

HISTORY

OF THE

BERWICKSHIRE

NATURALISTS' CLUB.

INSTITUTED SEPTEMBER 22. 1831.

"MULIERI, QUAE TEGIT OMNIA, ET, QUAE TELLUS, ET, QUAE AER."



EDINBURGH:

PRINTED FOR THE CLUB BY NEILL & COMPANY.

MDCCCXXXIV.

The true naturalist seeks to discover the great laws of Nature: their contemplation leads him to admire and adore the wisdom and power of Him who has given them bounds they cannot pass, in their reproduction, preservation, and annihilation. He investigates their harmonious connexion, their wonderful organization and powers, their uses, as they conduce to supply his wants, relieve his cares, assuage his disease, embellish his life, or add to his happiness. In their pursuit he finds health, contentment, and peace. To him, the fertile vale, the barren heath, the cloud-capped hills, and the dry and arid rock, furnish objects for his study and delight; and with a mind influenced by such feelings, he is ready to exclaim,

“ These are thy works, O God, and they proclaim thy praise.”

List of Members, continued from p. 33.

J. S. Donaldson, Esq. of Cheswick,	May 6. 1835.
Rev. M. Dods, Belford,	— — —
Rev. N. B. Cunynghame of Prestonpans,	— — —
Sir David Erskine of Dryburgh,	Sept. 16. —

Description of NATICA HELICOIDES, a new British Shell. By Dr
GEORGE JOHNSTON.

Natica helicoides.

Shell ovato-conical, smooth, white, immaculate, covered with a yellowish epidermis; whorls 5, rounded, separated by a channelled suture, the spire produced and rather obtuse; aperture pure white, with a small fissure on the pillar. Length $\frac{6}{10}$ ths; breadth scarcely $\frac{4}{10}$ ths.

Hab. Berwick Bay.

Obs. This new species was found in the refuse of a fishing-boat. When the epidermis is removed, the whorls appear to be finely striolate in a spiral direction. Animal unknown.

List of the Malacostraca Podophthalma, found on the coasts of Berwickshire and North Durham. By R. EMBLETON, Surgeon.

1. CARCINUS *Mænas*, Leach, Mal. Brit. tab. 5. Common dog crab.
Penn. Brit. Zool. iv. tab. 2, fig. 5. Everywhere common.

2. *PORTUNUS puber*, *Leach*, Mal. Brit. tab. 6. Velvet crab. *Penn* Brit. Zool. iv. tab. 4, fig. 8. Not uncommon.
3. *PORTUNUS corrugatus*, *Leach*, Mal. Brit. tab. 7, figs. 1-2. Wrinkled crab. *Penn.* Brit. Zool. iv. tab. 5, fig. 9. Berwick Bay, rare. Dr Johnston.
4. *PORTUNUS plicatus*, *Milne Edwards'* Hist. des Crust. part 1, p. 442. *Penn.* Brit. Zool. iv. tab. 4, fig. 6, *a*. Occasionally brought from deep water in Embleton Bay, adhering to the nets of the fishermen.
5. *PORTUNUS marmoreus*, *Leach*, Mal. Brit. tab. 8. Marble crab. *Penn.* Brit. Zool. iv. pl. 2, fig. 6. Occasionally met with in the same way as the preceding.
6. *CANCER pagurus*, *Leach*, Mal. Brit. tab. 10. Common crab. *Penn.* Brit. Zool. pl. 3, fig. 7. This is the only species used as food on these coasts; it is taken in vast quantities, and during the whole year.
7. *PINNOTHERES pisum*, *Leach*, Mal. Brit. tab. 14. Pea crab. *Penn.* Brit. Zool. iv. pl. 1, fig. 1. Inhabits bivalve shells, chiefly those of the common mussel. I have taken it also from the *Cardium lævigatum*, the only specimen of the shell that has occurred to me. It is by no means uncommon in the mussels obtained at Holy Island, but all are females.
8. *PINNOTHERES Cranchii*, *Leach*, Mal. Brit. tab. 14, figs. 4-5. A single specimen has only come under our notice; it was brought from Eyemouth by the Rev. Mr Turnbull.
9. *MACROPODIA phalangium*, *Leach*, Mal. Brit. tab. 23, fig. 6. Slender-legged crab. *Penn.* Brit. Zool. iv. pl. 9, fig. 17. Common.
10. *MACROPODIA tenuirostris*, *Leach*, Mal. Brit. tab. 14. This is of much less frequent occurrence than the preceding; it is easily distinguished from it by the length of the rostrum, and by the spines on the inner side of the claws.
11. *LITHODES Maja*, *Leach*, Mal. Brit. tab. 24. *Penn.* Brit. Zool. iv. pl. 8, fig. 14. This beautiful crab is not uncommon in Embleton Bay. The male is at once distinguished by the length of the claws and size of the spines; the females, however, are much more numerous, not above one male occurring in five or six. They are called *Harpers* by the fishers.
12. *EBALIA Pennantii*, *Leach*, Mal. Brit. tab. 25, figs. 1-6. Uneven crab. *Penn.* Brit. Zool. iv. pl. 9, *a*, fig. 19. Rare. A single specimen, taken at Redheugh, Berwickshire, in the collection of Dr Johnston, and another in my own, taken in Embleton Bay, are the only ones that have come under my notice. In both, which are females, the abdominal covering is marked with two rows of bright scarlet spots, a character not noticed by Dr Leach.
13. *HYAS araneus*, *Leach*, Mal. Brit. tab. 21, *a*. Spider crab. *Penn.*

- Brit. Zool. iv. pl. 9, fig. 16. Common. Generally covered with fuci and corallines.
14. *HYAS coarctatus*, *Leach*, Mal. Brit. tab. 21, B. Berwick Bay. Dr Johnston.
15. *INACHUS Dorynchus*, *Leach*, Mal. Brit. tab. 22. Berwick and Embleton Bays. Not unfrequent.
16. *PORCELANA platycheles*, *Milne Edwards*, Hist. des Crust. pl. 22, fig. 5. Great-clawed crab. *Penn.* Brit. Zool. iv. pl. 6, fig. 12. Very common in Berwick Bay, but more rare to the south.
17. *PORCELANA longicornis*, *Lamarck*, Anim. s. Vert. v. 230. Long-horned crab. *Penn.* Brit. Zool. iv. pl. 1, fig. 3. A beautiful species, found frequently in the roots of the *Fucus palmatus*.
18. *PAGURUS Streblonyx*, *Leach*, Mal. Brit. tab. 26. Hermit crab. *Penn.* Brit. Zool. iv. pl. 17, fig. 38. Very common, occupying shells of the genus *Turbo* and *Murex*.
19. *GALATHEA squamifera*, *Leach*, Mal. Brit. tab. 28, A. Berwick and Embleton Bays. Not common.
20. *GALATHEA spinigera*, *Leach*, Mal. Brit. tab. 28, B. *Penn.* Brit. Zool. pl. 14, fig. 26. A common but beautifully marked species.
21. *GALATHEA rugosa*, *Leach*, Mal. Brit. tab. 29. *Penn.* Brit. Zool. iv. pl. 13, fig. 25. Not uncommon; differs from either of the preceding in the extreme length of the first pair of claws.
22. *GALATHEA nexa*, nova species. Three specimens of this hitherto unnoticed species have only yet been found, two in Berwick Bay, and the other in Embleton Bay. It forms a beautiful link between *G. squamifera* and *G. spinigera*, approaching to the first in the shape of the body, and to the latter in the shape and size of the claws. The characters of the three species may be thus expressed:
- (1.) *Gal. spinigera*. Arms rather small, flattened, hirsute, very spinous; the spines arranged along each margin, and a row of lesser ones down the middle; ligament of the marbled shell bright blue.
 - (2.) *Gal. nexa*. Arms large, hirsute; the hand without spines, the wrist with a single one on the inner side, or, when two, the anterior is much the smallest; ligament of the shell brown (plate 1).
 - (3.) *Gal. squamifera*. Arms large, almost naked; the hand without spines; two unequal spines on the inner side of the wrist; the posterior spine one-half less than the anterior; ligament of the shell blackish.
23. *NEPHROPS norvegicus*, *Leach*, Mal. Brit. tab. 36. Norway Lobster, *Penn.* Brit. Zool. iv. pl. 12, fig. 24. One of the most beautiful of the Crustacea; on the coast of Berwickshire, opposite to Coldbrandspath, it is not uncommon, but is rarely seen farther south.

- To the Rev. A. Baird of Coldbrandspath, I am indebted for the specimen I possess.
24. *CRANGON vulgaris*, *Leach*, Mal. Brit. tab. 37, B. Common Shrimp, *Penn. Brit. Zool.* iv. pl. 15. fig. 30. On all our sandy bays.
25. *PANDALUS annulicornis*, *Leach*, Mal. Brit. tab. 40. Red Shrimp of the fishermen. Berwick Bay, &c. not uncommon. Remarkable for its bright red colour; the antennæ, which are very long, marked with alternate red and white bands.
26. *PALÆMON Squilla*, *Leach*, Mal. Brit. tab. 43, figs. 11–13. In pools in the Bay on the north-east side of Holy Island, &c. Frequent on the coast of Berwickshire.
27. *ASTACUS Gammarus*, the Lobster, *Penn. Brit. Zool.* iv. pl. 10, fig. 21. Taken in great numbers on this coast. The regular time for commencing to take them for the London market is the 1st of December. A full-grown lobster, to use the language of the fishers, must measure four inches and a half in the length of the barrel; they then bring from ten to fourteen shillings a-score; if below that size, they bring only half price. Of late years, the numbers taken annually have very much decreased, owing to the increase of the fishery.
28. *ASTACUS fluviatilis*, the Crawfish, *Penn. Brit. Zool.* pl. 15, fig. 27. In the rivulets to the south of Berwick Bay, this species is not uncommon. Dr Johnston, however, has not met with it in Berwickshire.

Contributions to the Flora of Berwickshire.

1. ADDITIONAL SPECIES.

- SPHAGNUM squarrosum*. In peat bogs on Coldingham Moor. Dr Johnston.
- PELTIDEA aphthosa*. On rocks west from Longformacus Manse, sparingly, Mr Thomas Brown.
- AGARICUS fragrans*, *With. Bot. Arrang.* iv. 161. Anton's-hill and Hirsell Woods, in October and November, not uncommon, Miss E. Bell.
- AGARICUS roseus*, *With. Bot. Arrang.* iv. 258. Hirsell Woods, Miss Hunter and Miss E. Bell.
- CANTHARELLUS lævis*, *Bot. Gall.* ii. 797. Parasitical on *Hypnum rutabulum*, Miss Hunter. *Description.* Fungus sessile, of a uniform white colour, thin and membranous, cuped, the disk somewhat uneven, the margin entire, even or sinuous; hymenium not veined, roughish. The largest specimens are fully three-tenths in diameter. When old, the disk becomes often nearly plane. On drying, the plant shrivels up, so that it can scarcely be recognised, but its original appearance is restored by immersion in water.