judgment of the most prudent naturalists the real use of the luminosity of these insects is still utterly unknown.

Can any of the readers of Science give me "a great light" on the subject in dispute?

Charles Niederger.

New York. May 16th, 1870.

BOOK REVIEWS.


There is significance in the number of recent works involving a discussion of questions of biological philosophy and a presentation of fundamental principles to intelligent non-scientific thinkers. Starting with Darwin's "Origin of Species," a steadily increasing volume of this kind of literature has been produced to supply an intellectual demand, in itself a grateful proof of the readjustment and betterment of the relations between scientists and other thinkers.

Among these newly developed lines of thought, none is more interesting than the coloration in the organic world; and none deals with a subject more intrinsically beautiful. The work under review is an attractive book on an attractive subject. The press-work is good, the type clean and sufficiently large. The four colored plates are a feature which will be much appreciated, while the wood-cuts are well selected and well executed, with the exception of the illustration of the shoal, which is little short of execrable.

The classification of colors according to their supposed purpose is much less intricate than that adopted by Poulton, and not very unlike that of Wallace. A compromise between Poulton and Beddard would have its advantages. Contrary to the promise set forth in the author's introductory chapter, he has used insects almost, if not quite, as much as Poulton in the presentation of his subject. The author says that his book "contains nothing novel," but we think that he is over modest in this, for his excellent series of experiments for the purpose of determining the palatability of various animals is both new and very much to the point.

In the introductory chapter the origin of animal coloration is explained, and an indication of the anti-Darwinian trend of the work is furnished by a denial of the fact that coloration is always in harmony with the mode of life. The animal which might still be left sub judice Abilism is considered an individual variation, although there is much to indicate that it is a physiological weakness or dermal disease. Although Mr. Beddard does not touch upon the transmission of acquired characters, perhaps thereby showing his wisdom, he is evidently intensely Lamarckian in his beliefs. A comparison between Wallace's "Darwinism" and Beddard's "Coloration of Animals" would be instructive perhaps, but sorely perplexing to the general student, who cares more for ascertaining the truth than being au fait in theories. Natural selection, N. Arb HELPER, Mass.

No author is more persistent in his attempts to minimize the effects of natural selection than the latter. Here again middle ground would seem more safe.

Our author concludes that "the brilliant and varied coloration of deep-sea animals is totally devoid of meaning," a conclusion that will doubtless meet with considerable opposition.

Chapter II., on coloration as affected by environment, is a thoroughly Lamarckian chapter with many significant facts. The nature and quantity of food is held to materially affect coloration. Monotone deepens colors, while a dry climate lightens them. The white of Arctic animals, it is maintained, is due to environment, although this proposition can hardly be said to substantiate in a satisfactory manner.

In Chapter III., on protective coloration, this well-known and very lucid subject is treated by the large number of examples in much the usual way. The author is surprised at the small number of green animals frequenting trees. We are inclined to think the number much greater than he admits. For instance a


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