

## ON THE GENERA VENUSIA, EUCHÆCA AND HYDRELIA.

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In Mr. Pearsall's valuable "Review of our Geometrid Classification—No. 3,"\* a venational character is not mentioned, which—with the rarest possible exceptions, none being known to me save *Alsophila*—is as reliable as the structure of veins 5 and 8 of the hind wings, and which has been used as generic in the *Larentiinæ* (= *Hydriomeninæ*) by Hampson, and more recently by Dr. Turner in an able revision of the Australian genera of the subfamily.† I allude to the structure of the discocellulars of the hind wings. Ignoring minor variations which Mr. Pearsall might prefer to place in his "auxiliary group," there are two *essentially* different forms: (1) simple, or with a single angle inwards, marking the point of contact of the middle discocellular with the lower, vein 5 being in these cases either from the angle or from above it (or from the middle or above it where there is no appreciable angle); (2) biangulate, with vein 5 from the *lower* angle, thus from nearer (sometimes very much nearer) to 4 than to 6. The first form may be seen in *Eudule*, *Eupithecia*, *Xanthorhœ* (so far as it is homogeneous), and others, as well as in the vast majority of non-Larentiids; the second form in *Rachela*, *Oporinia* (= *Epirrita*), *Hydriomena* (except a few dissonant species which Hulst has included), *Marmopteryx*, and many others.

That this distinction is correlated with real phylogenetic differences, I have little doubt. Several "genera" of Guenée, upon whose system I worked in my early days, and which dissatisfied me profoundly on larval grounds, have proved to divide very satisfactorily with the aid of the discocellular character—for example his *Melanippe* and *Anticlea*.

Now, it happens that *Euchæca* (type *obliterata*, Hufn.) and *Hydrelia* (type *testacea*, Don.) fall into group 1 (with discocellulars simple), and *Venusia* (type *cambrica*, Curt.) into group 2. There was much discussion on the American representatives of these a few years ago, and much useful revision was done, notwithstanding some regrettable differences of opinion. But no one seems to have noticed that *cambrica*, Curt.; *comptaria*, Walk.; *Pearsalli*, Dyar, and *duodecimlineata*, Pack. (= *unipecta*, Pearsall), which are so much alike superficially, all agree in the hind wing venation (discocellulars biangulate), while *lucata*, Guen., and the much-enduring

\*CAN. ENT., Vol. 39, page 91.

†Proc. Roy. Soc. Victoria, Vol. 16 (New Series), page 218.