

- a. Hexasterophora &
- b. Amphidiscophora

ORDER (a): HEXASTEROPHORA

- spicules are "Hexasters", i.e., "star-like in shape" & 6-axes branching into rays at their extremity.

- amphidiscs - nt.

Ex - Euplectella (Venus' Flower Basket)

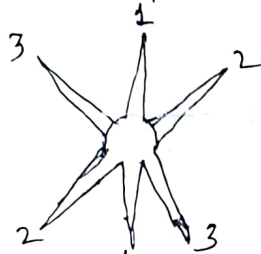


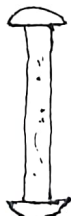
Fig: Hexasters

ORDER (b): AMPHIDISCOPHORA:

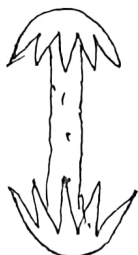
- as the name implies, "spicules are amphidiscs", i.e., "a convex disc & backwardly directed teeth at both ends"

- hexasters - nt.

Ex - Hyalonema (Glass rope sponge).



A



B

Fig: Amphidiscs

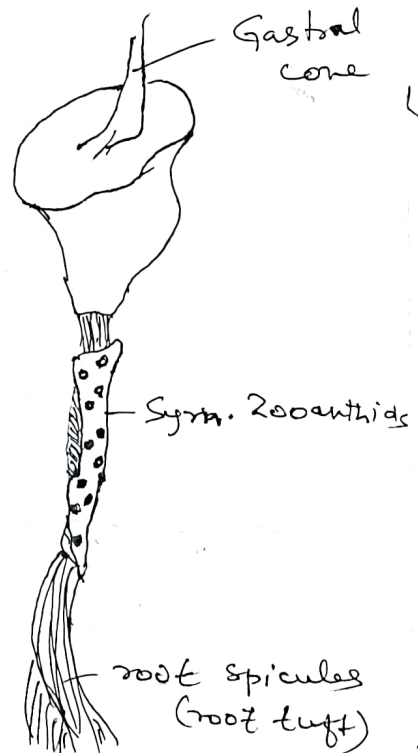


Fig: Hyalonema

CLASS: DEMOSPONGIA

A/O, HYMAN (1942) & ROTHSCILD (1969),
this class includes 3-sub-classes: →

6
A. Tetractinellida

B. Monaxonida &

C. Keratosa

(A) Sub-Class: Tetractinellida :

- Siliceous spicules are either -nt or 4-rayed (tetragon).

- Spongin fibres - nt.

It includes 3-orders: -

Order (i): Myxospongia:

- characterised by total - nt of skeleton.

- Very simple in str.

Ex - Oscarella

Order (ii): Carnosa

- leuconoid str.

- spicules ent trienes trienes & all in equal size.

Ex - Chondrilla

Order (iii): Choristida :

- Body in elaborate form

- Both the large (megascleres) & small (microscleres) spicules + nt.

- trienes + nt.

Ex - Stelletta

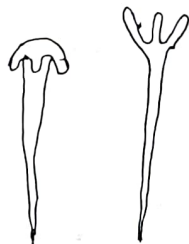


Fig : Trienes

~~(B) Sub-Class: Tetractinellida :~~

(B) Sub-Class: Monaxonida

- skeleton of diactinal mono-axon megascleres.

- ent or ent spongin.

It includes 4-orders :-

7

Order (i): Hadromerina:

- Megascleres $\bar{e}$ tylostyles.
- Microscleres may or may not be +nt.
- Spongin -nt.

Ex - Cliona (Boring sponge), Poterion etc.



Fig: A tylostyle

Order (ii): Halichondrina:

- Megascleres +nt but microscleres -nt.
- +ve of spongin in a little amount.

Ex - Halichondrina.

Order (iii): Poecilosclerina:

- Megascleres usually united by spongin into a regular network.
- Microscleres +nt.

Ex - Myxilla

Order (iv): Haplosclerina:

Ex - Megascleres of only one kind, 2-rayed & pointed at both ends, i.e., oxea type.

- microscleres may / may not be +nt.
- Spongin $\bar{e}$ +nt.

Ex - Chalina, Spongilla (Fresh water sponges)

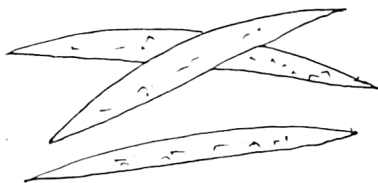


Fig: Megascleres

Fig: Megascleres (Oxea)

Sub-Class: Keratosa.

- includes mainly horny sponges of massive body.
- & leathery body surface.
- skeleton composed of spongin fibres & not spicules.

Ex - Euspongia (Bath sponges)
Hippospongia (Horse sponges)

CONCLUSION

All members of this phylum are sessile and exhibit little detectable movements and also exhibit the "cellular grade" of organization.