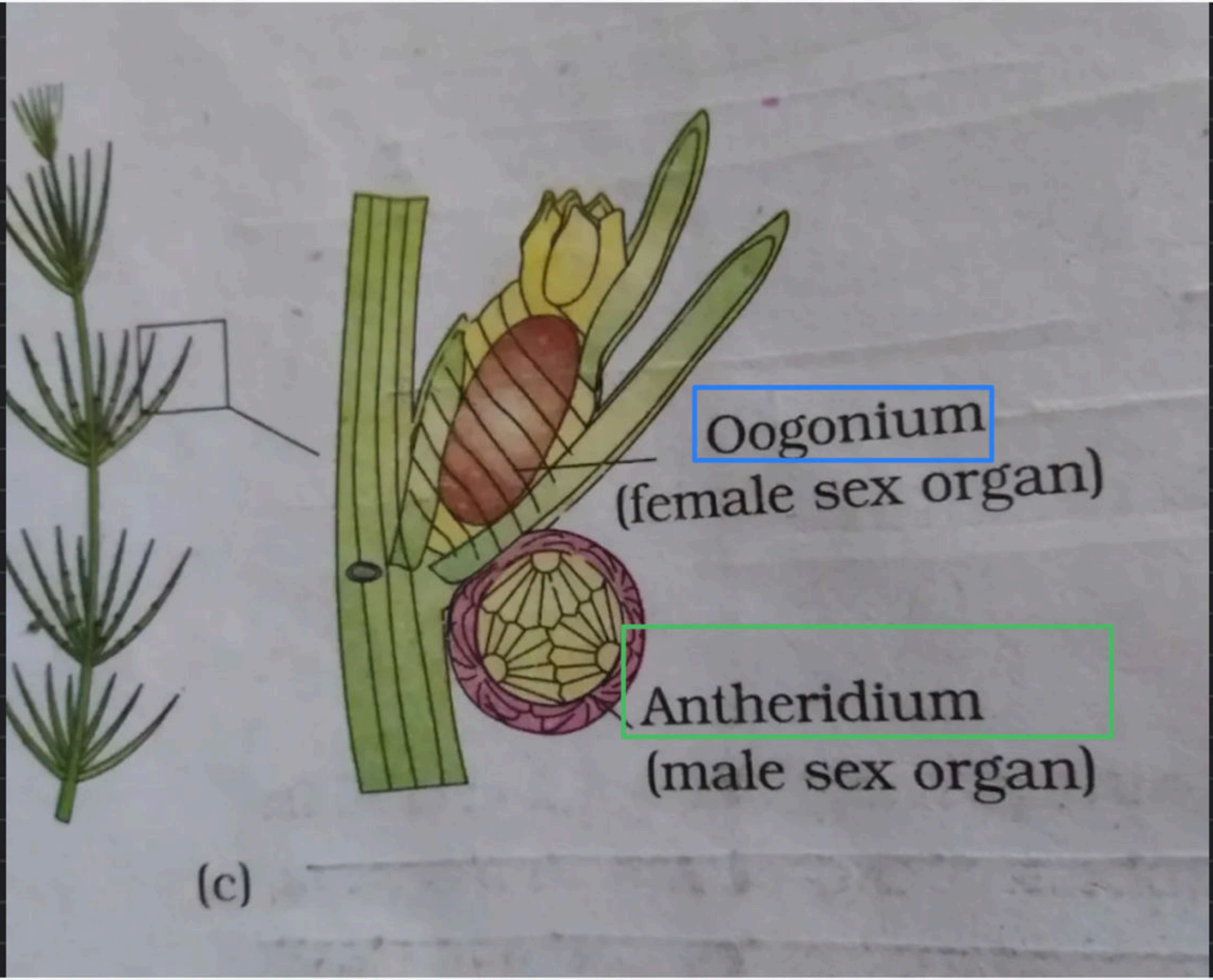
Plant Kingdom - VI

Nurture Course on Plant Kingdom

Sandeep nodiyal • Lesson 9 • Sept 18, 2021



(c)

Bryophyte

"The sporophyte of mosses is more elaborated than the sporophyte of Liverwort"

Mosses - Sporophyte — partially parasitic
- peristome teeth.

Economical Importance

1. Rhizoids form mat over soil & prevent soil erosion

2 Decoction of 'polytrichum communae' - Remove Kidney Stone
(काढा)

3. Help in soil formation - During succession

4. Sphagnum (Bog Moss)

- Absorbent -
- has capacity to Absorb 20 - 26 time water of their Dry-weight
* slightly acid.
* Antiseptic property

* Help in the transportation of plant part -
* Sphagnum grow in Marshy - dead part → fossilization → Low grade coal (Peat)

Peat is dried, compressed & used as fuel ← Low grade coal (Peat)

* Alkaline soil ⟶ treated with Peat (MANURE) to overcome its alkanity & Also improve - water Retaining capacity, & Aeration

Note - calyptra - Layer - Haploid - surrounds the zygote in Bryophyte

Pteridophytes :-

first succesful terresterial plant - vascular tissues present

* Snake/Reptiles of plant Kingdom - Gregarious Growth
  - vegetatively Reproduce very fastly

* prefered - sandy soil
  - cool, damp, shady places

General characterstic :-

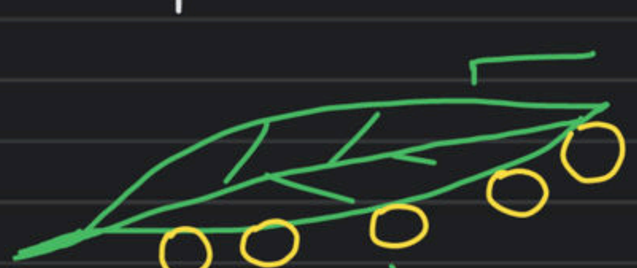
1. Body is differentiate · Stem, Root, Leaves
2. main Body is sporophytic - photosynthetic Independent
3. Vascular tissues -

	Xylem	Phloem
Absent - X	Tracheids	sieve tube cells
	Vessels	Companion cells X Absent
	Xylem parenchyma	Phloem parenchyma
	Xylem fibres	phloem fibres

4. Leaves → Small size - microphylls Eg Selaginella
   → Large size - Macrophylls · Eg ferns.

5. Photosynthetic Leaves ⟶ Tropophylls.

Reproductive Leaves ⟶ Sporophylls



6. Sporophyll

sporangia

spore Mother cell (2n)

Meiosis.

(n) (n) (n) (n)

spores

7. Pteridophytes - some are homosporous

- Lycopodium
- Tmesiptris
- pteris
- Adiantum
- Phylloglosum
- Psilotum
- Dryopteris

↓

Some are Heterosporous - (Microspore / Megaspore)

S - selaginella
S - salvinia

H - Isoetes

M - Marsilea

A - Azolla

8.

In some pteridophytes · selaginella.

Equisetum (Horse tail fern)