

New Zealand cave weta biodiversity (Rhaphidophoridae)

Josephine Fitness ^{*1}, Steve Trewick ¹, Olivier J.-P. Ball ², Mary Morgan-Richards ¹

¹ Massey University

² Northtec

New Zealand cave weta are a diverse group, falling into 16 genera and approximately 55 species. The exact number of species is difficult to assess as many are yet to be discovered and described. Our research focuses on developing morphological tools to diagnose genera and species, using large samples that encompass the full variation within populations and species. Characters that will distinguish genera and species are best if they can be applied to juveniles and adults of either sex. Using DNA sequencing, we will be able to ensure that the morphological traits we focus on are effective in identifying and distinguishing species. Here we present an example of cave weta sampled from the Far North where we see how combining sub-genital plate shape and spine counts can reliably differentiate species in all individuals except early instar stages.

