

This new review of the Devonian insects alters somewhat the conclusions which we previously reached. *Gerephenera* is now considered a member of the group *Protophasmida*, formerly looked upon as its nearest ally, but from which it was regarded as distinct. The structure of *Homothetus* is shown to be different from what was formerly supposed, in taking from it its presumed Odonate affinities, but its position is otherwise retained, and the relation of the major part of the Devonian insects to later, carboniferous types, is shown to be more intimate than was supposed. This latter conclusion has been reached mainly by a study of forms discovered since the former paper was printed and which are yet unpublished; and it is the only point in which the thirteen several general conclusions formulated in my previous paper require any essential modification. It is even still true that notwithstanding the discovery of greater unity between the Devonian and carboniferous insects, the little fauna of St. John has features which instantly stamp it as distinct from the carboniferous; since, while most of its members belong to restricted groups which occur in carboniferous deposits, they are in most cases very different from the later members of these groups.

Instead, therefore, of the five species<sup>1</sup> being divided;—none to *Ephemeridae*, two to *Odonata*, and three to *Neuroptera* proper (and "probably" to *Sialina*), as claimed by Dr. Hagen, we find none whatever belonging to *Odonata*, but of the two so claimed, one referable to an ancient type of *Ephemeridae*, and one to an ancient type of *Phasmida*; while the remaining three belong to as many distinct families of ancient *Neuroptera*, doubtless related to, but still distinct from, *Sialina*, two of which were well represented in carboniferous times. The third, however, had, so far as yet discovered, no representative even among paleozoic insects, and has special interest from its distinct resemblance to the carboniferous *Protophasmida*,—a group afterwards differentiated as a special type of another order.

#### EXPLANATION OF THE PLATE.

I venture to add to this paper a plate engraved many years ago from imperfect and rude drawings of my own, which was discarded when I published my memoir on the Devonian insects, as insufficient and in part incorrect. It will serve, perhaps, to explain some of the changes my views have undergone, and to further illustrate to a slight degree some of the errors into which my critic has been drawn. All the figures excepting fig. 5 are of the natural size.

Fig. 1. *Homothetus fossilis*.

Figs. 2, 3. *Lithentomum Hartii*. These figures differ from those given in my formerly published plate to a considerable degree.

Fig. 4. *Dyseritus vetustus*.

Figs. 5, 6, 7. *Xenonura antiquorum*. Fig. 5 is made up from several camera sketches, and is enlarged about 20 diameters.

Figs. 8, 9. *Gerephenera simplex*. These represent both obverse and reverse, as they originally appeared. Fig. 9 is the one that has never been figured before. All or nearly all of these wings appear in reversed position on the plate. Fig. 9 should have been turned a little.

Figs. 10, 11. *Platphenera antiqua*. It will be noticed that fig. 11 shows what looks like a bit of the outer margin not far from the tip; this I suspect is simply a series of cross veins and was meant to represent only that; it is, however, given precisely in this way in my original drawing.

<sup>1</sup> Omitting *Dyseritus*, too imperfect for any satisfactory discussion.