

APP203875 German and Common wasps BCA Submissions

30 November 2020

127659 Clinton Care
127660 Member of Public 01
127661 Peter King
127662 Rod Hitchmough, Department of Conservation
127663 Member of Public 02
127664 Linde Rose
127665 Andrew Blick
127666 Shane Hona, Bay of Plenty Regional Council
127667 Bryce Buckland
127668 Jono Underwood, Marlborough District Council
127669 Kane McElrea, Northland Regional Council - Whangarei
127670 Member of Public 03
127671 Davor Bejakovich, Greater Wellington Regional Council
127672 Margaret Hicks
127673 Jenny Dymock, Northland Regional Council - Whangarei
127674 Member of Public 04
127675 Roger Frost
127676 Ricki Leahy, Trees and Bees Ltd
127677 Barry Wards, Ministry for Primary Industries
127678 Member of Public 05
127679 Jan O'Boyle
127680 Sue Carter, Apiculture New Zealand Science and Research Focus Group
127681 Andrea Dorn
127684 David Hunter, Excell Biosecurity
127686 Jacqui Knight, The Moths and Butterflies of New Zealand Trust
127688 Derek Craig, Oak and Thistle Ltd

We would like to thank everyone for taking time to make their submissions. For the submissions listed above, the applicant wishes to make no further comments.

127682 Benita Wakefield, Te Rūnanga o Ngāi Tahu

“Introducing a new exotic organism as a biocontrol is a long-term strategy which will require sufficient time to become established. There needs to be closer monitoring in the establishment of these bio-control organisms to ensure there is minimal disruption to indigenous fauna and flora. We understand that the high level of specificity between a parasitoid and its host is unlikely to attack other species. However, this method has yet to be tested sufficiently within the natural environment and there is uncertainty around the long-term effects on fauna and flora.”

“We recommend that this application be accepted, subject to long term monitoring.”

Long term monitoring has historically been very difficult to fund. This is because of many reasons, but chief among them is the very short funding cycle of government grants (2-3 years) as well as a drive to prioritize funding ‘new’ technologies. These comments highlight that there is a strong desire for monitoring introduced species for much longer than the life of a single grant. If approval for

release is given by EPA, we intend to develop a tool within the free app, iNaturalist NZ – Mātaki Taiao, to document observations by the public (citizen science) of the adult forms of the beetles and hoverflies. This monitoring tool will track establishment and range expansion through New Zealand. As mentioned in Section 7 of the application, even without further funding we will return to at least some release sites to survey wasp nests as well as bumblebee nests as possible. Beekeepers near release sites will be informed of releases and will be asked to monitor their hives for any the presence of either agent.

127683 Emma Edney-Browne, Auckland Council

“There is an increasing social and political appetite to implement long-term monitoring...”

“In addition to monitoring the population of the proposed biocontrol agents, the impacts on the host, and the presence of agents in neighbouring honeybee hives...”

Please see the above response to Te Rūnanga o Ngāi Tahu about monitoring.

127685 Member of Public 06

“A greater focus on monitoring the outcome of the release of the biocontrol agents. The application noted that juvenile life stages will likely be difficult to monitor, but as both proposed agents have an adult stage capable of flight, this presents an opportunity for flight intercept traps to be employed. Furthermore, informed citizen science such as a portal for conservation managers to report sightings would assist in tracking the rate of spread of released biocontrol agents.”

*“Generally, an increased and planned focus on post-release monitoring of the biocontrol agents and their impacts would be beneficial not only for Aotearoa, but global conservation efforts... Any information learned from the management of *Vespula* spp. in Aotearoa which is relevant in other contexts should ideally be shared, to benefit global conservation efforts. This could be achieved by a manner of cost-effective methods, such as by encouraging conservation groups to report findings, or supporting a research student to monitor the agents post-release.”*

Yes, we agree that monitoring the adults via citizen science has great potential. We are working on developing a tool to monitor the establishment and range expansion. Please see the above response to Te Rūnanga o Ngāi Tahu about monitoring.

*“ While there was a detailed focus on the potential impacts of the juvenile stages of each proposed agent (as these are the stages which interact with *Vespula* spp.), there was little information regarding the adult stages of the two species. While the applicants may have sufficient information available to be confident that the adult stages will not have a negative impact in Aotearoa, this could be more strongly addressed in the application or subsequent communications.”*

A lot of the information on the behaviour of adult stages of the two agents is in the Risks, Costs & Benefits section of the application (section 5). *Volucella inanis* adults can live for several weeks to months and both sexes require nectar and pollen for the energy and nutrition to reproduce. *Metoecus paradoxus* adults live for around two weeks and do not feed. The numbers of adult *V. inanis* and *M. paradoxus* are unlikely to be large and will not outcompete existing flower visitors.

Likewise, they are unlikely to be sufficiently abundant to substantively change predator prey relationships e.g. as prey for spiders.

"I am not aware of the breadth of pathogen screening which occurs before organisms are imported to Aotearoa. It is important to ensure that the pre-importation screening for pathogens includes screening for any organisms which may impact native plant species, as other insects are known to be vectors not only for vertebrate pathogens which are often a focus, but also plant pathogens such as Dutch Elm Disease."

Releases from containment are regulated by Ministry for Primary Industries. In order to gain approval for release of any consignment, confirmation of the organisms' identity must be made, as well as a proportion of the organisms must be found to be disease and parasite free.

127687 Clifford Mason

"The effects upon target organisms, trophic webs and many other ecosystem components or properties are difficult to judge."

Yes, we agree that these are difficult to judge. However, due to their host specificity we find it unlikely that these two biocontrol agents will have an adverse effect on native fauna food webs. Quite the opposite, we expect the agents to benefit the function of the native ecosystem.

"The ability of the proposed agents to reduce the abundance of the pest organisms to a degree that is ecologically and economically significant is unproven."

Yes, we agree that this is unproven. If approved, this will be the first time that either of these two species will be released as biological control agents anywhere that invasive *Vespula* spp. wasps occur. It is difficult to predict efficacy for individual biocontrol agents prior to release if they have not been used elsewhere. However, successful biocontrol agents are proven to have significant ecological and economic benefits.