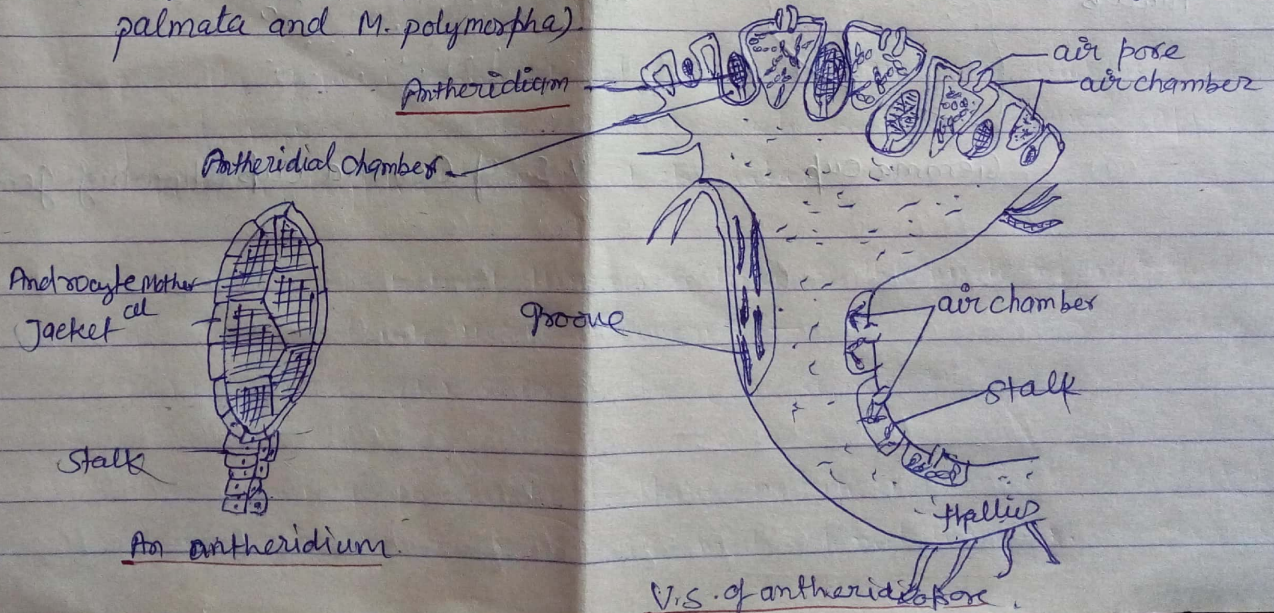


Sexual Reproduction in Marchantia ⇒

- ⇒ The gametophores are stalked receptacles bearing male and female sex organs known as antheridiophores and archegoniophores.
- ⇒ The gametophore shows the characteristics of the thallus like air chamber, air pores and rhizoids etc.
- ⇒ Marchantia is a heterothallic (dioecious), male and female receptacles (gametophore) present on different thalli. except few of species (M. palmata and M. polymorpha).



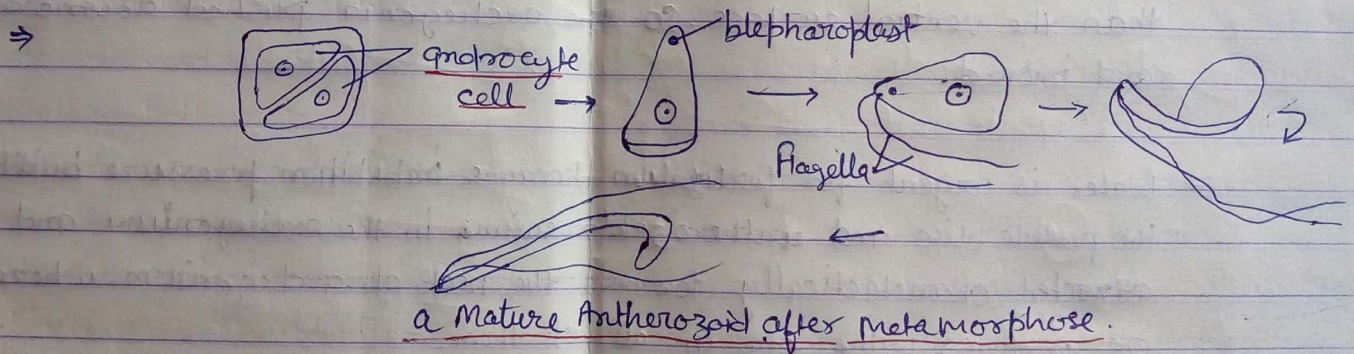


⇒ Antheridiophore has a 1-3 cm. long stalked structure and a 8 lobed peltate disc at apex.

⇒ The upper epidermis is interrupted by a number of barrel shaped air pores, each opening below into an air chamber with photosynthetic filaments.

⇒ Each antheridial chamber contains a single antheridium and opens externally by a pore.

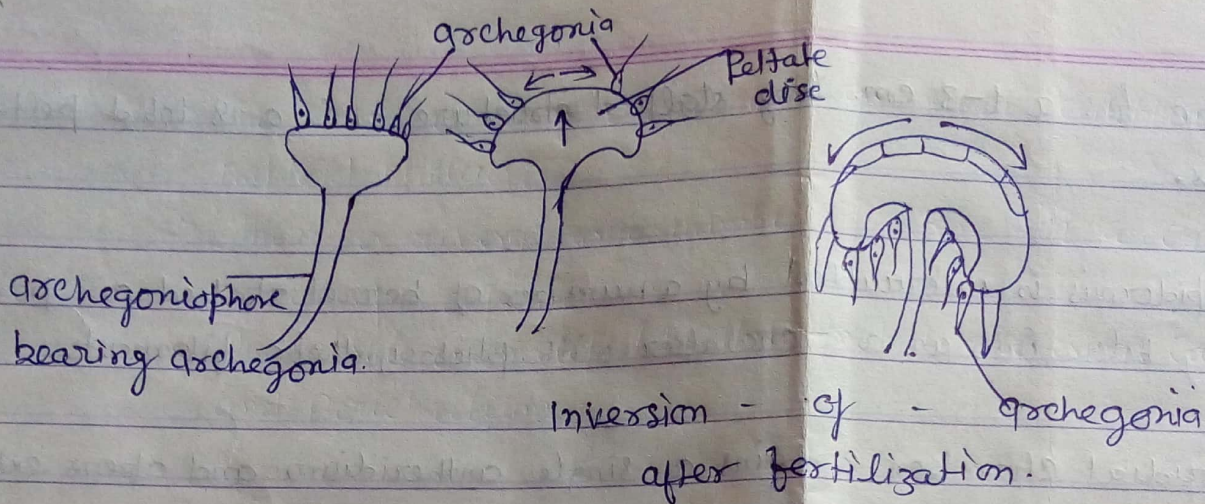
⇒ The body of antheridium has single layered sterile jacket enclosing a mass of androcytes which again metamorphose into antherozoids.



⇒ Archegoniophore is slightly longer (2-5 cm) than antheridiophore with dorsiventral 8 lobed and 8 growing point at margin.

⇒ There are 12-14 archegonia on each lobe of the disc arranged in a single row directed upwards.





⇒ After fertilization the stalk of the archegoniophore elongates and the central portion of the dorsal surface of the disc grows more than the ventral surface, so the archegonia pushed downwards and inward.

⇒ Water is urgent for fertilization because imbibition pressure built over the peltate disc and antherozoids swim in the archegonium and attracted chemotactically towards the neck of archegonium - where one is fused with the egg in all of them.

⇒ After fertilization the diploid zygote (oospore) is the mother cell of the sporophytic generation.