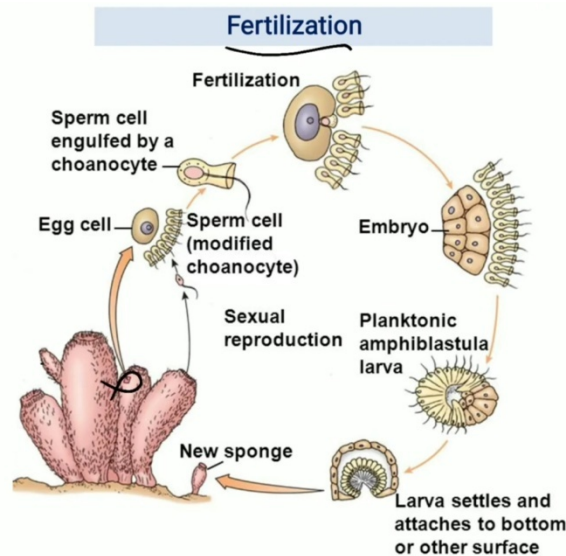


Reproduction in Sycon

Sycon reproduces both asexually and sexually. During asexual reproduction it produces bud and sometimes produces special bodies resembling the gemmules of freshwater sponges.

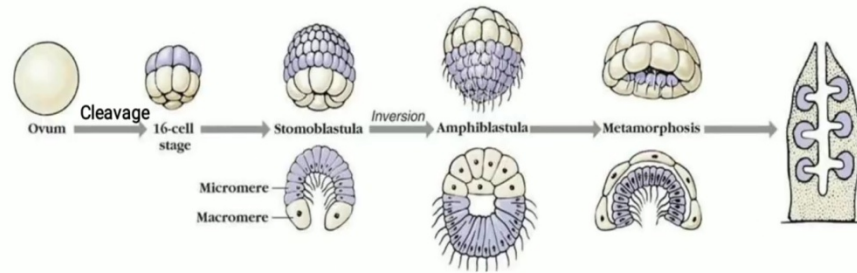


During sexual reproduction, both sperms and ova are produced from the archaeocytes which are present in the mesoglea. It is claimed that the sex cells are also produced from adult choanocytes. The sperm cells have long tails and swim freely in water current. The ova are amoeboid and wander through the mesoglea. The ova may grow up in size by ingesting other cells. The sperm cell does not enter the ovum directly. The union is assisted by a choanocyte. When sperm cells enter the radial canal, the choanocyte which is nearer to the egg captures it. The choanocyte which absorbs the sperm discards its flagellum and collar and comes very near the egg.

This choanocyte is named as the carrier cell. The sperm subsequently loses its tail and enters the egg. The carrier cell is ultimately absorbed. The early development takes place within the body of the mother sponge. When the development is complete, the larva forces its way into the radial canal and finally to the exterior.

Development of Sycon

Development or embryogeny



The fertilized egg or zygote divides repeatedly to form a round mass of cells. It is mostly covered with homogeneous cells but at one end a few thickly granulated cells appear.

The homogeneous cells grow flagella and completely enclose the granulated cells. Soon the cells at one half lose their flagella and become large and granular. The hollow and swimming larva at this stage is called amphiblastula stage and the larva in this stage leaves the parent body.

Gradually, the flagellated cells invaginate and finally the granular cells completely enclose the flagellated cells. The flagellated cells form the choanocyte lining while the granular cells give rise to the dermal epithelium. The larva fixes itself to a substratum and an aperture, called osculum, appears at the free end.

Further growth results into the thickening of the wall within which flagellate cells traverse and thus leads to the formation of radial canals. Numerous pores appear on the sides to form inhalent apertures.