

ON SOME AUSTRALIAN SIPHONAPTERA.

By DR. KARL JORDAN, F.R.S.

(With three text-figures.)

1. *Pygiopsylla congrua* J. & R. 1922 and *P. hoplia* J. & R. 1922.

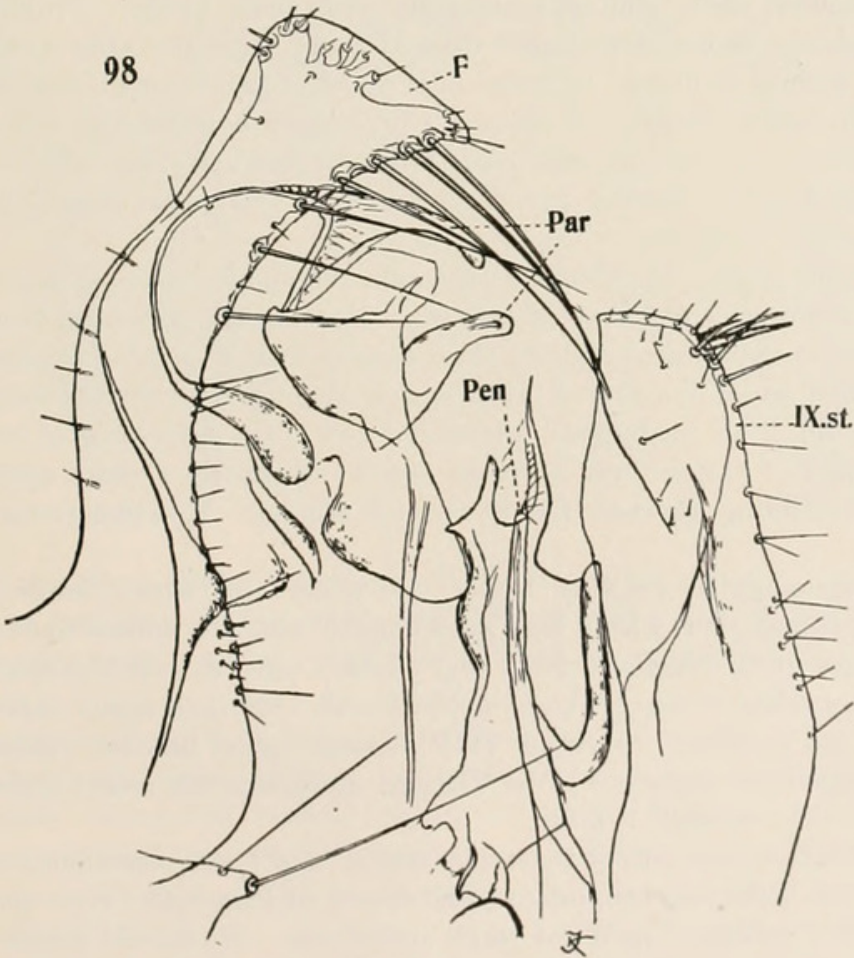
FAIRLY extensive material collected in Queensland convinces me that in the original descriptions of the above species the mating of the sexes was erroneous. What we described and figured as the ♀ of *P. congrua* is that sex of *P. hoplia* and vice versa. The synonymy, therefore, is as follows :

(a) *P. congrua* Jord. & Roths., *Ectoparasites*, p. 234, no. 2, text-fig. 226 (1922), ♂ only.

P. hoplia iid., l.c., p. 236, no. 3, text-fig. 228 (1922), ♀ only.

(b) *P. hoplia* iid., l.c., p. 236, no. 3, text-fig. 227 (1922), ♂ only.

P. congrua iid., l.c., p. 234, no. 2, text-fig. 229 (1922), ♀ only.



2. *Stivalius molestus* Jord. 1936 (text-fig. 98).

Described from a series of ♀♀ in *Proc. Linn. Soc. N.S.W.*, lxi, p. 135, text-figs. 1, 2 (1936), obtained in Queensland on *Rattus culmorum*. Mr. Frank H. Taylor has now sent me other specimens of this species among which are some

♂♂. I am much indebted to Mr. Taylor, and to Mr. W. A. McDougall who collected the additional series at Mackay on the same host. As in ♀ the margin of the frons longer than in the allied species; upper bristles of upper row of frons nearer the dorsal margin. Sclerite F of genitalia more stumpy, its nose much shorter; the small ventral bristles in proximal half less numerous than in *St. mordax*. Upper process of paramere (Par) long, lower one slightly curved, not straight as in *St. rectus* J. & R. 1922. Ventral arm of sternum IX similar to that of *St. mordax*; its apical angle pointed, bristles somewhat variable in number.

Acedestia gen. nov.

Only the ♀ known. It represents a new species which does not fit into any of the genera hitherto described and has affinities with *Neopsylla* Wagn. 1902 as well as with *Ctenophthalmus* Kolen. 1857. The new genus proposed here for the species may provisionally be placed in the neighbourhood of *Ctenophthalmus*, although the presence of a patch of small spiniforms on the inner surface of the hindcoxa removes it from that neighbourhood. Perhaps the discovery of the ♂ will throw more light on the relationship of this peculiar species.

Head integricipit, much shorter than broad. Antennal groove closed. Frontal tubercle sunk, ventrally straight, with sharp point. Proboscis short, with 5 segments, last a little longer than II to IV together, apex excised. Eye present, but much reduced. In front of it a row of four bristles, first at antennal groove; no other bristles on frons. On occiput a subapical row, no other bristles apart from a few minute ones above antennal groove. Club of antenna longer than broad. Behind eye from antennal groove to maxillary palp an oblique row of four spines.

Prothorax short; pronotum with comb, the spines except lower ones much longer than notum; one row of bristles. Mesonotum measured from base to row of bristles (true apex) shorter than metanotum, the same applies to overlapping apical areas, one row of bristles, as is also the case with abdominal terga II to VII, on I an incomplete additional row. On underside of overlapping apical margin of mesonotum a dorsal and a subventral slender spine. Metepimerum extending upward far above its stigma. Metepisternum inclining forward.

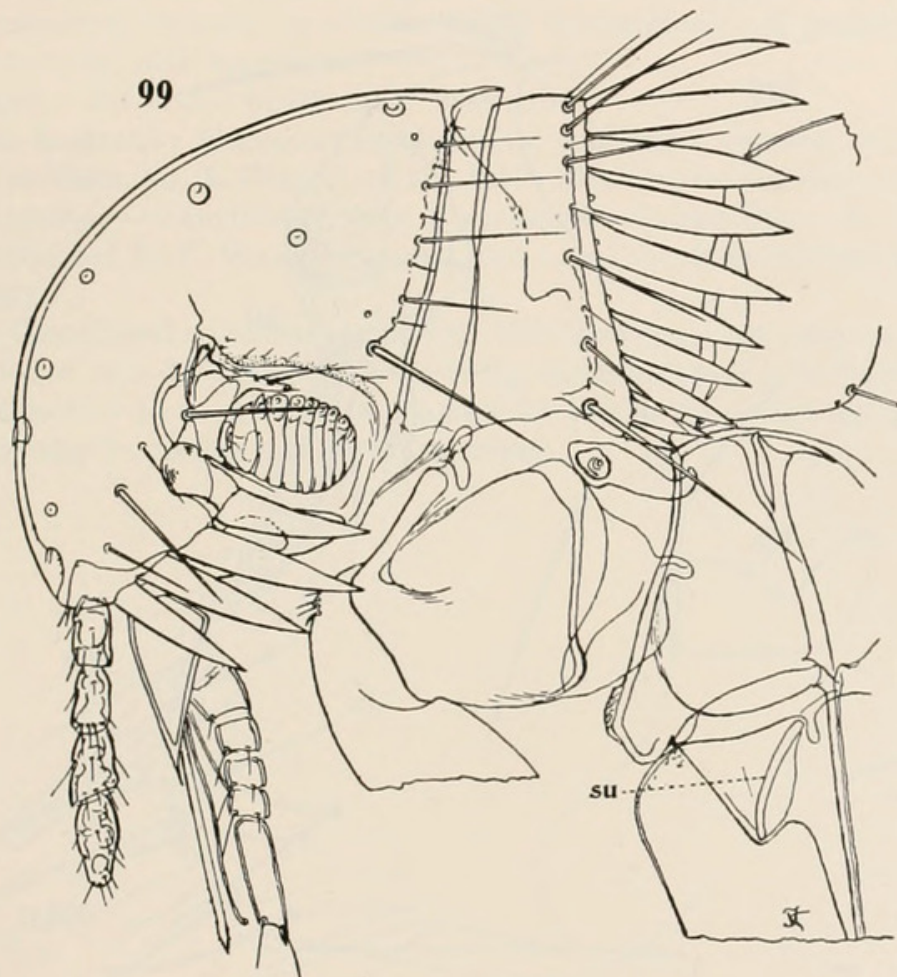
Two antepygidial bristles, upper one short and stout, lower one long. Stylet long and slender, with a long apical bristle and two minute ones close to it. Pygidium not quite flat, posteriorly very slightly convex, hair-like spicules broad at base, resembling those of *Ceratophyllus* Curtis 1826 (and many other genera); apparently 24 grooves. Sternum VIII without apical bristles, pointed. Stigmata of abdominal segments II to VII and metepimerum ovate, subacuminate posteriorly, that of VIII. t. large.

Radial suspenders (su) of innerside of mid- and hindcoxae short, in midcoxa equalling two-fifths and in hindcoxa one-fourth of length of coxa; on innerside of hindcoxa a subapical patch of small spiniforms. No lateral bristles on inner and outer surfaces of femora. Segment V of fore- and midtarsi with four lateral pairs of plantar bristles and a fifth pair in between second, this first pair absent from hindtarsus.—Genotype: new species here described.

The internal loop of gena and the infraoesophageal bar (trabeculum, Wagner) are absent.

3. *Acedestia chera* sp. nov. (text-figs. 99, 100).

♀. The long and sharply pointed spines of the genal and pronotal combs and the absence of bristles in front of the subapical row on the terga of thorax and abdomen (except ab. t. I) and on the abdominal sterna are very striking distinctions. Head almost evenly rounded—slanting from posterior upper angle to preoral angle. Of the bristles in front of eye first and third long, second small or minute, fourth small, but larger than second; the occipital row contains five

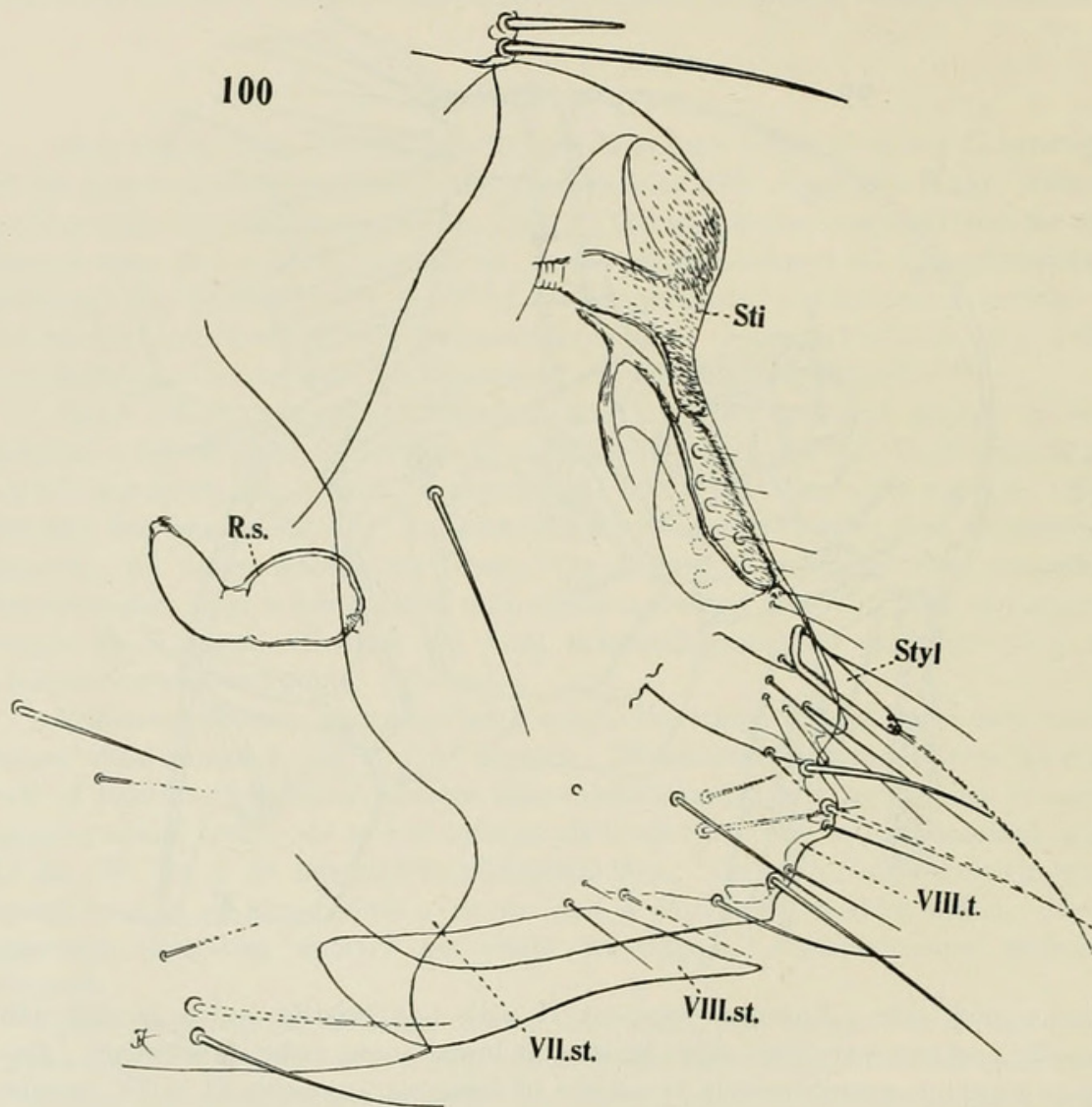


bristles each side. Antennal segment II with two bristles and a minute hair dorsally and two very thin short bristles at lower angle, none in between. Proboscis reaching approximately to middle of forecoxa, segments II to IV broader than long.

Pronotal comb with 20 spines, lower ones gradually smaller; a row of 12 bristles (on the two sides together). On mesopleura 5 or 6 bristles: one before meral suture, one or two ventral behind the suture, and three in a subapical vertical row, ventral one long and rather stout, larger than any bristle of head and pronotum, the upper one of the three the smallest. Row on mesonotum and metanotum with 10 bristles; at basal margin of mesonotum fewer than 10 small hairs (two sides together). Length of mesonotum from base to bristles 16, of metanotum 18, apical area of mesonotum 9, of metanotum 15. Metepisternum with one bristle, pale area longer than broad, subelliptical; metasternite with two bristles, lower one as large as largest of mesopleura; incrassation at anterior margin of metasternite vestigial, narrow. Metepimerum large, extending up-

wards to level of third bristle of metanotum, upper angle acute ; below stigma two longish bristles with a minute one in between, farther down a close-set vertical row of three or four, the lowest much the longest, being as large as the large bristle of metasternite ; in specimen from Queensland four bristles below stigma on one side.

On abdomen terga II to IV with a short apical spine each side, in Queensland specimen I with a spine on one side only ; bristles : I 5, 7, II 11, III to VI 10,



VII 8, on the two sides together ; stigma in the row above lowest bristle ; bristles on sterna : III 5, IV to VI 6, VII 11.

Posteriorly at apex of mid- and hindcoxae two bristles. At dorsal margin of femora fewer than 12 small bristles ; ventrally one longish subapical bristle ; the short one of the dorso-apical pair rather stumpy, as are the outer bristles in the dorsal notches of the tibiae ; dorsolateral row of hindtibia containing 5 bristles ; longest bristle of postmedian notch barely reaches apex of tibia, and longest apical one does not quite attain apex of tarsal I. Apical bristles of hindtarsal segments rather stout, those of I not reaching to apex of II, longest of II nearly reaching apex of III, that of III surpassing IV ; minute hairs on sole of V numerous in all tarsi in apical half, a few hairs farther towards base, apical

ventral pair of small bristles far apart and thin. Proportions of segments : midtarsus 12, 13, 9, 6.5, 13 ; hindtarsus : 22, 17, 10, 7, 15.

Modified Segments.—Sternum VII gradually narrowed, apex truncate-sinuate, lobe above sinus rounded, much larger than lower lobe. No bristles above stigma of VIII. t. ; some distance below stigma one long bristle, on ventral area inclusive of apical margin 10 bristles. Stylet almost linear, four times (or nearly) as long as basally broad ; at angle in front of stylet a single bristle. Body of spermatheca one-half longer than broad, strongly convex dorsally ; slightly incurved ventrally in middle, orifice subterminal, not projecting ; tail as long as body, with appendix.

Length : 2.1 mm. ; hindfemur : 0.44 mm.

West Australia : Mahogany Creek, Perth, on *Isoodon obesulus*, one ♀, type, we have to thank Mr. L. Glauert, of the Perth Museum, for the discovery of this strange species.—Another ♀ from Queensland : Yorke Pen., off *Parameles gunnei*, collected by F. Wood Jones and sent to me for determination by Mr. H. Womersley.

The Queensland specimen agrees well with the type ; but its spermatheca is more rounded, this difference evidently being due to pressure in mounting. It is most satisfactory to have a second example for comparison and I am grateful to Mr. Womersley for having sent me the specimen.



Jordan, Karl. 1937. "On some Australian Siphonaptera." *Novitates zoologicae : a journal of zoology in connection with the Tring Museum* 40, 311–315.

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