

GREEN BUTTERFLIES.—“Grant Allen shows that, while greenish flowers are among the oldest, really green flowers are the most recently developed of all and among the most conspicuous. Very much the same thing is true of Lepidoptera. Pale green moths, like *Actias*, *Geometra*, and *Pachyarches*, are protected by their colouring, which is common to both sexes, and are quite hidden when nestling among the leaves. Such seems also to be the case with *Lehera eryx*, a lycaenid which is greenish on the underside, and may possibly be the case with some *Catopsilias*. But bright metallic-green is, I think, the latest developed colour among butterflies, and decidedly the most conspicuous. No one who has not seen it can imagine the brilliancy of *Arhopala farquharii* or *Ornithoptera brookeana* in the greenest jungle. The brightest of the metallic-blue butterflies look dim beside them. It may be confidently asserted of all such butterflies that, unless the species is protected, only the male is green. The protected *Ornithopteras* have sometimes assumed green colours as well as golden and orange, and the female shares in this useful ornamentation to some extent. In non-protected butterflies the green is confined to the upperside and is quite invisible except during flight. In the *Lycaenidae* it is found in many *Zephyri*, in some *Poritias* and *Massagas*, in a few *Arhopalas*, and in *Lampides marakata*, a rare butterfly I discovered in the Malay Peninsula and named after its emerald tint above. Among all these, whenever the female is known, it is blue, orange, black, violet, or any other colour but green. The conservative and, in butterflies, unadorned sex, has not yet acquired the latest development in colours. It is also remarkable that the green colours seem to occur where the genus is most dominant. The Malay Peninsula and Borneo form the great centre of development of the genera *Arhopala* and *Lampides*, and it is there that most of the green species occur. The outlying *Arhopalas*, those of the North-West Himalayas, and the Timorian islands, are all blue. In *Zephyrus*, the green

species are found only where the genus is best represented and most vigorous. *Zephyrus pavo*, a species found in the Bhutan and Assam hill-ranges, remote from the regular habitat of the genus, has, I discovered, the male blue and greatly resembling allied females from the Western Himalayas. The green and orange *Ornithopteras* also occur only in the heart of the *Ornithoptera* region. These remarks on green butterflies also apply in some degree to certain other *unusual* colours of great brilliancy, such as the shining coppery gold of *Ilerda brahma*, and the fiery red of *Thamala marciana*. It ought to be borne in mind that such colours must never be ascribed to a female without careful examination.” *W. Doherty* (*Journ. Asiatic soc. Bengal*, v. 58, pp. 416-417).

THE HABITS OF BRACHYTRYPUS, the huge desert cricket of the Mediterranean region, have only recently been studied by A. Forel, although, excepting the mole crickets, it is the largest known European form. The reason appears in the fact that it is a nocturnal insect, remaining in its burrows by day and even closing the entrance to the same (although it is three or four centimetres in diameter) to an extent of several centimetres, leaving only a little sand heap to mark its place. Dr. Forel discovered them by marking the spot where he saw and heard them chirping lustily in the dusk, and the next morning detected the heaps, carefully removing which the burrows were found. These extended for over a metre in length and half as much in depth, and digging the creature out was a thankless task; Dr. Forel obtained some by drowning them out and others in a way characteristic of a myrmecologist: he secured a bag of ants, a species of *Acantholepis*, and setting them loose before the burrow, they entered it and soon ousted the occupant.

ALPINE FAUNAS.—An interesting general statement of the characteristic features of the entomological, and especially coleopterolog-



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