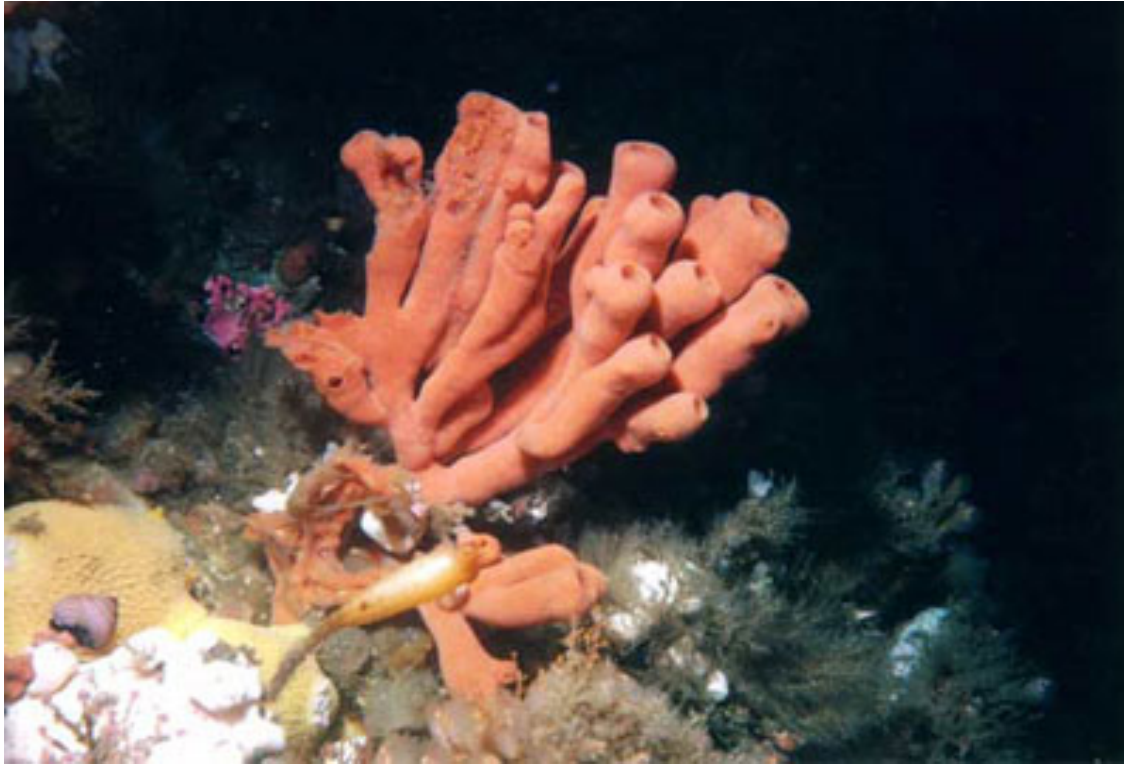


Phylum: Porifera

By Landis



Introduction

Q: Are sponges animals? If so, why?

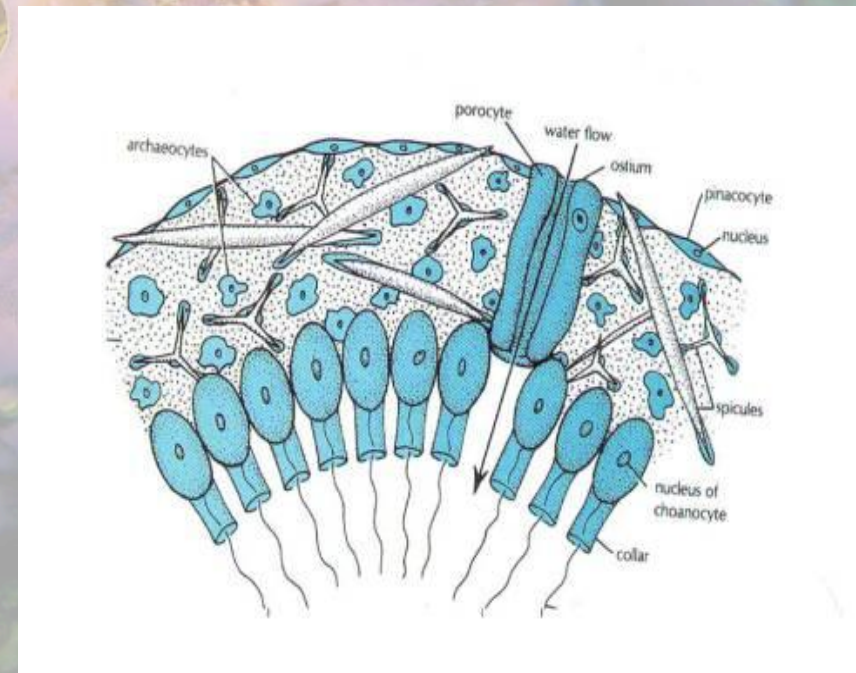


How do sponges survive as animals?

- **Feeding:** filter feeders, no digestive tract
- **Respiration:** by diffusion, no resp. system
- **Circulation:** by diffusion, no circ. system
- **Excretion:** by diffusion, no excretory syst.
- **Response:** simple response, no central nervous system
- **Movement:** only in larval stage, adults sessile
- **Reproduction:** can be sexual or asexual

Evolutionary Trends seen in Sponges

- **Cell specialization:**
 - *Amoebocytes* digest food
 - *Porocytes* allow water in/out
- **Early development:** neither protostome nor deuterostome
- **Body symmetry:** none
- **Cephalization:** none
- **Body cavity:** none



Examples & Fun Facts

- **Asconoid Sponges** – fun fact: simple tube shape!
- **Syconoid Sponges** – fun fact: thicker tube shape!
- **Leuconoid Sponges** – fun fact: can be used in the bath!

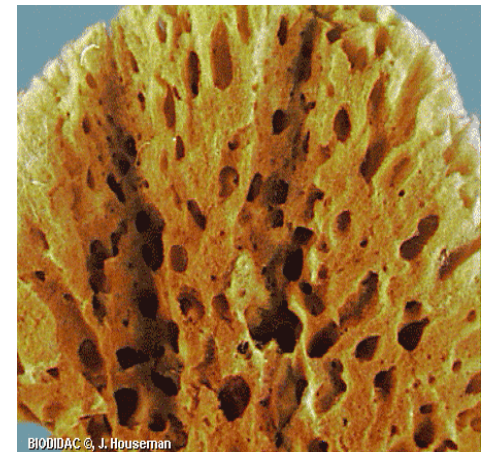
Asconoid



Syconoid



Leuconoid



Citations:

- Miller & Levine, Biology, Prentice Hall: 2002.
- <http://www.ucmp.berkeley.edu/porifera/porifera.html>
- <http://www.earthlife.net/inverts/porifera.html>