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POPULAR HISTORY

OF

BRITISH CRUSTACEA;

COMPRISING

A FAMILIAR ACCOUNT OF THEIR CLASSIFICATION
AND HABITS.

BY

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PREFACE.

IN the following little Work there are brief descriptions of upwards of four hundred species of Crustacea, found in and around the British Islands. The dredgings of Messrs. Couch, M'Andrew, the Thompsons, Gosse, Spence Bate, and others, have shown that Colonel Montagu and Dr. Leach, with their correspondents, had only opened the rich field of this branch of Marine Zoology, while Dr. Baird, by his gatherings and discoveries among our fresh waters, has nobly occupied ground which, in this country at least, had been all but neglected before his time. The admirable work of Professor Bell, on the 'British Stalk-eyed Crustacea,' contained many species, and at least one remarkable genus, previously undescribed; while the publication of that

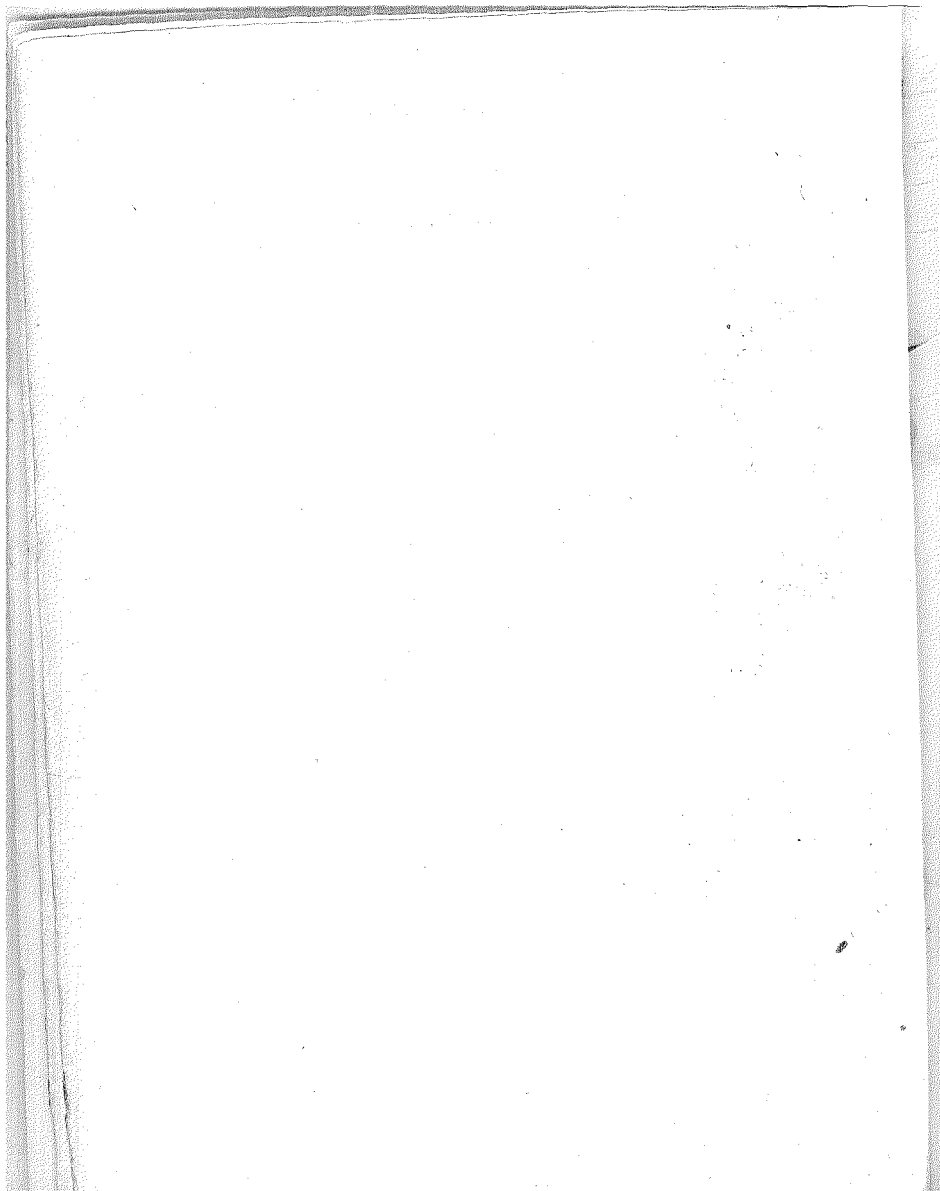
work has stimulated the exertions of naturalists, so that species of the group, previously unknown, are added almost every year to our Fauna. Dr. Kinahan has described, only a month ago, a fine distinct new species of *Crangon*, dredged in the Irish Sea, where Professors Allman and Melville and the late Mr. Thompson of Belfast were so successful. The researches of Mr. Spence Bate and his correspondents have quadrupled the list of Amphipods, while naturalists eagerly expect the fine work on these Crustacea and their allies, which he and Mr. Westwood are preparing to publish in the same form as that of Professor Bell.

In the following popular history of British Crustacea, the general arrangement is that of the classical 'Histoire Naturelle des Crustacés,' by Professor Milne-Edwards. Among the *Amphipoda*, I have been chiefly guided by Mr. Spence Bate's synopsis, published in the February number of the 'Annals and Magazine of Natural History.' In the Entomostracous portion, I have compiled almost exclusively from Dr. Baird's valuable volume, published by the Ray Society, adding a few species discovered by Dr. Baird and

Mr. Rupert Jones since the publication of the work. For many valuable extracts on the habits of the Crustacea, I am indebted to the various papers and works of Colonel Montagu and Messrs. Gosse, Couch, Kingsley, Goodsir, and others. The plates have been drawn by Mr. G. B. Sowerby, F.L.S., chiefly from specimens in the cabinets of the British Museum. The figures of Entomostraca have been for the most part selected with Dr. Baird's kind permission from his volume on the subject. For the drawings of all the figures in Plate X., as well as for the original figure of *Peltidium*, I am indebted to the kindness of Mr. Spence Bate. For various valuable notes on habitats of the many rare British Crustacea dredged by the Rev. Alfred Norman, and for a few curious notices of the Guernsey Crustacea, I am indebted to the Rev. Alfred Norman and Dr. Lukis.

A. W.

June, 1857.



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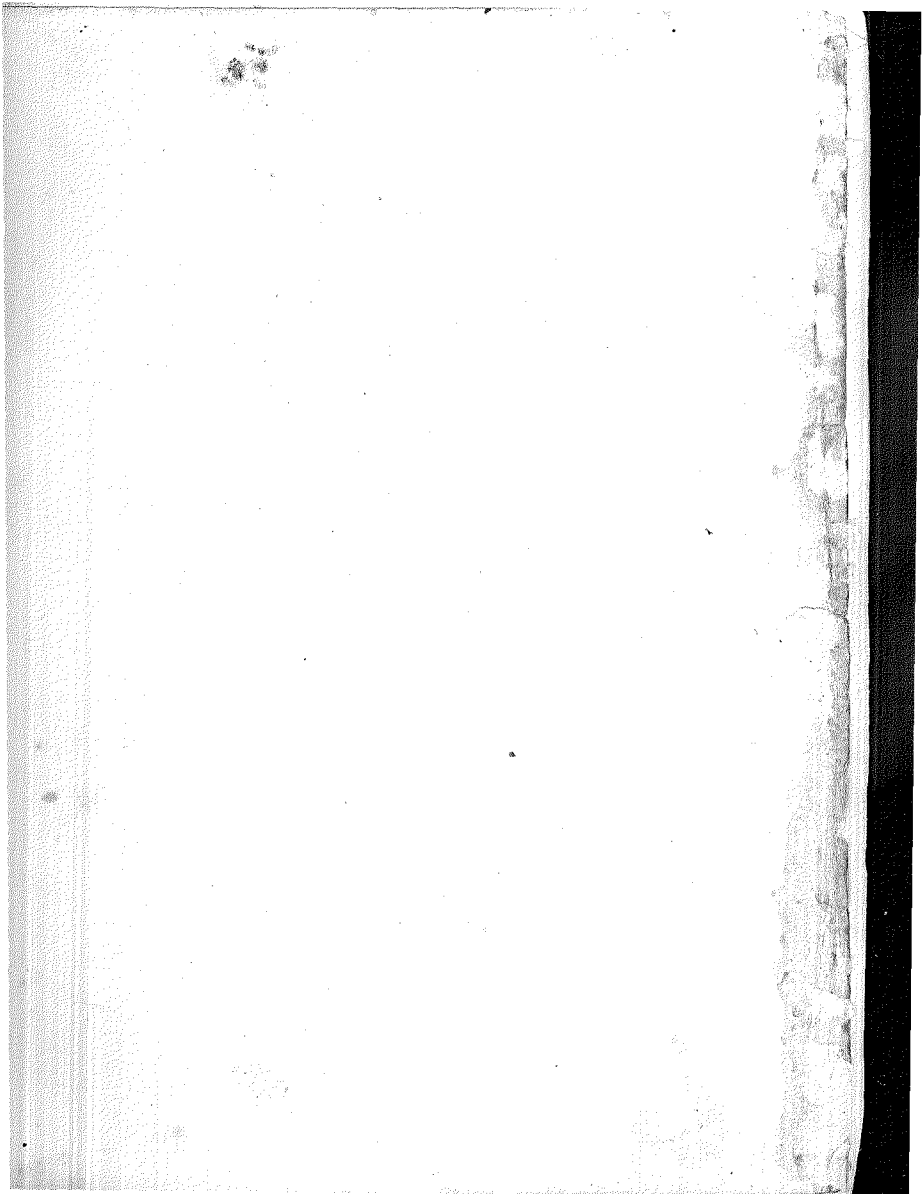
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PAGURUS THOMPSONI, Bell.—The whole of the legs hispid and spinous, anterior pair unequal; the wrist as long as the hand; eye-stalks extending to half the length of the last joint of the peduncle of the outer antennæ; spine of antennæ curved outwards, and furnished with a row of small spines on the outer edge.

First described by Professor Bell from a specimen dredged in fifty fathoms, by Mr. Hyndman, in the entrance of Belfast Bay.

PAGURUS DILLWYNII, Bate.—First pair of feet unequal, left much longer than the right, second and third joints armed with teeth; outer antennæ shorter than in any other British species, not so long as longest fore-leg.

First described by Mr. Spence Bate from a specimen taken near the Worm's Head, Swansea, where it is said to burrow rapidly in the sand. It is also found in Cornwall.

Fabricius has described in his Supplement (p. 414) a *Pagurus* from the coasts of Scotland, under the name of *P. Araneiformis*. It may be one or other of the preceding.

FAM. PORCELLANIDÆ, M. Edw.

Tail ending in swimming-plates, much as in the *Ma-*

numbers compensate for its small size. The Rev. Alfred Norman remarked, that the southern specimens are smaller and paler in colour than those he took in the Clyde, under stones at extreme low water. Mr. Couch* has described a minute *Porcellana* found by him in Cornwall on a coralline from deep water; he has named it *P. acanthocheles*. He says that "on the ridge of the second section of the hand-legs there are two well-marked spines. The carapace in front is divided into three scarcely separated portions." This seems to be only a young specimen of *P. longicornis*.

Suborder III. MACROURA, Latr.

This suborder, of which the Lobster is a well-marked example, is distinguished by the great development of the abdomen, which is generally extended and longer than the carapace; the seven rings of which it is composed are all movable, and the first five have generally each a pair of false feet, with two terminal plates finely ciliated* on the edges, and which act as oars when they swim. The abdomen is furnished at the end with a large swimming tail formed of five plates arranged like a fan.

* Cornish Fauna, p. 76.

All the Crustacea of this suborder are essentially swimmers. They walk but little, and do not leave the water. The abdomen and the great fan-like tail are the principal organs of locomotion.

FAM. GALATHEIDÆ, M. Edw.

Outer antennæ without movable plate. Body depressed; the fifth pair of legs very slender, not fitted for locomotion, and folded back above the base of the preceding pair. The carapace is depressed and rather wide, but is longer than broad; it ends in a beak which projects more or less, and covers the base of the eye-peduncles. The front legs are large, and terminate in a well-formed pair of fingers. The abdomen is as wide as the carapace, and longer than that part. This family seems to connect the *Macroura* and *Anomoura*; and indeed, by many naturalists it is regarded as a portion of the *Porcellanida*. Very little is known of the habits of the species of this family. A curious species, the *Grimothea gregaria*, was found, on Captain Cook's voyage, in great shoals off the coast of Patagonia, where, from the softness and delicacy of its covering, it must form most acceptable food to many a fish and sea-bird. Mr. Couch, in a communication to Professor Bell on the habits of one

of the British species, *Galathea strigosa*,* remarks, that although it is, generally speaking, very slow in its motions, yet in swimming it darts from spot to spot with the rapidity of an arrow. It seeks the shelter of stones, or some hole in the rock to which it can withdraw on the slightest alarm. Mr. Couch adds, "It is very remarkable to witness the accuracy with which they will dart backward, for several feet, into a hole very little larger than themselves. This I have often seen them do, and always with precision."

Gen. 27. GALATHEA, *Fabr.*

Carapace with the surface covered with grooves, furnished with small hairs. Beak prominent and spined on the sides. Eyes large, without any trace of an orbit. Front legs large, long, and depressed. Abdomen extended. (Plate VI. fig. 1 *a* shows its outer jaw-feet. Mr. Gosse, in his 'Tenby,' p. 169, tabs. 7 and 8, figures the young of *Galathea* in two stages; the latter figure bears considerable resemblance to the adult animal, while the former has no resemblance to it, with its long spine projecting from the forehead, and two spines from the hind part of the carapace.)

* History of British Stalk-eyed Crustacea, p. 202.

GALATHEA SQUAMIFERA, Mont. sp. *Montagu's Plated Lobster*.—Beak short, wide, armed with nine spine-like teeth. Front legs wide, flattened, spiny on the sides, and furnished above with scale-like tubercles. Outer jaw-feet with the third joint much longer than the second. Greenish-brown, occasionally tinged with red.

Under stones at low-water mark, south and west coast of England, Irish coast, Firth of Forth. The Rev. Alfred Norman found it at Cumbræ, in the Firth of Clyde.

GALATHEA STRIGOSA, Linn. sp. *Common Plated Lobster*. (Plate VI. fig. 1.)—Beak triangular, and armed with seven strong, spine-like teeth. Front legs broad, very spiny, spined on both edges. Outer jaw-feet with the third joint shorter than the second. Red, with blue lines and spots.

Found in deeper water than the last. Mr. Harris has found it as far north as the Moray Firth, and Dr. Howden takes it in deep water near the Bass, at the mouth of the Firth of Forth.

Mr. Couch remarks of this species, in his 'Cornish Fauna' (p. 76), that it is "incapable of any motion but backward, and rarely rises above the bottom, where, by a laborious motion of its tail, it contrives to retreat from its enemies; but its usual progress is creeping, and by the legs only."

GALATHEA NEXA, Embleton. *Embleton's Plated Lobster*.
—Fore legs with the hands hairy, and without spines; the outer jaw-feet with the third joint shorter than the second.

A small species, first found by Mr. Embleton. The Rev. G. Gordon says it is frequently brought up by the lines set for Haddock and Cod in the Moray Firth ('Zoologist,' 3684). In the Firth of Forth it is frequently dredged in mud, in from three to twelve fathoms (Dr. Howden).

Mr. Norman found it at Falmouth, in fifteen fathoms. Mr. Bell procured specimens from Loch Fyne and Shetland; and by Mr. Thompson's account it is also found on the coasts of Down and Antrim.

Gen. 28. MUNIDA, *Leach*.

Resembles *Galathea* in many of its characters, but differs chiefly in the formation of the beak and legs: the beak is a long, style-like spine, with a similar but shorter spine on each side at the base; the front legs are very long, slender, and cylindrical.

It seems to be to this genus and to the very same species that the *Calypso periculosa* of Risso is to be referred; this Crab is said to be very unwholesome when eaten, and the

spines of its beak are reported to give venomous wounds. (See Desmaret's 'Considerations' p. 193.)

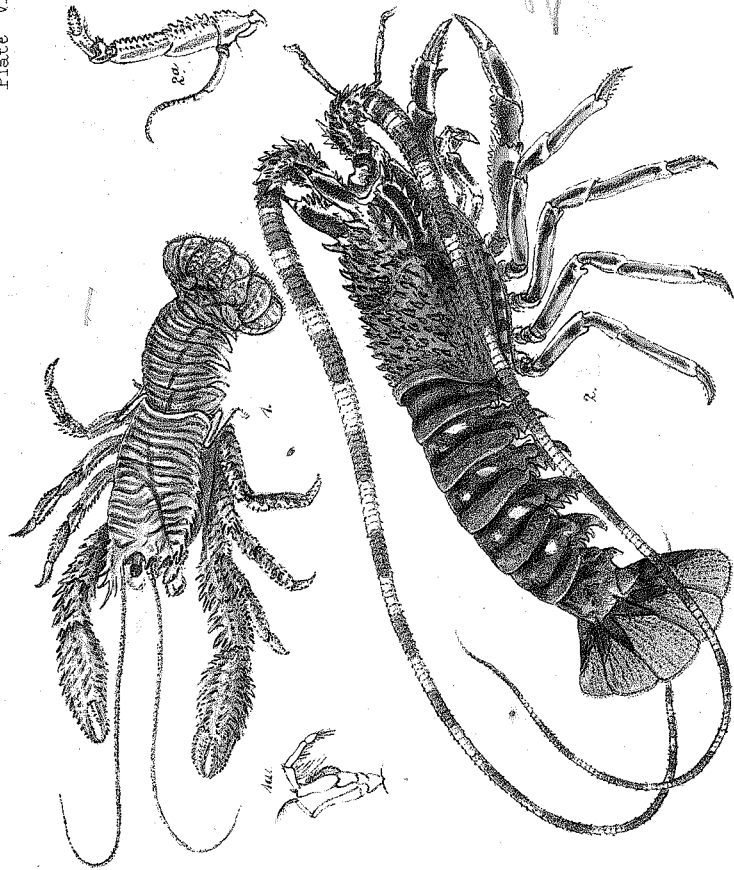
MUNIDA BAMFFICA, Penn. sp.* *Long-clawed Lobster*.—
Abdomen with the second and third segments furnished with some small spines on their front margin.

Found in deep water from Shetland to Cornwall. It was first described by Pennant, who received it from the Banffshire coast. Mr. Robert Gray finds it in the Firth of Forth, at Dunbar. It is common on the Irish coast. The Rev. Alfred Norman finds it in the Firth of Clyde, where however it is by no means common.

FAM. SCYLLARIDÆ, Latr.

Carapace wide. Outer antennæ without movable plate. Fifth pair of legs similar to the preceding, and not folded back above them; all the legs one-clawed; outer antennæ very large and foliaceous; abdomen very wide and ending in a swimming tail, fan-like as usual, but having the plates soft and flexible for three-fourths of their length. The first abdominal ring without appendages, but each of the four following segments has a pair of false feet; in the male, the

* *Galathea rugosa*, Fabr.; *G. longipeda*, Lam.; *Munida Rondeletii*, Ber.



Sovenby del. et lith.

Vincent Brookes Imp.

1. *Galathea strigosa*. 2. *Palinurus homarus*.