AUSTRALIAN TRAP-DOOR SPIDERS

BY

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AND

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Plates xii.-xxiv.

Introduction.

This paper deals with a large amount of material chiefly personally collected by one of the authors [R.H.P.] between 1907-1917 in all the Continental States, except Victoria.

The collections in South Australia have been much assisted by teachers of the State schools, who in many cases, turned the nature study interests of their scholars towards the study of spiders. This was stimulated by the contribution of a series of illustrated papers on Araneidæ to The Children's Hour. One of the most able and indefatigable collectors was Mr. T. Nevin, at that time at Mallala, thirty miles north of Adelaide. The references to localities in this paper will shew how thoroughly the district was worked, and a great quantity of material of all kinds of spiders sent in for study.

The Queensland collections have been largely augmented by Dr. T. Bancroft, of Eidsvold, who lives in a district at the head of the Burnett River watershed, which is evidently surpassingly rich in Territellariæ. To his efforts we owe the discovery of the new group Dolichosterneæ and many new genera and species.

SOUTH AUSTRALIA.

The first collections made, were by one of the writers [R.H.P.] on the Adelaide Plains and the Mount Lofty Ranges. On the Adelaide Plains, with an average rainfall of a little over twenty inches, the summer heat conditions are at times very severe.

The common trapdoor spiders are Blakistonia aurea, Hogg, and Aganippe subtristis, Camb.

The Blakistonia is to be found nearly everywhere in parks and gardens, paddocks, and the unploughed ground along the highways leading from the city. In many places between Adelaide and the sea, the nests of this species occur in great numbers, not infrequently there being several to the square yard (Pl. xiii., fig. 8). The Blakistonia must be regarded as having considerable economic value in reducing grasshoppers and other pests. As is usual with the Territellariæ the inhabitants of the burrows are always females and the males are chiefly found in the cold, wet weather, hiding under stones. The young seem to stay with the mother for a good time after leaving the pillow-shaped egg sac, which is suspended half way down the tube. Egg sacs were found in April and in the winter (June and July), the young frequently occupy the tube, leaving it in the spring to colonise in the vicinity of the parent burrow. It is to be noted that the first infantile burrows are not provided with lids; after about the