

MIRO and the OSPRI Bovine TB Campaign

Background

OSPRI want to eradicate Bovine TB in the lower North Island. To achieve this, they need to keep the possum population at very low levels for a long time, say 5-8 years. MIRO has been trapping possums in our park for nearly 20 years and has, for 14 years, kept the possums at levels sufficient for good recovery of the forest (423 possums killed in the last year). These levels, however, are a little above those required for the eradication of Bovine TB. To get the levels lower, OSPRI plan to use aerial 1080 in remoter areas of the park and ground-based control near the urban areas.

How will 1080 affect pest animals in the park?

Possums are the main pest affecting our forest, while stoats and rats are the principal predators of our native birds. It is quite well-established that 1080 will knock down the possum population to low levels for 2–3 years. Similarly, 1080 usually significantly reduces the rat population, but the rats come back much more quickly than possums because of their potentially very high breeding rate (dependent on food supply) and reinvasion from surrounding untreated areas (such as the urban environment and untreated parts of the forest). While both of these factors are important, it is the food supply that is critical so, if we have a season when our beech trees produce copious amounts of seed (a 'beech mast'), the rat population may recover in 3-6 months. Unfortunately, a beech mast is forecast for the coming season, so the rat population is likely to increase back to high levels, then finally crash when the food supply runs out (as we have seen after earlier mast years).

Stoats will also get killed by 1080 through eating poisoned rats and mice. As the rat population recovers, the stoat population generally follows a similar trend (but with a time delay) because rats are a principal source of food for stoats. The time when the rat population crashes is a dangerous one for our birds, as the stoats will be more dependent on birds' eggs and chicks for survival.

How will the 1080 drop affect MIRO's trapping operation?

MIRO currently operates a network of 400 possum traps throughout the Northern Forest of East Harbour Regional Park. While only a third of these traps lie in the 1080 drop zone, we expect an overall decrease in possum catch everywhere because of reduced invasion from surrounding areas. MIRO also operates 60 stoat traps in a Mainland Island in the Northern Forest, extending roughly from Days Bay to Kowhai Street and as far east as Gollans Stream. The Mainland Island is an area of intense rat control by GWRC using bait stations to keep the rat population at low levels so that our native birds can breed there successfully. A further 100 stoat traps, along with a few possum traps are maintained at the Parangarahu Lakes.

Eventually it would be really great to extend rat and stoat control to cover the entire Northern Forest, so that the protected area is large enough for our native birds to re-establish with a healthy population size and genetic diversity. Rat control, however, be it with traps or bait stations, requires a much denser network than for possums, so the effort required is roughly ten times greater than what we currently do. Clearly this will take a long time to achieve and will require many more volunteers, but it will be helped by the development of improved trapping technology (e.g. self-resetting traps, which we are trialling) and the electronic transmission of trap status. The OSPRI

campaign, however, gives us an opportunity (through a joint effort with GWRC and OSPRI) to improve our network of possum trap lines and perhaps extend the Mainland Island more quickly than we had anticipated.

So what happens next?

In addition to the efforts mentioned above, MIRO is responding to the 1080 drop and the forecast beech mast in two other ways. First, we are encouraging local people to get involved in trapping rats on their own properties through the ERAT Project (F:@educatingresidentsaroundtrapping). ERAT, with the support of HCC, aims to have 1 in 5 households trapping so that our urban environment can no longer act as a reservoir from which the Northern Forest can be re-infested with rats. Secondly, we are working with GWRC to head off the potential stoat problem by rolling out DOC200 traps (the wooden boxes you sometimes see beside tracks) across the whole Northern Forest over the next year, so an increase from 60 to over 200 traps. We are looking to a number of local groups to help with this.

Cycles of rat and stoat population increase and decrease occur irrespective of 1080. What the aerial poisoning does is give our birds a respite from rats and stoats for up to two breeding seasons. Given that a mast year is forecast, perhaps only one season's respite will eventuate, but on the positive side, a major predator population explosion will have been avoided. In summary then, the birds will be better off for one breeding season and we may have an extended Mainland Island giving continuous protection over a larger area.