In this issue

In late May, the New Zealand Environmental Protection Authority (EPA) called for information on the use of the weed killer glyphosate in New Zealand[1]. This request for information was the first step in deciding whether to change the rules around its use. Currently its use is regarded as safe, as long the instructions on the labels of products containing glyphosate are followed.

EPA's position on glyphosate is similar to that in Australia, Canada, the US and the EU. It is used in weed killers, such as Roundup®, by gardeners, farmers and councils.

In his article, *Is it time to round up Roundup®? The changing science of glyphosate,* Ian Shaw, Professor of Toxicology at the University of Canterbury, provides a comprehensive review of the product. Ian's paper covers its impacts on human health, livestock, and ecosystems. This is must-read paper and one that EPA must take note of.

Brian Gill's article, *Science and managerialism in New Zealand* might be regarded by some as 'old wine in new bottles'. But given the current manoeuvering in relation to science faculty staff at Massey University and the apparent government indifference to doctoral student stipends and post PhD career development, Brian's paper is a timely reminder of the neo-liberal economic theories that have underpinned much of the institutional change that has gone on in New Zealand since the 1980s.

Brian, a former Curator of Land Vertebrates at the Auckland War Memorial Museum, succinctly reminds us of the disruption to New Zealand science caused by the managerial manifestation of these theories, in this case – Museum Science. And while Brian is hopeful that the current COVID-related body-blow to international economies will be the tipping-point that forces reform and ushers in a simpler and more productive administrative environment for science. He does say, however, '[b]ut don't bet on it'.

Further to Brian Gill's comment on the body blow to country economies caused by the current pandemic, Kristiann Allen's item, *Lessons learned from Covid-19 for the Science–Policy–Society Interface* explores what has been learned during the COVID-19 pandemic.

In October last year the New Zealand Law Commission submitted their report NZLC R144 – *The Use of DNA in Criminal Investigations Te Whakamahi i te Ira Tangata i ngā Mātai Taihara* to the Hon Andrew Little, Minister Responsible for the Law Commission.

The Commission noted that New Zealand was the second country to create a legislative regime for DNA sample collection and profiling for criminal justice purposes. The Criminal Investigations (Bodily Samples) Act 1995 (CIBS (1995)) focuses on the use of a DNA profile to identify an individual offender – either by offering an investigative lead in relation to unsolved criminal offending or by providing evidence in the prosecution of an offence. For that reason, a DNA profile has sometimes been referred to as the 'modern fingerprint' in terms of the function it performs in the criminal justice context. But while fingerprints are literally unique, DNA by its very nature is shared with ancestors, siblings and children, and the science has now surpassed that concept of individual identification that underpinned the legislation.

In his paper, *A critical review of the New Zealand Law Commission Report 144: The Use of DNA in Criminal Investigations,* Geoff Chambers has selected a number of topics raised in the 579-page report and explores the report's recommendations and emergent issues with use of DNA in criminal investigations.

He concludes that the report represents the cumulation of a lot of hard work and detailed thinking and is to be commended for recognising the deficiencies in CIBS (1995) and calling for reform.

Equally, it performs very well in sticking to its central agenda by focussing on Human Rights issues and insisting on greater recognition of Māori cultural values and requiring greater Māori participation in redrafting legislation and involvement in the management of DNA Profiling.

Geoff notes that on 24 May 2021 the Minister of Justice responded on behalf of the New Zealand Government. The Minister's response notes the valuable work done by the Law Commission and has accepted that the CIBS Act (1995) 'should be repealed and replaced with a new, comprehensive and modern Act'. The Government also agrees that governance and oversight of the DNA regime would be strengthened by setting up an independent oversight body, but holds that it would be prudent to delay decisions on the structure and responsibilities of such a body until later in the drafting process. It is also clear that this will be a major legislative exercise requiring multi-agency input and active Māori involvement.

In *Forensics and ship logs solve a 200-year mystery about where the first kiwi specimen was collected,*

Paul Scofield and Vanesa De Pietri indicate that their research using digitised ship logs and modern forensic techniques shows there is little doubt the first bird seen by European scientists came from Rakiura/Stewart Island. This discovery could have repercussions for kiwi conservation and Paul and Vanessa are working in consultation with Ngāi Tahu, the Māori guardians of this area, to develop a scientific framework to describe the genetic diversity of the South Island brown kiwi and its conservation.

In addition to the articles carried in this issue of the *Review* we report on the World Health Organization's Independent Panel for Pandemic Preparedness & Response's review of the international health response to COVID-19. The Panel, which was chaired the Rt Hon. Helen Clark, former Prime Minister of New Zealand, and Her Excellency Ellen Johnson Sirleaf, former President of Liberia, found that the system as it stands now is unfit to prevent the emergence of another novel and highly infectious pathogen, which could lead to a further pandemic and demonstrated that the current system – at both national and international levels – was not adequate to protect people from COVID-19.

The Panel makes two sets of recommendations. The first includes immediate actions aimed at ending the COVID-19 pandemic. The second set comprises seven actions directed at preparedness to ensure that a future outbreak does not become a pandemic.

Finally, and on a happier note, in this issue we cover and congratulate the winners of NZAS Scientists Awards for 2020 and the Prime Minister's Science Prizes for 2020.

Allen Petrey
Editor

[1]https://www.epa.govt.nz/public-consultations/open-consultations/glyphosate-call-for-information/background-to-the-call-for-information/