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Salient features in the life-cycle of Oedogonium :

(i) The plant body is an unbranched filament. It shows differentiation of cells accompanied by division of labour. In addition to ordinary vegetative cells mainly concerned with cell-division and zoospore formation. The basal cells or the rhizoidal cell is also more specilized. It's attaching disc is produced into irregular processes. The sex organs are highly organised structure.

(ii). The zoospores are spherical and posses numerous flagella at their anterior ends. They are produced singly within zoosporangia.

(iii). Sexual reproduction is oogamous. The heterogametes (sperms and eggs) are

produced in highly specilized gametangia, the oogonia and the antheridia.

(iv). The female gamete or the oosphere is produced singly within the oogonium. It is retained permanently within the oogonium until after fertilization. It has a definite receptive spot, which marks the point of entry of the sperm.

(v). The male gamete or the sperm is mobile and is multiciliated. It is smaller in size than the zoospore.

(vi). The zygote is a resting spore and helps the plant to tide over a period unfavourable for growth.

(vii). On germination the zygote nucleus undergoes reduction division and forms four zoospores.

(viii). The haploid zoospores germinate to form the haploid plant.

(ix). A curious dimorphism of sexual plant is exhibited by the nannandrous species.

(x). The formation of anothere type of motile

spores, the androspores within the androsporangia in the life-cycle.

(xi). The androspore germinates on the female filament, close to the oogonium and produces the dwarf male filaments or the nannandrium.
The dwarf male filament bears the antheridia.

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