

1080 Awareness Bay of Plenty Group SUBMISSION TO MINISTRY  
FOR ENVIRONMENT  
on Draft National Policy Statement for Indigenous Biodiversity  
Dated: 14 March 2020

Prepared by Tracy Livingston

Contact [tracy@livingston.kiwi](mailto:tracy@livingston.kiwi) Ph 0272128827/075525420

Considering the importance of maintaining our indigenous biodiversity in perpetuity there are a number of factors that must be considered in this policy statement.

- 1) We believe a 'whole of government' approach needs to be taken. Ministry for the Environment, OIO, Dept of Conservation (although any environmental task should be taken out of their hands due to ongoing incompetence and possible corruption within the department as outlined recently by Les Kelly and over decades by Dr Jo Pollard), MAF, and so on, including local regional councils.
- 2) And a whole of New Zealand approach – from the mountains to the sea. As everything is connected, damage one environment and one set of species there may well be flow on effects that we haven't even studied yet.
- 3) Protecting our Indigenous biodiversity should underpin every decision made by government, because our native species is what makes New Zealand special and without them, New Zealand will feel soulless and dispossessed of one of our most precious assets. Money can never be used as an excuse to not do what we need to do to protect our species. Please contact me for further discussion on this as it is beyond the scope of this submission.
- 4) Our indigenous species are losing somewhere to live due to indigenous habitat loss. When they don't have food and somewhere to live, no matter how much 'pest control' we do, they still have nowhere to live and nothing to eat.

“From 1996 to 2012, New Zealand lost 31,000 hectares of tussock grassland, 24,000 hectares of shrubland and 16,000 hectares of forest. Another 1471 hectares of tussock grassland and 2304 hectares of forest have been lost since 2012. Even helping our birds and reptiles persist – the biodiversity most vulnerable to predators – does not require eradicating predators everywhere, only some places some of the time. But maintaining wild populations of birds and reptiles are impossible without habitat. When will conservationists and the Department of Conservation realise that it is grossly negligent to invest in Predator

Free 2050? When will they tackle the greater, more serious problem of habitat loss and deteriorating air, soil and water quality?

<https://www.stuff.co.nz/environment/120177168/conservationists-fiddle-with-predators-while-rome-burns>

Suggestions to increase indigenous biodiversity habitat:

- a) when the NZ government allows overseas buyers to buy over a certain area of land, then a rule could be a certain percentage of it must either already contain native habitats or must create new habitats, which must be maintained either by the land owner or with the support and education of local council/volunteer groups etc
- b) If endangered native species move on to private land, then the onus is on the private land owner to protect that species with support and education of local council/volunteer groups/etc.
- c) DOC must be legislated to properly protect the environment that it has been charged with the care of. See Les Kelly's book DUPED! for more information on the history of DOC's mismanagement of the conservation estate.

## 5) Discussion on 1080 and brodifacoum

It is our position that killing native species in order to 'protect' them is in direct contradiction to a sane and logical biodiversity strategy. To protect our native species - of all types - birds, insects, invertebrates, plants etc - wholesale poisoning of an entire ecosystem is madness. Given that trees communicate with each other through networks of soil fungi do we understand how 1080 poison and brodifacoum poison (for example) effect the mycelium and the wood wide web? I think not.

[http://www.bbc.com/earth/story/20141111-plants-have-a-hidden-internet?fbclid=IwAR1s76BqsKosZIMkxFcdsb-i8A\\_uxF7pP\\_D942uypdBhM-svfKqbysqtjY](http://www.bbc.com/earth/story/20141111-plants-have-a-hidden-internet?fbclid=IwAR1s76BqsKosZIMkxFcdsb-i8A_uxF7pP_D942uypdBhM-svfKqbysqtjY)

Tree health depends on the biota and plant communities with high species diversity are more stable and productive, which is another reason to not poison our forests

[https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/10-0773.1?fbclid=IwAR1ljwzvcK1-yHnNYNFaA84hA2bYvj2Apau5Nbh3254ek3rDh2vd\\_jNCqes](https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/10-0773.1?fbclid=IwAR1ljwzvcK1-yHnNYNFaA84hA2bYvj2Apau5Nbh3254ek3rDh2vd_jNCqes)

Bearing in mind that we have very little research on how poisons, particularly ones that breakdown to more toxic compounds, dropped into the forest effect earthworms, particularly native worms, "shoot biomass of plants significantly increased in the presence of earthworms" and "earthworms modify plant growth and vegetation structure" and "affect plant competition" is it wise to poison them

when they have such powerful effects on our plants?  
<https://www.sciencedirect.com/science/article/abs/pii/S0031405604702796?fbclid=IwAR1dRf1cgGxUFHW4r-77NfYLjTEp0qb2VWJ4UXDLz16l6Me8toRV-TBohjs>

In the main, species extinction has not been due to predation but to over-hunting and habitat destruction. Humans killed most of our kea population for example with hunting and poisoning, to the brink of extinction.

1080, and to a lesser extent, brodifacoum poison has had a terrible effect on our native species - primary/ secondary/tertiary poisoning has killed anywhere between 10% and 100% of a native species population.

There is very little data on the ecological effects after a 1080 poison operation because, "there is no need to" according to an OIA request put to DOC as the question

"What are the plans for post-1080 drop ecological tests - insect numbers, soil biome, 1080 uptake into plant life - that sort of thing?"

The Department does not carry out these types of tests as a matter of course, and no such testing is planned for the Dart, Routeburn, Caples operation. This is because 1080 does not bioaccumulate in soil and presents little risk to the surrounding environment."

<https://fyi.org.nz/request/10898/response/40236/attach/3/19%20E%200529%20department%20OIA%20Livingston%20response%20DOC%206081185.pdf>

This smacks of non-knowledge, don't know/don't want to know - which means, we really don't have answers to the most basic questions of how aerial broadcasting a lethal poison affects all parts of that ngahere. If we're looking at biodiversity we can't just look at the big things we are aware of, we need to look at and protect 1) the little things we can't see and 2) the things we don't even know exist yet. Since 1080 was first patented as an insecticide, the question "If we kill all the insects, then what will feed the birds?" needs to be answered.

Dr Jo Pollard clearly highlights in her article in <https://1080science.co.nz/is-doc-looking-after-our-insects/> that DoC doesn't just ignore the data on 1080 effects on insects, it goes out of its way to cover it up. "Retired medical professionals Drs Pat and Quinn Whiting-O'Keefe, in their submission to the ERMA reassessment panel, made a thorough job of bringing all of DoC's so-called "research" on invertebrates to its knees (demonstrating extreme biases and appalling experimental designs) and describing the unscrupulous cover-up of scientist Mike Meads' work that indicated 1080 had devastating effects on invertebrates. The Whiting-O'Keefes stated "*Instead of doing the unequivocal research that is its legal mandate to protect our native species requires, DoC has*

*attempted to suppress serious and strong indications that it is damaging the very ecosystem that it is paid to protect.””*

The loss of our apex predators from 1080 and brodifacoum poisoning ensures that rats and mice will reproduce rapidly with no predator control. Rats need constant predation – a 1080 poison operation once every three years just sets them up to reproduce more (rats will naturally increase reproduction if their numbers are lowered for whatever reason) when what we actually need is a natural predator or something like a GoodNature trapping system that is working all night/every night. The increased rodent population puts further pressure on both birds and insects and food competition. The 1080 aerial poisoning actually makes the problem worse, not better.

Morepork (Ruru) populations are badly affected by 1080 poison and brodifacoum due to secondary poisoning. They live to 80 years old, are poor reproducers and bad parents, so their populations may never recover from poison operations. One case is the Hollyford poison operation where the owner at Gunns Camp reported that he lost all the Ruru that had lived at the camp for years. How is 1080 “increasing” biodiversity and protecting our bird life when this is a common experience?

An important resource to uncover biodiversity damage by these two poisons is the Poison Register you can find here, documenting some, but certainly not all, animal deaths following aerial poison dumps.

[https://docs.google.com/document/d/18c9NXa4NsZp5bzEm4WM8aP\\_Us41DjXXMuxkHHcqap3U/edit](https://docs.google.com/document/d/18c9NXa4NsZp5bzEm4WM8aP_Us41DjXXMuxkHHcqap3U/edit)

There are hundreds of peoples experiences that shows the value of trapping for possum for use in the fur trade (and protecting other countries furry creatures) and pet food without bykill. This protects our indigenous biodiversity and should be supported by government regulations instead of poison use. The GoodNature resetting/self-luring traps for rats, mice and stoats are humane, proven effective and have kea proof protection cages when required.

One sensible possibility for increasing biodiversity may, paradoxically, be to introduce owls as predators to replace our extinct owls, that would predate on rat and mice populations. These owls may be domesticated enough to require human care when rat and mice numbers got too low to maintain themselves. It appears that barn owls may already have naturalised themselves in New Zealand. We need to ensure imported owls are purely rodent, not bird, eating owls.

- 6) Organic regenerative agriculture will have the best practise for farming and orcharding for biodiversity – by reducing pesticide use, it encourages native and non-native species to interact to find a balance on a productive farm. There are numerous examples of how farmers find a solution to a difficult farming problem, by taking time and working out how they can use nature to solve the problem. If

New Zealand solved its biodiversity problem by supporting farmers and orchardist to use organic regenerative agriculture/horticulture we could increase native species on our farm land.

A simple first hand example I can give is that piwakawaka happily live in avocado orchards eating the insects found there, providing a free service, but the trees are sprayed regularly with insecticide and so now there are no birds in the orchard providing insect destruction services (so we have to spray more!).

Chemical insecticides kill up to 17,000 potentially beneficial species to kill one target 'bug' - we don't even know what we are killing when we spray agrichemical insecticides, all we know is that we are killing the pest species. This needs to end before we destroy the machinery of nature.

"One of the biggest impacts of insect loss is on the many birds, reptiles, amphibians and fish that eat insects. "If this food source is taken away, all these animals starve to death," he said. Such cascading effects have already been seen in Puerto Rico, where a recent study revealed a 98% fall in ground insects over 35 years."

<https://www.theguardian.com/environment/2019/feb/10/plummeting-insect-numbers-threaten-collapse-of-nature>

New Zealand should support organic regenerative horticulture/agriculture and silviculture to improve soil health, water quality, natural biodiversity, and provide safe jobs that don't cause health problems for workers and those living close by and we get higher returns for quality safe produce. There needs to be recognition that it costs more time and effort to farm in this way, so government should be financially supporting farmers who are showing excellence in protecting land, water, soil and biodiversity and helping them share their expertise both in workshop situations and creating a living document that puts all the best practice intellectual resources and strategies together for all farmers to access.

This, of course, is going to be a problem for the Agrichemical industry who will be really annoyed, especially after all that money they gave to the political parties to make sure their lobbyists get heard in the halls of power. But you need to ask, what is more important? The wellbeing of our country for hundreds of years to come, or profit driven poison chemically produced food? I guess we'll find out when your final paper comes out.

- 7) The Sea. We need to be doing all we can to protect our sea water environment. We need more marine reserves, NO foreign-owned fishing fleets in our waters, reduced quotas, better fishing practise

that causes no bykill (or all fish caught is used sensibly) and no damage to the sea bottom. We need increased protection for marine mammals. No more seismic surveys causing marine animal deaths. The ocean around New Zealand is NOT a never ending resource to be plundered for a few bucks a kilo for fish.

Before I finish I'd like to raise a couple of issues that need urgent government attention in relation to indigenous biodiversity:

- 1)** Pampas Grass – this is invading our country and taking over vast tracts of land. The genie is out of the bottle but there is still a chance to control it now. It releases 1 million seed heads/plant/year. It will take over any area – hill side, marshlands, verges – and prevent other things from growing, form habitats for rats and mice, create a fire hazard, and push out our native plant species. MFE needs to make Pampas grass one of its priorities for eradication. There needs to be a nation wide campaign to get rid of pampas grass, starting with educating people to get rid of it off their properties and enforcing it, NZTA getting rid of it by the side of the road and alongside railways, forestry, and councils getting rid of it out of wetlands and parks, reserves, conservation land etc. <https://www.waikatoregion.govt.nz/services/regional-services/plant-and-animal-pests/plant-pests/pampas/>
- 2)** German wasps: Taking over vast tracks of native forest, killing native birds, competing for food from native insects and if there are no insects for the birds to eat, there will be no birds either. And is there an end to them? Do they just reproduce and take over valley after valley until the whole of New Zealand is full of wasps and nothing else?

“The million hectares of honeydew beech forest in the northern half of the South Island are home to the world’s highest-known density of wasps, both common and German. And they are extremely voracious hunters and gatherers. They will eat 1.5-8kg of bugs per hectare of forest each year – about the same as the insect-eating birds, including the tiny rifleman, fantail, whitehead and the threatened yellowhead.

Wasps love sugar, too. And these forests are filled with native scale insects – sometimes more than 1500 of them per 1sq m of tree bark – that produce an abundance of sweet, sticky honeydew, a protein source for native fungi, microbes, insects and birds. But here, too, wasps want it all.

“We know that the No 1 threat to birds is introduced mammals,” Lester says. “But we also know, even from anecdotal evidence of people down in places like the Nelson Lakes region, that our native birds are hungry.

With wasps taking 99% of available honeydew in the beech forests and also consuming as much biomass as all of the resident native birds, it seems almost certain, Lester says, they have contributed to the population decline of a range of birds in these forests. You only have to stand and listen to know it’s true, he says.

“You go down in those forests and walk a track at this time of year and you don’t hear the birds; you hear the drone of wasps. Those forests are wasp factories.””

<https://www.noted.co.nz/planet/planet-planet/wasps-the-2-billion-threat-to-nzs-birds-and-bees>

I don’t personally agree with the author of this paper re gene drive technology to fix the wasp problem. I think biological control is probably the only way – Slater Spiders attack and eat wasps - perhaps we need to look at that as a means of wasp control, as well as species specific poison (Vespex), and some kind of tracking mechanism. It’s actually both dreary and terrifying walking through a forest filled with wasps and you are two days hike from civilisation. Dreary because that is all you see and hear for hours on end, and terrifying that if you stand in a wasp nest you can’t get help if you react to the stings and best case scenario is that you have a painful walk out. German wasp eradication at least in certain areas needs to be made a priority.

Needless to say, we could go on, but this highlights the main points. We would like to show our support for the submission from The NZ Outdoors Party and agree with their points as well. 1080 Awareness Bay of Plenty Group welcomes any questions the committee may have. Please contact Tracy Livingston for further discussion.

Nga mihi nui, Tracy Livingston, B.Applied Sc(Osteopathy)