FIELD PARASITISM OF THE WEED BIOLOGICAL CONTROL AGENT *RHINOCYLLUS CONICUS* BY THE INTRODUCED BRACONID, *MICROCTONUS AETHIOPOIDES*

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Microctonus aethiopoides Loan (Hymenoptera: Braconidae) was introduced into New Zealand in 1982 for biological control of *Sitona discoideus* Gyllenhal in lucerne. Parasitism of *Rhinocyllus conicus* Froelich (Coleoptera: Curculionidae) by *M. aethiopoides* was first recorded in 1994. By 1997 parasitised *R. conicus* had been detected in seven lucerne stands, with up to 16% of weevils parasitised. This study investigated if parasitism of *R. conicus* by *M. aethiopoides* occurred only within lucerne. In December 1998 adult *R. conicus* were collected from nodding thistles in lucerne stands and in pasture at eight sites, in the Hakataramea and Waitaki Valleys, South Canterbury, and in the Strath Taieri, Otago and held in cages for four weeks. Parasitoids emerged from weevils from seven lucerne stands (range 0-12% (mean 4.4, SEM 1.44)) and seven pastures (0-29% (mean 6.5, SEM 3.3)). The difference between habitats was not significant (SED 3.98). There was no relationship between *R. conicus* density and the proportion of weevils parasitised within either habitat and neither was the proportion of weevils parasitised in a habitat related to the proportion parasitised in the other habitat. Parasitism of *R. conicus* by *M. aethiopoides* appears to be more common than previously thought but the significance of this parasitism within both lucerne and pasture is still to be determined.

WISEANA SPECIES FLIGHT PATTERNS IN OTAGO AND SOUTHLAND

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The larvae of *Wiseana* spp. (Lepidoptera: Hepialidae), commonly called “porina”, are one of New Zealand’s most severe pasture pests. The species are difficult to differentiate and frequently occur in mixed populations. This poses problems in determining the significance of each species. A revision of the family in 1994 has meant that data derived from earlier investigations cannot be used reliably. Porina achieves its greatest significance as a pest in Otago and Southland where species complexity is also greatest. Light trapping of moths in 1997-98 and 1998-99 was carried out to quantify the relative importance of different species in improved pasture. *Wiseana copularis* and *W. cervinata* predominated. Both these species began flying in October but whereas peak *W. cervinata* flights occurred in November-December, the main *W. copularis* flights occurred in January. During spring-early summer numbers of each species were similar but overall *W. copularis* comprised 75-100% of the moths caught. Historical data collected at Invermay usually conformed to the patterns observed in this study, where flights were dominated by *W. copularis*. However, in some years the patterns more closely resembled those that would occur if *W. cervinata* dominated, indicating that to optimise management, factors affecting species composition must be considered.