



## Tridentiger trigonocephalus

Chameleon goby, Japanese goby, Oriental goby

### Threat scores

1. Ecological impact
  - Chameleon goby have specific habitat requirements and it is therefore possible that they will compete with species sharing their preferred habitat (Molnar 2008).
  - Doubling time less than 15 months.
  - Recently, chameleon goby populations in San Francisco Bay have plummeted, possibly because of predation by yellowfin gobies (Molnar 2008). Because adults spawn 3-4 months after the piscivorous yellowfin goby, their young are vulnerable (Molnar 2008).
2. Invasive potential
  - May disperse from current locations, but more likely to be transported with human assistance.
3. Geographic extent
  - Locally patchy
4. Management difficulty
  - No known controls in marine environment. Has not become a sufficient problem to require management.



### Geography and Habitat

1. Origin: Japan, Korea, China and Russia (Molnar 2008)
2. 1st recorded in 1960 when 2 individuals observed in Los Angeles Harbor, CA.
3. May have been accidentally introduced as fertilized eggs on introduced Japanese Oysters.
4. Marine, estuaries/bays, lakes, brackish water
5. In its introduced range in Australia it is found in both brackish and saltwater, while in USA it is found in brackish and freshwater environments (Molnar 2008).

### Invasion Pathways

1. Ballast Water and Sediments
  - Accidental probable
  - Cause- commercial shipping
  - May have been transported in holds of ships
2. Natural Spread
  - Known
  - Self-established in USA
3. Stocking in Open Water
  - Accidental probable
  - Cause- aquaculture
  - Accidental with oyster shipments
4. Hull/Surface Fouling
  - Accidental possible
  - Cause- hull fouling
  - Eggs may be transported attached to fouling organisms on vessel hulls

### Non native locations

1. 58- Northern California
2. 59- Southern California Bight

### Sources

1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. <http://nas.er.usgs.gov/XIMAGESERVERX/2010/20100721154256.jpg>