

Chapter 21

Conservation Sovereignty and Biodiversity



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Abstract Many key concepts in conservation biology such as ‘endangered species’ and ‘natural’ or ‘historic range’ are universalistic, nation-blind and do not implicate the existence of geopolitical borders and sovereign states. However, it is impossible to consider biodiversity conservation without any reference to sovereign states. Consequently, the units of biodiversity and their ranges transform into legal concepts and categories. This paper explores the area that results from this transformation of the universalist idea into national policy targets. Conservation sovereignty denotes to right of each state to design and carry out its own conservation policies. To illustrate the problematic nature of conservation sovereignty, the paper focuses on two cases where the borders and the state play the key role: (1) the global division of conservation labour and (2) assisted migration. All in all, this paper takes a critical look upon the anomalies in universalism and conservation sovereignty.

Keywords Species · Environmental ethics · Natural resources · Assisted migration · States

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E. Casetta et al. (eds.), *From Assessing to Conserving Biodiversity*,
History, Philosophy and Theory of the Life Sciences 24,
https://doi.org/10.1007/978-3-030-10991-2_21

21.1 Introduction

Many commonly used concepts in conservation biology such as ‘endangered species’ and ‘natural’ or ‘historic’ range¹ are universalistic, nation-blind and do not implicate the existence of any geopolitical borders or sovereign states.² To ignore the current nation-state system and to consider conservation of biodiversity without any reference to states would, however, be unsatisfactory. States are self-determining actors and the principal possessors of biological resources in their territories. At the international level, sovereignty is manifested in the international treaties and declarations approved by the states. By these treaties and declarations, states commit themselves to certain responsibilities and thus voluntarily restrict the ways of acting open to them. At the national level, sovereign states implement these agreements within their jurisdictions, that is, within their established geopolitical borders. From this constellation, a vital point emerges with respect to biodiversity conservation: the units of biodiversity and concepts ascribing their ranges transform into legal concepts and categories that inform policies and practices. This perspective regards sovereign states as the only relevant legal actors. The transformation thus occurs within, and is organised by, the sovereign states.

In creating national policies for biodiversity conservation, sovereign states act either alone or in close collaboration with other states (consider the EU). A global division of conservation labour arises out of joint multiple actions by states.³ The fundamental idea is that each country, as a sovereign actor, is in charge of the biodiversity within its territory while the biodiversity outside the territories of sovereign states (the high seas, the Antarctica) as well as migrating biodiversity (waterfowl, whales) are subject to transnational decision-making, if any.

In this chapter, the traditional thinking will be modestly challenged in two ways. On the one hand, we argue that the global division of conservation labour in its present form is not always efficient from the conservation perspective if each country only focuses on safeguarding its territorial biodiversity. On the other hand, we ask whether climate change (in the global perspective) could challenge the current conservation policies by requiring actions that would make state borders more porous, and applied policies more interventionistic than what they are today. We contend that in some cases successful conservation may require international translocation measures for the establishment of new populations outside the historical ranges, and geopolitical territory, of particular species.

¹There are a plenty of other attributes to describe ranges such as ‘indigenous’ and ‘native’, some of which may be more sensitive to current geopolitical structure than the notions of natural and historic (on their differences, see Siipi and Ahteensuu 2016).

²Smith’s (2016) analysis manifests a universalistic viewpoint concerning the ethics of endangered species preservation.

³In addition to this expression being powerful in its own right, it articulates and explicitly includes human-dependent form of biodiversity. In most cases, this biodiversity literally results from human labour.

The aim of the chapter is to explore issues that result from the transformation of the universalistic idea into national policy targets the foci of which are not merely species universally understood but a wider variety of different “conservables”. To understand what these conservables are, we come across the political dimensions of biodiversity conservation. In the first section, we discuss the idea of state sovereignty and its relation to the control of natural resources and biodiversity. The second section, in turn, presents a typology of sovereignty in the context of biodiversity conservation. In the third section, we examine the global division of conservation labour and its insensitivity for the issue of prioritisation, and the resulting obvious need to transform conventional conservation. The fourth section analyses assisted migration, or whether it is acceptable to translocate species (across the state borders) with the intention of helping them to survive global warming. A short conclusion ends the discussion.

Four clarifying remarks on the nature and scope of our inquiry need to be made. First, our approach is multidisciplinary and focuses on conceptual and theoretical problems arising from sovereignty in the context of biodiversity conservation. We also examine some real-life examples. Second, the transformation from scientific descriptions to legal categories and to conservation success may seem simple but is in reality a complicated and twisted issue because corruption in land-use decisions is widespread and it is difficult to prevent poaching and illegal wildlife trade. Although tackling illegalities is undoubtedly relevant to policy design, it is outside our main analysis. Third, our approach is state-centred and thus extremely constricted. For a more comprehensive picture, the nonstate or civil society actors such as citizens, academics, non-governmental organisations, state-funded think tanks like the OECD (the Organisation for Economic Co-operation and Development) and transnational companies should be taken into account. Fourth, issues of security and safety, in particular the border control of the import of unwanted or hazardous biomaterial, have been and are important components of sovereignty; they are outside our scope of analysis. Therefore, keeping these remarks in mind, the picture we paint of sovereignty is at best sketchy and filled with promises that may never actualise; it is, nonetheless, a useful starting point for further analysis.

21.2 Biodiversity in the World of Sovereign States

Sovereignty over natural resources within the state territory is today an established principle in international law. The concept of ‘sovereignty’ dates back to the late sixteenth century and to the French political theorist Jean Bodin who famously wrote that, “sovereignty is the most high, absolute, and perpetual power over the citizens and subjects in a Commonwealth” (cited in Turchetti 2015). In actual politics, sovereignty became a leading principle in international law as a result of the Westphalian peace in 1648; hence the international system of sovereign nation-states is still known as the Westphalian system. In the historical context of Bodin and other peace negotiators, the unchallenged presumption was that absolute

monarchy is a legitimate form of government. This aspect is not relevant to our analysis despite the facts that many biodiversity-rich countries lean towards absolutism and their democracy, civil societies and status of minorities can be questioned and the global developers' and resource buyers' voices are often compelling. In modern use, sovereignty is typically understood as a form of power that belongs to the state indivisibly and above other powers. In this sense, sovereignty expresses the idea of the right to self-determination that is held by the nation-state over territory, natural resources and the peoples who inhabit the area. The sovereignty of the nation-states also guarantees a legal personhood for this entity in the international legal system, that is, it is externally independent and can exercise power within a community (Endicott 2010). Because of sovereignty, states are in the position to enter voluntarily into binding, action-limiting and, in some cases, external interference entitling conventions (Shue 2014, 146).

A key issue in discussions on sovereignty has been the control of natural resources. Natural resources are thought of as instrumental for the full exercise of self-determination: hence, without possibility to exclude other states (and nonstate trespassers) from using natural resources within their territories, states cannot be truly independent beneficiaries of their own natural wealth. This idea was particularly powerful in the post-World War II period of decolonization and the dissolution of the British, French, Japanese and other empires. In addition, resource scarcity was a matter of mounting concern, which inspired the US President Truman set up by the Materials Policy Commission in 1951. The Commission's analysis *Resources for Freedom* (1952) reflected the general pessimistic mentality with respect to resource availability now and in the future although it recommended policies supporting economic growth. (Andrews 1999, 182–83.) To consolidate the ties between national independence and self-determination and the control of natural resources, the General Assembly of United Nations adopted resolution 1803 (XVII) on the "Permanent Sovereignty over Natural Resources" in 1962.

Sustainable development became a truly global issue by the publication of Brundtland's Commission report *Our Common Future* in 1987. According to it, the current use of resources must not come about at the cost of the resource use, or welfare, of the future generations. It strongly influenced the contents of the Convention on Biological Diversity, signed in Rio de Janeiro in 1992. According to Article 2 of the Convention, biological resources include genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity. Furthermore, sustainable use of these resources "does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations". Later, a resource-based approach to biodiversity conservation has been very strong in the Ecosystem Approach that is a framework for action under the Convention.

The question is then: in what sense is biodiversity a natural resource? It seems straightforward to reason that if the concept of natural resources covers all resources that are biological, and if the concept of biological resources, in turn, includes biodiversity in all of its manifestations, then biodiversity is a natural resource. This

view is emphasised by the Ecosystem Approach that focuses on the importance of ecosystem services that in fact cover all major biological processes in their natural environments. Not all resources are tangible; the category of cultural services, as a component of ecosystem services, includes historical, spiritual, educational and recreational values that ecosystems have but which can be damaged through the loss of biodiversity. Obviously, the convertibility of such cultural values into resources, or monetary values for that matter, is problematic, perhaps with the exception of ecotourism or popular historical monuments that clearly have a market value. Many authors, however, resist this way of considering biodiversity merely as a resource (see e.g. Wood 1997) and the associated rather explicit anthropocentric attitude to the rest of nature.

When we adopt the conception of state sovereignty – a conception that is at least historically anthropocentric since it entitles ‘peoples and nations’ to utilize their natural resources – it depends on states what meanings they attribute to biodiversity in practice. This framework, however, emphasizes for the above mentioned historical reasons the status of biodiversity as an instance of natural resources. It is clear, however, that there are natural resources that do not fall into the category of biodiversity conveniently (e.g. water and non-renewable mineral resources) and the significance of biodiversity is not exhaustively reducible to its resource character. For this reason, when we talk about biodiversity within the framework of sovereignty, we should not consider it merely as a bundle of natural resources but having significance beyond their “resourceness”, a point also made in the opening lines of the Preamble to the Rio Convention. An interesting question is which parts of biodiversity fall outside the popular concept of ecosystem services. To make these conservation dimensions more explicit, we purport the idea of conservation sovereignty.

Conservation sovereignty, as a political idea, stands for the right of each state to design and carry out its own conservation and related natural resource policies, as if there were no transnational regulation. Since there is, however, transnational regulation agreed upon by the sovereign states, though not necessarily by all of them, the question arises whether there can then be sovereignty with respect to biodiversity and its conservation. The paradox is apparent and there are rival attempts to tackle it. As Endicott (2010, 246) has noted, “state sovereignty seems both to demand the power to enter into treaties, and to rule out the binding force of treaties.” It is clearly analogous with the better-known philosophical dilemma of whether the freedom of a human individual includes the possibility to enslave oneself for a fellow human, as Endicott (2010, 246) points out. We follow Endicott’s (2010, 258) conclusion that sovereignty and participation in global agreements and international law are “at least potentially compatible” although the function of these agreements and laws is to give directions to domestic laws and policymaking and to guide interactions between states. As Shue (2014, 143) puts it, “sovereignty is not some mystical cloud that either envelops the state entirely or dissipates completely; there are bits and pieces of asserted sovereignty.” A look at the recent history makes one think that there are no theoretical tensions: the processes of decolonization and the formation of the system of over 200 sovereign states have occurred simultaneously with the growing number of international environmental treaties (Frank 1997).

The paradoxical dimensions of sovereignty are also recognizable in the Rio Convention. According to the Preamble, “States have sovereign rights over their own biological resources” and thus it merely expresses the established principle that the biological resources in state territories are freely at disposal of the state. The previous passage, however, outlines reasons for restricting state sovereignty and the free use of these resources, since “the conservation of biological diversity is a common concern of humankind”. Nevertheless, this paradox is a milestone in the development of international regulation concerning biodiversity. Given the long UN history on the issues of sovereignty and natural resources, the authors of the Preamble were fully aware of tensions between national interests and universal concerns and the essential differences between objects of human interests. The novel expression ‘common concern’ reflects the negotiators’ worry about the state of biological diversity beyond specific geographical areas and resources to which the already established concepts of common area and common heritage apply (see Brunnée 2008).

The Preamble of the Rio Convention effectively captures the two-dimensional nature of global conservation efforts: it is international and domestic at the same time. Within the European Union, two-dimensionality is most clearly manifested in the Natura 2000 conservation area network, established by the Habitats Directive in 1992. The duality between nationalism and internationalism has its roots in the origins of modern conservation movement in the late nineteenth century.⁴ Ever since the creation of the Yellowstone National Park in 1872, most countries have followed the model and selected areas to sustain wilderness and pristinity. In spite of its gradually increasing popularity in the USA (see Nash 2001, 108–21) and other countries, the national park movement was essentially a nationalistic enterprise that emphasized each country’s unique nature values – in some cases compared with those of neighbour states. As Sheail (2010, 12) put it: “*National parks presuppose sovereign nation states*”.

The idea ultimately reached the Old Continent with the first European national parks founded in Sweden in 1909.⁵ The famous explorer A. E. Nordenskiöld had already in 1880 urged the establishment of ‘state parks’ in Nordic countries to preserve samples of fatherlands’ pristine nature for the future generations (Palmgren 1922). The patriotic tone was unmistakable in the essay of the Finnish State Conservation Inspector, Dr. Reino Kalliola, who wrote in the first issue of *Suomen Luonto* – the journal of the Finnish Association for Nature Conservation – that, “the richness and beauty of the Finnish nature is our shared and precious heritage that everyone of us is obliged to cherish” (Kalliola 1941, 20; also Kalliola 1942). Although similar nationalistic tones were probably heard in conservationist circles across the world in the nineteenth century, also the first important multilateral

⁴In this analysis, we try not to identify the origin of conservation practices and we leave out the discussion on imperialist roots of early conservation (see Grove 1995).

⁵A somewhat parallel development took place in Britain, with the Establishment of the National Trust in 1895. Although emphasis of the National Trust has been on preservation of cultural heritage, also areas of natural beauty have been preserved (Sheail 2010).

conservation agreements, such as for instance the Paris Convention for the Protection of Birds Useful to Agriculture (1902), date back to that period (Lyster 1994).

Some early pioneers of conservation movement were active both internationally and nationally. The protection of migratory birds is a case in point. Even before the independence of Finland in 1917, the leading Finnish conservation pioneers had close relations to colleagues abroad and in different occasions pursued internationally defined objectives at the national level. Dr. Johan Axel Palmén, Professor of Zoology in Helsinki, took great interest in the 1st International Ornithological Congress in Vienna in 1884. It is notable that the delegates of the conference attended as individual citizens, as respected members of the scientific community and not as official delegates sent by their respective governments. The governmental acceptance of conservation matters was, however crucial and official participation increased gradually. It is illustrative that The International Council for Bird Preservation (ICBP; from 1993 on, Birdlife International) was founded at the Finance Minister's home in London in 1922 (Birdlife 2017). Accordingly, the idea of national representation in international meetings was stronger providing a better basis for national action on bird conservation. To return to Palmén, the year following the Vienna conference, he published a seminal paper that outlined a plan, based on the conference proceedings, for a reliable collection of nationwide data on bird species distribution and abundance in all regions of the country (Palmén 1885). Palmén's programme turned out to be very successful (Vuorisalo et al. 2015). Later, Palmén (1905) proposed setting up a national conservation society (this happened in 1938), and protecting the endemic Saimaa ringed seal population (legal protection 1955, see Case 1). After independence in 1917, it seems that the attention of Finnish conservationists turned almost entirely to domestic affairs, with a strong emphasis on the establishing and expanding of the national and nature park network (Vuorisalo and Laihonon 2000).

Scientific communities of specific disciplines are universal and, in principle, independent of governments. However, without governmental support their goals, both scientific and non-scientific, are difficult to reach. Likewise, as compared to the powers at the disposal of the state, the international community is rather weak in environmental matters. One reason for this is structural and institutional: there is no global government with the right to tax persons or states or penalise those parties who violate the global rules. The possibilities of ruling sanctions are limited. The ambition to reach unanimity in policy-making often leads to vague compromises, and when unanimity is not aimed at, the risk of free-riding (benefiting without taking responsibility) and gaps in policies is apparent. As Simon Lyster states, "the international community ... has no legislature capable of formulating laws binding on individual States or their peoples without their individual consent" (1994, 3). What is the ensuing nature of conservation sovereignty in such a situation? The answer is that there have been and still are rival conceptions very vivid in the political debates.

21.3 Three types of National Sovereignty in Biodiversity Conservation

The starting point of sovereignty with respect to biodiversity is that biodiversity constitutes an instance of natural resources. Of course, in the background is the policy of priority setting based on the conservation value of biological units, that is, of subspecies, species and biotypes. Within biology, the definitions of biodiversity and its units have been debated continuously since the 1980s, as the existence of this volume also indicates (see also, Gaston and Spicer 2004). Whatever the units, we may call them here conservables. As pointed out earlier, biodiversity is not merely a resource but also a conservable. The most crucial distinctive factor between these two concepts is that conservables have such significance for humans that is not entirely reducible to crudely instrumental or purely monetary values, whereas the notion of resource specifically implies both of those values. In the context of modern market economy, resources are resources to someone whose access to the resources depends on established property and market relations. Although conservables can also be classified as resources, their status and significance is not limited to their ‘resourceness’; consider as an example cultural landscapes with exceptional diversity (cf. Oksanen and Kumpula 2018). Thus, the adopted approach should be wide enough so as to include conservation policies that take into account these non-resource dimensions. Conservation sovereignty, distinctively, refers to the right of each state to design and carry out its own conservation and natural resource policies. One such option, within a strong conception of sovereignty, is that the state decides not to have any conservation policies and gives free hands for the user of natural resources as long as inflicted harms are at a tolerable level. In today’s world, such an option would stand out as exceptional.

To make precise the contrasting understandings about sovereignty and conservation, we distinguish between three kinds of sovereignty. These types are both historical and theoretical constructions. One can also envision, as many have done, global systems without putting states in the central positions and having some kind of a world government; such a system would undermine the talk over sovereignty as we know it and is therefore not analysed here.

Traditional conservation sovereignty (‘brute nationalism’) refers to the traditional system, stemming from the nineteenth century, where each country creates its conservation legislation and network independently of other countries. The pioneering phase of national park movement across the world clearly represents this category. In each country, national parks were established based on the country’s own legislative system. Decision-making was thus strictly national and any country having no interest in adopting conservationist policies was at liberty to do so.⁶ The aim

⁶Henry Shue, in discussion on climate changes policies, is critical of sovereignty that allows states to pursue economic growth, if they choose to. He writes that “there ought to be external limits on the means by which domestic economic ends may be pursued by states, limits that ought to become binding on individual sovereigns irrespective of whether those sovereigns wish to acknowledge

of self-sufficiency naturally does not exclude possibilities that some influences spread from one country to another. Moreover, cooperation between states is reasonable since some activities can generate transboundary harms and many resources (migratory species, boundary rivers, for instance) are multi-territorial. In those cases, bi- and multilateral resolutions may be agreed upon. In social studies on conservation and natural resource use, the classical research themes include the analysis of the conflictual relationships between the central power and the localities and what kind of institutional arrangements would work best in given conditions. The traditional conservation sovereignty can be understood to imply a strongly state-led approach to conservation in which local-level interests and arrangements, including those of the indigenous peoples, become overridden. On the other hand, often, but not always, localities are the best managers of extant biological diversity and decisions from afar can lack adequate local acceptance. In traditional conservation sovereignty, it is a domestic issue how these challenges are met (although there can be other relevant restrictions based on international law such as human rights).

The traditional conservation sovereignty is deficient because of the biospheric nature of biodiversity and its components. As mentioned earlier, historically international practices that aimed at bird conservation were developed very early. There were also debates about the inexhaustibility of other migratory and often highly exploited species and, respectively, a need for international regulation in hunting, fishing and whaling (Lyster 1994). What this has brought about is *internationally regulated conservation sovereignty* ('externally constrained nationalism'). According to it, countries voluntarily participate in international conservation agreements and pursue the harmonisation and unification of conservation efforts at the regional and global levels. This is the system characterized by most of today's states' conservation policies (cf. Lyster 1994). For instance, the Convention on Biological Diversity has now (as of June 2017) 196 Parties that have ratified the treaty.⁷ Internationally regulated conservation sovereignty has prevailed ever since the Stockholm Conference of 1972 that launched unprecedented international environmental activity. Although the principle 21 of the Stockholm Declaration declares that, "States have ... the sovereign right to exploit their own resources pursuant to their own environmental policies", the same principle continues by requiring that developmental activities do not damage the environment. Many international environmental treaties acknowledge broad principles that guide the construction and implementation of more specific norms. These principles include the recognition of the duties to future generations, the prevention of environmental harms, the polluter-pays principle, cooperation among states and ideas about burden sharing. More recently, the development of international environmental law has focused on establishing institutions and procedures through which scientific communities and new research results can be better accommodated into policies. The flagship model is the IPCC, the name of which refers to collaboration between sovereign states – Intergovernmental Panel on

them, just as sovereigns are already bound by both legal and moral rights against domestic use of torture [...]” (Shue 2014, 150).

⁷See the list of signatories here: <https://www.cbd.int/information/parties.shtml>

Climate Change. The model was adopted to biodiversity conservation when the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) set off in 2012. Currently (as of June 2017), IPBES has 126 states as its members.

The system where a state has only a partial sovereignty over its natural resources can be called *federal conservation sovereignty* ('regionally constrained nationalism'). In this system, states share a major portion of their conservation legislation and the compliance with supranational laws is monitored and sanctioned. The European Union is the prime example of this case. According to article 47 of the Treaty on European Union (the Treaty of Lisbon, 2007), the Union recognises itself as a legal person with rights to join international conventions, for instance. However, to state that it is a sovereign state in its own right is a contentious federalist statement and seen to contradict the sovereignty of the member states. Therefore, there is no such official statement. Since it is not our main topic to tackle this sensitive issue and suggest appropriate political moniker, it is a safe bet to characterize it as a closely-knit alliance of sovereign states with sovereignty in selected international issues and with power to circumscribe national sovereignty over agreed areas of public policy (cf. Philpott 2016). At the Union level, the principal issues of biodiversity are being dictated through 'directives'. The idea of the directive is that the addressed member states must adopt into their legislation the designated goals while the choice of form and methods of achieving them belongs to national authorities. The Birds and Habitats directives are the main legislative tools for biodiversity conservation in the EU, and in addition to habitats, their focus is on species, as the official website summarises: "The Habitats Directive ensures the conservation of a wide range of rare, threatened or endemic animal and plant species" (European Commission 2017). Many federal states are legal persons in international law whereas their provincial components are not. In the Westphalian system, these actors are not sovereign and are therefore excluded from foreign politics. However, one of the elements of globalisation is the increasing cooperation between cities and regional actors across national borders and in some cases in explicit opposition to the decisions of the central government. There are numerous comparative studies on the EU and existing federal states like the USA on specific policy areas. It is easy to parallel, for instance, the Birds and Habitats Directives with the Endangered Species Act of the USA: both are regulations from the central government. Such a parallelism can, however, be a simplification. With respect to biodiversity, in the United States an individual state and municipalities may adopt rather independent policies; whereas in the European Union the EU decrees and directives strictly control what a member country can rule in its national legislation (cf. Wells et al. 2010).

As these three contrasting views on sovereignty indicate, the development of supranational and international environmental law constrains the opportunities to enforce policies solely on the national basis. The pure or brute form of sovereignty has become, as has been noted from time and again, an obsolete idea as soon as the ecological ideas have matured enough. In international studies, discussion on states and their standing has been enduring. Though sovereignty is a kind of trump card, the international processes and institutions of governance have evolved to tackle the

complex problems of biodiversity loss. Nevertheless, sovereignty should not hide from us the complexities of vocabularies, institutions and practices in international biodiversity management, and from its somewhat decentralised character (see e.g. Ostrom 1998).

21.4 Case 1: Global Division of Conservation Labour: The Prioritisation Problem

Interestingly, the case of biodiversity has some structural commonalities and substantial convergences with the idea of human rights. Consider Beitz's formulation of what he calls the two-level model of human rights: "The two levels express a division of labour between states as the bearers of the primary responsibilities to respect and protect human rights and the international community and those acting as its agents as the guarantors of these responsibilities." (Beitz 2009, 108.) To some extent, this has been apparent also in the field of international environmental law (Lyster 1994). As applied to biodiversity conservation, such a division of labour could mean that states bear primary responsibility for biodiversity conservation within their territory while the international community may set general guiding principles for conservation efforts in multilateral agreements and acts as a guarantor of this responsibility. As a result, some division of labour in biodiversity conservation develops between sovereign states and the international community.

In conservation policy, the idea of the global division of conservation labour refers to the emergent properties of conservation and how they are manifested through adopted collaborative and domestic practices for instance in the ratification processes of multilateral environmental treaties. Fundamentally, each state is a sovereign state with rights and obligations to accomplish within its territory. On the one hand, sovereign states have rights to resources; on the other hand, and in our analysis more importantly, each nation-state is responsible for protecting the biodiversity within its borders. We can take this literally and thus have a rather mechanistic approach to biodiversity conservation. This means that the conservation value of policy targets, or conservables, is defined nationally based on their abundance and distribution within the state borders.

Reflecting the general tone of this edited volume, we reckon that the emphasis in policymaking has traditionally been on species although there are more nuances to it. As the main goal of conservation efforts is to conserve evolutionary potential, we often need to be concerned about possible management units below the species level. Such units have been called Evolutionarily Significant Units (or ESUs), and may be defined as partially genetically differentiated populations that are thought to require management as separate units (Frankham et al. 2002). Biologically, it may be a matter of taste whether such units are called species, subspecies, or simply local populations. However, terminology matters in conservation policy. It may be easier to get support for conservation of a separate endemic species (that may even

become a national symbol) than for an obscure local population. Under such circumstances, ‘species as targets of conservation policies’ may be created through campaigning, policies and practices, not purely scientifically. A case in point is the Saimaa ringed seal (*Pusa hispida saimensis*) in Finland, first scientifically described in the late nineteenth century (Nordqvist 1899); it is either a “critically endangered” species or a rare fresh-water population (or subspecies) of the “least concern” ringed seal. Today, the Saimaa ringed seal is a symbol of national conservation efforts in Finland even without being a species proper. Because we do not want to deny the significance of its conservation, our point is the following: if the populations and subspecies are classified as species proper, this is not necessarily a scientific error but rather an inaccuracy based on inherent ambiguity of taxonomic classifications. As this example indicates, biodiversity is a political concept that relates to existing political systems in a way that may affect the scientific basis of conservation.⁸

Another type of conservation controversy arises when the population of a certain species is endangered locally or regionally, but not globally. Consider the following example of species preservation where the targeted species occurs across the Eurasian taiga but is rare within the European Union. In the EU, the Siberian flying squirrel (*Pteromys volans*) only occurs in Finland and the Baltic states (Estonia and Latvia). Despite its universal Red List status as ‘least concern’, the mechanistic application of global division of conservation labour calls for its prioritisation in national policy. In Finland, the flying squirrel has become a symbol of public conservation battles that has caused trouble to, in particular, building and road construction (Hurme et al. 2007). The big question now is: does it really make sense to mechanistically follow the division of conservation labour between sovereign states, especially in situations like the aforementioned?

In the EU, the Habitats Directive defines as an overall objective of conservation measures the maintenance or restoration of natural habitats and populations of Community interest at a favourable conservation status (Mehtälä and Vuorisalo 2007; Epstein et al. 2016). This objective is achieved through a division of labour between member states which, in the case of the Siberian flying squirrel, means that the above-mentioned three states are responsible for maintaining the conservation status of the species within the Union at a favourable level. Again, in this case of federal conservation sovereignty the target is set only taking into account the species’ status within the Union, with no regard of its thriving main population in the Russian Federation.

There seem to be three basic arguments in conflict here: efficiency, lack of means of global prioritization of conservation targets, and risk of erosion of the division of conservation labour. Efficiency here points to the chronic resource scarcity in conservation and the following necessity to make prioritisation decisions from a universalistic perspective and by ignoring national borders. However, although there is no

⁸Smith (2016) is an example of an approach focusing on endangered species so heavily that, he alleges, “sub-species are not real” (p. 4) and their identification is arbitrary. By implication, the reason for their conservation must be different from the reasons used for justifying species conservation.

lack of global and science-informed attempts for prioritization (cf. Norman Myers' 36 global biodiversity hotspots or the IUCN Red List of Threatened Species), international law does not provide any effective tools for global-level prioritization of conservation targets. Accordingly, the populations of common species in fringe areas deserve less attention. Whereas the former is crucial, the latter might affect the motivation of conservation in a negative manner. It is obvious that without any other agreement that would define the specific responsibilities, the possibility that the species is neglected emerges. Thus, these specific responsibilities must be agreed upon by all relevant parties and made explicit to avoid the vicious circle that could, at worst, lead to its extinction. A case in point of the risk of erosion of division of global conservation could be the recent policy conflicts over the Great Cormorant conservation status between the EU and some of its member states (Rusanen et al. 2011).

Obviously, from the conservation biology perspective decisions concerning the conservation of biodiversity should be made as if there were no state borders. Even the currently prevailing internationally regulated conservation sovereignty can be considered wasteful as resources are invested (sometimes massively) on local conservation efforts that have little value from the global perspective. For instance, since the 1980s lots of resources have been invested in the protection of the local White-backed woodpecker (*Dendrocopos leucotos*) in Finland, although the species continues to be common in the neighbour states of Norway (700–900 pairs) and Estonia (500–1000 pairs) (Väisänen et al. 1998; Laine 2015). Luckily, the national conservation efforts appear to have been effective, since the breeding population of the White-backed woodpeckers in Finland has clearly increased since 2010 (Laine 2015).

So it is obvious that rigid, non-adjustable nationalism has its shortcomings in today's globalized world. Moreover, we argue that under the global biodiversity crisis conservation sovereignty is becoming problematic also for two biological reasons. First, conflicting conservation priorities between countries and between the international and national level make rational (in the conservation biology sense) resource allocation very difficult. Second, the conservation area networks established by sovereign states are rapidly losing their original natural values due to climate change. The biodiversity crisis calls for an unprejudiced re-evaluation of alien species policies and assisted migration attempts that can result in some minor changes to current legislation (see Trouwborst 2014 on the EU legislation).

21.5 Case 2: Assisted Migration of Plants and Animals

Let us turn to the second issue challenging the mechanistic understanding of conservation sovereignty: the designed relocation of *alien* organisms across state borders. Considering the political restlessness caused by refugees from armed conflict areas in the Near East and the number of immigrants, a letter titled "Britain should welcome climate refugee species" appears extremely provocative. It was published in

The New Scientist in 2011, well before the Brexit referendum of 2016. The author, British biologist Chris Thomas, condensed his message in two sentences: “Some places are ideal havens for species threatened by climate change. One is Britain, and it should throw open its doors.” (Thomas 2011a, b).

Thomas took sides in the recently burgeoned discussion about a new approach to biodiversity conservation: assisted migration. Assisted migration is just one of the many monikers of this particular approach; assisted colonization, managed translocation and managed relocation are among others (Hällfors et al. 2014). Indeterminable numbers of species in many countries have already begun to adapt to climate change by expanding their ranges upslope or to higher latitudes (Parmesan and Yohe 2003). This survival strategy is, however, not available to each and every species. Assisted migration roughly means that humans are to take an active role in translocating species that are believed to be at the risk of disappearance in their current range of distribution because of the impacts of global warming. The potential recipient areas are those where these species can be predicted to survive and reproduce in the future warmer climate, provided that there are no dispersal barriers or lack of time (Hällfors et al. 2014). It requires, of course, a lot of work to identify suitable species for relocation (see Hällfors et al. 2016). Moreover, since the climate change scenarios are numerous and controversial, so are the potential recipient areas, too.

Assisted migration departs from conventional conservation policies in three ways. Firstly, unlike the established *in situ* conservation strategy that seeks to protect species within their current ranges, as the vital elements of their present or historic habitats, assisted migration is interventionist in essence. Secondly, the international legislation regarding wildlife, such as the CITES treaty and, to some extent, the Rio Convention on Biodiversity, restricts the transfer of species and/or biological material across national borders. Assisted migration, or some aspects of it, could be in conflict with current legislation although less so, if the translocation takes place within one country. And thirdly, non-native animals or plants are typically thought of as unwelcome invaders, as aliens. The national border is the most important border, although invasion can occur also within the nation-state. As Thomas’ use of words exemplified, the notion of non-nativity is often constructed in terms of nationality and the role of national borders plays a greater role than the biological ideas of indigenous or historic ranges. Of course, borrowing concepts from political discourses affects how the activity will be perceived by the public.

It seems to us, thus, that we can conceptualize animal and plant species either as climate refugees or as exotic or alien invasive species. This conceptual divide seems to capture the conflicting attitudes to the ideas of plant (or animal) relocation and expresses in a word whether the newcomers are accepted or repelled. The default position is that invasive alien species are undesirable newcomers, in particular if their dispersal is human-assisted; climate refugees are instead victims of anthropogenic change in nature. The victimhood implies that there must be a culpable party who owes something to the victims. Perhaps one acceptable, if not obligatory, way of repairing the moral relationship is to help the victim to survive, preferably in its

current location or, if that is not possible, elsewhere. In other words, essential to the idea of assisted migration is the fact that conservables, such as species, populations or individuals, may not be able to survive without help provided by humans.

In general, it is important to ponder the nature of the responsibilities of humans whose actions in the form of global warming disturb ecosystem functioning and compel organisms to adapt or flee from their original habitats. The concept of refugee is a political one and presupposes the existence of a system of nation-states, territories and borders and the idea of citizenship; without the social reality as we today know it, refugeeship would not make much sense. In the borderless world, however, people could use their traditional “hunter-gatherer” adaptation strategy by migrating and taking important local flora and fauna with them. In this light, it does not seem a distant idea to apply the concept of refugee to non-human organisms, even though they are not persecuted for their convictions or ethnicity. It is equally interesting that the concept of citizenship seems to apply not only to humans but also for biological species, as their status changes after crossing national borders.

21.6 Concluding Remarks

In this chapter, we have examined conservation issues from the viewpoint of state sovereignty, and shown that problems may indeed in some cases arise. Biodiversity is a highly abstract idea embracing all biological variety above individual uniqueness on Earth. If humanity seeks conservation of this variety, the received wisdom says that collaboration between states is necessary. And when states collaborate and commit to the common guidelines for biodiversity conservation, they voluntarily narrow their scope for self-determination to some extent. The key aspect of sovereignty, however, remains. Most notably, if the states fail in implementation or have governments that break away from the successful policies of previous governments, they are subject to external critique in the form “naming and shaming”. This has been particularly apparent in the fields of human rights and climate policies. In contrast to the human-rights framework, the possibility of military intervention for environmental reasons is virtually non-existent, although in some areas, poaching and wildlife trafficking have become a problem of a massive scale that are causing civil and park ranger casualties and, indeed, armed forces are being deployed from time to time. These difficulties in the implementation of conservation laws can be confronted partially by means of law enforcement and, therefore, the presence of civil society actions are vital for successful conservation. If so, a naturally arising idea is that nonstate actors should have opportunities to have an effect on international environmental legislation. As mentioned earlier, the topic is outside the scope of this chapter.

Although the compliance to international laws constrains the states’ possibilities, sovereignty has still a key role in the actual drafting of conservation policies. States

can decide on which populations, species and habitats they invest their conservation efforts. The states thus make prioritisation decisions when such decisions need to be made. States can also open or close their gates to newcomers. States may even classify particular populations as species proper in cases where the majority of taxonomists recognise merely a subspecies. All in all, sovereignty is as noticeable in biodiversity conservation as in other areas of policymaking.

Acknowledgements We thank Minna Jokela, Elina Vaara and the editors of this volume for their insightful comments on the manuscript.

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