

ART. XXVII.—*A New Parasitic Copepod.*

By GEORGE M. THOMSON, F.L.S.

[Read before the Otago Institute, 14th October, 1890.]

Plate XXIII.

As far back as May, 1889, Mr. J. F. Erecson sent me a tube containing numerous specimens of a small parasite taken from the bodies of Mokis (*Latris ciliaris*). In my paper on parasitic *Copepoda*, read last year,* I inadvertently omitted to include this very distinct form. It belongs to the genus *Lepeophtheirus*, and I have much pleasure in naming it after its discoverer, to whom I am indebted for many valuable observations on our fish-fauna, and for numerous specimens illustrative of their food-supply, their parasites, &c. The following is a description of the species :—

***Lepeophtheirus erecsoni*.** Plate XXIII., figs. 1-11.

Male (fig. 2).—Body very flat. Cephalothorax semi-orbicular; hind-margin nearly square, outer margin rounded posteriorly, and finely fringed with extremely numerous delicate setæ. This fringe is more like a border of transparent tissue than a flange of setæ. Frontal lobe extending across only a small portion of the front of the cephalothorax (about one-fourth of its breadth), slightly notched in the middle, separated at the sides from the cephalothorax only by a slight indentation. Hind portion of thorax barely half as long as cephalothorax, and not more than one-fourth as wide. Fourth segment quite destitute of dorsal lamellæ, very short and broad. Genital segment rather longer than broad, its lateral margins shorter than on the median line, ending in somewhat rounded lobes tipped with 3 or 4 setæ; hind-margin nearly square. Abdomen extremely short, indistinctly 2-jointed. Caudal lamellæ very short, terminating in a few (3 or 4) short setæ.

Length of whole animal, barely 3mm.; breadth of carapace, about 2mm.

Female (fig. 1).—Cephalothorax orbicular, rounded behind; outer margin as in the male. Frontal lobe rather more arcuate than in male. Hind portion of thorax half as long as cephalothorax, and nearly half as wide. Fourth segment very short. Genital segment much longer, subquadrate, produced backwards on each side into rounded lobes. Abdomen very

* Trans. N.Z. Inst., vol. xxii., p. 353.

short (fig. 11), rounded at the end, and considerably exceeded by the caudal lamellæ.

Oviferous tubes stout, more than half as long as the whole body, very distinctly annulated. The length is to the breadth in the ratio of 6 to 1. The number of rows of eggs or of annulations is treated as a matter of specific importance by some authors. In two specimens (taken at random) of this species the annulations are respectively 23 and 38.

Length of body, 4mm.; length to end of oviferous tubes, $5\frac{1}{2}$ mm.; breadth of cephalothorax, 3mm.

The *first antennæ* (fig. 3) have the 1st joint plate-like, and presenting from above the appearance of a lateral continuation of the frontal lamella, but fringed on the inner (front) margin with a row of setæ; 2nd joint very small, subquadrate, also flattened, and with about 10 setæ arranged around its extremity.

The *second antennæ* (fig. 4) are very stout; the basal joint bears at its extremity a short flat obtuse lobe, striated in a comb-like manner. I cannot suggest the function of this appendage. The 2nd joint is in the form of a blunt hook, and bears on its inner margin a single small seta.

The *mouth-sucker* (fig. 5) is short, thick, and blunt.

The *first foot-jaws* (fig. 6) are slender and weak, more elongated than in *L. huttoni*, and bear on the outside of the terminal joint a very small short jointed appendage or seta.

The *second foot-jaws* (fig. 7) are strong and 2-jointed, as in *L. huttoni*, and hooked at the end.

The *legs of the first pair* (fig. 8) are 1-branched; basal joint of branch with a spine on its inner side; terminal joint with 3 strong claws, and a very short plumose seta at the extremity, and on the inner margin 3 long plumose setæ, directed inwards.

The *legs of the second pair* (fig. 9) are 2-branched; outer branch 3-jointed, and placed as in *L. huttoni*;^{*} 1st joint extending laterally from the side of the sternum, and bearing a long plumose seta on its inner and a straight short spine on its outer margin; 2nd joint with a long plumose seta on the inner and two straight spines on the outer margin, which also has a finely-plumose fringe; 3rd joint with one stout curved spine and one strong straight plumose spine on its

^{*} In describing this species (Trans., vol. xxii., p. 355), I have said, "Outer branch 2-jointed and in a continuous line with the basal joint, stretching transversely across the body of the animal." This "basal joint" is really the 1st joint of the outer branch, but its junction with the sternum is not always very clearly defined.

outer margin, and 5 plumose setæ—increasing in length inwards—at the extremity.

The legs of the third pair (fig. 10) are 2-branched, and each branch is 3-jointed. Basal plate very large and wide, and having a strong spine just above the insertion of the very small branches. Outer branch having 5 or 6 short setæ at the end of the rounded terminal joint. Inner branch with a long plumose seta on the inner side of the 1st joint, and 6 plumose setæ on the outer joint.

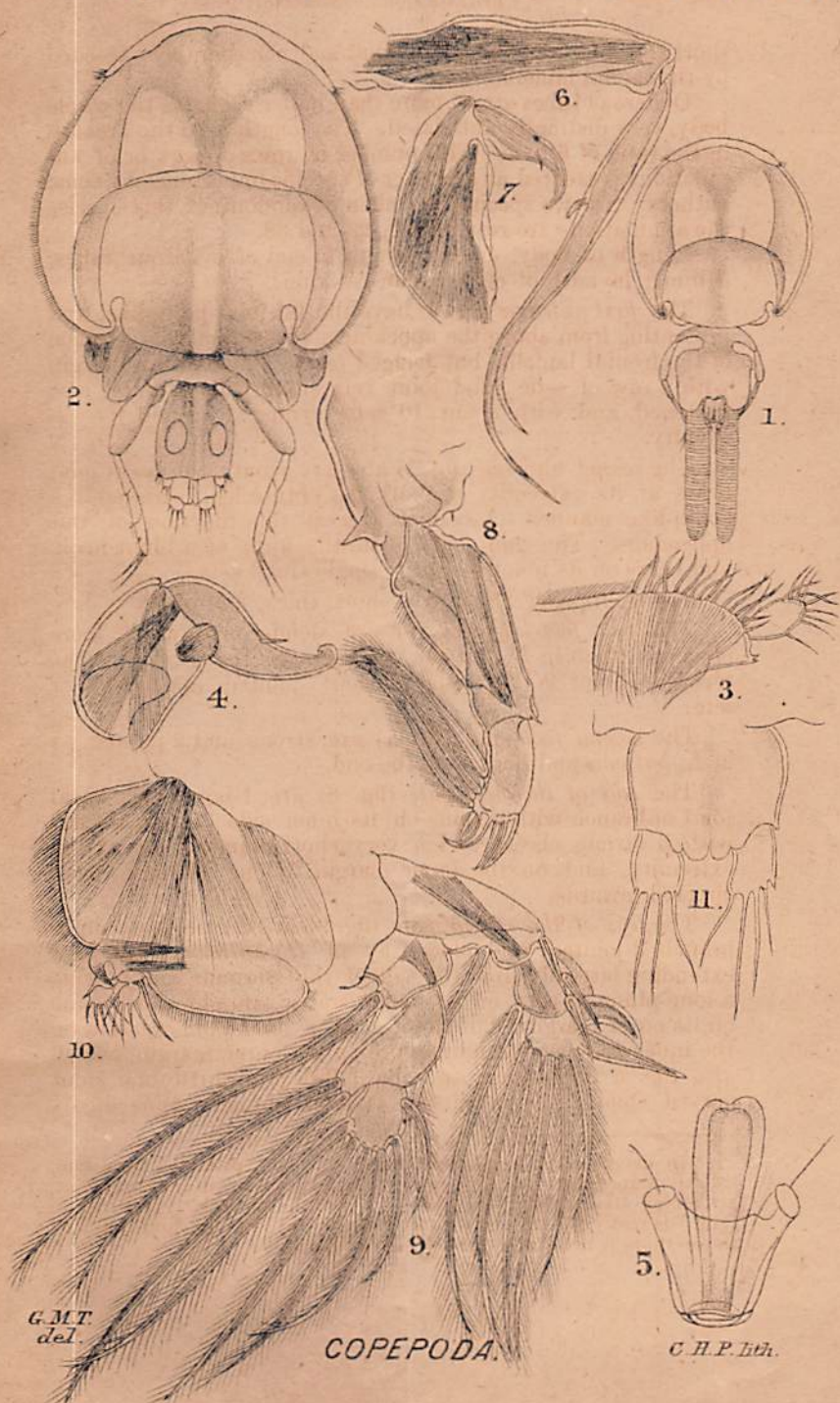
The legs of the fourth pair are very long and slender, and 1-branched, with the basal joint slightly dilated. Branch 3-jointed: 1st and 2nd joints oblique at the ends, and each bearing a small spine on the outer extremity; terminal joint with 3 slender spines, inner much the longest, outer the shortest.

This is a very small species—not more than one-fourth the length of *L. huttoni*. It is just possible that it belongs rather to Heller's genus *Anuretes* than to *Lepeophtheirus*; but in the absence of the complete literature of the subject I cannot be certain of this. The structure of the limbs is in several respects remarkably similar in this species and in *L. huttoni*.

EXPLANATION OF PLATE XXIII.

LEPEOPHTHEIRUS ERECSONI.

- Fig. 1. Female (dorsal aspect) \times .
Fig. 2. Male " \times 25.
Fig. 3. Antennæ of 1st pair, \times 56.
Fig. 4. " 2nd " \times 56.
Fig. 5. Mouth-sucker, \times 56.
Fig. 6. Foot-jaw of 1st pair, \times 56.
Fig. 7. " 2nd " \times 56.
Fig. 8. Foot of 1st pair, \times 56.
Fig. 9. " 2nd " \times 56.
Fig. 10. " 3rd " \times 40.
Fig. 11. Abdomen and caudal setæ, \times 56.
-



With the author's Compliments
9. 2. 03

TRANSACTIONS
OF THE
NEW ZEALAND INSTITUTE
1890

[*Extract from*]

7.702.

PRIVATE LIBRARY OF

Chas. B. Wilson.