12. *Serolis australiensis*, F. E. B. (Pl. VI. figs. 3–8).

*Serolis australiensis*, F. E. Beddard, Proc. Zool. Soc. Lond., 1884, pt. iii. p. 334.

Of this species three examples were obtained by the Challenger off the coast of South Australia, and I have been able to compare them with a specimen in the British Museum brought from the same locality.

The largest specimen is a female (Pl. VI. fig. 4) and measures 14 mm. in length by 11 mm. in greatest breadth; the two remaining specimens are both males (Pl. VI. figs. 3, 7), and are approximately of the same size, measuring 10·5 mm. in length and 9 mm. in breadth.

Apart from the form of the third thoracic and second abdominal appendages, I could detect no marked differences between the two sexes, unless it be that the females are really larger than the males in this and in the other Australian species.

The general form of the body of *Serolis australiensis* is oval, the male a little broader proportionately; the distinguishing feature of this species is the immense number of tubercles which cover the body, and are especially large upon the caudal shield and the posterior margin of the segments.

The *cephalic shield* is broadest at the level of the eyes, where it bulges out considerably on either side. Anteriorly and posteriorly it is narrower; the anterior margin is prolonged into a very long rostrum; there is a transverse ridge which forms the anterior margin of the caudal shield for a short distance on either side of the rostrum, and then bifurcates, the outer branch continuing along the anterior margin of the cephalic shield and giving off a short spine directed forwards at the level of the end of the first joint of the anterior antennæ; the inner branch follows the margin of the cephalic shield, but at some little distance from it, and the two unite at the lateral anterior angle, enclosing between them a somewhat boat-shaped depression. The tubercles on the cephalic shield are arranged in transverse rows; there is a larger spine just to the inside of the posterior third of the eye on either side directed backwards and slightly outwards, and a median spine about the same size situated near the posterior margin of the cephalic shield.

*Thorax.*—The epimera of the first segment are not divided by a suture. The three following epimera are closely applied to each other along their whole length; there is a slight break between the four anterior and the two posterior epimera; the two latter are closely applied to each other, but the outer margin of the fifth begins to curve backwards a little before the outer termination of the fourth epimeron, so that the angle of the latter projects freely. All the thoracic epimera, with the exception of the first, are separated by a suture from the tergal portion of the segments.

The terga of the thoracic segments, as well as the epimera, are covered with minute tubercles, which are distributed in longitudinal rows running from one side of the segment to the other; one row, which is constant in all the segments, and is rather more conspi-