


PROTHETELY OR SEMI–PUPAL STAGE IN LOPHEROS FRATERNUS RAND.

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In the August number of Psyche (Vol. XXI, pp. 126–129) Williams mentions and illustrates an abnormal larva of Photuris pennsylvanica that had developed the pupal wing pads, assigning Kolbe’s term prothetely to the phenomenon, and citing the five previous records of this precocious development. Since photographic records of a parallel case in another genus of Malacoderm beetles are at hand they may be useful in close proximity to the above note to which an omitted case of similar nature may be added. Böving1 1906 speaks of an abnormal Donaciid larva:

“In a cocoon a larva with two large pupa wings on one side of the thorax, and a pupal abdomen was found. There was consequently no appendage, but the head and limbs were that of a larva. At the side of this monster, a cast off, entirely normal skin was lying, with the coverings of both cranium and limbs.”

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In September, 1908, Mr. Schwarz and the writer found several scattered larvae of *Lopheros fraternus* Rand. under a log on the Virginia shore of the Potomac River near Plummer's Island, Md. Some of these were left in place, the rest being taken to the office for breeding where the abnormally warm condition upset their transformation. Several of them developed wing-pads and all died before spring. But an early spring visit to the log disclosed normal pupae, with their larval skins, where the few larvae had been left the previous fall and from these adults issued. It was thought at the time that a long period of slow internal change at low temperature was required in preparation for pupation which would be induced by the rise in temperature in the spring, but that the early rise in temperature when the first lot of larvae were taken to the warm office, had stimulated an attempt at the second operation before the first was completed, causing the abnormal and fatal