

KEY TO THE SPECIES.

- I. Radiating crests of the posterior gill long, with subdivided and numerous fringes.
1. Each acetabuliferous appendage bearing seven large suckers inserted on the margins of the appendage, *Pneumoderma mediterraneum*.
 2. Each acetabuliferous appendage bearing numerous small suckers on their whole median face.
 - A. Each appendage with about forty suckers, *Pneumoderma violaceum*.
 - B. Each appendage with about one hundred suckers, *Pneumoderma peronii*.
- II. Radiating crests of the posterior gill short, with simple and not numerous fringes.
1. Fringes well marked, strongly separated, and shrunk at their base, *Pneumoderma boasi*.
 2. Fringes slightly developed and forming merely simple, continuous and slightly projecting undulations.
 - A. Triangular, rather short acetabuliferous appendages, each bearing about fifty suckers, *Pneumoderma pacificum*.
 - B. Very long acetabuliferous appendages with nearly parallel margins, each bearing about seventy-five suckers, *Pneumoderma souleyeti*.

1. *Pneumoderma mediterraneum*, van Beneden (Pl. I. fig. 8 ; Pl. II. fig. 1).

1838. *Pneumodermon mediterraneum*, van Beneden, Note sur une nouvelle espèce de Pneumoderme, Mém. Acad. Sci. Bruxelles, t. xi. p. 13, pl. iii. figs. 1-2.
1852. *Pneumodermon peronii*, Souleyet (*pars*), Voyage de la Bonite, Zoologie, t. ii. p. 274, pl. xiv. figs. 13, 14, 16.
1855. *Pneumodermon mediterraneum*, Gegenbaur, Untersuchungen über Pteropoden und Heteropoden, p. 213.
1859. *Spongiobranchea australis*, Chenu (*pars*), Manuel de Conchyliologie, t. i. p. 116, fig. 509.
1873. *Pneumodermon peronii*, Costa, Pteropodi della Fauna di Napoli, p. 22, pl. v. figs. 1-3.
1886. *Pneumodermon macrocotylum*, Boas, Spolia atlantica, K. dansk. Vidensk. Selsk., Skriv., 6 Række, Bd. iv. p. 152.
1886. *Pneumodermon audebardi*, Locard, Prodrome de Malacologie française, Mollusques marins, p. 19.

Body rather long.

Foot.—Posterior lobe very long (no other known *Pneumoderma* has it so long).

Lateral Gill rather short, with fringes on the lateral somatic crests.

Posterior Gill.—The four radiating crests are long, and possess on each side of their base about seven ramified fringes ; such fringes are also to be found on the anterior and posterior sides of the quadrangular crest.

Acetabuliferous Appendages rather long and not very wide at their base ; each bearing generally seven (sometimes six) suckers inserted on the median side of the appendage, the four largest on the abdominal margin, and the three smallest at the distal extremity and on the dorsal margin ; the latter are sometimes very small. The shape of the