

# Isopod, Pillbug, Sow Bug Information

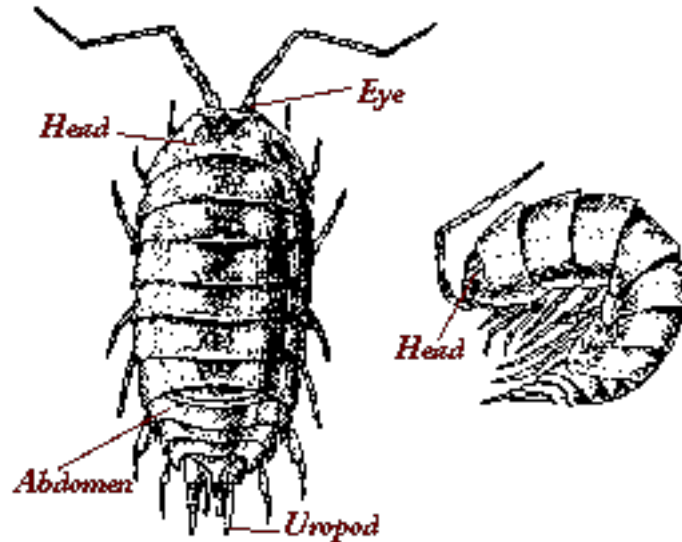
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**Phylum**, Arthropoda; **Class**, Malacostraca; **Order**, Isopoda

## Identifying Features

### Appearance (Morphology)

- Three body parts: head, thorax, abdomen
- One prominent pair of antennae (one inconspicuous pair)
- Simple eyes
- Seven pairs of legs
- Seven separate segments on thorax
- Paired appendages at end of abdomen called uropods
- Color varies from dark gray to white with or without pattern



*This sow bug rolls up as pictured on the right. In contrast, pill bugs roll up into tight balls where the legs and head are not visible and look like a solid ball (with small ridges).*

### Adult Males and Females

On the underside, females have leaf-like growths at base of some legs. These brood pouches hold developing eggs and embryos. The first two appendages on the male abdomen are modified as elongated copulatory organs.

### Immatures (different stages)

The immature isopod molts four or five times. They look like adults except for size, proportion, color and sexual development.

## Natural History

### Food

Isopods are omnivores or scavengers feeding on dead or decaying plants or animals. Some may eat live plants.

### Habitat

Isopods breathe with gills, so they are restricted to areas with high humidity, under rocks or logs, in leaf litter or in crevices. Some species are nocturnal.

### Predators

Vertebrates and invertebrates.

## **Interesting Behaviors**

Some species roll up into a ball when disturbed. Eggs (up to 100) are held in broad pouch on female. Juveniles look like adults and are soon liberated from pouch. Molting is in two stages. First the back half molts, then two to three days later, the front half molts. Coloration of both halves may be different at this time. Many species are fast walkers, but can be easily observed when held in the palm of the hand.

## **Impact on the Ecosystem**

### **Positive**

In their immediate vicinity, isopods do minimal soil improvement. Isopods are also a food source for other animals.

### **Negative**

In greenhouses and southern states, large populations can eat and damage plants.

## **Collecting Live Insects**

### **Where to find**

Look under logs, moist leaf litter, flower pots (a day after they have been watered), outdoor pet dishes, and under paving bricks or stones. Isopods live where it is moist and usually in a shaded area. To attract them, water soil or leaf litter in the shade and cover with plastic, piece of plywood or cardboard. Keep the area moist and check under the covering in a couple days. If you are unable to find isopods they can be purchased from: Carolina Biological Supply Company.

### **How to collect**

Before looking for isopods, prepare a container and tools to gather the isopods. If you are going to set them up in a container with soil in a day, you do not need to separate them from the soil (see rearing information). To collect them, use a spoon or shovel and a container. Look under a rock or log and be prepared to collect the isopods quickly before they scurry away from the light. Gently scoop up soil with the isopods and place them in the container. Look on the underside of the log or stone for others. They can be gently picked or brushed off with a finger into the container. Pill bugs often curl up and can be picked up individually or scooped up with the spoon. If you are going to keep the isopods a couple days before placing them in the classroom, use a plastic margarine or cottage cheese container with small holes poked in the lid and a moistened piece of paper towel lightly crumple inside. Use an old pie tin to sort the isopods from the soil before placing them in the container. The paper towel must be kept moist or they will die. When you are looking under rocks and logs be careful to avoid scorpions, centipedes and other animals that live there. Return the rock or log to the way it was when you found it.

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