

## What bugs are knocking on New Zealand's doors? An analysis of ten years of border interception data

Qing Hai Fan \*<sup>1</sup>, Sherly George <sup>1</sup>, Thérèse Oliver <sup>1</sup>

<sup>1</sup> Plant Health & Environment Laboratory, Ministry of Agriculture and Forestry, PO Box 2095, Auckland 1

Thousands of organisms are intercepted at New Zealand's borders every year. To have a full picture of these interceptions we analysed MAF's Laboratory Information Management System (LIMS) databases from 1 Jan 2001 through 31 Dec 2011. Of more than 36,500 organisms intercepted, 94.4% were from the following top ten taxa categories: mites (Acari, 24.9%), insects (Hemiptera, 21.1%; Diptera 16.0%; Coleoptera, 7.4%; Hymenoptera, 6.8%; Lepidoptera, 6.5%; Thysanoptera, 4.6%; and Neuroptera, 1.4%), spiders (Araneae, 3.9%) and snails and slugs (Gastropoda, 1.8 %). They were found mainly (in decreasing order) on taro (*Colocasia esculenta*), banana (*Musa spp.*), orange (*Citrus sinensis*), rockmelon (*Cucumis melo*), lime (*Citrus aurantiifolia* & *latifolia*), yam (*Dioscorea atata*), pineapple (*Ananas comosus*), ginger (*Zingiber officinale*), capsicum (*Capsicum annuum*) and asparagus (*Asparagus officinalis*) imported from Australia, Fiji, USA, Phillipines, Ecuador, Tonga, Samoa, Japan, Chile and Canada. The relationship between the ten taxa categories, their origins and hosts was consistent with a few minor variations between years. This analysis may provide insight into the prediction of interceptions for border quarantine management.

