

USACE Natural Resource Management Reptiles & Amphibians



Giant Garter Snake

FAST FACTS

REASONS FOR LISTING STATUS: Historically, this snake was known to occur throughout Sacramento and San Joaquin Valleys of central California, but now only 5% of its historical habitat remains. At the time of listing, the 13 known populations were isolated from one another with no protected dispersal corridors.

In 1993 the U.S. Fish and Wildlife Service listed the giant garter snake as Threatened under the Endangered Species Act. (USFWS)

MANAGEMENT AND PROTECTION: The USFWS finalized a recovery plan for the giant garter snake in 2017. At the time of listing in 1993, there were 13 recognized populations of this species. However, the recovery plan recognized only 9 populations as 2 populations had been extirpated and genetic research lead to some populations being grouped.

The recovery strategy focuses on protecting existing, occupied habitat as well as identifying and protecting additional areas for restoration, enhancement, or creation of habitat in order to provide connectivity between populations. (USFWS)

HABITAT NEEDS: Historically this species inhabited fresh water marshes, streams, and wetlands throughout the length of the Sacramento and San Joaquin Valleys in Central California.

- In the summer, aquatic habitat is required for foraging. Bankside basking areas with nearby emergent vegetation for cover and thermal regulation are a necessary component of aquatic habitat.
- Water must be present March through November for adequate aquatic habitat.
- Perennial wetlands provide the highest quality habitat, but habitat loss and degradation has pushed this snake to utilize highly modified and degraded habitat such as rice fields.
- While this is a primarily aquatic species, these snakes will occupy upland terrestrial habitat, especially during the inactive winter season. (USFWS)

Description: This snake has a back with a checkered pattern of black spots on a background which varies from brownish to olive. The back has a yellow dorsal stripe and two light colored lateral stripes. The coloration and pattern of the snakes back varies both geographically and individually. The snake's belly is cream to olive, sometimes brown or infused with orange (particularly in northern populations). (USFWS)

Photos: U.S. Fish and Wildlife Service

Natural Resource Management (NRM)

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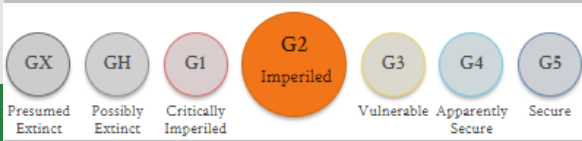


November 2020

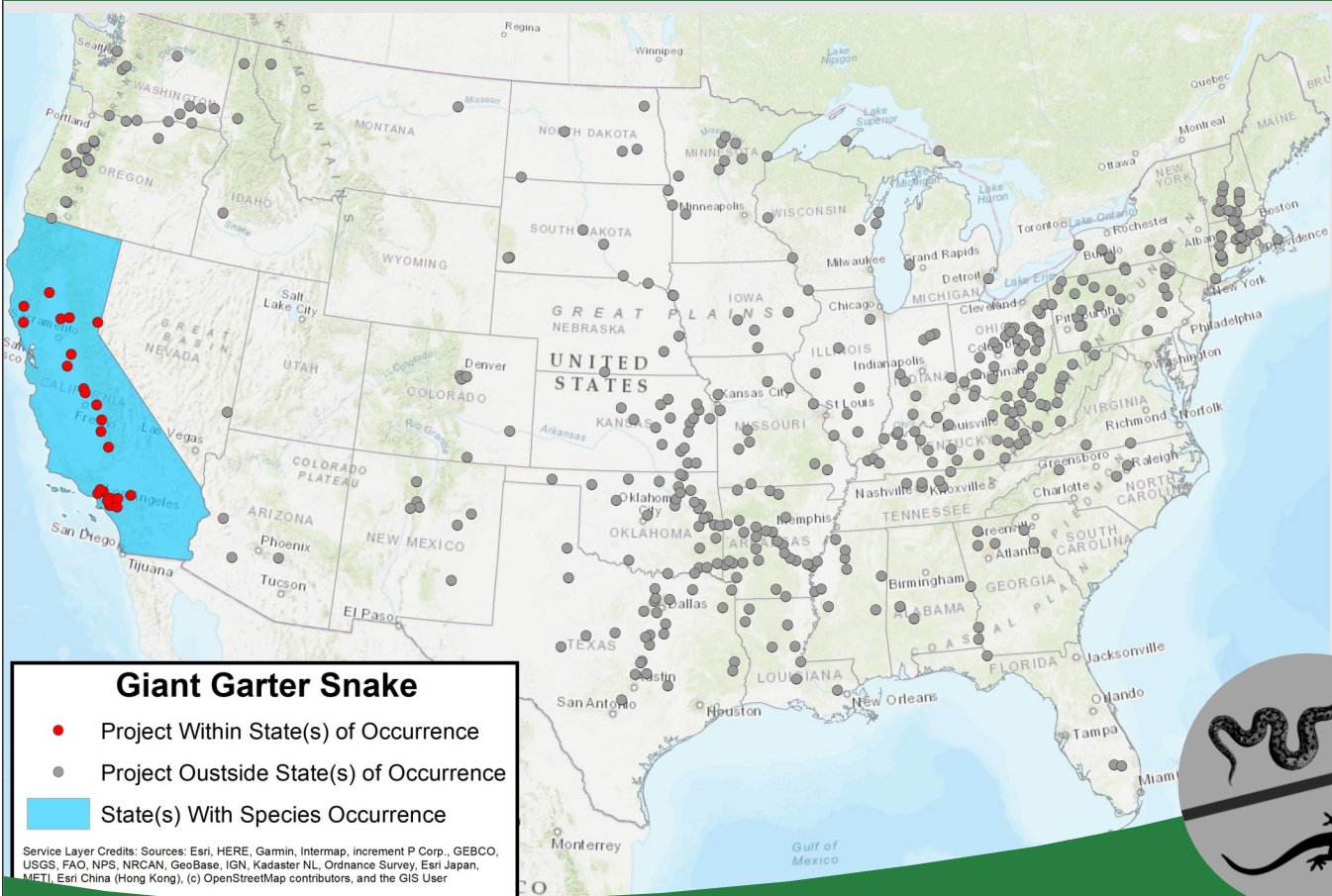
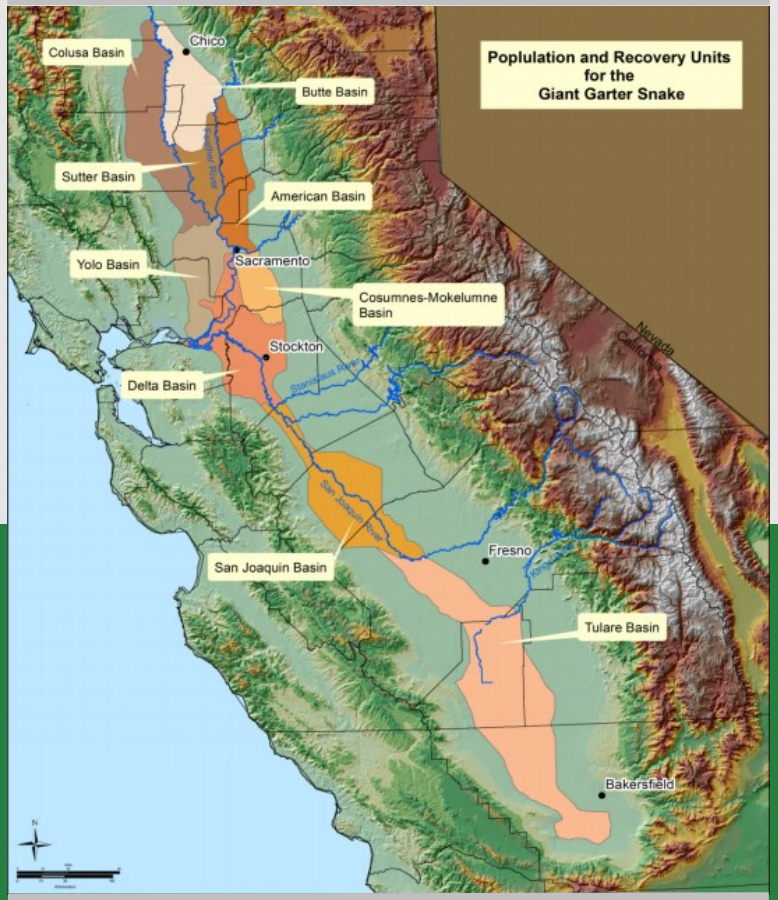
USACE ROLE: With a range restricted to central California, the giant garter snake's range is entirely within the South Pacific Division. Located within Sacramento District, New Melones Dam and its associated Stanislaus River Parks have the potential for this species to occur according to the 2019 NRM assessment.

Map, right: Map of the U.S. Fish and Wildlife Service's giant garter snake recovery units as outlined in the 2017 recovery plan.

Graphic, below: NatureServe considers the species to be Imperiled.



WHAT IS USACE NRM DOING: According to the Engineering Research and Development Center's Threatened and Endangered Species Costs Estimates database, the USACE has expended over \$3.5 million dollars on efforts related to giant garter snake since 2006. Of that sum, over \$235,000 came from the Environmental Stewardship business line. Nearly \$193,000 was used to fund inventorying, surveying, and monitoring of the species. Additionally, over \$5,000 was used to fund research related to the giant garter snake.



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 Source: Map provided by Ashleigh Boss, ORISE Fellowship, Institute for Water Resources

