III. LIFE HISTORY AND HABITS.

METAMORPHOSES.

HALOBATES.

The Egg.—The only account that has been given of the egg of *Halobates* is by M. Léon Fairmaire, whose note on the subject is reproduced in the part of this memoir relating to the literature of the subject. I am able to add to our scanty knowledge, by describing the egg of *Halobates willerstorffi*, of which there is before me one of about twenty-five found (in a Challenger specimen of *willerstorffi*) by Mr. John Campbell, the optician to whom I am indebted for the preparation of the microscopic specimens which I have used in examining the minuter anatomical structure of these insects.

The egg is very large in comparison with the size of the animal. Consequently the small abdomen is not sufficiently spacious to contain even so few as twenty-five or thirty, and part of the cavity of the thorax is employed to hold them. The egg of *willerstorffi* (Pl. III. fig. 30) is long oval in outline, measuring 1·2 mm. long by ·8 mm. broad, and the integuments do not show any particular markings or structure. The contents were rather coarse amorphous particles of coagulated albumen. The eggs found by M. Fairmaire are described as oblong in shape, and the species furnishing them were *sericeus* or *flaviventris*,—whether rightly determined or not, it is now impossible to say, as M. Fairmaire informs me that he gave away the specimens long ago.

No observations have been made as to when and where the eggs are deposited. The statement [1] that the female carries them about, attached to the abdomen, after they have been extruded, Professor Moseley informs me is a mistake.

The Larva and Pupa.—These two stages will be considered together, for in this as in other ametabolous groups of insects it is not easy to say where the one ends and the other begins, the more especially as we do not yet know how many times the young *Halobates* changes its skin.

While resembling in general form the adult animal, the larva has several important structural differences.

[1] Moseley, Notes by a Naturalist on the Challenger, p. 572.