

ATTACHMENT 29:

**USFWS. 2019. *Species Information for the California Tiger Salamander.*
Available at: [https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-
Reptiles/ca_tiger_salamander/](https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_tiger_salamander/). Accessed on: 2/12/19.**

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ContaminantsConservation
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Species Information

California Tiger Salamander

Ambystoma californiense

Basic Species Information

STATUS

The California tiger salamanders around Sonoma County and Santa Barbara are endangered, which means they are in danger of extinction throughout all or a significant portion of its range.

California tiger salamanders in the Central Valley are threatened. The



Photo Credit: John Cleckler / USFWS

species is likely to become endangered in the foreseeable future throughout all or a significant portion of its range, but they are not in danger of extinction right now.

DESCRIPTION

The California tiger salamander (*Ambystoma californiense*) is an amphibian in the family Ambystomatidae. This is a large, stocky salamander, with a broad, rounded snout. Its small eyes, with black irises, protrude from its head.

Adult males are about 20 cm (about 8 in) long. Females are about 17 cm (about 7 in). "Tiger" comes from the white or yellow bars on California tiger salamanders. The background color is black. The belly varies from almost uniform white or pale yellow to a variegated pattern of white or pale yellow and black.

Males can be distinguished from females, especially during the breeding season, by their swollen cloacae, a common chamber into which the intestinal, urinary, and reproductive canals discharge. They also have more developed tail fins.

FOOD SOURCES

Adults mostly eat insects. Larvae eat things like algae, mosquito larvae, tadpoles and insects.

HABITAT

The species is restricted to grasslands and low foothills with pools or ponds that are necessary for breeding.

Natural breeding areas, mostly vernal pools (a seasonal body of standing water), are being destroyed. Ranch stock ponds that are allowed to go dry help take the place of vernal pools for breeding. We are working with ranchers to preserve rangeland.

A California tiger salamander spends most of its life on land. Actually, "in the land" - it lives underground, using burrows made by squirrels and other burrowing mammals. Catching a California tiger salamander requires a permit, but you may be able to see larvae swimming around.

HIBERNATION

Compared to the western toad (*Bufo boreas*) or western spadefoot toad, California tiger salamanders are poor burrowers and require refuges provided by other animals. California tiger salamanders enter a dormant state called estivation during the dry months. They come out of their burrow around November.

MATING

When the salamanders come out of their burrows, in November, it is breeding time. This is likely to be on a very stormy night. They go as much as a mile to a pond to breed.

Adults reach sexual maturity in 4 or 5 years. Although they may live as long as 10 years, they may reproduce only once. Some do not reproduce at all. They may be killed before becoming sexually mature or they may not find a pond for mating, which can happen in very dry years.

Females lay eggs singly or in small groups. They may lay as many as 1,300 eggs. These are usually attached to vegetation. Eggs hatch in about 10 to 14 days. Larvae require significantly more time to transform into juvenile adults than other amphibians. Around late spring, salamanders leave the ponds to find burrows.

RANGE

The California tiger salamander is found mostly the Central Valley of California. Small populations around Santa Barbara and Sonoma. This species is restricted to California and does not overlap with any other species of tiger salamander. They are restricted to vernal pools and seasonal ponds.

In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County (up to elevations of 1067 m [3,500 ft]), and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties (up to 610 m [2,000 ft]). The Sonoma population appears to have been geographically isolated from the remainder of the California tiger salamander population by distance, mountains and major waterway barriers for more than 700,000 years.

PREDATORS

Birds such as herons and egrets, fish, and bullfrogs prey on California tiger salamanders.

THREATS

The primary cause of the decline of California tiger salamander populations is the loss and fragmentation of habitat from urban development and farming. This includes the encroachment of nonnative predators such as bullfrogs, which kill larvae and nonnative salamanders that have been imported for use as fish bait and may out-compete the California tiger salamanders.

Reduction of ground squirrel populations to low levels through widespread rodent control programs may reduce availability of burrows and adversely affect the California tiger salamander. In addition, poison typically used on ground squirrels is likely to have an adverse effect on California tiger salamanders, which are smaller than the target species and have permeable skins.

A deformity-causing infection, possibly caused by a parasite in the presence of other factors, has affected pond-breeding amphibians at known California tiger salamander breeding sites. Use of pesticides, such as methoprene, in mosquito abatement may have an indirect adverse effect on the California tiger salamander by reducing the availability of prey.

Automobiles and off-road vehicles kill a significant number of migrating California tiger salamanders, and contaminated runoff from roads, highways and agriculture may adversely affect them.

WHAT YOU CAN DO

See [What You Can Do to Help Wildlife and Plants \(/sacramento/es_species/Accounts/Amphibians-Reptiles/Documents/What_You_Can_Do.pdf\)](#) (201 KB PDF) for ideas about how to help threatened and endangered species.

Need more specifics? Download the [California Tiger Salamander \(documents/california_tiger_salamander.pdf\)](#) scientific species account.

MORE INFORMATION

Photos & More

- USFWS ES Images (https://www.flickr.com/photos/usfws_pacificsw/sets/72157626476671091/)
- Video, Audio and Images at CaliforniaHerps.com (<http://www.californiaherps.com/salamanders/pages/a.californiense.html>)

Scientific Information

- 5 Year Review (<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=D01T>)
- Recovery Plan ([/sacramento/outreach/2017/06-14/docs/Signed_Central_CTS_Recovery_Plan.pdf](#)) (12.82 MB)
- Critical Habitat Maps ([/sacramento/es/Critical-Habitat/Data/](#))
- Species Account ([documents/california_tiger_salamander.pdf](#)) (159 KB)
- Permit Guidance (<https://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/Cal.TigerSalamanderQuals.pdf>)

News Releases

- January 13, 2015 - Public Input Sought on Conservation Plan for New Solar Park in Merced County ([/sacramento/outreach/2015/01-13/](#))
- January 7, 2015 - Workshop to be held on Santa Rosa Plain Recovery Plan January 20, 2015 ([/sacramento/outreach/2015/01-07/](#))