BOOK NOTICES.

SCIENTIFIC.

The Descent of Man, and Selection in Relation to Sex. By Charles Darwin, M.A., F.R.S. With illustrations. In 2 vols. Vol. 2. Crown 8vo. pp. vii., 436. New York: D. Appleton & Co.

The first volume of this work was noticed in these pages some weeks since, when we gave an outline of the argument employed respecting the nature and origin of man. In the second volume the author continues the subject of sexual selection, which was begun in the preceding volume, and devotes considerable space to an examination of the important influence of this agency in moulding and beautifying the animal world. The topic is treated very minutely, and is enriched with a multitude of interesting illustrations drawn from every species of animal and insect life. From the silence with which the sexual relations of animals have usually been treated in popular works, most readers will be astonished to find themselves introduced into a new and inner world of animal life, of which they have hitherto had no conception; and to learn that a considerable portion of the form and structure, the weapons, the ornaments, and the coloring of animals, owes its very existence to the separation of the sexes. In presenting this new branch of natural history, which is one of the most striking creations of Mr. Darwin's genius, an extensive survey is made of sexual differences throughout the animal kingdom—their causes and effects—in order that the principles deduced therefrom may be applied to explain the nature and probable origin of the several races of man, which the author believes cannot be explained without the agency of "sexual selection."

The main theory advanced by Mr. Darwin is based upon the fact that in the animal kingdom there is an almost continual struggle among the males for the females—a struggle carried on either by actual fighting or by rivalry in beauty. From this it results that some males gain the victory over others, and thus succeed in pairing earlier, and with the most vigorous females—the latter exerting a choice and rejecting those males that are least pleasing. Hence have arisen two sets of modifications in male animals: 1. Weapons of various kinds, those best able to fight having most frequently left progeny to inherit their superiority; 2. Musical organs, gaudy colors, or ornamental appendages have been developed, through the females preferring those so adorned. This part of the work is illustrated by numerous wood-cuts, showing the extraordinary differences of form and structure between the sexes.

The insect world is next considered. The males of many species emit musical sounds which doubtless attract or charm the female. Among most insects, the butterfly especially, diversity of color exists, the males being most brilliantly or most intensely colored; and the difference is often so great that the two sexes look like widely different species. Beetles differ greatly in form, the males possessing wonderful horns or protuberances, immensely long legs, and enormous jaws. Passing on to the vertebrates, we find that male fishes often fight, and some of them undergo strange changes of form at the breeding season, when they likewise acquire new or more vivid colors.

Passing on to birds, we discover every imaginable kind of sexual ornament. In an immense number of cases, male birds are more beautifully colored than the females, and often possess the most gorgeous plumage, as in the train of the peacock, and the breast-plumes of the bird-of-paradise. The male has also a louder or more melodious voice. Among birds is found abundant evidence that the female notices and admires increased beauty of color or brilliant ornament, and that she exercises choice, rejecting one suitor and choosing another. There is evidence, too, that the male fully displays all his charms before the females, and some of the facts adduced on this head are most curious and interesting, four chapters being devoted to this branch of the investigation.

The concluding chapters again treat of man. The sexual differences of man are stated to be greater than in most species of quadrumanæ, while in their general features and mode of development, man agrees remarkably with those animals. The law of battle for wives still prevails among savages. Considerable space is devoted to prove that savages think much of personal appearance, admire certain types of form and complexion, and that probably selection of wives and husbands has been an important agent in determining the differences of race among mankind.

In the last chapter, Mr. Darwin gives an able summary of the whole argument, and while regretting that his views will be denounced by many as highly irreligious, and prove distasteful to others, he maintains that the whole evidence points to the conclusion that man, with all his noble qualities and godlike intellect, still bears in his bodily frame the indelible stamp of his lowly origin.

On the Genesis of Species. By St. George Mivart, F.R.S. 12mo. pp. 314. Illustrated. New York: D. Appleton & Co.

Very remarkable is the rapidity with which an interest in the intricate problem of the origin of the race has spread within the last dozen years. The great stimulus to this line of investigation was given by Mr. Charles Darwin, and it has since been followed up by many eminent scientists. The work before us is another upon the same subject. In attempting a solution of the question, the author takes middle ground between the views put forth by Mr. Darwin, and those advanced by most of his opponents. He believes that there is partial truth in the conflicting theories contended for by various advocates, and that by rejecting the error on both sides, and carefully eliminating the truth, we will soon arrive at such a systematic and comprehensive view of the genesis of species as will completely harmonize with the teachings of science, philosophy, and religion. The author accepts the Darwinian theory of "Natural Selection" as one of practical utility in explaining many of the phenomena of organic life, yet is inclined to give it only a subordinate place, and maintains that it is aided and supplemented by some other agency; that new forms of animals and plants have from time to time been evolved from preceding animals and plants, not by the action of "Natural Selection" *alone*, but