

TWO MALE ROTIFERS HITHERTO UNDESCRIBED.

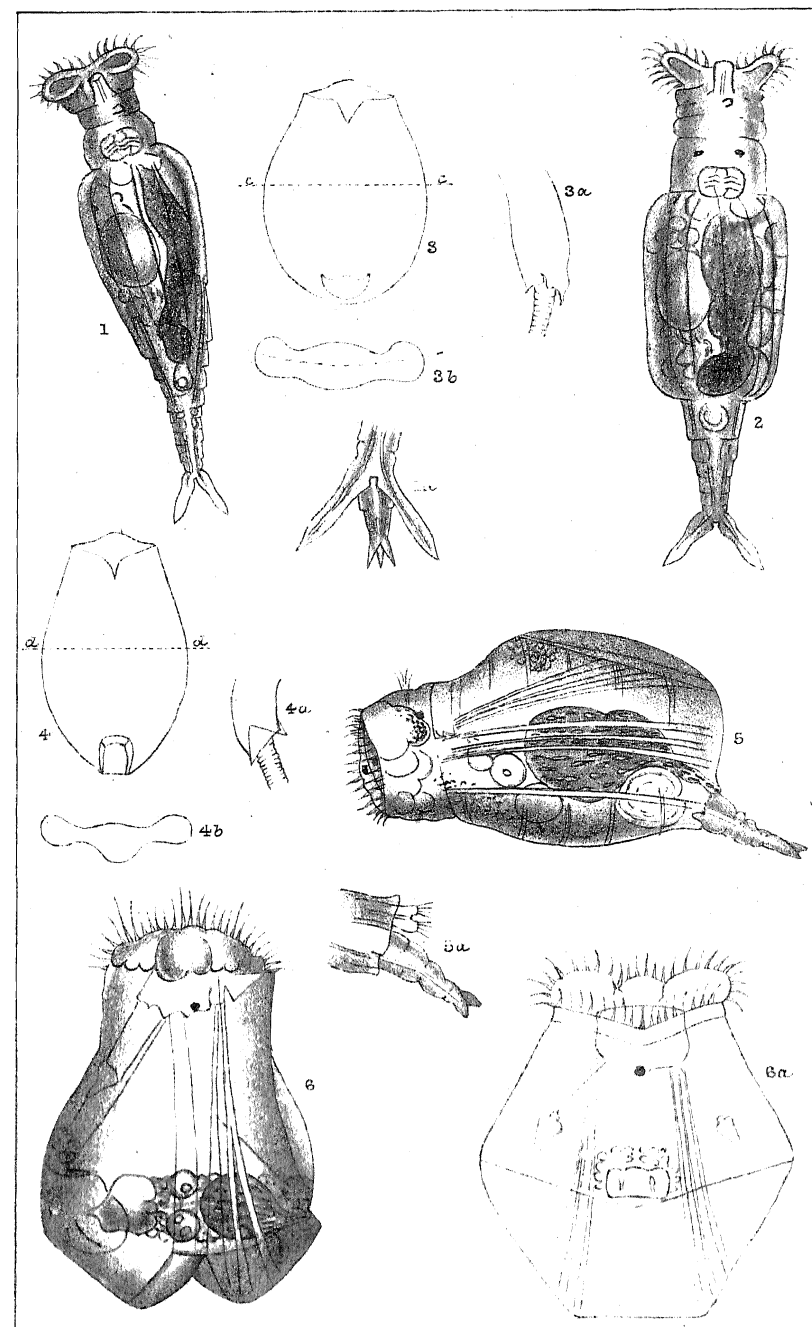
BY G. WESTERN, F.R.M.S.

(Read October 16th, 1891.)

PLATE XXV.

Notops clavulatus.—The general contour is that of the female even to the deep furrow at the posterior extremity, where the large lateral muscles are attached, and the vase-like form when the animal is seen from the ventral side is precisely similar; but there is no sign of the foot, which in the female is so striking a feature. From the total absence of the digestive organs the male appears much more transparent, and the many muscles, which are well developed in this species, are very apparent. I could make out no vascular canals, vibratile tags, nor contractile vesicle, though it is possible that the latter may be concealed in the mass of viscera which stretches across the body cavity from front to rear, the great bulk of which is made up of the sperm sac, inside which the spermatozoa, large and very active, can easily be seen. A large ganglion or brain carries an eye spot on its ventral side, and numerous nerve fibres may be traced from it to various parts of the body. This male I found in a gathering from Richmond Park which Mr. Chapman had kept for over three weeks. Subsequently I succeeded in hatching it from small white eggs carried by females which I had isolated for observation. From apparently similar eggs I have seen females also produced, but possibly further observation may enable us to distinguish the male from the female egg. There is another kind of egg much larger, and yellow in colour, which is, I believe, the resting egg. This I have not yet succeeded in hatching. The average length of males I measured was $1\frac{1}{4}$ σ".

Triphylus lacustris.—The male of this Rotifer is a reproduction in miniature of the form of the female, and it is from this similarity in appearance and its association with the females of the species that I have ventured to identify it, for I have not yet been able to trace it from the egg. The resemblance is not confined to outward appearance, for its internal organs will also be found to closely cor-



respond with those of the female. The digestive viscera, however, as is usual with male Rotifers, are entirely wanting, and their space is occupied by the large sperm sac. I caught just a glimpse of a large penis protruded behind the foot. This male I found swimming amongst females in a rich gathering I made at Chingford on the occasion of our last excursion there. The average length was $\frac{1}{85}$ ". I may state that the females were very much larger than any I have hitherto seen.

REFERENCE TO PLATE XXV.

- FIG. 2. *Philodina* (species?).
" 4. *Pterodina* (*truncata*?).
" 4a. Side view of ditto.
" 4b. Ideal section through d.d. Fig. 4.
" 5. Male of *Triphylus lacustris*.
" 5a. Foot and penis of ditto.
" 6. Male of *Notops clavulatus*.
" 6a. Outline front view of ditto.
-