

Female-stage II (Soft-shelled stage) ..	1
Female-stages IV and V (Adults) ..	59 (13 + 46)
Male-stage I (Hard-shelled stage) ..	Nil
Male-stage II (Soft-shelled stage) ..	3

**Multiple infestation**

## Double infestation

Total number	1
Female-stages IV and V (Adults) ..	1 (0 + 1)
Male-stage I (Hard-shelled stage) ..	1

The present study has shown that the number of female crabs in *Placenta placenta* during December, 1973 is greater than that of the males and that a large number of the females are ovigerous. In most of the ovigerous females the egg mass is light to dark brown in colour. There is presently only a single instance of double infestation.

Christensen and Mc Dermott<sup>4</sup> have suggested that the 'deficiency' of males may have been due to a natural death of males after copulation and also that some of them may have fallen prey to predators while moving from one oyster to another in search of females. Christensen and Mc Dermott<sup>4</sup> and Silas and Alagarwamy<sup>3</sup> have also reported that each double infestation consisted of one crab of each sex.

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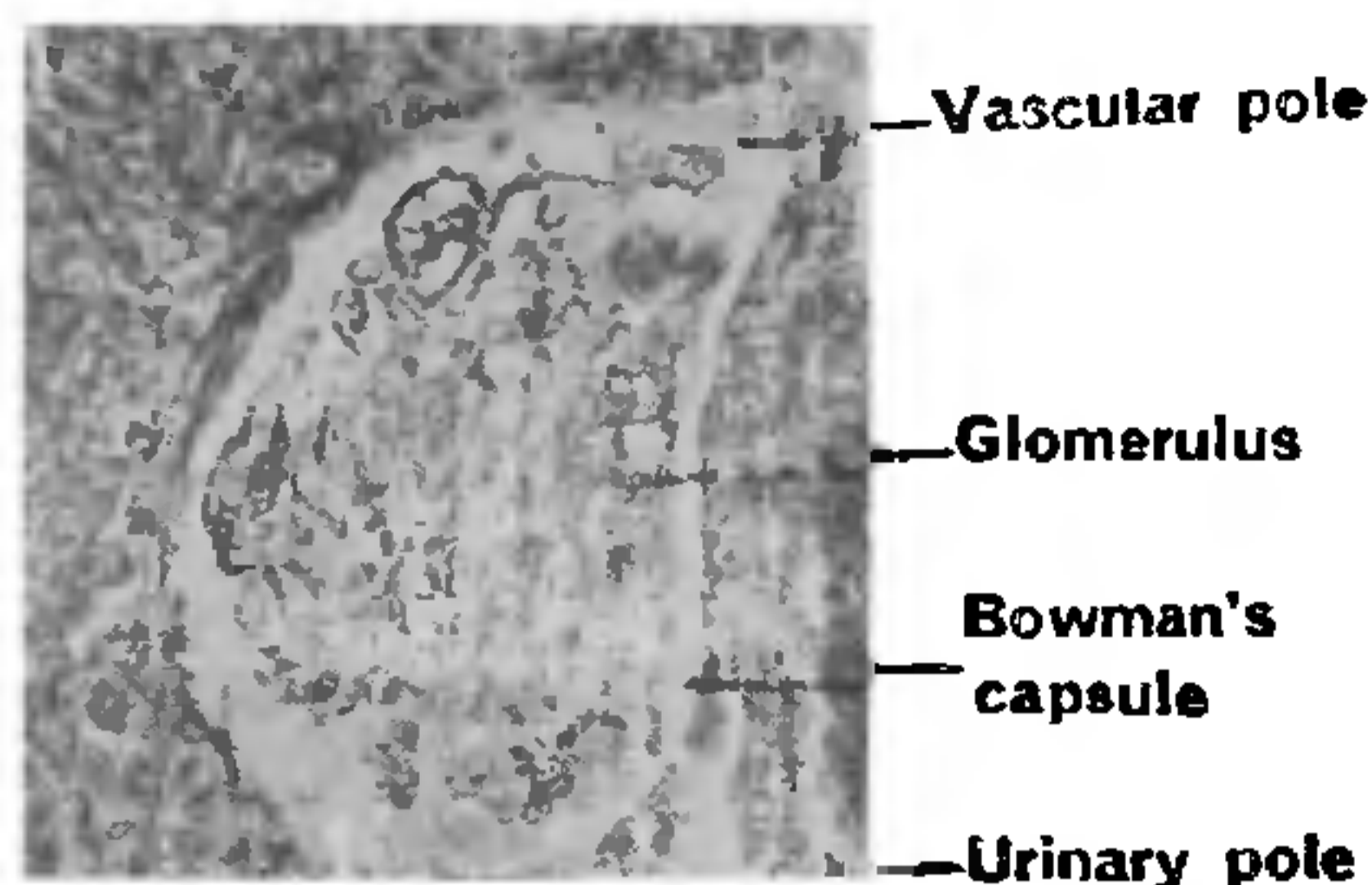
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#### A NOTE ON THE PRESENCE OF "GIANT GLOMERULI" IN A SISORID CAT FISH *GLYPTOTHORAX KASHMIRENSIS* HORA

A HISTOLOGICAL study of the kidney of *Glyptothorax kashmirensis* has revealed the presence of some well vascularized "Giant glomeruli". These are randomly distributed throughout the kidney and may occur in groups of two or more at a place.

The average size of a "Giant glomerulus" is  $148 \times 155$  micra compared to  $75 \times 66$  micra of the normal glomeruli. While the normal glomeruli are round or oval in shape the "giant" ones are

almond shaped. The "Giant glomerulus" (Phm. 1) is structurally similar to the normal glomerulus. The Bowman's capsule is lined with squamous epithelium which is also reflected on the glomerulus. The vascular and urinary poles are also present.



PHM. 1. Photomicrograph of a "Giant glomerulus" of *Glyptothorax kashmirensis*.

Large well vascularized glomeruli have been reported also in yellow bull head, *Ictalurus natalis*<sup>1</sup>. Presence of a small number of large sized glomeruli is considered to be a primitive character<sup>3</sup>. It may be that, but it appears more likely that fishes like *G. kashmirensis*, which inhabit clear hill stream waters have evolved "Giant glomeruli" in order to increase the filtration surface and thereby solved osmoregulatory problems faced by them.

It is also noteworthy that the occurrence of "Giant glomeruli" in a small fish like *G. kashmirensis*, hardly weighing 12 gm on an average, is a departure from the generalisation that size and number of glomeruli varies directly with the weight of the fish<sup>2</sup>.

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#### A STUDY ON THE FEMALE EXTERNAL GENITALIA OF *HIPPOBOSCA MACULATA* (LEACH)

THE present paper deals with the morphology of female external genitalia of *Hippobosca maculata* Leach, ectoparasite of cattle and horses. The work of Theodar (1953) on the structure of genitalia in Nycteribiidae is a valuable work for reference.