

A NEW GENUS OF DELPHACIDAE (HOMOPTERA: FULGOROIDEA)

BY R.G. FENNAH

The British delphacid *Delphacodes dalei* (Scott) was transferred to *Struebingianella* (regarded as a subgenus of *Paraliburnia*) by Le Quesne (Le Quesne 1964: 57), but this concept has since been restricted by the segregation of its species *S. elegantula* (Boh.), *S. leptosoma* (Flör) and *S. paryphasma* (Flör) into other genera, and *D. dalei* does not fall within the limits of any genus as currently interpreted. As earlier surmised by Wagner (Le Quesne 1964: 58) this species needs to be placed in a separate genus, and accordingly a new genus is proposed for its reception and described below.

Genus *Lamprodelphax* gen. n.

Width of head with eyes greater than width of vertex at base (2.7-2.9:1) and than axial length of eye (2.2-2.4:1). Vertex shorter in middle than broad at base (1.1-1.2:1), obtusely curving into frons, as wide at base as at apex, and wider than greatest length of basal compartment (2.0-2.2:1), posterior margin transverse, lateral margins concave, anterior margin convex, sublateral carinae apparently meeting at apex of head, but more or less immersed, Y-shaped carina moderately distinct. Frons longer than broad (about 1.5:1), slightly wider at base than at apex, disc transversely convex, not (δ) or scarcely (?) depressed between carinae, lateral margins convex, fine, slightly produced laterad, not anteriorly, median carina simple, fine or weak and partly immersed; post-clypeus slightly wider at base than long (about 1.1:1), straight in profile; anteclypeus convex in profile; rostrum attaining mesotrochanters, apical segment longer than broad (about 2.3:1); antennae short, cylindrical, basal segment as long as broad, second segment longer than first (about 2.3:1) and than broad (2.0:1), with 3-4 groups of sensoria in longest row. Pronotum slightly wider than head (up to 1.1:1), median disc at level of base of middle line wider than length in middle (about 2.5:1) and than anteriorly (about 2.0:1), carinae diverging caudad, not reaching hind margin; shortest length between eye and tegula in side view less than length of eye in same line (about 1:3.1). Mesonotum tricarinate, but median carina almost obsolete. Post-tibia longer than broad at middle (9.0-10.7:1); spur longer than broad (2.0-2.2:1), widest near base, thick, with about 7-10 minute teeth and only a narrow tract of setae above them; opposite margin expanding into a narrow lobe near apex, this lobe not furnished with a tooth apically. Basal metatarsal segment longer than broad apically (2.2-2.6:1), with 2+5-6 apical teeth, not forming an uninterrupted row.

Tegmen (brachypterous) longer than broad (1.3-1.4:1), with apical margin shallowly convex.

δ . Abdominal sternites VIII and VII undivided, VI deeply notched medially, V and IV completely divided. Pygofer short dorsally, long ventrally, dorsal margin not closely embracing anal segment, dorso-lateral angles broadly rounding, lateral margins straight; diaphragm only moderately deep, dorsal margin transverse; orifice in diaphragm at base of styles deeply excavate laterally. Anal segment short, anal spines long, well separated. Aedeagus strongly laterally compressed, slightly ascending in distal half; orifice on ventral surface, a groove extending from it to apex and a bicuspidate spine, directed ventrad, arising basad of it. Genital styles simple, moderately long, abruptly bent dorsad and laterad at base.

? . Anal segment short, as wide as long ventrally, anal style short. Ovipositor not extending beyond base of anal segment. First valvifers extending caudad for half length of second valvifers. Basal parallel-sided part of ovipositor only slightly longer than broad (about 1.2:1). A deeply pigmented pregenital lobe present basally.

Length, brachypterous δ , about 1.8 mm; brachypterous ? , about 2.4 mm.

female about 2.4 mm.

orifice in diaphragm
at base

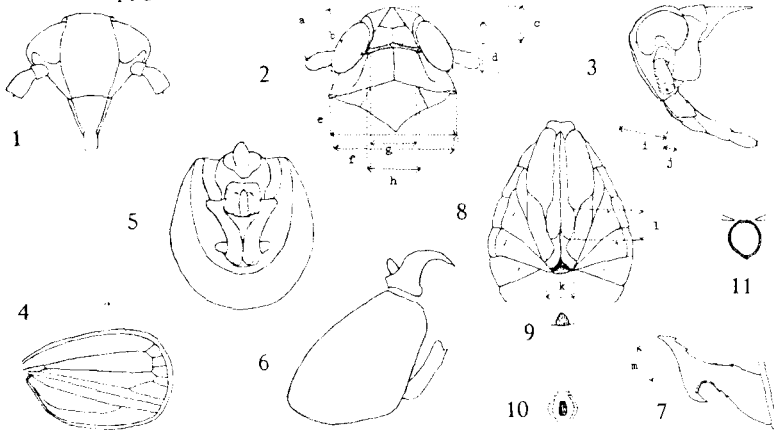
anal spines long
bicuspidate spine

long, abruptly

basally.

Type species. *Struebingianella dalei* (Scott) (Figs. 1-11).

Lamprodelphax dalei differs from *S. lugubrina* (Boh.), the type species of *Struebingianella*, in the proportions of the basal antennal segment, the form of the post-tibial spur and the structure of the male genitalia. The genus *Xanthodelphax*, which comprises a compact group of three species, closely resembles *Lamprodelphax* in external features, but differs in the proportions of the mesonotum and brachypterous tegmen and the stronger medial carination of the frons and mesonotum. More obvious differences are to be found in the structure of the pygofer, the carriage and shape of the genital styles and anal spines, and in the female, the relative length of the anal segment and the occurrence of a pregenital lobe. The aedeagus of the Soviet Far Eastern species *Trichodelphax splendidus* Vilbaste bears some resemblance to that of *L. dalei*, but the two genera differ in the proportions of the frons, postclypeus, rostrum and basal antennal segment and the forms of the post-tibial spur and the pygofer.



Figs. 1-11. — *Lamprodelphax dalei* (Scott): 1, head, anteroventral view; 2, head and thorax, dorsal view; 3, head, pronotum and mesonotum, left side; 4, brachypterous tegmen; 5, male genitalia, posterior view; 6, pygofer, extruded genital style and anal segment, left side; 7, aedeagus, right side; 8, ovipositor and adjoining abdominal sternites, ventral view; 9, pregenital lobe of eighth sternite, full view; 10, median sclerite at base of first valvulae (on larger scale than fig. 9), lower margin anterior; 11, suspensorium of aedeagus and basal inflected processes of anal segment. — a, greatest length of eye; b, width of eye; c, length of interocular surface of head; d, axial length of eye; e, width of pronotum; f, width of head; g, width between pronotal carinae anteriorly; h, width of hind margin of vertex; i, length of eye measured in same line as (j); j, narrowest width of pronotum between eye and tegula; k, basal width of ovipositor; l, length of widened part of ovipositor; m, length of orifice of aedeagus and associated groove.

REFERENCES

- Le Quesne, W.J., 1964, Some taxonomic observations on the British Delphacidae, *Proc. Roy. ent. Soc. Lond.* (B) 33(3-4): 56-58. Vilbaste, Yu., 1968, *K faune tsikadovykh Primorskogo Kraja*. 178 pp. 148 fig. Akademiya Nauk Estonskoi SSR, "Valgus", Tallin, Esthonian SSR, USSR.

c/o Commonwealth Institute of Entomology, British Museum (Nat. Hist.), London SW7 5BD. November 10th, 1981.