



# Spotted Garden Eel

*Heteroconger hassi*

**Classification** *What groups does this organism belong to based on characteristics shared with other organisms?*

Class: Actinopterygii (ray-finned fishes)  
Order: Aulopiformes (lizardfishes and relatives)  
Family: Congridae (marine eels)  
Genus and Species: *Heteroconger hassi* (spotted garden eel)



**Distribution** *Where in the world does this species live?*

Spotted garden eels live in the warm parts of the Pacific Ocean and the Red Sea.

**Habitat:** *What kinds of areas does this species live in?*

They live on the sandy flats that border coral reefs at depths of 23' – 150' (7–45m). They can also be found in areas dense with seagrass. They dig a burrow into the sandy sea bottom using their pointed tail. When the burrow is deep enough they use their dorsal fin to push the sand out of the burrow. Slime that they secrete from their skin cements the burrow walls so that the burrow will not collapse.

**Physical Description** *How would this animal's body shape and size be described?*

- They resemble a worm.
- They grow up to 16" (40cm) long
- Their body diameter is .5" (1.3cm).
- Adults have a white body covered in small black spots with three large black patches on their body.
- Juveniles are entirely black.
- They have large yellow eyes.
- They have an upturned mouth.
- They are sexually dimorphic, meaning males and females look different. The male is much larger than the female and it's jaw sticks out further.

**Diet** *What does this species eat?*

*In their historic range:*

They eat tiny planktonic animals that float by them in the water current.

*At the zoo:*

They eat flake food and hatch brine shrimp.



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## Predators *What eats this species?*

Predators are snake eels and trigger fish.

## Social Organization *How does this animal interact with others of its species?*

Each spotted garden eel lives in their own burrow in a colony of hundreds of eels.

## Life Cycle *How does this species mate, raise young, grow and develop?*

Spotted garden eels may leave their original burrow to move closer to mates. While mating garden eels entwine their upper halves together while their tails remain in their individual burrows. They are pelagic spawners which means the female releases fertilized eggs into the water. The eggs float until they hatch. Once the juvenile garden eels are large enough they swim down and make their own burrows.

## Adaptations *What physical and behavioral characteristics enable this animal to survive and thrive?*

- It's **pointed tail** helps dig a burrow.
- The **dorsal fin** is used to push sand out of the burrow.
- When threatened they will **retreat** into their burrow.
- **Good eyesight** allows them to spot food and predators.
- For spotted garden eels living in areas dense with seagrass the seagrass acts as **camouflage** allowing them to hide in plain sight.

## Collection Connection

Denver Zoo's spotted garden eels have a habitat in Tropical Discovery.

## Conservation Status *Is this animal at risk for extinction and why?*

*IUCN Status:*

Not evaluated

## Resources and Where to Learn More

The Dallas World Aquarium <https://dwazoo.com/animal/spotted-garden-eel/>

California Academy of Sciences <https://www.calacademy.org/explore-science/spotted-garden-eel>