

Larval development in Echinodermata

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These are several larval stages present in the life history of starfishes which are as follows:-

Bipinnaria larva :- The Bipinnaria larva develops from the zygote in about one week. It is a bilaterally symmetrical larva which possesses a preoral and a postoral ciliated band and a preoral lobe with preoral loop of ciliated band. The various projections emerging out of its body correspond to the arms inside the body appears the Coelomic apparatus, and the alimentary canal. The bipinnaria larva feeds on diatoms etc. by creating food-bearing currents by ciliary tracts in the stomodaeal wall. It swims freely by bowing its anterior end, which rotates clockwise. After some time the bipinnaria larva transforms into the next larval stage, the brachio-

Brachiolaria larva :- In the brachiolaria larva the side lobes of bipinnaria increase in length & become long, slender and ciliated larval arms. The larval arms move and contract the preoral arms also give out processes called the brachior arms. The arms of brachiolaria larva have coelomic prolongations and possess tips of adhesive cells. The bases of these arms surrounded the elevated, adhesive glandular area performing the function of a sucker or fixation disc by which the larva becomes attached at the time of metamorphosis.

Metamorphosis :- In about 6 to 7 weeks brachiolaria larva settles on the bottom or on some solid objects and is fixed with that by its adhesive arms. A slender stalk is formed for the purpose of adhesion by the preoral lobe which latter on becomes degenerated, completely absorbed and disappears. The adult body develops from the rounded posterior end of the larva.