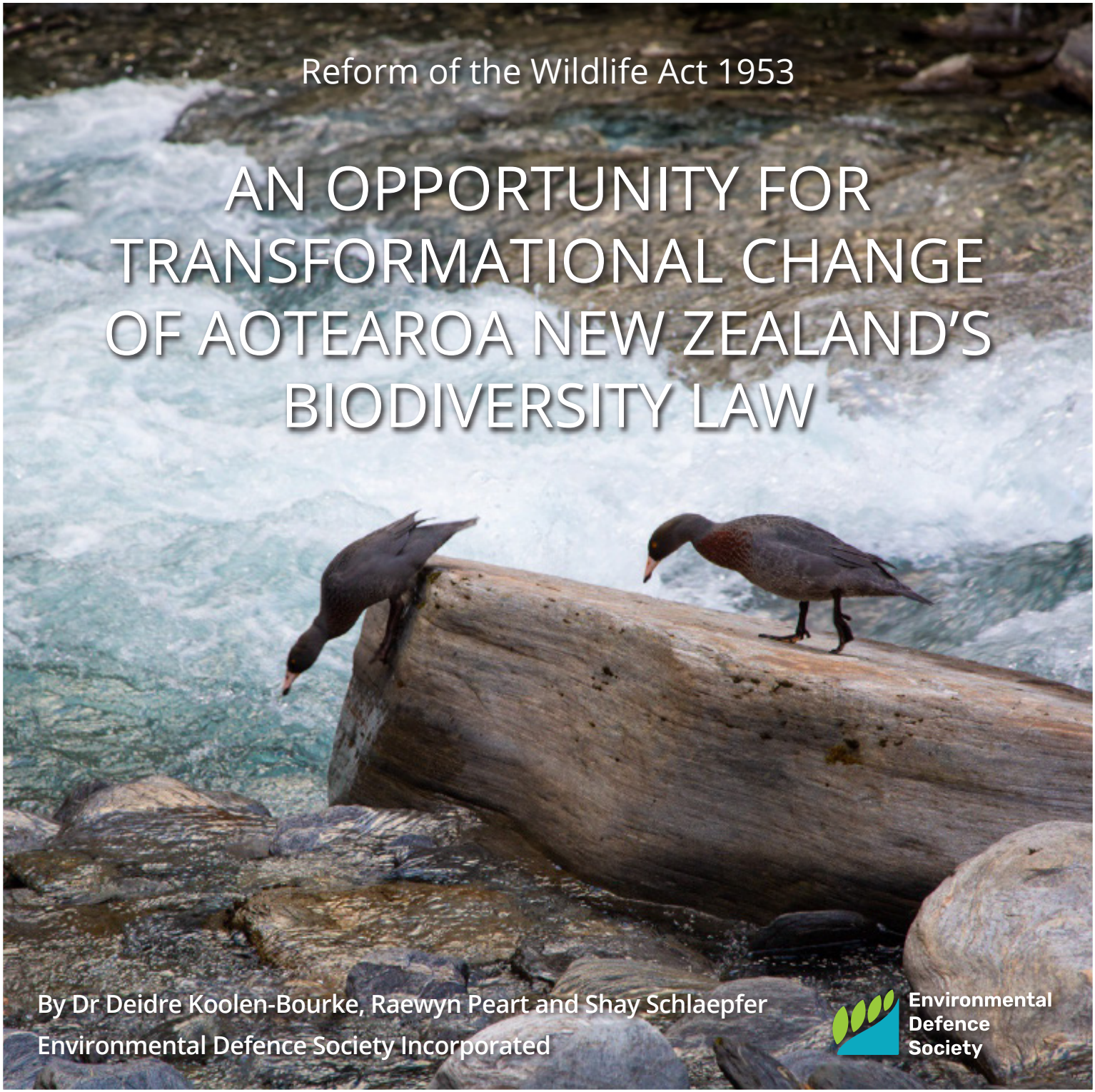

Reform of the Wildlife Act 1953

AN OPPORTUNITY FOR TRANSFORMATIONAL CHANGE OF AOTEAROA NEW ZEALAND'S BIODIVERSITY LAW

By Dr Deidre Koolen-Bourke, Raewyn Peart and Shay Schlaepfer
Environmental Defence Society Incorporated

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Abbreviations

Aotearoa	Aotearoa New Zealand
Biosecurity Act	Biosecurity Act 1993
CBD	Convention on Biological Diversity
Conservation Act	Conservation Act 1987
CSP	Conservation Services Programme
DOC	Department of Conservation
EBM	Ecosystem-based management
EDS	Environmental Defence Society Incorporated
EEZ Act	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012
EEZ	Exclusive Economic Zone
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Australia)
ESA	Endangered Species Act 1973 (U.S)
Fish and Game	New Zealand Fish and Game Council
Fisheries Act	Fisheries Act 1996
Game Animal Council Act	Game Animal Council Act 2013
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
MACA Act	Marine and Coastal Area (Takutai Moana) Act 2011
Marine Reserves Act	Marine Reserves Act 1971
MMPA	Marine Mammals Protection Act 1978
MPI	Ministry for Primary Industries
National Parks Act	National Parks Act 1980
NBEA	Natural and Built Environment Act (yet to be passed)
NBEB	Natural and Built Environment Bill (introduced to Parliament on 15 November 2022)
NPS FM	National Policy Statement for Freshwater Management 2020
NPSIB	National Policy Statement on Indigenous Biodiversity
NZCPS	New Zealand Coastal Policy Statement 2010
NZTCS	New Zealand Threat Classification System
QMS	Quota Management System
Reserves Act	Reserves Act 1977
RMA	Resource Management Act 1991
SARA	Species at Risk Act 2002 (Canada)
SNA	Significant Natural Areas
Te Mana o te Taiao	Aotearoa New Zealand Biodiversity Strategy 2020
Te Tiriti	Te Tiriti o Waitangi/Treaty of Waitangi
UK	United Kingdom
US	United States of America
WACA	Wild Animal Control Act 1977
Wildlife Act	Wildlife Act 1953
Wildlife and Countryside Act	Wildlife and Countryside Act 1981 (UK)

1 Executive summary

At Risk - Naturally Uncommon royal spoonbills in flight. Photo by Forest and Bird

In 2021, the Environmental Defence Society Incorporated (EDS) published a report on issues within the conservation system called *Conserving Nature*. That report highlighted the need for urgent reform of the Wildlife Act 1953 (Wildlife Act).

The Government has since announced its intention to modernise conservation laws, with the Wildlife Act earmarked for reform first. We agree with this approach. The Wildlife Act is a pinch-point for Māori issues relating to the conservation system and has significant potential to halt biodiversity loss and, as a result, increase resilience to climate change impacts. Without losing sight of implications for the wider system, we consider that reform of the Wildlife Act is an opportunity to re-design the conservation system 'from the inside out'.

This report is an interim working paper on the Wildlife Act and will form part of EDS's next report on the conservation system, which looks at options for reform of the broader system. It is intended to stimulate discussion and progress thinking on what new wildlife legislation might look like.

The Wildlife Act seeks to 'absolutely protect' defined wildlife. It distinguishes between different types of wildlife, and the extent of their protection and management, using schedules. Apart from two schedules, which are used to extend absolute protection to invertebrates and marine species not automatically captured under Act, the rest of the schedules deal with introduced species. The main way in which the Wildlife Act absolutely protects species is via 'no take' rules, so that use of wildlife requires a permit.

Habitat can also be protected under the Wildlife Act. Wildlife sanctuaries, refuges and management reserves are managed by the Department of Conservation (DOC) and can be on private or public land. These habitat protection mechanisms have not been extensively used, with only 20 such areas in existence. The Wildlife Act does not provide for any habitat protection based on the presence of threatened species, or for areas necessary for their survival, such as critical habitat or residence areas.

Reflecting its historical origins, the Wildlife Act also has a strong focus on the regulation of game hunting to ensure the sustainability of the game resource.

The Wildlife Act is antiquated and does not reflect modern values with respect to the protection, management, use and recovery of wildlife. There are several big issues with the law which we detail within this report and associated appendices. These are summarised in Table 1 below. Due to the significance of the issues identified, and the extent of changes we propose, we consider that the Wildlife Act needs to be repealed in its entirety, and new wildlife legislation drafted.

Reform of the Wildlife Act occurs against the backdrop of the twin crisis of biodiversity loss and climate change and conceptual advances incorporating te ao Māori in environmental laws. New wildlife legislation needs to assist with, rather than work against, addressing these two existential threats. It must also give effect to the principles of Te Tiriti o Waitangi / Treaty of Waitangi (Te Tiriti).

Issue	Description	Recommendation
The Wildlife Act has an inequitable values regime	The Wildlife Act has several inequities when it comes to the use of wildlife. Significantly, it caters for a number of commercial and recreational uses but is not designed with Māori customary use in mind.	To minimise inequities, new wildlife legislation will need to re-calibrate how it enables the use of wildlife at place across all sectors and domains - customary, social, commercial, and marine and terrestrial.
Not all wildlife is covered by the Wildlife Act	Many species, and sometimes entire taxonomic groups, are not afforded the Wildlife Act's absolute protection because they are excluded from the Act's jurisdiction through definitions, including plants, freshwater fish, and all invertebrates and marine mammals not listed in the schedules.	New wildlife legislation should be inclusive of all taxonomic groups. This would align with international best practice and the New Zealand Threat Classification System (NZTCS).
The Wildlife Act does not have any dedicated threatened species law	Except for threatened marine wildlife (which is limited to those species listed in Schedule 7A), the Wildlife Act makes no distinction between threatened species and other wildlife. Targeted threatened species management is central to preventing species extinction.	New wildlife legislation should include specific provision for threatened species, including by narrowly defining the use of such species, requiring an overall net gain when they are used, adopting the precautionary principle to threatened species decision making and by providing for their habitat protection.
The Wildlife Act does not give effect to Te Tiriti	The Wildlife Act vests ownership of wildlife in the Crown and Māori are required to get permission for customary use on a case-by-case basis. These framings have made it difficult for Māori to maintain their ancestral relationships with taonga species. Further, the Wildlife does not specifically protect taonga species or require that decision making be informed by mātauranga Māori.	A range of options could be effective in different contexts to give effect to the principles of Te Tiriti. However, it is likely that new wildlife legislation will need to provide for a shared management framework in line with the partnership principle which enables bespoke and highly placed based responses. New wildlife legislation should also include provision for the heightened protection or prioritisation of indigenous taonga species and provide for decision-making based on the best available information, including mātauranga Māori and science.

Issue	Description	Recommendation
Management of introduced species is largely left to other laws	The management of different introduced species is divided between the conservation and biosecurity systems and these two systems are not well integrated. The Biosecurity Act 1993 (Biosecurity Act) is not well framed for protection of indigenous biodiversity. Further, introduced animals have been allowed to persist, to the detriment of indigenous, and sometimes threatened, flora and fauna. The multitude of statutes and potential management models applicable to wild animals make the purposes and approach to this grouping of animals especially unclear.	New wildlife legislation might be better framed as a biosecurity / pest management regime, rather than a game management one. In this way, schedules could be applied as a mechanism to cluster groups of species according to the degree of risk or threat they pose. The management of valued introduced species should be linked to biodiversity values present so that wild animals and sports fish are not allowed to persist in priority areas of high biodiversity. To ensure that new wildlife legislation is responsive to threats, a new Act should include mechanisms to trigger management responses, including clear pathways to initiating biosecurity / pest management planning. The conservation and biosecurity systems should be integrated.
Protection of marine species is not well addressed by the Wildlife Act	The Wildlife Act was not designed with the marine environment in mind. Most marine species are managed under laws other than the Wildlife Act (if they are managed at all). Yet much of the Aotearoa New Zealand's (Aotearoa) biodiversity is found in the marine area and many of those species are threatened with extinction or are at risk of becoming threatened. Further, the Wildlife Act fails to protect habitat important to the survival of marine species and this is not compensated by other marine related laws and there are large 'carve outs' from marine species protection (where it is in place) for accidental or incidental take.	All marine species should be brought under the protective auspices of new wildlife legislation. Exemptions to marine species protection should be limited but could include all species in the Quota Management System (QMS). Non-QMS species could also be excluded from protection on a case-by-case basis when enough is known about the species, and when adequate management measures are in place, to sustainably manage harvest pressures on it. Better and more marine spatial protection is required and needs to interface with other marine species laws. New wildlife legislation needs to include a mechanism for better managing threatened bycatch marine species, including for example the creation of a threat management and recovery plan which can restrict fishing. A greater duty of care should also be imposed on fishers to not catch threatened marine species.

Issue	Description	Recommendation
The Wildlife Act has too much statutory discretion	Several significant decision-making powers under the Wildlife Act are unrestrained by statutory guidance or criteria, including the issuance of permits, the alteration of schedules and the creation of habitat protection areas.	Political decision-making under new wildlife legislation should be generally eliminated except for highly proscribed carve-outs. Instead, decisions concerning wildlife should be directed by independent scientific knowledge and mātauranga Māori.
Indigenous and threatened species are disparately managed across land tenure, domain and location	Currently, there is no universal mandate to protect and plan for indigenous or threatened species across all environments in Aotearoa. Although the Wildlife Act's 'absolute protection' applies throughout Aotearoa and across all land tenures, a species is afforded differing degrees of protection under different Acts depending on what land it inhabits, what plan it is managed under and its location throughout the country.	New wildlife legislation should cast a net over these regimes and apply a consistent protective regime to threatened and indigenous species.
Dual consenting regime	Many large developments or land uses 'trigger' the Wildlife Act and the Resource Management Act 1991 (RMA). This can necessitate a permit under the former and a resource consent under the latter. In many cases, the RMA does most of the heavy lifting which is concerning because the RMA has a sustainable management purpose and is not a species protection law.	New wildlife legislation should clarify this dual consenting regime, including for example by making resource consents contingent on first obtaining all necessary wildlife permits, and including triggers for wildlife permits in resource consent conditions.
The Wildlife Act does not include an ability to permit disturbance activities unrelated to catching alive or killing	No permit can be issued for pursuing, disturbing or molesting an animal if that activity is unconnected to catching alive or killing that animal. This means that the Director-General can permit the killing of an animal, but not lesser harm such as disturbance, even if that disturbance is required for the protection of the animal.	New wildlife legislation should rectify the mismatch between offences and what can be permitted. Unpacking the issue requires a discussion about how widely the new law should define its protections.

Issue	Description	Recommendation
Poor monitoring and enforcement	Biodiversity is poorly funded and therefore monitored in Aotearoa. However, even when it is undertaken, there are few 'triggers' in the system to require action. Further, the Wildlife Act is hard to enforce unless there is a dead body or very clear evidence of intentional harm.	New wildlife legislation should require monitoring which is linked to management responses. New wildlife legislation also needs to be enforced to ensure an even balance between 'carrot' and 'stick' in species management.

Table 1. Summary of key issues with the Wildlife Act

In our view, new wildlife legislation should apply to all taxonomic groups. We appreciate that this would be a significant shift from the current approach under the Wildlife Act, particularly in relation to plants, fish and insects. However, including all taxonomic groups would ensure that all species have an opportunity to be afforded the protective provisions of the new law, threats can be more strategically managed and wildlife protection, management and recovery can better be undertaken in an integrated manner. Further, including all taxonomic groups would provide new wildlife legislation with the flexibly to apply different management regimes to different species over time, without the need for further fundamental reform.

New wildlife law could take three different forms: it could be a threatened species law (Option 1), an indigenous species law (Option 2) or a law that applied to all wild species (indigenous and introduced) (Option 3). Overall, we favour a single new law dealing with all species (Option 3) on the basis that it could better prioritise indigenous species among other species, and best minimise potential conflict among indigenous and introduced species.

Such a broad ranging Act could include specific provision for threatened species, and apply different management responses to different categories of non-threatened species, with priority given to indigenous species over introduced species. It could also address management of introduced, highly valued and pest species 'in-house' rather than relying on other legislation to do that. Currently, those species are managed under a multitude of other laws that do not often 'speak' to one another and which have caused difficulties for indigenous species protection and management. Having said that, the interface between the Wildlife Act and introduced species (and pest management) laws is complicated and we anticipate therefore the need for further work in this area. Whatever approach is taken, a new wildlife law should seek to robustly protect threatened and indigenous species as a priority.

In that regard, the purpose of new wildlife legislation should clearly prioritise the management, protection and recovery of different categories of species. Threatened species should have the highest priority and preventing extinctions should be the central purpose of a new Act. Stepping down from this, a new Act should prioritise indigenous species, and then manage all other wildlife.

Assuming new wildlife law covers all wild species (Option 3), we consider that a protective purpose should only apply to indigenous species. This would mean that a permit is only required to take indigenous species (as is generally the case now). Introduced species could be afforded protection on a case-by-case basis, just as indigenous species could be excluded from protection on a case-by-case basis.

Introduced species of high value could be provided a degree of recognition in a purpose statement. However, it would need to be clear that the provision of such species does not undermine the new Act's priorities of protecting, managing and recovering threatened and indigenous species. This might require a significant reduction in population numbers of those species, and necessitate a move towards spatially defining hunting areas (as anticipated by Te Mana o te Taiao). In that respect, the management of highly valued species should be linked to biodiversity values present.

Currently, the Wildlife Act only manages take of species, it does not address other threats (including existential) to those species. We accept that wildlife legislation should, at its core, be about controlling the take (including indirect take) of species, but we consider that it should go further and also address threats. Without a threat component to the legislation, it will

remain a reactionary law, only responsive to take of wildlife. Addressing threats will enable new wildlife legislation to more strategically protect, manage and recover indigenous and threatened wildlife.

Introduced species are one of the most significant threats to indigenous flora and fauna in Aotearoa. Ideally, new wildlife legislation would include a bespoke conservation focused pest management planning regime. At the very least, the new law should better integrate with existing pest management laws such as the Biosecurity Act.

Recovery planning is a significant component of threatened species laws overseas and, if done right, can be an effective mechanism for species recovery. In Aotearoa, we consider that requiring a recovery plan for all species listed as Threatened in the NZTCS, of which there are 1,103, would be an unrealistic mandate, and would set the system up for failure. Instead, we prefer that new wildlife legislation include a mechanism for DOC to undertake regional or catchment-scale threatened species recovery planning (or, as we prefer, 'restoration planning' as it has a more positive future-focused outlook). Such planning could link to regional biodiversity strategies required under the proposed National Policy Statement on Indigenous Biodiversity (NPSIB). Alongside the above, we consider that new wildlife legislation should still enable promulgation of individual species recovery plans.

Species protection goes hand in hand with habitat protection. We consider that new wildlife legislation should protect the residence of Threatened fauna (e.g., nesting or breeding sites, like a tree occupied by a Threatened bird). Such areas would complement those areas already required to be identified and managed for indigenous freshwater fish under the National Policy Statement for Freshwater Management 2020 (NPS FM) and for specified Threatened and At Risk highly mobile species under the proposed NPSIB (birds and bats). Going further and providing some form of protection to the critical habitat of Threatened fauna would be ideal, but it is acknowledged that doing so would be challenging for various reasons.

An incentives scheme will greatly assist in reducing opposition to habitat protection on private land, and we recommend development and implementation of a biodiversity credit scheme to accompany new wildlife legislation. We understand that the Government is looking closely at incentive regimes, and we support the process of developing one designed for Aotearoa.

The management regime applied to species is where the 'rubber hits the road' in new wildlife legislation, as it determines the level and degree to which species are protected and can be used. A challenge in framing a management system is striking the right balance between provision of national direction (which sets out what can and cannot be done) and place-based decision making (which provides greater flexibility at the local scale).

A 'top down' regulatory approach could centre on the NZTCS, with more protective provisions applying to species listed as Threatened (and possibly also those listed as At-Risk). Greater ability to use wildlife, including Māori customary use, could be provided outside of those categories. The system will need to be agile at this level, to enable local partnerships and place-based decision making. Designing such a regime requires further and specialist input from Māori.

Different management regimes could be imposed on different categories of species. In that regard, we consider it very important that new wildlife law set clear parameters around the take of Threatened species. If a management hierarchy approach is adopted, careful consideration would need to be given to the approach taken for taonga species. We think it is important that taonga species are identified so that Māori can have an equal say in how these species are protected, managed and recovered, and so that the prioritisation of certain species over others is informed not only by threat classification, but also by taonga status.

In summary, the Wildlife Act is in dire need of reform. It is not working for species or for most people. It is beyond salvaging by mere tinkering and needs a wholesale re-write. This should be done as a matter of urgency, so that Aotearoa can better address its biodiversity loss.

2 Introduction

Te Araroa Trail, Waiau River, St James Conservation Area. Photo by Neil Silverwood

Context of this report

In 2021, EDS published a phase one report on the conservation system called *Conserving Nature*.[1] It highlighted the Wildlife Act as the most problematic part of the conservation system because it is not fit-for-purpose and is the most difficult to integrate with modern conservation management.[2] It was an area where there was broad consensus on the need for change.

Subsequent to *Conserving Nature*, the Government announced its intention to modernise conservation laws. One of the first areas earmarked for reform is the Wildlife Act.

EDS is now preparing a phase two report on the conservation system which builds on the issues identified in *Conserving Nature* and proposes recommendations for a new system. This report on the Wildlife Act is an interim working paper which will form part of that final phase two conservation report. It is being progressed first, in line with the Government's reform roadmap which prioritises the Wildlife Act. Our conclusions may be modified as we integrate our analysis of the Wildlife Act into our review of the broader conservation system.

This report needs to be read in conjunction with *Conserving Nature*, specifically Chapters two and seven. It expands on the main issues with the Wildlife Act identified in *Conserving Nature* and provides some high-level options for reform.

Context of Wildlife Act reform

Reforming the Wildlife Act first, ahead of a comprehensive review of the conservation system, has been criticised by some who consider that the former cannot be separated from the latter. The Wildlife Act does have multiple tendrils into laws relating to the conservation system, particularly the Conservation Act 1987 (Conservation Act). However, in many respects, it is appropriate that the Wildlife Act drives conservation law reform.

The Wildlife Act is a pinch-point for Māori issues relating to the conservation system. Crown ownership of wildlife under the Wildlife Act is seen as a form of cultural dispossession, at odds with a te ao Māori worldview that no one owns wildlife. The requirement to ask permission on a case-by-case basis to undertake customary use of wildlife has been described by some iwi as degrading. These framings have made it difficult for iwi and hapū to maintain their ancestral relationships with taonga species, particularly within the conservation estate.

Of all the laws which deal with wildlife, new wildlife legislation has significant potential to halt biodiversity loss and, as a result, increase resilience to climate change impacts for both humans and species. The urgency with which the twin crises of biodiversity loss and climate change need to be addressed add further weight to the need to progress reform of the Wildlife Act without delay.

Given this context, the Wildlife Act is arguably the key piece of the panoply of conservation laws. Without losing sight of implications for the wider system, reform of the Wildlife Act is an opportunity to re-design the conservation system 'from the inside out'.

Podocarp Forest South Westland. Photo by Neil Silverwood

Overview of why the Wildlife Act needs reform

In his historical review of the legal protection of wildlife, researcher Colin Miskelly stated that "environmental legislation is a window into societal values".[3] That is certainly the case with respect to the Wildlife Act.

The historical roots of the legislation attempted to both protect wildlife and regulate hunting. This dual function has resulted in the absence of direct prioritisation of indigenous species and inequities between social, commercial and cultural uses of wildlife. The lack of a purpose clause exacerbates these problems.

Further, although the Wildlife Act's starting premise of 'absolute protection' of defined wildlife should mean that it is the principal means by which wildlife is protected and managed in Aotearoa, this is not the case in practice. It has significant gaps in what species it protects, it relegates management of introduced species (and therefore their impact on indigenous and threatened species) to other Acts and it includes broad exemptions for the take of marine species. Consequently, it has become a fall-back protection mechanism for species.[4] As discussed throughout this report and appendices, other laws have assumed much of the protection and management function for wildlife.

This has resulted in a complicated, tangled web of laws applying to wildlife, with different levels of protection being afforded to different species, across different land tenures and domains.

Wildlife has suffered under this regime, with vested interests having established a foothold in how wildlife is managed. The shocking statistics on the health of Aotearoa's species and their habitats is a clear indication that the status quo is not working. The relationship between Māori and taonga species has also suffered.

Reform of the Wildlife Act is an opportunity to examine the values underpinning the Act, acknowledge that they are outdated, and recalibrate them into a modern system. It is an opportunity to prioritise the protection and recovery of indigenous and threatened species, and to provide for the ancestral connections between iwi and hapū and their taonga species. New wildlife legislation needs to assist with, rather than work against, addressing the two biggest threats facing nature and humanity: biodiversity loss and climate change.

Due to the significance of the issues identified in this report, and the extent of changes proposed, we consider that the Wildlife Act needs to be repealed in its entirety, and new wildlife legislation drafted. This should be done as a matter of urgency, so that Aotearoa can better address biodiversity loss.

The need for transformative change, a different balance of values

It is important that reform of the Wildlife Act, and wider conservation system, drives the type of transformative change needed to protect and restore nature. In 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), which is the highest-level scientific body on biodiversity loss advising the United Nations, produced a seminal report on global biodiversity and ecosystem services.[5]

The report called for a "reorganisation across technological, economic and social factors, including paradigms, goals and values."[6] It stated that nature can be restored and used sustainably through urgent and concerted efforts fostering transformative change.

The report identified economic growth as a key driver of nature loss. It highlighted the need to prioritise nature and its linkages to cultural identity and notions of responsibility, stewardship and justice. It recognised the diversity of values around nature and the need to embed these into decision-making.

A more recent 2022 IPBES report, on the sustainable use of wild species, notes a global increase in the use of wild species and the need to create policies that prioritise and enable conditions to support more sustainable uses.[7] It notes that indigenous use and stewardship is inherently linked to values and obligations, such as treating nature with respect, reciprocating for what is taken, avoiding waste, managing harvests and ensuring equitable distribution of benefits for broader community well-being.[8] These frameworks contrast starkly with economically driven or highly extractive uses which are often prioritised.

The wild species IPBES report also draws attention to broader environmental justice and equity concerns, noting the greater reliance by indigenous and lower socio-economic communities on biodiversity, and the greater impacts on these communities when degradation and biodiversity loss occurs. The report examines a range of possible future scenarios, factoring in climate change impacts and increased pressure on resources. It emphasises the need to shift to more innovative approaches, provide greater support for small scale sustainable uses and give greater recognition to the rights of indigenous peoples. A transformative change in human-nature relationships is required.[9]

These insights demonstrate the need to differentiate, not only between high versus low impact uses of wildlife, but amongst the various types of use, since not all have equal importance. In the same way that the International Whaling Commission differentiates between commercial take and use for scientific, subsistence and commercial purposes, it is similarly possible to differentiate more clearly between the priority that should be accorded to traditional use, subsistence use and sporting or recreational use versus commercial use.

Threatened – Nationally Endangered kea at Willowbank Wildlife Reserve in Christchurch. Photo by Neil Silverwood

Structure of report

This report provides a brief history of the Wildlife Act (Chapter 3) before detailing the three main components of its legal framework: protection of wildlife, protection of habitat and regulation of game hunting (Chapter 4).

Chapter 5 sets the context for reform of the Wildlife Act, including a discussion of the twin crises of biodiversity loss and climate change, developing discourse on incorporating te ao Māori into environmental legislation and Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020.

Chapter 6 discusses six main issues with the Wildlife Act:

- Issue 1: Inequitable values regime
- Issue 2: Not all wildlife is covered
- Issue 3: No dedicated threatened species law
- Issue 4: Does not give effect to Te Tiriti
- Issue 5: Management of introduced species is largely left to other laws
- Issue 6: Protection of marine species is not well addressed

Five other significant issues are also addressed in Chapter 7:

- Too much statutory discretion.
- Indigenous and threatened species are disparately managed across land tenure, domain and location.
- The RMA plays a significant role in the use of wildlife.
- No ability to require a permit for disturbance activities unrelated to catching alive or killing.
- Poor monitoring and enforcement.

Chapter 8 draws on the findings and recommendations discussed throughout this report and its appendices and provides a high-level framework for new wildlife legislation.

Attached to this report are five appendices. Appendix A to D provide a more in-depth discussion of Issues 3 to 6 respectively. Appendix E is an incentives proposal which we consider will be an essential part of new wildlife law implementation. This report needs to be read in conjunction with these appendices, as they delve deeper into issues summarised in this report.

Endnotes

1 Koolen-Bourke and Peart, 2021

2 Koolen-Bourke and Peart, 2021, 10

3 Miskelly, 2014, 26

4 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [45]

5 Díaz et al, 2019

6 Intergovernmental Platform on Biodiversity and Ecosystem Services, 2019, 'Natures dangerous decline 'unprecedented'; species extinction rates accelerating', UNEP, press release, 6 May 2019

7 Fromentin et al, 2022

8 Intergovernmental Platform on Biodiversity and Ecosystem Services, 2022, 'IPBES Sustainable use assessment – 50,000 wild species meet needs of billions worldwide', IPBES, press release 8 July 2022

9 Intergovernmental Platform on Biodiversity and Ecosystem Services, 2022, 'IPBES Sustainable use assessment – 50,000 wild species meet needs of billions worldwide', IPBES, press release, 8 July 2022

3 History of the Wildlife Act

Lake Ōkāreka. Photo by Raewyn Peart

The historical context to the Wildlife Act is canvassed in *Conserving Nature*.[1] The Act was largely a development of the Animals Protection and Game Act 1921. Parliamentary debates on the Wildlife Bill were primarily about protecting game species (particularly birds) for hunting purposes. This is reflected in the current Long Title of the Wildlife Act which states that the Act is to "consolidate and amend the law relating to the protection and control of wild animals and birds, the regulation of game shooting seasons, and the constitution and powers of acclimatisation societies".

While a lot of attention is given to this historical foundation, it is less well known that by the time the Wildlife Bill was introduced to Parliament most of the country's terrestrial vertebrate species had already been protected for half a century,[2] including almost all endemic birds since 1910.[3] The Animals Protection and Game Act 1921 did this by listing protected bird species, tuatara, long and short-tailed bats, and native frogs.

The Wildlife Act reversed this approach, absolutely protecting all animals classed as "wildlife" unless specified. This avoided missing out unknown species and removed confusion and debate over terms such as "indigenous".[4] Initially, "animal" included any mammal (not being a domestic animal or a rabbit, hare, seal or other marine mammal), any bird (not being a domestic bird), any reptile, or any amphibian. This definition has subsequently been amended (discussed below).

Although Parliamentary debates on the Wildlife Bill acknowledged expanded protection for indigenous birds, the implications of widening protection to include other species was not discussed.

The Wildlife Act has been amended on numerous occasions which has caused it to lose some coherence.[5] This is particularly so with respect to the misalignment between permissions and offences (discussed below). Key amendments over time include widening the protective scope of the Act to include identified invertebrates and marine species, broadening available enforcement tools and increasing penalties.

Endnotes

1 Koolen-Bourke and Peart, 2021, section 7.1

2 Miskelly, 2014, 26

3 Miskelly, 2014, 34

4 Miskelly, 2014, 25

5 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [29]

4 Legal framework of the Wildlife Act

Hunt for Aotearoa's largest podocarp trees, Lake Moana. Photo by Neil Silverwood

The Wildlife Act is intended to perform three main functions:[1]

(a) Protection of wildlife;

(b) Protection of habitat; and

(c) Regulation of game hunting.

Protection of wildlife

Spatial coverage

Until 1996, the Wildlife Act only applied to species on land or within Aotearoa's territorial waters. An obscure amendment to the Fisheries Act 1996 (Fisheries Act) extended the Wildlife Act's absolute protection of wildlife out to 200 nautical miles.[2]

The Wildlife Act states that all wildlife is to be "absolutely protected throughout New Zealand and New Zealand fisheries waters".[3] This seemingly strong statement was viewed with envy by international wildlife experts interviewed for this report. However, as discussed throughout this report, a starting point of absolute protection has caused issues as it does not differentiate between indigenous and introduced species (that is left to schedules), it has impeded Māori relationships with taonga species and it is not, in fact, absolute at all.

Perhaps most significantly, many indigenous species, and sometimes entire taxonomic groups of indigenous species, are not afforded the Act's absolute protection because they are excluded from the Act's jurisdiction through definitions (see Issue 2 below). For those species that are subject to the Wildlife Act, different levels of protection are assigned as follows:

- Wildlife that is absolutely protected.
- Wildlife that is partially protected, so that if the wildlife's presence is causing injury or damage to land, or property the owner or occupier of that land may hunt or kill it.
- Wildlife that is game, which can be hunted at certain times of the year subject to various restrictions.
- Wildlife that may be hunted or killed, or possessed, if allowed by a notice and subject to any conditions.
- Wildlife that is not protected at all, which includes animals such as horses, sheep, possums and mice.[4]

The Wildlife Act also declares deer, chamois, feral goats, tahr and pigs to be "wild animals" subject to the Wild Animal Control Act 1977 (WACA).

Protection through use of schedules

The main way that the Wildlife Act distinguishes between different types of wildlife, and the extent of their protection and management, is through schedules. There are currently seven operative schedules. Apart from

the most recently added Schedules 7 and 7A, which are used to extend absolute protection to invertebrates and marine species not automatically captured under Act, the rest of the schedules deal with introduced species.

Wildlife Act Schedules

Schedule 1: Wildlife declared to be game

Schedule 2: Partially protected wildlife

Schedule 3: Wildlife that can be hunted or killed subject to conditions

Schedule 4: Wildlife not protected except in specific areas or for specific periods

Schedule 5: Wildlife not protected

Schedule 6: Animals declared as "wild animals" under the WACA

Schedule 7 and 7A: Land and freshwater invertebrates and marine species declared to be animals

Schedule 8: Wildlife not protected but which may be kept, bred or farmed in captivity under regulations

The Animals Protection Act 1907 was the first legislation in Aotearoa to include a schedule of protected wildlife (other than game).[5] Historically, decisions to protect wildlife occurred reactively and quickly (on average it took 37 days between the date the request was made and publication of the resulting Gazette Notice).[6] The protection process slowed considerably with enactment of the Wildlife Act due to broader stakeholder consultation. However, Māori views on protections were absent from the 1800s to the mid 2000s. Except for attempts during this period to protect the huia (which ultimately failed), there is no record of any directed efforts to seek Māori involvement or opinion on species protection.[7]

There is a notable difference between how terrestrial species and marine species have been afforded protection. For many terrestrial species, the protection was reactive, triggered by requests from individuals, scientific societies, conservation groups or Acclimatisation Societies. In contrast, marine species protection has been largely proactive, with government departments initiating protection to protect threatened species from harvest, and to comply with international obligations.[8]

Extinct huia (in hand), South Island kōkako and more huia in draw, Christchurch Museum collection. Photo by Neil Silverwood

As stated in *Conserving Nature*, the use of schedules in the Wildlife Act provides for a degree of flexibility and specificity.[9] This dexterity has its advantages. For example, if partial protection is wanted for a terrestrial or freshwater invertebrate or a marine species, it is possible to list that species under Schedules 7 or 7A of the Wildlife Act (to bring it within the purview of the Act), and also under another schedule to give the species a lower level of protection.[10]

However, the Wildlife Act lacks any criteria or process to guide these scheduling decisions. Under the Act, schedules can be altered "from time to time" by the Governor-General by Order in Council. This decision is not informed by any purpose or objective for each schedule; rather this has to be inferred from their titles and context, and by the statutory provisions or regimes to which they link.

The lack of any clear criteria or process to guide these decisions provides for a high degree of discretion and little transparency. Concerns have long been raised about the level of protection afforded to introduced species in schedules, and the use of schedules to lower protection of indigenous species.[11] In the absence of any statutory direction, schedule lists are susceptible to political and economic influence. This issue is exacerbated by the absence of regular updating of schedules and a lack of accountability within the Wildlife Act.

Appendix A details how threatened species protection has been hindered overseas by too much legislative discretion. The same issues may arise here, in the context of scheduling decisions, if new wildlife legislation

does not provide greater statutory direction to decision-makers. Given the importance of schedules for species protection and management, the lack of formal process or criteria to guide scheduling decisions requires amendment. As much as possible, new wildlife legislation should ensure that decisions are made by independent bodies informed by the best available scientific knowledge and mātauranga Māori.

Further, although movement of wildlife between schedules has not occurred frequently in the past, that historical stability is likely to change. Indeed, if scheduling is to remain in new wildlife legislation, the schedules will need to be far more iterative as Aotearoa responds to new challenges and information. In recognition of the inadequacy of information on many species, and the challenge of monitoring change, adopting a precautionary principle will be important when scheduling indigenous species because of the potential risk they face, and for scheduling introduced species for the potential (unknown) threat they pose.

Schedules are extensively used in the United Kingdom's (UK) primary wildlife legislation, the Wildlife and Countryside Act 1981 (Wildlife and Countryside Act). Proposed changes recommended to that Act by the UK Law Commission provide a useful example of how some of the issues raised above could be addressed in new wildlife legislation (see *Spotlight: proposed changes to the use of schedules in UK wildlife law*).

Spotlight: Proposed changes to the use of schedules in UK wildlife law

In 2015, the UK Law Commission reviewed the Wildlife and Countryside Act. The Commission drafted a proposed new Wildlife Bill which the Royal Society for the Protection of Birds stated could have resulted in the most significant reform of species legislation since the creation of the Wildlife and Countryside Act.[12]

That Bill included 34 schedules, some with multiple parts. The Commission proposed that only those species specifically listed in schedules, or falling within the general definition of a group of species listed, would be subject to the regulatory regime. To ensure the schedules are kept up to date, the Commission recommended that they be reviewed every five years. It was proposed that Ministers could update a schedule outside of that review process by making an order (but they must consult with advisory bodies).

The UK has a Joint Nature Conservation Committee comprised of conservation bodies such as Natural England, Natural Resources Wales, and Scottish Natural Heritage. Under current legislation, the Committee is responsible for reviewing Schedule 5 (protected animals) and Schedule 8 (protected plants) of the Wildlife and Countryside Act. The Law Commission proposed that the Committee review all of the Bill's schedules, and that Ministers could reject the Committee's advice, but only if they issue a public statement giving reasons for that decision.

Protection via 'no take' provisions

'Absolute protection' is undefined in the Wildlife Act. Its meaning must therefore be inferred from the Act's offences, exemptions and reporting obligations. The Act's most powerful protection is provided by two analogous 'no take' offences: one applying to protected marine wildlife (those listed in Schedule 7A),[13] and one applying to all other protected wildlife. Specifically, it is illegal to "hunt or kill"[14] any absolutely or partially protected wildlife.[15]

In 2019, the Supreme Court in the *PauaMac5* case[16] examined the breadth of the 'no take' provision in the context of protected marine wildlife. The Court interpreted the definition of "hunt or kill" as including not only the direct action of hunting or killing an animal, but also other kinds of potentially harmful actions that are unrelated to the hunting or killing. To do otherwise would "leave species such as dotterels, kiwi and kea exposed to acts of harassment and molestation".[17] Thus, under the Wildlife Act it is an offence to do any of the following to any protected wildlife (including marine wildlife):[18]

- Hunting - intentional act committed if a person is proven to have an intent to hunt.
- Killing - causing the death of a protected animal. No intention is required.
- Pursuing - intentionally chasing (but not luring or attracting or merely following at a safe distance).[19]
- Disturbing - action which physically or mentally agitates the protected wildlife to a level creating a real risk of significant harm.[20]
- Molest - intentionally troubling, distressing or injuring a protected animal.[21]

With respect to 'disturb', the Supreme Court held that a definition that captures acts breaking the peace or tranquility of protected wildlife would "cast too broad a net" and could result in criminalising actions such as walking through the bush, or swimming in the sea.[22] The Supreme Court held this could not have been Parliament's intention. It is interesting to note that in the United States (U.S.) harassing endangered species is a prohibited activity (see Appendix A).

PauaMac5 raises an important question for wildlife law reform: how widely should new legislation define its protections without overreaching? Put another way, what should constitute an offence under new wildlife law? As highlighted in *PauaMac5*, the question is most challenging when considering activities that do not present a real risk of harm, but still harass a species and interfere with its natural behaviour. In *PauaMac5*, the activity under consideration was shark cage diving and the Court left it open as to whether this activity would in fact constitute disturbance.

More recently, the issue of disturbance has arisen in relation to construction of a marina at Waiheke Island and its potential impact on kororā / little penguins. In that situation, opponents to the marina were concerned that construction near kororā nesting sites constituted disturbance. Legal challenge was contemplated, but never eventuated due, in part, to issues with the Wildlife Act. Because the penguins were not actually being moved (by nest relocation), application of *PauaMac5* meant that the Wildlife Act had very little 'teeth' to intervene.

The extent to which new wildlife legislation protects species from disturbance activities will need to be addressed, as present judicial interpretation leaves too much uncertainty and renders the law largely nugatory against such activities. For threatened indigenous species, it does not seem appropriate that intentional interference be authorised even if harm does not result. This is because the survival of threatened species is already so perilous. The same degree of caution might not be necessary for non-threatened indigenous species where intentional but harmless interference might not need to be regulated. New wildlife law could deal with this situation by adopting different management regimes to different categories of species.

Te Araroa Trail, Waiau Pass. Photo by Neil Silverwood

Incidental take

Incidental take is the inevitable taking of a species incidental to an activity occurring, such as land use change or development. It requires a wildlife permit under the Wildlife Act. However, in practice, incidental take of terrestrial species is primarily managed via resource consent conditions under the RMA. This is an issue because the RMA has a broad sustainable management purpose, focused on avoiding, remedying or mitigating effects, rather than specifically protecting species and actively providing for their recovery. New wildlife legislation could usefully clarify its interface with the RMA (see discussion on dual consenting regimes below).

The U.S. has a specific process for permitting incidental take, including a requirement for the development of a habitat conservation plan. In the State of Hawaii, such plans require an overall net gain in the recovery of the species (see Appendix A). We support an overall net gain, rather than no net loss, approach to take (incidental or otherwise) of threatened species. This approach is already proposed in the NPSIB which requires that biodiversity offsetting results in a net gain in biodiversity values.

In the marine environment, the Wildlife Act includes a defence to prosecution for taking a protected marine species without a permit, where the killing or injuring of the animal is accidental or incidental (see Issue 6 below and Appendix D). This 'carve out' for bycatch needs to be addressed.

Upper Waimangaroa, Red Tussock Wetland. Stockton Coal Mine.
Photo by Neil Silverwood

The extent to which permits can be granted (or not) for 'take' is discussed separately in Chapter 7 below (in the context of the Wildlife Act) and Appendix A (in the context of comparable laws overseas).

Protection of habitat

Several different types of protected areas are provided for under the Wildlife Act. In line with the undifferentiated approach of the Act, these areas protect both indigenous and introduced species.

Prior to the Wildlife Act, wildlife sanctuaries on private land could be created for the protection of "imported and native game".[23] That regime was brought through into the Wildlife Act and several ponds on private farmland were protected for this purpose. However, hunters, guns and dogs were not allowed into these areas. This limitation drove provision in the Wildlife Act for two kinds of protected areas: wildlife sanctuaries for the protection of all wildlife in wilderness areas or islands (where hunting is not allowed), and wildlife refuges on farmland that enabled farming and hunting to continue.

In 1980, a third category of habitat protection, wildlife management reserves, was introduced into the Wildlife Act. The methods of establishing such reserves, and the conditions that may be prescribed for them, are like those relating to a wildlife sanctuary, except that hunting may be allowed on such reserves. In practice, these areas operate as recreational game hunting areas in open seasons.

The introduction of wildlife management reserves was coupled with an ability to prohibit or restrict the pollution of any wildlife sanctuary or refuge "by means of rubbish, sewage, industrial waste, mining debris, sawmill refuse, or any other means". These amendments occurred at the same time that terrestrial and freshwater invertebrates were afforded the Wildlife Act's protection through introduction of Schedule 7. In Parliamentary debates on the amendments, it was noted that invertebrates were most threatened by pollution or the careless use of chemicals, and that the prohibition or restriction was a "a first step towards habitat protection".[24] In reality, it was an early attempt by the Wildlife Act to address threats, other than hunting, to species.

The Wildlife Act provides no statutory criteria for the creation of wildlife habitat protection areas, other than for fulfilling the purposes of the Act. Given that the Wildlife Act lacks a purpose, this direction is of little value. Table 2 compares the different habitat protection areas.

Two dead juvenile Threatened - Nationally Critical green skinks from a can at Awarua Bay. Photo by Tony Jewell

Dead At Risk - Declining giant ground beetles from a bottle in the Nevis Valley. Photo by Tony Jewell

Wildlife sanctuaries, refuges and management reserves are managed by DOC in accordance with general policy and conservation management strategies and plans. They can be on public or private land. There are currently 12 wildlife sanctuaries, seven wildlife refuges and one wildlife management reserve. Although marine habitat protection is envisaged under the Wildlife Act,[25] only a few areas have been protected: a lagoon and a rivermouth, and the Westhaven wildlife management reserve which covers 2,112 ha of Whanganui Inlet. Rather, the provision of marine protected habitat, or lack thereof, is done under other Acts as discussed in Appendix D.

Type of habitat protection	Purpose	Means of protection	How created
Wildlife sanctuaries	To fulfil purposes of the Wildlife Act	Conditions prohibiting or restricting activities set out in section 9(3)(a)-(o), including on access, pollution and vegetation clearance. Wildlife is absolutely protected.	Established by Governor-General from time to time by Order in Council upon recommendation of Minister.
Wildlife refuges	To fulfil purposes of the Wildlife Act	Conditions prohibiting or restricting pollution, boats, guns, dogs and cats and anything else likely to "cause any wildlife to leave the wildlife refuge". Illegal to "hunt or kill for any purpose, or molest, capture, disturb, harry, or worry any wildlife in the wildlife refuge, or to take, destroy, or disturb the nests, eggs, or spawn of any such wildlife".	Established by Governor-General from time to time by Proclamation.
Wildlife management reserves	To fulfil purposes of the Wildlife Act	Conditions prohibiting or restricting activities set out in section 9(3)(a)-(o), including on access, pollution and vegetation clearance. Hunting may be allowed	Established by Governor-General from time to time by Proclamation.

Table 2. Habitat protection areas under the Wildlife Act

Habitat protection based on the presence of threatened species

The Wildlife Act does not provide for any habitat protection based on the presence of threatened species, or for areas necessary for their survival, such as critical habitat or residence areas. The public conservation estate and Significant Natural Area (SNA) designations on private land fill some of this gap. However, the conservation estate is not representative of all ecosystems, and mapped SNAs are patchy across the country and focus more on identifying areas of indigenous vegetation cover, rather than presence of threatened fauna (see below *Spotlight: Current habitat protection for threatened species*).

Habitat protection is critical for species' survival and the heightened vulnerability of threatened species justifies specific habitat protection for them. Appendix A discusses how international threatened species laws provide for such protection, and the challenges faced in doing so. Mapping areas of ecological significance is already difficult in Aotearoa (although proposed to be mandated in the NPSIB). Similar issues are likely to arise in relation to the protection of critical habitat and/or residence under new wildlife legislation. However, this is not a good reason to leave threatened species habitat unprotected.

The challenges faced overseas can be largely addressed by having more assertive legislation that mandates the identification of such areas and minimises opportunities for political or vested involvement in the process. To prevent perverse outcomes, such as a 'shoot, shovel and shut up' mentality or 'midnight bulldozing', and to reward private landowners for their provision of a public good, a strong incentives scheme is likely required. This is discussed further in Appendix A. Appendix E proposes an environmental footprint tax that could operate as an incentives scheme for biodiversity conservation in Aotearoa.

Threatened - Nationally Critical green skink (inset) and its habitat which is at risk of afforestation. Photo by Tony Jewell (skink) and Mandy Tocher (habitat)

Spotlight: Current habitat protection for threatened species

The conservation estate comprises approximately one third of the country's land area and is a significant safeguard against threats to indigenous biodiversity. Evidence shows that the survival rates of species and populations are higher in the conservation estate, primarily because land use change does not occur to the same extent as on private land, and species management is more intensive.

However, boundaries of public conservation land were created for a several reasons, including recreation or aesthetic purposes, and not necessarily for species protection,[26] and the conservation estate is not representative of all ecosystems. For example, the greatest proportion of avian species are found in coastal areas which are poorly represented among protected areas.[27] Further, management of the conservation estate is subject to DOC's budgetary constraints and the land includes habitat of highly valued introduced species which can adversely affect indigenous biodiversity.

On private land, species protection is primarily undertaken through the "protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna", i.e., SNAs.[28] In practice, SNAs have mostly consisted of relatively large areas of contiguous intact indigenous flora.

The extent to which the presence of threatened species has been factored into SNA identification is variable across the country. A 2015 study of 17 regional policy statements showed that 14 included consideration of rarity associated with the presence of threatened species in a habitat.[29] This enabled some consideration of species' conservation status when protecting habitat. However, application of the rarity criteria was not uniform, with variations associated with the threat classification system applied, the definition of 'threatened' and whether the threatened status was assessed on a local, regional or national basis.

The proposed NPSIB is likely to bring greater consistency to the extent to which SNAs are identified based on the presence of threatened species. Under the NPSIB, "attributes of rarity and distinctiveness" is a significance criterion. An area qualifies as an SNA under this criterion if it provides habitat for, *inter alia*, an indigenous species that is listed as Threatened or At Risk - Declining in the NZTCS.[30]

This would include exotic habitats of indigenous threatened species such as the Mahoenui giant wētā, which lives in gorse patches. Other SNA criteria in the NPSIB, relating to representativeness, explicitly state that significant indigenous fauna habitat can be exotic.[31]

In addition to the above issues with SNA's coverage of threatened species' habitat, more generally, SNAs have often not been successfully employed to systematically protect areas of significance and, consequently, species inhabiting these areas.

Under the RMA, regional and district councils have a responsibility to maintain indigenous biological diversity.[32] However, the extent to which this has occurred varies significantly throughout the country. SNAs have been heavily opposed on the basis that they interfere with private property rights and some councils have folded under pressure and not included any SNAs within plans.

The 2015 study mentioned above found that some regional policy statements only added significance criteria solely for future

identification or to direct district councils to identify or map areas. As reported in the study, the analysis suggests a lack of rigorous and systematic identification and protection of critical habitats or sites.[33]

Again, the NPSIB is likely to bring greater consistency to the protection of areas and habitats of significance. As currently drafted, the instrument requires district councils to identify SNAs in plans and include provisions to avoid activities that result in named effects. With respect to threatened species, this includes any adverse effect that would result in a reduction in the population size or occupancy of Threatened and At Risk - Declining species that use SNAs for any part of their lifecycle.[34]

Considering the above, and notwithstanding the value of SNAs for general habitat protection, they cannot be relied upon as the main method of protecting threatened species' habitat on private land because:

They are not yet required by law (the NPSIB is still under review) (although it is arguable that section 6(c) of the RMA requires them anyway).

The presence of a threatened species does not automatically render the habitat a SNA.

SNAs are static area protections, and do not move with species, which reduces their ability to protect individual ranging species, especially in the context of climate change induced migration.[35] The NPSIB aims to identify and manage areas outside SNAs that support "highly mobile fauna", but this is limited to named bird and bat species.[36]

It is difficult to move SNAs quickly, as they need to be reviewed through plan change processes.

They are less often identified in the marine environment, where static habitat management can be less effective,[37] and in fact the NPSIB does not apply to the coastal marine area.

It is currently uncertain whether the NPSIB will apply to species that cross two domains, such as seabirds that spend time on land and in the coastal marine area, and freshwater species that live in and adjacent to freshwater bodies. If not included in the final NPSIB, some threatened species may 'fall through the gaps' of SNA protection.

Nationally Endangered Robust grasshopper (inset) which is endemic to the Mackenzie Basin. Robust grasshoppers have a strong preference for open barren habitats, including carparks such as this one photographed near the Lake Pukaki spillway. Photo by Mike Wakelin.

Finally, in line with the Wildlife Act's lack of provision for threatened species, the Act does not include any provision for the protection of threatened ecosystems. In Australia, such communities can be listed and any actions likely to have significant impact on them require Ministerial approval (see Appendix A). Based on the International Union for Conservation of Nature's (IUCN) Red list criteria for ecosystems, 45 of Aotearoa's naturally uncommon ecosystems are threatened. Of these,

18 are classified as Critically Endangered, 17 as Endangered and 10 as Vulnerable.[38] Nearly two thirds of Aotearoa's rare ecosystems are at risk of collapse.[39] Lost or degraded habitats can threaten species' feeding, breeding and migration.[40] How new wildlife legislation might drive ecosystem restoration is discussed in Chapter 7.

Ballarat conservation area foreground, Te Kuha and proposed mine in the background, Westport. Photo by Neil Silverwood

Regulation of game hunting

Under the Wildlife Act, wildlife can be listed in Schedule 1 as game. The current list only comprises birds (no other animals), most of which were introduced as a hunting resource. However, it also includes four indigenous bird species: pūkeko, grey duck, Australasian shoveler and paradise shelduck. The grey duck is listed as Threatened in the NZTCS.[41]

Game species are regulated by Part 2 of the Wildlife Act, which assigns New Zealand Fish and Game Council (Fish and Game) with responsibility for setting open seasons and game areas, and the conditions that attach to them. The Minister must give the final approval.

Fish and Game also has functions under the Conservation Act which require it to manage, maintain and enhance the sports fish and game resource in the recreational interests of anglers and hunters. This includes preparing draft sports fish and game management plans under the Act. These statutory functions follow through to open seasons provided for under the Wildlife Act. This means that under the Wildlife Act, game birds are to be managed so that the bird resource is enhanced.

Under the Conservation Act, buried within definitions of definitions, DOC also has a function of enhancing plants and animals, but these are "of any kind".[42] EDS's phase two report on the conservation system discusses conceptual underpinnings of the Conservation Act in more detail, including the need for an overarching purpose which elevates indigenous species. An indigenous species starting point under the Conservation Act and new wildlife legislation is likely to provide DOC with greater ability to prioritise indigenous species where interests conflict.

Taipo River. Photo by Neil Silverwood

Fish and Game

Many of Fish and Game's functions are regulatory ones (to do with managing sport fish and game), and the organisation can be said to be a statutory manager of this public resource on behalf of the Crown. But Fish and Game also has a role to advocate for the interests of the New Zealand Fish and Game Council and, with its agreement, of any Fish and Game Council in the management of sports fish and game, and habitats.

The "interests" of Fish and Game are the "interests of anglers and hunters". This, in turn, is said to be the "co-ordination of the management, enhancement, and maintenance of sports fish and game".[43] Advocacy is therefore focused on benefitting the recreational use of a renewable resource rather than the environment *per se*.

Fish and Game's advocacy for sports fish and game can conflict with indigenous species. However, Fish and Game's advocacy for sports fish has also been instrumental in freshwater protection in Aotearoa (albeit skewed towards rivers valued for recreational fishing).

Fish and Game has been closely involved in the development of freshwater policy, advocating for cleaner water in which sports fish can thrive. It has also been very active in supporting and initiating freshwater protections such as Water Conservation Orders, as well as opposing proposals to drain wetlands, dam rivers or water takes for irrigation.

Further, Fish and Game advocacy is not solely focused on freshwater and habitat supporting anglers. It also includes habitat for game birds, which provides a hook for Fish and Game involvement in protecting wetlands and their margins as well as waterways. Restoration here can have incidental benefits for indigenous species and biodiversity more generally.

Reform of the wider conservation system will need to review Fish and Game's functions (and that of the Game Animal Council discussed in Appendix C). To the greatest extent possible, Fish and Game's incentive to continue advocating for freshwater habitats should be preserved in any new legal framework.

Otago Fish & Game staff monitoring, as part of their role to advocate for habitat for trout and salmon, adds significantly to the scientific knowledge of native fish species. Photo by Bruce Quirey

Summary of findings: Legal framework of the Wildlife Act

Protection of wildlife:

1. Schedules are a clear and flexible way of categorising species.
2. To ensure that schedule categorisations are robust and transparent, schedule decisions need to be informed by the best available scientific knowledge and mātauranga Māori and be made by independent bodies.
3. Schedules should be regularly updated to respond to changing challenges and knowledge.
4. New wildlife legislation requires a formal process and criteria to guide scheduling decisions, and mandatory review of schedules.
5. The definition of "hunt or kill" must appropriately capture a wide range of human/species interactions.
6. Judicial interpretation of disturbance under the Wildlife Act potentially allows for inappropriate activities against species.
7. New wildlife legislation will need to clearly define take, including incidental take.

Habitat protection:

8. Habitat protection under the Wildlife Act provides protection for both introduced and indigenous species.
9. Threatened species require additional habitat protection due to their vulnerability, such as protection of critical habitat or residence.
10. The conservation estate and SNAs on private land cannot be relied upon to provide comprehensive and legally consistent habitat protection for threatened species.
11. New wildlife legislation should have a robust process for identification and protection of such areas, which minimises opportunity for vested interest involvement.
12. A biodiversity incentive will likely be required to obtain social licence for such protections on private land.

Regulation of game hunting:

13. By virtue of Fish and Game's functions under the Conservation Act, sports fish and game birds are afforded proactive protection which is often in conflict with indigenous species.
14. New wildlife legislation should address this imbalance by prioritising the protection, management and recovery of threatened and indigenous species.

Endnotes

1 A fourth implicit function is to clarify the legal status of wild species, to clarify the law relating to wildlife on private land

2 Fisheries Act 1996, s316(1)

3 Wildlife Act 1953, s3

4 Unprotected ferrets, stoats, polecats and weasels can only be farmed, bred or sold with approval

5 Miskelly, 2014, 45

6 Miskelly, 2014, 73

7 Miskelly, 2014, 74; Although we note that the Wildlife Act and associated regulations have always provided for Māori customary harvest of tītī and it is presumed that Māori were involved in the development of those provisions.

8 Miskelly, 2016, 103

9 Koolen-Bourke and Peart, 2021, 113

10 Department of Conservation, 2006. While this is an option, there are currently no species listed on Schedule 7 or 7A and on another schedule

11 Koolen-Bourke and Peart, 2021, 113

12 See https://www.rspb.org.uk/our-work/policy-insight/working-with-the-law/law-commission-review/

13 Wildlife Act 1953, ss 2 and 63A

14 **hunt or kill**, in relation to any wildlife, includes the hunting, killing, taking, trapping, or capturing of any wildlife by any means; and also includes pursuing, disturbing, or molesting any wildlife, taking or using a firearm, dog, or like method to hunt or kill wildlife, whether this results in killing or capturing or not; and also includes every attempt to hunt or kill wildlife and every act of assistance of any other person to hunt or kill wildlife, Wildlife Act 1953, s2

15 Wildlife Act 1953, ss 63 and 63A

16 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111

17 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [85]

18 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [35]

19 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [63] and [65]

20 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [74]

21 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [68]

22 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [72]

23 Animals Protection and Game Act 1921, s6

24 Arthur, 6 August 1980, 'Wildlife Amendment Bill, second reading', *New Zealand Parliamentary Debates,* 432, 2471

25 Wildlife Act 1953, ss 9(1)(aa), 14(1)(aa) and 14A(1)(b)

26 Wallace et al, 2015, 188

27 Wallace, 2016a, 12

28 Resource Management Act 1991, s6(c)

29 Wallace, 2016a, 14

30 National Policy Statement for Indigenous Biodiversity Exposure Draft, Appendix 1, C(6)(a)

31 National Policy Statement for Indigenous Biodiversity Exposure Draft, Appendix 1, A(4)

32 Resource Management Act 1991, ss 30 and 31.

33 Wallace, 2016a, 14

34 National Policy Statement for Indigenous Biodiversity Exposure Draft, part 3, 3.10(2)(e)

35 Wallace, 2016b, 138

36 National Policy Statement for Indigenous Biodiversity Exposure Draft, Policy 15

37 Wallace, 2016b, 138

38 https://www.doc.govt.nz/contentassets/ebf6dc3ecb554b7a8b8cd3d223501a5f/factual/ecosystems-protection.pdf

39 Ministry for the Environment and Stats NZ, 2019a, 18

40 Ministry for the Environment and Stats NZ, 2019b, 22

41 https://nztcs.org.nz/assessment-search

42 One of DOC's functions is to manage for "conservation" purposes all natural resources. "Conservation" is defined to include the "preservation and protection" of natural resources. "Protection" is further defined to include "enhancement". "Natural resources is defined to include plants and animals "of any kind", Conservation Act 1987, s2

43 Conservation Act 1987, Section 26B

5 Context for new Act

Moa bones, Christchurch Museum collection. Photo by Neil Silverwood

Wildlife law reform occurs against a backdrop of the twin crises of biodiversity loss and climate change. These issues underpin the need for robust, ambitious and innovative species legislation. It also occurs in the context of significant conceptual and practical shifts in approach to conservation and environmental management, particularly in the context of te ao Māori.

Biodiversity loss

As a result of human activity, species are now going extinct at 100 to 1,000 times the natural rate.[1] Globally, around 1 million species are already threatened with extinction, many within decades.[2] Aotearoa is no exception to this global picture. It has the highest proportion of threatened species in the world, with around 4,000 species considered threatened with extinction or at risk of becoming threatened.[3] This accentuated species loss profile is due to unique biogeographical conditions and the country's high rate of endemism. Since human arrival in Aotearoa, 57 species of bird have gone extinct, more than in any other country in the last 1,000 years.[4]

The main drivers of biodiversity loss in Aotearoa are:

- Decline and fragmentation of natural habitats due to land use change and intensification through urbanisation or agriculture.
- Introduced species.

With respect to habitat loss, more than 90 percent of Aotearoa's wetlands have been lost since human arrival. Indigenous forests, which once covered 80 percent of Aotearoa's landmass, now cover little over a quarter.[5] Since human settlement, the condition of marine habitats has significantly declined.[6]

Introduced plants and animals are a particular threat to Aotearoa's indigenous species. This country has the second-highest recorded number of invasive species in the world.[7] Some of these introduced species are exacerbating not just biodiversity loss, but also climate change.

Maintaining biodiversity is imperative for protecting species and ecosystems for their intrinsic worth and for the ecosystem services which they provide. The services provided by biodiversity go to the very heart of continued human existence. For example, fertile soil provision, carbon sequestration and freshwater filtration are necessary for human health.[8] Such ecosystem services, and so the presence of healthy, wide-spread indigenous biodiversity and ecosystems, are equally important in urban areas as they are in rural.[9]

Biodiversity also has recreational value, such as providing environments suitable for tramping and fishing.[10] Aotearoa's indigenous biodiversity forms a key part of the country's tourism brand and national identity.[11] The protection of taonga species also allows for the preservation and transmission of tikanga, mātauranga and te ao Māori.[12]

Without any action to reduce the intensity of biodiversity loss there will be further acceleration in the global rate of species extinctions.[13]

Climate change

The Sixth Assessment report of the Intergovernmental Panel on Climate Change (IPCC) warns of the "irreversible" effects of anthropogenic climate change, and the need to act urgently in order limit global warming from reaching 1.5°C in the very near future.[14] In light of this, Aotearoa and many other countries have declared a state of climate emergency.[15]

Historically, climate and biodiversity have been managed as separate crises both nationally and globally.[16] However, the biological reality that the two are interlinked can no longer be ignored. At just 2°C of warming, 1 in 10 species are likely to suffer a high risk of extinction.[17] Organic matter absorbs and stores more than 50 percent of anthropogenic CO_2 emissions, meaning ecosystem loss will in turn reduce carbon sequestration and the ability to mitigate climate change.[18]

Climate change affects biodiversity by exceeding the adaptive capacity of species or entire ecosystems. There is already evidence of species moving uphill or southward for cooler temperatures as their climatic envelope shifts. Sometimes migration might not be possible because of species competition, geographic or human-made barriers. This is especially so for species on mountain-tops, peninsulas, and our pest-free islands.[19] Movement of species has knock-on effects for ecosystem composition and interaction, the full extent of which are unknown.[20]

Increased frequency of extreme weather events like floods, storms, fires, droughts, pests and disease also threatens species' adaptive capacity.[21] In 2009, the population of nationally vulnerable scree skink in Canterbury

Waitaha River. Photo by Neil Silverwood

high country reduced by 84 percent because of flooding.[22] Warmer temperatures caused by climate change can affect tree masting, which is linked to an increase in mammalian pests.[23] The impact of plant diseases, such as myrtle rust, are likely to get worse with rising temperature.[24]

With warming of between 1.5°C - 2°C, the number of endemic marine species facing a very high risk of extinction doubles.[25] This is alarming as Aotearoa's seas are expected to warm by 2.5°C by 2100.[26] Changing surface temperatures affect phytoplankton species distributions, disturbing the composition of local food webs. Marine heatwaves can also cause the loss of kelp, a valuable habitat and carbon sink. Increased CO_2 absorption by the ocean leads to ocean acidification which limits the growth of creatures with carbonate shells such as pāua, kuku/green lipped mussels and kina. Sea level rise exacerbates erosion and wave exposure for species in the dunes and intertidal zone. This threatens the loss of mahinga kai and the mātauranga Māori associated with them.[27]

A focus on increasing ecosystems resilience provides a solution for both the biodiversity and climate crises.[28] Existing conservation strategies such as protected areas, habitat restoration and species translocation need to be viewed through the lens of climate adaptation,[29] being mindful of climate induced migration. A greater focus on entire ecosystems is required in addition to saving individual species from extinction.[30]

Incorporating te ao Māori in environmental legislation

The escalation of the global biodiversity and climate crises over the last few decades has placed hegemonic conservation and environmental management principles and practices under scrutiny.[31] The science and systems that have been embedded in environmental legislation, policy and governance around the world have often failed to support effective sustainable management of the environment and biodiversity. Such failures across diverse socio-political contexts have led to significant conceptual and practical shifts for how humans think about and approach conservation and environmental management.

Conceptual advances that better recognise the complex interrelationships of human society as part of nature are progressively being represented internationally. Such conceptual advances are reflected in ecosystem-based management (EBM) and environmental ethics and relational values discourses.[32] These models set a standard on which conservation and environmental management systems could be based to improve conservation of biodiversity and the complex eco-social relationships embedded within it.

In Aotearoa, such advances are manifest in a myriad of ways. A well-known and highly cited advancement is the legal personality of landscape features in the Te Urewera Act 2014, Te Awa Tupua Act 2017, and that forthcoming for the Taranaki Maunga.[33] These laws embed a Māori worldview of the landscape features as ancestors that invokes an ethic of care and responsibility for them. This sits in contrast to more utilitarian understandings, centering the relationships on ownership and rights to use and access.

A similar, if not more explicit, shift in environmental ethic is evident in the concept of Te Mana o Te Wai in the NPS FM. Te Mana o Te Wai sets a clear values hierarchy for decision-making around freshwater that prioritises the health and wellbeing of freshwater systems over human health needs, with the use of freshwater for economic development prioritised last.[34] Related, but nuanced concepts are becoming embedded in other policy and legislation, such as Te Rito o te Harakeke proposed in the NPSIB and Te Oranga o te Taiao proposed in the Natural and Built Environment Bill (NBEB).

The advances in thinking and practice mapped above are quite clearly linked to and premised by Māori voices, values and worldviews. Reform of wildlife law (and the conservation system more broadly) should be cognisant of the limitations of giving effect to Māori cosmologies within contemporary legislative and policy instruments, but it could build in an ethic of care and responsibility in a way that does not marginalise Māori voices and values in decision-making processes.

In the above context, Māori have set a trajectory toward co-governance arrangements that recognises their rangatiratanga and mana motuhake to avoid having to represent their voices and values within legal and management frameworks that have historically not recognised, let alone given effect to, their worldviews and values.[35]

Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020 (Te Mana o Te Taiao)

Te Mana o Te Taiao sets the overall strategic direction for biodiversity in Aotearoa for the next 30 years with a vision that "the mauri of nature is vibrant and vigorous". Led by DOC, its development was a collaborative process, involving all interested parties, the public and experts. It represents the most recent articulation of biodiversity values and responses in Aotearoa.

It identifies key issues with the current biodiversity system, which are reflected in this report; the system is complex, the regulatory and policy

frameworks are complex and competing interests and values can affect biodiversity. It recognises the interconnection between thriving nature and thriving people, and seeks to get the system right, empower action and protect and restore biodiversity.

Te Mana o Te Taiao recognises and prioritises the special responsibility we have towards indigenous species, while still recognising the recreational, economic and cultural benefits of valued non-indigenous species. Also entrenched is the principle of stewardship, and the important role that biodiversity plays in meeting the aspiration of Treaty partners, and that the principles of Te Tiriti are given effect to in conservation and sustainable use of biodiversity.

Although not binding on new wildlife legislation, Te Mana o Te Taiao is an important part of the context for any new wildlife law. It is discussed further in Appendix C with respect to introduced species and has informed many of our recommendations on that topic.

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6 Key issues with the Wildlife Act

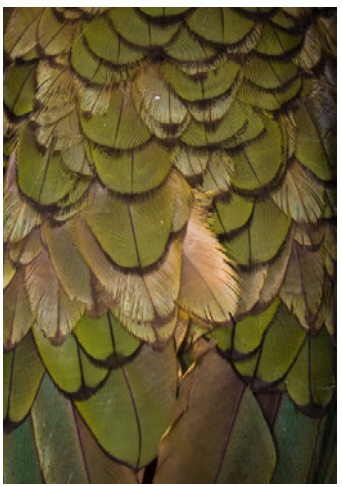
Lake Moana. Photo by Neil Silverwood

The following is a discussion of the key issues with the Wildlife Act. It is not intended to address all issues, of which there are many not covered here.

Issue 1: Inequitable values regime

The Wildlife Act is not especially lengthy, or overly difficult to read. As a stand-alone statute it is relatively straightforward. However, for such a basic wildlife protection tool, it has complicated wildlife management in Aotearoa. This is largely because of its outdated values framings.

As discussed above, the Wildlife Act was formulated with the protection of game birds front of mind. Over time, game animals have also established a foothold in wildlife laws (see *Spotlight: Evolution of legal approach to harmful animals* in Appendix C) and fishing bycatch has been sanctioned (see Issue 6 below). As a result, the use of wildlife has become riddled with inequities. Most significantly, these inequities arise because the Wildlife Act, while catering for a myriad of commercial and recreational uses, is not designed with Māori customary use in mind.



Feathers of Threatened – Nationally Endangered kea. Photo by Neil Silverwood

The following is a list of the main inequities that arise because of the Wildlife Act's values framings, there are likely many more:

- Not all species are covered by the Act, for example, entire taxonomic groups are excluded from the Act's protections, such as plants, freshwater fish and most invertebrates and marine species (see Issue 2 below). This means that the starting point of absolute protection is not consistently applied to all species.

- Indigenous species are not directly prioritised above introduced species and, as such, introduced species have established a foothold in wildlife laws giving them certain protections over indigenous species, for example:

    i. Game birds are specifically managed for enhancement of the game resource (see Regulation of game hunting above); and

    ii. Highly valued introduced species are allowed to persist to the detriment of indigenous species i.e., sport fish which prey on indigenous freshwater fish and wild ungulates which consume indigenous flora (see Appendix C).

- The Wildlife Act's absolute protection applies equally to threatened and common species. Except for threatened marine species, threatened species are not afforded any special protections, nor are their critical

habitats. A precautionary approach or overall net gain are not imbedded in decisions about these species, even though their very survival may be tenuous.

- Māori customary use requires permission on a case-by-case basis,[1] but then the Wildlife Act allows for:

  i. The pārera/grey duck which is listed as Threatened - Nationally Vulnerable in the NZTCS to be shot without an individual permission (provided one has a game licence) because it is listed as a game bird, but other non-threatened taonga species cannot be used; and

  ii. Marine species to be taken as fishing bycatch (provided the take is reported), but customary use of taonga marine species requires permissions.

- The Wildlife Act's protection is focused on preventing 'take' of animals (i.e., hunting and killing), but direct take is only one threat facing species. In Aotearoa, land use change and introduced species are key threats to species, yet the Wildlife Act does not address these threats very well (if at all). Consequently, minor Māori customary use is limited (including the use of feathers) while more significant threats are either allowed to continue or are left to other statutes to be managed.

The greatest challenge for wildlife law reform will be how a new Act re-sets its values to both protect threatened and indigenous species and incorporate the values and interests of Māori and communities.

The need to build social licence

Those interviewed for this report emphasised the need to identify common core values and build the social licence necessary to ensure the long-term sustainability of a new framework and improved compliance.

In 2021, DOC research found that 75 percent of people agreed that indigenous species should have more rights than introduced species, which is an encouraging starting point.[2] However, appropriately addressing the socio-economic, cultural and associated equity concerns that exist will also be an essential component to gaining social licence, and so to the success of any new regime.

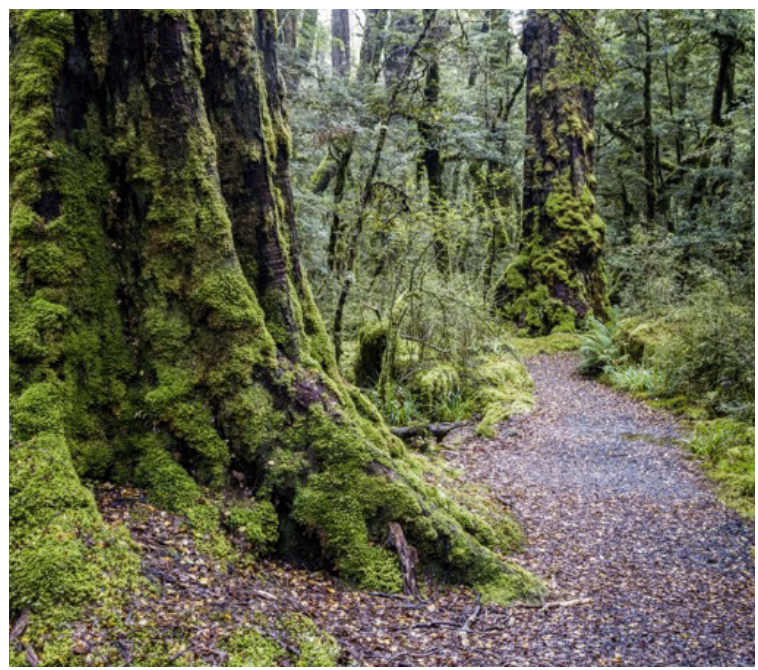
For example, in DOC's 2021 study, despite operation of the Predator Free 2050 programme, most people still had very little knowledge of what species are predators and of the harm caused by different species.[3] Surprisingly, only 68 percent of the public considered pests to be a conservation problem and only 43 percent felt that the benefits of pest control outweighed the risks to native species.[4] As a control method, 1080 also remains a divisive topic, which has led to resistance to its use.[5]

This research highlights the need for more effective messaging and knowledge communication around the threats to biodiversity to increase the support for control and strong species protection.

Summary of findings: Issue 1: Inequitable values regime

1. To minimise inequities, new wildlife legislation will need to re-calibrate how it enables the use of wildlife at place across all sectors and domains - customary, social, commercial, and marine and terrestrial.

Issue 2: Not all wildlife is covered by the Wildlife Act



Fiordland National Park. Photo by Raewyn Peart

Many species, and sometimes entire taxonomic groups, are not afforded the Wildlife Act's absolute protection because they are excluded from the Act's jurisdiction through definitions.

As noted above, all wildlife is afforded absolute protection under the Wildlife Act. Wildlife is defined as any "animal". When the Wildlife Act first came into force animal included any mammal (not being a domestic animal or a rabbit, hare or seal or other marine mammal), any bird (not being a domestic bird), any reptile, or any amphibian. This wording had the effect of excluding plants, invertebrates, freshwater fish and marine species (except seabirds and marine reptiles) from the Act's jurisdiction and, therefore, its protection.

Since then, the definition of animal has been expanded to include terrestrial or freshwater invertebrates and marine species, but only if they are listed in Schedules 7 or 7A respectively. This approach reverses the presumption applied to other animals of absolute protection until a lesser protection is applied (in Schedules 1 - 5), to one of unprotected status until formally recognised (in Schedules 7 and 7A).

Protection of invertebrates

Dragonfly on the Te Araroa Trail. Photo by Neil Silverwood

In 1980, the definition of "animal" was amended to include terrestrial and freshwater invertebrates listed in Schedule 7. That amendment gave no priority to species being either indigenous or threatened. However, this was clearly the original intent.

Amendment to the definition of animal arose because of concerns expressed during the 1970s by several notable scientific and conservation organisations that some invertebrates were threatened with extinction. In 1979, Cabinet recommended that the Wildlife Act be amended to enable protection of threatened terrestrial invertebrates.

Parliamentary debates relating to the amendment reflect this focus on threatened species, referring to the change to the definition of animal as being very important for the future protection and management of "rare and endangered species of terrestrial and freshwater invertebrates", usually found "in remote locations, mostly on off-shore islands".[6] During the select committee process on the amendment, species considered to be too common were removed from the schedule.

In 2006, DOC considered the addition of species to Schedule 7 owing to international trade and commercial use. Reflecting the above history, the criteria used by DOC to assess which species were at most risk from collectors and users focused on the threat status of the species. Further, only endemic invertebrates were added to Schedule 7 as a result of the review. In a separate discussion on offences, DOC's report states that only deliberate killing of absolutely protected native invertebrates would be an offence.

Limiting invertebrates to threatened indigenous species is somewhat understandable in the context of enforcement. If the Wildlife Act afforded absolute protection to all invertebrates (except those listed in Schedules 1-5) how could it enforce that? This was an issue raised in Parliamentary debates on the 1980 amendment of "animal": "So what is the poor innocent collector to do, especially if he or she is aged about 8 and on the way to becoming a future Darwin?".[7] To minimise enforcement issues, Singapore's new Wildlife Act 2020 adopts the current approach of the Wildlife Act, that invertebrates not listed as protected wildlife are exempted from the Act's protections.[8]

However, limiting protection of invertebrates to only those listed does not recognise the importance of all insects as ecosystem service providers. In the U.S., native insects such as the rusty patched bumble bee contribute more than $3 billion in pollination services to crops. Add in providing food for wildlife, reducing costs of pest control and improving ecosystem health by recycling nutrients, and that value racks up to a staggering $57 billion.[9]

While freshwater invertebrates can be listed under Schedule 7, none currently are. Leaving these species entirely unprotected.

Land Care Research searching for subfossil deposits (clues to our past) and moa coprolites in Otago. Photo by Neil Silverwood

Protection of marine species

> *"The most striking contrast [between aquatic and terrestrial protection] is the much later implementation of full legal protection of any marine species (right whales in 1935), 57 years after the first terrestrial species (tūi, in 1878; Miskelly 2014). Most native New Zealand birds have had ongoing full protection since at least 1910. Equivalent blanket protection for marine reptiles (at least on New Zealand shores) was granted in 1953, for marine mammals in 1979, and for hard corals in 2010 – a full century after birds".*[10]

Since the early 1900s, the protection of marine and terrestrial species has been dealt with differently. In contrast to the absolute protection afforded to many terrestrial species, exploitation of marine species was historically managed through regulation of fishing gear, harvest season lengths and bag limits.[11] This divergent management ethos, which reflects a view that marine species are resources to be utilised, has persisted through subsequent legislative reforms. Marine species have largely been managed by fisheries utilisation laws, and terrestrial species by animal protection laws.

Marine reptiles could be protected under the Wildlife Act's main predecessor, the Animals Protection and Game Act 1921, if specifically listed. Two turtles were protected under these provisions. Rolling over this protection is perhaps why marine reptiles received the Wildlife Act's absolute protection, albeit implicitly.

However, marine mammals and fish were not protected under predecessor wildlife laws.[12] Nor was the marine environment even mentioned in any of the Parliamentary debates on the Wildlife Bill. In accordance with the definition of "animal" all seabirds (as "birds") and marine reptiles (as "reptiles") are absolutely protected by the Wildlife Act, although there is no indication that this was intentional. Other marine species (broadly defined to mean any species inhabiting or found in or on the sea or foreshore) are only absolutely protected if they are specifically listed in Schedule 7A of the Act.

Schedule 7A was introduced into the Wildlife Act in 1996 when the Fisheries Act was enacted. Black, gorgonian, and stony corals and hydrocorals are listed in Schedule 7A. So are five shark, two ray and two fish species. All other corals, marine invertebrates, sharks, rays and fish remain unprotected.

"Marine mammals" are specifically excluded from the definition of "animal" and thus fall outside the Wildlife Act's jurisdiction. Instead, they are protected under the Marine Mammals Protection Act 1978 (MMPA).

Threatened - Nationally Vulnerable New Zealand sea lion. Photo by Raewyn Peart

Freshwater fish and all plants remain excluded from the definition of animal and are therefore completely unprotected by the Wildlife Act.

Exclusion of plants

Plants were, and remain, excluded from the Wildlife Act's jurisdiction. Instead, plants are protected under the Native Plants Protection Act 1934 (which does not operate in any real sense) and, on the conservation estate, via other conservation laws.

Under the Native Plants Protection Act, the Governor-General can declare native plants for protection. The first (and only) declaration of protected plants was made shortly after the Act was enacted.[13] The declaration included all native plants, with the exception of ten plants and all species of algae, lichens, fungi, liverworts and moss.[14]

The Native Plants Protection Act was primarily about stopping people taking native plants from public lands, particularly the roadside. As such, the Act creates only one offence; to take any protected native plant, including on private land (although landowners themselves are exempt), without consent unless the taking is of reasonable quantities for medicinal, research, nature study or propagation purposes, or the take has been authorised. Whilst taking is not insignificant, it is not the primary harm that native species suffer.[15] Parliamentary debates on the Native Plants Protection Bill noted on several occasions that introduced species were causing far more damage to the native bush than human vandals. Yet the Government did not expand the Bill to deal with this issue.

It is not known why the Wildlife Act did not extend to plants when it was drafted 20 years later. However, in 1983 an amendment to the Wildlife Act proposed to extend the Act's jurisdiction to protect rare and endangered plants in a new Schedule 8. The structure of the Wildlife Act was deemed suitable for the addition of plants, protection having been extended to listed invertebrates only a few years before.

The proposed Wildlife Act amendment was intended to operate simultaneously with the Native Plants Protection Act, rather than replace it. Giving specific protection to rare and endangered plants was considered necessary for conservation and to comply with international obligations on trade in endangered species.

Complex issues relating to Crown ownership of wildlife under the Act, how the Wildlife Act would apply to private land and plant nurseries, and monitoring and enforcement issues meant that the proposal did not proceed.[16] Instead, the Native Plants Protection Act was slated for accelerated review.[17] This never occurred, and no substantial amendments have ever been made to that Act.

The Native Plants Protection Act has significant deficiencies. As mentioned above, it only applies to one kind of harm, the taking of native plants, but even then it does not apply to landowners. Penalties are minor and the Act has never been enforced.[18]

Appendix C on introduced species discusses consistency of protection and equitable disparities that arise because of the Wildlife Act's exclusion of plants and the divergent management of 'pest' species between the Wildlife Act and the Biosecurity Act. A comprehensive species and taxonomic approach in new wildlife legislation would go some way to addressing these issues.

Threatened - Nationally Critical dryland cress, which is endemic to eastern South Island inland basins. Photo by Mike Harding

Exclusion of freshwater fish

The extinct New Zealand grayling is the only fully protected freshwater fish species in the country.[19] In 2019, amendments to the Conservation Act (via the Conservation (Indigenous Freshwater Fish) Amendment Act 2019) attempted to fill this void for defined indigenous freshwater fish species. It did this by prohibiting the take of indigenous freshwater fish species from conservation areas, and areas outside the conservation estate, without authorisation (although outside the conservation estate take can occur as of right if it is for human consumption and in accordance with regulations). The protective value of the amendments has been undermined by general regulations authorising take (eliminating the need for individual permissions). This is particularly so with respect to whitebait.

Whitebait are the juveniles of six species of fish: inanga, banded kōkopu, giant kōkopu, kōaro, shortjaw kōkopu and common smelt. Four of the six whitebait species are threatened with extinction or at risk of becoming threatened. In 2021, new regulations came into effect to manage the take of whitebait species. The regulations shorten the whitebait season and introduce gear and method restrictions. They do not impose bag limits or quota. Whitebait is an important customary fish species for Māori, and the regulations are not intended to affect customary fishing rights.

Concern has been raised about this 'double standard', whereby the Wildlife Act protects terrestrial species but not freshwater fish:[20]

> "*We should not have a double standard in the Wildlife Act, where our native birds are recognised as taonga - where they are protected from being hunted and killed - and yet our native freshwater fish enjoy no similar protection and can be hunted and killed despite the fact that many of them are staring extinction in the face.*"

Further, like existing laws relating to plant protection, the amendments to the Conservation Act only addressed one harm to indigenous freshwater fish, namely take. Adult populations of whitebait have been in decline in recent years.[21] This decline is not linked to any single factor. Loss and degradation of habitat, fishing pressure, introduced species, and access to waterways are all contributing. While 'no take' provisions are a significant part of species protection, a single-minded focus on them can ignore the need to address species protection in a holistic way, whereby habitat protection is also provided for, and threats are addressed.

Not Threatened banded kōkopu from a tributary of the Taieri River.
Photo by Bruce Quirey

Threatened species laws in Australia, the U.S. and Canada all cover animals, fish and plants. There are some differences with how plants are protected in the U.S. (see *Spotlight: What about the plants?* in Appendix A) but everything is eligible for listing under the laws. The NZTCS is equally inclusive and covers all identified indigenous taxa found in Aotearoa. New wildlife legislation should follow suit.

New wildlife legislation should also take care to ensure that definitions of terms such as 'wildlife', 'plants', 'animals', 'fish' etc. are broad enough to capture all species, and not inadvertently exclude some. The California Court of Appeal has recently had to determine whether the bumble bee, a terrestrial invertebrate, falls within the definition of fish under the State's Endangered Species Act. With no other obvious category for the bumble bee, the Court held that it did, thus affording the Act's protections to that species.

What taxonomic level is appropriate?

There is much debate about the taxonomic level at which a taxon should be defined. A balance needs to be struck between going too far down the levels, so as to risk being unable to list species because of lack of information, and coming up too high and missing outliers and variant populations.

We could find no biological justification for the exclusion of certain taxonomic groups from the Wildlife Act. Rather, current exclusions appear to be a continuation of historical species management laws, which have been driven by use values (such as fishing, hunting and plant propagation) and practical difficulties with monitoring and enforcement. These are not valid reasons for limiting application of new wildlife law.

Summary of findings: Issue 1: Not all wildlife is covered by the Wildlife Act

1. New wildlife legislation should be inclusive of all taxonomic groups. This would align with overseas laws and the NZTCS.
2. Including all taxa within new wildlife legislation would be a more consistent and equitable way of managing species.
3. Care must be taken to avoid inadvertently excluding taxa through definitions.

Issue 3: No dedicated threatened species law

Threatened - Nationally Endangered yellow-eyed penguin. Photo by Forest and Bird

The Wildlife Act makes no distinction between threatened species and other wildlife (except for threatened marine wildlife, see below *Spotlight: Threatened marine wildlife*). Yet targeted threatened species management is central to preventing species extinction.[22] For the reasons outlined above in relation to the twin crises of biodiversity loss and climate change, preventing species extinction is considered in this report to be a bottom line for what new wildlife legislation should seek to achieve.

Many OECD countries have legislation to protect threatened species, much of which was drafted in response to ratification of the Convention on Biological Diversity (CBD) in 1992 (see Table 3 for key examples). Aotearoa ratified the Convention in 1993 and is unusual and out-of-step with international best-practice for species protection in its lack of threatened species legislation.[23] As identified in *Conserving Nature*:[24]

> "*Although species are classified according to their threat level, there is no formal listing process, and no statute that elevates the protection needs of listed species. There is also no legal requirement to develop a management or recovery plan for threatened species (or their habitat) or for ongoing monitoring. In turn, there has been little funding provision to enable these processes to occur*."

Appendix A explores in detail the multitude of regulatory approaches and tools used internationally for species protection. It focuses on three key jurisdictions, Australia, Canada and the U.S. Over 30 international experts from the U.S., Canada, Australia, Scotland and Sweden were interviewed to inform Appendix A and gain insight into how threatened species legislation is performing. Several local experts were also interviewed for this report on how a threatened species legal framework might apply in Aotearoa.

Much can be gained from examining international systems, many of which, in concept and principle, present an impressive framework. The challenge in designing a framework for Aotearoa lies in creating an approach that will be effective in the unique bicultural socio-economic context of the country and so result in swift, measurable and long-lasting gains for species. As stated in a 2021 article on the road to recovering Canada's endangered species:[25]

> "*... the main limitation of endangered species recovery is not a question of what to do, but how to do – how can we mainstream and accelerate current efforts to a pace and scale that matches, and then exceeds, the rate of biodiversity loss? Our current state of extinction and the rapid pace of ecological change necessitate both rethinking our traditional strategies to conservation and testing new transformative strategies*."

Adequate species protection can only be achieved when strong legislation is in place.[26] But even then, its success relies on effective implementation. While there is evidence that listing species and implementing recovery programmes have slowed species decline, no approach has been fully

effective in preventing the decline and loss of species.[27] In many countries, threatened species protection systems are buckling under the crushing weight of threats to biodiversity, with species and habitat protection mechanisms either being implemented too slowly, or not being utilised at all. As a result, wild species continue to be lost, even in jurisdictions with strong threatened species legislation.[28]

The causes of dysfunction are several and some are non-regulatory, for example, underfunding, politically motivated barriers such as delays in the listing process, social barriers such as human bias towards certain attractive species, inadequate scientific knowledge, and dilatory monitoring of protection and recovery actions. To the extent that these matters can be addressed through legislation, potential solutions are proposed in this report.

Threatened - Nationally Vulnerable West coast green gecko. Photo by Forest and Bird

Country	Legislation	Categories of protection	Primary purposes
U.S.	Endangered Species Act 1973 (ESA) Covers any 'fish or wildlife' (defined as any member of the animal kingdom) or plant.[29] Does not cover eubacteria, archaea and viruses	Endangered (in danger of extinction) Threatened (likely to become endangered in foreseeable future)	Identification of 'endangered' or 'threatened' species Designation of any habitat of endangered or threatened species as 'critical habitat' Development of 'recovery plans' for the conservation and survival of endangered or threatened species Prohibited acts for endangered or threatened species
Canada	Species at Risk Act 2002 (SARA) Covers 'wildlife species' (defined as including animals, plant or other organism other than bacterium or virus that is wild by nature)	Extirpated (no longer exists in the wild in Canada but exists elsewhere in the wild) Endangered (facing imminent extirpation or extinction) Threatened (likely to become endangered) Special concern (may become threatened or endangered)	Broadly the same as purposes 1-4 above for the Endangered Species Act To manage species of special concern to prevent them from becoming endangered or threatened

Country	Legislation	Categories of protection	Primary purposes
Australia	Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Covers threatened species, migratory species and marine species	Extinct (no reasonable doubt that the species has died) Extinct in the wild (species only survives in captivity or has a naturalised population well outside its past range or it has not been recorded in its expected habitat despite exhaustive surveys) Critically endangered (extreme risk of extinction in the wild in immediate future) Endangered (very high risk of extinction in the wild in near future) Vulnerable (high risk of extinction in the wild in medium term) Conservation dependent (species is the focus of conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered)	Identification of categories of threatened species Identification of threatened ecological communities Designation of threatened species or ecological communities as critical habitat Development of 'recovery plans' for the conservation and survival of endangered or threatened species Prohibited acts for threatened species or ecological communities

Table 3. Listing categories in threatened species legislation

Spotlight: Threatened marine wildlife

The Wildlife Act provides some additional protections to threatened marine species.

Threatened marine species are declared as such by the Minister, after having regard to relevant international and national standards. Through a convoluted trail of definitions ("threatened species", "marine wildlife", "marine species", "wildlife" and "animal") it is discernable that threatened marine species can only be drawn from Schedule 7A. Thus, the Act provides the Minister with an ability to heighten protection afforded to threatened marine species already listed in Schedule 7A.

That increased protection comes by way of a different maximum allowable level of fishing-related mortality for the species. For threatened marine species, the level should allow the species to achieve non-threatened status as soon as reasonably practicable, and in any event within a period of 20 years (see Appendix D for a description of why this goal is practically unachievable for many marine species). For all other marine wildlife, the level should not cause a net reduction in the size of the population or seriously threaten the reproductive capacity of the species.

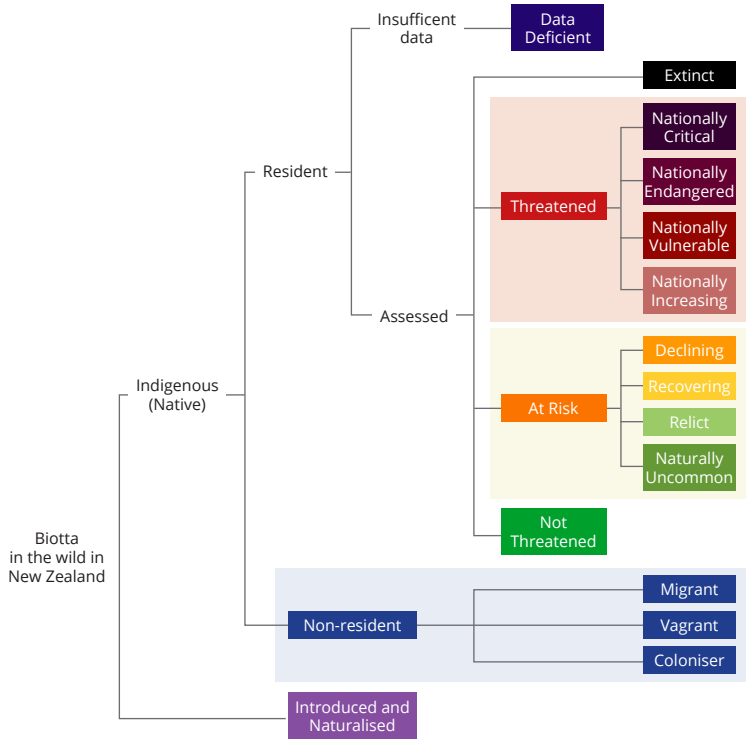
Further, area based maximum levels of fishing-related mortality can only be set for threatened marine species.

The NZTCS

Although the Wildlife Act does not specifically address threatened species, Aotearoa has a non-regulatory extinction risk assessment system which assesses the conservation status of all documented indigenous species found in the wild. The NZTCS is an independent process, administered by DOC, that complements the IUCN's Red List system. Outputs from the species risk assessments are used by several organisations and members of the public, for various purposes, including reporting, conservation management, research prioritisation, advocacy and, more recently, legislation and policy.

Panels of experts assess the risk of extinction faced by each indigenous species using criteria and categories adapted from the IUCN Red List system,[30] taking into account Aotearoa's unique ecological environment (e.g., small size of native ecosystems and high level of endemism). Species are assigned to one of the categories set out in Figure 1.

Tuatara. Photo by Raewyn Peart



Updated in 2021, from the *Amendment to the NZTCS manual 2008: Revised categories 2021* (Michel 2021)

Figure 1. The New Zealand Threat Classification System[31]

The NZTCS has been in use since 2002 and has limitations for legislation, including:

- It is not always up to date as taxa are reviewed on a cyclic basis (typically every 5 years). Several species groups (e.g., terrestrial invertebrates) have not been reassessed for over 10 years.
- A large number of species, including many marine species, are classified as Data Deficient (see Appendix A for discussion on issues with this category).

Role of NZTCS in existing law and policy

Although the NZTCS is not referred to in wildlife or conservation legislation, it does play a role under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act), conservation policy and RMA national policy.

Under the EEZ Act, the Minister of Conservation can declare a marine species to be a threatened or at-risk species if it is classified as such under the NZTCS. Effects on the habitat of threatened species must be identified in impact assessments undertaken under the Act and considered when making a marine consent decision, and the importance of protecting the habitat of threatened species must be taken into account when making regulations (see Appendix D for more detail).

DOC's Conservation General Policy requires conservation management strategies or plans to establish objectives for the recovery of threatened indigenous species and restoration of their habitats.

Under RMA national policy, the New Zealand Coastal Policy Statement 2010 (NZCPS), which applies only to the coastal environment, requires the avoidance of adverse effects of activities on "indigenous taxa that are listed as threatened or at risk" in the NZTCS.[32] Avoiding adverse effects on "a reduction in the population size or occupancy of Threatened, At Risk (Declining) species that use an SNA for any part of their life cycle" is also proposed in the proposed NPSIB.[33]

With respect to Threatened or At Risk species, the proposed NPSIB also proposes that:[34]

- An SNA within a plantation forestry must be managed to maintain the long-term populations of any Threatened or At Risk species in the SNA.
- The maintenance of improved pasture will not adversely affect a Threatened or At Risk - Declining species.

The NPS FM requires that regional councils identify and manage the location of habitats of threatened species (defined as Nationally Critical, Nationally Endangered, or Nationally Vulnerable in the NZTCS).[35] These species are also a "compulsory value" under the Policy Statement, which means that regional councils must set target attribute states for them.[36]

A question for new wildlife legislation is whether to regulate the NZTCS. In that regard, we heard differing opinions on the scientific rigor of the current listing process (not criteria) of the NZTCS. Some interviewees also expressed concern that the process sat (albeit administratively) within DOC's purview, rather than with an independent entity. Others were confident that the process was fully independent and informed by the best scientific knowledge. The former preferred a regulated listing process, while the latter preferred the current non-regulatory process. Further, and more detailed investigation into these matters is required to ascertain whether current processes are in fact delivering scientifically sound and timely extinction risk assessments. This is critically important given the increasing reliance on NZTCS threat classifications in law and policy.

Some interviewees working in the threatened species space worried that regulating the NZTCS would expose it to interest group influence. Internationally, threatened species listing processes have experienced problems because of this. If the NZTCS was to be regulated in new wildlife legislation, the statutory framework would need to be carefully crafted to ensure that the process remained insulated from external pressures.

Either way, regulated or not, NZTCS assessments can be used to inform management responses (as is currently the case in existing law and policy).

Finally, some interviewees expressed concern that increased regulation in new wildlife law around the use of wildlife (based on NZTCS threat assessments) would remove flexibility, shut down landowner engagement and co-operation, and drive perverse outcomes.

This is an acknowledged risk. It is a dilemma discussed with multiple experts in preparation of this report. The challenge is how to design a legal framework that balances strong wildlife protections whilst ensuring enough flexibility to avoid perverse outcomes. There is no perfect approach, but robust monitoring and enforcement provisions, coupled with an attractive incentives programme, were identified as being crucial to minimising unwanted outcomes.

Overall, the above issues should be worked through. They are not justification for abandoning the NZTCS or the use of threat assessments in wildlife management. Targeted threatened species management is a central component of efforts to prevent species extinction.

Threatened – Nationally Vulnerable whio chick. Photo by Forest and Bird

Overview of threatened species legislation and its biggest weakness

The overall premise of threatened species legislation is to focus protection, management and recovery effort on those species that need it most to enable their persistence. It does this by first identifying and then classifying threatened species (i.e., listing a species), and secondly by applying protective and recovery measures to each listed species and its habitat at a level commensurate with its listed threat status.

Each step in the process, from prioritising species to enter the assessment process, to ascribing a status to them, through to specifying protection and recovery actions for their populations and habitats, can be subject to pressures from vested interests which, more often than not, undermine the effectiveness of the system (see Appendix A for international examples). Economic considerations, industry pressure and political input have significantly interfered with implementation of threatened species laws overseas, to the detriment of individual species, habitat protection and, ultimately, flourishing biodiversity. Biodiversity and threatened species statistics reflect this sad story.

Aotearoa is not immune to these issues. Appendix A aims to identify weaknesses in international threatened species laws so lessons can be applied to minimise this vulnerability in Aotearoa's new wildlife law.

Drivers of change for robust threatened species law

Drawing on the experience of threatened species laws and systems overseas, Appendix A identifies several key drivers most likely to bring about transformational change in the protection and recovery of Aotearoa's most imperiled species. In summary, these are as follows.

(a) Give primacy to the species - The lack of prioritisation of species above other interests in decision-making is a key implementation challenge. It has hindered the effective protection and recovery of threatened species overseas. Incentivising good behaviour, penalising the bad and thwarting opportunities for vested interests in threatened species decision-making is key to ensuring species primacy.

(b) Prioritise the most threatened species - Regulation does not need to be applied equally to all threatened species. The degree of control can be staggered down the threat continuum. Applying the strictest protections to the most threatened species, the Nationally Critical and Nationally Endangered in the NZTCS context, is important to prevent extinctions.[37]

(c) Give independent bodies decision-making powers - Ministerial discretion and political interference in decision-making is a significant impediment to the effective and efficient implementation of threatened species laws. Giving decision-making to an independent body, insulated from political interference, including in the appointment of its members, would remove that impediment. Ensuring that decisions are informed by the best available science and indigenous knowledge is a natural corollary of that.

(d) Provide for greater automation - Independent advice should trigger automatic responses. Automatic listing has been heralded as a way of improving threatened species laws overseas. Automatic listing would expedite the listing process and mean that all species which qualify for listing would, in fact, be listed. This is currently the case in Aotearoa under the NZTCS, and it is essential that it stays that way.

(e) Adopt a precautionary approach - Scientific evidence relating to threatened species is usually incomplete and uncertain. In the face of such challenges, a precautionary approach should be applied to threatened species decision-making. A precautionary approach is particularly important in the context of climate change which is exacerbating and multiplying threats to threatened species in new and dynamic ways.

(f) Protect habitat - Land use change and associated lack of habitat protection is driving biodiversity decline. Thus, protecting threatened species habitat is vital. Protection of critical habitat and/or residence can be required via threatened species legislation. A robust incentives scheme will greatly assist in reducing opposition to habitat protection.

(g) Require an overall net gain - It is no longer good enough to simply maintain species and their habitats. To bring about transformative change, threatened species law needs to proactively enhance and restore populations and habitats. This can be achieved through a requirement for an overall net gain when making decisions affecting threatened species. It requires a mindset of going 'above and beyond' for the species, rather than just ensuring no net loss. The need is particularly urgent in this country's most depleted environments.[38]

Overall net gain in the proposed NPSIB

The proposed NPSIB requires that any offset achieves a measurable net gain in type, amount and condition (structure and quality) of indigenous biodiversity compared to that lost, defined as:

> *"Net gain: The biodiversity values to be lost through the activity to which the offset applies are counterbalanced and exceeded by the proposed offsetting activity, so that the result is a net gain when compared to that lost. Net gain is demonstrated by a like-for-like quantitative loss/gain calculation of the following, and is achieved when the ecological values at the offset site exceed those being lost at the impact site across indigenous biodiversity:*
>
> *(a) types of indigenous biodiversity, including when indigenous species depend on introduced species for their persistence; and*
>
> *(b) amount; and*
>
> *(c) condition."*

Subjugating net gain to offsetting limits its application. Overall net gain in recovery of the species or habitat should be applied as a broader requirement for all activities affecting threatened species.

(h) Impose greater accountability - The lack of accountability imposed on decision-makers is a common criticism of threatened species law. Accountability goes hand-in-hand with transparency and, as discussed above, broad Ministerial discretion is causing issues. Threatened species decision-making should be free from political influence and knowledge based. Decision-makers that digress from that knowledge need to be held to account for outcomes that follow.

(i) Increase funding - Underfunding is a major barrier to the protection and recovery of threatened species. No matter how well crafted a threatened species law is, it cannot achieve its objectives unless it is sufficiently financed.[39] This funding needs to be comprehensive, targeted, directed upon certain actions (i.e., listing of a species) and sustained.

Summary of findings: Issue 3: No dedicated threatened species law

1. Aotearoa needs targeted threatened species law to prevent species extinction.
2. The NZTCS should be retained to inform the conservation status of species in Aotearoa.
3. To minimise perverse outcomes associated with wildlife regulation, new wildlife legislation should include strong monitoring and enforcement provisions and be coupled with an attractive incentives programme.
4. New wildlife legislation should minimise the opportunity for vested interests in threatened species decision-making.
5. Decision-making should be informed by the best available science and mātauranga Māori.
6. Data on threatened species is often deficient but, in the context of the twin crises of biodiversity loss and climate change, a precautionary approach should be adopted.
7. New wildlife legislation should provide for the protection of critical habitat or residence of threatened species as a species cannot survive in the absence of habitat.
8. Threatened species management should seek to restore threatened populations, rather than just 'hold the line' on species decline.

Issue 4: The Wildlife Act does not give effect to Te Tiriti o Waitangi / Treaty of Waitangi

Korowai. Photo by Talia Goodger

The Wildlife Act does not refer to Te Tiriti. DOC must, however, "give effect to the principles of the Treaty of Waitangi" when administering the Conservation Act and the Wildlife Act.[40]

The legal implications of this requirement have been traversed by the Court of Appeal and the Waitangi Tribunal[41] and are discussed in detail in *Conserving Nature*.[42] In summary, the cases are authority that DOC's conservation objective is not absolute. Rather, it must be achieved in a matter that is based on partnership, supports tino rangatiratanga of Māori and provides for active protection for their interests in taonga.

While the cases discussed in *Conserving Nature* provide some direction, the question of how to give effect to the principles of Te Tiriti is complex, with a range of options that could be effective in different contexts. This matter is currently being discussed in the context of the reclassification of stewardship land on the West Coast, and in DOC's review of the Conservation General Policy. How to give effect to Te Tiriti will also form a large component of DOC's review of the conservation system. Although the Waitangi Tribunal in Wai 262 made two specific recommendations which are relevant to reform of the Wildlife Act (relating to co-management of customary use and ownership of wildlife), the question has not been directly tested in the courts in the context of the Wildlife Act.

A key question is what does giving effect to the principles of Te Tiriti mean when making decisions about wildlife protection, use and recovery? This report explores that question through three main issues:

> *The Wildlife Act vests ownership of wildlife in the Crown and Māori are required to get permission for customary use on a case-by-case basis*
>
> *The Wildlife Act does not specifically protect taonga species*
>
> *The Wildlife Act does not recognise or mandate mātauranga Māori in decision-making*

Appendix B canvasses these in detail, and they are summarised below.

In most cases, giving effect to the principles of Te Tiriti will align with conservation objectives. As the Waitangi Tribunal in Wai 262 stated, the survival of species is a 'shared bottom line' for kaitiaki and conservationists.[43] Further, greater recognition of Māori values is likely to operate as an important lever to improve the degree of protection and priority of indigenous species which will lead to positive outcomes.

Through the issues below, this report traverses some of the more challenging aspects of the interface between wildlife and Te Tiriti, particularly with respect to customary take of threatened species and protection of introduced taonga species.

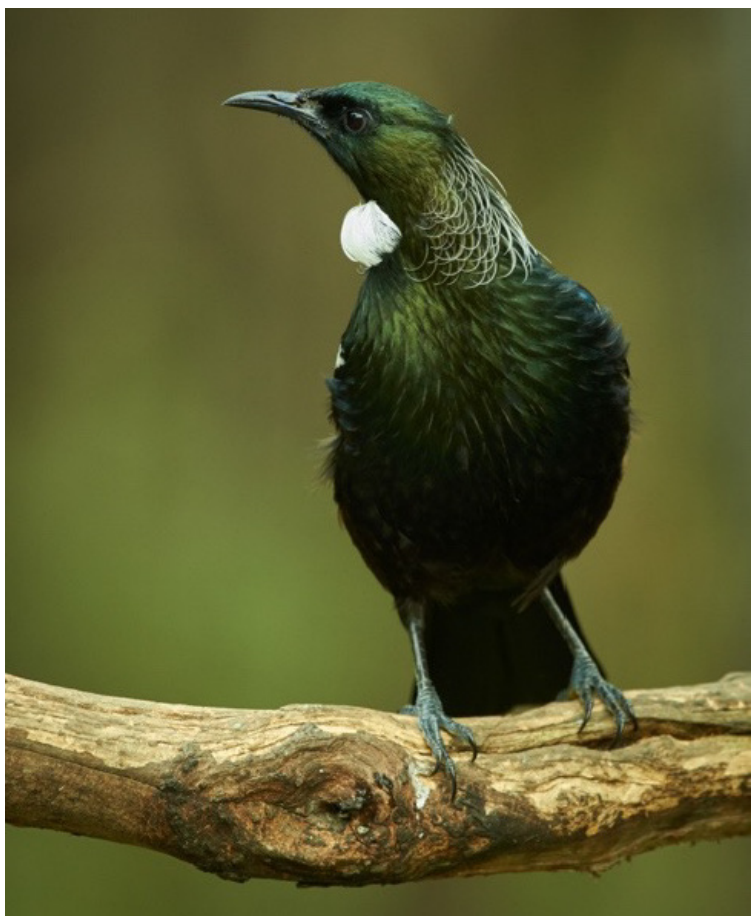
Issue 4A: The Wildlife Act vests ownership of wildlife in the Crown and Māori are required to get permission for customary use on a case-by-case basis

Under the Wildlife Act the Crown has ownership of wildlife and Māori must obtain permission from the Director-General to catch alive or kill any absolutely or partially protected species.[44] This includes take of their materials, such as feathers. The requirement for a permission, on a case-by-case basis, has caused significant anguish for Māori seeking to undertake customary activities.

The Waitangi Tribunal has recommended that no-one owns protected wildlife, rather there should be a shared management framework in line with the partnership principle, and that provision should be made for full, statutory co-management of Māori customary use of taonga species by DOC and iwi; that is, they should make joint decisions.

Ownership of wildlife does not have to fall to anyone. However, ownership of wildlife brings responsibility and accountability for its loss. As discussed in Appendix A, internationally, a lack of accountability is a significant issue with threatened species laws. A regime whereby no-one owns wildlife would need to be accompanied by clear lines of accountability for protecting, managing and recovering that wildlife.

Crown ownership of wildlife has also been a way of clarifying what landowners can and cannot do on their land. For example, currently, people own the plants on their land because they are not covered by the Wildlife Act, and people can kill unprotected wildlife (i.e., mice) on their land but not protected wildlife (i.e., tūī). Any alternative to Crown ownership of wildlife would have to address this private property rights issue.



Not Threatened Tūī. Photo by Forest and Bird

New wildlife legislation will need to provide for Māori customary use. The conversation to be had is about the circumstances of its provision. In this context, Māori customary use is not the main use contributing to current species decline in Aotearoa. Other effects on wildlife such as from fishing (through direct take and bycatch), and from recreational hunting (through the persistence of some wild animals), are having far greater impact. Land use change, habitat destruction, introduced species and climate change are the major factors. If a new wildlife legislation is to make any difference to species decline it will need to address those threats. Doing so will require a re-calibration of the Act's value framings with respect to use of wildlife, including by Māori.

In saying that, Māori customary use, like any other use, has the potential to be a significant contributor to species decline. Multiple policies and reports use various terms to describe in what circumstances Māori customary use might be appropriate, such as when populations are 'sustainable' or 'resilient'. Ensuring the sustainability of bird populations in particular will be a key factor if cultural harvests become more widespread.

Not Threatened Kererū. Photo by Raewyn Peart

In Wai 262, the Waitangi Tribunal stated that "[j]oint decisions should be made on the basis of the following core principles: first and foremost, the recovery and survival of the species; and secondly, the right of iwi to exercise kaitiakitanga and maintain their culture".[45] This reflects the hierarchy set in the NPS FM, which puts the wellbeing of freshwater first, above the needs of people.

New wildlife legislation could also include a hierarchy of protection which prioritises threatened indigenous species, above the needs of people, thus ensuring the health of biodiversity for the health of people. Practically, this could mean that provision for Māori customary use (and other uses) is linked to the extinction risk of a species, so that Māori customary use is provided for as long as the species is not listed in certain threat categories.

The above approach would not, however, address whether it is appropriate to kill species for Māori customary use that are not threatened but which are highly valued by sectors of the community, such as common dolphins. Or whether providing for Māori customary use of introduced taonga species (by protecting these species) is appropriate when they pose a threat to indigenous and / or threatened species. These are values assessments that should be considered in the context of clear prioritisation of indigenous and threatened species. However, that will only go so far. New wildlife legislation will still need to re-calibrate how it enables the use of wildlife at place across all sectors and domains; customary, social, commercial, and marine and terrestrial.

With respect to decision-making on customary use, partnership is necessary to align with Te Tiriti, to prevent further extinction and to ensure intergenerational sustainable use of taonga species. Settlement legislation has long provided for this partnership in the context of Māori customary use, and can be examined for possible application to new wildlife legislation (see Appendix B for specific examples).

Issue 4B: The Wildlife Act does not specifically protect taonga species

The Wildlife Act makes no specific provision for the heightened protection or prioritisation of taonga species. Taonga species can be indigenous or non-indigenous (although there is differing opinions on this) and threatened or common. There is likely to be high alignment between science and mātauranga Māori when identifying the need to protect threatened indigenous taonga species.

Deeper thought will be required when considering the protection and management of indigenous but not threatened taonga species or introduced taonga species. The latter is the most challenging because some introduced taonga species can have a negative impact on indigenous threatened species. This has the potential to create tensions between the protection of threatened species and the protection of taonga species.

Bespoke and highly placed based responses have resolved tensions associated with protecting these species (see *Spotlights: Kiore or Pacific rat - Rattus exulans* and *Wild Pigs, Poaka in* Appendix B). Responses have directly recognised and considered the value of the taonga species and Māori connections to taonga, and how conservation objectives could be achieved while ensuring those connections were provided for.

As the Waitangi Tribunal in Wai 262 stated, shared decision-making is an "urgent and important part of the process of building effective partnerships and implementing section 4 of the Conservation Act".[46] Co-management of taonga species is likely to assist in resolving a lot of the tensions set out above. New wildlife legislation will need appropriate governance structures to ensure that happens. However, legislative direction on the appropriate use of species will be equally important to help decision-makers navigate the challenges discussed.

Issue 4C: The Wildlife Act does not recognise or mandate mātauranga Māori in decision-making

Aotearoa has a rich blended knowledge tradition that has been dominated by structures of so called 'Western' or 'Eurocentric' ontologies and epistemologies since European colonisation. More recently, mātauranga Māori, the distinctly Māori knowledge tradition, has become much more prominent in discourse and use.

Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020 (Te Mana o Te Taiao), states that biodiversity management decision-making should be evidence-based, transparent and informed by the best available information, including mātauranga Māori and science. There appear to be multiple ways in which that could be achieved in practice. For example, a framework could be created whereby the two knowledge systems stand separately and provide input into decisions as relevant. This would avoid questions about the weight, and importance of each knowledge system, which may arise if the starting point for decisions was one or the other. This is the approach adopted for some extinction risk assessments in Canada (see Appendix A).

A process would be required to address situations of conflict between the two knowledge systems. Principles such as prioritisation of threatened and indigenous species, and the need for a precautionary approach, could help resolve any differences. Whatever approach is adopted, it should provide for more informed and robust decision-making than each knowledge system could individually achieve.

Summary of findings: Issue 4: The Wildlife Act does not give effect to Te Tiriti o Waitangi / Treaty of Waitangi

1. A range of options could be effective in different contexts to give effect to the principles of Te Tiriti.
2. Crown ownership of wildlife is contrary to te ao Māori.
3. Māori customary use needs to be provided for in new wildlife legislation.
4. The survival and recovery of threatened species should be paramount when considering Māori customary use (and other uses of wildlife).
5. Decisions around Māori customary use should be made jointly by DOC and iwi / hapū.
6. New wildlife legislation should include provision for the heightened protection or prioritisation of indigenous taonga species.
7. Bespoke and highly place based responses are likely required to deal with introduced taonga species.
8. New wildlife legislation should provide for decision-making based on the best available information, including mātauranga Māori and science.

Issue 5: Management of introduced species is largely left to other laws

Appendix C explores in detail how introduced species are managed. In the context of this report, introduced species means species that have been brought to Aotearoa by humans, whether intentionally or unintentionally.

Currently, the management of different introduced species is divided between the conservation and biosecurity systems. Introduced species are managed across multiple Acts: Wildlife Act, WACA, Game Animal Council Act 2013 (Game Animal Council Act), Biosecurity Act, Conservation Act, Reserves Act 1977 (Reserves Act) and National Parks Act 1980 (National Parks Act). The role of, and interface between, these laws is complex and not well integrated. Which system is applied, and what management approach is adopted, is primarily dependent on what the species is, rather than the level or type of threat it poses.

Stoat, declared unprotected by the Wildlife Act. Photo by Forest and Bird

The Wildlife Act generally deals with introduced species by providing for hunting or enabling pest control. It does this by:

- Providing a management framework for regulating 'game' species listed in Schedule 1, including the setting of open and closed hunting seasons.
- Providing a framework for removing the default protection put in place under the Wildlife Act, through listing unprotected wildlife in Schedule 5.
- Designating 'wild animals' under Schedule 6, which are to be regulated under the WACA; a statute which enables control of species which can have damaging effects on indigenous wildlife but which are not to be eradicated at a national scale.

Under the Biosecurity system, the Biosecurity Act regulates pests and unwanted organisms and provides for their exclusion, eradication and effective management. The Act's focus is on:

- Preventing the accidental importation of pests and unwanted organisms and establishing a monitoring and surveillance regime for their early detection.
- Providing a pest management framework to enable the "eradication or effective management of harmful organisms present within New

Zealand", through the development of national policy direction and pest management planning at national and regional scales.

Although the pest management regime under the Biosecurity Act can theoretically be activated in response to threats from any organism, its reach is practically limited by both the Wildlife Act and the WACA. This makes it difficult for the biosecurity system to respond to threats posed by introduced animals subject to the Wildlife Act, or to wild animals which need to be controlled for reasons other than pest or unwanted organism transmission.

There are three main issues with this system and these laws:

Introduced species laws are not well integrated

Introduced animals have been allowed to persist, to the detriment of indigenous, and sometimes threatened, flora and fauna

The Biosecurity Act is not well framed for protection of biodiversity

Appendix C canvasses these issues and the regimes they sit within in detail. The issues are summarised below.

Underlying these issues is a broader issue about the extent to which the current systems accommodate and provide for diversity of values, needs and concerns. See the above discussion on inequitable values regime.

Issue 5A: Introduced species laws are not well integrated

The conservation and biosecurity systems do not 'speak' to each other very well. This is a common theme with the Wildlife Act, which also does not link with statues dealing with marine species (see Appendix D), or to the RMA which manages indigenous biodiversity on private land (see dual consenting regime under Chapter 7 below).

Interviewees advised that integration failures between the Wildlife Act and the Biosecurity Act have made it difficult to co-ordinate responses to introduced species and effective ecosystem management. For example, it can be difficult for the Ministry for Primary Industries (MPI) to rapidly respond to invasive species that breach the border, and regional councils are hindered in effective pest control, when those invasive species or pests fall within the Wildlife Act's jurisdiction.

Integration of introduced species and pest management across the conservation and biosecurity systems is required to ensure effective protection of indigenous biodiversity.

Hunter with goat taken at Kaumira / Mount Nimrod Hunting Area. Photo by Ben Tombs

Issue 5B: Introduced animals have been allowed to persist, to the detriment of indigenous, and sometimes threatened, flora and fauna

Introduced animals in the wild such as sports fish and wild animals (i.e., ungulates) can pose a significant threat to indigenous and sometimes threatened species.

Ungulates have a significant adverse effect on forest regeneration, as they browse the undergrowth, and can also reduce the carbon capture potential of indigenous forests. Wild animals also affect forest composition, the spread of invasive plants and, for pigs, through their foraging and rooting behaviour, can operate as a vector for diseases such as Kauri Dieback (see *Spotlights: Browsing herbivores* (Appendix C) and *Wild Pigs, Poaka (*Appendix B)).

Yet, these animals have been allowed to persist. There is a long list of legal and operational reasons as to why this has been able to occur. In summary, they are:

- The Wildlife Act does not protect plants.

- Clear priority is not provided to indigenous species, so where there is a conflict between introduced and indigenous species, it is not clear which should prevail.
- Wild animals and sports fish are afforded special protection (by sustaining the hunting resource).
- Interest groups have a say in invasive species management through statutes (i.e., the WACA and the Game Animal Council Act).
- Hunting introduced animals as a recreational and food gathering activity is highly valued by New Zealander's.
- Control of wild animals is difficult and resource intensive.
- DOC has relied upon recreational hunting for wild animal control, imbedding a sense of entitlement to have these species sustained for hunting (perpetuated by DOC's investment in deer-repellant 1080 bait).
- The inclusion (if done) of wild animals in Regional Pest Management instruments is constrained by the legislative direction in the WACA that an eradication approach occur "locally where necessary and practicable".
- Wild animals are not adequately monitored, making it difficult to respond to new incursions.
- Management of wild animals or sports fish is not connected to species extinction risk assessments.
- The Biosecurity Act's pest management tools cannot be applied to wild animals without authorisation (except where they are vectors for another pest or unwanted organism).
- Getting animals declared "unwanted" can be difficult because that designation cannot be situational (e.g., farmed vs wild deer).

The multitude of statutes and potential management models applicable to wild animals make the purposes and approach to this grouping of animals especially unclear. As such, management planning of valued introduced species, such as wild animals and sports fish, is highly contested and conflict laden.

Reform of wildlife law to address these issues will have implications for animal control policy and planning more broadly. Because both the WACA and Game Animal Council Act are central to the management of introduced species, any review should also closely examine these interfaces to ensure consistency and alignment.

Damage to native forest undergrowth from introduced species. Photo by Bruce Clarkson

Issue 5C: The Biosecurity Act is not well framed for protection of indigenous biodiversity

The Biosecurity Act provides a range of valuable tools currently lacking in the conservation system, including mechanisms to initiate management planning and pest control proposals, funding levers to ensure those programmes are resourced, and compliance mechanisms to ensure a consistent and integrated approach is adopted.

However, there are barriers undermining the effective utilisation of the Biosecurity Act's pest management tools and mechanisms for biodiversity protection. These include:

- The Biosecurity Act provides no prioritisation, so protection of biodiversity is not paramount, which is important when organisms might have impacts across a range of contexts.
- Evaluating non-economic matters is difficult within the cost-benefit analysis required by the Biosecurity Act.

- It is easier to find funding to support pest programmes where the risk is to an economic sector, rather than to conservation, as the sector at risk can be levied to cover some of the costs.

- MPI, and not DOC, is typically the lead agency under the Biosecurity Act.

DOC contractor checking a trap as part of a kea monitoring programme.
Photo by Neil Silverwood

Most interviewees agreed that the Biosecurity Act requires more direct triggers and guidance in relation to indigenous biodiversity, a more bespoke funding model for indigenous biodiversity and a stronger role for DOC. The two systems could also be aligned by better reference to Biosecurity Act tools in new wildlife legislation.

Drivers of change for management of introduced species

Appendix C identifies several ways in which introduced species might be better managed. In summary these include:

(a) *Prioritise indigenous and threatened species* - The starting point of absolute protection for all species, including introduced species, creates unintended outcomes and operates as a barrier to quick responses to introduced species incursions. New wildlife law should prioritise indigenous and threatened species. Management mechanisms and schedules will need to be adjusted accordingly. On this basis, a biosecurity, rather than game management, approach could be adopted in relation to introduced species.

(b) *Change approach to scheduling introduced species* - Wildlife Act schedules currently categorise species into groups according to the level of protection provided to them and their management regime. With respect to introduced species, schedules might be better applied as a mechanism to cluster groups of species according to the degree of risk or threat they pose.

(c) *Link management of valued introduced species to biodiversity values present* - DOC's Te ara ki mua framework for adaptive management of wild animals acknowledges that management of valued introduced species requires a site-based planning regime and adaptive management approach, underpinned by evidence, including mātauranga Māori. A spatial planning approach might include:

- The identification of priority sites for biodiversity protection and critical habitat mapping, where an eradication zone is adopted.

- The creation of buffer zones around those high biodiversity areas, as an additional safety net and a delineated containment area which is regularly monitored.

- The identification of sites where the species can be sustainably managed as a resource.

(d) *Tightly control adaptive management of valued introduced species* - An adaptive management approach is a high risk one if it does not have sufficient funding, monitoring and support. It should only be employed

to valued introduced species in situations where the risk to indigenous biodiversity is within acceptable limits.

(e) *Include mechanisms to trigger management responses* - None of the existing animal management planning or control mechanisms under either the Wildlife Act or the WACA regime contain 'triggering' mechanisms to require action. New wildlife legislation could include mechanisms to ensure that pest management and control is responsive to new information, and that there are clear pathways to initiating such planning. To be effective, such provisions would need to be able to initiate a management response such as an action plan in relation to any species which threatens biodiversity values, regardless of their status, including sports fish and game animals. It will also require that wildlife legislation is given primacy over other associated legislative regimes (such as the WACA).

(f) *Review the role, composition and functions of key hunting and fishing advocacy agencies* - To ensure that any new wildlife regime is not undermined by existing provision for hunting and fishing advocacy, wildlife law reform should review the role, function and composition of Fish and Game and the Game Animal Council to ensure greater alignment with the conservation system, and support for the purpose of new wildlife legislation.

(g) *Interface with the Biosecurity system* - Arguably, new wildlife legislation should include a bespoke conservation-focused pest management planning regime, applying to all organisms, including invasive weeds, fish, invertebrates and pathogens. This would enable DOC to undertake an integrated holistic approach to indigenous and threatened species protection, and to take the lead role. Indeed, the high degree of interaction and connection between indigenous and introduced species calls for such an approach. This would enable an ecosystem based management approach to be adopted within the conservation system. Alternatively, existing mechanisms which enable DOC to trigger the Biosecurity Act could be reviewed to ensure that the Act's tools and funding mechanisms are fit for conservation purposes.

Summary of findings: Issue 5: Management of introduced species is largely left to other laws

1. Indigenous and threatened species should be prioritised in new wildlife legislation.
2. Integration of introduced species and pest management across the conservation and biosecurity systems is required to ensure effective management of indigenous and threatened biodiversity.
3. New wildlife legislation should not enable the persistence of wild animals and sports fish in priority areas of high biodiversity.
4. Control of wild animals, in particular, is required to address biodiversity loss.
5. The biosecurity system needs to better provide for the protection of indigenous biodiversity.
6. With respect to introduced species, new wildlife legislation might be better framed as a biosecurity / pest management regime, rather than a game management one.
7. To ensure that new wildlife legislation is responsive to threats, a new Act should include mechanisms to trigger management responses.
8. The role, composition and functions of key hunting and fishing advocacy agencies need to be better aligned with the goals and purposes of any new wildlife framework.

Issue 6: Protection of marine species is not well addressed by the Wildlife Act

The Wildlife Act was clearly not designed with the marine environment in mind. Only five sharks, two rays, two boney fish, and black, stony and gorgonian corals, and hydrocorals are afforded the Act's protection by virtue of being listed on Schedule 7A. All other sharks, rays, fish, corals, marine invertebrates and seaweeds remain unprotected. Marine mammals are also not covered by the Act (instead they are covered by the MMPA). Yet, much of the Aotearoa's biodiversity is found in the marine area and many of those species are threatened with extinction or are at risk of becoming threatened. Any legislative regime which is concerned with wildlife needs to carefully address its application to marine species.

There are three main issues with the current management regime for marine species:

Most marine species are managed under laws other than the Wildlife Act (if they are managed at all)

The Wildlife Act fails to protect habitat important to the survival of marine species and this is not compensated by other marine related laws

There are large 'carve outs' from marine species protection (where it is in place) for accidental or incidental take

Appendix D canvasses management of marine species and these issues in detail. The issues are summarised below.

Not Threatened dusky dolphins. Photo by Raewyn Peart

Underpinning these issues is paucity of data relating to the marine environment (see below *Spotlight: Data deficiencies in the marine area*). To a large extent, data deficiencies have enabled the fishing industry to continue operating in the absence of any real understanding of impact. Even for some species that are managed under the QMS there is insufficient information to determine the status of the populations. Some are known to have collapsed which means they are no longer self-sustaining under fishing pressure.

Spotlight: Data deficiencies in the marine area

Conservation status assessments have been undertaken for only around 10 percent of the country's known marine species. Marine fish species are notably absent from such assessments. Many of the species that have been assessed are categorised as 'Data Deficient'. However, for marine species that have been assessed, the available data indicates that many indigenous marine species are threatened with extinction or are at risk of becoming threatened.

Issue 6A: Most marine species are managed under laws other than the Wildlife Act (if they are managed at all)

The different pieces of legislation that apply to marine species adopt various approaches. The Wildlife Act and MMPA take a similar approach in prohibiting direct harm to some specifically identified marine species (marine mammals, seabirds, many corals and a few shark, ray and grouper species) without a permit. However, there is a gaping hole when it comes to protecting these species from accidental or incidental harm from fishing activity. As fishing is one of the main threats for many of these species, this statutory 'hole' is very significant and will need to be addressed in any future system.

The Fisheries Act is based on the premise that marine species are there to be utilised by humans and are only to be conserved for future use (i.e., utilisation of fisheries while ensuring sustainability). A recent High Court case has confirmed that ensuring sustainability broadly creates an environmental bottom-line.[47] However, this is a different orientation to the protective focus of the Wildlife Act and MMPA.

Despite the broad applicability of the Fisheries Act, only a very small proportion of marine species are managed under it (and only one marine plant species), with a focus on those which are commercially harvested. Harvest impacts on species not within the QMS are largely unmanaged, as are impacts of fishing activity on non-harvested species, with some important exceptions in the case of seabirds, marine mammals and sharks which are protected species and come under the relatively well-funded conservation services programme (see below *Spotlight: Conservation Services Programme*).

Spotlight: Conservation Services Programme (CSP)

The Fisheries Act includes funding mechanisms for "conservation services" which are defined as "outputs produced in relation to the adverse effects of fishing on protected species" and include research into bycatch issues, development of mitigation technologies and development of population management plans.[48] "Protected species" are defined in the Act as marine wildlife absolutely protected under the Wildlife Act and marine mammals as defined under the MMPA.

The CSP is managed by DOC and the costs are spread across quota owners. For the 2022-23 year, the programme had a budget of just over $4.5 million.[49] This funding, which is mainly levied from entities undertaking activities which create the species threat, has facilitated progress on a range of protected species bycatch issues. It is a model which could have wider application in order to raise funds for species management on the 'polluter pays' principle.

The RMA mainly comes into play when a party wishes to establish a new activity in the coastal marine area (or an existing activity needs to be re-consented). The NZCPS makes it clear that, in such cases, adverse effects on threatened species need to be avoided. However, effective implementation of this requirement, particularly when it comes to cumulative effects, is reliant on protective provisions being inserted into regional coastal plans (and other plans).

The EEZ Act has shown its potential to protect vulnerable marine species, but it lacks a robust policy framework to guide decision-making. The EEZ Act provides for regulations to be made to spatially protect important habitat, but these provisions have not been used to date.

As a result of the above, the current system for managing marine species is not coherent, with the various elements rarely talking to each other.

Issue 6B: The Wildlife Act fails to protect habitat important to the survival of marine species and this is not compensated by other marine related laws

Providing spatial protections for marine species and habitats is complex. Spatial protections can be put in place under the Wildlife Act, MMPA, Marine Reserves Act 1971 (Marine Reserves Act), Fisheries Act, RMA and EEZ Act, all with different purposes. Some of these protections are only partial, for example:

- Marine reserves under the Marine Reserve Act can protect against all marine activities, but not against land-based impacts such as sediment and cannot be created in the exclusive economic zone (EEZ).
- Protective areas can be created under the Fisheries Act in the territorial sea and EEZ but only in respect of fishing. Activities such as mining can still occur in such protected areas, and it is not possible to control land-based impacts through this mechanism.
- Protective areas can be created under the MMPA in the territorial sea and EEZ but only to protect marine mammals.
- Protective areas can potentially be created under the EEZ Act through regulation within the EEZ but exclude fishing and shipping.
- Protective areas can be created under the RMA, for all activities including fishing, but only in the territorial sea. Controls can also be put on land-based impacts on them.
- Under the Marine and Coastal Area (Takutai Moana) Act 2011 (MACA Act), holders of customary marine title have broad rights to decline permission for many activities to occur within the title area, however such rights do not extend to decisions made under the Fisheries Act.

Importantly, except for the EEZ Act, habitat protection is not linked by these Acts to threatened species.

Issue 6C: There are large 'carve outs' from marine species protection (where it is in place) for accidental or incidental take

Protected species such as seabirds, marine reptiles, marine mammals and corals are regularly taken as bycatch during fishing activity. This can occur because of animals being caught in nets or on hooks, colliding with fishing gear, or being crushed by fishing equipment dragged over the seabed.

Both the Wildlife Act and the MMPA provide a defence to prosecution for taking a protected species without a permit, where the killing or injuring of the animal is accidental or incidental and it is reported.[50] This statutory defence is significant because the Wildlife Act does not cap the number of species caught as bycatch. Thus, protected marine species can be caught in unlimited numbers provided the take is reported.

Both the Wildlife Act and the MMPA provide a mechanism to manage protected species bycatch through the development of population management plans which can set a maximum allowable level of fishing-related mortality for a species. Despite several attempts to develop population management plans for protected marine species including two species of wandering albatross, the New Zealand sea lion and Hector's dolphin, no plans have ever been finalised.

This is largely because fishing-related mortality limits must be set at a level that would enable the achievement of non-threatened status for a protected species within a maximum timeframe of 20 years. Quantitative risk assessments of cumulative threats to protected marine species indicate that it would be difficult (if not impossible) to achieve the 20-year goal, even if fishing-related mortality was reduced to zero. This is because marine species are subject to a range of natural and human-induced pressures; a reduction in fishing effects on a species does not necessarily halt the decline of a species' population in the absence of other management controls. For some species, the 20 year timeframe is also unachievable because they are long-lived or slow to reach maturity and to reproduce, and 20 years may be less than a generation (i.e., marine mammals and corals).

The unworkability of population management plans has left protected species bycatch to be controlled primarily under the Fisheries Act,[51] which has a marine species utilisation rather than protection purpose. Under that Act, the Minister may set a limit on fishing-related mortality and then prohibit fishing in an area for the purpose of achieving that limit. Fishing-related mortality limits have been used to manage bycatch impacts on New Zealand sea lions in the southern squid trawl fishery and the fishery has been closed from time to time when the limit has been met.[52] More recently, a limit has been put on the bycatch of Hector's dolphins.

However, the provisions of the Fisheries Act have no mandatory conservation goal specified. The Minister must take into account the environmental principle that associated or dependent marine species should be "maintained above a level that ensures their long-term viability", but can then choose to override this in favour of social economic and / or cultural considerations. Also of significance is that the Minister is required to consider what is "necessary" to address the impacts, setting a high bar.

At Risk flesh-footed shearwater. Photo by Raewyn Peart

Drivers of change for management of marine species

Appendix D identifies several ways in which marine species might be better managed. Combined, these proposed changes would go some way to shift management of marine species from the Fisheries Act, and the disparate list of other oceans laws, to new wildlife legislation. They would more appropriately balance the management of marine species between the Fisheries Act and wildlife law.

(a) All marine species should be brought under the protective auspices of new wildlife legislation

On the face of it, there does not appear to be any obvious reason why marine species should not be given the same level of protection as terrestrial species. The difference in approach appears to be an artifact of history, with laws developing along two separate tangents: a utilisation one for marine species (and fish in particular) and a protective one for terrestrial species. Kaimoana is an important source of sustenance for humans, however its use should be managed sustainably to ensure longevity of such practice.

(b) Exemptions to marine species protection should be limited

As discussed throughout this report, permits or exemptions undermine the absolute protection mechanism of the Wildlife Act. The extent to which new wildlife legislation should permit use of wildlife has applicability beyond the marine area. In all domains, however, use should be well defined, limited as much as possible, and permitting decision-making insulated from vested interests. In the marine area, where data is particularly poor, it will be additionally important that exemptions are made on a precautionary basis.

In the marine area, the 98 species included in the QMS could automatically be excluded from the protective provisions, or at least those where there is sufficient information available to undertake a rigorous stock assessment. This would serve to protect both the interest of quota owners and the integrity of the Māori fisheries settlement.

Non-QMS species could also be excluded from protection on a case-by-case basis when it is demonstrated that enough is known about the species, and when adequate management measures are in place, to sustainably manage harvest pressures on it.

Such exclusions could be location-specific, so that harvest of a species is only permitted in specific locations where populations are healthy and active management measures are in place including effective monitoring and enforcement.

Additional provision may be needed for customary harvest of species not addressed by the above measures. If so, the customary fishing regulations could be amended to make it clear that any authorisation issued by a Tangata Kaitiaki / Tiaki (appointed under the customary fisheries

regulations)[53] for customary food harvest could authorise limited customary take of specific species (taking account of the species' threat status).

(c) Better and more marine spatial protection is required

'No-take' marine reserves are recognised as one of the most powerful and effective methods for protecting marine life and habitats.[54] Yet coverage of marine spatial protection in Aotearoa is patchy and partial. It may be more effective to have one piece of legislation in the driving seat for marine spatial protection. If marine species were brought under new wildlife legislation they would be subject to habitat protection mechanisms imposed via reform (such as protection of critical habitat or residence).

New wildlife legislation could also include a mechanism through which it interfaces with the other regimes with a statutory requirement to avoid adverse effects on such habitat. In the case of the RMA, this could require both land-based and marine-sourced impacts to be managed. For fisheries, the requirement to avoid adverse effects would necessitate sustainability measures being deployed to address the impacts, such as through restricting certain fishing methods within those habitats. Such important marine habitat may well overlap with habitat of particular significance for fisheries management which should be protected under the Fisheries Act in any event.

(d) The duty of care on fishers to avoid bycatch should be improved

Bycatch is an inevitable consequence of fishing. However, its impact can be significantly reduced via improvements to the current regulatory framework, which only requires that it be reported.

If bycatch occurs the report of the incident could be required to include the avoidance measures taken before and after the incident occurred, and a 'move on' rule could be applied. If a vessel has repeated incidents of bycatch, it could be excluded from participating in the fishery where the bycatch has occurred and only be let back in after demonstrating that equipment and methods have been put in place to avoid it in the future. Fines could also be issued. This would rely on effective monitoring of bycatch, such as by placing surveillance cameras on commercial fishing vessels, which is currently happening in any event.

(e) Bycatch of threatened species should be more tightly regulated

Currently, bycatch species that are threatened (under the NZTCS) are not adequately protected by either population management plans under the Wildlife Act or the MMPA or under the Fisheries Act. Management of these species requires greater oversight and control.

A management 'flag' approach like that proposed in Australia (see *Spotlight: The conservation dependent scalloped hammerhead shark* in Appendix A) could be applied to certain species or certain taxonomic groups that are currently managed under different Acts. This would mean that certain species / taxon would fall within the new wildlife law's jurisdiction, but be exempt from its application, unless (and until) the management of that species failed (e.g., collapse of a QMS fishery). If that occurred, the species would then be subject to wildlife law regulation, and take of that species would require a permit.

In Aotearoa, a strengthened and renamed population management plan for the species could be mandated. These could be called something like 'threat management and recovery plans'. The plans could have direct effect through creating restrictions on fishing activity (rather than requiring a second decision by the Fisheries Minister under the Fisheries Act). If the population management plan (or revised version of it) failed, the 'flag' could be removed, and the species reverted to management under new wildlife law (discussed further in Appendix A).

Threatened - Nationally Vulnerable Hector's dolphin. Photo by Raewyn Peart

Summary of findings: Issue 6: Protection of marine species is not well addressed by the Wildlife Act

1. All marine species should be covered by new wildlife legislation to ensure consistent protection of these species.
2. The interests of quota owners and Māori fisheries settlements may necessitate that QMS species be excluded from new wildlife legislation's protection but this will need further consideration.
3. Non-QMS species should only be excluded from a new wildlife legislation's protection if there is sufficient data to prove that use can be undertaken sustainably, and where active monitoring is ongoing i.e., the presumption should be protection.
4. Customary use of marine species may be required in line with customary use of terrestrial and freshwater species.
5. Habitat protection afforded to marine species under new wildlife legislation should interface with other marine species laws so that adverse effects on the habitat are avoided across all legal frameworks applying to the marine environment.
6. New wildlife legislation needs to include a mechanism for better managing threatened bycatch marine species, including for example the creation of a threat management and recovery plan which can restrict fishing.
7. A greater duty of care should be imposed on fishers to not catch threatened marine species.

Endnotes

1 Except for the harvest of tītī
2 Department of Conservation, 2021, 14
3 Department of Conservation, 2021, 14
4 Department of Conservation, 2021, 14
5 Department of Conservation, 2021, 14
6 First reading, Wildlife Amendment Act 1980
7 Arthur, 6 August 1980, 'Wildlife Amendment Bill, second reading', *New Zealand Parliamentary Debates,* 432, 2472
8 Wildlife (Exemption) Order 2020, No. S 414. Although additional safeguards for invertebrates are provided in national parks and nature reserves Parks and Trees Act 2005, s 9
9 ESA Position Statement on Endangered Insect Species: Protecting Endangered Insects is in the Nation's Best Interest, 2018, 81-82
10 Miskelly, 2006, 101
11 Miskelly, 2006, 81
12 Miskelly, 2006, 81
13 Warnock et al, 2008, 527-550, 532
14 Warnock et al, 2008, 527-550, 532; Nolan D, 2005, 408- 410, 6.52
15 Round, 2011, 147-184, 153
16 Forde, 1986, 12
17 Wildlife Amendment Bill 1983, Select Committee Report,1465; Wildlife Amendment Bill 1983, Second Reading, 4203
18 Bronw et al, 2015, 64
19 Koolen-Bourke and Peart, 2021, 117
20 Sage, 15 November 2016, ' Wildlife (Powers) Amendment Bill, in Committee', *New Zealand Parliamentary Debates*
21 Koolen-Bourke and Peart, 2021, 121
22 Scheele et al, 2018, 668-675
23 Koolen-Bourke and Peart, 2021, 110
24 Koolen-Bourke and Peart, 2021, 110
25 Kraus et al, 2021, 1088-1127
26 Bergman et al, 2020, 423–431
27 Kraus et al, 2021, 1088-1127
28 Kraus et al, 2021, 1088-1127
29 The term "plant" means any member of the plant kingdom, including seeds, roots and other parts thereof
30 Townsend et al, 2008; Michel, 2021, Rolfe et al, 2021
31 Crown copyright, November 2021, New Zealand Department of Conservation. Michel, 2021, 4
32 New Zealand Coastal Policy Statement 2010, Policy 11
33 National Policy Statement for Indigenous Biodiversity Exposure Draft, 3.9(a)(iv)
34 National Policy Statement for Indigenous Biodiversity Exposure Draft, 3.10
35 National Policy Statement for Freshwater Management, cl 3.8(3)(c) and Appendix 1A
36 National Policy Statement for Freshwater Management, cl 3.9 - 3.11, Appendix 1A and definition of "compulsory value"
37 Although non threatened species can quickly become threatened, so it would be important to not reduce the protection currently afforded to such species
38 Clarkson et al, 2018
39 Westwood et al, 2019,136–160
40 Conservation Act 1987, ss 4 and 6 and Schedule 1 and *Ngāi Tahu Māori Trust Board v Director-General of Conservation* [1995] 3 NZLR 553, at 6
41 *Ngāi Tahu Māori Trust Board v Director-General of Conservation* [1995] 3 NZLR 553, *Ngāi Tai Ki Tāmaki Tribal Trust v Minister of Conservation [2018] NZSC 122* and Wai 262
42 Koolen-Bourke and Peart, 2021, Section 2.3
43 Wai 262, 139
44 Wildlife Act 1953, s53
45 Wai 262, 140
46 Wai 62, 358
47 *The Environmental Law Initiative v Minister for Oceans and Fisheries* [2022] NZHC 2969 at [11]
48 Fisheries Act 1996, s2 and Part 14
49 Department of Conservation, 2022, 96-97
50 Wildlife Act 1953, s63B(2); Marine Mammals Protection Act 1978, ss 26(4) and 16
51 Fishing can also be (and has been) controlled under the MMPA using restrictions in marine mammal sanctuaries
52 Pursuant to section 15(2) of the Fisheries Act 1996, implemented through the Squid 6T Operational Plan. For discussion of closures and associated litigation see Mulcahy K and R Peart, 2012, 64
53 Under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 and Fisheries (South Island Customary Fishing) Regulations 1998
54 See Ballentine, 2014, 297-307

7 Other significant issues

At Risk Buller's mollymawk. Photo by Forest and Bird

Too much statutory discretion

Several significant decision-making powers under the Wildlife Act are unrestrained by statutory guidance or criteria. In many cases, decision-makers can proceed "for any purpose" or "from time to time". The lack of decision-making criteria is a specific issue for permissions (see below *Spotlight: No statutory criteria for the granting of a wildlife permit*), the alteration of schedules and the creation of wildlife habitat protection areas.

This issue is compounded by a lack of requirement in the Wildlife Act that decision-making be informed, let alone directed, by scientific knowledge and mātauranga Māori. Issues with the lack of independent knowledge based decision-making is discussed extensively in Appendix A in the context of overseas threatened species laws. In the jurisdictions examined, political led decision-making has hindered effective protection of threatened species and their habitats. That is particularly so with respect to listing species (i.e., ascribing a threat classification) and identifying critical habitat.

It is clear from the international analysis that a system merely informed by knowledge (whether that be scientific or indigenous) is not enough. Science is a key component of extinction risk assessments in the U.S., Canada and Australia. In Canada, dual reporting of scientific knowledge and indigenous knowledge is informing those assessments. Yet listing species in these countries remains exceedingly challenging. That is because the ultimate listing decision, albeit informed by scientific and indigenous knowledge, remains political. In new wildlife legislation, political decision-making should be generally eliminated except for highly proscribed carve-outs and require instead that decisions concerning wildlife be directed by independent scientific knowledge and mātauranga Māori.

Spotlight: No statutory criteria for the granting of a wildlife permit

The Wildlife Act's absolute protection for wildlife is undermined by a broad discretion to issue a permit to catch alive or kill any wildlife. This power rests with the Director-General who can issue a permit for any purpose.[1] However, there is no statutory criteria to guide that decision.

The Court of Appeal in the *PauaMac5* case has confirmed that this does not mean that the Director-General's power is unconstrained. Rather, the permission must be consistent with and promote the wider wildlife protection purpose of the Act.[2] In this context, the Court of Appeal has posited that permits are primarily likely to be for scientific research.[3] They would not cover, for example, the killing of threatened species for sport or private commercial gain.[4]

The issue is compounded by the lack of any direction in the Wildlife Act that a precautionary approach be taken when granting permits or that the permit result in a net benefit to the species impacted (see

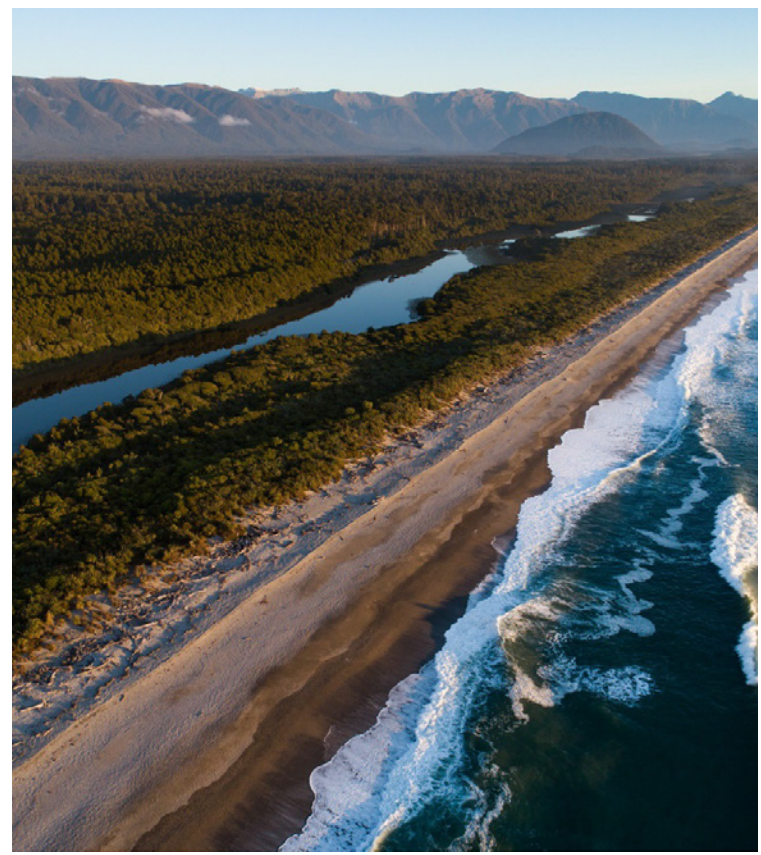
Appendix A for discussion on overall net gain). Understandably, given the dated age of the Wildlife Act, there is also no requirement that the permit have regard to national policy on biodiversity, such as Te Mana o Te Taiao, or consider any relevant national policy statement issued under the RMA.

Kea monitoring, Nelson Lakes National Park. Photo by Neil Silverwood

Under the Wildlife Act, application for a permit need not be publicly notified, and mana whenua input is not mandated. Further, as the Wildlife Act provides no appeal rights, the only way to object to a permit is to judicially review the Director-General's decision (compared to resource consents granted under the RMA which can be appealed to the Environment Court for a full re-hearing).

The Wildlife Act needs to ensure that permissions (and defences to offences) do not undermine the protective purposes of the Act. Permissions can be constrained by statutory criteria and reform of wildlife law should consider an appropriate list. In that context, thought should be given to whether the criteria focus exclusively on what is best for that wildlife. In the context of whether shark diving should be permitted by the Wildlife Act, DOC has conceded that public safety is a relevant consideration (i.e., whether the activity of shark diving would put paua divers at risk due to increased shark presence).[5]

Indigenous and threatened species are disparately managed across land tenure, domain and location



Ship Creek area, South Westland. Photo by Neil Silverwood

Currently, there is no universal mandate to protect and plan for indigenous or threatened species across all environments in Aotearoa. Although the Wildlife Act's 'absolute protection' applies throughout Aotearoa and across all land tenures, a species is afforded differing degrees of protection under

different Acts depending on what land it inhabits, what plan it is managed under and its location throughout the country.

Species are generally managed under two different legal frameworks, depending on whether they reside on public or private land. Indigenous biodiversity within the conservation estate is largely managed by the Conservation Act, the Wildlife Act, the National Parks Act, Reserves Act and the RMA.[6] On private land, management of indigenous biodiversity is primarily limited to the Wildlife Act and the RMA (although there are also covenants and ngā whenua rāhui).

Management planning within each of these laws differs, with the variability in management approach further diversifying at national, regional and district levels. For example, the NZCPS provides heightened protection for species in the coastal environment via Policy 11(a) which requires avoidance of adverse effects on a range of values, including indigenous biological diversity and threatened species.

Under the proposed NPSIB, local authorities will be required to make polices or plans to maintain indigenous biodiversity rather than just avoid adverse effects.[7] On Māori land, they must work with tangata whenua to "maintain and restore" indigenous biodiversity to the extent practicable.[8] Further, conservation management plans are not integrated with resource management plans, and only extend as far as the boundaries of public conservation land.[9]

Spatial inconsistencies also exist because of the EEZ Act, which applies a more precautionary and protective approach to the use and development of natural resources than the RMA. Heightened protection for threatened and at-risk species is afforded through the application of decision-making criteria and information principles which require that, where information available is uncertain or inadequate, the Minister must favour caution and environmental protection.[10]

The above statutory frameworks create inconsistencies and inequities in the protection afforded to threatened and indigenous species throughout Aotearoa. Effective protection, especially for threatened species, requires that protection follow the species.[11] New wildlife legislation should cast a net over these regimes and apply a consistent protective regime to threatened and indigenous species. A threatened species in particular should be equally protected irrespective of where it happens to reside at any one time. In this sense, the level of protection afforded a species should be aligned with its threat status.

Dual consenting regime

Not Threatened Australasian gannet at Muriwai. Photo by Forest and Bird

Although the Wildlife Act is meant to be the country's main law for protecting species, on private land, where indigenous biodiversity is heavily represented, this role is often fulfilled by the RMA. The Wildlife Act has been relegated to an additional protective mechanism, rather than the primary one.

It is interesting to reflect on this approach in comparison to U.S. species laws. As discussed in Appendix A, the ESA is one of the most powerful federal Acts in the U.S. It is the primary mechanism by which species (including plants) and their habitats are protected. By comparison, U.S. planning laws pale in significance.

The reverse is true for Aotearoa where the RMA, and its associated policy, have become the primary focus of species protection. Reforming this country's wildlife laws should seek to re-set this balance of power, putting species first.

Many large developments or land uses 'trigger' the Wildlife Act and the RMA. This can necessitate a permit under the former and a resource consent under the latter.

The RMA is often the first line of defence for wildlife protection because, in most cases, resource consent is obtained first. Applications typically include an assessment of ecological effects, which detail any wildlife and significant habitat on the site. It is vital that these assessments are thorough and rigorous, as they are relied upon to determine whether the application will affect species and habitat. Consent conditions generally follow, setting out management approaches.

Delays between the grant and exercise of consent have caused difficulty for some proposals when wildlife has moved onto the site in the interregnum. In these cases, adaptive management is often applied. However, this should not take the place of thorough ecological assessments undertaken at the time of consent application, or fauna management plans carried out before works commence. It is always better to deal with the wildlife effect prior to works beginning, rather than scramble to address effects on the go. That is particularly so given that, once resource consent is granted, it is very difficult to revoke it or significantly amend it.

The 'no take' prohibition of the Wildlife Act captures incidental take and destruction of species. Under the Wildlife Act, incidental take requires a permit. In many situations however, wildlife permits are not sought by DOC. Instead, adverse effects on flora and fauna are left to be addressed in resource consent conditions. Having consulted on the resource consent application, and typically providing support subject to conditions, DOC's position in then requiring a wildlife permit can be an uncomfortable one.

There is no requirement that resource consents be conditional upon authority being granted under other statutory regimes.[12] The High Court has questioned the usefulness of a dual consenting approach, but confirmed that both authorisations are currently required:[13]

> "*Whether this dual process serves any useful purpose when all relevant interests are taken into account by the consenting authority under the RMA process, or merely serves to add to the time and cost for the applicant for a consent, is a matter for Parliament. In the absence of clearer statutory wording that an RMA consent containing conditions intended to protect wildlife is "lawful authority" for the purposes of s 63 it seems to me that, in addition to obtaining the Land Use Consent, Solid Energy must obtain approval from the Director-General of Conservation (or any other person that has power to authorise the "hunting or killing" or "possession" of wildlife) to take actions that involve the "hunting or killing" or "possession" of wildlife even though the actions are taken to comply with the conditions of the Land Use Consent*."

This reliance on the RMA to appropriately protect and manage species is concerning because historically the intersection between human activity and species has not been well managed under that Act, which has as its purpose "sustainable management" not species or biodiversity "protection", and which is largely focused on protecting habitat not the species itself (s 6(c) of the RMA). *Conserving Nature* spotlights the moko skink and the Whangamatā marina development, long-tailed bats and subdivision development in the Waikato, and the snails in the fridge case, but there are numerous others. Typically, only large developments engage expert ecological advice and undertake in-depth assessment of the presence of species. Private landowners are far less likely to know of the potential impact of their activities. This kind of cumulative, incidental loss of habitat and individual species can be significant for a species' overall survival.

The forthcoming Natural and Built Environment Act (NBEA) is hoped to address some of these issues, equipped as it is with environmental limits and targets, including in relation to biodiversity. However, dedicated wildlife law will provide stronger, clearer direction about species management.

The dual consenting regime could be improved by:

- Making resource consents contingent on first obtaining all necessary wildlife permits.
- Including an ability in the NBEA to cancel (or require adaptive management of) the resource consent if species are found to be affected or, alternatively, mandating that a wildlife permit be obtained if impact is shown (the ability to cancel a resource consent if significant impact is found to occur has been included in the NBEB).
- Providing DOC with an ability to waive the requirement for a wildlife permit in certain circumstances, i.e., if it has already provided resource consent approval.
- Requiring that if an adaptive management regime is triggered under the RMA, so too is the need for a wildlife permit.
- Making it clear that a wildlife permit may require cessation of the consented activity.

No ability to permit disturbance activities unrelated to catching alive or killing

As noted above, a permit can be issued to catch alive or kill wildlife. The term "catch alive or kill" infers an intention to pursue an animal for the purpose of catching it alive or killing it. No permit can be issued for pursuing, disturbing or molesting an animal if that activity is unconnected to catching alive or killing that animal. This means that the Director-General can permit the killing of an animal, but not lesser harm such as disturbance, even if that disturbance is required for the protection of the animal.

The inability to permit interferences that are not connected to catching alive or killing has implications for conservation actions. The Supreme Court in *PauaMAC5* has stated that scientific or conservation research could be undertaken without committing a prohibited act.[14] However, some recovery actions may constitute disturbance. Under the current framework, the Director-General would not be able to permit these activities.

The limit on permissions for disturbance also has significant implications for eco-tourism. For example, shark cage diving might constitute disturbing or molesting sharks, and thus would not be able to be permitted. This might be a good thing, especially in relation to threatened species such as the Great White Shark.

This mis-match between offences and what can be permitted clearly requires amendment. Unpacking the issue requires a discussion about how widely new wildlife legislation should define its protections.

Poor monitoring and enforcement

The lack of funding for DOC means that there is a systemic lack of monitoring and data collection to inform species management and planning. A third of species do not have sufficient data to assign them a threat status.[15] This is often the case for less charismatic, popular creatures such as insects, spiders and snails.[16] An estimated 8,000-10,000 insect species have yet to even be named, and many more are still to be discovered.[17]

DOC has a Biodiversity Monitoring and Reporting System with involves three tiers of monitoring:

- Tier 1 is broadscale monitoring for national context
- Tier 2 is monitoring of managed places and species to report on management effectiveness
- Tier 3 is intensive, targeting monitoring for research and evaluation

Search for Aotearoa's Largest Podocarps, Lake Brunner Area. Photo by Neil Silverwood

This monitoring system has yet to be fully implemented. Funding for tier 1, which was designed to monitor national scale state and trend, has been reduced. Its information is valuable for identifying significant widespread impacts on indigenous species and understanding the broad distribution and abundance of introduced invasive species. There are now 1,400 permanent plots on DOC land to support this. However, the plots are only sampled every five years which means that sampling is not sufficiently sensitive to pick up more rapid changes that may be necessary to intervene and prevent degradation.

The roll out of tier 2 and 3 monitoring has been slow, and it is these tiers that are essential for the kind of focused, science / mātauranga Māori and place-based approach needed for effective management of species.

Perhaps even more problematic, is that neither the monitoring system or the NZTCS is connected to the Wildlife Act or to the statutory based wild animal and pest control planning frameworks. For example, when the monitoring system identifies significant habitat degradation or species decline, or encroachment and increases in pest populations, there is no formal connectivity between that information and a management response under the Wildlife Act (or any other conservation legislation).

The Wildlife Act is hardly ever enforced. Unless there is a dead body, or very clear evidence of intentional hunting or killing, the Act is hard to enforce. Very few cases have been brought, and seemingly obvious cases have attracted only minor infringement, rather than prosecution. Further, wildlife law is not well aligned with enforcement under the Trade in Endangered Species Act 1989 or the Biosecurity Act and requires modernising to reflect how criminals illegally dealing with wildlife operate.

Summary of findings: Chapter 7: Other significant issues

1. New wildlife legislation should include criteria to direct important decisions such as when a wildlife permit can be issued.
2. Decisions about species should be made, as much as possible, by independent bodies informed by the best available scientific knowledge and mātauranga Māori.
3. Protection of species, especially of threatened species, should remain consistent across all land tenures, domains and locations.
4. A species' threat status should determine how humans can use that species, with the highest level of protection being afforded to threatened species.
5. New wildlife legislation will need to clarify the interface between a wildlife permit and a resource consent and should give wildlife permits greater authority over resource consents.
6. New wildlife legislation should ensure alignment across permissions, offences and exceptions.
7. Monitoring is required and should be linked to management responses.
8. New wildlife legislation needs to be enforced to ensure an even balance between 'carrot' and 'stick' in species management.

Endnotes

1 Wildlife Act 1953, s53
2 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [59]
3 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [55]
4 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [52]
5 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [6]
6 Although there is a limited exemption to the Crown for land-use activities controlled by district councils where that use is consistent with a conservation management strategy or plan
7 National Policy Statement for Indigenous Biodiversity Exposure Draft, [3.16]
8 National Policy Statement for Indigenous Biodiversity Exposure Draft, [3.18]
9 Wallace, 2016a, p 15
10 Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s34(2)
11 Wallace, 2016a, 15
12 *Poutama Kaitiaki Chartiable Trust v Taranaki Regional Council* [2020] NZHC 3159 at [90]
13 *Solid Energy New Zealand Ltd v The Minister of Energy and Ors* unreported, HC, Wellington CIV-2007-485-1381
14 *Shark Experience Limited v PauaMAC5 Incorporated* [2019] NZSC 111 at [81]
15 Department of Conservation, above n 11, at 17
16 Department of Conservation, above n 5, at 19
17 Department of Conservation, above n 5, at 77

8 Options for reform

Salt Water Lagoon, South Westland. Photo by Neil Silverwood

This chapter draws on the lessons learnt and recommendations discussed throughout this report. It starts by developing three different potential approaches for a new piece of legislation to manage wildlife in Aotearoa. These approaches are designed to give a high-level sense of what a new Act could look like, to help inform a broader debate around the options. Depending on which approach is ultimately adopted by Government, we recommend that the more detailed design draw on our analysis in the preceding chapters. This chapter then provides high level commentary on what new wildlife legislation might look like at a management level.

Overall, the recommendations set out within this report, and the options discussed below, are all intended to elevate the status of any successor to the Wildlife Act so that it is the primary law in Aotearoa for species management, protection and recovery. The new legislation should be front of mind for anyone intending to interact with wild species. Currently, the Wildlife Act is overshadowed by other legislation such as the RMA.

It is also important to state at the outset that new wildlife legislation must give effect to the principles of Te Tiriti. It currently does not. A significant part of achieving that is removing Crown ownership of wildlife and providing for place based joint decision-making in relation to taonga species.

Scope of species coverage

With respect to the scope of species covered, there are two fundamental decisions to be made about new wildlife legislation:

- What taxon should be included in the new law (e.g., animals, plants, fish)?
- What categories of species the new law should apply to (e.g., threatened species, indigenous species, or all wild species)?

Inclusion of all taxonomic groups

In our view, new wildlife legislation should apply to all taxonomic groups within the category covered. We could find no biological justification for the exclusion of certain taxonomic groups from the Wildlife Act, such as plants and the bulk of marine species. Rather, current exclusions appear to be a continuation of historical species management laws, which have been driven by use values (such as fishing, hunting and plant propagation) and practical difficulties with monitoring and enforcement.

Including all taxonomic groups would ensure that:

- All species have an opportunity to be afforded the protective provisions of the new law, which is in line with international best practice.

- Threats can be more strategically managed.
- Wildlife protection, management and recovery can better be undertaken in an integrated manner.

Further, management regimes can be flexibly applied to different taxonomic groups over time, providing new wildlife legislation with flexibility to adapt to technology, climate change and information. Including all taxonomic groups in new wildlife law would mean that management approaches can be changed, without the need for further fundamental reform.

We appreciate that this would be a significant shift from the current approach under the Wildlife Act, particularly in relation to plants, fish and insects. However, as noted above, new wildlife legislation need not apply equally to all taxonomic groups. For example, the new law could include plants within its jurisdiction, but then allow for greater 'carve outs' for plant species than would otherwise apply to other species. This might be justified on the basis that the RMA (and other conservation laws) do most of the 'heavy lifting' for plant protection. In this way, new wildlife law might not apply any regulation to plants on private or Māori land. But, importantly, it could do.

With respect to exemptions, we consider that exemptions in the primary legislation should be very limited, and that greater and more targeted 'carve outs' should only be applied via secondary legislation, where the need is clearly justified. Aotearoa's biodiversity crisis, and the 4,000 odd species considered threatened with extinction or at risk of becoming threatened, necessitates that approach.

Alternatively, or in addition, a management 'flag' approach like that proposed in Australia (see *Spotlight: The conservation dependent scalloped hammerhead shark* in Appendix A) could be applied to certain species or certain taxonomic groups that are currently managed under different Acts. This would mean that certain species / taxon would fall within the new wildlife law's jurisdiction, but be exempt from its application, unless (and until) the management of that species failed (e.g., collapse of a QMS fishery). If that occurred, the species would then be subject to wildlife regulation, and use of that species would require a permit.

Once it had been established that the species had recovered sufficiently to withstand use, and that sufficiently robust management measures were in place to ensure ongoing sustainability, the species could revert to management under another law (e.g., the Fisheries Act). This approach may have the advantage of incentivising sustainable use of the species (because users might not want to 'trigger' wildlife law). It may also constrain the ability of new wildlife law to proactively protect species (to prevent them becoming threatened).

Accordingly, under new wildlife legislation (in whatever form) we consider that all wild plants, freshwater fish, marine species, and invertebrates should be brought within the Act's jurisdiction, in addition to those taxon groups already covered by the Wildlife Act. This would mean a statutory starting point that *all* indigenous invertebrate and marine species are protected unless expressly excluded from protection (the opposite of how Schedules 7 and 7A currently work under the Wildlife Act).

Options for inclusion of categories of wildlife

New wildlife law could take three different forms: it could be a threatened species law (Option 1), an indigenous species law (Option 2) or a law that applied to all wild species (indigenous and introduced) (Option 3).

We consider that new wildlife legislation should go further than a narrowly focused threatened species law (such as the international endangered and species at risk laws reviewed in Appendix A which only apply to 'listed' species) and apply to species more broadly. Beyond that we accept that both an indigenous species law and a wild species law have their advantages and disadvantages. To an extent, the legislative scaffolding of new wildlife law is less important provided that the framework is clearly established in favour of threatened and indigenous species (see discussion below). However, on balance, we prefer a wild species law (which includes provisions dedicated to threatened species) (i.e., Option 3).

Option 1: Threatened species law

A threatened species law in Aotearoa would apply to all or certain categories of species listed in the NZTCS, for example all Threatened species and potentially all At Risk species (or to sub-categories within those headers). This approach would narrow the current protective ambit of the Wildlife Act to only those species listed in certain threat categories. Under this option, all other non-threatened indigenous species would become unprotected. It would be a step backwards from the current situation where non-threatened indigenous species that fall within the Wildlife Act's jurisdiction are afforded 'absolute protection'. It would also leave some introduced species that currently fall under the Wildlife Act unmanaged (some of which might be pests). A better approach might be to nestle threatened species provisions within a broader wildlife law that also provided for non-assessed indigenous species, or all species.

Further, a threatened species Act would rely heavily on a listing process. Internationally, listing processes have become overwhelmed by the sheer number of species needing extinction risk assessment, and the time it takes to get individual species listed. Aotearoa could suffer similar issues, particularly as only a small proportion of species in some categories are currently assessed. There are an estimated 80,000 native species in Aotearoa (many of which have not been described or identified and so cannot yet be assessed), and about 15,000 have been assessed in the NZTCS. If new wildlife legislation is reliant on a listing system that is non-responsive or delayed, it will fail to provide improved protection and management of threatened species.

In that regard, and with reference to comments made under Issue 3 above, further work is required to decide whether the NZTCS should be regulated within new wildlife legislation. On balance, we consider that regulating the NZTCS within new wildlife legislation might be better to give the process a statutory mandate, secure its permanence and funding.

It is vitally important, however, that the 'listing' of a species in a threat category remains the domain of the specialists' panels currently undertaking the extinction risk assessment under the NZTCS. We strongly oppose any third-party decision-maker interfering in that process (which has caused so many issues internationally). To be clear, that means that the Minister (or anyone else) is not responsible for determining the threat status of a species.

Whatever the approach adopted, the NZTCS can, and should, still be used to inform species management in new wildlife legislation (as is currently the case in RMA national direction). This could occur by, for example, aligning threat categories with statutory obligations to act in relation to that species. A strong incentives programme is likely required to counter unwanted outcomes associated with increased regulation and to encourage stewardship of threatened (and indigenous) species. We discuss this further below.

Drawing on lessons learnt overseas, aspects of the NZTCS listing process that we consider should remain include expert independent decision-making (rather than Ministerial approval of threat categories as mentioned above) and the ability for the public to input on matters relevant to the extinction risk assessment. We consider however that the extinction risk assessments could be enhanced by mātauranga knowledge, and that sourcing this information should be factored into the process.

Threatened wētāpunga. Photo by Shay Schlaepfer

Other aspects of any new law relating to threatened species could include a more narrowly defined exemptions regime (or a higher threshold for allowing exemptions) for Threatened species than that applicable to other species, and some form of habitat protection for Threatened fauna (the residence of flora being protected by regulating destruction of the plant itself).

Option 2: Indigenous species law

A second option would be to widen the application of new wildlife legislation to include all indigenous species (across all taxonomic groups). Introduced species would be managed under separate legislation.

There is high normative value in having a law dedicated to indigenous species. It sends a clear message that indigenous species are to be treated differently from introduced species. However, as alluded to above, the legislative scaffolding of new wildlife law is somewhat immaterial if the framework is clearly established in favour of threatened and indigenous species. We consider that both Options 2 and 3 would be able to:

- Prioritise indigenous species - it is largely a matter of legislative drafting. In both scenarios, current laws dealing with introduced species (e.g., WACA and the Game Animal Council Act) would likely require amendment anyway.

- Utilise a flexible regime (e.g., using schedules) - to apply or remove protection under certain conditions to introduced or indigenous species.

Further, under both options, current institutional arrangements and purposes would need to be reviewed to support the re-set. EDS's phase 2 review of the conservation system is considering in more depth what institutional reform might be needed to ensure this can occur.

With respect to Option 2, we also note:

- As currently framed, indigenous species are prioritised through a patchwork of laws and, in the case of the Wildlife Act, only via a process of deduction. There is no single law clearly articulating that indigenous and threatened species are to be afforded priority over introduced species, and that decision-making affecting indigenous and threatened species be directed to that outcome. This approach is not prioritising indigenous species within the wildlife management system (e.g., Issue 2 of Appendix C sets out how the statutory protections in place for valued introduced species undermine the protection of indigenous, and sometimes threatened, flora and fauna).

- Having two different systems running simultaneously, one for indigenous species and one for introduced species, may just perpetuate current imbalances against indigenous species. That is particularly so given scientific uncertainties or unknowingness around interactions between these two categories of species. In many cases, indigenous species lose out in that debate.

- A strong statutory purpose prioritising indigenous species would require the right tools to support it, such as precautionary decision-making and standards of proof in favour of the indigenous species. Such principles would be better spelt out in a law applying to all species, so as to minimise argument about their application to introduced species (if those introduced species were dealt with under other Acts).

- New law applying to introduced species currently manged under the Wildlife Act (but not managed under other introduced species laws) would likely be required e.g., a new law to deal with game birds currently managed under the Wildlife Act.

- In a climate changing world we cannot predict what species will become important in the future. An introduced bird for example, might become an important pollinator for an indigenous plant, or an introduced plant might become an important habitat for an indigenous invertebrate. New wildlife legislation would not want to preclude an ability to protect these species in the future.

A koura/freshwater crayfish carrying eggs in a Catlins stream in Otago.
Photo by Bruce Quirey

Option 3: Wild species law

As discussed above, the third option for a new wildlife law would be to widen the scope of the law further so that it applies to all wild species (both indigenous and non-indigenous).

Such a broad ranging Act could include specific provision for threatened species, and apply different management responses to different categories of non-threatened species, with priority given to indigenous species over introduced species. It could also address management of introduced, highly valued and pest species 'in-house' rather than relying on other legislation to do that (see discussion below on managing threats). Currently, those species are managed under a multitude of other laws that do not often 'speak' to one another and which have caused difficulties for indigenous species protection and management.

Overall, we favour a single new law dealing with all species (Option 3) on the basis that it could better prioritise indigenous species among other species, and best minimise potential conflict among indigenous and introduced species. We appreciate however that the interface between the Wildlife Act and introduced species (and pest management) laws is complicated (as evidenced by the length and breadth of Appendix C). We anticipate therefore the need for further work in this area. Whatever approach is taken, a new wildlife law should seek to robustly protect threatened species and indigenous species as a priority.

Purpose and principles of new wildlife legislation

The purpose of new wildlife legislation should clearly prioritise the management, protection and recovery of different categories of species. Threatened species should have the highest priority and preventing extinctions should be the central purpose of a new Act. Stepping down from this, a new Act should prioritise indigenous species, and then manage all other wildlife.

Assuming new wildlife law covers all wild species (Option 3 above), we consider that a protective purpose should only apply to indigenous species. The Wildlife Act's starting point of absolute protection for all species has caused difficulties in managing introduced species incursions, and we consider that it would set the wrong tone for new wildlife legislation.

This would mean that a permit is only required to take indigenous species (as is generally the case now). Introduced species could be afforded protection on a case-by-case basis, just as indigenous species could be excluded from protection on a case-by-case basis.

Introduced species of high value could be provided a degree of recognition in a purpose statement. However, it would need to be clear that the provision of such species does not undermine the new Act's priorities of protecting, managing and recovering threatened and indigenous species.

A purpose statement in new wildlife legislation could usefully be accompanied by a list of decision-making principles, such as:

- A presumption against take of Threatened species.
- Take of Threatened species must result in an overall net gain in the species.
- Take of all indigenous species should be managed to maintain or protect socio-ecological relationships for future generations.
- A precautionary approach must be applied to all decisions relating to indigenous species.
- Decision-making should be informed by the best available scientific knowledge and mātauranga Māori.
- Conflict between the interests of indigenous species and introduced species should be resolved in favour of the indigenous species (except where the indigenous species is an identified pest that impacts threatened indigenous species).

We consider that new wildlife legislation should be the primary law in Aotearoa for species management, protection and recovery. As noted above, we consider that the new legislation should be front of mind for anyone intending to interact with wild species. Its profile should be elevated, so that it is at least on par with new resource management laws.

The extent to which new wildlife law might be able to manage, protect and recover wild species will need to be explored further, alongside more in-depth analysis of how existing wildlife law interfaces with different systems (the Appendices of this report provide a useful start, but they are by no means comprehensive of every issue). However, we consider that new wildlife legislation could be more ambitious than the Wildlife Act in its management, protection and recovery of species, including by addressing threats to species and by expanded protection for Threatened species' residence.

Addressing threats

Currently, the Wildlife Act only manages take of species, it does not address other threats (including existential) to those species (except perhaps for pollution in a wildlife sanctuary or refuge). We accept that wildlife legislation should, at its core, be about controlling the take (including indirect take) of species, but we consider that it should go further and also address threats. Without a threat component to the legislation, it will remain a reactionary law, only responsive to take of wildlife. Addressing threats will enable new wildlife legislation to more strategically protect, manage and recover indigenous and threatened wildlife.

Threatened native broom browsed by hares. Photo by Mike Harding

Threatened native broom regrowing after browsing. Photo by Mike Harding

With respect to threats, we note:

- Introduced species are one of the most significant threats to indigenous flora and fauna in Aotearoa.

- A new Act could be re-designed from a game management Act to a biosecurity / pest management Act. In this way, species that pose a threat to indigenous species could be identified and scheduled (at a national, regional or place-based level), according to the degree of threat they pose. This would shift the current focus of wildlife schedules away from classifying introduced species according to the type of protection they are subject to, to the degree of threat they pose. Management responses could be linked to such schedules (as is currently the case for Wildlife Act schedules).

- Ideally, new wildlife legislation would include a bespoke conservation focused pest management planning regime, applying to all organisms, including invasive weeds, fish, invertebrates and pathogens. This would enable DOC to undertake an integrated holistic approach to indigenous and threatened species protection, and to take the lead role.

- New wildlife law could better link with existing biosecurity / pest management tools in other Acts, including by triggering those tools in certain circumstances. For example, when an introduced species is identified as a threat to a species listed in the NZTCS, that introduced species might trigger the Biosecurity Act, requiring a national or regional threat management plan (i.e., if the threat posed by the introduced species meets certain criteria such as imminent risk of extinction to the NZTCS listed species).

- Within this system, new wildlife legislation could allow certain species (e.g., highly valued species) to persist, but expressly state that is not to be to the detriment of indigenous or threatened species. This might require a significant reduction in population numbers of those species, and necessitate a move towards spatially defining hunting areas (as anticipated by Te Mana o te Taiao). In that respect, the management of highly valued species should be linked to biodiversity values present.

- An adaptive management approach is a high risk one if it does not have sufficient funding, monitoring and support. It should only be employed to valued introduced species in situations where the risk to indigenous biodiversity is within acceptable limits.

Australia's EPBC Act has a formal national threat abatement system. Whereas other jurisdictions focus on 'take' of threatened species and address threats through recovery actions, Australia has a specific process for listing threats, separate to its species recovery mechanisms. Unfortunately, the system has been poorly applied (see *Addressing threats* in Appendix A), however, it could be a powerful strategic tool for saving threatened species at scale.

Threat abatement processes in new wildlife legislation could:

- Be triggered by extinction risk assessments (such as the classification of a species as Nationally Critical or Nationally Endangered under the NZTCS) or the identification of a threat posed by an introduced species (such as the scheduling of that introduced species in a 'High Risk' schedule in new wildlife legislation).

- Be national, regional or placed-based.

- Require the Minister of Conservation to make rules to control the threat, such rules could be called 'protection measures' (see Issue 1 of Appendix D for further discussion) and enable control, containment and eradication outcomes at national, regional or local levels. They could also mandate threat abatement technology, as has worked to significantly reduce seabird bycatch in Australia.

- Require spatial protections, akin to marine mammal sanctuaries established under the MMPA (see Issue 1 of Appendix D for examples), which could require cessation of the threatening process.

- Trigger the need for a threat abatement plan, with associated funding (like threat management plans developed for Hector's and Māui dolphin and the New Zealand sea lion or to an improved population management plan framework).

In the marine space, new wildlife legislation could better address fishing bycatch in the ways set out in Issue 6 above and Appendix D.

At Risk – Naturally Uncommon Campbell Island mollymawk. Photo by Forest and Bird

Overall, we consider that new wildlife legislation should seek to be more than just an immediate measure to halt further decline of species, and have more strategic input into species protection, including by addressing key threats to species.

Recovery planning

Recovery planning is a significant component of threatened species laws overseas and, if done right, can be an effective mechanism for a species recovery. There are multiple examples of this detailed in the heartening book *Recovering Australian Threatened Species: A book of Hope*. However, recovery plan implementation has not been effective in many cases because, *inter alia*, it is sometimes not mandatory, too many species require a recovery plan, lack of funding, vested interest involvement, lack of monitoring and adaptive management triggers and poor factoring in of climate change impacts.

In Aotearoa, we consider that requiring a recovery plan for all species listed as Threatened in the NZTCS, of which there are 1,103, would be an unrealistic mandate, and would set the system up for failure. Even requiring a recovery plan for each species listed in sub-categories of the Threatened classification would be a daunting task, with 517 species listed as Nationally Critical alone, and a further 214 listed as Nationally Endangered. Requiring individual recovery plans for each of these species is unlikely to be the best use of DOC's limited threatened species budget.

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Instead, we prefer that new wildlife legislation include a mechanism for DOC to undertake regional or catchment-scale threatened species recovery planning (or, as we prefer, 'restoration planning' as it has a more positive future-focused outlook). Catchment based planning is being developed for the island of Maui in Hawaii to prioritise threat abatement and recovery actions. The project was still in its infancy when we discussed it with local experts, but it might provide useful insights for Aotearoa's new wildlife law (Hawaii and Aotearoa being alike in their island populations and high endemism rates).

The proposed NPSIB requires regional biodiversity strategies, which are intended to maintain and restore indigenous biodiversity at a landscape scale (and can include the coastal marine area and water bodies). These strategies are prepared by regional councils, in collaboration with territorial authorities, tangata whenua, communities and other identified stakeholders. The strategies must be had regard to in regional policy and plans.

How our proposed restoration planning for threatened species would link with regional biodiversity strategies will require further consideration once clarity is obtained on the future of the NPSIB. We express concern however that regional biodiversity strategies will not be led by science and mātauranga Māori, but rather that vested interests will have a significant say in outcomes. We expect that restoration planning for threatened species be led by the former, not the latter, so that management of species and prioritisation of protection, threat abatement and recovery is underpinned by the best available science and mātauranga Māori. In that regard, if the NPSIB comes to fruition, we consider that new wildlife law should require that regional biodiversity strategies give effect to threatened species restoration plans . This would ensure the greatest alignment of effort and funding for threatened species across different agencies.

Alongside the above, we consider that new wildlife legislation should still enable promulgation of individual species recovery plans. Experts that we spoke to emphasised the importance of needing both catchment based and species based recovery actions, lest an individual species is overlooked or falls through the gaps. In that regard, imposition of a rāhui could become an automatic trigger for recovery or restoration planning for a species or group of species.

Photo by Shay Schlaepfer

Finally, the matters discussed under *Recovery planning* in Appendix A should be considered when designing a restoration planning mechanism in new wildlife legislation. Specifically, serious thought should be given to whether such planning is mandatory (à la freshwater management units and the national planning framework of the NPS FM). We consider that it should be.

Habitat protection

Species protection goes hand in hand with habitat protection. We consider that new wildlife legislation should protect the residence of Threatened fauna (e.g., nesting or breeding sites, like a tree occupied by a Threatened bird). Such areas are already required to be identified and managed for indigenous freshwater fish under the NPS FW[1] and for specified Threatened and At Risk highly mobile species under the NPSIB (birds and bats).

Podocarps, Lake Moana area. Photo by Neil Silverwood

Going further, and providing some form of protection to the critical habitat of Threatened fauna would be ideal, but it is acknowledged that doing so would be challenging because:

- The information base is not complete to map all critical habitat for Threatened fauna.
- Critical habitat is likely to move, especially with climate change, thus a static designation may not prove effective over the medium to long term.

- SNAs and the conservation estate already provide for habitat protection (and will increasing do so under the proposed NPSIB and new marine spatial protection legislation that is being drafted (at least initially for the Hauraki Gulf)), and there is the potential for duplication.

- Imposing protective regulation over extensive areas of private land is likely to be politically unpalatable.

On balance, we consider that habitat protection is best driven in new wildlife legislation by protection of residence (i.e., site specific protections) and through threat and recovery planning at the ecosystem scale. Broader habitat protections would still of course be provided through the conservation, RMA and oceans systems (e.g., via reserves).

Stones creating habitat for At Risk - Declining Kawarau gecko. Photo by Mandy Tocher

As canvassed in this report, multiple laws provide for habitat protection, in both the terrestrial and marine space. Broader reform and consolidation of spatial protection is needed across these environments. EDS's phase 2 review of the Conservation system will detail how that might occur on land, including by potentially repurposing wildlife sanctuaries and refuges into Nature Reserves under the Reserves Act or the creation of High Biodiversity Areas. These recommendations will need to be looked at afresh once we have a clearer picture of where the NPSIB and the NBEB lands with respect to the identification of SNAs (under the NPSIB) and Significant Biodiversity Areas and Areas of Highly Vulnerable Biodiversity (under the NBEB). Options for marine spatial protection are covered in Appendix D and EDS's recent oceans report called *The Breaking Wave*.[2] They will be further developed in phase 2 of EDS's oceans reform project.

An incentives scheme will greatly assist in reducing opposition to habitat protection on private land, and we recommend development and implementation of a biodiversity credit scheme to accompany new wildlife legislation.

Management regime

The management regime applied to species is where the 'rubber hits the road' in new wildlife legislation, as it determines the level and degree to which species are protected and can be used. A challenge in framing a management system is striking the right balance between provision of national direction (which sets out what can and cannot be done) and place-based decision making (which provides greater flexibility at the local scale). We consider it very important that new wildlife law set clear parameters around the take of Threatened species.

A 'top down' regulatory approach could centre on the NZTCS, with more protective provisions applying to species listed as either Threatened (and possibly also those listed as At-Risk). Greater ability to use wildlife, including Māori customary use, could be provided outside of those categories. The system will need to be agile at this level, to enable local partnerships and place-based decision making. Designing such a regime requires further and specialist input from Māori.

Different management regimes could be imposed on different categories of species. So, for instance, the most protective regulatory regime might apply to species listed as Threatened. Introduced and pest species would have no protection (except, as acknowledged above, some degree of recognition for introduced species of high value). In that regard, greater protection for threatened species could be provided by:

- Broader definition of 'take', to include intentional interference even if harm does not result.

- A narrowly defined exemptions regime, coupled with a higher threshold for allowing exemptions. Exemptions should be commensurate to the threat category.

- No destruction or damage to the residence of threatened species.

- Prioritisation of threat abatement actions.

- Prioritisation of recovery planning.

- More triggers for immediate action when information comes to light and, by corollary, less political discretion.

New wildlife legislation could apply these protective provisions across all land tenures, so the protection is attached to the species, and is not dependent on the land it happens to be located on at any one moment.

If a management hierarchy approach is adopted, careful consideration would need to be given to the approach taken for taonga species. That is because, as discussed under Issue 4 above and Appendix B, we heard differing views as to what constitutes a taonga species, including that taonga species can be introduced species. This matter requires further specialist investigation. The outcome of which will inform the appropriate management response.

While the NZTCS comprises a relatively comprehensive list of threatened species, there is no analogous system for taonga species. The proposed NPSIB requires that territorial authorities work with tangata whenua to determine indigenous species, populations and ecosystems in the district that are taonga. These taonga may then be identified in district plans. This identification process will significantly improve knowledge of taonga species. However, the proposed NPSIB does not apply to taonga in the coastal marine area or to aquatic species or populations in water bodies. Importantly, it also does not apply to introduced species. This leaves a gap in the system of identification of taonga species. New wildlife legislation may have to resolve this by providing a process for the identification of taonga species not already identified elsewhere.

We think it is important that taonga species are identified so that Māori can have an equal say in how these species are protected, managed and recovered, and so that the prioritisation of certain species over others is informed not only by threat classification, but also by taonga status.

We have identified the NZTCS and taonga lists as two important inputs for prioritisation considerations under new wildlife law. However, there are likely others. Specifically, the IUCN Red List (which captures species not assessed under the NZTCS because they are non-resident e.g., migratory marine species), and regional threat classification systems. The NZCPS currently recognises the former by requiring that effects be avoided on both:

- Indigenous taxa that are listed as threatened or at risk in the NZTCS lists; and

- Taxa that are listed by the IUCN and Natural Resources as threatened.

New wildlife legislation will need a mechanism to capture these knowledge sources so that prioritisation decision-making is well informed.

Where there remains uncertainty as to whether a species is Threatened or At-Risk, i.e., data deficient species and those not yet assessed, the new law could require proof to the contrary before take is allowed. The decision-making principles set out above would play an important role with respect to these species, requiring a precautionary approach and maintenance or protection of socio-ecological relationships for future generations.

Finally, we consider that new wildlife legislation should contain emergency measures to enable rapid changes to species management and protection when it becomes clear that a species is at imminent risk of extinction. Such measures could have been initiated with respect to the local population of the Bay of Islands bottlenose dolphin to force earlier intervention to restrict use of the species as a tourist attraction (see Appendix C *Spotlight: Management of tourism impacts on bottlenose dolphins*). Emergency measures are likely to become more important as climate change impacts affect species and significantly impact populations in single events (as happened with koalas during Australia's wildlife event).

Other key elements to new wildlife legislation

This report and its associated appendices cover a range of topics, key lessons learnt and recommendations. While all are considered important, we highlight the following so that they remain central to further thinking on new wildlife legislation.

The need for an incentives regime

Public conservation land cannot be the panacea for species conservation. It is also required on private land which houses a multitude of threatened and indigenous species. We consider that a biodiversity incentives scheme will be required to encourage and facilitate that outcome. Internationally, private land conservation is encouraged using a range of financial incentives which are an important part of preventing perverse outcomes and getting private landowners to engage with threatened species laws and protections (see Appendix A).

The proposed NPSIB specifically requires consideration of incentives for restoration of priority areas, including threatened and rare ecosystems representative of naturally occurring and formally present ecosystems, particularly where those areas are on Māori lands. This recognises the opportunity cost of maintaining indigenous biodiversity on that land.

We understand that the Government is looking closely at incentive regimes, and we support the process of developing one designed for Aotearoa. Appendix E provides an overview of an environmental footprint tax, based on polluter pays principle, that could be applied here. Whatever regime is adopted, careful consideration will need to be given to who administers it, noting that DOC appears best placed from a species knowledge point of view, but is already significantly underfunded for its current work programme. A successful biodiversity incentives or grants scheme will require adequate long-term funding.

The need for independent decision-making informed by science and Mātauranga Māori

As discussed throughout this report, we consider it important that new wildlife legislation be driven by independent decision-making informed by the best available scientific and Mātauranga knowledge.

Ministerial discretion should be limited as much as possible (and not provided for at all in extinction risk assessments and threat classification decisions). International experiences detailed in Appendix A are a precaution against too much statutory discretion and opportunity for political and vested interest involvement. EDS's phase 2 report on the conservation system elaborates on this topic further.

The need for regular monitoring, resulting conservation responses and accountability

We consider that new wildlife law should impose monitoring requirements directed at assessing the status of species, the success of their management and their recovery. Monitoring needs to be accompanied by statutory responses, that require action in certain circumstances. We consider that new wildlife law should include 'triggers' that activate planning or management in a way that is responsive to the needs of the species. These responses could include moratoriums on take, immediate abatement of the threatening process or immediate habitat protections.

A corollary of the above is that new wildlife law improve accountability for threatened and indigenous species. This could include, for example, an opportunity for civil society appeals (although not of decisions made by independent scientific bodies e.g., NZTCS assessments) and / or an ability for civil society to bring enforcement action (such as emergency orders). Further thought could be given to wider institutional reform so that the Environmental Protection Agency plays a greater role in oversight of threatened species management.

Conclusion

The Wildlife Act is in dire need of reform. It is not working for species or for most people. It is beyond salvaging by mere tinkering and needs a wholesale re-write. This should be done as a matter of urgency, so that Aotearoa can better address its biodiversity loss.

Endnotes

1 See National Policy Statement for Freshwater Management 2020, Policy 9, cl 3.8(3)(c) and Appendix 1A

2 Severinsen et al, 2022