

as the pectoral; the barbel is not quite half as long as the head. The typical specimen is 19 inches long.

The fish is called "Cod" by the colonists.

Rhombosolea flesoides.

B. 6. D. 62. A. 41.

Similar to *R. leporina* (Günth. Catal. Fish. iv. p. 460), but with the body more elevated. Its greatest depth is rather less than one-half of the total length (without the caudal), the length of the head two-sevenths. Eyes separated by a narrow, low, naked ridge, the lower being in advance of the upper. A cutaneous flap is suspended from the maxillary, overhanging the mouth. The gill-opening does not extend upwards beyond the base of the pectoral. The dorsal fin terminates at a distance from the caudal, which is one-fourth of the depth of the free portion of the tail; the first dorsal ray is inserted immediately behind the maxillary appendage, and the four or five anterior rays are produced beyond the connecting membrane, but considerably shorter than those behind the middle of the fin, which are nearly half as long as the head. Caudal subtruncated, its length being rather more than one-sixth of the total. The length of the pectoral is somewhat more than one-half that of the head. Ventral fins as in *R. monopus* and *R. leporina*. Uniform brown.

Length of the typical specimen 14 inches.

Called "Flounder" by the colonists.

BIBLIOGRAPHICAL NOTICES.

The Flora of Essex. By G. S. GIBSON, F.L.S.

12mo. London: Pamplin. 1862.

MR. WATSON justly remarks, in his valuable 'Cybele Britannica,' that his difficulties in discovering the geographical distribution of plants in Great Britain have been greatly increased by the small number of good county floras. The works produced by the last generation of botanists are of course useless for his purpose, owing to the want of exactness so prevalent at the time of their production. Their authors had no idea that it was necessary, or even desirable, to do more than compile a simple catalogue of the plants found in their districts, and to record the localities of the rarer species. Doubtless such records as these are valuable, if the compilers were sufficiently good botanists to render their determination of the species trustworthy. Unfortunately, this was often not the case; and frequently plants were marked as "common," not from any certain determination of their frequency, but from an impression that such was the case. It thus became necessary for Watson to discover by

some other means the correctness of these entries; for it not unfrequently happened that the so-marked "common" plant was an unlikely species to be "common" in that particular district; and even, in a few cases, one or more of them has been found to be altogether wanting in it. There is also another class of local "Catalogues" which is of very little use to the scientific botanical geographer. We mean those which only profess to name the rarer species. These books are often useful to collectors, and therefore deserve local encouragement; but as works of science they rank very low. Even such books as Leighton's 'Shropshire' and Bromfield's 'Isle of Wight' do not come up to the point now required. In the former case the large county is not divided into districts, as has now become the habit; and therefore the distribution and more or less frequency of the plants is not easily discovered from it, even if discoverable at all. Dr. Bromfield's book relates to a very limited area, and therefore division into districts was hardly called for; but it is a posthumous work, not very well edited, and showing most manifest signs of wanting the last touches of its author. Indeed, the chief value (and it is great) of these two works is that they contain very many useful descriptions of plants and much elaborate critical discussion. The date of Leighton's work causes it to occupy a prominent position in the history of the present movement for placing the flora of Britain on a level with those of several of the Continental nations. It was one of the first books where an attempt was made to identify our plants with those of foreign botanists, and to submit the names used by us to the laws which regulate botanical nomenclature. Previous to that time we were not much in the habit of consulting the local floras of foreign countries; and Fries's writings concerning the Phanerogamic plants of Scandinavia had attracted very little attention in this country. We well remember the commotion which took place amongst the botanists attending the British Association Meeting at Bristol (A.D. 1836), when the lamented Edw. Forbes drew from his pocket Reichenbach's 'Flora Excursoria.' It was like opening a new world to those who had been previously satisfied with Smith's 'English Flora' and Hooker's 'British Flora' in its earlier form.

The discovery of Reichenbach was soon followed by that of Koch's 'Synopsis,' and English works began immediately to show the results of a study of Fries, Reichenbach, and Koch. We need not follow this movement any further. It was strongly opposed in some quarters, gained ground slowly but steadily, and is still, in spite even of faintly continued opposition, making its way amongst those who especially desiderate an accurate knowledge of their country's plants.

But it may be asked, What has this to do with Gibson's 'Flora of Essex'? We answer, much; for without the knowledge attained, and the exactness of observation acquired, by a study of the modern local floras of Europe, such a work could not have been produced.

Mr. Gibson divides the county of Essex into eight districts, and in effect gives a more or less complete flora of each of them. The same plan had previously been followed by Babington for the county

of Cambridge, and, at a still earlier date, by Webb and Coleman for that of Essex. But possibly the very first attempt at recording the plants of a province in this way was made in Babington's 'Flora of the Channel Islands.' He there always records the presence of a plant, when known to him, in each of the four principal islands, and thus gives a tolerably complete flora, not only of the whole group, but also of the two larger islands, and less perfectly of two of the smaller ones. We believe that there are no other books in which this valuable mode of determining the frequency of each plant within the range of a local flora is employed.

Mr. Gibson has manifestly taken much pains to render his book as complete as possible. He records about 1120 plants as said to have been found in Essex, but marks a considerable number as either mistakes, naturalized, or otherwise more or less ambiguous as species or as natives of the county. This weeding of the list seems to have been done with care, and we very rarely see any reason for arriving at a different opinion from that announced by the author. We may, perhaps, instance as a few of these differences our doubt if *Nymphaea alba* can require the mark of doubtful nativity appended by Gibson; and the same may perhaps be said of *Rosa rubiginosa*. On the other hand, it seems nearly certain that *Saponaria officinalis* is a naturalized plant in the east of England, whatever claims it may show to be thought indigenous on the borders of Wales. But we will not occupy valuable space by following up a subject so open to controversy, and on which each careful observer must judge for himself.

We have said that the Essex flora contains an enumeration of about 1120 plants, thus exceeding that of the adjoining county of Cambridge by nearly 200 species. This is chiefly caused by the extensive sea-coast which bounds Essex, and the almost total absence of maritime plants from Cambridgeshire.

Very much addition is made to the value of this book by the exceedingly numerous, learned, and accurate remarks introduced into it by the Rev. W. W. Newbould, one of our best botanists and a gentleman especially conversant with contemporary foreign floras, and also with the writers of the ante-Linnæan period and their herbaria. His remarks are usually (although, we think, not always) pointed out by the letter N being appended to them. Mr. Gibson observes in the Preface:—"I cannot omit to refer more particularly to my valued friend W. W. Newbould, to whom I am indebted for the assistance which he has most kindly and freely rendered. In addition to the time bestowed on ancient authorities and herbaria, he has undertaken excursions into several districts, for the purpose of noting localities; and, besides offering various important suggestions, he has revised the manuscript, assisted in correcting the proof-sheets while they were passing through the press, and added many critical notes. The accuracy of the work has been much enhanced by W. W. Newbould's exertions." This acknowledgment we consider fully required; for we have personal knowledge of the great labour and care with which he treated the manuscript. Newbould makes an interesting remark upon *Carex ericetorum*, which has been re-

cently recorded as a British plant, and supposed to have been first noticed by Messrs. Ball and Babington on the Gogmagog Hills, in Cambridgeshire. He states that the original drawing published in 'English Botany' as *C. præcox*, and made by the late James Sowerby, represented *C. ericetorum*, but that "Smith saw that the glumes were not those of *C. præcox*, and the details were in consequence altered." Thus the plant was found by some botanist at least as long since as the year 1802; but, unfortunately, the locality is not recorded. His researches have shown that, unfortunately, such alterations of the original drawings were not unfrequently made by Smith, and that thus many of the difficulties have arisen which we now meet with when endeavouring to identify plants with the otherwise valuable plates in 'English Botany.'

Some interesting papers appear in the Appendix. First, a table showing the dates of the earliest and latest notice of many plants in Essex. Some few of these are as early as the sixteenth, and a good many occur in the seventeenth century. Next we have a table of the comparative abundance of each plant. They are arranged as "common," "rather local," and "very local." No. 3 is a comparison of the floras of Essex, Cambridge, Hertford, and Kent. No. 4 relates to the arrangement of the plants of Great Britain according to their comparative frequency, as given in Watson's 'Cybele Britannica,' vol. iv. No. 5 gives a short list of plants not unlikely to be found in Essex. No. 6 includes biographical sketches of the celebrated John Ray, who commenced and ended his life in Essex; of Samuel Dale, Richard Warner, and the recently lost and justly lamented Edw. Forster.

It will be seen by what we have said, that this is a work quite up to the requirements of the present time, highly creditable to its author, and well deserving of the attention of English botanists; and it is probably unnecessary to add that it does not contain descriptions of the plants, but that the general floras of Britain are referred to for information of that kind, as is now the usual and laudable custom of writers on local botany.

A Manual of European Butterflies. By W. F. KIRBY.
Williams & Norgate. 1862.

A descriptive Manual of the Butterflies of Europe has long been a desideratum with those of our travellers who, not caring to make a close study of entomology, still take some interest in the more conspicuous objects of natural history. Of these objects none are more striking or beautiful than the numerous butterflies which, in our Continental rambles, at once attract notice, whether they rise from the rushes on the steep mountain-side, or on the sultry plain flit lazily from flower to flower, a "joy for ever" to all whose hearts sympathize with nature.

Mr. Kirby offers us descriptions of 321 species of *Rhopalocera*: these descriptions are partly original, partly compiled or condensed from the best foreign authorities. We may here be permitted to