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Notice regarding the Ova of the Pontobdella muricata, Lam. By R. E. Grant, M. D., F. R. S. Edin., &c.

The ova of the Pontobdella muricata or Skate-leech, (Fig. 6 and 7. Pl. II.) consist of small dark coloured spheres attached by a narrow twisted neck to a spreading membranous base. Each sphere consists of a double capsule containing a thick gelatinous fluid, in the middle of which the young animal lies coiled up generally in one spiral turn. The ova have much the appearance of the seeds of the black pepper, being about two lines in diameter, and having a rough and dull external surface. On the opposite sides of the spheres there are two round prominences, which fall off when the animal is come to maturity, and leave two circular apertures to admit the sea water, or to allow the young Pontobdella to escape. The outer capsule, which has a dark greenish brown colour, is thicker and more porous than the inner membrane, which is smooth. thin, and very tough. The stalk which connects the sphere to the flat base is solid, of a black colour, and firm consistence internally, and is strongly marked with longitudinal prominent ridges, which have a twisted and fibrous appearance. The spreading base which adheres to stones, shells, or other hard bodies, consists of the same tough dark-coloured substance as the outer layer of the ovum and the stalk, and is marked with elevated radiating ridges like diverging roots. The gelatinous matter within is at first thick and of a milky colour, but becomes more colourless, transparent, and thinner, as the Pontobdella approaches maturity, as I have observed in the ova of many molluscous animals. The young animal is visible when only about half a line in length, in the middle of the gelatinous matter, and only one young Pontobdella is found in each ovum. The animal is at first quite transparent and of a whitish colour; and when ready to escape, it is nearly an inch in length and has all its external characters distinctly marked. We find these ova generally in groups of thirty or forty adhering to solid bodies in deep water where the Pontobdella resides. The merit of having first ascertained them to belong to that animal is due to my zealous young friend Mr Charles Darwin of Shrewsbury, who kindly presented me with specimens of the ova exhibiting the animal in different stages of maturity. They nearly resemble the ova of the Amphitrite described and figured by Basterus, (Op. sub. Pl. V. Fig. 1. A, B, C, and p. 38.) The ova of the Pontobdella have probably escaped notice from the animal generally frequenting the bottom of deep water, where it lives by sucking the blood from the surface of flat fishes; or they may have been mistaken for young marine plants, such as the Fucus loreus, from the fibrous appearance and deep-green colour of their outer capsule. The description of the ova of the lower animals forms an interesting, though much neglected part of the history of the species; and an imperfect acquaintance with this part of zoology has sometimes led distinguished naturalists to mistake the ova of marine animals for zoophytes, and zoophytes for the ova of animals.

Plate II. Fig. 6, Entire ovum of the *Pontobdella muricata*, of the natural size, showing the two round lateral prominences, the narrow fibrous stem, and thin spreading base.

Fig. 7, Ovum of the *P. muricata* divided horizontally, to show its double covering, and the young animal coiled up in the gelatinous matter within.









