

Unnatural Divides

species protection in a fragmented legal landscape

Human use and development reshapes land, reconstitutes water, consumes space and natural resources and alters faunal compositions. This presents significant challenges to policy makers and wildlife conservation managers mandated to

maintain and enhance biological diversity. In New Zealand a sizeable public conservation estate (approximately one third of the land area) buffers these inroads; however, limitations in terms of the representativeness and extent of the estate (Ministry for the Environment, 2007, p.3; Craig et al., 2000, p.66), conservation management budgetary constraints (Controller and Auditor-General, 2012, p.26) and elevated levels of threatened endemic species (IUCN, 2013) mean that more universal efforts are required to protect threatened species in all environments in New Zealand.

This article examines the disjointed arrangements of the law which frame species protection of animals in New Zealand. A lack of a comprehensive statute

directed at threatened species protection means that the protection of threatened and at risk species is shored up by a range of statutes with disparate foci and functions. The analysis demonstrates the manner in which inconsistency in approach arises in the New Zealand context. Among other things, the role of place as a key determinant in the extent of protection is analysed. An argument is advanced that securing more effective protection of threatened species, and co-existence with humans in the New Zealand environment, necessitates a shift in protective focus away from 'place' to be more firmly fixed upon species conservation status.

In making this argument it is accepted that the problem of biodiversity decline needs to be attacked on many fronts. The

key purpose of this article is to suggest that animals that are in danger of extinction require greater consistency in treatment by the law in order to be better protected. That is not to suggest that other, more systemic change – for instance, as outlined in other contributions to this issue of *Policy Quarterly*, or as set out in Brown et al. (2015) – are not also needed.

Connectivity and integrity in the landscape are vital components of conservation biology; and habitat fragmentation caused by agricultural intensification, urbanisation and associated infrastructure networks is considered a key driver of biodiversity loss (Bennett, 2003; Gurrutxaga et al., 2015; Jongman, 2002; Lindenmayer and Fischer, 2006). In recognition of this, a range of international instruments affect the implementation of connectivity, including the Convention on Biological Diversity, the Convention on Climate Change, the Ramsar Convention, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and the Convention on the Conservation of Migratory Species of Wild Animals (Farrier et al., 2013, p.36). In a different

sense, connectivity and integrity are also important characteristics of a regulatory regime. Just as the landscape is dissected and disrupted by human development, the lawscape far from resembles an integrated and comprehensive whole, and the recovery of threatened and at risk species in New Zealand is compromised by this approach.

In this article the terms 'threatened' and 'at risk', as applied by the New Zealand Threat Classification System, are used to discuss those animals in New Zealand that are threatened or at risk of extinction due to decline. The system works on a spectrum, and 'threatened' species include the categories 'nationally critical', 'nationally endangered' and 'nationally vulnerable', in declining order of threat (Townsend et al., 2008). By way of example, the kakāpō is ranked nationally critical, and the North Island brown kiwi is nationally vulnerable, as is the harlequin gecko. The 'at risk' class includes the categories 'declining', 'recovering', 'relict' and 'naturally uncommon'. The kōkako is an example of a bird in the recovering category, due to conservation success. The tuatara is a reptile falling within the relict category, due to it being a species which occupies less than 10% of its original geographical range (Robertson et al., 2013; Hitchmough et al., 2013, p.10).

In New Zealand, levels of threatened species are elevated in contrast with global averages (IUCN, 2013). The accentuated species loss profile is due to unique biogeographical conditions combined with high numbers of endemic species. A 2013 summary of plant and animal species identified that of the 12,223 taxa assessed, 3,540 were listed as threatened or at risk, compared with 2,788 in 2005. Of this change, it is estimated that 59 taxa genuinely worsened in status, while 12 taxa improved in status as a result of successful species management (Hitchmough, 2013, p.4).

A recent assessment of freshwater fish identifies that a concerning 74% are considered to be threatened, and 25% of freshwater invertebrate species are likewise classified (Goodman et al., 2014). Increasing threat status is attributed to 'pressures including eutrophication, habitat loss and population isolation

caused by the damming of rivers, habitat destruction, species invasion, overharvesting, and climate change' (Joy and Death, 2014, p.454). Intensification of agriculture causing water quality degradation is seen as a major driver, and is further associated with loss of habitat, particularly wetland loss (ibid.).

For birds, compared with global statistics New Zealand has a higher percentage of threatened or at risk species. Of 417 New Zealand species, 77 (18.5%) are identified as threatened and 92 (22.1%) are at risk (Robertson et al., 2013, p.2). In 2013 the global figures were 1,313 (13.2%) threatened and 880 (8.9%) 'near threatened' (BirdLife International, 2013, p.7). The recent downward trends for New Zealand birds are thought to be related to changes in land use, particularly conversion from sheep farming to dairy

Parks Act 1980, the Reserves Act 1977, the Marine Reserves Act 1971 and the Biosecurity Act 1993. This patchwork of incremental legislative effort results in legislative packages where treatment of species is framed largely by place or sector. In particular, it will be demonstrated that the intersection between human activity/development and harm to species is a space where the consistent protection of threatened species is not well resolved.

At an international level, the Strategic Plan for Biodiversity 2011–2020 (including the Aichi targets) was approved at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Convention on Biological Diversity, 2010). The strategic plan reflects the need to strengthen efforts to address the underlying causes of biodiversity loss and reduce direct pressures upon biodiversity.

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farming; changes in oceanic productivity, possibly linked with global warming; and fisheries bycatch and predation (Miskelly et al., 2008, p.123; Wallace and Fluker, 2016 in press).

The Wildlife Act 1953 governs the protection of wildlife in New Zealand. Section 3 of the act provides for the 'absolute protection' of all wildlife throughout New Zealand and its fisheries waters (the exclusive economic zone). This may sound like strong or complete legal protection for threatened species, yet a closer examination reveals significant exceptions to the provision such that protection is far from 'absolute' (Wallace and Fluker, 2016 in press). Additional statutes which have some application to protection of threatened species and their habitat include the Marine Mammals Protection Act 1978, the Resource Management Act 1991 (RMA), the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, the Fisheries Act 1996, the Conservation Act 1987, the National

Target 12 of the Aichi targets is that 'By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.' In New Zealand, introducing more consistent and effective protection of wildlife, particularly in land and seascapes of production, is a key means to better meet the targets.

At the heart of the problem is the fact that an animal species (and even the same animal) may receive different levels of protection in different areas or media. Thus, a dotterel may be entitled to stronger protection from development effects in coastal areas than in inland terrestrial areas, both consisting of habitat where the bird naturally occurs. Likewise, a bittern may receive more favourable treatment on a Manawatu farm wetland than in Westland. Or the Waikato River environs, as a consequence of co-management legislation directed at protection of the river area (the Waikato–Tainui Raupatu Claims (Waikato River)

Settlement Act 2010), may provide greater sanctuary than elsewhere. To a degree this variation can be expected: between a public nature reserve and private land, for instance, or a zoo and a farm. Yet when an animal has 'threatened' status, a better outcome is for protection to be premised upon that status, rather than place or some other driver. When the legislation intended to prevent harm to wildlife (such as the Wildlife Act 1953) is insufficiently comprehensive, unanticipated consequences tend to arise from the legal responses which fill the vacuum, or lack of them.

Wildlife Act 1953

As observed, the Wildlife Act 1953 governs species protection, and section 3 of the

recovery plans for threatened species. Species' threat status is not related to level of protection afforded. Furthermore, the act does not make provision for comprehensive conservation planning, or for any form of emergency spot zone to provide immediate protection for species where imminent loss may arise.

Statutory mechanisms are not available under the Wildlife Act to map and protect endangered species and their habitat in a holistic and range-focused manner. (Population management plans are provided for by section 14F, but these are exclusive to marine wildlife and not widely used.) Even in the limited cases where thorough and specific species recovery plans are prepared, there is no statutory mechanism to direct their

Threatened and at risk species occur across all New Zealand environments, with the greatest proportion of threatened avian species being found in coastal areas (Miskelly et al., 2008, p.123), which are poorly represented among protected areas.

The spatial division between the public conservation estate and private land is significant in many ways, but particularly so in relation to survival rates of populations and species. Land use change in production areas is identified as a main cause of deterioration in conservation status, and species management (which is reduced in terms of central government effort on private land) is a prime reason for improvement (Miskelly et al., 2008, p.123).

No clear and universal mandate to protect and plan for threatened species across all environments in New Zealand is provided for in the legislative arrangements. Section 57(3) of the Wildlife Act provides that ownership of species is vested in the Crown, and section 41(1)(fa), in describing the general powers of the minister of conservation, provides that he or she may from time to time 'protect and preserve wildlife that are absolutely protected under this Act'. However, pursuant to section 6(a) of the Conservation Act, the conservation management functions of the Department of Conservation are limited to land or resources held under that act, thus constraining activity for conservation purposes on private land without agreement of the landowner. Furthermore, the role of the Department of Conservation reduces to an advocacy function as it concerns private land. Under the current statutory arrangements, mechanisms to methodically carry out conservation planning and protection across both the public and private estates are lacking. Specific powers under the Wildlife Act to prepare conservation policy and plans tend to be limited to wildlife sanctuaries, refuges and management reserves (sections 14B–E).

The outcome of the statutory arrangements is that biodiversity conservation planning documents prepared and administered by the Department of Conservation are largely limited to the

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act provides for the 'absolute protection' of all wildlife, with exclusions outlined in schedules 1–5. The protective effect of the act is reduced in a number of ways, including by exceptions (including all threatened native fish, and many marine species and invertebrates); statutory defences (sections 68AB, 68B); lack of clarity surrounding incidental loss, such as habitat destruction; and reduced implementation (Wallace and Fluker, 2016 in press). The act contributes little in terms of active conservation planning for threatened species, and a range of additional deficiencies are evident. Its function is largely to limit a range of actions which may result in hunting or killing of protected species and to legitimise the take of particular species for game. These limitations are confined by reference to 'hunting and killing', thus limiting the reach of the act to other forms of harm (section 63). The act makes no provision for the listing of threatened species, identification and protection of critical habitat, or the preparation of mandatory

consideration in respect of resource use and development plans made under other statutes. In particular, integration between the Wildlife Act 1953 and the Resource Management Act is absent. The focus of the Wildlife Act tends to reduce down to actions in respect of individual animals or particular populations, rather than promotion of protection at the wider landscape scale. This creates a significant problem where other legislation is fragmented or bounded and fails to comprehensively capture the vulnerabilities and needs of species across their range.

Protected area legislation

Protected area legislation, including the Conservation Act 1987, the National Parks Act 1980, the Reserves Act 1977 and the Marine Reserves Act 1971, adds a further protective layer to the legislative arrangements. However, these statutes are spatially limited to the extent of the protected area, and, excepting the Reserves Act 1977, are not applied to private land.

public conservation estate. Policy to guide the management and protection of species exists, but the collective force of the instruments falls short of directing rigorous protection. For the protection of wildlife, the most pertinent statutory instruments are conservation general policy prepared pursuant to sections 17B and 17C of the Conservation Act, and conservation management strategies. Conservation general policy says little about the protection and management of threatened or at risk species. No clear statement of the need to avoid irreversible effects on threatened species is made; nor is there any indication that a precautionary approach should be applied (Wallace, 2014, p.327). As well as lacking conservation plans and strategies with a clear guiding philosophy (Clout and Saunders, 1995, p.94), species management under the Wildlife Act and Conservation Act has been criticised as being inconsistent and alarmingly under-resourced (Joseph et al., 2008, p.155).

Restriction to the public conservation estate further reduces the protective effect of the policies and plans, particularly for mobile species or those species that are not strongly represented on public conservation lands. It is well understood that ecological processes are not well reflected in human governance boundaries drawn on maps.

Resource Management Act 1991

The divide between the public and private estate in New Zealand creates fragmentation of protection that is further compounded by the internal workings of the Resource Management Act. As the principal statute governing resource use and protection in New Zealand, the RMA has a considerable role in regulating the effects of human resource use upon species. Protection of species is not, however, the key focus of the act. Pursuant to section 5, the purpose of the RMA is the sustainable management of natural and physical resources, a mandate fundamentally different from absolute protection of wildlife.

Reflecting its impact on all New Zealand natural and physical resources, the RMA rests upon a different

institutional framework than the Wildlife Act. A three-tier structure, comprised of central government and two levels of local government, regional and territorial, anchors the operation of the RMA. Provision is made for the sustainable management of resources, including biodiversity, principally through the creation of resource management policy and plans. On conservation land, development is constrained by both the RMA and the conservation legislation. The RMA applies to conservation areas, although a limited exemption applies to the Crown for land-use activities controlled by territorial authorities where that use is consistent with a conservation management strategy or plan (section 4(3)). On private land, however, the

in achieving the sustainable management of natural and physical resources.

Arguments founded on property rights are commonly made to support limitation of responsibility for species protection falling on individual property owners, but the consequence of this arrangement can be loss to species, and it is an obvious contributing factor to the loss of biodiversity in New Zealand. Where the state owns species but fails to assert rights in terms of protecting its property, or any corresponding duty upon those causing the loss, then those who cause the damage to the species will bear no responsibility for the loss, which will be socialised, whether the loss arises on private or public property. Freyfogle asserts: 'If the public own wildlife, even

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protection of species habitat is the remit of the RMA alone. The role of the Department of Conservation diminishes to advocacy, except for the discretionary power of the minister of conservation to preserve and protect absolutely protected species.

Protection of species by the Crown, by virtue of ownership and protection through the Wildlife Act, tends to be overshadowed on private land. The RMA provides for the protection of species, but, unlike the mandate of absolute protection afforded under the Wildlife Act, decisions are made to a level consistent with the promotion of sustainable management. Habitat, not species protection, is emphasised by section 6(c) of the RMA as a matter of national importance, and, although habitat protection is critical, a purely habitat approach can produce inconsistencies when agency boundaries divide populations or species. The real problem for threatened and at risk species is that there is no clear statutory direction elevating this class to priority, and the protection of biodiversity is just one factor of many that must be considered

on private land, then presumably it has a legitimate claim that land uses make room for that wildlife' (Freyfogle, 20110, p.57). The extent of this 'room' or limitation on private rights is currently controlled largely under the RMA and associated resource management plans.

Under the RMA, biodiversity is a concern of both regional and territorial authorities (sections 30(1)(ga) and 31(1)(b)(3)). Resource management functions are divided between regional and district councils, pursuant to sections 30 and 31 of the RMA. Regional policy statements are directed by section 59 towards achieving integrated management of all natural and physical resources of the entire region. These documents can be supplemented by technical standards known as national environmental standards (sections 43–44A), and must give effect to national policy statements; both are prepared by central government, and designed to provide nationwide consistency and effect (sections 45–58A). Presently, consistency of approach and integration is hampered by the lack of an operative national policy statement on biodiversity and a silo effect

arises through the division of agency function.

Regional policy statements are tools designed to achieve integrated management, and, within a region, direct allocation of roles for biodiversity protection between agencies in accordance with section 62(1)(i)(iii) of the RMA, to manage overlap in function between local authorities. This measure, together with direction for local authorities to give effect to regional policy statements (sections 67(3)(c) and 5(3)(c)), promotes a measure of consistency between agencies within a region. A limitation in this provision arises in relation to proposed regional policy statements, as the requirement to

purposes of this article, reveals considerable divergence in treatment of threatened and at risk species between regions. The analysis demonstrates that although all regional policy statements assessed contained policy directed at the protection of significant habitat, criteria for the definition of significance varied. Of the 17 statements analysed, 14 applied criteria which included consideration of rarity associated with the presence of threatened species in a particular habitat. Although not directly enabling consideration of threatened species, this criterion does adjust the focus from one of habitat to include consideration of species' conservation status. It also extends the section 6(c) focus on significant indigenous

Association v Waikato Regional Council [2015] NZEnvC 105).

The Ōpoutere decision was made in the context of protecting outstanding features and landscapes in the coastal environment, and thus, under the RMA, governed by the New Zealand Coastal Policy Statement 2010, which distinguishes treatment of the coastal environment from the balance of the terrestrial area. The New Zealand Coastal Policy Statement provides heightened protection for species in the coastal environment principally through policy 11(a): indigenous biological diversity. This policy mandates avoidance of adverse effects on a range of values, including indigenous taxa listed as threatened or at risk under the New Zealand Threat Classification System or as threatened by the IUCN. The proposed National Policy Statement on Indigenous Biodiversity 2011 has not adopted a position which matches the stringency of the New Zealand Coastal Policy Statement concerning avoidance of effects on biodiversity. This distinction reflects the lesser treatment accorded to threatened species outside the coastal environment, which largely consists of open public space as opposed to private lands.

Restricting regulatory reach to limit government interference with the use and enjoyment of private property, particularly where it supports economic development, is a common policy goal, and enabling development in a region is a clear function of a regional policy statement (Matheson, 2013, p.3). The analysis of regional policy statements shows broad regional variation in this regard, with the proposed Westland regional policy statement 2015 taking the least restrictive position, as follows:

2. While the protection of significant indigenous vegetation and habitat of significant indigenous fauna is provided for within regional and district plans, in the context of the current abundance of conservation land it would be sensible for ownership of all such significant areas to be within the Department of Conservation's land portfolio. (ch.3, p.11)

... it is clear that policy under the RMA affecting the treatment of threatened species varies widely ...

give effect to the statement does not arise until the policy statement is operative. Section 74(2)(a)(i) requires territorial authorities to give regard to proposed policy statements when preparing district plans, as opposed to effect.

In addition, although section 86B(3)(c) of the RMA is intended to give immediate legal effect to provisions that protect natural heritage, the section is limited to rules in plans, and a proposed policy statement is confined to policy. Unitary plans which combine the provisions of regional policy statements, regional plans and district plans, as is the case with the Proposed Auckland Unitary Plan, may overcome these limitations. For district plans, a further factor limiting the impact of new measures introduced in proposed plans to protect threatened species is that section 86B(3)(c) is directed at provisions that protect habitats, not species, which therefore weakens the rules in proposed district plans directed at protecting species.

Although a regional policy statement may promote consistency and integration within a region, a 2015 analysis of 17 statements (both proposed and operative) throughout New Zealand, prepared for the

vegetation and enables the protection of exotic vegetative habitat, such as the gorse patches inhabited by the Mahoenui giant wētā. The criteria definition was not uniform between the regions: notable variations included the threat classification system applied (New Zealand Department of Conservation, IUCN (International Union for Conservation of Nature) or both), the definition of 'threatened' (for instance, inclusion of at risk species within this class), and whether threatened status was assessed on a local, regional or national basis.

Compounding these variations in criteria for identification of significant habitat was the method of identification. Strong variations existed as to whether the policy statement solely provided criteria for subsequent identification, contained schedules describing significant habitat and/or maps defining the areas, or included a direction to a local authority to identify or map the areas. The analysis suggests a lack of rigorous and systematic identification and protection of critical habitat/sites. As noted by Judge Harland in a different context, 'In our view, identifying areas is very different from providing criteria for the assessment of them' (*Opoutere Ratepayers and Residents'*

Given that the Department of Conservation manages some 1,912,000 hectares or 84% of this land in Westland (West Coast Regional Council, 2015, p.24), it is understandable that resistance would be encountered to further habitat/threatened species protection. Despite this, a relative abundance of protected habitat does not necessarily equate to an abundance of threatened species and the two should not be conflated. Protection of threatened species should be determined by threat status, rather than the extent of private land in a region. Landowner incentives and support remain available as complementary methods to provide for limitations on private property, as demonstrated in the Horizons One Plan 2014 (Manawatu-Wanganui Regional Council, 2014, ch.6).

In summary, it is clear that policy under the RMA affecting the treatment of threatened species varies widely, particularly with respect to the definition of the class 'threatened', criteria for significance and associated methods of identification, and the employment of a policy of avoidance of irreversible effects on threatened species. As a result, the level of protection is inconsistent, and predicated on place as opposed to threat status.

The problem is compounded by the reduced application of a policy of avoidance of irreversible effects in relation to the public conservation estate, and an absence of strategic conservation planning between the public conservation estate and the working environment. Conservation policy and management plans stop short at the boundary of the public estate and fail to integrate and 'speak' with resource management plans. Initiatives such as the Department of Conservation ecosystem and species optimisation projects, designed to focus management effort, are also curtailed by the boundaries of the conservation estate (Wallace, 2014, p.335). In this way, the eyes of conservation planners stop short of the horizon and their concerns are bounded.

Additional spatial inconsistencies arise as a consequence of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012,

legislation regulating the management of the natural resources of the exclusive economic zone and continental shelf. Unlike the RMA, this act is limited to natural resources, and it applies a more precautionary and protective approach to the use and development of the resources than evident in 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 (section 34(2)).

under the RMA which applies consistent standards and methods of protection of threatened and at risk species, based on threat status to all environments. Necessary statutory exceptions could manage competing interests, but commencing with a uniform standard provides some surety concerning protection of species threatened with extinction.

An additional unifying measure is the adoption of a spatial planning system which enables the development of a protected network of species and habitat across all environments. Spatial planning for protection of threatened species and associated habitat on a national

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Opportunities exist for a more consistent approach to threatened species. Adopting dedicated threatened species legislation is one such opportunity (Seabrook-Davidson, Ji and Brunton, 2011; Wallace and Fluker, 2016 in press). Drawing variously on the examples of the United States' Endangered Species Act 1973, the Australian Environment Protection and Biodiversity Act 1999 and the Canadian Species at Risk Act 2002, these authors urge the adoption of statutory listing of threatened species, mandatory recovery plans and systematic protection of critical habitat. Protection predicated on conservation status is also central to the European Union approach, developed principally through the European Habitats Directive (92/43/EEC) and Birds Directive (2009/147/EC). Establishing the Natura 2000 network of protected areas, the directives ensure protection of the most seriously threatened terrestrial and marine habitats and species (Lausche and Burhenne-Guimin, 2011, p.64).

An alternative approach for New Zealand is to finalise national policy

basis, governed by a single agency and consistent policy and methods, would enhance consistency and integration of protection. Internationally, a wide range of connectivity initiatives (Farrier et al., 2013) and green infrastructure schemes (Lennon and Scott, 2014) are being developed to provide ecological linkages in landscapes, and defining a national approach would unify conservation effort. Spatial prioritisation of conservation effort would also be enabled beyond the public conservation estate. Local interests and the principle of subsidiarity could continue to be engaged through local biodiversity strategies and conservation partnership efforts.

Conclusion

Protection and planning for threatened species in New Zealand is fragmented through legislative provision and related agency function. The Wildlife Act 1953 provides absolute protection for species, but this provision is limited in a range of respects, and is not supported by comprehensive spatial planning measures designed to limit harm to species from

human activity in the environment. Although conservation legislation enables conservation planning, this is largely confined to the conservation estate and therefore provides inadequate protection for species which inhabit areas outside these boundaries.

Despite extending to both the public and private estate, the Resource Management Act fails to bridge the gap

due to a range of factors. The focus on habitat protection, combined with agency function and spatial limitation, work to fragment protection. The analysis here shows that treatment of threatened species is inconsistent, particularly as it relates to level of protection afforded, definition of the class 'threatened', criteria for significance, and identification and mapping effort. In addition, the failure

to link resource management planning to statutory species recovery planning processes further limits protection efforts. The law requires revision, and opportunity exists to strengthen consistency through the enactment of dedicated threatened species legislation, or a national policy statement for species protection complemented by comprehensive spatial planning.

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