

joints reflexed; the basecephysis is rudimentary, the coxa carrying a pedunculated mastigobranchia, to the base of which, near the joint, is attached a well-developed podobranchial plume.

The second pair is long, pediform, seven-jointed, and thickly pilose. The basecephysis is slender, small, and almost rudimentary. The coxa carries a pedunculated mastigobranchia without any branchial plume, but two arthrobranchial plumes are attached to the membranous articulation between the coxa and the pleura.

The first pair of pereopoda is shorter than the second gnathopod, chelate, having the carpos but little longer than the propodos, measuring from the tips of the pollex to the carpal joint; the ischium and basis are each armed with a strong tooth on the anterior distal angle, and a tubercle tufted with hairs projects on the inner side of the coxa; the basecephysis is slender and as long as the ischium. The coxa carries a mastigobranchia without a plume attached. The second pair of pereopoda is longer than the first, the carpos being twice the length of the propodos, and the basal joint is armed with a strong tooth; the basecephysis is shorter than the meros and the mastigobranchia is without a plume. The third pair of pereopoda is much longer than the second, and nearly twice as long as the first, the carpos being slender and four times the length of the propodos. There is a small tooth on the basal joint and the basecephysis is rudimentary; the two following pairs are long, slender, and terminate in a simple styliform dactylos, the terminal pair being much longer and more slender, and having the propodos twice the length of the carpos and distally fringed with long hairs; both of these carry a short and almost rudimentary basecephysis, but only the former carries a mastigobranchia, the rigid peduncle of which is long and the foliaceous plate short, and the last somite carries only a pleurobranchial plume.

The pleopoda are moderately long and biramose, except the first pair, which has the inner branch reduced to a rudimentary condition (fig. 1") in the female, and developed to a large and longitudinally corrugated petasma in the male (fig. 2").

The telson terminates in a sharp point, flanked on each side by a sharp but strong tooth, anterior to which is a row of hairs.

Judging from the numerous specimens in the collection, thirty of which were taken at one station associated with *Artemesia longinaris*, the males differ from the females in being one half shorter.

*Philonicus lucasii*, Spence Bate (Pl. XLII. fig. 4).

*Solenocera Lucasii*, Sp. B., Ann. and Mag. Nat. Hist., ser. 5, vol. viii. p. 185, 1881.

Rostrum short, dorsally crested and laterally compressed, armed with seven teeth on the upper margin; the lower margin smooth. Pleon compressed and carinated from the third somite, the carina terminating in a small tooth at the posterior extremity of the