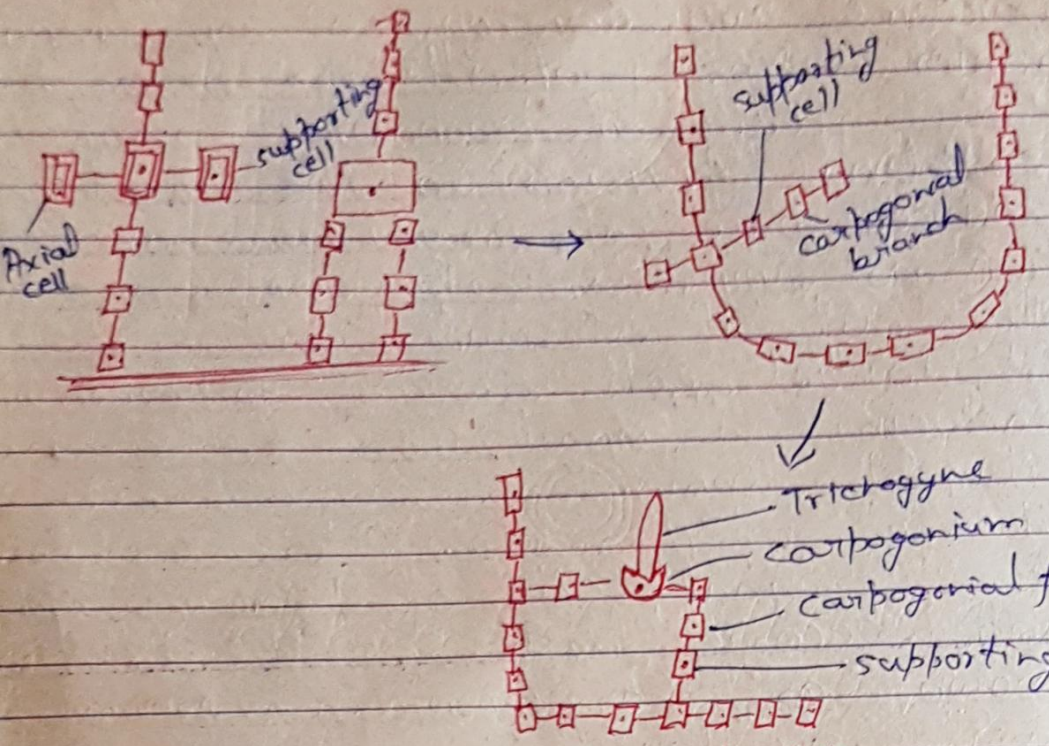
Reproduction → It reproduces only sexual methods.

Sexual Reproduction → It is advance oogamous type and plant is dioceious either male or female plants are seprate but they are morphologicaly similar. Male reproductive organ is known as spermotangium and gamite is known as sepermatogonia and the female reproductive organ is known as carpogonium.

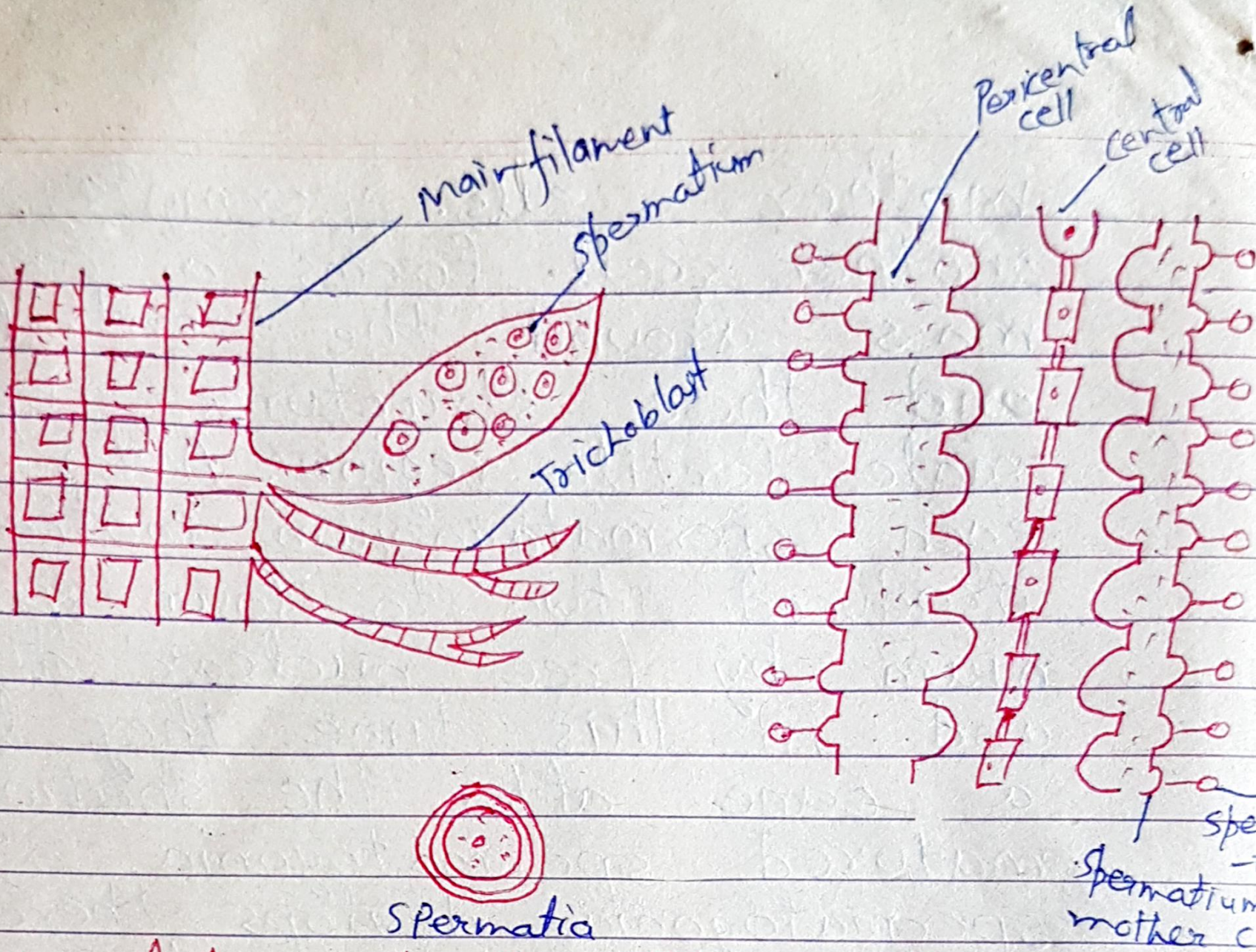
Structure and development of carpogonium → First of all the lower three cells of trichoblast undergoes periclinal division. So the basal cells produced base of polysiphons and function as supporting cells. The supporting cells cut off a small, initial cell. The initial cell divides and redivides producing a small four celled curve filament known as carpogonial filament or Procarp. After sometimes the terminal cell of Procarp enlarg and become flask shaped structure known as Carpogonia. Carpogonia has basal swellen, uninucleate, egg cell or oogonium and upper one is uninucleate, long, cylindrical, trichogyne The basal region farms two sterile cells which are known as basal sterile filament and lateral steril filament initial. Pesicentral cells * adjacent to the supparting cell give rise several out growths which covers the carpogonia and at the time carpogonium is ready for fertilization. These sterile filaments are also known as pericarp.



--- Development of Carpogonium

• Structure and development of spermotogonia → First of all male trichoblast is produced out of the two branch of the trichoblast one is fertile and other is sterile. Lower two cells of the trichoblast is comm basal stalk for sterile and fertile branch. Cells of the fertile branch divided periclin lly and produced a number of pericentral cell around the central filament. So the polysiph condition produced. Each pericentr cells divide and redivides produc a number of spermatogonium

mother cells. Spermatagonium mother cell forms a compact mass around the central siphons and these structures represent male fertile region. After sometime each spermatagonium mother cell produced two to four spermatogonium by free nuclear division. and in this time they looks like a cane after the sheding of matured spermatogonia a new spermatogonia devlops there. Each spermatogonia has a large nucleus with cytoplasm and these nucleas are known as spermatium. The spermatia are spherical as oblong unicellular, pale in colour. After maturation spermogonial wall is thick and three layered which is non-motile and is lebrated through a narrow apical slit in the spermagonial wall and is ready for fertilization Spermatia are generally transported by water to the trichogyne of the carpogonium.



Development of SPERMATOGONIA IN Polysiphonia