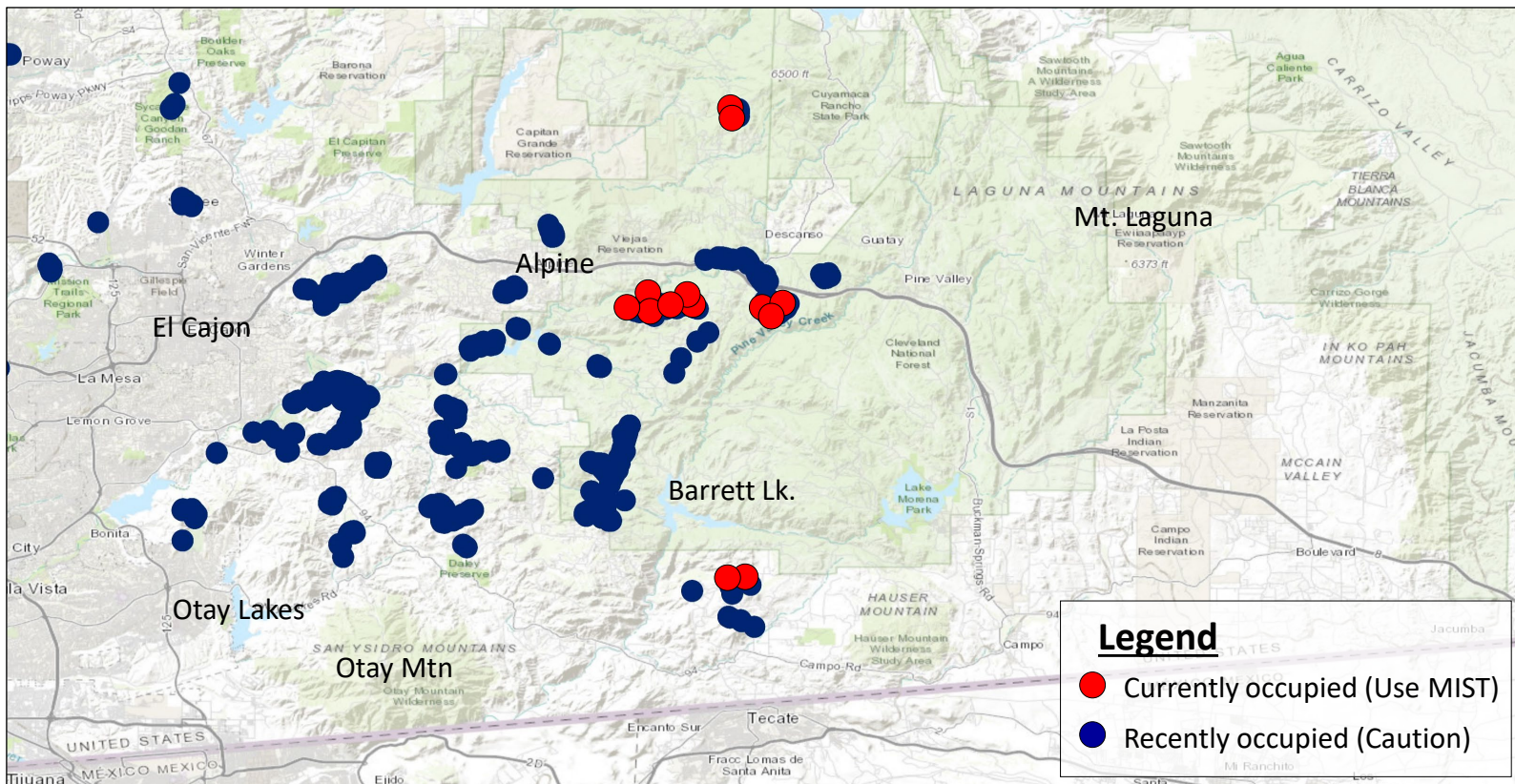
Habitat: Scrublands containing its host plant, **spiny redberry**.

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, do not cut back when using hand tools.

Hermes copper



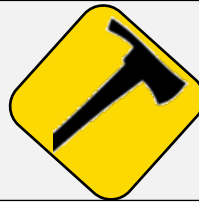
Spiny Redberry



Endangered Habitat:

Vernal Pools

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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.

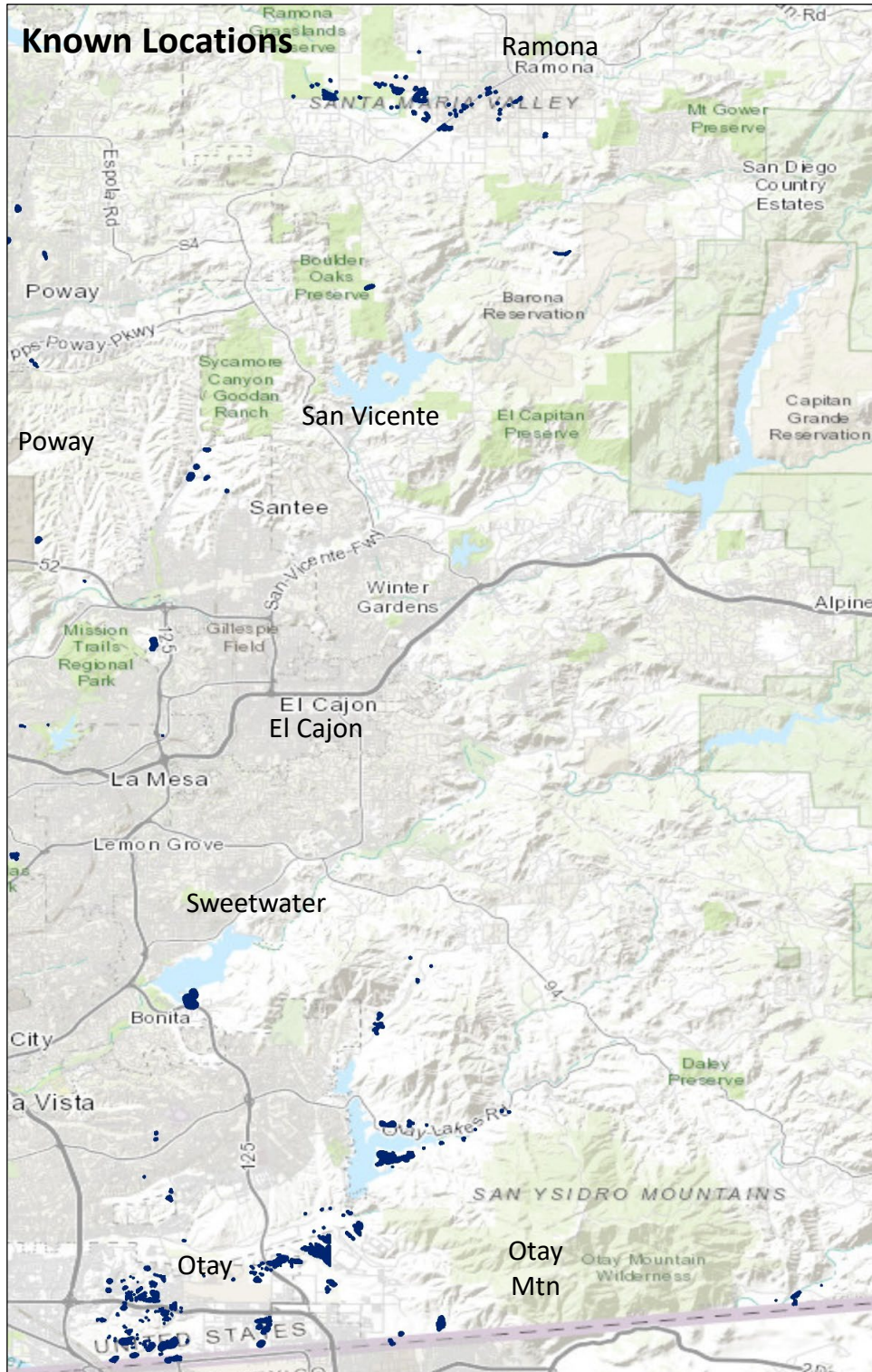
Significance :

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

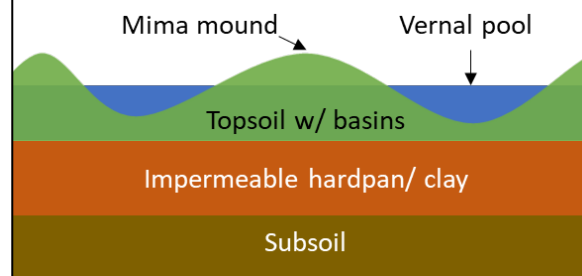
Protection:

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

Known Locations



Structure:



Wet



Drying



Dry



Endangered Species:

Mexican flannelbush

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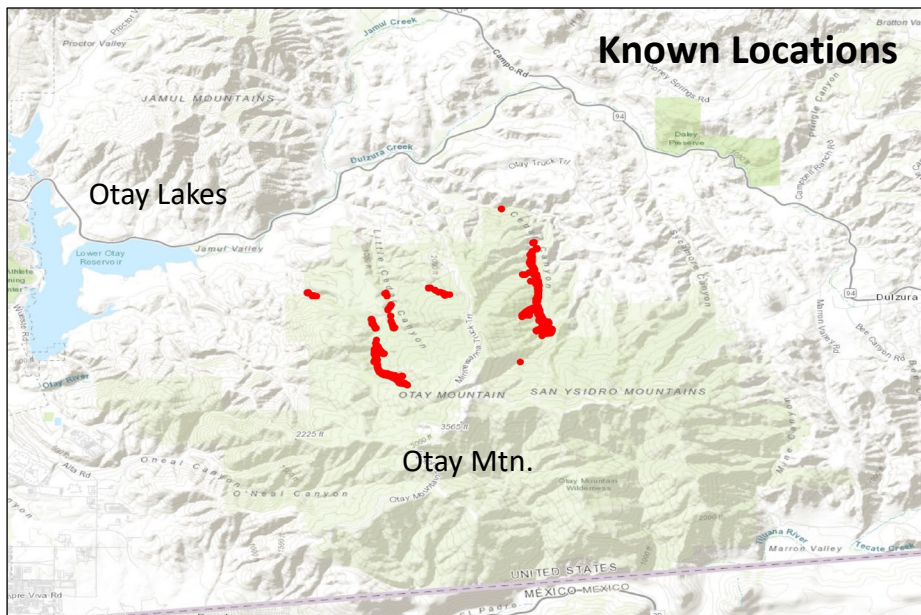
Description: Tall shrub or small tree, 5-21 feet tall. Unbranched near the ground. Patchy gray bark on trunk and stems. Thick, leathery, dark green leaves and large, bright yellow flowers that are visible March-June.

Habitat: Chaparral vegetation & 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



Mexican Flannelbush & Tecate Cypress



Flowers



Trunk & Bark



Leaves



Tecate Cypress Forest

Rare Species:

Tecate Cypress

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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

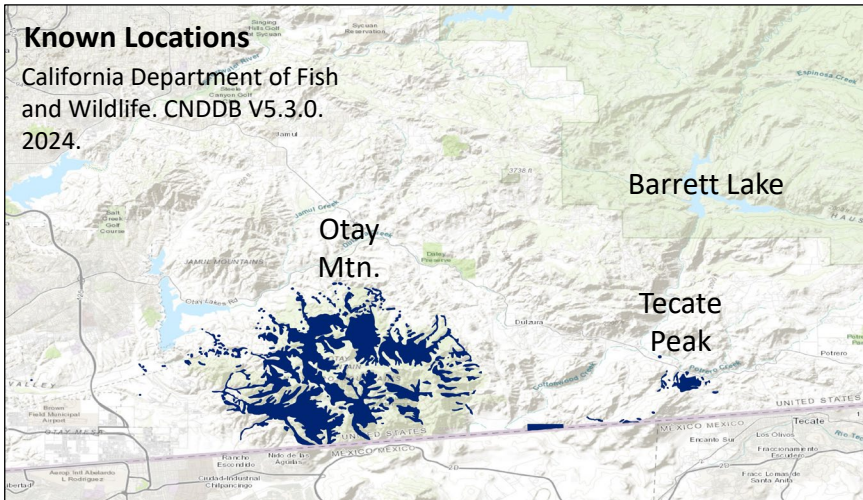


Hillsides & Slopes



Known Locations

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



Tecate Cypress Forest



Stem



Trunk



Leaves



Cones