

auditory sense, if present, much less potent ; but sight, smell and touch are evident and variously developed. This perfectly harmonizes with Newman's circular view, given in the *Entomologist*, vol. iv., p. 236.

Next, it has been a long standing practice with the authors of works on British Butterflies to treat of the five groups represented in these islands in the following order : *Papilionidæ*, *Nymphalidæ*, *Erycinidæ*, *Lycanidæ* and *Hesperidæ* ; but since the first family has close affinity with the last, according to Dr. Scudder and others, the method is only plausible on the principle of extremes meeting ; the better arrangement every way being this, *Nymphalidæ*, *Erycinidæ*, *Lycanidæ*, *Papilionidæ* and *Hesperidæ*. Then if physiological reasons could ever be got to prevail over the fancy for having the butterflies first, I would likewise suggest a further arrangement of five groups of moths, showing the development of that structure at the base of the abdomen I attribute with the faculty of hearing, the highest of insect senses, thus : *Nectulina*, *Bombycina*, *Geometrina* and *Sphingina*. Between the *Geometrina* and *Sphingina* come as I consider the butterflies, springing from either group in the species of *Urania* and the *Hesperidæ* respectively. At the best, however, must it appear that any such linear system is to be inferior to the Darwinian method of a theoretical descent, for if lines are not to meet somewhere, what can be made out of case-bearing *Bombycina*, and case-bearing *Tineina* that harmonize like the species of *Incurvaria* ; and why is our ghost moth such a strange anomaly ? One warm, still evening at the commencement of July, 1881, wandering out butterfly net in hand to watch for the comet to appear over our chalk hill, I came on a spot where an elder bush stood clearly defined against the full harvest moon, over whose ivory blossoms several males of this moth were dancing sideways, little fans full of whimsicality glowing in the dusk like whiting on the hook or calico caught by the sunshine. It was a beautiful and saintly apparition, that held me long before courage was mustered sufficient to catch a couple for the cabinet. Two ghosts however were eventually boxed, and as I spread these out on the setting board I became much struck by the circumstance how little they gave me the idea of a moth, and how little they harmonized with the moths of the group to which they are accredited. Their four wings all alike, wanting the hook and eye to link them, suggested most those of a dragon-fly, and seemed to point to a greater development of the mesothoracic muscles to sustain their increased exertion. Their expansile fans on their hinder femora, and their subterranean larvæ, brought one back to the owl moths