Spongilla

For further details link

Classification

Kingdom: Animalia

Phylum: Porifera

Class: Demospongiae

Order: Spongillida

Family: Spongillidae

Genus: Spongilla

Habit and habitat

Attachment: Spongilla sponges are sessile, meaning they live attached to a fixed surface rather than moving freely.

Feeding: As filter feeders, they draw water into their bodies through numerous ostia (small pores), filter out small organic particles for food, and expel water through larger openings called oscula.

Environment: Freshwater bodies like lakes, ponds, and slow-moving streams and rivers.

Substrate: They attach to solid objects, such as logs, sticks, and submerged plants, which are often found in shallow, clear waters.

Characterstics

- Spongilla may be unbranched/branched and consist of numerous Ostia found all over the surface.
- Their colour ranges from light yellow to green and it depends upon the number of zoochlorellae living on them. Zoochlorella is a green algae having a symbiotic association with it.
- As discussed earlier, spongilla is found in slow streams, lakes, and freshwater. These get attached to logs, sticks, and submerged plants.
- Spicules which support its outer surface may be simple, tetraxial, or siliceous.
- It has a leuconoid type of canal system which is complex and a system of interconnected canals leading to irregular symmetry to Spongilla.
- Water enters the Ostia and then to incurrent canals that open into flagellated chambers and these chambers are lined by choanocytes. Further, the flagellated chambers open into the excurrent canal and water here flows outside from the osculum.
- Extensive division and shrinkage of the spongocoel leads to the formation of excurrent canals.
- Diffusion is the process of gaseous exchange and excretion in Spongilla.
- These feed on smaller organic particles and on them, many insects depend for feeding.
- Spongilla can reproduce asexually or sexually.
- Budding is the asexual reproduction through budding or gemmules formation.
- These are hermaphrodite and each sponge can produce egg and sperm. One sponge's sperm reaches another sponge's Ostia and development takes place inside the cavity to produce free-swimming larvae.