

Two New Species of *Clinopsalta* Moulds (Hemiptera: Cicadidae) and Additional Distribution Records for *Clinopsalta adelaida* (Ashton), with Notes on their Distinctive Calling Songs

LINDSAY W. POPPLE^{1*} AND DAVID L. EMERY²

¹ Entomology Section, Queensland Museum, South Brisbane Queensland 4101, Australia
lindsay.popple@uq.net.au

² Sydney School of Veterinary Science (SSVS), University of Sydney NSW 2006, Australia
david.emery@sydney.edu.au

ABSTRACT. Two new species are described in the genus *Clinopsalta* Moulds. *Clinopsalta autumnna* sp. nov. exhibits a warm temperate distribution from south-east Queensland south to Goulburn and Nerriga in eastern New South Wales. *Clinopsalta semilunata* sp. nov. has a patchy distribution in southern Queensland from Binjour Plateau west to near Miles, south to Yelarbon State Forest and Durikai State Forest, both near Inglewood. In addition to the descriptions of these new species, further distribution records are provided for *C. adelaida* (Ashton), which extend its distribution from south-eastern South Australia and northern Victoria to inland central and northern New South Wales. The species of *Clinopsalta* are small–medium sized cicadas (< 20 mm body length) with distinctive calling songs of an intermediate frequency (c. 6 to 18 kHz). The temporal structures of the calling songs follow a similar pattern in each species, comprising an introductory rattle followed by a series of clicking phrases. The call is characteristically accompanied with bouts of prominent wing-snapping, except in one species (*C. semilunata* sp. nov.).

KEYWORDS. Cicadettini; bioacoustics; taxonomy

POPPLÉ, LINDSAY W., AND DAVID L. EMERY. 2017. Two new species of *Clinopsalta* Moulds (Hemiptera: Cicadidae) and additional distribution records for *Clinopsalta adelaida* (Ashton), with notes on their distinctive calling songs. *Records of the Australian Museum* 69(4): 237–256. <https://doi.org/10.3853/j.2201-4349.69.2017.1673>

This stand-alone study forms part of the ongoing taxonomic treatment of Australian cicadas. Many of the smaller cicada species across the world (tribe Cicadettini) exhibit brief seasonal appearances, which can only be intersected by regular and opportunistic fieldwork. The success of such fieldwork has relied heavily upon the readily detectible calling songs produced by these insects (e.g., Ewart, 1988,

1989, 1998, 2005; Simões *et al.*, 2000; Ewart & Popple, 2001; Popple & Strange, 2002; Sueur, 2002; Sueur & Aubin, 2004; Pinto-Juma *et al.*, 2005; Quartau & Simões, 2006; Seabra *et al.*, 2006; Popple *et al.*, 2008; Ewart & Popple, 2013a,b). The male calling songs provide an effective and often instantaneous method for identifying known species and a definitive method for revealing new species.