Poster 1: Discovery of *Phasmarhabditis hermaphrodita* (Nematoda) in the USA and Its Potential Importance in the Biological Control of Invasive Gastropods

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Snails and slugs are among the most serious pests of agriculture. Control measures are focused on chemical molluscicides but their efficacy is very variable. In Europe, a commercially available biological control agent is used to help manage slugs in a range of crops. The active agent is a nematode called *Phasmarhabditis hermaphrodita* (A. Schneider) (Rhabditida: Rhabditidae) and its associated bacteria, *Moraxella osloensis* (Pseudomonadales: Moraxellaceae). Multiple past attempts at recovering *Phasmarhabditis* from slugs and snails in the US have been unsuccessful but we recently discovered *P. hermaphrodita* from a range of slug species in California and Oregon. This nematode has only been recovered from European invasive gastropod species in the US and not from native species, suggesting an accidental introduction. Virulence trials with this strain have shown that it is lethal to a range of pest slugs and snails highlighting its potential role as a biological control agent of these pests in the US.

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