

terizes genera? Is it not the finish of the organization of the body, as worked out in the ultimate details of structure, which distinguishes one genus from another? Latreille, in expressing the want he felt with reference to the study of genera, has given us the key-note of their harmonious relations to one another. Genera are most closely allied groups of animals, differing neither in form, nor in complication of structure, but simply in the ultimate structural peculiarities of some of their parts; and this is, I believe, the best definition which can be given of genera. They are not characterized by modifications of the features of the families, for we have seen that the prominent trait of family difference is to be found in a typical form; and genera of the same family may not differ at all in form. Nor are genera merely a more comprehensive mould than the species, embracing a wide range of characteristics; for species in a natural genus should not present any structural differences, but only such as express the most special relations of their representatives to the surrounding world and to each other. Genera, in one word, are natural groups of a peculiar kind, and their special distinction rests upon the ultimate details of their structure.

## SECTION VI.

### SPECIES.

It is generally believed that nothing is easier than to determine species, and that of all the degrees of relationship which animals exhibit, that which constitutes specific identity is the most clearly defined. An unfailing criterion of specific identity is even supposed to exist in the sexual connection which so naturally brings together the individuals of the same species in the function of reproduction. But I hold that this is a complete fallacy, or at least a *petitio principii*, not admissible in a philosophical discussion of what truly constitutes the characteristics of species. I am even satisfied that some of the most perplexing problems involved in the consideration of the natural limits of species would have been solved long ago, had it not been so generally urged that the ability and natural disposition of individuals to connect themselves in fertile sexual intercourse was of itself sufficient evidence of their specific identity. Without alluding to the fact that every new case of hybridity<sup>1</sup> is an ever-returning protest against such an assertion, and

<sup>1</sup> WIEGMAN, Gekrönte Preisschrift über die Bastardzeugung im Pflanzenreich, Braunschweig, 1828, 8vo. — BRAUN, (A.) Ueber die Erscheinung der Verjüngung in der Natur, Freiburg, 1849, 4to. — MORTON,

(S. G.) Essay on Hybridity, Amer. Jour., 1847. — Additional Observations on Hybridity in Animals and on some collateral subjects, Charleston Med. Journ., 1850.