

Associating the life stages of Calocidae (Trichoptera) using genetic methods

Michael Shackleton *¹, Phil Suter ¹, Susan Lawler ¹, Jeff Web ¹

¹ La Trobe University, University Drive, Wodonga, 3690, VIC, Australia

The morphological characters associated with specific life stages can provide important taxonomic information. In holometabolous insects the immature forms are greatly different to that of the adult and, in many species, associations of immature life stages are difficult to determine. This is true of many of the Trichoptera species. In the past, associating larval specimens of Trichoptera has required either rearing larvae into adulthood or collecting pharate male pupae. The former of these is time consuming. The latter relies on chance collecting of appropriate specimens. Both are often unproductive. Through analysing genetic data, rapid and accurate associations of life stages can be made. Using nuclear (EF1a and 28s) and mitochondrial (CO1) DNA fragments, we have been able to associate the larval life stages of 5 species in the family Calocidae.

