Pharate phase

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Pharate phase

A pharate insect has completed the metamorphosis from larvae to adult but is still within the pupa. Many insect species diapause during the pupal phase often to avoid unsuitable environmental conditions or within the pupa, the pharate adult is ready to emerge but waits until the time is right before eclosing from the pupa. Post-embryonic development phase between molting and cuticle detachment. The Ferrata-shaped individual has already completed its development but remains enclosed in the cuticle of the previous stage. In Diptera, there are pharate phase forms:

1- The first instar larva at the end of incubation, surrounded by the embryonic cuticle.

2- The larvae of the penultimate and last instars, surrounded by the cuticle of the previous instars.

3- In Cyclorrhapha, the pupa, enclosed in the puparium, is formed by the sclerification of the cuticle of the last larval stage.

4- In some primitive groups, the adult is surrounded by the pupal cuticle during the completion of the pupal stage [1-4].

Pharate phase *Chrysoperla externa* **(Hagen, 1861) (Neuroptera, Chrysopidae)**.

Immature Stages

Pharate phase and pupa phases occur after complete larval development. The larva stops feeding and seeks shelter to develop its spherical cocoon, made up of white silk threads, where it passes the pharate stage. The silk used to make the cocoon is the result of the hardening of a secretion produced by the Malpighian tubes and released through the anal opening of the tenth abdominal segment [5-9].

Consider the pharate phase as the critical period in the development of lacewings. After development is complete, the pupae are released from the cocoons: The pupa of butterflies is also called a chrysalis. Depending on the species, the pupa may suspended under a branch, hidden in leaves, or buried underground. The pupa of many moths is protected inside a cocoon of silk [5-9].

Adult Stage

After completing development, the pupae are freed from the cocoons, through a circular opening, made with the jaws. It was verified that, outside the cocoon, the pupa begins the pharata phase, corresponding to the mobile pupa that, after

attaching itself to a substrate, performs the last ecdysis with the consequent emergence of the adult. Some authors consider the farata phase as the critical period of the development of lacewings. Adult emergence will be hampered if there is a linoleic acid deficiency at this stage [5-9].

Through a circular opening made with their mandibles. Outside the cocoon, the pupa begins the pharate phase, corresponding to the mobile pupa that, after attaching itself to a substrate, carries out the last ecdysis with the consequent emergence of the adult. Some authors consider the pharate phase as the critical period in the development of insects. Adult emergence will be hampered if there is a linoleic acid deficiency at this stage [5-9].

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