

## Grass Shrimp Background

When studying estuarine ecosystems, students can learn about the animals found in this environment including grass shrimp, some of which are in the genus *Palaemonetes* and include species such as *Palaemonetes pugio* Holthuis, 1949, *P. vulgaris* (Say, 1818), and *P. intermedius* Holthuis, 1949 (see Anderson, 1985). Grass shrimp are abundant in estuaries along the eastern coast of the United States and into the Gulf of Mexico (Morgan, 1980). They are also called glass shrimp, popcorn shrimp, jumpers, glass prawns, and hard backs and can survive in fresh and brackish water (mixture of fresh and salt water) (Anderson, 1985).

Grass shrimp are opportunistic omnivores that eat a variety of foods including detritus (dead and decaying material), microalgae, mysids, and nematodes (Odum and Heald, 1972; Sikora, 1977; Morgan, 1980). Grass shrimp are preyed upon by many animal, including crustaceans, birds, and fish (Heard, 1982). They are food for fish species such as the summer flounder *Paralichthys dentatus* (Linnaeus, 1766) and red drum *Sciaenops ocellatus* (Linnaeus, 1766) (see Anderson, 1985; Peters and McMichael, 1987; Manderson et al., 2000). Grass shrimp play an important role in estuarine ecosystems because they transfer energy and nutrients between trophic levels by breaking down detritus (Welsh, 1975).

## Grass Shrimp Fact Sheet

Directions: Facts have been provided about grass shrimp. Complete this sheet with additional facts from research.

### Description

- Grass shrimp (*Palaemonetes pugio*) are nearly transparent with a segmented body (Chesapeake Bay Program, 2012).
- Grass shrimp are rarely larger than 5 centimeters in length (Coen and Wenner, 2005).
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### Habitat

- Grass shrimp are abundant in estuaries along the eastern coast of the United States and into the Gulf of Mexico (Morgan, 1980).
- They usually live near the edge of the water, but have been reported at depths up to 14.6 meters (48 feet) (Williams, 1965).
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### Diet/Role in Food Web

- Grass shrimp feed on marsh grass detritus and microalgae (Morgan, 1980).
- They are predators of mysids and nematodes (Gregg and Fleeger, 1998; Morgan, 1980).
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- \_\_\_\_\_

## **Predators**

- Larger fish species such as summer flounder and red drum feed on grass shrimp (Peters and McMichael, 1987; Manderson et al., 2000).
- Larger species of shrimp prey on grass shrimp (Kneib and Knowlton, 1995).
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## **Parasites**

- Grass shrimp are hosts to the following parasites:

1. Microphallid trematodes (Stunkard, 1979).

This parasite is a flatworm with one or more external muscular suckers or hooks for attaching to host tissue.

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