

white egg-mass on one of his ovigerous legs, and about one hour later both masses were present.

The female genital openings are a great deal larger than those of the male, and are of an ovate shape, and, as a rule, oviducts are totally wanting. I only observed them in the genus *Colossendeis*, where they have nearly the same course as the vasa deferentia. Nearly in the middle of the second coxal joint of the two hind legs a lateral branch arises from the ovarian cœcum, which passes through the joint. The interior of this branch, which is the oviduct, is in immediate communication with the ovary, and during the breeding season the eggs are found penetrating the branch. While the ovarian cœca which penetrate the legs are lined only by connective tissue, the oviducts which begin at the dorsal side of the second coxal joint and run along the wall of the joint till they reach the opening on the ventral side, are lined by a coat of longitudinal muscle fibres. The female genital opening in this species is small and rather triangular.¹

From the end of the oviduct which reaches the opening, distinct muscle fibres radiate, and are inserted round the opening on the inside of the chitinous wall of the joint. A transverse section of the fourth joint of the leg of a female *Colossendeis leptorhynchus* is figured in fig. 16, Plate XVI.; *m* is the ovarian cœcum which, as this specimen is by no means mature, is only of small dimensions; when in the breeding season, the whole central cavity (which in the figure is represented as empty) is filled with eggs; it swells to such an extent as to fill up almost the whole cavity of the leg, in so far as this is not occupied by the intestinal cœcum. As in the other species of *Colossendeis*, the eggs are extremely numerous and small. Each ovarian egg has a distinct germinal vesicle, which is placed almost exactly in the centre of the egg, and has, as a rule, one distinct and very glittering germinal spot. Among the older eggs, which are richly furnished with yelk, smaller ones are always observed whose protoplasm is almost quite transparent. Each egg is surrounded by a very thin membrane, which is a true "vitelline membrane" and adheres closely to the protoplasm of the egg.

In the genus *Nymphon*, I have investigated the female genital organs of the following species:—*Nymphon brevicaudatum*, Miers; *N. brachyrhynchus*, Hoek; *N. robustum*, Bell; *N. longicoxa*, Hoek; and *N. hamatum*, Hoek. I never observed the ovary in the body of these species, and always found at least a trace of it in the fourth joint of the leg (thigh).

When in an early stage of development, the ovary is placed against and at the dorsal side of the intestinal cœcum which passes through the joint. While the ripe ova, which are often very large (Pl. XVI. fig. 7 *l*, ripe ovum of *Nymphon brevicaudatum*, Miers), have a thin vitelline membrane as in the ovum of *Colossendeis*; younger ova have often the

¹ In this species, as I have mentioned already (p. 63), the genital openings, both in males and females, are present only on the two hind legs; at least in all the specimens at my disposition, I failed to observe them on the first two pairs of legs. However, ovarian cœca penetrate the first two pairs of legs as well as the two others.