

# Organisms



## Shipment #1

moss  
elodea  
cabomba  
pine seedlings

## Shipment #2

pond snails  
guppies

## Shipment #3

isopods  
bess beetles

## **ADVANCED PREPARATION NEEDED**

**Age water (24-72 hours)**

### Fish/Pond snails:

- Use distilled or treated water. If using conditioning drops, be sure to use the correct amount of chlorine remover (read the bottle).
- The water temperature should be approximately room temperature prior to adding the fish. Extremes in temperature can cause loss.
- Add fish gradually to the aquarium. Float baggie in the aquarium 10-15 minutes then open baggies allowing a small amount of tank water to enter the bag. Let the bag float in aquarium and allow the fish to swim out on their own.
- Do not overfeed. A small pinch of food is a start. You can always add more if all of the food is eaten. If any food makes it to the bottom you are probably over feeding.
- Do not overcrowd the tank.
- Snails will feed on algae or decaying plant matter naturally found in the aquarium.
- <http://lhsfoss.org/fossweb/teachers/materials/plantanimal/goldfish.html> (excellent background information and the do's and do not's on fish)

### Pill/Sow bugs:

- Need a moist environment (moist soil, decomposing leaves, etc.)
- Place immediately into the habitat after receiving
- A small potato, carrot, or apple slice will provide nutrition and moisture.
- <http://lhsfoss.org/fossweb/teachers/materials/plantanimal/isopods.html>

## **Bess Beetles:**

- Direct Sunlight may overheat and kill the beetles
- Room temperature
- Beetles need humidity (soil should be damp)
- Food is decaying organic material (wood, leaves, compost, etc.)
- Mist the habitat to keep it humid
- If mold becomes a problem, increase the ventilation or reduce the misting

### *FAQs*

Q. Can bess beetles bite?

A. Bess beetles are harmless. Although their jaws are strong, they are adapted for chewing rotten wood, not human skin. Bess beetles can be safely handled as described in your Teacher's Guide. Notice the hooks on the beetles' legs. These can cling so tightly to some fabrics, especially the

yarn of sweaters, that the beetle may be injured while being pulled off. For this reason, don't allow beetles to crawl on clothing.

Q. What is that squeaking sound?

A. That's called stridulation, as explained above. Since the beetles are somewhat social, the sounds may be communications among colony members.

Q. How long do bess beetles live?

A. Bess beetles can live as adults for up to 1 1/2 years, unusually long for a beetle. They also undergo complete metamorphosis, so their entire life cycle (egg, larva, pupa, and adult) can extend beyond 2 years. The beetles you receive are of unknown age, but they will probably live for at least 6 months.

Q. Will my bess beetles reproduce?

A. This is unlikely. They must have a very stable environment, like that provided by a large rotting log, for reproduction.

Q. Since they eat wood, aren't bess beetles destructive?

A. No, they feed on the fungi and bacteria in decaying wood. Although they help break down wood that is already damaged, they do not attack undamaged wood.