

Obisium maritimum Leach found at Wembury, near
Plymouth, together with its Original Description,
and short notes on its Geographical Distribution.

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WHILE carrying out a general examination of rock crevices and their fauna, making the best advantage of a specially low tide on March 24th, 1924, at Wembury, near Plymouth, the writer was very pleased to find a single specimen of *Obisium maritimum* Leach. Several fissures in rocks between high and low tide marks were split open with a hammer and chisel, revealing large numbers of *Anurida maritima*, together with a Coleopteron, Aepus sp., Acari, and a few Collembola. It was after splitting one such fissure that a single specimen of *Obisium maritimum* Leach was found in company with *Anurida maritima* in large numbers, and a few Acari and the Coleopteron. Although a thorough search was made both at the same time and at a later date, no further specimens were found. On splitting the rock the *O. maritimum* rushed backwards and forwards in an attempt to conceal itself in some crevice. The particular rock was covered with weed which it was necessary to lift up in order to reveal the crevices, and was situated a few yards from extreme spring low tide mark.

The covering of weed would seem to play an important part in the biology of the crevice fauna. Plateau (1890) records 46 genera and 80 species of air-breathing Arthropods living on the sea-shore, and able to withstand immersion for a long time. To this list the writer wishes to add a Muscid larva and also a Nemoceron larva, which were found by him in the same intertidal zone at Wembury, March 24th, 1924. *Anurida maritima* survives the immersion necessary in such a habitat by means of an efficient covering of hair which enables it to retain an air supply during the two total immersions it must undergo every 24 hours. *Obisium maritimum*, however, has no such covering, and Imms (1905) suggests that it relies on a store of air in its tracheal system.

It may be of some interest to add short notes on its history and geographical distribution.

The first record of a Pseudoscorpion being found in such a locality is that of Montague (1815) in a paper read in 1807 to the Linnean Society, in which he describes *Phalangium acaroides* Gmel., one specimen being found on rocks contiguous to the sea in Cornwall and further specimens being found in an old slate quarry under flat stones. From his plate, it would appear that he has figured *O. maritimum* Leach, owing to the fact that the fingers are scarcely as long as the hand, and this would agree with his description of the animal running either forwards or backwards with great celerity. But supposing this is really *O. maritimum* Leach, the other specimens found under stones must belong to a different species.

Leach (1817) described *O. maritimum* in the following words:—

O. maritimum n. sp.

C. pedibus secundis articulo 2 cylindraceo, 3 ovato; basi attenuato, 4 ovato: dignitis brevibus subcurvatis.

Long. carp. 2-2½ lin.

Habitat in Anglia occidentali inter rupes ad littora maris. Communicavit Dom. C. Prideaux.

Color livido—fuscus, pedibus 4 anticis pallide ferrugineis; 8 posticis pallidis.

Thorax antice nonnumquam ferrugineus.

His types are in the British Museum.

McIntire (1869) mentions a species of *Obisium* sent him by C. Stewart, F.L.S., who found it rather abundantly fifty yards below high-tide mark, suggesting that it was feeding on *Poduræ*. Grube (1869) found specimens of *O. maritimum* at Fort-Royal, near St. Malo, on rocks. In 1889 Moniez (1889) described as *O. littorale* n. sp. specimens found at Portel, near Boulogne, in the same kind of habitat as that which *O. maritimum* inhabits. Ellingsen (1907) believes that *O. littorale* Moniez should be referred to *O. maritimum* Leach. *O. littorale* Moniez is now sunk as a synonym of *O. maritimum* Leach. Pickard Cambridge (1892) records specimens received from the Devonshire coast sent by G. C. Bignell, of Stonehouse, Plymouth, and also from Jersey sent by J. Sinel.

Imms (1905) found five individuals in August, 1905, at Port Erin Bay, four of which were in crevices, and one was crawling over weed, and Randell Jackson (1907) reports that *O. maritimum* is not rare at Port Erin and is gregarious. Ellingsen (1907) describes two specimens from Port Erin, taken by Randell Jackson in rock crevices, and states that he has also seen a specimen from St. Ives (Cornwall) collected by F. W. Wilson, and one from Scotland at the head of Loch Fyne, near Shirvan (Argyllshire), taken by the Rev. R. Godfrey. He notes the resemblances between

O. maritimum Leach and *O. validum* L. Koch from Syria, stating that "the latter has no tooth on the inner corner of the coxa of the first pair of legs, the tibia of the palps are not convex on the inner side, and the cephalothorax is longer than wide."

R. Godfrey (1907) records the discovery of *O. maritimum* at the head of Loch Fyne in 1904 by R. Godfrey and H. D. Simpson; and the same author (1908) gives an interesting account of the external features, haunts, food, feeding, reproduction, spinning, and enemies of the *Obisium* group.

The following additional Scottish record is given: Balmacara, West Ross-shire, August 27th, 1907.

R. Godfrey (1909) gives an historical summary of *O. maritimum*, adding his discovery of 23 individuals at Shirvan, Argyllshire, in 1904, together with a nest with female and embryonic young on September 24th of the same year. Wallis Kew (1909) records it from Kenmare Bay, Co. Kerry, 1909, and the same author (1910) describes the brood nests found by him behind Brennel Island and Ormonds Island, Kenmare Bay; also he saw one specimen near the quay at Greenore sucking the juices of an *Anurida maritima*. He further records it from Bantry Bay, Co. Cork. Wallis Kew (1911) gives the following record, Clare Island (Clew Bay), Ireland.

Mr. J. H. Keys, of Plymouth, informs me that he found one specimen at about half-low tide among the rocks at Wembury, just in front of the church, on June 3rd, 1916.

Standen (1917) records specimens found on Holme Island, Grange, Lancashire, during July, 1916, under large blocks of limestone between tide marks by E. R. Somers.

It will be seen from the above account that *O. maritimum* Leach has a limited range, being recorded from France: near Boulogne and near St. Malo, Jersey; Ireland: Kenmare Bay, Co. Kerry, and Bantry Bay, Co. Cork; Isle of Man: Port Erin; Scotland: Ross-shire and Argyllshire; England: Cornwall, Devon, and Lancashire. In all these localities its habitat is in crevices of rocks between tide marks.

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