

The Microscopic Big Five (Advanced)

Observing a Bdelloid rotifer



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You have found a bdelloid rotifer

Use this guide to help you observe it.

Rotifers usually have three main parts to their body - a single foot with two toes, a trunk that contains the digestive and reproductive system and a head that has two 'wheel' organs (the corona).

The key things to look for at x40

- Identify the tail and the head ends.
- Use the diagram (right) to identify key features of your rotifer.
- Adjust the light and watch the currents around the rotifer as it feeds.

The key things to look for at x100

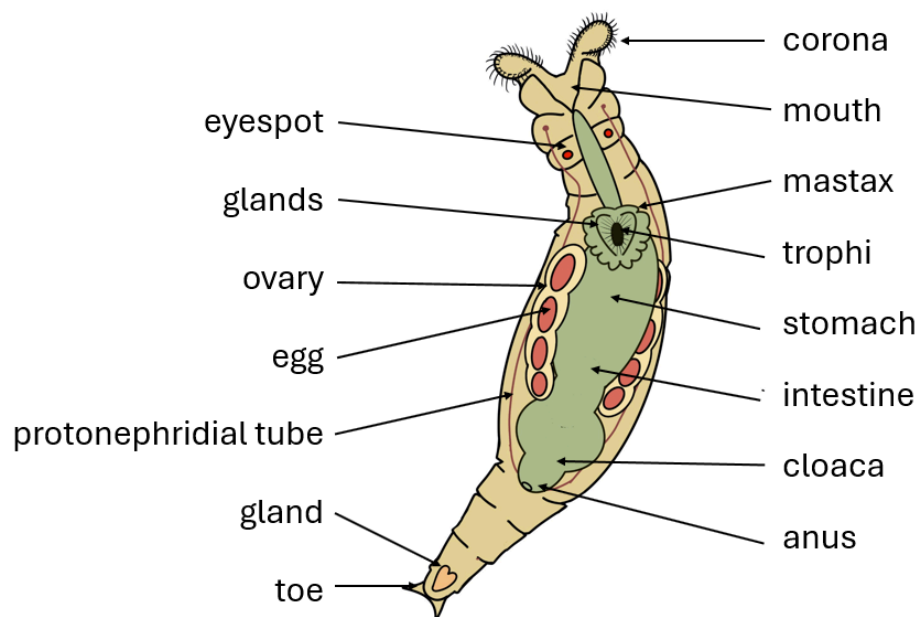
- Look for two red eye spots at the head end.
- Observe the movement of the trophi (jaws) in the mastax (muscular pharynx) in the trunk.
- Scan the body for developing eggs.

Key words for further research:

Bdelloid rotifers (leech-like), desiccation

Generalised diagram of a bdelloid rotifer.

There are many species which have significant differences to this.



Scale
250 micrometres

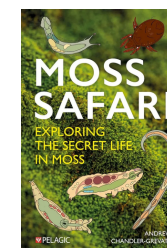


Diagram from

www.mossafari.com

A.Chandler-Grevatt (2025) Moss Safari. Exploring the secret life in moss. Pelagic Publishing

Behaviour

Rotifers use their ciliated corona to swim and to draw in food. Sometimes they crawl slowly over surfaces, using their sticky toes. If conditions are dry, they may stop moving, contract into a tun and wait until water returns.

So what?

Rotifers are ecologically significant in soil and water food webs and are model organisms in studies of cryptobiosis and evolutionary biology. Their ability to survive drying out makes them important for research into resilience and adaptation.