affixed, but oxidised in place of being left bright. Recently a new mark has been introduced in Ireland, consisting of a small numbered tag attached to the base of the dorsal fin by means of a ring; marks of this pattern are made of various size to suit any fish from a smolt upwards.

ENTOMOLOGY FOR THE YOUNG.

THIS book is not a scientific treatise; it is intended, as the author tells us in the preface, "to encourage the intelligent life-study of insects by our younger folk, to discourage collecting, and to stimulate the profitable employment of one's eyes and ears in town or country." This object is a very estimable one, and the author has done much to produce a book admirably adapted for this purpose.

It is divided into seven chapters, each containing many stories of insect life. The general introduction

Green-veined White Butterfly resting. From "The Story of Insect Life."

deals with all manner of subjects in a clear and very simple way, such as structure, eggs, metamorphosis, fertilisation of plants, the story of the wild arum, resemblance of plants to insects, &c. Then follows a chapter on beetles, some of our common forms being simply described. Earwigs, cockroaches, crickets, and grasshoppers form the theme of chapter iii., and dragon-flies, May-flies, &c., that of chapter iv. Now and again the author, unfortunately, pounces on scientific names. For many reasons, in a book for young people, these are best left out, particularly if wrong ones are used, as on p. 104, where the steel-blue wood wasp (*Sirex juvencus*) is called *Sirex noctilo*!

Some of the stories form delightful reading, such as the story of the hive bee, p. 207.

Seventy-six pages are devoted to butterflies and

¹ "The Story of Insect Life." By W. P. Westell. Pp. 339; illustrated. (London: Robert Culley, n.d.) Price 5s. net.

moths, and then the final chapter gives a few brief notes on bugs, frog-hoppers, gnats, and other flies that may attract the young person's attention.

The illustrations from photographs are mostly excellent, and some beautiful pictures are reproduced of localities where water insects abound. The author, unfortunately, in one has made a grievous error, for in Fig. 119 he gives the head of a male mosquito, *Theobaldia annulata*, as that of a female gnat, and refers to this in the text. For the young we should be just as careful to be accurate as for people more matured.

The eggs of the vapourer moth are not in a natural position in Fig. 17, and, again, a badly set and damaged tortoiseshell butterfly is clumsily stuck on an iris blossom (Fig. 86) in a very unnatural way. There are also many entomological errors.

The plates will be sure to attract the young mind, and they are excellently reproduced, but the artist appears to have a quaint idea of some of the insects, such as the blow-fly on plate viii., and also the water boatman. In spite of such faults, the book is one that may be recommended to all young folk, as it not only supplies a want, but fills that want in a clear and pleasant style.

FRED. V. THEOBALD.

LORD KELVIN.

IN NATURE for September 7, 1876, there was published, with the engraved portrait by Jeans, in the series of "Scientific Worthies," an account of Lord Kelvin, then Sir William Thomson, and of the scientific work, extending then over more than thirty years, by which he had rendered himself illustrious in physical science. Thirty-one years have elapsed since that appreciation was written, and now we have to mourn that this life of wonderful activity has come to its natural close. At the ripe age of eighty-three, as full of honours as of years, Lord Kelvin has passed away. To say that his eye was not dimmed, nor his natural force abated, would be scarcely strictly true, yet he retained to the last the exercise of his intellectual powers. The vigour and keenness with which he entered into the discussions at the British Association meeting at Leicester in August last were truly remarkable at his advanced age. It was in the course of making experiments in a corridor in his country house, Netherhall, Largs, that he contracted the chill which brought about the fatal end.

The article of 1876 gave in some detail those scientific achievements which had then made him famous; and a glance at its contents will show in brief what these were. While still an undergraduate at Cambridge, he had made valuable mathematical investigations in relation to Fourier's theorems, and in their applications to the motion of heat and to hydrodynamics. In these investigations will be discovered the foundation of the method of evaluating geological dates from underground temperatures upon which subsequently he built his famous conclusions as to the age of the earth. In the years which followed, during his early occupancy of the chair of natural philosophy at Glasgow, Lord Kelvin was largely occupied, in constant association with Joule, with the development of thermodynamics, to which not his least contribution was the theory of the dissipation of energy. This was followed by investigations into electrostatics and the theory of magnetism, contact electricity, thermoelectricity, the mechanical energies of the solar system, the calculation of the tides, the size of atoms, and vortex motion. That which, however, directed popular attention to his scientific attainments was not so much these deep investigations as his connection with the more practical problems of ocean telegraphy. The pos-