

**PCR gut analysis reveals that a common introduced spider (*Tenuiphantes tenuis*) is a potentially significant predator of Argentine stem weevil (*Listronotus bonariensis*)**

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PCR (polymerase chain reaction) analysis of gut contents can be used to determine what arthropods are feeding on in ecosystems as DNA from the food ingested by an arthropod will be present in the gut for a certain amount of time before digestion takes place. PCR gut analysis was conducted on specimens of the introduced spider *Tenuiphantes tenuis* collected from pasture in Canterbury, New Zealand. PCR primers were specifically designed to amplify a fragment of the mitochondrial gene cytochrome *c* oxidase subunit 1 (COI) from *Listronotus bonariensis* and revealed that this major pasture pest species is consumed in the field by *T. tenuis*. The field predation rate of *L. bonariensis* by *T. tenuis* was estimated from our PCR results together with published data on the degradation of DNA and the density of *T. tenuis* in Canterbury pastures. We found that *T. tenuis* is a potentially significant predator of *L. bonariensis* in New Zealand pastures.

