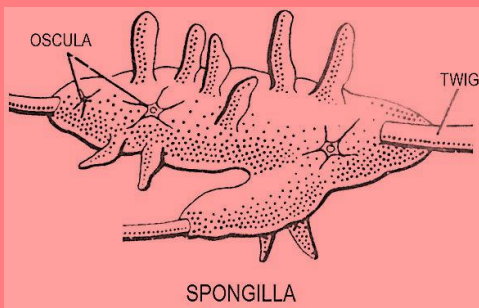


THE SPONGES – METAZOA OF THE CELLULAR GRADE OF CONSTRUCTION

Sponges are placed in the Phylum Porifera. These are exclusively aquatic with well over 98% marine, and less than 2% freshwater forms. This group has an evolutionary history of about 570 million years. Over 5000 species of sponges have been described. They rank among the 'big eight' animal phyla that includes Arthropods, Molluscs, Annelids, Chordates, Echinoderms, Coelenterates and Flatworms.

Sponges are the simplest of the conspicuous animal phyla. Studies based on molecular genetics indicate that the animal kingdom evolved only once, and that the Phylum Porifera is at the base of the animal tree of life.

“Porifera” means “pore-bearing”. All sponges have pores over their surfaces that allow water to enter and leave the sponge body.



Sponges have FOUR main characteristic features.

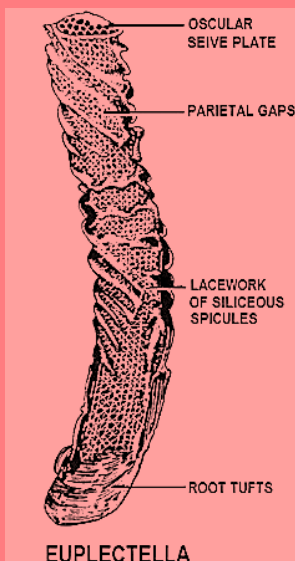
- Filter feeders.
- Choanocytes or Collar cells (not found in other animal phyla).
- Cellular grade of organization.
- Spicules or Spongin fibers that serve as an internal skeleton.

How Sponges Feed?

- Water currents bring food into internal canal system through small pores called ostia and finally water with excretory waste is taken out through a large pore, osculum. Water flow is created by collar cells lining the canals.
- Sponges have been shown to be capable of pumping as much as 1200 times their body volume in a single day.

Endemic and threatened sponges:

13 species of freshwater sponges are reported to be endemic to India. No sponge of Indian seas is considered a 'threatened species'.



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