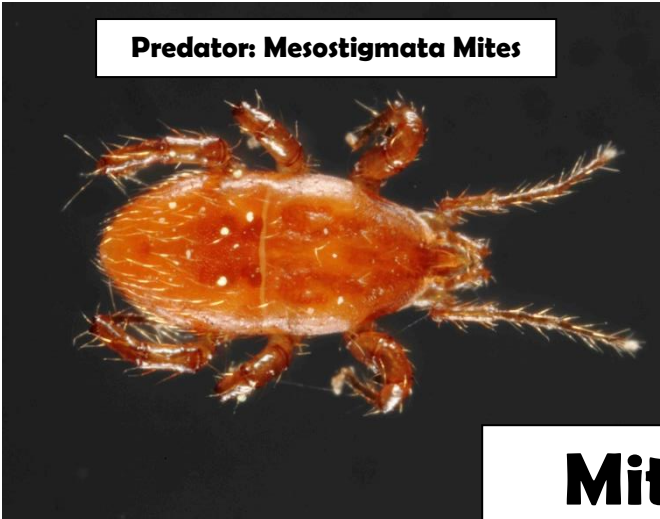


Soil mesofauna

- 1) Prepare your pooter – remove any straw from the **BLUE** tube, and discard into the bin provided. With clean hands insert a new straw into the **BLUE** tube. The straw is there to prevent accidental spread of disease. **Only suck through this straw!**
- 2) A bucket of soil, including its litter layer, has been provided. Gently scoop up a handful (gloves are provided if needed) and place it in the sieve.
- 3) Gently bounce the soil/litter up and down over a white tray for a few seconds.
- 4) Examine the white tray and try to spot soil mesofauna – some are quite large but others may appear as tiny, moving dots amongst the soil particles.
- 5) Place the straw in the BLUE tube in your mouth.
- 6) Rest the **CLEAR** end of the pooter next to the mesofauna animal, and give a short, sharp suck on the **STRAW** in the **BLUE** tube– **TRY TO USE YOUR MOUTH - NOT YOUR LUNGS!**
- 7) Repeat stages 4-6 for 5-10 minutes until you have collected a wide range of soil mesofauna in your pooter.
- 8) Tip/brush used soil from your sieve and trays into the waste bucket provided. Remove the straws from the pooters and place in the bin provided, and leave the table ready for the next group.
- 9) Find a petri dish with a lid.
- 10) Tap the pooter chamber gently on a table and the animals will accumulate in the bottom corner.
- 11) Lift the lid of the petri dish partially and take the lid off the pooter chamber, and tap it gently to knock the animals into the petri dish. **Replace the lid quickly!**
- 12) Place the petri dish under the microscopes provided. Ask for help if you cannot see through the microscopes properly – you may need to adjust the distance between the eyepieces, the lighting, or the focus.
- 13) Look at the soil animals you've collected.
 - a. Look at their body features, jaws, the way they move, their behaviour. Do you think these animals are predators or decomposers?
 - b. Do you think these animals might be beneficial to crops or pests? Why and how might this be?
- 14) Look at the picture guide
 - a. Are any of your animals similar to those in the pictures?

Predator: Mesostigmata Mites

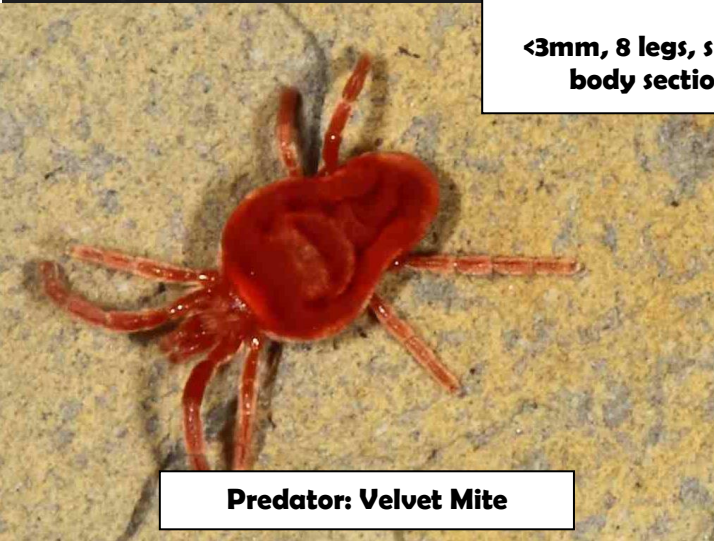


Decomposer: Oribatid mite



Mites

<3mm, 8 legs, single
body section



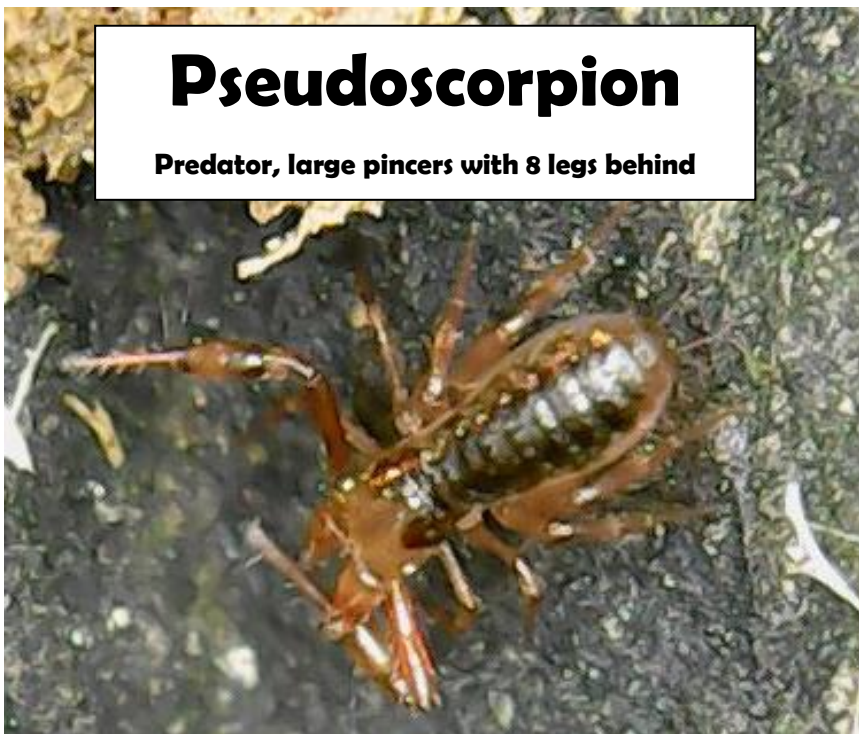
Predator: Velvet Mite



Decomposer: Oribatid Box Mite

Pseudoscorpion

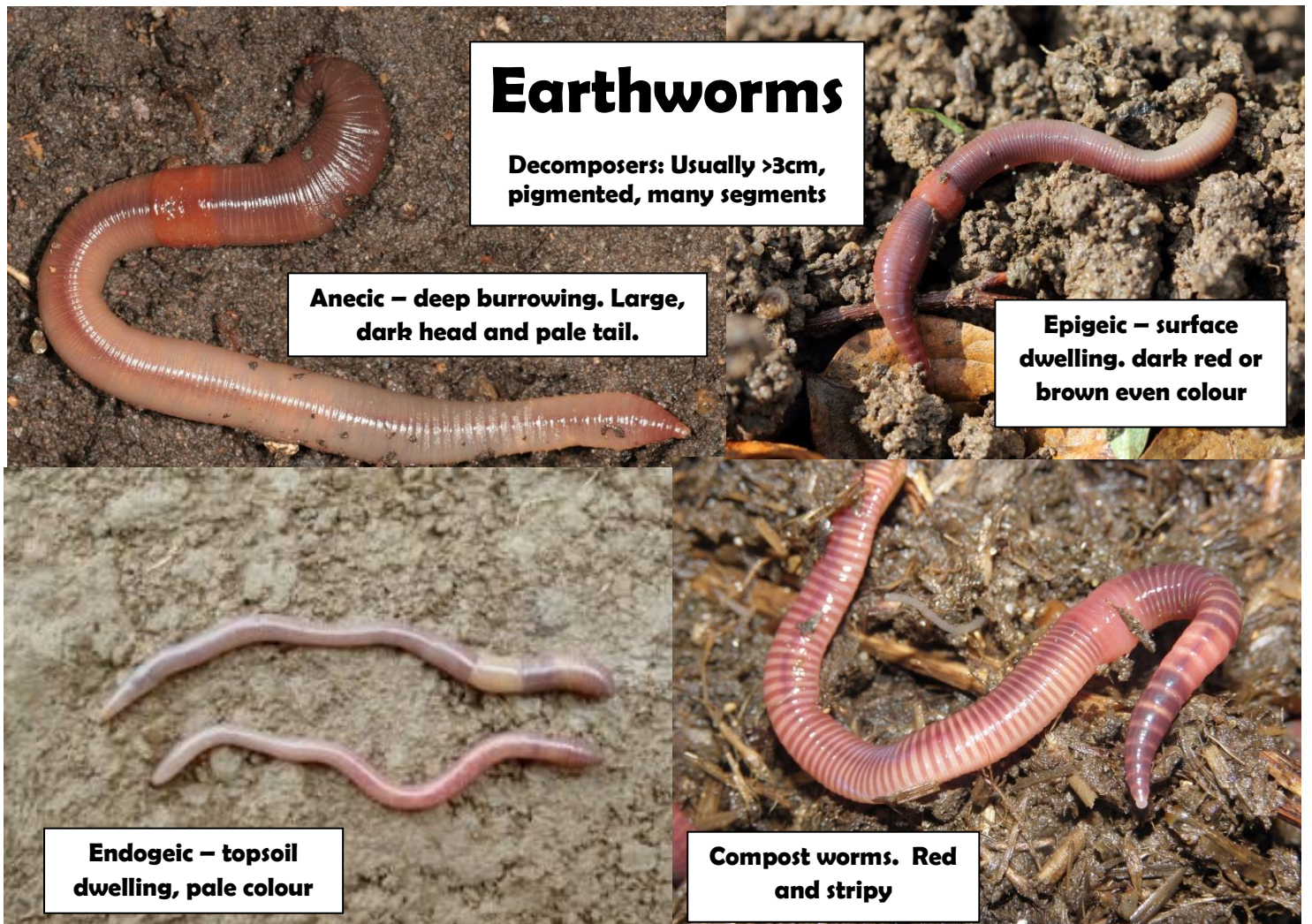
Predator, large pincers with 8 legs behind





Potworm

Decomposer. Usually <1cm,
white, segmented



Earthworms

Decomposers: Usually >3cm,
pigmented, many segments

**Anecic – deep burrowing. Large,
dark head and pale tail.**

**Epigeic – surface
dwelling. dark red or
brown even colour**

**Endogeic – topsoil
dwelling, pale colour**

**Compost worms. Red
and stripy**



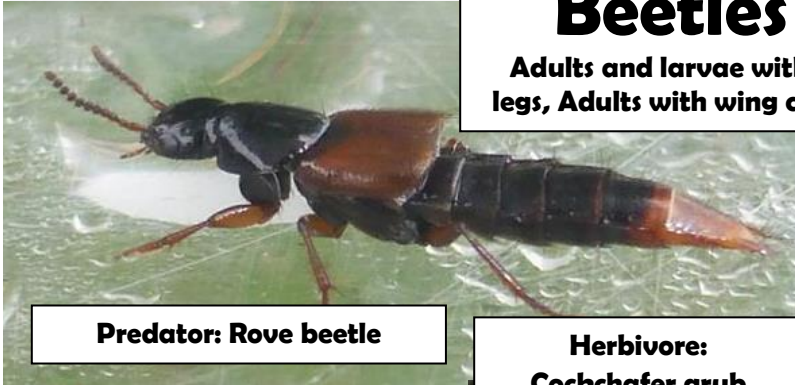
Predator: Rove beetle grub



**Herbivore: Wireworm
(click beetle grub)**

Beetles

Adults and larvae with 6 legs, Adults with wing cases



Predator: Rove beetle

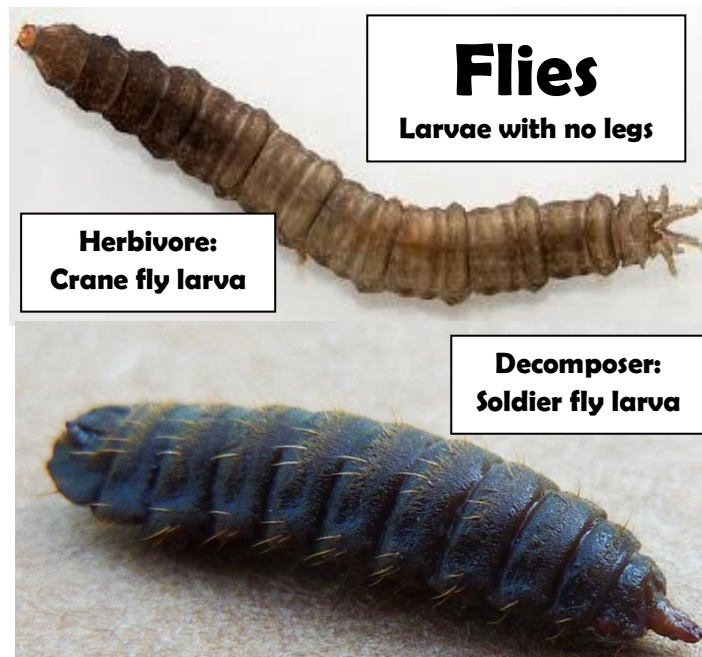
**Herbivore:
Cockchafer grub**



**Decomposer: Featherwing
Beetle**



Predator: Ground beetle



Flies

Larvae with no legs

**Herbivore:
Crane fly larva**

**Decomposer:
Soldier fly larva**





Springtails

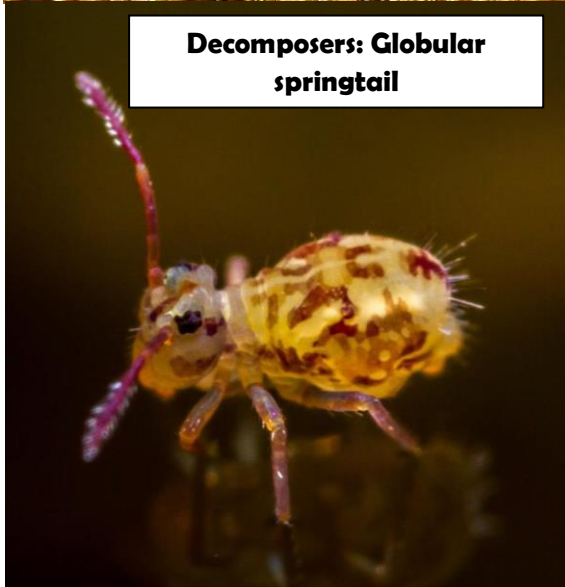
<1mm-1cm, 6 legs,
antennae, may have
jumping organ,



**Decomposers: Insect-like
springtails (above)**



**Decomposers: Globular
springtail**



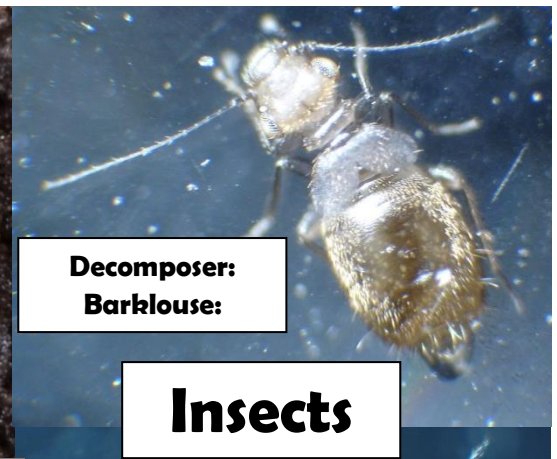
**Decomposers: "Podger"
springtails**





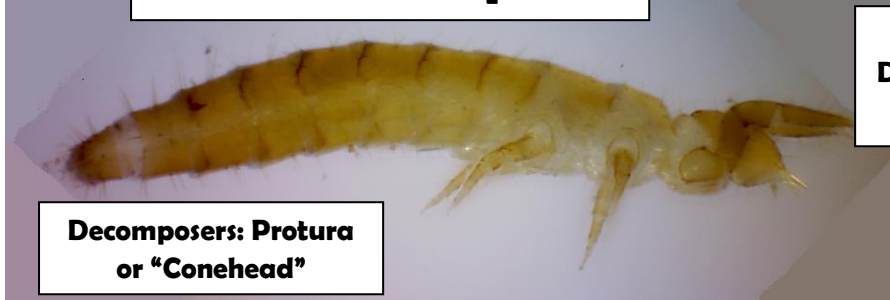
Predator: Diplura or 2-pronged bristletail

Other hexapods



**Decomposer:
Barklouse:**

Insects



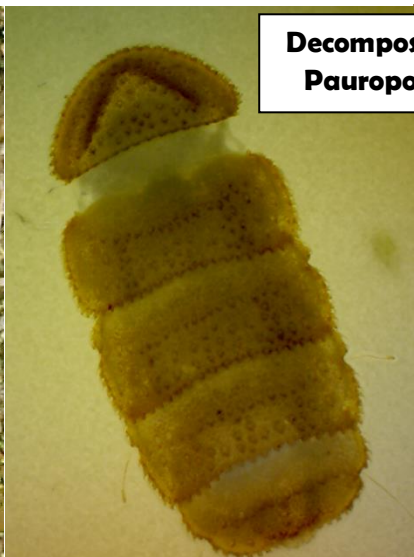
**Decomposers: Protura
or "Conehead"**



**Herbivore
Decomposer:
Thrips**



**Decomposer:
Woodlouse**



**Decomposer:
Pauropod**

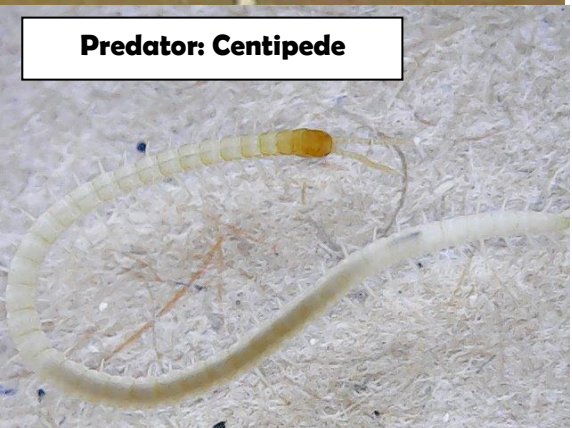


**Decomposer or Herbivore:
Symphyla**

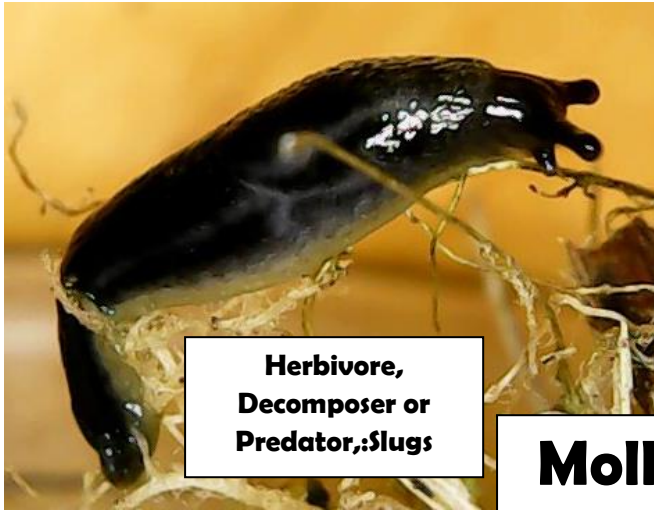
Isopod & Myriapods



Decomposer: Millipede



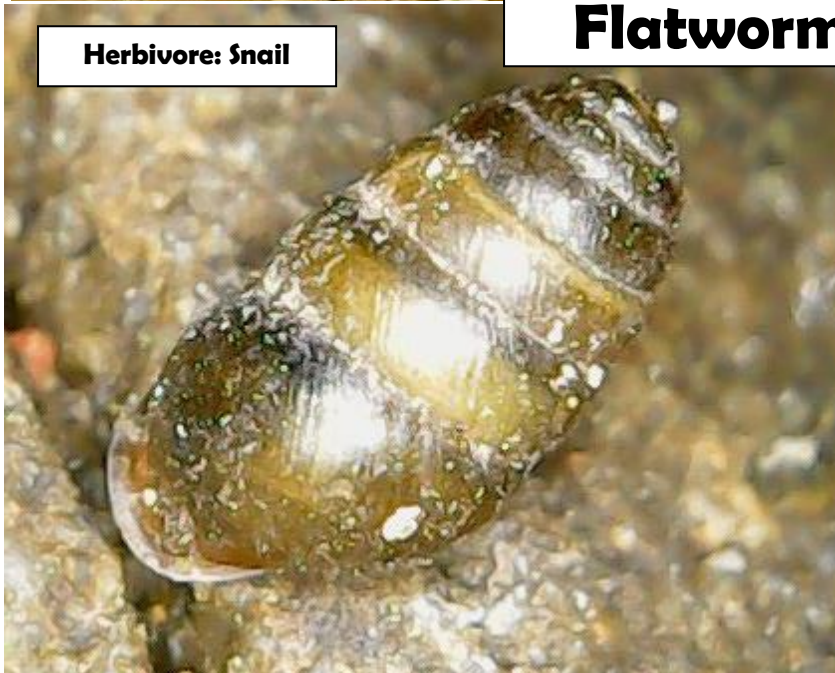
Predator: Centipede



**Herbivore,
Decomposer or
Predator, Slugs**



**Predators: land
flatworms**



Herbivore: Snail

Molluscs and Flatworms

