



# Biosecurity Bonanza

The following questions were asked during our live sessions for Biosecurity Bonanza but due to time restrictions, we were unable to answer these in the session.

## **WALLABY ILLEGAL RELEASES – DO THEY STAY PUT AND WHY DO PEOPLE RELEASE THEM?**

**Did your survey ask questions about enforcement of the law? The NZ Forest Service actively pursued illegal releases of deer and goats and entered private land without owner consent to eliminate those animals. These staff transitioned into DOC and they continued this strong response until the first restructuring in 1989. After that the response became snarled up with efforts to have landowner consent. So staff gave up on attempting to respond to releases. Since then there has been little effective implementation of the Wild Animal Control Act.**

No, we did not ask questions about enforcement as our focus was on understanding why people might illegally release wallabies.

**Why did you shoot them at the end of the trial if they're sterile and we have contaminate areas as an option for them to live?**

The councils requested we shoot them because if we didn't, they could get public reports of sightings that they then would have to respond to. We didn't want to make more work for councils.

**Does the strategy of eradicating outlying populations first, align with best practise in pest eradication which NZ is a world leader in?**

I agree NZ is a world leader in pest eradication from Islands and doing effective sustained control on the mainland (e.g. bovine TB programme). I do not believe we are good at eradication on the mainland (except behind predator-proof fences). For wallabies, which are not ubiquitous like possums and rats, it makes some sense to start from the outside and move in rather than start at the centre and move out, or try and remove them everywhere. Additionally, by trying to eliminate wallabies outside the containment boundaries (where they are at low densities) enables you to test your detection and control methods for getting the last few percent (it is these individuals that are the most challenging). Hope this has answered your question.

## **AN OVERALL COST BENEFIT ANALYSIS FOR WEED BIOCONTROL IN NEW ZEALAND**

### **In looking at the biocontrol agents for Ragwort, is there potential for the same control agents to target Madagascan Ragwort?**

Unfortunately not. The effective biocontrol agent (ragwort flea beetle) for European ragwort (*Senecio jacobaea*) is highly host specific. This was essential as NZ has so many endemic *Senecio* spp. A biocontrol programme for Madagascan ragwort would have to be a whole new project, although I think there is interest in other countries where the plant is a problem (I say "plant" but it's actually a species complex - all from southern Africa). These species are probably quite good prospects for classical biological control. However, it might be best to wait and see what happens with overseas biocontrol programmes (unless it's a really pressing problem in NZ)!? 'Borrowing' biocontrol programmes is much cheaper than starting brand new ones!

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## **DON'T BE SHY – UNDERSTANDING AND TARGETING THE SURVIVORS OF PEST CONTROL**

### **Do we have an indication of how the terrain impacts these perceived animals are inhabiting?**

Terrain will impact the likelihood an animal encounters a device and difficult terrain makes replenishing lures problematic. Our aim would be to get lures (scent or sound) that attract from greater distances to improve encounter and interaction rates for devices.

### **What was her interaction with humans previously? What was the tikanga involved around setting of the trap - gloves used etc??**

We didn't use gloves as we wanted to replicate stand practice. Kim King previously tested whether stoats reduce interactions with human scent, and they did not. It's likely that unnatural scents on humans (soap, cigarette smoke, oils) are more the problem than the human scent.

### **Any studies on groups of predators together c/f just individuals?**

No. We were focused on an individual level in captive trials. Field trials will target groups of animals, but our research really focused on the individual level.

### **Is there any work going into developing the odour you used for commercial production?**

Yes. We have created a synthetic copy in of the stoat lure that we are testing on secretary with the natural ferret odour. Results so far suggest natural and synthetic both improve captures, roughly doubling stoat captures. Our partners Orillian will likely commercialise the lures in the coming year.

### **As individuals were most wary of bait boxes and least of DOC200s, do you think there would be higher success in a bait box design which allowed visibility on either end?**

Good question. Studies, including ours, have shown that pests are reluctant to put their head into an enclosed area. Open architecture, such as a box trap open at both ends or a cage trap, increase interaction rates. If a bait station could be designed with more open architecture (walk through) that is likely to increase bait uptake.

## **TRAPSIM-PLUS – A SIMPLE TO USE PLANNING TOOL FOR CONTROL OF INVASIVE MAMMALS**

### **Rather than adding the devices together in a scenario, can it be used to compare each device to help choose what trap type to buy?**

Yes, you can do this by creating a scenario with one device type and saving. Then, you can use the “clone scenario” button to copy the first scenario and select a different device instead. Then you can compare the two (or three, etc.) scenarios in the results at the same time.

### **Such an amazing program, well done! What features are you planning on adding, particularly for allowing teams to add in their own data (referenced above as well)**

I think we referenced this a bit, but it will be dependent on feedback & funding, so hard to say at this point what we'll be able to add. But we'll take this recommendation on board!

### **Is the system running top and satellite maps that are reasonably modern...?, would this be a limitation in areas where the habitat is dramatically changing?**

The mapping is relatively up-to-date. However, it's important to keep in mind that this is an approximation tool, so if something is a little out of date on the maps, the simulations will still provide a reasonable estimate.

### **This is probably a 'Just go have a play' question, but can you do a mix of methodologies? (I've never yet managed to eradicate a site using just one tool / methodology.)**

You can add in multiple devices, including both traps and bait stations.

### **It seemed like you still had to know the types of traps to use, to be able to select them in the tool (as shown in demo.) - so that information needs to come from somewhere else?**

The intention to allow you to play around with different traps & bait stations to see which might be the most appropriate for your work. Andrew knows a lot about the different devices, so was able to provide more knowledge about them during our presentation.

### **Interested to understand how we can test the model in house with our own data, keen to get in touch about that.**

Please contact the **WEM team** at [TrapSimPlus@landcareresearch.co.nz](mailto:TrapSimPlus@landcareresearch.co.nz).