

Arachnida

From notes by THEODORE H. SAVORY, M.A., F.Z.S.

Two collections of Arachnida were made during 1939, and sent to Mr. T. H. Savory for identification. Together they contained representatives of one species of scorpion, twenty-nine spiders and five false-scorpions. The Pseudoscorpiones were passed on to Dr. J. C. Chamberlin of Idaho, who has not yet reported on them. The remainder, the scorpion and the spiders, formed the subject of a paper contributed by Mr. Savory to the *Annals and Magazine of Natural History* (Ser. 11, Vol. x, May 1943, pp. 355-360), from which the following list and the concluding paragraphs are quoted.

Three earlier collections were made on Christmas Island (one by the officers of the *Flying Fish* in January 1887, one by J. J. Lister in September of the same year, and one by C. W. Andrews in 1896-97) of which the second, by Lister, formed the basis of a paper by R. I. Pocock in *Proc. Zool. Soc.* (1888, pp. 560-561). This paper was reprinted in the *Monograph of Christmas Island* (1900, pp. 156-162), with a short note on a few unidentified specimens collected by Andrews, and forms the only previous record of the Arachnida occurring on the island. Pocock's list comprises one scorpion, nine spiders and three false-scorpions.

Mr. Savory's list is based on my collections and the paper published by Pocock. It includes the one scorpion and thirty-one spiders: the seven species taken by the earlier collectors and again by myself are marked here by a single asterisk, and the two species obtained by Lister but not taken again in 1939 by a double asterisk. (C. A. Gibson-Hill).

Order SCORPIONES

* *Hormurus australasiae* Fabricius.

Order ARANEAE

Family FILISTATIDAE.

Filistata gibsonhilli, sp. nov. 2 ♀.

Family DYSDERIDAE.

** *Ariadna natalis* Pocock.

Family ECObIIDAE.

Ecobius navus Blackwall. 1 ♀, 1 juv.

Family HERSILIIDAE.

Hersiliola versicolor Blackwall. 1 ♀.

Family LYCOSIDAE.

Lycosa chaperi Simon. 4 ♀.

Family AGELENIDAE.

Agelena, sp. nonm. det. 1 ♂.

Family SICARIIDAE.

Scytodes delicatula Simon. 2 ♀.*Scytodes marmorata* L. Koch. 2 ♀.* *Scytodes venusta* Thorell. 2 ♀, 9 juv.

Family THERIDIIDAE.

Theridion tepidariorum C. Koch. 8 ♀, 2 juv.*Argyrodes argentata* Cambridge. 3 ♀.

Family PHOLCIDAE.

Pholcus gracilimus Thorell. 1 ♀.*Artema mauricica* Walckenaer. 1 ♂, 1 ♀, 3 juv.*Smeringolophus elongatus* Vinson. 12 ♀, 4 juv.*Crossopriza lyoni* Blackwall. 1 ♂, 6 ♀.

Family ULOBORIDAE.

Uloborus geniculatus Olivier. 2 ♀, 3 juv.

Family ARGIOPIDAE.

Araneus theisi Walckenaer. 8 ♀, 1 juv.*Araneus nauticus* L. Koch. 2 ♀, 5 juv.* *Argiope reinwardti* Doleschall. 3 ♀, 2 juv.*Argiope trifasciata* Forsk. 2 ♀.* *Cyclosa mulmeinensis* Thorell. 2 ♀, 8 juv.*Tetragnatha minax* Blackwall. 3 ♀.* *Nephila nigritarsis* L. Koch. 3 ♀.* *Cyrtophora unicolor* Doleschall. 1 ♀.

Family SPARASSIDAE.

* *Heteropoda listeri* Pocock. 1 ♂, 3 ♀.*Heteropoda regia* Fabricius. 2 ♀.

Family CLUBIONIDAE.

Corinomma moerens Thorell. 1 ♀.

Family ATTIDAE.

Menemerus bivittatus Dufour. 3 ♂, 3 ♀.*Plexippus paykulli* Audouin. 6 ♀.*Hasarius adansoni* Audouin. 2 ♀.** *Homalattus auratus* L. Koch.

In a note at the end of his paper, Pocock remarks that Lister's collection also contained a female Mygalomorph belonging to the genus *Encyocrypta*, several new sub-adult *Xysticus*, a female of the genus *Lithyphantes*, some young *Oxyopidae* and several small *Attidae*. In Dr. Gibson-Hill's collection there is no Mygalomorph, no *Xysticus*, no *Lithyphantes* and no *Oxyopes*. It is therefore clear that further collecting on the Island should be productive.

Moreover, Berland gives on page 394 of his book, *Les Arachnides*, a list of the names of eight species of Spiders described as cosmopolitan and 14 more described as cosmotropical. Seven of the former species and five of the latter have not yet been recorded from Christmas Island, and in this respect it is of interest to notice that three of the missing cosmopolitans—*Teutana grossa*, *Pholcus phalangioides* and *Tegenaria domestica*—have not yet been recorded from the islands of the Pacific.

The length of the present Christmas Island list, 31 species, compares not unfavourably with that of other oceanic islands, in many of which collections have been made much more frequently. Thus Berland (*Peuplement du Pacifique*, Mem Soc. biogeog. Paris, iv. 1934, p. 166) gives the following figures:—Fiji 42 species, Samoa 81, Tahaiti 15, Marquesas 38, Hawaii 102.

The Indian Ocean has not been so thoroughly investigated as the Pacific, and in consequence it is not yet possible to draw conclusions as to distribution in the same way as Berland has been able to do. But one point may be noted. The relation of the Christmas Island fauna to that of Burma and Java, previously noted by Pocock, is emphatically confirmed by the present extended collection. This fact is of more than passing interest in view of recent comparisons between the efficiency of aerial travel on "gossamer" threads and the alternative method of accompanying man in ships as the means by which isolated places like islands have received their spider-fauna. Berland supports the latter method, Dr. W. S. Bristowe the former. At Christmas Island it appears that during most of the year the prevailing winds are the S. E. Trades, blowing from the Island towards Sumatra. It is therefore unlikely that many spiders have arrived by air, unless they have come from Australia; and most of the immigrants have probably been introduced by commerce.