Spongilla

Freshwater Sponge

Genus: *Spongilla*
Family: Spongillidae
Order: Haposclerida
Class: Demospongiae
Phylum: Porifera
Kingdom: Animalia

Conditions for Customer Ownership

We hold permits allowing us to transport these organisms. To access permit conditions, click here.

Never purchase living specimens without having a disposition strategy in place.

There are currently no USDA permits required for this organism. In order to protect our environment, never release a live laboratory organism into the wild. Please dispose of excess living material in a manner to prevent spread into the environment. Consult with your schools to identify their preferred methods of disposal.

Primary Hazard Considerations

Always wash your hands thoroughly after you handle your organism.

Availability

- *Spongilla* is a collected specimen. It is not easy to acquire in the winter, so shortages may occur between December and February.
- *Spongilla* will arrive in pond water inside a plastic 8 oz. jar with a lid. *Spongilla* can live in its shipping container for about 2–4 days. *Spongilla* normally has a strong unpleasant odor, so this is not an indication of poor health. A good indicator of health is how well the spongilla retains its shape. *Spongilla* that is no longer living falls apart when manipulated.

Captive Care

Habitat:

- Carefully remove the sponges, using forceps, and transfer them to an 8" x 3" Specimen Dish 17 W 0560 or to a shallow plastic tray containing about 2" of cold (10°–16 °C) spring water. *Spongilla* should be stored in the refrigerator. Keep them out of direct light, in semi-dark area, and aerate frequently. Frequent water changes (every 1–3 days), or a continual flow of water is recommended. In our experience, *Spongilla* may be held for successfully for weeks if a continuous flow system is set up using a dish pan, Water Pump 21 W 7580, and pea-size Aquarium Gravel 21 W 1800.
- Sponges are very difficult to keep long term, which is why only short term habitat is listed here.

Care:

- Food: Freshwater sponges are filter feeders, taking in micro-nutrients as water flows through its body. *Chlamydomonas reinhardtii* 86 V 0102

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Information

Method of reproduction: Sexual and asexual budding.

Life Cycle

The sponge can bud in the traditional sense; a piece breaks off forming an entirely new organism. *Spongilla* overwinters as gemmuels or internal buds that the parent releases as specialized masses of cells into the environment. As the weather warms, they will then develop as mature offspring. Sexual reproduction results in a free-swimming larval stage. Egg production occurs in a 2–4 month period following gemmule release. Sperm production occurs during summer months. Sponges are dioecious (eggs and sperm are not found in the same organism).

Wild Habitat

Sponges are among the simplest multicellular animals with relatively unspecialized tissues and no organs. *Spongilla* belongs to the only freshwater family of sponges. It grows attached to submerged logs and rocks in ponds, lakes, lagoons, brackish water, and slow-moving streams. Freshwater sponges produce "buds" called gemmules. You can observe these asexual gemmules most easily in autumn, when superficial tissues disintegrate.

Special Notes

The body of a sponge is sac-like, with a single, large opening termed an osculum. The many, tiny pores (ostia) which perforate the body wall give the sponge phylum its name: Porifera (pore-bearing). The pores lead into flagellated chambers where special cells, called choanocytes, wave their flagella to produce weak water currents. The water then enters the central cavity and is finally expelled through the osculum. Water currents moving through the sponge's body bring food particles to its cell and carry away waste.

Disposition

- Please dispose of excess living material in a manner to prevent spread into the environment. Consult with your school to identify their preferred method of disposal.
- You can safely use one of the following methods to dispose of your sponge:
  - Treat culture with a 10% bleach solution for 24 hours (1 part bleach to 9 parts culture medium or water culture medium removed). Then rinse bleach solution down the drain with water until you can no longer smell bleach. Rinse remaining materials and containers with water and dispose of them in a general garbage container.
  - Carefully wrap specimens and their containers in a biohazard bag (without containing anything sharp that might puncture the bag) and tie closed (a twist tie works well). Autoclave the bag for 30 minutes at 121°C and at a pressure of 15 lbs. per square inch. Dispose of autoclaved bag as your school recommends.

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