

The species from the "Blake" dredgings, described by Perrier¹ under the name of *Archaster mirabilis*, appears to me without any doubt to belong to the genus *Pontaster*. From the description given, however, I do not feel in a position to assign with accuracy its position in the preceding scheme, and the illustrations render no assistance towards that end. All the figures are stated in the explanation of the plates to be varieties of the form. Several of them, as shown by the phototype, appear very dissimilar in general facies. So far as I am able to judge from the characters mentioned, the form is well distinguished from any of the species herein described. The presence of the papulæ at the base of the rays appears to have been observed by Perrier, by whom, however, these organs were supposed dubiously to be genital orifices (*loc. cit.*, pp. 258-260).

In the subsequently published preliminary note on the starfishes dredged by the "Talisman," M. Perrier² has occasion to mention this species, and then refers it, either generically or subgenerically, to *Cheiraster* (the name being written "*Archaster (Cheiraster) mirabilis*, E. P."). I am somewhat at a loss to understand this, unless the inaccuracy of Studer's observations as to the remarkable position of the generative organs in the form of a pair of band-like structures along the distal or outer half of the ray—the main character upon which the genus rests—has been proved. For obviously the generative organs could not in one single species hold two such opposite and abnormal positions as that supposed by Perrier in the case of his *Archaster mirabilis*, and that described by Studer³ in his *Cheiraster gazellæ* and *Cheiraster pedicellaris*.

I have previously referred briefly (*ante*, pp. 3, 4) to the remarkable characters that are specially regarded by Studer as distinguishing the genera *Cheiraster* and *Luidiaster*; and I would here only draw attention to the striking concordance these forms present in their general facies and the formula of their secondary characters with the genus under notice, if the extraordinary structures upon which their generic claim is based be excepted. I may even mention that in some of the species of *Pontaster* the position assigned by Studer to the structures which he considers to be generative organs in *Cheiraster* is occupied by a pair of strongly developed muscular bands, which present superficially all the appearances noted by Studer.

I am under the impression that *Archaster coronatus*, Perrier,⁴ and *Archaster echinulatus*, Perrier,⁵ will also be found to belong to the genus *Pontaster*, and perhaps *Archaster pulcher*, Perrier,⁶ may in like manner be included in the same category, though as regards

¹ *Bull. Mus. Comp. Zool.*, 1881, vol. ix. p. 27; *Nouv. Archives Mus. Hist. Nat.*, 2e Série, 1884, t. vi. p. 256, pl. viii. figs. 7, 8; pl. ix. fig. 4; pl. x. figs. 2, 3, and 5.

² *Comptes rendus*, 1885, t. ci. p. 884.

³ *Sitzungsber. naturf. Freunde Berlin*, 16. Oct. 1883, pp. 130, 131; *Anhang z. d. Abhandl. d. k. preuss. Akad. d. Wiss. Berlin*, vom Jahre 1884, pp. 50, 51, Taf. iv. figs. 8, a, b, c; Taf. v. figs. 9, a, b, c, d, e.

⁴ *Nouv. Archives Mus. Hist. Nat.*, 2e Série, 1884, t. vi. p. 262.

⁵ *Révis. Stell.*, p. 348 (*Archives de Zool. expér.*, 1876, t. v. p. 268); *Nouv. Archives Mus. Hist. Nat.*, 2e Série, 1884, t. vi. p. 263.

⁶ *Bull. Mus. Comp. Zool.*, 1881, vol. ix. p. 26; *Nouv. Archives Mus. Hist. Nat.*, 2e Série, 1884, t. vi. p. 254, pl. ix. fig. 3.