

in search of descriptions of new fossil or recent species, my labours in this direction have been limited to examining carefully the contents of the different records of zoological literature.<sup>1</sup> Under the first head I shall treat only of the true nonparasitical Cirripedia.

Since the publication of Darwin's remarkable monograph, the Cirripedia of the English coast, and of the surrounding seas, have not much occupied zoologists. Only occasionally faunistic observations have been made and published, *e.g.*, by the Rev. A. M. Norman<sup>2</sup> (1868), in his report on the Shetland Crustacea. Three species of *Balanus* are mentioned in it, moreover, *Verruca strömia*, *Scalpellum vulgare*, and *Alcippe lampas*. The observations made by Lawson<sup>3</sup> (1858) and Adams<sup>4</sup> (1861) are rather biological than faunistic.

Leslie and Herdman<sup>5</sup> (1881) observed in the Firth of Forth one species of *Lepas*, two of *Conchoderma*, and four of *Balanus*. No new species were collected.

In more northern latitudes the Cirripedia are not represented by very many species. M. Sars<sup>6</sup> (1857) observed a new species of *Scalpellum* (*Scalpellum stroemii*) near Bergen, on the long spines of *Cidaris papillata*, living at a depth of 80 to 150 fathoms. Five other Cirripedia were collected by him in the North-Arctic region (four species of *Balanus* and one of *Verruca*). According to Heller<sup>7</sup> (1875), the only Cirriped taken during the Austro-Hungarian North-Polar Expedition is *Scalpellum stroemii*, Sars. Prof. G. O. Sars,<sup>8</sup> however, pointed out that the species of Heller is quite distinct from that of M. Sars: he therefore suggests a new name for it, and calls it *Scalpellum angustum*. During the great Norwegian North-Atlantic Expedition<sup>9</sup> three new species of *Scalpellum* (*Scalpellum striolatum*, *Scalpellum cornutum*, and *Scalpellum hamatum*; the first at a depth of 412 and 1081 fathoms; the second of 148, 350, and 416 fathoms; the third of 416, 457, and 620 fathoms) were added to those previously known, whereas at the same time the occurrence of *Scalpellum vulgare* at a latitude of 64° N. was ascertained.

In the Arctic region *Balanus porcatus*, Da Costa, occurs on the east coast of Greenland (Buchholtz),<sup>10</sup> near Cape Napoleon, Smith Sound, lat. 79° N. (Miers),<sup>11</sup> Barents-Sea and

<sup>1</sup> *Archiv. für Naturgeschichte*, 1855–1882; *Zoological Record*, vols. i.–xvii., 1864–1880; *Zoologischer Anzeiger*, vols. i.–vi. 1878–1883.

<sup>2</sup> Gwyn Jeffreys, Rev. A. Merle Norman, &c., Last Report on Dredging among the Shetland Isles, *Report Brit. Assoc.*, 1868, p. 301.

<sup>3</sup> Lawson, G., Remarks on *Lepas anatifera*, Lin., *Ann. Mag. Nat. Hist.*, ser. 3, vol. ii. 1858, p. 172.

<sup>4</sup> Adams, A., On the rapid growth of Cirripedes, *Zoologist*, 1861, p. 7321.

<sup>5</sup> Leslie, G. and W. A. Herdman, The Invertebrate Fauna of the Firth of Forth, *Trans. Roy. Phys. Soc.*, Edinburgh, 1881.

<sup>6</sup> Sars, M., Oversigt over de i den norsk-arctiske Region forekommende Krebsdyr. *Forhandl. Vidensk-Selsk Christiania*, 1859.

<sup>7</sup> Heller, C., Crustaceen, Pycnogoniden und Tunicaten der k. k. Oester.-Ungar. Nordp. Exped., *Denkschr. d. Math. Naturv. Cl. d. k. Akad. d. Wiss. Wien*, Bd. xxxv. 1875.

<sup>8</sup> Sars, G. O., Crustacea et Pycnogonida nova, *Archiv f. Math. og Naturv.*, Bd. iv. 1879, Kristiania.

<sup>9</sup> Sars, G. O., Prodromus descriptionis Crustaceorum et Pycnogonidarum, *Archiv f. Math. og Naturv.* Bd. ii. 1877, Kristiania.

<sup>10</sup> Buchholtz, R., Zweite deutsche Nordpolarfahrt, II. Zoologie, Cirripedia, p. 396, 1874.

<sup>11</sup> Miers, Edw. J., Crustacea in Sir G. Nares' Narrative of a Voyage to the Polar Sea, vol. ii. p. 240–248, 1878.