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A new genus, *Zeoliarus*, for the endemic New Zealand species *Oliarus atkinsoni* Myers and *O. oppositus* (Walker) (Hemiptera: Fulgoromorpha: Cixiidae: Cixiinae: Pentastirini)

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The New Zealand cixiid planthoppers were revised by Larivière (1999) who noted that further systematics work was required on a world basis or at least in an Australasian context before the position of New Zealand genera could be determined. As a consequence, most existing generic concepts were accepted by Larivière (1999), including the placement of two species in *Oliarus* Stål, 1862, a well-known catch-all pentastirine genus with species from all over the world.

Several attempts have been made in recent years by various authors to divide *Oliarus* (*sensu lato*) into more natural Palearctic, Ethiopian or Nearctic genera.

In 2001, Emeljanov provided a new definition for *Oliarus* (*sensu stricto*). This was followed by a re-examination of the type material of *O. walkeri* (Stål, 1859), the type species of *Oliarus,* and the provision of a supplementary description of the male genitalic morphology by Hoch (2005).

The morphological attributes of *Oliarus* (*sensu* Emeljanov 2001) and of *O. walkeri* type specimens studied by Hoch (2005) have been reported by Löcker *et al*. (2006: 21) and applied to their recent revision of the Australian Pentastirini fauna.

Löcker *et al*. (2006) applied Emeljanov's strict concept of *Oliarus* to all Australian pentastirine species characterised by the 2nd hind tarsomere bearing 5 (rarely 6) apical teeth and no platellae, and the hind tibiae possessing 2 lateral spines. These authors noted that "this last feature [2 lateral spines on hind tibiae] separates them [species retained in *Oliarus*] from all other Australian Pentastirini which have 3–4 lateral spines." Characters of the male genitalia were found to vary enormously among Australian taxa and to deviate somewhat from the configuration seen in the type species of *Oliarus*. Löcker *et al*. (2006) used this argument to support the creation of species groups to accommodate Australian *Oliarus* (*sensu* Emeljanov 2001).

The New Zealand species *Oliarus atkinsoni* and *O. oppositus* are characterised by the 2nd hind tarsomere bearing 13 apical teeth in addition to 8–10 platellae, and the hind tibiae possessing 2–3 lateral spines, thus differing markedly in chaetotaxic combination from true *Oliarus* species. The configuration of the male genitalia of the two New Zealand species differs also from the condition seen in Australian *Oliarus* as characterised by Löcker *et al*. (2006).

The revision of the Australian Pentastirini by Löcker *et al*. (2006) revealed only one species, *Pentastiridius felis* (Kirkaldy, 1906), with platellae on the 2nd hind tarsomere, which does not match the New Zealand taxa in other characters. A survey of the world literature suggested several Pentastirine genera with platellae on the 2nd tarsomere, but no correlation could otherwise be found with the characteristic morphology of the New Zealand taxa.

The two New Zealand endemics previously assigned to the pentastirine genus "*Oliarus*" clearly do not belong in this genus. Furthermore, they cannot be assigned to any other described pentastirine genus. Consequently, a new genus, *Zeoliarus*, is described to accommodate these species hereby listed as two new combinations: *Zeoliarus atkinsoni* (Myers, 1924) and *Zeoliarus oppositus* (Walker, 1851).

The generic description included below is written using the morphological terminology of Löcker *et al*. (2006) and a similar format allowing easy comparison with taxonomic descriptions provided in the Australian Pentastirini revision.

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***Zeoliarus* Larivière & Fletcher, gen. nov.**

Type species (Fig. 1). *Oliarus atkinsoni* Myers, 1924, here designated.

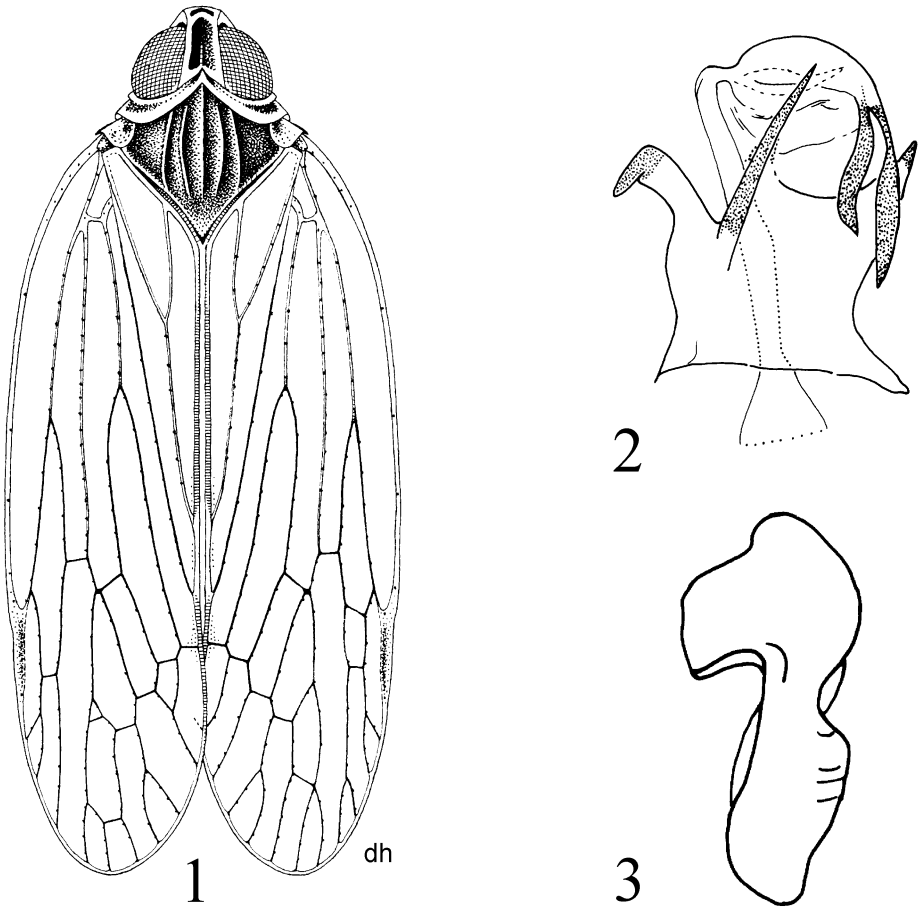
Description. **Head**. Vertex (total length) 0.9–1.7 times as long as wide; lateral carinae slightly to moderately elevated; subapical carina forking from lateral margin at 3/4 or more of total length of vertex; median carina 1/4 to about 1/2 as long as median length of vertex. Position of maximum width of frons more or less around centre of frontoclypeal suture; lateral carinae of frons convex (almost rectilinear apically) to somewhat s-shaped. Anteclypeus with a well-developed median carina.

Thorax. Forewings with fork of ScRA+RP distad of fork of CuA1+CuA2; r-m crossvein basad of fork MA+MP; RP apically bifid (usually); MA apically trifid (usually); MP apically bifid (usually); fork of Pcu+A1 distinctly basad or more or less central within clavus. Hindlegs: tibiae with 2–3 lateral spines; 6 large apical teeth; 1st tarsomere with 7–8 apical teeth and no platellae; 2nd tarsomere with 13 teeth and 8–10 (usually 10) platellae.

Male genitalia. Aedeagus and genital style as illustrated (Figs 2, 3): aedeagus, in ventral view, with 3 short spinose processes arising on the periandrium, flagellum with one process near its base and 2 at its tip (Larivière, 1999); left genital style in ventrolateral view, stout, hammer-shaped, without long, sclerotised, spinelike, dorsal process.

Other characters as in description of "*Oliarus*" provided by Larivière (1999: 44).

Notes. In her description of the genus "*Oliarus*" Larivière (1999: 44) overlooked the presence of a median carina (or keel) extending from the base of the vertex, but figures 26 and 27 (p. 60, same work) clearly show the presence of this carina. The taxonomic revision of New Zealand "*Oliarus*" species by Larivière (1999) adequately addressed the taxonomy of the two species transferred to *Zeoliarus* **gen. nov.** and did not identify any undescribed pentastirine species. These taxa represent the full extent of the New Zealand Pentastirini fauna.



FIGURES 1–3. *Zeoliarus atkinsoni* (Myers, 1924). Fig. 1, habitus, dorsal aspect (body length: 8 mm); fig. 2, male aedeagus, ventral aspect; fig. 3, male genital style, ventrolateral aspect. (Courtesy: *Fauna of New Zealand* Series)

Löcker *et al*.'s (2006) key to genera of Australian Pentastirini is here modified to include *Zeoliarus* **gen. nov.**, with couplet 1b inserted below between couplet 1 and couplet 2 of the original key:

1 Platellae on 2nd hind tarsomere absent 2
- Platellae on 2nd hind tarsomere present 1b
1b Platellae present on both 1st and 2nd hind tarsomere; 1st hind tarsomere with 12–16 apical teeth ..... Pentastiridius
-1b Platellae present on 2nd hind tarsomere only; 1st hind tarsomere with 7–8 apical teeth ..... *Zeoliarus* **gen. nov.**

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