

NOTES ON AMAZONIAN ODONATA IN THE LEEDS MUSEUM

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Manuscript received 5 December, 1944.

(Read 2nd May, 1945.)

WITH 1 PLATE AND 13 TEXT-FIGURES.

THIS paper is a continuation of a series which was initiated by Mr. W. D. Hincks (1934, *Ent. Rec.* 46: 77) and was intended to deal with a large collection of Odonata from Peru and Colombia which he then possessed but which he has since generously presented to the Leeds Museum. The material was collected in the regions of the upper waters of the Amazons in the following localities:— (1) PERU: Iquitos and Mishuyacu near Iquitos; (2) N.E. PERU: S. Antonio, Yumbatos and Balsapuerto in the valley of the Rio Huallaga, and (3) COLOMBIA: Umbria and Florida in the valley of the Upper Putumayo river. The Huallaga rises in the Andes, runs northwards along the foot of the hills for some 500 miles and then turns eastwards to become one of the main tributaries of the Amazon: the Putumayo rises in the Ecuadorian extension of the Andes and runs eastwards to form the boundary between Colombia and Peru, eventually entering Brazil to join the Amazon at a point much farther to the east than the Huallaga. Between these two rivers, Ecuador is sandwiched and contributes many rivers which empty into the Huallaga and Amazon: thus the fauna of this water-system may be said to be common to Peru, Ecuador and Colombia. Dr. C. H. Kennedy of Columbus University is at present working on the Ecuadorian Odonata, of which he possesses an enormous amount of new material, and I have been in communication with him to avoid any possible overlapping of descriptions of new species.

To entomological students, much of the Andean region remains terra incognita; collecting therein has been very sporadic, the incessant rains and fitful sunshine affording very few suitable or favourable collecting days, and therefore militating against making it a paying proposition for the professional collector. Thus the classification and our knowledge of the fauna still remain in a chaotic condition and may well continue to do so until the specialist is able to study it first hand on the spot. This applies especially to some groups in which the multiplicity of very similar forms renders it difficult or impossible to determine whether one is dealing with separate species, subspecies, races or even mere varieties. The POLYTHORIDAE, which form the special subject of this paper, come into this category and in their puzzling variety of forms offer an exact parallel to the Oriental genus *Mnais*.

Mr. Hincks' first paper dealt exclusively with the family AESHNIDAE: a second short paper by myself, published in 1943 (*Proc. R. ent. Soc. Lond.* (B) 12: 161), described the only specimen belonging to the family GOMPHIDAE present in the collection. In the present paper, which represents the third of the series, species belonging to the families POLYTHORIDAE, HETAERINIDAE and COENAGRIIDAE are dealt with, including some in my own collection which were given me some years ago by the late Mr. Morton. I take this opportunity of thanking Mr. Hincks and the authorities of the Leeds Museum for delegating to me the task