

We supply:

- Living materials
- Culture media
- Frozen materials
- Preserved materials
- Skeletons
- Microscopes
- Wall charts
- Stains and Indicators
- Seeds
- Books
- CD-ROMs
- Forensic Equipment

*and lots more in our full
colour catalogue*

Hydra

Phylum Coelenterata, Class Hydrozoa.

Your culture of Hydra contains approximately 10-12 specimens, usually of large Brown Hydra, which should be clearly visible to the naked eye adhering to the sides and base of the transport container. (smaller Green Hydra may be used when brown is not available.) The container has been filled with pond water. The lid should be removed as soon as possible after arrival to you. The Hydra may be removed from the container by carefully dislodging them from the walls and surface of the container with a plastic pasteur pipette.

Live Hydra can be difficult to maintain in culture, being sensitive to a wide range of environmental factors, such as light, temperature, metal ions, etc. To maintain Hydra for weeks or months, it is necessary to supply them with a source of food. We have found that the ideal diet for Hydra is newly hatched brine shrimp, washed free of salt solution. Brine shrimp eggs are available from Southern Biological and details for hatching procedures are included with the eggs.

However, if you only wish to maintain the Hydra for a short period of time (up to 7 days), transfer them to a small beaker of pond water (100-200 ml) and store them in a low light area with minimum disturbance.

Maintaining for extended periods:

To Maintain Hydra for extended periods we have found the following guidelines to be important. Feeding and cleaning procedures are also listed below.

- Cultivate Hydra in a clean glass container. A stackable petri dish with a 4cm side wall works well. Cover the dish with either another petri dish, or a plate, or a piece of glass etc.
- Cover the Hydra with about 1cm of either pond water or Southern Biological's Hydra media.
- Store the culture dish in a low light to average room light area. Do not store in a bright area, nor in direct sunlight.
- Maintain a temperature of 20– 25°C
- Feed and clean Hydra on a daily basis. We have found that they will survive for up to a week without food, but for best results daily feeding is recommended. The feeding and cleaning procedure is provided over the page.

Catalogue Code: L 3.70



Supporting Products for Hydra Cultures:

Hydra Culture Medium Conc.
Code: CM 12

Brine Shrimp Eggs
Code: L 5.00

Prepared Microscope Slides
Code: PMS Set 3 Animal
Kingdom Survey Set

Code: PMS 14.10 Entire hydra

Code: PMS 14.11 Entire budding
hydra

Code: PMS 14.12 Budding hydra

Code: PMS 14.13 Hydra body
wall

Code: PMS 14.14 Hydra with
male gonad

Code: PMS 14.15 Hydra with
female gonad

Posters
Code: WC36 Phylum Cnidaria

Videos
Code: VP 2.42 The Small life of
Ponds and Wetlands

Ref: L 3.70 20/03/09

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Hydra cont.

This is page 2 of the Hydra notes.

To feed the Hydra culture:

We have success with feeding Hydra freshly hatched brine shrimp. We understand that small copepods can also be used, but we do not have experience with this food type. Brine shrimp are easy to cultivate. Instructions for hatching are supplied with the brine shrimp eggs.

- Use a clean plastic pasteur pipette to collect the hatched brine shrimp.
- Strain the collection using a fine net.
- Wash with clean tap water to remove the salt solution, then collect the clean brine shrimp from the net with a pipette and disperse them into a small amount of pond water or hydra media.
- This dispersion is then fed to the Hydra culture using a pasteur pipette. The brine shrimp will swim freely, thereby, allowing the Hydra to catch them.
- After 4 hours the Hydra culture will need to be cleaned.

To clean the Hydra culture:

- Prepare a receiving culture dish for the clean hydra by placing 1cm of pondwater, or media, into another glass dish.
- Wash your hands thoroughly to remove all hand lotions and rinse well to remove all soap residue etc.
- Using the pad of your finger, run your finger around the surfaces of the culture dish. The aim is to dislodge the hydra from the container surface. Then in a continuous action, create a whirlpool effect in the culture dish. Remove your finger and allow the whirlpool to settle.
- In the area that was the centre of the whirlpool you will see the bulk of your hydra. Use a plastic pasteur pipette to collect these and transfer then to the new dish. Check the old culture dish for other hydra. Some will still be attached to the surfaces, some maybe floating. These need to be transferred across too. It's also worth checking your pipette as some can adhere to the internal surface.
- Cover and leave the culture dish. Feed tomorrow.

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Hydra Culture Medium Conc.
Code: CM 12

Brine Shrimp Eggs
Code: L 5.00

Prepared Microscope Slides
Code: PMS Set 3 Animal Kingdom Survey Set

Code: PMS 14.10 entire hydra
Code: PMS 14.11 entire budding hydra

Code: PMS 14.12C Carolina budding hydra

Code: PMS 14.13 Hydra body wall

Code: PMS 14.14 Hydra with male gonad

Code: PMS 14.15 Hydra with female gonad

Posters
Code: BEZO 102 Hydra

Preserved Materials
Code PM 4.001 Preserved Hydra- no buds or sex organs

Code: PM 4.002 Preserved Hydra with buds

Videos
Code: VP 2.42 The Small life of Ponds and Wetlands

Ref: L 3.70 14/2/03