

The Great White Butterfly Incursion Response: Progress on eradication of a new threat to many endemic and commercial Brassicas.

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The Great White Butterfly (*Pieris brassicae*) (GWB) was first found in Nelson on 14 May 2010 as caterpillars feeding on nasturtium. GWB is classified as an Unwanted Organism under the HSNO Act. Publicity from Ministry of Primary Industries (MPI), generated further records from within Nelson City but not beyond. By the end of 2011 GWB had been confirmed at 39 sites, all within 6 km of the Port but mostly within 2 km. The species was therefore considered established. Overseas records show that GWB caterpillars feed on a broad range of species but mostly within the cosmopolitan family Brassicaceae (cresses). As well as brassica species grown commercially as crops, including forage crops, there are 79 species of native cresses in New Zealand, 92% of which are endemic and 71% are classified as "Threatened" or "At Risk" with 18 species being "Nationally Critical". Many of our endemics are known hosts for the small white butterfly (*Pieris rapae*) and overseas records show an overlap in the host range between the two butterfly species. The arrival of the GWB represents a significant additional threat to many endemic cresses. MPI initiated an incursion response and considered three options, eradication, monitoring and do nothing. Overseas GWB is known to have migratory abilities and it was thought that the new population would expand rapidly into surrounding districts. The monitoring option was chosen involving mostly passive surveillance to assess the size and rate of spread of the GWB population with spot treatment of known sites. However, by spring 2012 the population was still within Nelson City. In November 2012 the MPI response transitioned into a joint agency eradication programme led by DOC with support from Vegetables New Zealand, MPI and Tasman District Council. The presentation will describe the eradication programme and the results from the 2012-2013 season.

