

UC SANTA CRUZ CAMPUS NATURAL RESERVE

# OHLONE TIGER BEETLE



**Alex English**

**Scientific Name:** *Cicindela ohlone*  
**Common Name:** Ohlone Tiger Beetle (OTB)  
**Global Rarity:** Federally endangered  
**UCSC Rarity:** Very rare



## General Description

Ohlone Tiger Beetles adults are characterized by a vibrant, metallic green coloration with white to cream spots and stripes along their elytra (wing covers). Adults are swift predators and snatch their invertebrate prey with powerful, sickle-shaped jaws. Ohlone Tiger Beetle larva live in small burrows and mature through three instar growth stages. When hunting, larva wait near the burrow entrance and spring out and surprise passing prey. Ohlone tiger beetles are restricted to less than 10 locations, all in coastal prairie habitat in Santa Cruz County, California.



## Adult Identification

**General Color:** Metallic green, occasionally with bronze tint on the elytra and dorsum. Unique pattern of light spots and curved lines on elytra.

**Characteristics:** Large eyes and mandibles

**Size:** 0.95-1.25 cm

## Geographic Range

The Ohlone Tiger Beetle is endemic to a few patches of coastal prairie Santa Cruz County, California. All sites feature Watsonville loam (or similar) soils. Adults are active mid-winter to late spring, and larvae develop spring through fall, typically. Local land managers and agency personnel recently conducted the first-ever translocation of adult Ohlone tiger beetles to a formerly occupied site.







## UCSC Distribution

Occupies two coastal prairie habitats on the UCSC campus: the Marshall Fields complex in Upper Campus and the Mima Meadow in the southern campus.

## Life history

**Habitat:** The Ohlone Tiger Beetle requires coastal prairie habitat featuring Watsonville loam (or related) soils. Bare ground within these habitat is crucial for hunting, basking, mating, and egg-laying.

**Reproduction:** Adult Ohlone Tiger Beetles reproduce from January to May. From around February through early April, the females deposit eggs in the soil and most larvae develop through three instar periods before pupating in the fall and early winter.

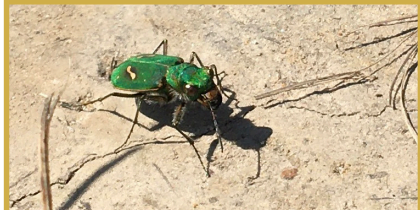
**Behavior:** These beetles are visual predators.

**Diet:** Invertebrates, including ants, small millipedes, and isopods. Larval OTB utilize a sit-and-wait technique where they lurk in their cylindrical burrows waiting for unsuspecting arthropods.

**Predators:** Birds, lizards, and other insects.

## Research Highlights and Fun Facts

- Cattle grazing maintains bare ground. OTB will use bare ground habitat created by land managers (“artificial scrapes”).
- Both adult and larval Ohlone Tiger Beetle are predatory.
- Reducing bicycle speed to five mph can reduce mortality disruptions in the mating cycle of the Ohlone Tiger Beetle.
- Non-native vegetation creates dense, crowded environments which are not ideal for the Ohlone Tiger Beetle.
- The UCSC Ranch View Terrace Habitat Conservation Plan permanently protected 12 acres of occupied OTB habitat.



## Conservation Status

### Federally Endangered

On October 3rd, 2001, the Ohlone Tiger Beetle was declared an endangered species under the Endangered Species Act of 1973.



## Threats

### Rangewide:

The Ohlone Tiger Beetle has a very restricted range and small population size so they are particularly vulnerable to naturally occurring events such as drought, predation, and disease. Unrestricted collecting, pesticides and recreational use of their habitats also provide threats to the Ohlone Tiger Beetle. While bikers can crush adult beetles, they also maintain open ground through the use of trails.

### UCSC campus:

At UCSC the biggest threat is the lack of habitat management to create bare ground and reduce the build up of thatch (dead vegetation from prior years). Invasion of non-native vegetation creates a dense, shady habitat for the beetle which limits the open spaces which are imperative for the beetle to forage, bask, mate, and lay eggs. Recreation, such as biking, can cause direct mortality.

## Ways you can help

If you would like to help conserve the Ohlone Tiger Beetle on campus, watch for and obey signs along trails through coastal prairie on Upper Campus. Slow down to five mph from January to May through these areas. This will lead to less mortality and disruptions during their vital mating time. Support grazing efforts on campus and efforts to permanently protect coastal prairie habitat. Support the use of prescribed fire, which can create beneficial bare ground habitat.

## References and Photo Credits

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