

## SPECIES, VARIETIES AND RACES.\*

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At the recent meeting of the Entomological Club of the A. A. A. S., Dr. Horn found occasion to say that "nature has no genera, but species only"—genera are mere artificial aids to classification, are seldom sharply defined, and are of very unequal value, according as the student is inclined to value characters; nor are the same characters useful in all the orders, nor indeed in the several families in the same order.

The important part of Dr. Horn's remarks, for the present purpose, is the assertion that "nature has no genera." That Dr. Horn has an experience in American Coleoptera large enough to render such an observation from him of great weight, no one will dispute, and taking the Lepidoptera into consideration I am led by my studies to agree with him thoroughly.

Afterward, at the same meeting, Prof. Fernald, than whom we have no better authority on Micro-lepidoptera, stated that he was greatly interested in Dr. Horn's view of genera, but for his part he would be well content to have a satisfactory limit to species.

What is a species? The question has oft been asked, and never satisfactorily answered. Dr. LeConte long since stated in reply to that question, "Alas! we do not know." Elsewhere he defines it as "an assemblage of individuals which differ from each other by very small or trifling and inconstant characters, of much less value than those in which they differ from other assemblages of individuals; but who determines the value of these characters? The experienced student of that department to which the object belongs; therefore groups of individuals which are recognized as such by those who from natural power and education are best qualified to judge."

This, therefore, does not quite answer the question, but leaves an element of opinion in the matter.

Not long since, Mr. W. H. Edwards, in an article on the species of *Papilio*, says: "I hold that every permanent form possessed of marked characters which distinguish it from other forms, and which breeds true to its type, so far as appears or we can know, is to be regarded as a species,