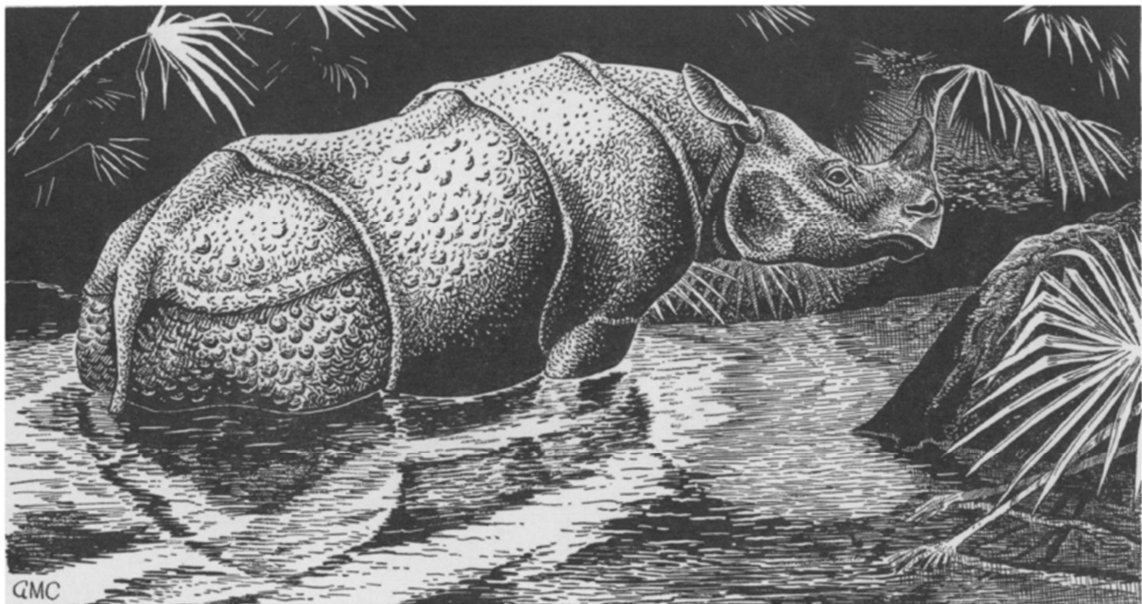


# The Javan Rhino's Last Stronghold: Ecogovernmentalities on Ujung Kulon, 1920s - 1960s



THE JAVAN RHINOCEROS

*“All animals are equal, but some animals are more equal than others.”*

– George Orwell (1945)

## Abstract

In the 1960s, the number of protected areas that were created boomed on a worldwide scale. However, park creation had been a conservation tool since the late nineteenth and early twentieth century. The aim of this thesis is to explain why the 1960s witnessed a new surge in park creation. In this thesis, I argue that a conservation regime change took place between the 1920s and 1960s, from a regime based on the idea that parks should protect “wilderness” and “pristine” nature, to a regime based on the idea that the main function of parks was to protect threatened species. I argue that the rise of a global “park-species” conservation regime was enabled by the synergy between the conservation tools of park creation and “red listing” (classifying and prioritizing species in order of their perceived extinction risk by creating threatened species lists). In this regard, I argue that conservationists increasingly used threatened species lists as a biopolitical conservation instrument with which to exert influence over territories, while park creation can be considered as a territorial conservation instrument with biopolitical implications. I argue that the entanglement between these two conservation tools altered the way in which conservationists could exert power over territory, people and species, which enabled the surge in protected areas in the 1960s. To analyze these phenomena, this thesis is focused on a case study of the conservation of the Javan rhino (*Rhinoceros sondaicus*) in the Ujung Kulon Wildlife Reserve on Java, Indonesia (former Dutch East Indies), between the 1920s and 1960s.

**Cover Picture:** L.M. Talbot, “A Look At Threatened Species”, *Oryx* 5 (1960) 4-5, 155-293, there 204-205.

**Cover Quote:** George Orwell, *Animal Farm: A Fairy Story* (New York: Signet Classics, 1996), 126.

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# Introduction

*“[...] [M]uch of the value - aesthetic, cultural, scientific, educational, and often economic - of the wild animal species is lost when the animal is removed from its habitat. A zoological garden may be a last resort for gravely threatened species, but it is not a substitute for a wild habitat. In an ever-increasing number of cases, the only way to preserve a threatened species with its habitat is in a national park or equivalent protected area.”*<sup>1</sup> – Lee M. Talbot (*First World Conference on National Parks, 1962*)

In 1962 the First World Conference on National Parks was held in Seattle, Washington. A total of 145 delegates from 63 different countries visited the conference, in addition to 117 representatives from almost every state of the United States, to discuss the international significance of park creation for nature conservation.<sup>2</sup> The aim of the conference was “to establish more effective international understanding and to encourage the national park movement on a worldwide basis”.<sup>3</sup> Indeed, in the course of the 1960s the practice of creating protected areas, such as national parks, natural monuments and game reserves, took flight on a global scale (See Figure 1).<sup>4</sup> However, the creation of parks was certainly not a new tool for nature protection.<sup>5</sup>

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<sup>1</sup> Lee M. Talbot, ‘The International Role of Parks in Preserving Endangered Species’, in *First World Conference on National Parks: Proceedings of a Conference Organized by the International Union for Conservation of Nature and Natural Resources, Seattle, Washington, June 30-July 7, 1962.*, ed. Alexander B. Adams (Washington, D.C.: United States Department of the Interior & National Park Service, 1964), 302–3.

<sup>2</sup> Alexander B. Adams, ed., *First World Conference on National Parks: Proceedings of a Conference Organized by the International Union for Conservation of Nature and Natural Resources, Seattle, Washington, June 30-July 7, 1962.* (Washington, D.C.: United States Department of the Interior & National Park Service, 1964), xxxii.

<sup>3</sup> Adams, xxxii–xxxiii, 395.

<sup>4</sup> Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, ‘Introduction: Towards a Global History of National Parks’, in *Civilizing Nature: National Parks in Global Historical Perspective*, by Idem, vol. 1, *The Environment in History: International Perspectives* (New York & Oxford: Berghahn Books, 2012), 12; Dan Brockington, Rosaleen Duffy, and Jim Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas* (London & Sterling, VA: Earthscan, 2008), 2; G.L. Worboys et al., eds., *Protected Area Governance and Management* (Canberra: ANU Press, 2015), 21–22.

<sup>5</sup> This thesis recognizes that many societies carefully conserved and preserved the natural environment prior to the twentieth century in various ways. When this thesis refers to new trends, attitudes or practices, this is specifically done in light of the conservation movement that emerged from the late 19th century onwards.

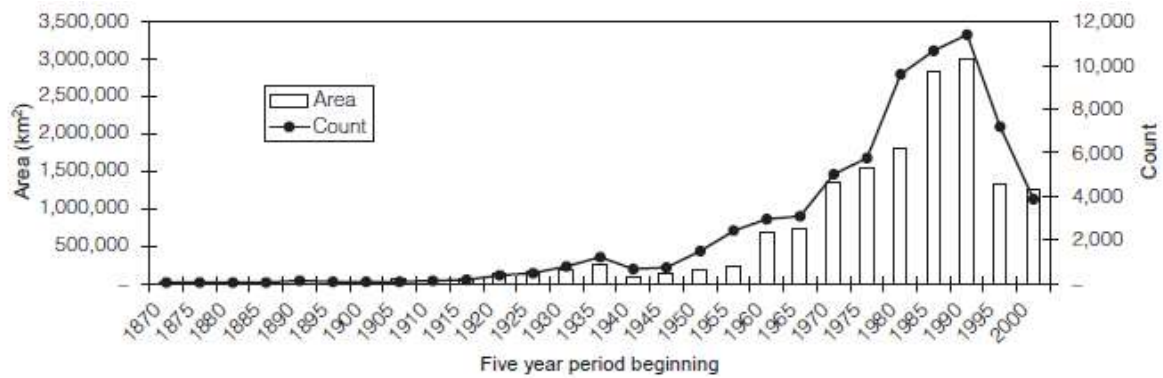


Figure 1 -The global growth of protected areas. Derived from D. Brockington, R. Duffy and J. Igoe, *Nature Unbound* (London & Sterling, VA: Earthscan, 2008), 2.

The late nineteenth and early twentieth century saw a first wave of the creation of national parks and natural monuments.<sup>6</sup> The creation of Yellowstone National Park in 1872 is generally considered as the first national park in the world in the history of conservationism.<sup>7</sup> Within the United States, American President Theodore Roosevelt helped to establish various forest reserves and national parks on public lands during his presidency between 1901-1909.<sup>8</sup> Newly established nature protection organizations lobbied for the creation of natural monuments and game reserves in Canada, Australia, European countries and various African and Asian colonies in the early twentieth century.<sup>9</sup> So if setting aside land for nature preservation in the form of protected areas was already an established and recognized tool for conservation, what explains the second wave of park creation from the 1960s?

These two waves of park creation are characterized by an important difference. In the first wave, conservationists used little argumentation to legitimize the creation of parks; their purpose was to protect ‘wilderness’ in its ‘pristine’ state for people to enjoy.<sup>10</sup> From the second wave onwards, conservationists connected the reasons for

<sup>6</sup> These early parks were generally smaller and fewer in number than in the course of the twentieth century. This first wave therefore is not sufficiently visualized in Figure 1.

<sup>7</sup> Brockington, Duffy, and Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*, 18–21; William M. Adams, *Against Extinction: The Story of Conservation* (London & Sterling, VA: Earthscan, 2004), 77; Alfred Runte, *National Parks: The American Experience*, Fourth Edition (Lanham: Taylor Trade Publishing, 2010), 29–30.

<sup>8</sup> Runte, *National Parks: The American Experience*, 63–64.

<sup>9</sup> Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, eds., *Civilizing Nature: National Parks in Global Historical Perspective*, *The Environment in History: International Perspectives* 1 (New York & Oxford: Berghahn Books, 2012); P. Kupper, *Creating Wilderness: A Transnational History of the Swiss National Park*, *The Environment in History: International Perspectives* (New York & Oxford: Berghahn Books, 2012).

<sup>10</sup> Kupper, *Creating Wilderness: A Transnational History of the Swiss National Park*, 3–5.

park creation more strongly to the perceived importance of protecting species in their natural habitat. Species protection was one of the key concerns of the international conservation movement after Second World War.<sup>11</sup> The 1962 Seattle conference affirmed the principle that threatened species – be it animals or plants – should be protected within protected areas “as an official sanctuary” on a worldwide scale.<sup>12</sup> This raises the question how the increased focus on species protection prior to the 1960s has contested, reinforced or reinvented the creation of protected areas and the conservation measures with which they were managed.

The central research question in this thesis is how park creation and species protection became entangled and established in a global conservation regime between the 1920s and 1960s and how this relationship affected the surge in protected area creation in the 1960s. A global conservation regime can be defined as a globally-oriented system of governmental control, including regulations and conventions on conservation, which are enforced and managed by international institutions and organizations concerned with protecting the natural environment.<sup>13</sup> In this thesis, I will refer to this concept to assess how conservationists constructed a system of control that promoted the importance of protecting species within protected areas on a worldwide scale. In this regard, I will analyze how and why the development of this park-species conservation regime occurred and what its consequences were for the way in which conservation was executed in this period. These questions will be studied in regard to a case study on the conservation of the Javan rhinoceros (*Rhinoceros sondaicus*) in the Ujung Kulon - Prinseneiland Wildlife Reserve (Java, Indonesia) between the 1920s and the 1960s in the former Dutch East Indies.<sup>14</sup> The choice for this case study was based on the important position the Javan rhino gained as role model in the global park-species conservation regime. The Javan rhino’s case study will therefore provide insights in why the park-species approach developed the way it did and how this affected the creation and management of protected areas.

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<sup>11</sup> Adams, *Against Extinction*, 129.

<sup>12</sup> Robert Boardman, *International Organization and the Conservation of Nature* (London & Basingstoke: The Macmillan Press LTD, 1981), 82.

<sup>13</sup> C. Park and M. Allaby, eds., ‘Regime’, in *A Dictionary of Environment and Conservation* (Oxford: Oxford University Press, 2017); C. Park and M. Allaby, eds., ‘Environmental Regime’, in *A Dictionary of Environment and Conservation* (Oxford: Oxford University Press, 2017); J.W. Meyer et al., ‘The Structuring of a World Environmental Regime, 1870-1990’, *International Organization* 51, no. 4 (1997): 623–51.

<sup>14</sup> Hereafter, the Javan rhinoceros will be referred to as ‘Javan rhino’.



## Historiography

Within academia a general consensus exists that an environmental revolution took place in the end of the 1960s and early 1970s.<sup>15</sup> Some scholars have tried to explain the mechanisms behind the proliferation of the protected area system. In *Nature Unbound* (2008), Dan Brockington, Rosaleen Duffy and Jim Igoe have explained why the number of protected areas increased in the 1960s and doubled in the 1980s by analyzing the entanglement between neoliberal capitalism and conservation.<sup>16</sup> Ideas on sustainable development and economic progress, they argued, commodified the natural environment and allowed new stakeholders to invest, for example, in the exploitation of nature or ecotourism. The role of capitalism through nature exploitation and tourism has influenced nature protection from the very beginning; Yellowstone, for example, was established for touristic purposes. However, this park-capitalism mechanism does not sufficiently explain how conservationists' mentalities and rationalities gave rise to the focus on species protection and how this shaped the park-species approach around the 1960s.

In their book *Civilizing Nature* (2012), Bernhard Gissibl, Sabine Höhler and Patrick Kupper have tried to explain the "meteoric rise of protected areas" since the 1960s by calling attention to the functioning of "national parks as the key instrument of territorializing nature".<sup>17</sup> Territoriality can be defined as "the attempt by an individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area [...] called a territory".<sup>18</sup> Various scholars have studied how conservation territoriality occurred through land grabbing or green grabbing – "the appropriation of land and resources

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<sup>15</sup> Raf de Bont, *Nature's Diplomats: Science, Internationalism, and Preservation, 1920-1960*, *Intersections: Histories of Environment, Science, and Technology in the Anthropocene* (Pittsburgh, Pa: University of Pittsburgh Press, 2021), 6; Brockington, Duffy, and Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*, 32; W. Kaiser and J.H. Meyer, eds., *International Organizations and Environmental Protection : Conservation and Globalization in the Twentieth Century* (New York: Berghahn Books, 2017); Simone Schleper, *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*, *The Environment in History: International Perspectives* 16 (New York en Oxford: Berghahn Books, 2019), 26.

<sup>16</sup> Brockington, Duffy, and Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*.

<sup>17</sup> Gissibl, Höhler, and Kupper, 'Introduction', 11–12.

<sup>18</sup> R.D. Sack, *Human Territoriality: Its Theory and History* (Cambridge, 1986), 19.

for environmental ends”.<sup>19</sup> However, these studies only focused on the functioning of conservation territoriality in, for example, expropriation and relocation of local communities. Gissibl et al. note that expanding international conservation networks played an important role in the reconfiguration of territoriality from the 1960s onwards, as “the beginning of a transformative period in which territorial structures were rearranged and rescaled in a variety of ways”.<sup>20</sup> This is a useful theory, but it raises the question how these conservationists exactly reconfigured the way in which territoriality took place.

In *Nature's Diplomats* (2021), Raf de Bont explains the post-1960s worldwide expansion of protect areas by the influence of earlier international civic networks of conservationists and scientific experts. These networks established a framework of standards, instruments and ideas that the post-1960 movement could build upon.<sup>21</sup> Several studies have shown that international nature protection organizations transnationalized nature protection by increasingly framing nature as a scientific affair of international importance in the early twentieth century.<sup>22</sup> This transnationalization should be understood as the framing of nature protection as a matter that transcends nation-state boundaries. Conservationists used this approach to legitimize their interference as non-state actors in national conservation matters across the world. However, these studies do not yet explain how the transnationalization of species, as a subject of scientific and international importance that should be managed on a world-wide scale, affected the way in which conservation territoriality occurred in parks.

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<sup>19</sup> James Fairhead, Melissa Leach, and Ian Scoones, ‘Green Grabbing: A New Appropriation of Nature?’, *Journal of Peasant Studies* 39, no. 2 (2012): 238; Corey Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, *Past and Present* 226, no. Supplement 10 (2015): 214; Matthew Minarchek, ‘Creating Environmental Subjects: Conservation as Counter-Insurgency in Aceh, Indonesia, 1925-1940’, *Political Geography* 81, no. 102189 (2020): 4.

<sup>20</sup> Gissibl, Höhler, and Kupper, ‘Introduction’, 12.

<sup>21</sup> Bont, *Nature's Diplomats*, 6–9.

<sup>22</sup> See, for example: Raf de Bont, ‘Borderless Nature: Experts and the Internationalization of Nature Protection, 1890-1940’, in *Scientists' Expertise as Performance: Between State and Society, 1860-1960*, ed. J. Vandendriessche, E. Peeters, and K. Wils, History and Philosophy of Technoscience 6 (Abingdon & New York: Routledge, 2015), 49–65; Kupper, *Creating Wilderness: A Transnational History of the Swiss National Park*; Anna-Katharina Wöbse, ‘“The World after All Was One”: The International Environmental Network of UNESCO and IUPN, 1945-1950’, *Contemporary European History* 20, no. 3 (2011): 331–48; Schleper, *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*.

In this regard, De Bont claims threatened species lists functioned as a central regulatory instrument for *in situ* conservation.<sup>23</sup> Conservationists make a distinction between the protection of ecosystems or species within their “natural habitat” (*in situ*) or outside of it (*ex situ*), for example in the captivity of zoos.<sup>24</sup> The development of threatened species lists gradually developed in the early twentieth century, especially gaining ground since the 1930s. The practice was further institutionalized and popularized during the 1960s by means of the Red Data Books published by the International Union for the Conservation of Nature and Natural Resources (IUCN). These books - the predecessor of the by now highly popularized IUCN Red List of Threatened Species™ - helped to change the subject and goal of conservation and subsequent management practices.<sup>25</sup> Nowadays, the IUCN Red List is perceived by scientists and conservationists as an “extremely valuable” and “powerful tool for conservation planning, management, monitoring and decision making”.<sup>26</sup>

The territorial dimensions of the threatened species list technology – based on the classification of species in order of their perceived extinction risk – have barely been touched upon in academia.<sup>27</sup> However, threatened species lists have important territorial implications. Whereas the protected area system set the tone for the spatial form nature conservation would be centered around, the threatened species lists provided new content, impetus and legitimization for the focus of conservation efforts *within* the boundaries of the protected areas. Conservation experts shaped these

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<sup>23</sup> Protected area creation and ‘red listing’ are not the only conservation instruments that contribute to *in situ* conservation. International conventions on hunting and wildlife trade, and conferences of zoologists, ornithologists, botanists and other experts have made an important contribution to the enforcement of nature conservation. *Ex situ* conservation tools, such as the use of studbooks and wildlife breeding programs, have also stimulated and promoted conservationist thought and have been legitimized as a safety net for when *in situ* conservation would not succeed. However, threatened species lists have the most profound influence on *in situ* nature conservation in the long term. Bont, *Nature’s Diplomats*, 260; Boardman, *International Organization and the Conservation of Nature*, 51.

<sup>24</sup> For discussions on the problematic assumptions that follow from *in situ/ex situ* terminology, see Irus Braverman, ‘Conservation without Nature: The Trouble with *in Situ* versus *Ex Situ* Conservation’, *Geoforum* 51 (2014): 47–48.

<sup>25</sup> The fact this tool has obtained an unregistered trademark status signifies the common use of red listing practices and IUCN’s benefits of the ‘branding’ of nature as kind of a business model. Bont, *Nature’s Diplomats*, 260–61.

<sup>26</sup> A.S.L. Rodrigues et al., ‘The Value of the IUCN Red List for Conservation’, *TRENDS in Ecology and Evolution* 21, no. 2 (2006): 72.

<sup>27</sup> De Bont linked the importance of threatened species lists for *in situ* conservation, but has not further elaborated on the mechanism of their relationship. Bont, *Nature’s Diplomats*, 260.

connections between species protection and park management and transnationalized this approach into a global conservation regime through international conservation networks and organizations.

In this thesis, I therefore build on the findings of Gissibl et al. and De Bont by studying how threatened species lists exactly interacted with the tool of park creation and how this influenced the way in which conservation territoriality took place. In order to do so, I will assess how conservation organizations and institutes concerned with conservation have contributed to the establishment of a global park-species conservation regime. These questions are studied in regard to the conservation of the Javan rhino in Ujung Kulon, first under Dutch colonial rule and later by the Indonesian government.

There has been relatively little attention for the history of conservation in the Dutch Empire.<sup>28</sup> The scholarship that has focused on the protection of Indonesian species under Dutch colonial rule have mostly focused on the regulations and consequences of trade in, and protection of, birds-of-paradise, orangutans or Komodo dragons.<sup>29</sup> These studies help to explain why early nature conservation was focused on former colonies. However, they do not sufficiently explain how species as a subject of conservation has influenced the way in which conservation occurred in practice. Furthermore, these studies do not sufficiently discuss the consequences of decolonization and the political regime changes of the Second World War on the protection of parks and species. These histories on Indonesian nature protection have made small references to the Javan rhino and Ujung Kulon but a full study of the subject has not yet been done. However, the Javan rhino would gain an important

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<sup>28</sup> Especially little has been written about the history of conservation in the former Dutch West Indies. Henny J. van der Windt, 'Parks without Wilderness, Wilderness without Parks? Assigning National Park Status to Dutch Manmade Landscapes and Colonial Game Reserves', in *Civilizing Nature: National Parks in Global Historical Perspective*, ed. Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, *The Environment in History: International Perspectives* 1 (New York & Oxford: Berghahn Books, 2012), 214–15.

<sup>29</sup> See, for example: Robert Cribb, 'Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931', in *Paper Landscapes: Explorations in the Environmental History of Indonesia*, ed. Peter Boomgaard, Freek Colombijn, and David Henley (Leiden: KITLV Press, 1997), 379–408; Matthew Minarchek, 'Plantations, Peddlers, and Nature Protection: The Transnational Origins of Indonesia's Orangutan Crisis, 1910-1930s', *TRaNS: Trans –Regional and –National Studies of Southeast Asia* 6, no. 1 (2018): 101–29; Timothy P. Barnard, 'Protecting the Dragon: Dutch Attempts at Limiting Access to Komodo Lizards in the 1920s and 1930s', *Indonesia* 92 (October 2011).

position as role model in the global park-species conservation regime. A study of the rhino's protection will therefore provide useful insights in the conservation history of the Indonesian archipelago. Studying the development of the Javan rhino's and Ujung Kulon's protection will enable me to assess the mechanism and reasons behind the rise of an entangled park-species approach and how this contributed to a surge in the creation of protected areas in the 1960s. As mentioned before, conservationist still consider park creation and threatened species lists as the main instruments for nature protection. This thesis therefore contributes to a better understanding of how these conservation instruments function today.

## **Theoretical Framework**

In this thesis I regard the increased entanglement of park creation and species protection as a change of conservation regime. A regime can be regarded as a set of “fundamental rules and norms of politics” that are embedded in institutions or practices, both formal and informal.<sup>30</sup> A regime change does not occur in a vacuum. To advocate for the conservation of nature, people need to formulate ideas on what nature actually is, which nature should be protected, how to protect it and why. The way in which these conservation goals are formulated, and the priorities that are chosen within it, are thoroughly influenced by the political, social and cultural context in which their human advocates operated.<sup>31</sup> The deliberated outcome of these different worldviews on nature conservation is what constitutes a conservation regime. When a transformation of a conservation regime occurs, it is therefore very important to assess how people involved in this process have helped to effect this change. The people, institutions and organizations that dictate a regime are what constitute a ‘government’. A government can be defined as:

“[...] [A]ny more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seek to shape conduct by working through the desires, aspirations, interests and beliefs of various actors, for definite but shifting ends

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<sup>30</sup> Patrick H. O’Neil, *Essentials of Comparative Politics*, 6th Edition (New York & London: W.W. Norton & Company, n.d.), 35–36.

<sup>31</sup> Gissibl, Höhler, and Kupper, ‘Introduction’, 11.

and with a diverse set of relatively unpredictable consequences, effects and outcomes.”<sup>32</sup>

In this thesis, I will use the concept of ecogovernmentality as a lens to study how the harmonization of the conservation tools of red listing and park creation have contributed to a transformation in conservation regime. Ecogovernmentality, sometimes referred to as environmentality or green governmentality, is a concept that functions as a power analytic to study nature-society relationships.<sup>33</sup> It builds upon the concept of governmentality, which can be regarded as an approach to analyze the “code of conduct” of government.<sup>34</sup> Governmentality thus refers to the implicit rationality and mentality behind the “code of conduct” executed by actors, authorities and agencies concerned with governance.<sup>35</sup> In the case of ecogovernmentality, the concept refers to the rationality behind practices to govern the natural environment, that stem from the attitudes and mentalities towards nature of the governing actors involved. These “mentalities of government” are explicitly embedded in language and governance practices, but also in implicit ways, “relatively taken for granted, i.e. it is not usually open to questioning by its practitioners”.<sup>36</sup> This approach is therefore

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<sup>32</sup> Mitchell Dean, *Governmentality: Power and Rule in Modern Society* (London: SAGE Publications, 2010), 31.

<sup>33</sup> Gabriela Valdivia, ‘Eco-Governmentality’, in *The Routledge Handbook of Political Ecology*, ed. Tom Perreault, Gavin Bridge, and James McCarthy (London & New York: Routledge, 2015), 467; Timothy W. Luke, ‘On Environmentality: Geo-Power and Eco-Knowledge in the Discourse of Contemporary Environmentalism’, *Cultural Critique* 31 (1995): 57–81; Timothy W. Luke, ‘Environmentality as Green Governmentality’, in *Discourses of the Environment*, ed. Éric Darier (Oxford: Blackwell Publishers, 1999), 121–51; Paul Rutherford, “‘The Entry of Life Into History’”, in *Discourses of the Environment*, ed. Éric Darier (Oxford: Blackwell Publishers, 1999), 37–62; Éric Darier, ed., *Discourses of the Environment* (Oxford: Blackwell Publishers, 1999); Michael Goldman, ‘Constructing an Environmental State: Eco-Governmentality and Other Transnational Practices of a “Green” World Bank’, *Social Problems* 48, no. 4 (2001): 499–523; Michael Goldman, *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*, Yale Agrarian Studies Series (New Haven & London: Yale University Press, 2005); Arun Agrawal, *Environmentality: Technologies of Government and the Making of Subjects*, New Ecologies for the Twenty-First Century (Durham & London: Duke University Press, 2005).

<sup>34</sup> Dean, *Governmentality: Power and Rule in Modern Society*, 30–31.

<sup>35</sup> This does not mean that mentalities are always ‘rational’ as they can also consist of a-rational elements, such as the creation of “the enemy” in times of war or other types of crises through the use of symbolics and political discourse. Dean, 39–40.

<sup>36</sup> Dean, 39.

useful for studying the discourse of colonial governments and conservationists, as is the case in this thesis.

In order to analyze how changing mentalities of government have influenced a transformation in conservation regime, I will more specifically use two analytical lenses that are closely connected to the concept of ecogovernmentality: the exertion of 1) territoriality and 2) biopower (through biopolitics). These concepts are useful for this study because they enable me to analyze how people have attributed meaning to the conservation of species in protected areas, and how this meaning affected the way in which human and nonhuman species were regulated within the protected area. Furthermore, the concept of biopolitics sheds light on how human differentiation and evaluation – both across human and nonhuman species as between nonhuman species – legitimized certain conservation measures and influenced the way in which species protection was executed within protected areas. Both concepts of territoriality and biopolitics will first be addressed generally before explaining their combined usefulness for studying the history of nature conservation and the rise of threatened species lists.

The definition of territoriality has been provided earlier in this introduction. According to human geographer Robert Sack, a delimitation to space only becomes a territory when “boundaries are used by some authority to mold, influence, or control activities” and access to the area.<sup>37</sup> This process of the in- and exclusion of people by the use of boundaries conveys clear meanings about issues of power, authority and rights.<sup>38</sup> As such, territoriality is a strategic geographical practice to exert power over societies’ relationship with space, or, in regard to the subject of conservation, societies’ relationship to the natural environment. The strategies to control and preserve certain territories are motivated by the desire to control the material resources that lie within its borders and/or because of people’s emotional connection to the land.<sup>39</sup> Thus, these

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<sup>37</sup> Sack, *Human Territoriality: Its Theory and History*, 19.

<sup>38</sup> D. Delaney, ‘Territory and Territoriality’, in *International Encyclopedia of Human Geography*, ed. R. Kitchin and N. Thrift, vol. 11 (Oxford: Elsevier, 2009), 196–208; D. Storey, ‘Territory and Territoriality’, in *Handbook of the Geographies of Regions and Territories*, ed. A. Paasi, J. Harrison, and M. Jones (Cheltenham & Northampton: Edward Elgar Publishing, 2018).

<sup>39</sup> Jan Penrose, ‘Nation, States and Homelands: Territory and Territoriality in Nationalist Thought’, *Nations and Nationalism* 8, no. 3 (2002): 278–79, 284.

spaces only gain meaning through the value that is attributed to them by people, which means they can also lose meaning and significance and disappear.<sup>40</sup>

The second analytical lens of this thesis concerns the exertion of biopower. Biopower can be defined as “the set of mechanisms through which the basic biological features of the human species became the object of a political strategy, of a general strategy of power”.<sup>41</sup> Biopower is a technology of government to discipline and regulate human bodies, which can be done on two levels; anatomopolitics is focused on the disciplining of individual bodies, whereas biopolitics is concerned with the regulatory control of a population, or the human species as a whole.<sup>42</sup> The concept of biopolitics can thus be regarded as “the attempt [...] to rationalize the problems posed to governmental practice by phenomena characteristic of a set of living beings forming a populations: health, hygiene, birthrate, life expectancy, race...”.<sup>43</sup> The supervision and regulation of these phenomena is embodied in and executed by institutions (family, army, schools, police, medicine, etc) and through institutionalized practices and measures (f.e. statistics).<sup>44</sup> Governing agencies use regulatory controls that are often informed by expert’s knowledge on best practices.

Although the concept of biopower and biopolitics are more often used in regard to studying the governance of human populations, the concept can thus also be used to analyze the regulatory and disciplining aspects of the human governance of nonhuman species.<sup>45</sup> In this light, threatened species lists should be regarded as regulatory biopolitical technologies through which governing conservation actors and

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<sup>40</sup> Penrose, 279–80.

<sup>41</sup> Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977-78*, ed. Michel Senellart, François Ewald, and Alessandro Fontana, trans. Graham Burchell, Michel Foucault: Lectures at the Collège de France (Basingstoke & New York: Palgrave Macmillan, 2009), 16.

<sup>42</sup> Michel Foucault, *The History of Sexuality, Volume 1: An Introduction*, trans. Robert Hurley (New York: Pantheon Books, 1978), 139; Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977-78*, 16 and 490.

<sup>43</sup> Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978-79*, ed. Michel Senellart, François Ewald, and Alessandro Fontana, trans. Graham Burchell, Michel Foucault: Lectures at the Collège de France (Basingstoke & New York: Palgrave Macmillan, 2008), 317.

<sup>44</sup> Valdivia, ‘Eco-Governmentality’, 470.

<sup>45</sup> Irus Braverman, *Wild Life: The Institution of Nature* (Stanford, California: Stanford University Press, 2015), 13.



agencies enforce biopower.<sup>46</sup> The concepts of territoriality and biopolitics are intrinsically intertwined and reinforce each other. The relationship between these mechanisms becomes clearer when studying the nexus between species protection and park management. Whereas territoriality should be regarded as a mechanism used to exert influence and control over a delineated area, such as a national park or reserve, biopower can be regarded as a mechanism used to exert influence and control over a population or species through biopolitics. In this process, the importance that government's attribute to controlling (certain parts of) the protected area's territory depends on the distribution of a species that is considered to warrant a certain degree of protection.

This thesis starts from the premise that protected area creation is a territorial conservation technology with biopolitical implications, and red listing is a biopolitical technology with vast territorial implications through which biopower is exerted over species and people. In this thesis, I will analyze how both technologies related to each other and how this affected the governance and management of reserves, species and people. These two concepts of territoriality and biopolitics are used as the foundation for the sub-questions and analytical framework of this thesis.

Additionally, the concept of securitization is used to analyze how governments justified increased control over species, people and reserves. Securitization can be defined as the process in which governments “determine threats to national security based on subjective rather than objective assessments of perceived danger”.<sup>47</sup> When something is securitized, actors have framed a subject as an immediate security threat

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<sup>46</sup> Note that in biological terms a population is used to describe a number of individuals of the same species in a particular geographic area who are able to sexually interbreed. This approach of the definition for a population is different – i.e. a smaller unit - than the way in which Foucault uses the term of a population in regard to biopolitics on the species level. For discussions on the biopolitical aspects of threatened species lists, see Christine Biermann and Becky Mansfield, ‘Biodiversity, Purity, and Death: Conservation Biology as Biopolitics’, *Environment and Planning D: Society and Space* 32 (2014): 257–73; Irus Braverman, ‘En-Listing Life: Red Is the Color of Threatened Species Lists’, in *Critical Animal Geographies: Politics, Intersections and Hierarchies in a Multispecies World* (London: Routledge, 2015), 184–202; Braverman, *Wild Life: The Institution of Nature*; Irus Braverman, ‘Chapter 1: The Regulatory Life of Threatened Species Lists’, in *Animals, Biopolitics, Law: Lively Legalities*, Draft (eBook: Routledge, 2016); Irus Braverman, ‘Anticipating Endangerment. The Biopolitics of Threatened Species Lists’ 12, no. 1 (2016): 132–57.

<sup>47</sup> R.J. Kilroy, ‘Securitization’, in *Handbook of Security Science*, ed. A. Masys, Ebook (Cham: Springer, 2018), 1–19, [https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-51761-2\\_11-1](https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-51761-2_11-1).

to a country's political authority or a population. This threat in turn warrants an immediate response to prevent or suppress the threat at hand. Through this process, actors can put the issue on the security agenda.<sup>48</sup> Securitization can also be studied in the context of environmental issues, such as species protection.<sup>49</sup> In this thesis, I use the concept of securitization to analyze why conservationists succeeded in putting the Javan rhino on the international conservation agenda.

## Methodology

To uncover the implicit ecogovernmentalities behind the governance and management of Ujung Kulon and the Javan rhino, I will focus on four sub-questions covering the 1920s-1960s period. The following chapters are structured accordingly. I have chosen 1970 as the end of this periodization, because from this time onwards the global conservation regime was further expanded and complicated by different discourses on the problems of finite resources, climate change and sustainable development.<sup>50</sup>

In the first chapter, I will discuss what the international and colonial context was of the conservation regime in which the Ujung Kulon reserve was created in 1921. Historicizing the early conservation movement of the late nineteenth and early twentieth century will enable me to understand the trends embedded in protected area governance and management in the 1920s.

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<sup>48</sup> For the different aspects of the functioning of securitization see, for example: B. Buzan, O. Wæver, and J. de Wilde, *Security: A New Framework For Analysis* (Boulder & London: Lynne Rienner Publishers, 1998), 23–24; T. Balzacq, ed., *Securitization Theory. How Security Problems Emerge and Dissolve* (Abingdon & New York: Routledge, 2011); T. Balzacq, 'The Three Faces of Securitization: Political Agency, Audience and Context', *European Journal of International Relations* 11, no. 2 (2005): 171–201; B. de Graaf, 'Historisering van Veiligheid. Introductie', *Tijdschrift Voor Geschiedenis* 125, no. 3 (2012): 305–13; Kilroy, 'Securitization'.

<sup>49</sup> Buzan, Wæver, and de Wilde, *Security: A New Framework For Analysis*, 23; F. Massé and E. Lunstrum, 'Accumulation by Securitization: Commercial Poaching, Neoliberal Conservation, and the Creation of New Wildlife Frontiers', *Geoforum* 69 (2016): 227–37.

<sup>50</sup> P.J Taylor and F.H. Buttel, 'How Do We Know We Have Global Environmental Problems? Science and the Globalization of Environmental Discourse', *Geoforum* 23, no. 3 (1992): 405–16; S.J. Macekura, *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century*, Global and International History 2 (New York: Cambridge University Press, 2015); Kaiser and Meyer, *International Organizations and Environmental Protection : Conservation and Globalization in the Twentieth Century*; H. Stevenson, *Global Environmental Politics: Problems, Policy and Practice* (Cambridge: Cambridge University Press, 2018).

In the second chapter, I will analyze why, by whom and as a consequence of which factors the Javan rhino obtained a threatened status and how this influenced ideas on the governance and management of Ujung Kulon between 1921 and 1937. This will help me to assess how the conservation instruments of park creation and species prioritization related to each other and how this affected existing conservation regimes.

In the third chapter, I will analyze how the park-species approach has affected the practical execution of the reserve's governance and management, and the control of species and people within it, between 1937 and 1957. In the process, I focus on why this development occurred in the way it did. This includes an analysis of how possible disruptions and continuities in Ujung Kulon's conservation during political regime changes should be understood and explained, such as the Second World War (1942-1945), the Indonesian decolonization war (1945-1949) and Indonesian independence (after 1949). This will help me to understand how Ujung Kulon's authorities contributed to the way in which conservation territoriality and biopolitics were exerted over species, people and territory.

In chapter four, I will assess how the transnationalization of the park-species approach affected the governance and management of Ujung Kulon and the Javan rhino between 1947 and 1970, and why this process occurred in this way. This chapter tests the findings of chapter two and three on an international level to assess the transfer of – and continuities and disruptions in – governance and management ideas and practices and how this affected the protection of Ujung Kulon. This allows me to answer the research question of this thesis of how the rise of a global park-species conservation regime might have contributed to a surge in protected areas in the 1960s.

Studying these sub-questions, I will specifically focus on how governments and conservationists implicitly or explicitly used ideas and argumentations to legitimize a certain nature protection approach towards Ujung Kulon and the Javan rhino. These ideas, argumentations and practices were executed in light of the biopolitical and territorial conservation technologies and are therefore considered to be an expression of the ecogovernmentality on the park-species nexus. This will help to analyze how and why conservation authorities gained, lost or reinvented control over Ujung Kulon and its relationship with species and people. Developments in park management and species protection cannot be discussed separately due to their reciprocal relationship. Therefore, the analysis of the sub-questions is structured around three fields of tension

that I expect arose from the entanglement of conservation technologies. These tensions help to clarify how the park-species nexus is constructed and how it affects conservation management.

The first tension concerns ideas about the relationship between human and nonhuman species. I will analyze how argumentation used in correspondence, conservation policies and guidelines implicitly and explicitly conceptualized the relationship between the control of human and nonhuman species in regard to the territory of Ujung Kulon. How conservation authorities differentiated between the importance of protecting some species over others, or how they valued the control of some species or human communities differently than others, illustrates how conservationists contributed to a particular idea on biopolitical control within the reserve's territory. This informs me about how the tools of red listing and park creation functioned in promoting and legitimizing the park-species conservation approach.

The second tension concerns ideas on what activities humans are allowed to do within the protected area of Ujung Kulon and in regard to the Javan rhino more specifically. I will analyze how conservationists envisioned who is allowed to do which activities within the park, mainly in regard to species. In order to do so, I will focus on what is allowed in terms of hunting, wildlife trade, scientific research activities, park maintenance and recreation. This will inform me about the consequences of how conservation authorities used biopolitics and territoriality as political strategies

The third tension concerns ideas on how human and nonhuman activities should be regulated in regard to Ujung Kulon and the Javan rhino. In regard to human conduct, I will focus on how conservationists establish conservation measures like patrol routes, a guard system, issue fines and set up a system of intelligence. In regard to nonhuman conduct, I will assess how conservationists maintain management areas, gather information used for population management and try to re-establish park boundaries. This will inform me about prevailing ideas on how biopolitical control within the reserve should be established and the way in which this control functioned in practice. The interaction between ideas and practices of these three tension fields show how and why conservation authorities used the tools of red listing and park creation to construct Ujung Kulon's park-species conservation regime.

A great variety of individual actors, nature conservation organizations and other interest groups have intervened in the game of conservation in some way or another. In order to change the status quo of conservation, people and organizations have to

gain authority, status and expertise to be influential. The “conservation authorities” I study in this thesis are those organizations that previous academic research has considered influential in Dutch East Indian nature protection, or in establishing a global conservation regime.<sup>51</sup> The influence these authorities had differed throughout the 1920s-1960s period. This reflects the influence of important political regime changes and societal developments that took place due to the Second World War and the subsequent Indonesian War of Independence. Before 1942 the archipelago was under Dutch colonial control as the Dutch East Indies. Between 1942 and 1945, the former colony was occupied by Japanese forces. Two days after Japan surrendered in August 1945, Indonesian independence was proclaimed by Sukarno and Mohammad Hatta. The Dutch government did not recognize the independence of the Republic of Indonesia and send armed forces to restore political authority, which marked the beginning of the Indonesian War of Independence (1945-1949). The Dutch government transferred political power to Sukarno as president of the now sovereign Republic of Indonesia in December 1949. In 1967 Sukarno’s reign ended when Suharto seized power.

The organizations and institutions assessed in this thesis could be categorized into three groups based on their position and influence in certain time periods: those active in the colonial period, those active post-1945 and those whose influence was more or less permanent. The *Nederlandsch-Indische Vereeniging tot Natuurbescherming* (Dutch East Indian Association for Nature Protection, hereafter NIVN) was mostly active in the colonial period, but lost influence after the war and was dissolved after Indonesian decolonization. Just as many other nature protection associations at the time, the NIVN was a private, quite elite organization with influential connections in the colonial milieu. Organizations that gradually gained influence in promoting the international significance of Ujung Kulon and the Javan rhino from the mid-1940s onwards, were the International Office for the Protection of Nature the International Union for the Protection of Nature (IUCN) and the World

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<sup>51</sup> Peter Boomgaard, ‘Oriental Nature, Its Friends and Its Enemies: Conservation of Nature in Late-Colonial Indonesia, 1889-1949’, *Environment and History* 5, no. 3 (1999): 257–92; Paul Jepson and Robert J. Whittaker, ‘Histories of Protected Areas: An Internationalisation of Conservationist Values and Their Adoption in the Netherlands Indies (Indonesia)’, *Environment and History* 8, no. 2 (2002): 129–72; Wöbse, “‘The World after All Was One’: The International Environmental Network of UNESCO and IUPN, 1945-1950’; Gissibl, Höhler, and Kupper, *Civilizing Nature*; Bont, *Nature’s Diplomats*.

Wildlife Fund (WWF).<sup>52</sup> The IUCN grew out to be largest and most influential nature conservation organization in the course of the twentieth century. Other organizations or institutions held a continuous influence, but their position also changed somewhat after the war(s). Among them are the *Nederlandsche Commissie voor Internationale Natuurbescherming* (Dutch Commission for International Nature Protection, hereafter NCIN), 's *Lands Plantentuin* (Botanical Garden of Buitenzorg) and the *Dienst van het Boschwezen* (Forest Service). These organizations all had very different interests and roles in the maintenance of Ujung Kulon and held different ideas about what conservation should entail. It should therefore be noted that these three categories are merely artificially and only for analytical purposes. There are in fact individual actors that cross these group boundaries, navigating the tensions that political regime changes and their affiliations to other institutions or organizations could bring about.

In regard to these organizations and institutes, I especially focus on the special role conservationist Andries Hoogerwerf fulfilled in the conservation of Ujung Kulon and the Javan rhino. Hoogerwerf worked in Indonesia from 1931 until 1957 under the aforementioned political regime changes.<sup>53</sup> He was appointed as the first nature conservation officer in the Dutch East Indies in 1937 and helped to put the Javan rhino on the international conservation agenda. Studying Hoogerwerf's ideas and practices therefore provide insights into the nexus between local and international conservation.

This research mainly relies on the archives of the NCIN and the archives of Hoogerwerf.<sup>54</sup> The archives of the NCIN consist of correspondence, reports and minutes of their own organization, as well as that of IUCN meetings and committees or contact with the NIVN. Hoogerwerf's archive consists of documentation of organizations and institutions involved in the protection of Ujung Kulon and the Javan

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<sup>52</sup> The International Union for the Protection of Nature (IUPN) was renamed in 1956 to the International Union for the Conservation of Nature and Natural Resources (IUCN). For continuity the Union will hereafter be referred to as IUCN. International Union for the Conservation of Nature and Natural Resources (IUCN), 'Proceedings Fifth General Assembly, 20-28 June 1956, Edinburgh' (Brussels, 1957), IUCN Digital Library; Martin Holdgate, *The Green Web: A Union for World Conservation* (Abingdon & New York: Earthscan Publications Ltd, 1999), 60.

<sup>53</sup> E. Pelzers, 'Geschiedenis van Het Archiefbeheer', Inventaris van het archief van A. Hoogerwerf [levensjaren 1906-1977], 1900-1974, Archiefvorming (Beschrijving), Edition 2015, <https://www.nationaalarchief.nl/onderzoeken/archief/2.21.281.27>.

<sup>54</sup> The archives of the NCIN are located in the Amsterdam City Archives. The archives of Andries Hoogerwerf are located in the National Archives in the Hague.

rhino, such as the Forest Service, Botanical Garden and NIVN. It also provides information on contacts with conservationists and organizations outside the Dutch East Indies, such as the NCIN. One problematic sidenote has to be discussed about the use of Hoogerwerf's archive. After his death, Hoogerwerf's family burnt parts of his archival collection on his instruction.<sup>55</sup> However, I argue this has not greatly affected this research, because the aim of this research – uncovering implicit rationalities behind a system of conservation measures – could still be assessed, based on what Hoogerwerf deliberately saved for later generations to read. This still reflects the vision on conservation he implicitly or explicitly wanted to promote in regard to the protection of the Javan rhino in Ujung Kulon. Apart from the use of physical archives also online collections and archives were used, such as the Rhino Resource Center, the IUCN Library and Delpher.<sup>56</sup> These databases were used to retrieve journal articles, books and reports on the Javan rhino written by the colonial government, individual conservationists and nature protection organizations. Books and other publications that were published by the aforementioned organizations and institutions between the 1920s and 1960s are used as primary source.

This research is aimed at explaining the second wave of park creation in the 1960s by analyzing the development of intended management aims, objectives and practices in regard to park governance and species protection in Ujung Kulon. Ideally, this research would have included the perspectives and practices of local Indonesian communities that were subjected to the conservation regime.<sup>57</sup> Unfortunately, I only had access to the archives of Dutch (colonial) conservationists and nature protection organizations. This means that the sources used in this thesis only shed light on the

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<sup>55</sup> M.J. van Steenis-Kruseman, *Verwerkt Indisch Verleden* (Oegstgeest: Privately Published, 1988); J.H. Becking, 'The Bartels and Other Egg Collections from the Island of Java, Indonesia, with Corrections to Earlier Publications of A. Hoogerwerf', *Bulletin of the British Ornithologists' Club* 129, no. 1 (2009): 18–48; Pelzers, 'Geschiedenis van Het Archiefbeheer'.

<sup>56</sup> For a full list of used archives and databases, see the 'Archival Source Material' section in the bibliography at the end of this thesis.

<sup>57</sup> Indonesia is a culturally diverse country with a population of more than 260 million people. The Indonesian government recognizes 1331 ethnic groups among them. In this thesis, I recognize this diversity of Indonesian and Indigenous peoples and the problematic distinction made between them during Dutch Colonial rule. However, I will collectively refer to them as 'native' or 'local', as the sources used often not specify communities but refer to the Indonesian population in general. The position of conservationists towards the Dutch-Indonesian population remained unclear during this research, as well as their function in the Dutch East Indian conservation movement.

perspective of Dutch authorities and conservation institutes and organizations on how species should be protected in protected areas. I will use these sources to analyze the rise of a park-species conservation regime and how this affected conservation practices, while recognizing that these insights reflect the prevailing colonial norms, values and ideas in regard to the native Indonesian population.

In regard to terminology, I will refer to the Indonesian archipelago as the Dutch East Indies until 1945, after which I will further designate the area as Indonesia to make a clear distinction between political circumstances. Another terminological decision has been to use the present-day designation 'Ujung Kulon' instead of former spellings like 'Oedjoeng Koelon' or 'Udjung Kulon', unless quoting primary sources using former names. Other references to places, islands or regions have been done based on the common name used by the political regime 'in charge' at the time, unless indicated otherwise. Lastly, I use the terminology of species prioritization, threatened species lists and 'red listing' in specific contexts. I will refer to species prioritization when talking about practices and discourses that imply the prioritization of some species over others without necessarily creating a specific list of them. The designation of threatened species list will be used to refer to a documented list that has been constructed as a result of red listing. I want to conceptualize red listing as a general term for the practice of listing, and in the process prioritizing, of certain species over others in terms of their perceived extinction risk. The designation Red List will specifically be used to refer to the IUCN Red Data Books or IUCN Red List of Threatened Species. As will become clear in the following chapters, they are all manifestations of the red listing technology and will therefore sometimes be referred to as such.



## Chapter 1 – The Indonesian Tropical Garden of Eden

The development of the Dutch East Indian conservation movement in the late nineteenth and early twentieth century mirrors larger trends within conservation history worldwide. In this chapter I will discuss the colonial and international context of the conservation regime in which the Ujung Kulon Natural Monument was created in 1921. This chapter will first set out the ideologies of the early conservation movement in North America and Europe and the conservation measures they proposed. These ideas and practices were thoroughly influenced by nationalist and imperialist notions, which had long-term effects on conservationism in the twentieth century. Secondly, I will discuss the ways in which early conservationists increasingly framed the protection of “wilderness” as a matter of international importance to legitimize park creation. This helps to shed light on how conservation organizations would later transnationalize the park-species conservation regime. Lastly, I will assess how conservation organizations and scientific experts “scientized” conservation ideas and practices, especially in regard to the Indonesian Archipelago. The concept scientization is used here to analyze how “experts” conceptualized and rationalized problems posed to the natural environment by classifying, categorizing, standardizing and universalizing it. Subsequently, the concept helps to assess how experts used this rationalization to organize themselves, gain authority, and legitimize the organization of these problems in, for example, regulations, conventions or institutes.<sup>58</sup> This rationalized science-based approach on which conservation was built often excluded ideas on nature protection from other epistemological and ontological knowledge systems. The perceived international importance and scientization of nature conservation in the pre-1920s period were mutually enforcing and greatly influenced the establishment of a global conservation regime in the course of the twentieth century.

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<sup>58</sup> L. Raphael, ‘Die Verwissenschaftlichung Des Sozialen Als Methodische Und Konzeptionelle Herausforderung Für Eine Sozialgeschichte Des 20. Jahrhunderts’, *Geschichte Und Gesellschaft* 22, no. 2 (1996): 165–93; G.S. Drori and J.W. Meyer, ‘Scientization: Making a World Safe for Organizing’, in *Transnational Governance: Institutional Dynamics of Regulation*, ed. M.L. Djelic and K. Sahlin-Andersson (Cambridge: Cambridge University Press, 2006), 31–52; B. Ziemann et al., eds., ‘Introduction: The Scientization of the Social in Comparative Perspective’, in *Engineering Society: The Role of the Human and Social Sciences in Modern Societies, 1880-1980* (Basingstoke & New York: Palgrave Macmillan, 2012), 1–40; G.S. Drori, Meyer, J.W., and H. Hwang, eds., *Globalization and Organization: World Society and Organizational Change* (Oxford: Oxford University Press, 2006).

## The Birth of Conservationism

Early preservationist thought originated in the middle of the nineteenth century against the backdrop of the industrial revolution and urbanization in Europe. Around 1900, various nature protection associations and organizations had been established in nearly all industrialized countries, mostly North America and Europe.<sup>59</sup> There are a myriad of reasons why these mostly elitist organizations engaged in nature conservation: romanticist notions of nature, a perceived spiritual need for unspoiled landscapes, recreational purposes, elite enthusiasm for hunting and natural history, state-centered resource conservation out of utilitarian interest, and because of humanitarian concerns for animal welfare.<sup>60</sup> Although these concerns led to an equal variety of civic associations, they all had the goal in common to preserve parts of the natural environment against the advance of industrial modernity.<sup>61</sup>

These early nature protection initiatives within North America and Europe functioned primarily within their own networks and were often anchored in nationalism or even patriotism.<sup>62</sup> The members active in these early organizations were mostly literary intellectuals, poets and social reformers, who had a more romanticized and artistic view of the task of nature protection ahead.<sup>63</sup> They were mostly focused on the protection of ‘the wild’ or rural landscapes, which were being perceived of esthetical or historical importance.<sup>64</sup> In this period, the term ‘wilderness’ came to represent authenticity, “a sublime heritage that anchored the nation in time and space”.<sup>65</sup> Nature became an antidote to civilization where citizens could go to escape the pressures of everyday life.

European perceptions of the natural world were thoroughly influenced by the early colonization in the tropical environments of South America, Africa and Asia. From the fifteenth century onwards, newly ‘discovered’ tropical islands were deemed

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<sup>59</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 216.

<sup>60</sup> Ross, 215; Gissibl, Höhler, and Kupper, *Civilizing Nature*.

<sup>61</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 215–16.

<sup>62</sup> Raf de Bont, ‘Dieren Zonder Grenzen: Over Wetenschap En Internationale Natuurbescherming, 1890-1940’, *Tijdschrift Voor Geschiedenis* 125, no. 4 (2012): 522.

<sup>63</sup> Bont, 522.

<sup>64</sup> Bont, 522.

<sup>65</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 216.

paradise on earth. In art and literature early Romanticism and later ‘Orientalism’ visually represented tropical environments through racialized symbols and spurred interest in the exotic lands of especially ‘The East’.<sup>66</sup> The imagination of the Edenic island continued to influence the development of later concepts on environmental protection.<sup>67</sup> For example, the colonial institution of the botanical garden, which contributed to conservation knowledge, came to represent the man-made creation of a Garden of Eden.<sup>68</sup>

In the seventeenth and eighteenth century, Dutch, British and later French East India Companies raised concerns about the degradation of these colonial “tropical islands Edens” due to soil erosion and deforestation, often caused by their own resource exploitation.<sup>69</sup> In the case of the Dutch East Indies, from the mid-seventeenth century the Dutch East India Company and from 1800 the Dutch colonial state took measures of rational forestry in an attempt to manage these processes.<sup>70</sup> These measures were taken to ensure future resource exploitation, but they were not always successful in countering environmental degradation.

In the mid-nineteenth century, Social Darwinism further influenced the symbolism of the colonial tropical environment. European imperialists were thought to represent the “civilized” world, who governed the more “primitive” races in their colonies. The trope of the “noble savage”, who was not yet corrupted by the spread of civilization, became a stock character in discourse about colonial environments, not only used in the arts but also in new academic disciplines such as anthropology. Through terms as “primeval” or “authentic”, landscapes became envisioned as “frozen in time, relics of human heritage”.<sup>71</sup>

Between 1860 and 1910 increased encounters with tropical environments, frontier landscapes and idyllic hinterlands and countryside brought about new

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<sup>66</sup> Richard H. Grove, *Green Imperialism. Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*, Studies in Environment and History (Cambridge: Cambridge University Press, 1995), 4–5.

<sup>67</sup> Grove, 9.

<sup>68</sup> Grove, *Green Imperialism. Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*.

<sup>69</sup> Grove, 6, 52.

<sup>70</sup> Boomgaard, ‘Oriental Nature’; J. Arnscheidt, *‘Debating’ Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, Dissertation (Leiden: Leiden University Press, 2009), 69–75.

<sup>71</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 219.

perceptions on human-nature relationships. Especially the elite practices of natural history and hunting have influenced this change in perceptions.<sup>72</sup> The European nobility, cities and museums took pride in the status of their menageries and natural history collections.<sup>73</sup> The status of these collections depended for example on the rarity of a specimen, how exotic it was and if it was subject of scientific debate or featured in popular books.<sup>74</sup> The study of natural history was intrinsically linked to exploration and trade in the tropics, the domain of European aristocracy.<sup>75</sup> More and more naturalists studied, described and classified the natural environment and its non-human inhabitants. The publication of Charles Darwin's *Origin of Species* (1859) and his *The Descent of Man* (1871) eroded the eighteenth-century conceptualization that humans stood "outside" or "above" nature. As Darwin's thesis meant that humans were closer to animals than previously thought, cruelty to animals was increasingly perceived as disturbing and unethical. Taking on a more humanitarian approach to animals was a way to contradict the apparent "bestial savagery" of man.<sup>76</sup>

The practice of hunting also took up an important place in elite culture, both in Europe and North America. The sport was thoroughly associated with what were perceived to be masculine qualities, which could be attributed to those who brought home the most spectacular trophies of their hunt. The development of guns since the 1870s and especially the automatic and pump shotguns around 1900 made it easier to shoot wildlife.<sup>77</sup> With the extension of the railway system and development of tourism, the metropolitan 'gentlemen' could more easily travel to frontier regions where 'wild nature' still resided for hunting big game. Therefore, environmental degradation such as the rapid decline of game and the destruction of their habitats was already noticed by elite hunters from an early stage onwards.<sup>78</sup>

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<sup>72</sup> Jepson and Whittaker, 'Histories of Protected Areas', 131.

<sup>73</sup> Jepson and Whittaker, 131.

<sup>74</sup> Jepson and Whittaker, 131–32.

<sup>75</sup> Ross, 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century', 132.

<sup>76</sup> Jepson and Whittaker, 'Histories of Protected Areas', 132.

<sup>77</sup> Gregory J. Dehler, 'Our Vanishing Wildlife', in *The Most Defiant Evil: William Temple Hornaday and His Controversial Crusade to Save American Wildlife* (Charlottesville: University of Virginia Press, 2013), 116; Ross, 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century', 222.

<sup>78</sup> Jepson and Whittaker, 'Histories of Protected Areas', 132–33.

The late nineteenth century saw a series of ‘sudden’ extinctions or near-extinctions of once abundant species in the frontier regions and overseas colonies, such as the Passenger Pigeon (1899 in the wild, 1914 in captivity), the Quagga (1878 in the wild, 1883 in captivity), the American Bison (1870s-1880s) and the Przewalski’s Horse (long thought extinct in the wild, but still held in zoos).<sup>79</sup> Naturalists increasingly reported the decline of the abundance of certain species and the deterioration of their habitat. American zoologist, conservationist, zoo director and author William T. Hornaday was especially known for his indictment of civilization’s disastrous effects on nature and his calls to turn the tide of extinction processes, such as in his *The Extermination of the American Bison* (1889) and the more globally oriented *Our Vanishing Wild Life* (1913). The latter was widely read and received with concern in the United States and in European scientific and conservationist circles. Because of the increased mobility at the turn of the century, both hunters and field naturalists could see with their own eyes the negative impacts of the large scale collecting and shooting at these frontiers and in the colonies against the backdrop of the pressures brought about by industrialization.<sup>80</sup>

The Prussian forester and botanist Hugo Conwentz proved to be an important catalyst in promoting preservationist thought across Europe and embodied a more scientific turn in the nature protection movement.<sup>81</sup> In 1904, Conwentz introduced the concept of *Naturdenkmal*, or natural monument. According to Conwentz, the way in which society used monuments to commemorate anthropogenic artefacts could also be used to commemorate nature.<sup>82</sup> Conwentz defined a natural monument as “an original – that is, entirely or almost entirely untouched by cultural influences – and characteristic feature of the landscape or an original and characteristic natural living condition of extraordinary, general, patriotic, scientific, or aesthetic interest”.<sup>83</sup>

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<sup>79</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 133.

<sup>80</sup> Jepson and Whittaker, ‘Histories of Protected Areas’, 132.

<sup>81</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 216; Bont, ‘Dieren Zonder Grenzen’, 522; Jepson and Whittaker, ‘Histories of Protected Areas’, 136.

<sup>82</sup> English translation by C. Ross, originally from Hugo Conwentz, *Die Gefährdung der Naturdenkmäler und Vorschläge zu ihrer Erhaltung* (Berlin, 1904), 206. See, Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 217.

<sup>83</sup> English translation by C. Ross, originally from Conwentz, *Die Gefährdung der Naturdenkmäler und Vorschläge zu ihrer Erhaltung*, 186. See, Ross, 217.

Through his conceptualization of natural monuments Conwentz was able to geographically bind nature in time and therefore turn it into an incarnation of the local and national soul.<sup>84</sup> He gained international reputation and between 1903 and 1908 he would travel to various Western European countries to give lectures to scientific associations and newly founded nature protection organizations.<sup>85</sup> In this period, a kind of preliminary transnational movement arose consisting of nature protection organizations using the natural monument concept to define their cause: the *National Trust for Places of Historical Interest or National Beauty* (Great Britain, 1894), *Société pour la Protection des Paysages de France* (France, 1901), *Bund Heimatschutz* (Germany, 1904), *Vereeniging tot Behoud van Natuurmonumenten* (1905), *Ligue Suisse pour la Protection de la Nature* (Switzerland, 1909), *British Society for the Promotion of Nature Reserves* (Great Britain, 1912).<sup>86</sup>

This movement associated nature with “untouched” and “pristine” areas, a “wilderness” where nature resided “only where people did not”.<sup>87</sup> Early conservationists, including Conwentz himself, recognized that there was hardly any untouched nature left in Europe to save from the forces of modernization, industrialization and economic growth. Therefore, the conservationist eye soon turned to the colonies overseas.<sup>88</sup> If the spread of “civilization” was essentially the basic threat to the environment, the remnants of what was perceived as pristine nature and true wilderness should be saved in the colonized world where civilization was still to spread.<sup>89</sup> These perceptions of civilization as a threat to nature paradoxically led to the incorporation of nature protection in the imperial civilizing mission.<sup>90</sup> In this way, the natural monument concept inspired conservationists to focus on tropical nature in colonial territories; the Dutch East Indies was one of the focal points.<sup>91</sup>

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<sup>84</sup> Bont, ‘Dieren Zonder Grenzen’, 523.

<sup>85</sup> Hugo Conwentz, *The Care of Natural Monuments with Special Reference to Great Britain and Germany* (Cambridge: Cambridge University Press, 1909); Jepson and Whittaker, ‘Histories of Protected Areas’, 135.

<sup>86</sup> Bont, ‘Dieren Zonder Grenzen’, 522; Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 217.

<sup>87</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 217.

<sup>88</sup> Ross, 217–18.

<sup>89</sup> Ross, 218.

<sup>90</sup> Ross, 220; Gissibl, Höhler, and Kupper, *Civilizing Nature*.

<sup>91</sup> Of course also a lot of nature protection initiatives and developments took place in Europe and North America, but most of the earlier practices of setting aside land for conservation

## A Global Heritage of Mankind

Prior to the First World War, growing concerns among colonial governments and conservationist had ignited the idea of tropical nature as a global common, a “heritage of mankind”.<sup>92</sup> The trope of protecting a threatened inheritance, and successes in achieving it, provided ruling colonial governments with imperial credibility. These governments began to see themselves as guardians of their tropical colonies, because of which the protection of wilderness became a matter of imperial stewardship: they held nature in trust and should make sure it was properly looked after. Nature protection was seen as a moral obligation and duty of civilized nations towards their colonial possessions. Imperial interference was justified through the argumentation that their colonial subjects were not ‘civilized’ enough to undertake the important task of nature conservation themselves. As a result, nature protection became an integral part of the civilizing mission of empire.<sup>93</sup> Consequently, the conservation agenda was mainly driven by imperialist interests, as colonial elites and conservationists differentiated which nature was valuable enough to preserve, how to preserve it and where. Native livelihood practices were often discarded in the process. For example, sustenance hunting on wildlife was often prohibited while sport hunting by elites was a common practice.<sup>94</sup>

The international concern among European conservationists for the global heritage principle can be illustrated by the birds-of paradise campaign against the feather trade.<sup>95</sup> It was one of the largest international conservation campaigns at the

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through the creation of natural monuments and parks took place in European colonies in sub-Saharan Africa and Southeast Asia. See, Brockington, Duffy, and Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*, 29–32.

<sup>92</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 215, 226; Brockington, Duffy, and Igoe, *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*, 29–32.

<sup>93</sup> Corey Ross, ‘Tropical Nature in Trust: The Politics of Colonial Nature Conservation’, in *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World* (Oxford: Oxford University Press, 2017), 245.

<sup>94</sup> Mark Cioc, *The Game of Conservation: International Treaties to Protect the World’s Migratory Species*, Ohio University Press Series in Ecology and History (Athens: Ohio University Press, 2009), 16, <https://ebookcentral.proquest.com/lib/uunl/detail.action?docID=1743684>; Jepson and Whittaker, ‘Histories of Protected Areas’, 134.

<sup>95</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 223.

time and a pivotal moment in the rise of environmental protection in the Dutch East Indies.<sup>96</sup> Birds-of-paradise were mainly endemic to New Guinea and its surrounding islands, and were traded from there to Europe for their colorful plumage, which was used to adorn the hats of European women following the latest fashion.<sup>97</sup> Influenced by the campaign, the first species protection ordinance in the Dutch East Indies was established in 1909.<sup>98</sup> Although the ordinance was practically ineffective, it helped to establish a framework on which later conservation measures could be based.<sup>99</sup>

Before the First World War broke out, a “world nature protection movement” emerged.<sup>100</sup> Conwentz had succeeded in promoting the concept of natural monuments and its link to national sentiments and scientific expertise. The Swiss zoologist, ethnographer and “gentleman scientist” Paul Sarasin was able to voice the need for an international focus on nature protection and became one of the main spokespersons of the new movement.<sup>101</sup> He was convinced future human-nature relationships should be based on ethical and non-utilitarian basis.<sup>102</sup> Nature had to be protected for posterity; future generations had to be ensured of the same access to the benefits that the natural environment held in terms of material resources, but also should be able to enjoy nature and the richness of species within it.<sup>103</sup>

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<sup>96</sup> Ross, ‘Tropical Nature in Trust: The Politics of Colonial Nature Conservation’, 225.

<sup>97</sup> Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’; Ross, ‘Tropical Nature in Trust: The Politics of Colonial Nature Conservation’, 222–23; Jepson and Whittaker, ‘Histories of Protected Areas’, 147,150; Boomgaard, ‘Oriental Nature’.

<sup>98</sup> ‘Ordonnantie Tot Bescherming van Sommige in Nederlandsch-Indië in Wild Levende Diersoorten’, in *Staatsblad van Nederlandsch-Indië* 1909, No. 497 and 594, 14 October 1909; ‘Tijdstip van Inwerkingtreding van de Ordonnantie Tot Bescherming van Sommige in Nederlandsch-Indië in Wild Levende Diersoorten’, in *Staatsblad van Nederlandsch-Indië* 1910, No. 337, 1 July 1910; Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’, 395–96.

<sup>99</sup> Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’, 396–97.

<sup>100</sup> Anna-Katharina Wöbse, ‘Seperating Spheres: Paul Sarasin and His Global Nature Protection Scheme’, *Australian Journal of Politics and History* 61, no. 3 (2015): 339–51; Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 225; Bont, ‘Dieren Zonder Grenzen’, 526.

<sup>101</sup> Wöbse, ‘Seperating Spheres: Paul Sarasin and His Global Nature Protection Scheme’; Bont, ‘Dieren Zonder Grenzen’, 526.

<sup>102</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 226.

<sup>103</sup> Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’, 381.



In order to transcend existing national and colonial frameworks, Sarasin argued nature protection should be organized in international reserves that were not bound by national borders, preferably in “stateless” regions such as in the Arctic and Antarctic.<sup>104</sup> The “heritage of mankind” could not be protected by individual states who had their own interests in mind.<sup>105</sup> Only scientists would have access to these reserves, who could study the natural environment and its indigenous inhabitants within its borders as a ‘living laboratory’.<sup>106</sup> Sarasin envisioned a harmonious nature in which not only the protection of specific species should be ensured, but also their biocenosis (biological community).<sup>107</sup> These ideas were reflected in his focus on advocating the protection of animals that were not confined to borders themselves and had a rather ambiguous national status, such as migratory birds and whales. Furthermore, he focused a lot of attention on animals in the tropics that also easily crossed colonial borders, such as African big game.

Sarasin argued that an international commission of scientific experts was required, who were to establish and supervise the international reserves.<sup>108</sup> To this end, he instigated the establishment of an interim international commission in 1910, which had to explore the question of the protection of nature on a global scale.<sup>109</sup> Sarasin gained formal recognition of various governments to establish an international commission for the protection of nature, but the outbreak of the First World War hindered its ratification.<sup>110</sup> After the war, Sarasin tried to revive support for his ideas

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<sup>104</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 226; Bont, ‘Dieren Zonder Grenzen’, 527.

<sup>105</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 226.

<sup>106</sup> Bont, ‘Dieren Zonder Grenzen’, 527; Fenneke Sysling, “Protecting the Primitives”: Indigenous People as Endangered Species in the Early Nature Protection Movement, 1900-1940’, *Environment and History* 21, no. 3 (2015): 381–99; Raf de Bont, “Primitives” and Protected Areas: International Conservation and the “Naturalization” of Indigenous People, ca. 1910-1975’, *Journal of the History of Ideas* 76, no. 2 (2015): 215–36.

<sup>107</sup> Bont, ‘Dieren Zonder Grenzen’, 527.

<sup>108</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 226.

<sup>109</sup> Jepson and Whittaker, ‘Histories of Protected Areas’, 138; Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 227.

<sup>110</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 227.

at the League of Nations but this attempt failed because European governments were concerned about the threat it could pose to their authority they just regained.<sup>111</sup>

Sarasin corresponded extensively with a network of elitist nature protection associations and conservationists. One of his close correspondents, was the Dutch Pieter Gerbrand van Tienhoven. In 1905, Van Tienhoven had taken place in the board of *Natuurmonumenten*, an association inspired by Conwentz's natural monument concept. Van Tienhoven shared Sarasin's ideas on the need for an international approach to nature conservation. As skillful lobbyist and networker, Van Tienhoven set up a large international network of conservationists in the years to come and founded several internationally oriented committees and organizations to spur nature conservation. Not only would Van Tienhoven play a crucial role in the Dutch East Indian conservation movement from the late 1920s onwards, but he would grow out to be one of the most influential conservationists on an international level.

## Colonial Science in the Indonesian Archipelago

In general, the methodological traditions within the field of natural history have contributed to the way in which the environment is assessed up to the present day. Especially the field of taxonomy has been influential for its reliance on all sorts of measurements for classification purposes. Taxonomists meticulously study differences between organisms based on morphology (Study of the physical form and structure of an organism) and phylogeny (Study of evolutionary relationships between organisms) and classify them based on their evolutionary relationship. It is in great part due to the work of early taxonomists that the biological-species concept grew out to be the pivotal unit for describing the natural environment and biological diversity.<sup>112</sup> The study of

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<sup>111</sup> Wöbse, 'Seperating Spheres: Paul Sarasin and His Global Nature Protection Scheme', 348; Ross, 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century', 227–28; Anna-Katharina Wöbse, 'Framing the Heritage of Mankind: National Parks on the International Agenda', in *Civilizing Nature: National Parks in Global Historical Perspective*, ed. Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, *The Environment in History: International Perspectives* 1 (New York & Oxford: Berghahn Books, 2012), 140–56.

<sup>112</sup> Naturally, not all biologists agree with the importance ascribed to the role of the species unit, but generally its importance is widely accepted, see Edward O. Wilson, *The Diversity of Life*, Third Edition, *Questions of Science* (London: Penguin Books, 1994), 36.

speciation and that of extinction became more important as species became the main point of reference for the classification of nature.

Following the increasing acknowledgement of species extinctions and habitat destruction, concerns about the need to protect animals were already integrated in some of the earlier designs of colonial nature conservation. During the 1890s and 1900s little by little conservation measures were taken in colonial territories as Malaysia, India and the Dutch East Indies, but the main focus of early conservationist efforts was being put mostly on East and Central Africa.<sup>113</sup> In 1900, representatives of all major colonial powers with possessions in sub-Saharan Africa gathered in London for the Convention for the Preservation of Wild Animals, Birds, and Fish in Africa, as “one of the first instances of imperial environmental internationalism”.<sup>114</sup> At the end of the nineteenth century, commercial and sport hunting and the outbreak of epizootics greatly affected the African wildlife.<sup>115</sup> Big-game hunters successfully convinced colonial governments to establish hunting legislations from the 1890s onwards, such as closed seasons and licensing, with the purpose to secure the supply of wildlife.<sup>116</sup> As herds of migrating animals and their illegal hunters do not concede to borders drawn on a map, transnational cooperation and coordination between the imperial powers on the African continent was deemed necessary. Although never truly ratified, the London Convention “led to a greater uniformity in the regulation of Africa’s migratory animals”.<sup>117</sup> The convention’s listing, ranking and evaluating of a species’ perceived need for protection, or the want for its eradication, is an early example of the regulatory

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<sup>113</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 220.

<sup>114</sup> Bernhard Gissibl, *The Nature of German Imperialism: Conservation and the Politics of Wildlife in Colonial East Africa*, vol. 9, *The Environment in History: International Perspectives* (New York & Oxford: Berghahn Books, 2016), 113.

<sup>115</sup> Ross, ‘Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century’, 220.

<sup>116</sup> Ross, 221; Gissibl, *The Nature of German Imperialism: Conservation and the Politics of Wildlife in Colonial East Africa*; Bernhard Gissibl, ‘A Bavarian Serengeti: Space, Race and Time in the Entangled History of Nature Conservation in East Africa and Germany’, in *Civilizing Nature: National Parks in Global Historical Perspective*, ed. Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, *The Environment in History: International Perspectives 1* (New York & Oxford: Berghahn Books, 2012), 102–19; J. Carruthers, ‘Conservation and Wildlife Management in South African National Parks, 1930s-1960s’, *Journal of the History of Biology*, no. 41 (2008): 203–36.

<sup>117</sup> Cioc, *The Game of Conservation: International Treaties to Protect the World’s Migratory Species*, 57.

functioning and biopolitical nature of threatened species lists that would later become a more standardized practice. Characteristically for the late nineteenth and early twentieth century, a species order in the hierarchy of protection depended on their usefulness or nuisance to man, especially in regard to their agricultural enterprises. The colonial powers differentiated between protecting specific species, which nearly all were of central importance to sporting and commercial enterprises, and eradicating ‘vermin’ species.<sup>118</sup> Although the convention also promoted the establishment of reserves in which species could be protected, the park-species relationship was not as entangled and explicitly framed as it would become from the 1930s onwards.

In terms of science, the tropical fauna was more valuable for scientific studies because they were perceived to be more ‘primitive’ and ‘intact’.<sup>119</sup> In this sense, species in the Dutch East Indies held a special position and therefore more naturalists became interested in the region in the late nineteenth century. The Indonesian Archipelago contains an incredible number of endemic species and an extremely high biodiversity. From an early stage onwards, this species richness, abundance and the high occurrence of endemic species has led numerous naturalists and other scientists to travel to the region and study the faunal life on the various islands. Some of the most well-known and influential of these scientists might be Alfred Russel Wallace, Richard Lydekker and Max Weber (not the famous sociologist). Evolutionary biologist Alfred Russel Wallace was a leading expert on the geographical distribution of animal species and is now often considered as the ‘father of biogeography’. With his book *The Malay Archipelago* (1869), Wallace significantly contributed to the theory of evolution through natural selection.

Travelling through the Dutch East Indies in the nineteenth century, Wallace noticed a distinct difference in the distribution of species between the western and eastern part of the archipelago. Drawing the so-called Wallace Line, running from in-between Bali and Lombok up to Borneo and present-day Sulawesi, he concluded that in the western region animals were mostly of Asian origin, such as tigers and rhinoceroses, while in the eastern region animals were more closely related to

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<sup>118</sup> ‘Convention Designed To Ensure The Conservation Of Various Species Of Wild Animals In Africa, Which Are Useful To Man Or Inoffensive’ (Convention For The Preservation Of Wild Animals, Birds, And Fish In Africa, London, 1900), <https://iea.uoregon.edu/treaty-text/2594>; Cioc, *The Game of Conservation: International Treaties to Protect the World’s Migratory Species*, 36.

<sup>119</sup> Bont, ‘Dieren Zonder Grenzen’, 526.

Australasia, such as marsupials and monotremes. Further classifying and dividing the archipelago based on the distribution of animal species, in 1895 Richard Lydekker proposed an additional division of the region that separated Australia-New Guinea from the islands left to them, a delineation that is now known as the Lydekker Line. Standing on the shoulders of these biogeographical giants, Max Weber divided the in-between area of Wallacea – situated between the Wallace Line and the Lydekker Line – in half, based on the specific Indomalayan elements of mammals on the left of the line and the Australian ones on the right.<sup>120</sup> These discoveries helped to promote the uniqueness of the Indonesian Archipelago and spurred the interest of naturalists to travel and study the region's great variety of faunal and floral life. While the importance of protection of these species in the Dutch East Indies was increasingly shared, it raised the question how this should be done. Naturalists thus played a very important role in the establishment of the Dutch East Indian conservation movement.

To be able to execute their work in the tropics, naturalists made use of two important institutions: the botanical garden and field stations. To research the richness of biodiversity and other natural phenomena in the Indonesian Archipelago, the Dutch colonial government invested in the establishment of a botanical research station. In 1817 the Botanical Garden of Buitenzorg was built, also known as '*s Lands Plantentuin* or – nowadays - *Kebun Raya Bogor*. By the 1890s the institute had significantly grown in size and number of staff, was renowned for its role in global science and was seen as an example for other such institutes in the tropics.<sup>121</sup> The garden at Buitenzorg was especially known for its laboratories, which were used for studying new biological practices and how to improve agricultural management in the tropics. These laboratories in Buitenzorg, including its specific visitor laboratory and its other field station in Tjibodas (present-day Cibodas) on the volcanic mountain slopes of Gedéh (Gunung Gede) attracted an international audience of scientists and

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<sup>120</sup> Since 1919, the three distinct biogeographical areas are called the Sunda Shelf (part of the continental shelf of mainland Southeast Asia), the Sahul Shelf (part of the Australian continental shelf) and the in-between Wallacea (group of islands separated from both continental shelves by deep-water straits).

<sup>121</sup> Robert-Jan Wille, 'The Coproduction of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904', in *New Perspectives on the History of Life Sciences and Agriculture*, ed. D. Phillips and S. Kingsland, Archimedes 40 (Springer International Publishing Switzerland, 2015), 253–55.

tourists.<sup>122</sup> The ‘mountain garden’ of Tjibodas, which was built in 1891, can be regarded as the first natural monument of the Dutch East Indies and was exclusively dedicated to scientific research.<sup>123</sup> The field station and its surroundings were bought and its “primeval forest” was left untouched, so scientists could research its plants and ecology in situ.<sup>124</sup> Within Buitenzorg and Tjibodas all research was primarily focused on the studying of plants and their ecology. The laboratories were used to study morphology and bacteriology in order to improve the effective management for agriculture and limiting plant diseases in the colony. The director of the Botanical Garden, Melchior Treub (1851-1910), thought science in the Dutch East Indies should not just focus on collecting and exploring, but rather comparatively study “‘lower organisms’ (algae; invertebrates and plant cells) under the microscope, not the macroscopic collection of higher organisms”.<sup>125</sup> In the mid- to late nineteenth century zoological research had hardly started in the Indonesian archipelago.<sup>126</sup>

Increasingly, the idea of using ‘parks as laboratory’ led to a further scientization and institutionalization of nature protection. These parks were preferably large and ‘wild’ areas encompassing wholes of interacting plants and animals.<sup>127</sup> Instead of being geared towards tourists and the preservation of grand landscapes, such as the Yellowstone model of national parks, these “open-air laboratories” were only meant to accommodate naturalists to improve knowledge on nature.<sup>128</sup> The role of experts and expertise in the creation of conservation technologies and methods would be extended from the 1920s onwards. The existence of different park models based on the extent of the in- or exclusion of people and their activities can be explained by the personal

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<sup>122</sup> Nederlandsch-Indische Vereeniging tot Natuurbescherming, *Verslag over de Jaren 1924-1928* (Buitenzorg: Archipel Drukkerij, 1928), 22; Wille, ‘The Coproduction of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904’, 255–56, 264.

<sup>123</sup> Boomgaard, ‘Oriental Nature’, 263; Wille, ‘The Coproduction of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904’.

<sup>124</sup> Wille, ‘The Coproduction of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904’, 264.

<sup>125</sup> Wille, 262.

<sup>126</sup> Boomgaard, ‘Oriental Nature’, 264.

<sup>127</sup> Bont, *Nature’s Diplomats*, 76.

<sup>128</sup> Bont, 76.

affiliation of those experts in charge of the park's creation to either preservationism or conservationism.

In a nutshell, the main difference between these two approaches to nature protection revolves around the involvement of people and the level of interference they are allowed to do in protecting nature. Preservation can be regarded as a more passive approach towards protection, encompassing “the protection of the non-utilitarian, aesthetic features of nature or landscape for reasons of history and culture”.<sup>129</sup> This body of thought is more spiritually driven and stresses the importance of preserving a ‘wilderness’ as an antidote to development.<sup>130</sup> Essentially, preservationists want to preserve the natural environment by protecting it *from* people and any of their activities, including active management. Conservation, on the other hand, is concerned with “the judicious management and use of a resource to ensure its perpetuation”.<sup>131</sup> Conservationists’ plea for the ‘wise use’ of the environment, making sure natural resources can be used in a sustainable manner for possible future use.<sup>132</sup> Thus, conservationists want to conserve the natural environment by protecting it from people (or other harmful effects) through active interference *by* people. This division between conservation and preservation should, however, not be regarded as a clear-cut dichotomy, but rather as activities that take place on a broader scale. Especially in regard to the protection of animal species, the same conservationists can take measures that are more focused on the conservation of the abundance of a species in order to maintain trade and other economic gains, while other more preservationist measures can be focused on safeguarding other characteristic animals for the sake of posterity.

## **Preservation and Conservation in the Dutch East Indies**

Within the Dutch East Indies, early nature protection initiatives were focused more on the conservation of natural resources, especially of forests. Around 1850, ongoing deforestation of Java’s mountain slopes began to be perceived as a problem by the colonial government. In response to these threats a colonial Forest Service was

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<sup>129</sup> Caroline Ford, ‘Nature, Culture and Conservation in France and Her Colonies 1840-1940’, *Past & Present* 183 (2004): 176.

<sup>130</sup> Worboys et al., *Protected Area Governance and Management*, 13.

<sup>131</sup> Ford, ‘Nature, Culture and Conservation in France and Her Colonies 1840-1940’, 176.

<sup>132</sup> Worboys et al., *Protected Area Governance and Management*, 13.

established in 1865, the *Dienst van het Boschwezen*. The state foresters in the Dutch East Indies were first influenced by German forestry expertise and later trained at the Agricultural University in Wageningen in the Netherlands.<sup>133</sup> From the 1890s onwards protected forests were created, although these areas were of a different character than the later park models. The main task of the Forest Service around the 1890s was to ensure the sustainable exploitation of Java's teak forests (*Tecona grandis*).<sup>134</sup> More implicitly, the protection of junglewood forests (*wildhoutbossen*) became increasingly important in the late nineteenth century. The management of forest use can be seen as a form of sustainable resource management: the Forest Service had to make sure forests were preserved to some extent, so their later use was ensured. From the 1910s onwards the Forest Service personnel were also heavily involved in the conservation movement within the Dutch East Indies.<sup>135</sup>

Elite hunters and hunting societies also maintained some form of active conservation. The practice of hunting, both as a means of subsistence and as a pastime of mostly indigenous rulers and noblemen, had a longer tradition in the Indonesian Archipelago. Especially on Java, indigenous aristocratic or royal hunts were carried out in game – particularly deer – parks (*krapyak*) and game reserves (*larangan*). These hunting reserves might have had a conservation impact as the abundance of game had to be maintained for the aristocracy to be able to hunt.<sup>136</sup> Only two European game reserves existed in the nineteenth century, of which Tjikepoeh (West Java) exemplifies the conservation impact of such reserves.<sup>137</sup> From 1899 onwards, the area was leased to the (European) hunting society *Venatoria*, who were to manage the reserve and its game stocks, especially Banteng; in the following years the number of Banteng increased from 150 in 1899 to 700 in 1906, ensuring the stock was high enough for the area to turn into a wildlife reserve in the 1930s.<sup>138</sup>

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<sup>133</sup> The education of Dutch East Indian foresters at Wageningen had a reciprocal effect as the these colonial foresters not only acquired knowledge in the Netherlands but also had a profound effect on Dutch ideas about forestry by distributing knowledge on (tropical) forestry from the Dutch East Indies to the Netherlands. See f.e. Karel Davids, 'Lage Landen, Verre Horizonten. De Verbinding van Natuur, Landschap En "Nederlandse" Identiteit in Internationaal Perspectief', *BMGN-Low Countries Historical Review* 121, no. 4 (2006): 610.

<sup>134</sup> Boomgaard, 'Oriental Nature', 261.

<sup>135</sup> Boomgaard, 'Oriental Nature'.

<sup>136</sup> Boomgaard, 260–61.

<sup>137</sup> The other known European game reserve was created by J.F. van Reede tot de Parkeler, governor of Java's northeast coast, and disappeared in 1801 after his death.

<sup>138</sup> Boomgaard, 'Oriental Nature', 261.



It took until the late 1910s for the colonial government in the Dutch East Indies to take a more preservationist stance towards nature protection. In an ordinance of 1916, *Natuurmonumenten. Maatregelen ter bescherming van de natuurrijdommen van Nederlandsch-Indië*, it was said that natural monuments would be established when the preservation of domain lands was considered to be in the public interest due to their special scientific or aesthetic value.<sup>139</sup> Nevertheless, the actual designation of these areas was only done three years later in a separate ordinance in 1919, when the first official natural monuments of the Dutch East Indies were declared and put under government protection. Several natural monuments were declared between 1919 and 1922. Most were established on botanical, aesthetic and geological grounds, but some also explicitly because of the presence of certain species within the area, such as the Rusa deer, Babirusa, Anoa and a variety of birds.<sup>140</sup> Ujung Kulon was one of these protected areas in which among others the Javan rhino and the Banteng were to be preserved. The establishment of these natural monuments were the first steps towards the preservation, rather than conservation, of species in the Dutch East Indies and shows its scientific foundations. For a long time, however, these first natural monuments proved to be paper parks; a protected area on paper, but nothing more. In order to expand and improve the new system of natural monuments, conservationists needed to more explicitly and coherently formulate ideas about the ‘why’ and ‘how’ question of the movement.

In 1912 the *Nederlandsch-Indische Vereeniging tot Natuurbescherming* (NIVN) was established.<sup>141</sup> Almost directly after its establishment, the NIVN started lobbying with the colonial government, advocating the establishment of nature reserves and the protection of birds-of-paradise.<sup>142</sup> The position of the NIVN is a complex one, standing at a crossroad with national, imperial and international lanes. As a Dutch East Indian organization, the association was thoroughly influenced by its colonial relationship with the Netherlands. The Dutch East Indian conservation movement remained rather

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<sup>139</sup> ‘Natuurmonumenten. Maatregelen Ter Bescherming van de Natuurrijdommen van Nederlandsch-Indië’, in *Staatsblad van Nederlandsch-Indië* 1916, No. 278, 27 March 1916.

<sup>140</sup> Jepson and Whittaker, ‘Histories of Protected Areas’, 158–59.

<sup>141</sup> K.W. Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, Fourth Pacific Science Congress (Bandung, Java) (Weltevreden: Emmink, 1929), 22; Barnard, ‘Protecting the Dragon: Dutch Attempts at Limiting Access to Komodo Lizards in the 1920s and 1930s’, 106.

<sup>142</sup> Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’, 398.

a Dutch affair with an ‘orientalist’ and colonial character.<sup>143</sup> The predominantly European society held a small proportion of Javanese aristocrats and was dominated by scientists.<sup>144</sup> Not surprisingly as the NIVN was established by representatives of the Dutch East Indian Society for Natural History.<sup>145</sup> The NIVN reflected the more general trends discussed above. The organization relied on Conwentz’ ideas about natural monuments. As the notion of natural monuments invoked ideas about the relationship between nature and nation, the concept provided difficult tension within an overseas colony that resembled nothing with the natural environment in the Netherlands. The NIVN began to discuss the international importance of nature in the Dutch East Indies and had direct contacts with important international conservationists like Sarasin and Van Tienhoven.<sup>146</sup>

The NIVN wanted to obtain leaseholds or other rights to create and manage nature reserves from the colonial government.<sup>147</sup> With the introduction of the 1916 ordinance to establish natural monuments, the position of the NIVN became painfully clear. The colonial government did not allow the NIVN to manage the reserves themselves but were considered as a cooperation partner.<sup>148</sup> As prominent NIVN member Karel W. Dammerman noted, the organization “was actually quite eliminated and its task was reduced to that of an advisory board”.<sup>149</sup>

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<sup>143</sup> Boomgaard, ‘Oriental Nature’.

<sup>144</sup> In 1914, the membership consisted of 440 people of which only twelve were Javanese and two [Indonesian] Chinese, the rest was European. All European and Javanese members held aristocratic titles. See, Boomgaard, 272–73; Cribb, ‘Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931’, 398.

<sup>145</sup> The NIVN’s membership consisted of “civil servants (who were often professional naturalists or at least agronomists), nature-loving laymen, and estate-owners—cum-hunters. Members of the Board were often civil servants in the employ of the Forest Service or the Department of Agriculture. [...] In fact one could well argue that the Society was a branch of the civil service in disguise”. Boomgaard, ‘Oriental Nature’, 265, 272.

<sup>146</sup> S.H. Koorders, *Oprichting Eener Nederlandsch-Indische Vereeniging Tot Natuurbescherming*, Nederlandsch-Indisch Landbouw Syndicaat (Soerabaia: E. Fuhri & Co, 1912), 21; M. Horst-Brinks, ‘Vereeniging Tot Bescherming van Natuurmonumenten van Ned.-Indië’, *De Locomotief*, 30 March 1918, 87 edition, Delpher.

<sup>147</sup> Boomgaard, ‘Oriental Nature’, 267.

<sup>148</sup> Only the small 6 ha (0,06 km<sup>2</sup>) area of Depok was been put directly under the management of the NIVN in 1913 by the colonial government. Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 23; Boomgaard, ‘Oriental Nature’, 266–67.

<sup>149</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 23.

Although the government did not grant the NIVN the authority to govern the newly established natural monuments, they did not restrain from publicly celebrating the event and stressing the international importance of the government's ordinance. The NIVN's chairman, Sijfert H. Koorders, announced the establishment of the first Dutch East Indian natural monuments in the newspaper *De Preangerbode*:

“Aangezien deze ongerepte instandhouding van groot algemeen belang geacht mag worden, en aangezien sommige dezer thans als staats-natuur-monument tegen beschadiging of vernieling beschermde terrein-gedeelten niet alleen uit een *nationaal*, maar ook uit een *internationaal* oogpunt bijzondere wetenschappelijke of aesthetische waarde bezitten, daarom verdient de tot standkoming van dit zeer belangrijke besluit der Ned. Indische regeering in ruimen kring, ook buiten Ned. Indië bekend te worden.”<sup>150</sup>

This anecdote illustrates an underlying belief that the protection of Indonesian nature was to the benefit of humankind at large. Koorders emphasized how in the future these areas could attract Dutch East Indian, Dutch or international tourists, providing a list with areas that would be of specific interest. Without any diffidence, Koorders positioned the Dutch East Indies in a row of mostly European countries because of their role in nature conservation:

“[...] Ned. Indië [heeft], als het ware thans met één slag, een plaats gekregen in een der voorste rijen der staten, waar op het gebied van zorg voor natuur-monumenten veel tot stand gebracht is geworden. In die voorste rijen staan o.a. Amerika, Duitschland, Zwitserland, Nederland, Zweden, Noorwegen, Denemarken, Engeland, Frankrijk en Australië.”<sup>151</sup>

This list emphasizes how Koorders saw nature protection as a force of development and a marker of civilization. Even though Koorders acknowledged that the Dutch East Indies still held a modest position in these first ranks and a lot still had to be done, he stated that in regard to other “tropical lands” the Dutch East Indies came out best.<sup>152</sup>

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<sup>150</sup> S.H. Koorders, ‘Natuur-Monumenten. Iets over Een Belangrijk Gouvernementsbesluit, Waarbij Eenige Ned.-Indische Natuur-Monumenten Onder Staatsbescherming Gebracht Zijn’, *De Preangerbode*, maart 1919, 24 edition.

<sup>151</sup> Koorders.

<sup>152</sup> Original text: “wat de tropische landen betreft”. Koorders.

## **Conclusion**

This chapter has discussed the colonial and international context of the conservation regime in which Ujung Kulon was created in 1921. The colonial government and conservationists in the Dutch East Indies mirrored European trends in nature protection when establishing the first natural monuments in the archipelago. Conservationists considered nature protection as a scientific endeavour that had to save nature from the forces of civilization. Paradoxically, nature protection was also considered as a marker of civilization. In this regard, colonial governments saw nature protection as a matter of imperial stewardship. The colonial government and conservationists legitimized the creation of natural monuments by stressing the international and scientific value of the “wild” and “pristine” nature within them. Conservationists increasingly regarded the Indonesian archipelago with its distinct wildlife as a heritage of mankind, that had to be protected for posterity and for scientific research. The next challenge for colonial governments and conservationists was how to ensure protection after they had achieved park creation.

## Chapter 2 – From Paper Park to Model Reserve

*“The fact that, after all these years of exasperating neglect of Government responsibility, there was still one rhino left in Ujung Kulon is nothing short of a wonder”<sup>153</sup>*

The idea to create natural monuments took root in the Dutch East Indies from the mid-1910s onwards, as we have seen in the previous chapter. In 1921, the colonial government created the Ujung Kulon Natural Monument on a peninsula in the southwest of Java. In the following period, between 1921 and 1937, the near extinction of the Javan rhino was put on the conservationist agenda. In this chapter I will analyze why, by whom and as a consequence of which factors the Javan rhino obtained a threatened status and how this influenced ideas on the governance and management of Ujung Kulon in this period.

This chapter will focus on how conservationists’ increasingly valued species protection over time, more specifically in regard to the Javan rhino. Furthermore, I will discuss how this perceived value has influenced conservationists’ ideas on how Ujung Kulon should be governed and managed. This chapter starts by explaining Ujung Kulon’s pre-1920 context to better understand its designation as a protected area in 1921. This will be followed by a section on how Ujung Kulon functioned as a paper park during the 1920s and early 1930s. Then, the early scientization of species protection will be discussed, followed by a section on how colonial conservation marginalized the rights of the native population in the Dutch East Indies. This chapter will conclude with an analysis of Ujung Kulon’s conservation regime change based on the prioritization of the Javan rhino’s need for protection.

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<sup>153</sup> A. Hoogerwerf, *Ujung Kulon. The Land of the Last Javan rhinoceros* (Leiden: E.J. Brill, 1970), 16.

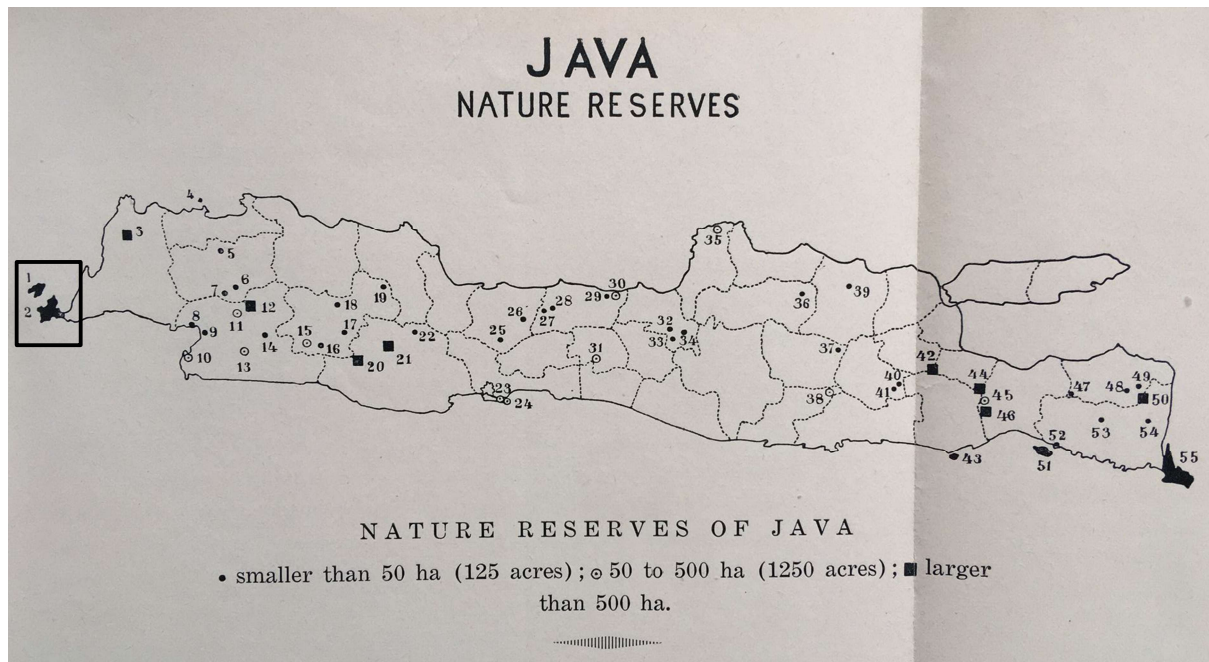


Figure 2 - Nature reserves of Java. Ujung Kulon is depicted as no.2 on the peninsula in the west of Java (Box added for emphasis). The area no.1 represents Prinseneiland, which would later be 'included' in Ujung Kulon's reserve. K.W. Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies, Fourth Pacific Science Congress (Bandung, Java)* (Wetevreden 1929) 34-35.

## From Hunting Ground to Natural Monument

Ujung Kulon is a peninsula situated in the southwest of Java, in the regency of Pandeglang in Bantam (see Figure 2. See Appendix I and II for context terrain and vegetation of the reserve). The administrative district of Bantam, and especially southwest Pandeglang, counted the lowest European population of entire Java.<sup>154</sup> It remains somewhat unclear how and under whose direct authority Ujung Kulon was administrated in these early years. Officially, a system of local heads of the regional authorities administrated the area, under supervision of Dutch colonial officials, like the resident or assistant-resident. The colonial government could lease land and grant permits to prospect for mining opportunities in the peninsula. The local population appears to have had the freedom to use the area to sustain themselves without much interference of the colonial government.<sup>155</sup> Until the late nineteenth century, Ujung

<sup>154</sup> Robert Cribb, *Historical Atlas of Indonesia* (Honolulu: University of Hawai'i Press, 2000), 61.

<sup>155</sup> Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 10–12.

Kulon only harbored some inhabitants in smaller villages, for example, opposite Meeuweneiland – an island to the northwest of Ujung Kulon – and at the lighthouse of Java’s First Point in the west.<sup>156</sup> The living conditions were difficult due to the impact of the southwest monsoon on the area, dense vegetation, regular malaria and dysentery outbreaks and frequent tiger attacks, causing people to migrate out of the peninsula in the late nineteenth century.<sup>157</sup> The lighthouse on Java’s First Point remained inhabited and the local population surrounding the peninsula used the area for sustenance hunting, fishing and collecting (f.e. edible nests).

Around 1913, the first conservationist interest in Ujung Kulon developed because of the abundance of game species in the area. In the early twentieth century Ujung Kulon had acquired growing fame as a hunting-ground among colonial elites. The area had become a refuge for many species, among which the Javan rhino, because their habitat was increasingly lost to agricultural expansion on the rest of Java. Ujung Kulon, on the other hand, was sparsely populated and not cultivated on such a large scale as outside of the peninsula.<sup>158</sup> Not much is known about the conservationist lobby for Ujung Kulon in the late 1910s. We do know that the NIVN tried to persuade the colonial government to preserve the area and regulate hunting to prevent further species decline.<sup>159</sup> However, the status of the peninsula would remain the same and unregulated hunting remained a legitimate practice during the 1910s. In 1921, the governor general of the Dutch East Indies designated Ujung Kulon as a natural monument.

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<sup>156</sup> Patrick W.F.M. Hommel, ‘Landscape-Ecology of Ujung Kulon (West Java, Indonesia)’ (Dissertation, Wageningen, Landbouwniversiteit Wageningen, 1987), 25.

<sup>157</sup> Hoogerwerf also claims other accounts suggest that the real reasons for these evacuations were “to facilitate the setting aside the area as a nature reserve”. Although many scholars have repeated this claim while referring to Hoogerwerf, I have not yet found any other accounts to verify the statement. See, Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 11.

<sup>158</sup> The already sparsely populated Ujung Kulon was even less populated after the 1883 disaster of the volcanic eruption of Krakatau. Due to the nearby eruption of this volcano – coast-to-coast only some 60 km away – the peninsula had been hit by tsunami’s and covered with volcanic ashes. Patrick W.F.M. Hommel, ‘Landscape-Ecology of Ujung Kulon (West Java, Indonesia)’ (Dissertation, Wageningen, Landbouwniversiteit Wageningen, 1987), 25–26; Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 11.

<sup>159</sup> S.H. Koorders, ‘Ter Zake van Het Rekest Der Vereeniging Venatoria, Gericht Aan de Directeur van Landbouw Nijverheid En Handel’, Buitenzorg, 12 October 1914, inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Hoogerwerf, *Udjung Kulon. The Land of the Last Javan Rhinoceros*, 14.

## Ujung Kulon as Paper Park

Roughly the first decade of Ujung Kulon's existence as natural monument it remained a paper park; a protected area on paper, but nothing more. This was the result of the government's idea of a preservationist approach. The government considered park creation "good enough" to achieve the goal of keeping Ujung Kulon in its "pristine" state. This preservationism included the protection of species, but species protection was not necessarily a conservation goal on its own. Here, we will first set out the political playing field of Ujung Kulon's governance, before discussing how this affected ideas on its management.

The colonial government arranged Ujung Kulon's governance through a series of nature protection ordinances that applied to the entire Dutch East Indies.<sup>160</sup> These were drafted by the governor-general and were commented upon in the *Volksraad* (People's Council), a government body that had been established in 1918 to advise the governor-general. The *Volksraad* consisted of representatives from different ethnic backgrounds and was to look after the interests of their respective ethnic groups, although the *Volksraad* only had the authority to advise.<sup>161</sup> The ordinances only reflect the government's ideas and perceived best practices on how to protect the natural environment and regulate offences. It is not certain how much influence the *Volksraad* had to change nature protection ordinances in this period, how much public support there was for nature protection regulations or to which extent the local population was aware of the regulations in place. The heads of the local authorities in Bantam were responsible for the supervision of Ujung Kulon and inspectors of the Regional Administration, "*posthouders en gezaghebbers*" and officials of the Forest Service had the authority to track down offences.<sup>162</sup> The conservationists of the NIVN and the Botanical Garden lobbied with the colonial government for stricter regulations and voiced critiques on the functioning of the ordinances in practice.<sup>163</sup>

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<sup>160</sup> 'Ordonnantie Tot Bescherming Diersoorten 1909'; 'Natuurmonumenten Ordonnantie 1916'; 'Natuurmonumenten Ordonnantie 1916', 1924.

<sup>161</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 4; J.L. van Zanden and D. Marks, *An Economic History of Indonesia, 1800-2012*, Routledge Studies in the Growth Economies of Asia (London & New York: Routledge, 2012), 126; A. Vickers, *A History of Modern Indonesia*, Second Edition (New York: Oxford University Press, 2013), 23.

<sup>162</sup> 'Natuurmonumenten Ordonnantie 1916'.

<sup>163</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*.



The discrepancy between the protective regulations on paper and their execution in everyday life, resulted in Ujung Kulon remaining a paper park in the 1920s and most of the 1930s. The colonial government's preservationist approach towards Ujung Kulon illustrates how park creation as territorial strategy alone did not function well-enough for the government to exert influence over Ujung Kulon. This becomes clear when assessing the ordinances in light of the three tensions that were discussed in the introduction of this thesis: 1) ideas about the human-nonhuman relationship, 2) ideas about who was allowed to do which activities within Ujung Kulon or in regard to the Javan rhino, 3) ideas about how these activities should be regulated.

The government's preservationist approach can be illustrated by the objectives and prohibitions listed in the 1916 Natural Monument Ordinance. Natural monuments could be declared when an area was thought of as important in the public interest due to their special scientific or aesthetic value.<sup>164</sup> The definition of the natural monument did not stretch far enough to also designate animals as natural monuments. Technically, all species living in Ujung Kulon were protected under the 1916 Natural Monument Ordinance.<sup>165</sup> However, the protection of species was a means to the end of park creation; animals were only to be protected as part of the larger goal to keep the natural monument in its 'pristine' state, which was thought to benefit society. No one was allowed to perform any activities within a natural monument that would alter the environmental status quo in the protected area, unless with the explicit approval of the governor-general.<sup>166</sup> On paper, the reasons for creating natural monuments were to preserve 'wild' nature, with or without species, for human benefit. This suggests that the government perceived species protection as less important than park creation.

In the case of Ujung Kulon, the colonial government seems to have used the protection of game species as a substitute reason for designating the area as a natural monument. The government considered Ujung Kulon's peninsula as "empty" and a kind of 'wasteland'. The perceived degree of 'uselessness' of the area was used by the

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<sup>164</sup> 'Natuurmonumenten Ordonnantie 1916'.

<sup>165</sup> 'Natuurmonumenten Ordonnantie 1916'.

<sup>166</sup> In the case of Ujung Kulon exceptions were made for two parcels of land that were already under long lease within the natural monument's boundaries, see 'Aanwijzing van Terreinen Als Natuurmonumenten En Verbod Op Tot Het Doen van Mijnbouwkundige Opsporingen En/of Ontginningen Door Particulieren in de Tot Natuurmonument Aangewezen Terreinen', in *Staatsblad van Nederlandsch-Indië* 1921, No. 683, 28 November 1921; 'Nieuwe Natuurmonumenten', *Bataviaasch Nieuwsblad*, 30 November 1921, 37 no. 305 edition.

colonial government as a territorial strategy to reshape perceptions of the area and legitimize the exertion of power over it, making the peninsula 'useful' in the process by its role to protect species. As reported in the newspaper *Bataviaasch Nieuwsblad*, Ujung Kulon was perceived as the perfect territory for a big game reserve because the European population considered the area "practically uninhabited" and, apart from a few areas that were deemed 'unsuitable' for large scale cultivation.<sup>167</sup> This illustrates the colonial government's view on the local population's use of Ujung Kulon. Some Indonesians still lived in the area and maintained small plots of land in cultivation while others still frequently used the island for their sustenance f.e. through fishing in Ujung Kulon's coastal waters or by collecting plants like the nipa palm. In their own line of thinking, the colonial government made 'wasteland' more 'valuable' by declaring it a natural monument, as it gained international attention and made the Dutch East Indies compete with other countries with large national parks or game reserves.

The fact that the government had conflicting visions about the importance and value of species protection can be illustrated with two ordinances that were meant to regulate species protection but failed to adequately do so: the 1909 Animal Protection Ordinance and the 1924 Hunting Ordinance. I consider these lists to be the first threatened species lists in the Dutch East Indies. These ordinances were a first step in the biopolitical regulation of species protection in the archipelago but were still an entirely separate affair from park creation. I will highlight two aspects of these ordinances that show how the government attempted to instigate species protection, but how their set up and enforcement show it was not considered as an important practice. These aspects also show how the lists hampered the enforcement of the protection of Ujung Kulon as a natural monument.

First of all, the government had categorized and listed species in both ordinances in order to create a system with which to deal with species decline in the archipelago. The 1909 Animal Protection Ordinance was in theory a comprehensive and ambitious one. The goal of this ordinance was said to prevent the extermination (*uitroeijing*) of species, but at the same time listed a long list of species that were the exemption to the

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<sup>167</sup> Original text: "[...] is nagenoeg onbewoond, en op enkele terreinen na ongeschikt voor eenige cultuur, zoodat het een prachtig reserveterrein vormt voor grootwild, vooral voor de thans op Java bijna geheel uitgeroeide rhinocerossen en voor herten en bantengs". 'Nieuwe Natuurmonumenten', 1.

rule and thus could be killed without repercussions.<sup>168</sup> These listed species were mainly those considered harmful to mankind or his enterprises. All other species not specifically mentioned in the ordinance had to be protected in the entire Dutch East Indian archipelago under the ordinance's regulations, among which the Javan rhino. One explanation for this comprehensive approach might be that it was in interest of the colonial government to put a halt to the international critique on, among others, the decline of the birds-of-paradise (see Chapter 1) by issuing seemingly extensive protective regulations.

In practice, the long exemption-list made it difficult for local authorities to enforce. So many categories of animals were listed as harmful in the 1909 ordinance that its effect was "practically nil".<sup>169</sup> Conservationist K.W. Dammerman, zoologist at the Botanical Garden and chairman of the NIVN, argued that the ordinance had remained a "dead letter", mostly because:

"[...] the law aimed too high, as the total protection of all mammals and birds – with the exemption of game and harmful animals – must be the final purpose not the beginning of the law, for, in a tropical country with its very inefficient police-supervision in remote regions, there can be no question of total protection of all mammals and birds, with the exception of a few."<sup>170</sup>

This source highlights how conservationists considered the enforcement of the 1909 ordinance to be 'inefficient', but this does not inform us why or to what extent enforcement of the regulations did not occur. We do know that the ordinance allowed local authorities to temporarily lift the protection for some game species depending on the area.<sup>171</sup> Consequently, it seems many local authorities did not really implement the ordinances or put species on the exemption-list of shootable species because of the perceived impracticability of suddenly enforcing the restrictive regulations throughout the entire archipelago.<sup>172</sup> Apart from this impracticability, the lack of enforcement also

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<sup>168</sup> It was common for conservation regulations in this period to allow the shooting of 'harmful' animals, see for example: Cioc, *The Game of Conservation: International Treaties to Protect the World's Migratory Species*; Boomgaard, 'Oriental Nature'.

<sup>169</sup> Boomgaard, 'Oriental Nature', 265.

<sup>170</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 2.

<sup>171</sup> 'Ordonnantie Tot Bescherming Diersoorten 1909'; Boomgaard, 'Oriental Nature', 267.

<sup>172</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 4–5.

seems to suggest that many colonial officials and broader society did not consider species protection in itself as very important.

The 1924 Hunting Ordinance replaced the earlier 1909 ordinance with the purpose to improve species protection and switched the passive protection technique of the 1909 ordinance around. The government explicitly listed (groups of) endangered species or ‘useful’ species such as insectivores by name, rather than listing the harmful animals that were the exception to the rule.<sup>173</sup> The government therefore took a more active approach to species protection with the 1924 ordinance than with its predecessor. On paper, this list enforced the protection of 61 species in the entire Dutch East Indies, with an additional 2 species only on Java and Madura Island, among which the Javan rhino, and another 11 (groups of) species in the Outer Provinces.<sup>174</sup> This new approach seems to signify how the colonial government began to attribute a greater importance to species protection. The list of species had, however, shrunk considerably in regard to the ambitious 1909 ordinance.

The second aspect of the government’s ambiguous attempt at species protection was the introduction of hunting licences with provisions like closed seasons and the prohibition to shoot female and young animals. The government introduced closed seasons to ensure the collective health of certain species, limiting their extinction risk. The government expected that the populations of game species would replenish enough during these closed seasons to safeguard their continued existence. The prohibition to hunt female and immature male animals of some species, who were considered essential to future reproduction, was a measure to the same end.

However, the ordinance was called a hunting ordinance for a reason. Depending on the license, the government still allowed the shooting on some or all of the ‘protected’ species. By differentiating in the cost price of hunting licenses, the government differentiated in the value of animal species. For example, the license to shoot rhinos was more expensive than the license to shoot banteng, which in turn was more expensive than shooting deer or kidang. Hunting licenses thus often reflected a species’ ‘worth’, often based on their size and perceived characteristicness. As often the

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<sup>173</sup> ‘Jachtordonnantie’, in *Staatsblad van Nederlandsch-Indië* 1924, No. 234, 4 June 1924; Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 3; Boomgaard, ‘Oriental Nature’, 268.

<sup>174</sup> In the entire Dutch East Indian archipelago 8 mammals and 53 (groups of) bird species were to be protected, on Java and Madura Island 2 mammals and in the Outer Provinces 9 (groups of) mammals and 2 (groups of) birds. ‘Jachtordonnantie 1924’.

‘most valuable’ species were also considered the most prestigious ones to hunt, the hunting licenses were to some extent meant to protect some species more than others.<sup>175</sup> The fact that the subject of hunting and species protection were combined in one ordinance signifies that the colonial government at least not considered hunting and nature protection to be mutually exclusive practices. However, I would argue that this also seems to suggest that the authorities did not perceive species to be under great threat and thus not in need of more protection.

The hunting licences did not have the desired effect. The fact that hunting within Ujung Kulon was still allowed with the license system hampered the attempt made by the authorities to protect certain endangered species, such as the Javan rhino. It also ran counter to the 1916 natural monument regulations stating that no one was allowed to alter the environment within these areas. Botanical Garden zoologist and NIVN chairman Dammerman commented upon the conflicting interests of the hunting-animal protection ordinances, arguing that the combination of regulations was “one of the principal objections against the new ordinance”.<sup>176</sup> The relationship between hunting and nature protection was not as paradoxical as it might seem. Some hunters believed that through good stewardship wildlife could be managed sustainably, while some conservationists practiced hunting in their spare time or as part of their job. However, many conservationists made a distinction between so-called bona fide hunters and those who were not hunting for ‘the right’ reasons or in ‘the right’ way. In practice this distinction was not so clear-cut and informed by European visions on the ‘gentleman’ code of conduct of sport hunting. Conservationists for example condemned the hunting practices of the local population, such as their use of nets, snares and trapfalls, as these techniques did not comply with their own hunting code of conduct. On the other hand, the shooting of large quantities of game just for the fun of it was often condemned by conservationists.<sup>177</sup>

In regard to Ujung Kulon, the protection of the area and the species within it was arranged on paper, but in practice the supervision of the natural monument and hunting activities remained non-existent just as before its designation. The creation of

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<sup>175</sup> This represents a difficult paradox. The species who were considered most prestigious were hunted down, because of which they became rare, which increased their risk to go extinct. This resulted in their protection, which increased the species’ value and prestige, because of which hunters wanted to remain hunting them, etc.

<sup>176</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 3.

<sup>177</sup> Jepson and Whittaker, ‘Histories of Protected Areas’, 134.

the natural monument had done little extra to protect the Javan rhino or other species within the area and the colonial government was not able to exercise much authority over Ujung Kulon. The enforcement of the ordinances was complicated for at least three reasons. First of all, strict supervision of the peninsula would be very expensive and was deemed almost impossible because of the sheer size of the area, its many points of entry from the seaside and its difficult access from land.<sup>178</sup> Secondly, people were still allowed to hunt in Ujung Kulon and even these activities would be somewhat supervised it would be hard to verify if someone had shot according to the regulations. Lastly, the protection of species in Ujung Kulon does not seem to have been perceived as much of a priority, as people from all layers of the Dutch East Indian society to some extent continued their hunting practices in Ujung Kulon throughout the 1920s and most of the 1930s.<sup>179</sup> These developments made it quite clear that the ordinances were more successful in creating paper parks than that they offered a sufficient basis for the protection to plants, animals and features within it.

## **Scientization of Species Protection**

As discussed in the first chapter, scientists played a prominent role in the increased acknowledgement of the importance of nature protection.<sup>180</sup> In the 1920s conservationists of the NIVN (among which Forest Service officials and employees of the Zoological Museum at the Botanical Garden) had advocated for better enforcement of the nature protection regulations in the Dutch East Indies, but without many immediate successes. In the 1930s species protection gradually gained more attention and appreciation in the Dutch East Indies from the colonial authorities because of the lobbying activities of these conservationist-scientists.

However, already from an early stage onwards, experts had to some extent influenced the colonial government with conservationist ideas that became rooted in early protective measures. The establishment of natural monuments, for example, was

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<sup>178</sup> The small isthmus connecting Ujung Kulon to the rest of the Javan mainland for the greater part consisted of marshlands, while the interior is covered in dense primary and secondary forests.

<sup>179</sup> J.C. Bedding, 'Waarschuwing', *De Preangerbode*, 12 June 1923, 28 edition, 3, Delpher.

<sup>180</sup> Bont, 'Borderless Nature'; H. Tilley, *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870-1950* (Chicago & London: University of Chicago Press, 2011); Schleper, *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*.

done based on their perceived scientific or public interest. The colonial government could also grant exemptions to specific people to execute any of the otherwise forbidden activities for scientific purposes.<sup>181</sup> This exemption can be regarded as an early sign of the privileged position of science as a legitimization for access to and control over Ujung Kulon.

In the late 1920s and the course of the 1930s these experts became more influential in the political milieu. The NIVN adjusted its strategy and began to lobby more intensively with Volksraad members. In 1927 the position of the Volksraad had changed to a semi-legislative body. This meant the Volksraad now had to sanction any nature protection enactments the colonial government wanted to initiate.<sup>182</sup> The more powerful position of the Volksraad made its members a more interesting lobbying partner for the NIVN. Some Volksraad members were very interested in nature protection, such as C.H.M.H Kiès, Volksraad delegate since 1921 and affiliated with the *Nederlandsche Commissie voor Internationale Natuurbescherming* (NCIN).<sup>183</sup> The Volksraad's secretary, G.F.H.W. Rengers Hora Siccama was a very active member of the NIVN and in the late-1930s, prominent Volksraad delegate J. Verboom even became the NIVN's chairman. Apart from the Volksraad, conservationists and scientists also took part in governmental advisory bodies, such as the hunting ordinance committee.<sup>184</sup>

Scientists and conservationists further increased their authority in conservation matters by issuing reports on threatened species. In regard to the Javan rhino, (amateur) scientists began to raise awareness of the need for more knowledge on, and protection of the species. In 1933 J.C. Hazewinkel, lieutenant of the Royal Dutch East Indian Army, published his findings on the Javan rhino in, amongst others, the popular natural historical periodical *De Tropische Natuur*. He had shot at least seven Javan rhinos in one year time in Sumatra. He legitimized his activities under the guise of

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<sup>181</sup> 'Natuurmonumenten Ordonnantie 1916'.

<sup>182</sup> Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*, 4; Vickers, *A History of Modern Indonesia*, 23.

<sup>183</sup> Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 8* (Amsterdam, 1930), 5.

<sup>184</sup> Delpher, State Almanacs for the Dutch East Indies Part 2 between 1920-1942, <https://www.delpher.nl/nl/tijdschriften/results?facets%5BalternativeFacet%5D%5B%5D=Rengerings-almanak+voor+Nederlandsch-Indie%CC%88&page=1&maxperpage=50&sortfield=datedesc&coll=dts> (Accessed 9 April 2022)

scientific importance, despite the fact he did not have any scientific backgrounds. One of his motives was to shoot “a big and intact specimen for museum purposes” with preferably a big horn.<sup>185</sup> Some conservationists publically condemned Hazewinkel’s behavior. Forester and later NIVN member C.N.A. de Voogd even stated in a reaction to Hazewinkel’s publication that “since (or maybe because of) the hunting expeditions of the gentlemen Hazewinkel in 1925 the number of rhinoceros declined alarmingly”.<sup>186</sup> Through these publications, (amateur) scientists and conservationists increased the body of knowledge on the Javan rhino and in the early 1930s discovered that Hazewinkel had presumably shot the last Javan rhino of Sumatra in 1928 (See Figure 4). This raised the perceived importance and urgency of safeguarding the Javan rhinos in Ujung Kulon. This illustrates a paradox: scientization contributed to a faster demise of the Javan rhino, which made their protection even more necessary.

Science and conservation became more entangled and to this end also perceived experts and scientific institutions more easily obtained permission from the government to hunt protected species. In 1934 the Director of the Zoological Museum authorized a hunting trip ‘in the name of science’ of two NIVN conservationists. Senior forester F.J. Appelman (Forest Service) and taxidermist P.F. Franck (Zoological Museum), both NIVN members, set out to hunt a single Javan rhino living in West Java outside Ujung Kulon that was considered the last Javan rhino outside of Ujung Kulon (see Figure 3). The trip was legitimized because it was thought unlikely it would ever meet another Javan rhino again, and, according to Appelman and Franck:

“Voor het voortbestaan der soort was dit exemplaar dus absoluut waardeloos, terwijl groote kans bestond, dat het te avond of te morgen door stroopershand zou vallen dan wel zijn natuurlijke dood zou sterven: in beide gevallen zou het echter voor de wetenschap verloren zijn gegaan.”<sup>187</sup>

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<sup>185</sup> J.C. Hazewinkel, ‘Rhinoceros Sondaicus in Zuid-Sumatra’, *De Tropische Natuur* 22, no. 6 (1933): 105.

<sup>186</sup> C.N.A. de Voogd, ‘De Rhinoceros Uit Zuid Sumatra Nu Bijna Verdwenen’, *De Tropische Natuur* 22, no. 8 (1933): 159.

<sup>187</sup> Translation quote: “For the survival of the species this specimen was therefore absolutely worthless, while there was a great chance that sooner or later it would fall into the hands of poachers or die its natural death: in either case it would have been lost to science.” F.J. Appelman and P.F. Franck, ‘Rhinoceros Sondaicus in West-Java’, *De Tropische Natuur* 23 (1934): 73.



This anecdote illustrates how science was considered as an appropriate legitimization for shooting wildlife, even a species as rare as the Javan rhino, while any other form of hunting was considered ‘poaching’. It also shows how conservationists valued an individual rhino on its representation for the entire species; if the rhino could not benefit its species anymore, it was to benefit humankind through science.

The ‘in the name of science’ legitimization had paradoxically led to the Javan rhino’s initial protection in Ujung Kulon and to its local extinction outside of it. This increased the value of the Javan rhino population living in Ujung Kulon because it was considered to be the last viable one in the Dutch East Indies, maybe even in the world.<sup>188</sup> In Ujung Kulon, however, the number of rhinos was still declining. In the period 1929 to 1936, Hoogerwerf estimated at least 20 Javan rhinos were shot in the peninsula.<sup>189</sup> This had brought the numbers of the last standing population down severely. Although estimates vary quite significantly, in 1936 there were only between 15 and 35 rhinos left in Ujung Kulon, with an ultimate maximum of maybe 50 individuals, a number which many conservationists considered improbably high.<sup>190</sup> However, not every conservationist was afraid of a near extinction of the Javan rhino. In 1935 Franck – who had shot the last Javan rhino on Java outside Ujung Kulon – stated that, when decently guarded, the Javan rhino was not too endangered that it would become extinct but could even slowly become more abundant.<sup>191</sup>

Simultaneously with the scientists, some government officials also gained more awareness for the Javan rhino cause and started to implement some provisional measure to improve supervision on rhino hunting in Ujung Kulon. The Resident of

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<sup>188</sup> J.Th Hamaker, ‘Correspondence from J.Th. Hamaker to the Nederlandsche Commissie Voor Internationale Natuurbescherming’ (Bandung, 14 February 1931), 1, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Nederlandsche Commissie voor Internationale Natuurbescherming, *Supplement Op Mededeelingen No. 10*, vol. (1931-1933) (Amsterdam, 1935).

<sup>189</sup> Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 16.

<sup>190</sup> J.C. Ligtoet, ‘Rapport Betreffende de Neushoornstrooperijen in Het Natuurmonument Oedjoengkoelon’ (Pandeglang, 17 September 1936), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); J.C. Ligtoet, ‘Naschrift Rapport Betreffende de Neushoornstrooperijen in Het Natuurmonument Oedjoengkoelon’ (Pandeglang, 28 September 1936), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); P.F. Franck, ‘Waarnemingen over Neushoorns En Bantengs in Het Natuurmonument Oedjon Koelon.’, in *Verslag van de Nederlandsch Indische Vereeniging Tot Natuurbescherming 1933-1934* (Buitenzorg, 1935), 49.

<sup>191</sup> Franck, ‘Waarnemingen over Neushoorns En Bantengs in Het Natuurmonument Oedjon Koelon.’, 49.

Bantam, J.S. de Kanter concerned about the ongoing hunting on the Javan rhino.<sup>192</sup> De Kanter visited the peninsula seven times between 1932 and 1934 after which he wrote a same amount of reports on the wildlife situation within the protected area. For example, De Kanter reported that large tracts of *alang alang* seemed to be burned regularly by ‘poachers’, presumably for the purpose of shooting banteng.<sup>193</sup> The fact that he went on all these trips with the purpose of hunting Javan tigers, a now extinct species, highlights the difficult dynamics of species prioritization versus trivialization by the colonial government. In 1936, the Assistant Resident of Bantam, J.C. Ligtvoet, wrote an alarming report in which he stressed the inadequacy of the system in place and the inability of the police and local government to prevent hunting in Ujung Kulon. This report set a precedent in the way it helped to raise awareness of the importance of the protection of the Javan rhino with other colonial authorities and it set the wheels in motion to enforce a stricter supervision of Ujung Kulon.

## Managing Double Standards

The authorities used scientized species protection to legitimize stricter and exclusionary control of Ujung Kulon, but disproportionally marginalized native peoples. The authorities’ double standard approach shows how they thought about the question of authority to act legitimately in regard to Ujung Kulon and the Javan rhino. Both the European and local population continued hunting in Ujung Kulon in the 1920s, but the behavior of the local population was often condemned more harshly. For example, in the 1916 ordinance it was even explicitly stated that punishments could vary based on the nationality of the offender.<sup>194</sup> Apart from the general prejudices of the colonial authorities towards the local population, four developments might have contributed to their discriminatory treatment and perception of the local population as illegitimate actors.

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<sup>192</sup> J.S. de Kanter, ‘Jacht Op Rhinocerossen in Een Natuurmonument’ (Correspondence between the Resident of Bantam and the Director of Agriculture, Industry and Trade, Serang, 3 February 1932), inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>193</sup> J.S. de Kanter, ‘Verslag van 1933 Nopens Het Natuurmonument Oedjoengkoelon’ (Dienstrapport, Serang, 19 December 1933), 4, inv. nr. 41, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>194</sup> ‘Natuurmonumenten Ordonnantie 1916’.

First of all, hunting was still regarded as a legitimate activity within Ujung Kulon with a hunting license. As it was probably less common for the local population to hunt with a license in Ujung Kulon, it was easier to consider them as illegitimate ‘poachers’. The measure to introduce hunting licenses was implicitly discriminatory and went at the expense of the local population’s interests in Ujung Kulon for their livelihood. The acquisition of a hunting license might look like a simple, fair and accessible process, but the opposite might have been the case in reality. Not only did one need to have the money to buy a license, but you also had to be able to read, write and navigate language barriers and the colonial bureaucratic system.<sup>195</sup> The socio-economic situation of many native Indonesians during Dutch colonial suppression might not have allowed them to fulfil these needs to obtain a hunting license. Furthermore, it leaves us to wonder to what extent the local population’s requests would have been granted at all by the authorities, who often held substantial prejudices against native Indonesians and their hunting practices.

A second development was the fact that locals could more easily go ‘off the grid’ and escape the governmental gaze and grip. This might have contributed to the colonial government’s perception of the local population as ‘poachers’. For example, the local population could more easily access the peninsula than Europeans wanting to visit Ujung Kulon for an inspection or hunting trip. With good weather, their small proa’s could not only land on the six main landing sites but on maybe fifty others as well, so they could hunt in Ujung Kulon more easily.<sup>196</sup>

A third development that might have contributed to the government’s negative perception of natives as ‘poachers’, was their practice of fire ecology. The practice of fire ecology local hunters used ran counter to the preservationist non-interference model on which Ujung Kulon was based as a natural monument. Certain parts of Ujung Kulon were covered with large fields of alang alang (*Imperata cylindrica*, also known as cogongrass).<sup>197</sup> Natives regularly burnt off alang alang fields because game species like banteng and deer cannot eat the full-grown sharp leaves of the plant. As wildlife

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<sup>195</sup> Only a hunting license for shooting perceived harmful animal species was free of charge.

<sup>196</sup> Hamaker, ‘Correspondence from J.Th. Hamaker to the Nederlandsche Commissie Voor Internationale Natuurbescherming’.

<sup>197</sup> Alang alang is a highly flammable and fire adapted species, which is able to spread rapidly after a fire has burnt other grasses and trees, thus maintaining their ecological dominance. Gregory E. MacDonald, ‘Cogongrass (*Imperata Cylindrica*) - Biology, Ecology, and Management’, *Critical Reviews in Plant Sciences* 23, no. 5 (2004): 371.

was attracted by the young plants that sprouted up from the ashes, the animal's close concentration and the now entirely burnt-off open fields made these areas ideal for hunting game. The smell of carrions could carry much further in the open fields, which lured in predators like tigers that could then be hunted upon.<sup>198</sup> This type of fire ecology was also carried out as a conservationist measure in other territories outside Ujung Kulon in the 1920s. Venatoria's supervisor of Tjikepoeih burnt along along to foresee in the wildlife's food supply, so the animals could be hunted in the long run.<sup>199</sup> Within Ujung Kulon, fire ecology had also been used by European and Indonesian officials before the area became a natural monument, who sometimes send helpers to the peninsula in advance to burn down the along along fields.<sup>200</sup> However, now Ujung Kulon was declared a natural monument it was seen as a problematic management practice only executed by 'poachers'.

The fourth development was that some local Indonesians and Chinese hunters illegitimately shot Javan rhino in Ujung Kulon because they were in great demand as traditional Chinese medicines. The horn of the Javan rhino was popular among people of Chinese descent, more than that of the Sumatran rhino.<sup>201</sup> Thought of as a powerful medicine and aphrodisiac, the horn was considered very valuable. Rhinoceros skin and other body parts, such as their genitals and fat, were also used in Chinese medicine.<sup>202</sup> For some hunters the fines or imprisonment were a small price to pay for the profits they could obtain through poaching.<sup>203</sup> Although estimates vary considerably, the horn and skin of a Javan rhino could sell for up to 1000 or 1500 guilders.<sup>204</sup> These prices

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<sup>198</sup> Kanter, 'Verslag van 1933 Nopens Het Natuurmonument Oedjoengkoelon', 9.

<sup>199</sup> C.L.M. Brants, 'Copy of the Letter by C.L.M. Brants to Jhr. Mr. G. F. H. W. Rengers Hora Siccama as 1st Secretary of the NIVN on the Situation of Banteng within Ujung Kulon' (Lodaja, 28 May 1938), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>200</sup> Kanter, 'Verslag van 1933 Nopens Het Natuurmonument Oedjoengkoelon', 9.

<sup>201</sup> Hazewinkel, 'Rhinoceros Sondaicus in Zuid-Sumatra', 105.

<sup>202</sup> Almost every source dealing with the Javan rhino in this period stressed the role Chinese medicine played in the continuous hunting of the species in Ujung Kulon. Unknown, 'Letter from Unkown Author (Probably Andries Hoogerwerf) to Mr. Muller, Commander of the Fieldpolice Detachement in Menes' (Buitenzorg, 14 May 1939), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>203</sup> Ligtoet, 'Rapport Betreffende de Neushoornstrooperijen', 3; J.C. Ligtoet, 'Letter from Assistant Resident J.C. Ligtoet in Pandeglang to A. Hoogerwerf.', 11 May 1936, inv. nr. 39, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>204</sup> Kanter, 'Jacht Op Rhinocerosen in Een Natuurmonument'; Dammerman, *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*.

were often considered worth the try as it could still leave a considerable profit after paying a fine of maximum 500 guilders or a few weeks imprisonment.

Both the native as European population continued hunting in Ujung Kulon, with or without license. Somewhat paradoxically, NIVN members were among the hunting elites visiting Ujung Kulon. Some of them were a member of Venatoria and/or the Forest Service or belonged in another way to the colonial civil administration. They were actually the ones who had to enforce the protective legislation but hunted game in their spare time or for 'scientific purposes'. An colonial administrator at the time noticed this paradox of 'bonafide' hunters who "personally are convinced of the great value of nature protection and totally agree with the conditions of the hunting law", as a problem of collective action:

"Zij gaan van het zeer begrijpelijke en ook verdedigbare standpunt uit; 'Een jachtwet, goed, maar dan moet de Regeering er ook zorg voor dragen, dat zij nageleefd wordt; over een paar jaar is het toch afgelopen, daar een ieder er lustig op los paft; vóór al het wild totaal van Java verdwenen is, willen wij nog een enkele trophée aan onze verzameling toevoegen'"<sup>205</sup>

As is illustrated by this quote, NIVN members thought conservation should be a state affair. The organization lacked the means to properly manage Ujung Kulon themselves and they thought their own members not stayed in the Dutch East Indies long enough to provide consistency in conservation. In the meantime, the colonial government and conservationists continued to blame the local population for the species decline, which strengthened their prejudices on the local population's 'improper' hunting practices on top of the prejudices against Chinese medicinal traditions.

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<sup>205</sup> Translation: "They start from the very understandable and also defensible point of view; "A hunting law, all right, but then the Government must also see to it that it is observed; in a few years it will be over, as everyone is shooting away lustily; before all the wildlife has completely disappeared from Java, we want to add a single trophy to our collection". Hamaker, 'Correspondence from J.Th. Hamaker to the Nederlandsche Commissie Voor Internationale Natuurbescherming', 5.

## Transforming Ujung Kulon's Conservation Regime

The 1930s should be regarded as a transitioning phase to the new conservation regime of Ujung Kulon that colonial authorities would implement from 1937 onwards. In this new conservation regime species protection became the priority of conservation, instead of the earlier goal of some sort of landscape preservation in the 1920s. The government justified this transition by the perceived importance and urgency of the protection of the Javan rhino within Ujung Kulon. The increased importance the government attributed to species protection enabled a more conservationist approach to their protection.

Ujung Kulon's new conservation regime was based on three nature protection ordinances that the colonial authorities had issued in the early 1930s: the 1931 Animal Protection Ordinance, the 1931 Hunting Ordinance and the 1932 Natural Monument and Wildlife Reserve Ordinance.<sup>206</sup> These ordinances formed the basis of the nature protection framework until at least the late 1950s and illustrate the rise of two interconnected developments in regard to the government's attitude towards species protection.

First of all, they show how the colonial authorities increasingly perceived species protection as an important objective for the protection of nature in the Dutch East Indies in general. Contrary to the 1924 ordinance, wildlife protection was issued as a separate topic from hunting in the 1931 ordinances, in the process gaining a more prominent position than before.<sup>207</sup> The 1931 Animal Protection Ordinance for the first time stressed the importance and urgency to protect those animal species "which are threatened with extermination [*met uitroeiing bedreigd worden*] and whose survival [*voortbestaan*] is desired out of scientific interest or are for other reasons of public interest".<sup>208</sup> This focus on the "threatened" status of species and their risk of "extermination" indicates an explicitly different standpoint from the government's attitude in previous ordinances. The government limited the list to twenty-two (groups of) animal species that were to be fully protected in the entire archipelago.<sup>209</sup> Although

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<sup>206</sup> Boomgaard, 'Oriental Nature', 14–16.

<sup>207</sup> 'Dierenbeschermingsordonnantie', in *Staatsblad van Nederlandsch-Indië* 1931, No. 134, 14 April 1931; 'Jachtordonnantie', in *Staatsblad van Nederlandsch-Indië* 1931, No. 133, 14 April 1931.

<sup>208</sup> 'Dierenbeschermingsordonnantie 1931'.

<sup>209</sup> Among the 22 listed groups of species were 8 (groups of) mammals, 13 (groups of) birds and 1 reptile. Another 7 (groups of) game species (mammals) were to be protected in the Outer

fewer species were formally protected than in the 1924 ordinance, the species who were listed received a more prominent status because they were among the prioritized. Therefore, it was possible for animals to receive the same status as a natural monument through the 1931 ordinances. Before, the emphasis on the scientific and otherwise public interest had only been put on the protection of natural monuments, of which the concept not really stretched far enough to be assigned to animal species.

The second development that can be observed was a change in the ways in which the colonial government envisioned the relationship between species and territory. The government introduced the new category 'wildlife reserve' in the 1932 ordinance. This meant park creation had become a means of exerting power over territory with the objective of species protection instead of the other way around. From now on, new protected areas could be established as either a natural monument or a wildlife reserve, depending on the objectives of protection. The government now explicitly connected the importance of protecting species as a natural resource (*natuurrijkdom*) within the boundaries of a reserve.<sup>210</sup> This had important political consequences. Formerly, the natural monument designation had not succeeded sufficiently in wielding power to enforce protective regulations in the area, but with the new park-species concept the government could legitimize enforcing stricter control. The introduction of the wildlife reserve category also signified the government's acknowledgement of conservation management, instead of preservation.

In regard to Ujung Kulon, the increased awareness of the need to improve the Javan rhino's protection enabled a change in the area's conservation regime. In 1937 the colonial government re-established the natural monument Ujung Kulon as a wildlife reserve, where conservation management was allowed. Colonial officials and experts had used evidence of alang alang burning and its possible impact on ruminant wildlife as leverage to prove the presence of 'poachers' in Ujung Kulon. However, the reserve's redesignation was authorized based on the situation of the Javan rhino, a species that spends most of its time in its preferred habitat of scrub jungle and heavy secondary forest instead of on these meadows.<sup>211</sup>

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Provinces from hunting activities as the 1931 Hunting Ordinance would for the time being only go into effect on Java and Madura.

<sup>210</sup> 'Natuurmonumenten- En Wildreservatenordonnantie', in *Staatsblad van Nederlandsch-Indië* 1932, No. 17, 15 January 1932.

<sup>211</sup> Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 109.

By redesignating Ujung Kulon as a wildlife reserve, the colonial government affirmed the species' scientific and public importance. The authorities further helped to reshape perceptions on the close relationship between the Javan rhino and Ujung Kulon; Ujung Kulon now derived its importance from the fact that the Javan rhino lived in its territory, opposed to when it was a natural monument. Therefore, the legitimacy of the reserve's existence depended first and foremost on the area's relationship with the endangered Javan rhino.

## Conclusion

The redesignation of the Natural Monument Ujung Kulon into the Ujung Kulon Wildlife Reserve in 1937 signifies the turning point in the transition towards a new conservation regime in regard to the park and the role of species protection within it. In the 1920s the original conservation regime had been based on preservationism, trying to protect the landscape without any further human interventions. As a result of this approach Ujung Kulon remained a paper park. The local authorities, who were to ensure supervision of Ujung Kulon, were in fact unable or unwilling to protect the peninsula against hunting activities. Nevertheless, conservationists of the NIVN, among others, were convinced nature protection should be a government affair and arranged top-down. In the meantime, the situation in Ujung Kulon deteriorated. As Hoogerwerf judged later, in the first period of Ujung Kulon's existence "there was no form of actual supervision, since any real management was lacking".<sup>212</sup> Indeed, in most of the 1920s and 1930s the government did not implement conservation measures to maintain the area or otherwise manage activities in and access to the area, but the local population used fire ecology in the meantime.

In the 1930s a transition took place in the approach to the protection of Ujung Kulon and the Javan rhino. Both the park and the species gained new meaning, not only because of the situation within the natural monument, but more importantly because of the local extinction of the Javan rhino in the rest of the Dutch East Indies. Government officials and conservationists increasingly valued Ujung Kulon because it harbored the last known population of a species that could go extinct, instead of because of its 'wilderness'. Although the series of animal protection ordinances had

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<sup>212</sup> Hoogerwerf, *Ujung Kulon. The Land of the Last Javan rhinoceros*, 15.



listed fewer and fewer species that needed to be safeguarded, the shorter lists had prioritized the Javan rhino and in the process lifted the position and importance of its protection compared to other species. Species protection ordinances on their own could have been a valid alternative to park creation when well executed and supervised. After all, species are mobile, and their habitat does not necessarily overlap with the manmade borders of protected areas. Nevertheless, the failure of the existing system to attempt to stop hunting activities in Ujung Kulon only through repressive measures brought about a more protectionist and preventative approach to its conservation. As will be discussed in the next chapter, the new conservation regime would pave the way for the exclusionary fortress conservation approach that would far exceed the Dutch colonial era.



*Figure 3 – Taxidermist and conservationist P.F. Franck and a tracker with a male rhino shot by Franck at the south coast of the regency Tasikmalaja by order of the Zoological Museum in Buitenzorg in 1934. Senior forester and conservationist F.J. Appelmann accompanied Franck in this hunting trip.*



*Figure 4 - Javan rhino shot in South Sumatra by J.C. Hazewinkel in 1928 and two of his trackers. J.C. Hazewinkel, A rhino-hunt in Sumatra, Java Gazette 1 (1932) 5, Supplement.*

## Chapter 3 – Ujung Kulon as a Fortress, 1937-1957

*"Oedjoeng Koelon is de laatste woonplaats op de geheele wereld van de Soend. neushoorn [Javan rhino] waardoor het één der voornaamste reservaten der geheele wereld kan worden genoemd en het belangrijkste van geheel deze Archipel"*<sup>213</sup>

In the last chapter, we have seen that the Dutch colonial government and conservationists attributed greater value to the protection of the Javan rhino in Ujung Kulon since the early 1930s. This conservation regime change culminated in the redesignation of Ujung Kulon as a wildlife reserve. This chapter analyzes why and how this new prioritization of species protection in park management has affected the practices of Ujung Kulon's governance and management, and the control of species and people within it, between 1937 and 1957. This process will be studied in the context of three different political phases: relative stability under Dutch colonial rule until 1942, two highly disruptive and contested political regime changes between 1942 and 1949 under Japanese rule and during the Indonesian War of Independence, and the balancing of a new postcolonial power equilibrium after Indonesian independence between 1949 and 1957.

In this chapter I assess why and how these different political phases witnessed some continuities in practices in regard to Ujung Kulon's conservation. The first section will discuss how Ujung Kulon's redesignation to wildlife affected the expansion of the protected area's territory and the implementation of protective measures within its bounds and in regard to specific species and groups of the population between 1937 and 1942. Secondly, I will discuss why Dutch colonial official and conservationist Andries Hoogerwerf was able to navigate the opportunities and tensions of the Second World War and the Indonesian War of Independence between 1942 and 1949 to promote a continuation of colonial conservation practices. Lastly, I will discuss why the renegotiation of these colonial conservation practices did not bring an end to the

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<sup>213</sup> Translation: "Ujung Kulon is the last dwelling place in the whole world of the Sund. Rhinoceros [Javan rhino], which makes it one of the most important reserves of the whole world and the most important one of this entire Archipelago." A. Hoogerwerf, 'Lezing Natuurbescherming', 8 February 1941, 8, inv. nr. 28, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

Dutch conservationist influence on Ujung Kulon's conservation regime. Although the colonial conservation model was not reimplemented to the extent it had been before the 1940s wars, the park-species conservation regime still formed the basis of Ujung Kulon's conservation regime and thoroughly influence the way in which conservation occurred.

## Coercive Conservation

The protection of animal species, especially that of the Javan rhino, was the primary management objective of the colonial government after Ujung Kulon's redesignation into a wildlife reserve. The consequence of this species prioritization was the implementation of a fortress conservation model. Fortress conservation is often defined as a protectionist and exclusionary conservation model based on the belief that nature protection can be achieved best by creating protected areas where ecosystems can function without any human disturbances.<sup>214</sup> This definition not sufficiently recognizes how governmental institutes used fortress conservation as a biopolitical strategy to limit human disturbances of specific local communities, not human disturbances in general. Fortress conservation is considered to be an oppressive and coercive mechanism that governments used to dispossess local communities, while allowing, for example, tourism or scientific activities.<sup>215</sup> The definition also not sufficiently recognizes how fortress conservation could also include wildlife conservation, rather than the preservationist approach that is suggested in this definition.

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<sup>214</sup> Amita A. Doolittle, 'Fortress Conservation', in *Encyclopedia of Environment and Society*, ed. Paul Robbins (London: SAGE Publications, 2007), 704–5; Dan Brockington, *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*, African Issues (Oxford, Dar es Salaam, Bloomington & Indianapolis: The International African Institute in association with James Curry, Mkuki Na Nyota & Indiana University Press, 2002); Worboys et al., *Protected Area Governance and Management*.

<sup>215</sup> See for example, M.D. Spence, *Dispossessing the Wilderness: Indian Removal and the Making of National Parks* (New York & Oxford: Oxford University Press, 1999); Brockington, *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*; Gissibl, Höhler, and Kupper, *Civilizing Nature*; Jevgeniy Bluwstein, 'Colonizing Landscapes/Landscaping Colonies: From a Global History of Landscapism to the Contemporary Landscape Approach in Nature Conservation', *Journal of Political Ecology* 28, no. 1 (2021): 1-23 (Preprint), <https://doi.org/10.2458/jpe.2850>.

Keeping these notes in mind, the concept of fortress conservation is still useful as an analytical concept to study how species protection has altered Ujung Kulon's governance and management. Three main characteristics of fortress conservation will be discussed in this section: 1) the enforcement of protection by park rangers patrolling the reserve's boundaries (also known as the 'fines and fences' method, referring to the restrictive measures to keep locals out of the park), 2) the exclusion of the local population dependent on the natural resource base of the area, and 3) the recognition of only scientific research, safari hunting and tourism as appropriate activities within protected areas.<sup>216</sup> An analysis of these three aspects illustrates how the colonial authorities used the entangled park-species conservation regime of Ujung Kulon as a legitimization to enforce power over people, species and territory through fortress conservation. The implicit political rationalities behind this fortress conservation approach have thoroughly affected the conservation practices that were instigated in Ujung Kulon.

### ***Fines and Fences method***

The 'fines and fences' method is the most explicit and tangible characteristic of fortress conservation. The Forest Service and Botanical Garden functioned as biopolitical and territorial institutes in which the colonial authorities institutionalized this fortress conservation approach to Ujung Kulon and the Javan rhino. The 'fines and fences' method especially illustrates how the conservation instruments of species prioritization and park creation functioned as mutually enforcing technologies of government to control the movement of people and animals in territory.

With the 1932 ordinance, the colonial government further centralized the governance and management of nature protection. The authorities transferred the governance responsibility and authority over Ujung Kulon from the heads of local administration to the Forest Service.<sup>217</sup> The Forest Service thus held the executive power over Ujung Kulon and was to manage and guard the reserve, while the resident of Bantam was in charge of supervising its governance. The government might have transferred this authority based on the perception that the Forest Service, as a full civil

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<sup>216</sup> Doolittle, 'Fortress Conservation'.

<sup>217</sup> W.C.R. Schnepper, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1938 Boschdistrict Bantam' (Buitenzorg, 2 March 1939), inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

service department, was better equipped to carry out conservation practices as part of their other responsibilities than the more independent local authorities. Through the Forest Service, the colonial government would have greater control of Ujung Kulon's conservation. This was considered to bring about better results in protecting the Javan rhino. This centralization shows the greater value the authorities attributed to the institutionalization of the Javan rhino's protection. It also shows how the colonial government justified their increase in authority and control over Ujung Kulon's territory through species protection, and how this affected the management of the reserve.

Conservationist-scientists thoroughly influenced the colonial government with ideas on how and by whom species should be protected in Ujung Kulon. The Forest Service and Botanical Garden legitimized the implementation of exclusionary 'fines and fences' conservation measures in Ujung Kulon through the scientization of the Javan rhino's protection. The prioritization of the Javan rhino thus affected how park management was executed within the reserve. The Botanical Garden embodied the 'scientific expertise' that influenced the decision-making on Ujung Kulon's conservation management. As discussed in the last chapter, non-western epistemologies and practices were often discarded as 'irresponsible' management in this line of thinking. To a great extent the Forest Service took advice from Botanical Garden employees, especially from its nature conservation officer, the Zoological Museum staff and its director. In 1937, Andries Hoogerwerf was appointed as the first nature conservation officer of the Dutch East Indies at the Botanical Garden in Buitenzorg.<sup>218</sup> Although his non-academic background sometimes led to tensions between other experts at the Botanical Garden, Hoogerwerf gained authority through his extensive field work and experience in Ujung Kulon until the Second World War.<sup>219</sup> Especially in regard to Ujung Kulon, Hoogerwerf would fulfil a crucial position in managing the reserve and promoting its conservation until he left Indonesia in 1957.

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<sup>218</sup> *Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1938); C.G.G.J. van Steenis, ed., *Album van Natuurmonumenten in Nederlandsch-Indië*, Album Serie 2 (Batavia: Nederlandsch-Indische Vereeniging tot Natuurbescherming, 1937); Nederlandsch-Indische Vereeniging tot Natuurbescherming, *3 Jaren Indisch Natuurleven: Opstellen over Landschappen, Dieren En Planten, Tevens Elfde Verslag (1936-1938)* (Batavia: Drukkerij Visser & Co, 1939).

<sup>219</sup> A. Hoogerwerf, 'Proposal to Make an Official Journey to the Naturemonuments Pangrango-Gede and Poelau Doewa and the Game Reserve Oedjoeng Koelon' (15 September 1943), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

The authorities and institutes rationalized species protection by creating a system of control to monitor and regulate the Javan rhino population and the access and activities of people within the reserve. The institutes legitimized these measures by stressing that the Javan rhino's rareness and extinction risk warranted stricter regulations (Hoogerwerf estimated only 20-25 rhinos were left in the reserve at the time).<sup>220</sup> The authorities attempted to counter problems in enforcing biopolitical control and protection of the Javan rhino by increasing territorial control. The Javan rhino's situation was thus used as a legitimization for establishing physical presence and surveillance in Ujung Kulon. The Forest Service increased surveillance of Ujung Kulon by constructing a guarding system and infrastructure within the reserve, based on Hoogerwerf's advisory reports (See Figure 5).<sup>221</sup> This system replaced a provisional station of five 'field police' (*veldpolitie*) guards that had already been set up by Ligtvoet on the isthmus of the peninsula in 1936.<sup>222</sup> Between 1937 and 1941, patrol routes, bivouacs and permanent guard stations were established in or just outside the reserve and 'escape trees' (*vluchtboomen*) were made along the patrol route in case guards were attacked by tigers or rhinos. The Forest Service also drafted an 'efficient guarding plan' (*doelmatig bewakingsplan*) for species protection in the reserve, based on Hoogerwerf's advice. The government also officially closed public access to Ujung Kulon in consultation with the Botanical Garden and Forest Service.<sup>223</sup>

The other way around, the authorities countered issues of territorial control with biopolitical regulations of both species and people, also justified by the importance of protecting the Javan rhino. Although the measure proved to be impracticable, the Botanical Garden considered physically closing Ujung Kulon off with fences to influence the Javan rhino's behaviour and mobility.<sup>224</sup> This would prevent Javan

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<sup>220</sup> J.H. Becking, 'Voorstel Voor de Bewaking van Het Wildreservaat Oedjoeng-Koelon', Appendix to Letter to the Director of Economic Affairs and the Director of the Botanical Garden, 'Bewaking Wildreservaat Oedjoengkoelon' (Buitenzorg: Forest Service, 1 August 1938), 2, inv. nr. 41, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>221</sup> Ligtvoet, 'Rapport Betreffende de Neushoornstrooperijen', 17–18.

<sup>222</sup> Ligtvoet, 17–18.

<sup>223</sup> Administrateur, Hoofd v/d Centrale Dienst, 'Besluit van Den Directeur van Economische Zaken, No. 10040/BW/H.I.', 7 February 1938, inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>224</sup> T.H. van den Honert to Directeur van Economische Zaken, 'Inzake de Bewaking van Het Wildreservaat Oedjoeng-Koelon', 3 December 1940, inv. nr. 39, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

rhinos crossing Ujung Kulon's borders and being shot outside the reserve.<sup>225</sup> The Forest Service and Botanical Garden also wanted to supervise the movement and activities of the Ujung Kulon personnel. The staff was for example obliged to keep track of a pocket notebook, or 'diary', in which to log the work they had carried out, the wildlife they had encountered and the like.<sup>226</sup> The authorities also set up a watchclock system (*contrôleklok*) and distributed the watchclock's keys along the patrol route, which supervisors could use to check if, when and where guards had actually patrolled.<sup>227</sup> According to Hoogerwerf, this system "was considered to be an essential aspect of the planned surveillance" within the park.<sup>228</sup> The fact that surveillance of staff was also considered a necessary measure can be explained by the authorities' distrust of the often indigenous employees.<sup>229</sup> This distrust was both based on the authorities' personal perceptions on the staff's disposition as well as on previous difficult experiences with employees.<sup>230</sup> These accusations against employees might have been exaggerated, based on cultural differences, or not even valid at all, but they show how the alleged mismanagement negatively influenced the authorities' sentiments towards their personnel. These sentiments against the staff might have also hardened their opinions on how to treat the local population surrounding Ujung Kulon as discussed in the following section.

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<sup>225</sup> Honert to Directeur van Economische Zaken.

<sup>226</sup> M. Hoek, 'Reglement Voor Het Wildreservaat Oedjoengkoelon. Deel II: Voorschriften Voor Den Opzichter En Het Overig Bewakingspersoneel van Het Wildreservaat Oedjoengkoelon' (Houtvester van Bantam, Dienst van het Boschwezen, Serang, 25 April 1940), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>227</sup> M. Hoek, 'Reglement Voor Het Wildreservaat Oedjoengkoelon. Deel I: Geheime Voorschriften Voor de Opzichter' (Houtvester van Bantam, Dienst van het Boschwezen, Serang, 25 April 1940), inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Hoek, 'Reglement Voor Het Wildreservaat Oedjoengkoelon. Deel II: Voorschriften Voor Den Opzichter En Het Overig Bewakingspersoneel van Het Wildreservaat Oedjoengkoelon'; Schnepper, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1938 Boschdistrict Bantam'.

<sup>228</sup> Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 19.

<sup>229</sup> This especially appears from correspondence between Hoogerwerf, M. Hoek (Forester of Bantam, Forest Service) and A. Pfanstiehl (manager of the Tjikudjang rubber estate near Ujung Kulon), see: NL-HaNA, Archive A. Hoogerwerf (2.21.281.27), inv. nr. 19.

<sup>230</sup> W.C.R. Hoek, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1939 Boschdistrict Bantam' (1940), Archief Andries Hoogerwerf (2.21.281.27), Nationaal Archief; Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 19.





### ***Exclusion of local people***

The role of conservation in the forced relocation, dispossession and the deprivation of livelihoods of local populations has been the subject of various conservation histories and is still the subject of conservation studies today.<sup>231</sup> With the ‘fines and fences’ method the authorities implemented this second characteristic of the fortress conservation model. The colonial government marginalized the legitimacy of the local population’s interests, practices and beliefs compared to those of the Dutch and foreign elites. The local population surrounding Ujung Kulon was practically excluded from any rights or participation within the reserve, unless they were in some way employed by the Forest Service. However, even under employment colonial officials looked down on them. The authorities only used the fortress conservation model to limit the disturbances of native local communities, not those of, for example, Dutch government officials, institutes or scientists.

This double standards approach can be illustrated, for example, by the government’s perception on illegitimate hunting by either natives or Europeans. Native hunters were punished more severely than their Dutch counterparts, if Dutch hunters were punished at all.<sup>232</sup> In one case, Hoogerwerf had to lobby extensively with conservationists of the NIVN in high government positions and with various colonial officials to make sure a Dutch hunter who had illegitimately shot Javan rhinos in Ujung

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<sup>231</sup> N.L. Peluso, ‘Coercing Conservation? The Politics of State Resource Control’, *Global Environmental Change* 3, no. 2 (1993): 199–217; Spence, *Dispossessing the Wilderness: Indian Removal and the Making of National Parks*; Brockington, *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*; M. Dowie, *Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples* (Cambridge, Massachusetts: MIT Press, 2009); C.J. Griffin, R. Jones, and I.J.M. Robertson, eds., *Moral Ecologies: Histories of Conservation, Dispossession and Resistance*, Palgrave Studies in World Environmental History (Cham: Palgrave Macmillan, 2019); D. Brockington and J. Igoe, ‘Eviction for Conservation: A Global Overview’, *Conservation & Society* 4, no. 3 (2006): 424–70; T.A. Benjaminsen and I. Bryceson, ‘Conservation, Green/Blue Grabbing and Accumulation by Dispossession in Tanzania’, *The Journal of Peasant Studies* 39, no. 2 (2012): 335–55; C.A. Loperena, ‘Conservation by Racialized Dispossession: The Making of an Eco-Destination on Honduras’s North Coast’, *Geoforum* 69 (2016): 184–93; V.R. Kamat, ‘Dispossession and Disenchantment: The Micropolitics of Marine Conservation in Southeastern Tanzania’, *Marine Policy* 88 (2018): 261–68.

<sup>232</sup> A. Hoogerwerf to J.R. van Beusekom (Resident van Bantam), ‘Gratie-Rekest Ingediend Door Den Heer Maagdenberg’, Buitenzorg, 16 August 1939, inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); A. Hoogerwerf, ‘Letter to Jhr. Mr. G.F.H.W. Rengers Hora Siccama, Secretary of the Volksraad and Secretary of the NIVN, on the Maagdenberg Case.’, Buitenzorg, 23 May 1939, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

Kulon was punished at all to set an example.<sup>233</sup> What is striking, is that Hoogerwerf later asked this imprisoned Dutchman, called Maagdenberg, if he would be interested in a job as superintendent of another wildlife reserve after his release, be it under some supervision. On this seemingly paradoxical matter of employing convicted ‘poachers’ for a wildlife protection cause, Hoogerwerf stated:

“Ik ben van meening, dat typen als Maagdenberg de aangewezen krachten zijn voor de bewaking van wildrijke gebieden en zulke kerels vindt men bijna uitsluitend onder de broodjagers en stroopers. Ook de tegenwoordige opzichter van het reservaat [Ujung Kulon], Verduyn Lunel, was een strooper. [...] dit is ook het geval met een aantal bosch architecten en weidelijke jagers, die van stroopers en clandestiene jagers tot wildbeschermers werden omgeschakeld en onze beste krachten zijn in den strijd tegen de strooperij.”<sup>234</sup>

The Maagdenberg-case thus illustrates how the authorities applied double standards to the different perceived role that Dutch and native hunters could play in the protection of Ujung Kulon and the way in which they should be disciplined.

The implicit rationality behind the exclusion of local communities was that the authorities valued the Javan rhino more than the rights of the local population. This mentality was influenced by conservationists’ and the colonial authorities’ perception of the local population as the main threat to the Javan rhino’s existence. The colonial government, the Forest Service and the Botanical Garden legitimized greater control over local residents and their use of natural resources in Ujung Kulon by securitizing the Javan rhino’s situation. As mentioned earlier, through this securitization conservation authorities framed species protection as a security issue, which warranted immediate action to limit the Javan rhino’s threat. The colonial government

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<sup>233</sup> A. Hoogerwerf, ‘Letter to Mr. Muller, Commander of the Field Police in Menes, on the Maagdenberg Case’, Buitenzorg, 14 May 1939, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>234</sup> Translation: “I am of the opinion that figures such as Maagdenberg are the appropriate forces for the guarding of game rich areas and such fellows are found almost exclusively among the professional hunters and poachers. The present overseer of the reserve [Ujung Kulon], Verduyn Lunel, was also a poacher. [...] this is also the case with a number of foresters and pasture hunters, who have been converted from poachers and clandestine hunters to game preservers and are our best forces in the fight against poaching”. Hoogerwerf to Beusekom (Resident van Bantam), ‘Gratie-Rekest Ingediend Door Den Heer Maagdenberg’, 16 August 1939.

used this security narrative to legitimize the withdrawal of all firearm permits of people living in the vicinity of Ujung Kulon and confiscating their ‘illegitimate’ weapons.<sup>235</sup> The Botanical Garden staff approved this measure and the Garden’s director at the time, T.H. van den Honert, even advocated with the colonial government to not give the confiscated weapons back to the population:

“[...] zou het ook dzz. [dezerzijds] op hoogen prijs worden gesteeeld wanneer door UHEG. [the Director of Economic Affairs] bij den Gouverneur van West-Java stappen zouden kunnen worden ondernomen om teruggave van de ingenomen geweren te verhinderen. Reeds enkele malen heb ik gewezen op het groote gevaar dat schuilt in het feit, dat zich ongetelde hoeveelheden vuurwapens in handen van de Inheemsche bevolking bevinden en dat het in onze strijd tegen de clandestiene jacht als een eerste vereischte moet worden gezien, dat een groot gedeelte dier geweren aan het bezit der bevolking wordt onttrokken, hetgeen wel in het bijzonder geldt voor de nabij Oedjoeng-Koelon gelegen districten.”<sup>236</sup>

The quote does not show to what extent the authorities eventually enforced the control of the communities surrounding Ujung Kulon. This approval does exemplify how scientists actively contributed to the framing of locals as a security threat to extend control over the activities of people in Ujung Kulon’s territory in name of species protection. To the same end, the Forest Service extensively used a system of “spies” around Ujung Kulon to gather intelligence on especially rhino hunting activities by local residents.<sup>237</sup> The fact that these authorities denoted the local informants as ‘spies’

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<sup>235</sup> J.R. van Beusekom (Resident van Bantam) to L.G.C.A. van der Hoek (Gouverneur van West-Java) and (Doordruk) H.J. van Mook (Directeur van Economische Zaken), ‘Inzake Clandestiene Jacht Op Een Neushoorn in Het Wildreservaat Oedjoeng Koelon’, 10 November 1939, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>236</sup> Translation: “It would also be highly prized when by UHEG. [Director of Economic Affairs] steps could be taken with the Governor of West Java to prevent the return of the seized guns. I have already pointed out on a number of occasions the great danger that lies in the fact that countless quantities of firearms are in the hands of the indigenous population and that in our fight against clandestine hunting it must be seen as a first requirement that a large part of those guns are withdrawn from the possession of the population, which is especially true of the districts near Ujung Kulon”. Honert to Directeur van Economische Zaken, ‘Inzake de Bewaking van Het Wildreservaat Oedjoeng-Koelon’, 3 December 1940.

<sup>237</sup> This was an expansion and institutionalization of a provisional “espionage system” already set up by the colonial officials De Kanter and Ligtoet between 1932 and 1936. Hoek, ‘Reglement Voor Het Wildreservaat Oedjoengkoelon. Deel I: Geheime Voorschriften Voor de

illustrates how they perceived and framed the population as an enemy to the Javan rhino's protection. In a way, this reflected a general tendency in the colonial government's perception of the local population in this period.

As a consequence of this mentality, the authorities increased efforts to restrict the local population's access to the reserve and intensify regulations that disproportionately affected the local population's livelihood. As a "security measure" (*bewakingsmaatregel*), it became prohibited to gather edible nests or collect nipa palm in Ujung Kulon, and the authorities began to deny pilgrimage requests to the area.<sup>238</sup> The government also officially forbid hunting methods often used by locals, such as the use of snares and fallpits or the use of fire ecology for hunting purposes.<sup>239</sup> The Forest Service also aimed to increase territorial control over Ujung Kulon by expanding the boundaries of the reserve into the sea. This would deny local fisherman access to Ujung Kulon's coastal waters, which colonial officials thought played a significant role in 'poaching' activities within the reserve.<sup>240</sup> This proposal of protecting a terrestrial animal by controlling marine areas illustrates the powerfulness of the park-species approach in this period and the conservationists' perceived threat of the local population.

### ***Tourism, recreational hunting and scientific activities***

The increased entanglement between science and conservation, and the legitimacy attributed to scientific expertise in conservation matters since the 1930s has been discussed in the previous chapters. In the course of the 1930s and early 1940s, scientists and conservationists gained a position as advisors at the conservation policy negotiating table. After Ujung Kulon's redesignation, the authorities practically only allowed 'scientific' activities in the reserve. This new position of scientists altered the governance of Ujung Kulon and the way in which conservation was executed in the

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Opzichter'; Hoek, 'Reglement Voor Het Wildreservaat Oedjoengkoelon. Deel II: Voorschriften Voor Den Opzichter En Het Overig Bewakingspersoneel van Het Wildreservaat Oedjoengkoelon'; Kanter, 'Verslag van 1933 Nopens Het Natuurmonument Oedjoengkoelon'; Ligtoet, 'Rapport Betreffende de Neushoornstrooperijen', 2, 18.

<sup>238</sup> Schnepper, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1938 Boschdistrict Bantam', 3; Hoek, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1939 Boschdistrict Bantam'.

<sup>239</sup> 'Jachtordonnantie 1931'; 'Voorschriften Ter Uitvoering van de Jachtordonnantie', in *Staatsblad van Nederlandsch-Indië* 1931, No. 265, 30 June 1931.

<sup>240</sup> Hoek, 'Jacht, Dierenbescherming En Natuurmonumenten Enz. 1939 Boschdistrict Bantam'.

reserve. The Botanical Garden, as scientific institute, gained more privileges and influence. The government had, for example, officially acknowledged the authority of the Zoological Museum, a subdivision of the Botanical Garden, in the new 1931 and 1932 ordinances by stating that the museum could display or study animals that had been confiscated by the authorities.<sup>241</sup> The Forest Service and the Garden's nature conservation officer Hoogerwerf had scientized fire ecology and implemented the practice in the park's management. The authorities previously considered those who used this technique to be 'poachers', but now they used it as a 'best practice' conservation measure for the protection of grazing species in Ujung Kulon. This illustrates how conservation was used to take over control of Ujung Kulon's territory rather than necessarily change conservation practices, as long as these practices were framed as science-based measures and executed by government officials and institutes.

The new importance attributed to science and expertise also led to increased tensions around perceptions on the distinction between 'scientists' and 'amateurs'. This can be illustrated by a dispute on who could publish a monograph on the Javan rhino first; Hoogerwerf under the auspices of the NIVN, or the academically schooled H.J.V. Sody under the auspices of the Botanical Garden. The essence of the conflict was based on their academic education and the type of research both men used, respectively field- or academic research.<sup>242</sup> According to Hoogerwerf the subordination of his work was only based on the fact that the Botanical Garden focused on the prestige of academic education, which he himself, as opposed to Sody, had not received:

"N.m.b.m. [naar mijn bescheiden mening] is de grootste handicap voor een bevredigende oplossing de grens, die men door dik en dun wenscht getrokken te zien tusschen de academisch en niet-academisch opgeleide krachten ook al werken de laatsten met ongekennde energie en al beschikken zij over alle capaciteiten, die je op de plaatsen welke ze innemen noodig hebben."<sup>243</sup>

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<sup>241</sup> 'Jachtordonnantie 1931'; 'Dierenbeschermingsordonnantie 1931'; 'Natuurmonumenten- En Wildreservatenordonnantie 1932'; 'Jachtordonnantie 1924'.

<sup>242</sup> A. Hoogerwerf to T.H. van den Honert, 'Letter on H.J.V. Sody and His Monograph on the Javan rhino', Buitenzorg, 4 January 1941, Archief Andries Hoogerwerf (2.21.281.27), Nationaal Archief.

<sup>243</sup> Translation: "N.m.b.m. [in my humble opinion] the greatest handicap to a satisfactory solution is the boundary which one wishes to see drawn through thick and thin between the academically and non-academicly trained forces, even though the latter work with unprecedented energy and possess all abilities, which you need in the places where this is

As this quote only portrays Hoogerwerf's vision on the matter, it is not certain to what extent the Botanical Garden valued academic research over field research. However, the clash seems to have represented a conflict of interest between the Botanical Garden, as prominent scientific institute, and the role of the NIVN as nature conservation organization that was still seeking more recognition and influence.<sup>244</sup> The Botanical Garden had the upper hand and Sody published his work in 1941, with the NIVN as one of the main financial sponsors, probably as the negotiated outcome of the dispute between the institute and the organization.<sup>245</sup>

The scientization and securitization of the Javan rhino's protection and Ujung Kulon's management explains why hunting and tourism were not regarded as appropriate activities just after the reserve's redesignation to wildlife reserve. It remains unclear if the colonial government still issued licenses or otherwise gave permission to shoot wildlife in Ujung Kulon in this period. Nevertheless, scientists did not consider the population number of Javan rhinos and, to a lesser extent, banteng abundant enough to allow for disturbances through hunting and recreation. On their advice, the government had officially closed Ujung Kulon to the public because of the Javan rhino's situation, which seems to suggest touristic activities or recreational hunting were not allowed. However, scientists and the government seem to have considered to allow public access in the future, if wildlife populations would be stable.

In 1941 the government proposed to change the category name from 'wildlife reserve' to 'nature park' (*natuurpark*).<sup>246</sup> This meant the authorities could permit a greater level of access to Ujung Kulon for recreational purposes. Although before 1942 Ujung Kulon remained 'closed', its park category suggested authorities considered opening up the reserve in the future. Hoogerwerf, for example, was not principally

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necessary". Hoogerwerf to Honert, 'Letter on H.J.V. Sody and His Monograph on the Javan rhino', 4 January 1941.

<sup>244</sup> G.F.H.W. Rengers Hora Siccama and A. Hoogerwerf, 'Letter to Hoogerwerf on Sody's Monograph of the Javan Rhino', 16 April 1941, 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>245</sup> H.J.V. Sody, *De Javaanse Neushoorn, Rhinoceros Sondaicus, Historisch En Biologisch* (Buitenzorg: Archipel Drukkerij en 't Boekhuis, 1941).

<sup>246</sup> Due to the outbreak of the Second World War, the 1941 ordinance was never implemented. 'Natuurbeschermingsordonnantie', in *Staatsblad van Nederlandsch-Indië 1941*, No. 167, 13 June 1941; Arnscheidt, 'Debating' *Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, 97.

against tourism or recreational hunting in Ujung Kulon, even on Javan rhinos, on the condition that their number was sufficient enough and that access was only provided to “self-respecting hunters” (*weidelijke jagers*).<sup>247</sup>

Between 1937 and 1942, the redesignation of Ujung Kulon into a wildlife reserve had thus enabled the implementation of a fortress conservation regime, including ‘fines and fences’ measures that were largely aimed at excluding the local population from the reserve. The way in which the colonial government, the Forest Service and the Botanical Garden executed the fortress conservation model shows how the park-species conservation approach was used to justify and alter the way in which protectionist measures were implemented in Ujung Kulon, mainly to protect the Javan rhino. In the process, the colonial government practically only allowed acknowledged experts to execute scientifically based activities in Ujung Kulon. The outbreak of the Second World War, however, soon shook up the system that had just been build up.

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<sup>247</sup> A. Hoogerwerf to J.Th Hamaker, ‘Letter on the NIVN’s Opinion of the Relationship between Recreational Hunting and Nature Protection’, Buitenzorg, 25 May 1939, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).



## Political Regime Change & Conservation (Dis)continuity

The period between 1942 and 1949 was characterized by two political regime changes and the contestation of hegemonic power. The first regime change took place in the context of the Second World War, when Japanese forces formally occupied Java in March 1942 after a few months of invasion.<sup>248</sup> The Dutch authorities had surrendered and part of the colonial government went into exile in Australia, while the Dutch government in the Netherlands was in exile in London.<sup>249</sup> A second regime change took place when Sukarno and Mohammad Hatta made use of the political power vacuum after Japanese capitulation on the 15<sup>th</sup> of August 1945 to proclaim the independent Republic of Indonesia.<sup>250</sup> The Dutch governments in exile contested the proclamation and send armed forces to Indonesia, which ignited the first decolonization war of the post 1945-period. The entire 1940s were therefore characterized by political power struggles between former colonial Dutch authorities, Japanese forces and Indonesian nationalists.

These struggles over political authority were also the main characteristic of nature protection in the Dutch East Indies during the 1940s. The territorialization and biopolitical strategies the authorities exerted over Ujung Kulon through fortress conservation were both disrupted and continuous during the Second World War and the Indonesian War of Independence. In these sections, I will therefore focus on how Dutch conservationists navigated the tensions that the political regime changes brought about in an attempt to enforce a continuation of the fortress conservation practices in Ujung Kulon and why this succeeded. This also raises the question why conservationists could exploit new opportunities that occurred due to the political instability and how they faced new challenges. I will primarily focus on how Hoogerwerf navigated the political turmoil to promote the continuation of Ujung Kulon's fortress conservation regime, because he remained active as nature conservation officer in most of the 1942-1949 period.

The source material of this period shows some gaps compared to previous periods discussed in this thesis. One explanation for this gap is the fact that Hoogerwerf's family burned some archival material after his death on his instigation, including

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<sup>248</sup> Cribb, *Historical Atlas of Indonesia*, 150–55.

<sup>249</sup> Vickers, *A History of Modern Indonesia*, 90, 100.

<sup>250</sup> B.R.O. Anderson, *Java in a Time of Revolution: Occupation and Resistance, 1944-1946* (Ithaca & London: Cornell University Press, 1972), 67–68.

material on this period.<sup>251</sup> For the purpose of this research, the sources that were deliberately saved for archival purposes can be used to reconstruct the visions Hoogerwerf wanted to bring across about the nature protection efforts during the wars. The sources thus reflect a mentality behind the conservation regime that Hoogerwerf strove to reimplement, not necessarily the actual situation of Ujung Kulon and the Javan rhino. Hoogerwerf's political and ideological considerations, and his vision on the impact of a decade of wars on Ujung Kulon's conservation, will be the main focus of this section because of the prominence of power struggles in this period. The specific functioning of Ujung Kulon's management itself will not be discussed.

### ***In-between Occupier and Occupied***

The Japanese involvement in the Second World War disrupted the Dutch colonial system of power in the Dutch East Indies.<sup>252</sup> After the Dutch surrender to Japanese occupation of the Dutch East Indies on the 9<sup>th</sup> of March 1942, the Japanese authorities set up various internment camps for Dutch citizens and prisoners of war.<sup>253</sup> All former Dutch officials and civil servants concerned with the protection of Ujung Kulon were interned, which some of them did not survive.<sup>254</sup>

The new Japanese regime continued to acknowledge the authority of scientists and the importance of their expertise and allowed some former Dutch officials of the

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<sup>251</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*; Becking, 'The Bartels and Other Egg Collections from the Island of Java, Indonesia, with Corrections to Earlier Publications of A. Hoogerwerf'; Pelzers, 'Geschiedenis van Het Archiefbeheer'.

<sup>252</sup> For more visualizations and information on Japanese invasion and administration, see for example Cribb, *Historical Atlas of Indonesia*, 150–55; Vickers, *A History of Modern Indonesia*, 90–91.

<sup>253</sup> Vickers, *A History of Modern Indonesia*, 90.

<sup>254</sup> The Botanical Garden's interim director Th. Van den Honert was sent to work on the Burma Railway. The foresters M. Hoek (responsible for Ujung Kulon's management) and F.J. Appelman (active NIVN member) were interned on Java. Others, like A. Pfanstiehl (honorary police function to protect Ujung Kulon), Jhr. Mr. G.F.H.W. Rengers Hora Siccama (Volksraad secretary and active NIVN member) and J.R. van Beusekom (Resident of Bantam concerned with Javan rhino's situation) died in an internment camp, during overseas transport or due to war violence. For more information, see for example the register of Japanese internment cards at the Dutch National Archives website, the lists of war casualties at [www.oorlogsgravenstichting.nl](http://www.oorlogsgravenstichting.nl), the internment lists at [www.japansekrijgsgevangenkampen.nl](http://www.japansekrijgsgevangenkampen.nl) and [www.japanseburgerkampen.nl](http://www.japanseburgerkampen.nl) or the lists of the interned Dutch population in the archives of the Dutch Red Cross (Dutch National Archives, 2.19.275). Sometimes, conservationists also mentioned the internment of colonial officials in publications or reports reflecting on this period.

Botanical Garden and the Department of Agriculture more freedom of movement than other interned Dutch civilians. These Dutch scientists were interned at camp Kedoeng Halang (also known as Kamp Beatrix) in Buitenzorg, from where they had to continue their work at the laboratories of the Botanical Garden and the Department of Agriculture.<sup>255</sup> The reason for their semi-internment might be that both institutes seem to have been important for the success of the Japanese war effort, as Japanese forces relied heavily on the exploitation of Indonesian natural resources and food production.<sup>256</sup>

Hoogerwerf was among those who were reappointed and interned at Kedoeng Halang, although it is unclear why he was selected for this position.<sup>257</sup> He continued to work closely with the new Japanese authorities at the Garden, mostly under the management of botanist Takenoshin Nakai. Hoogerwerf was able to continue his advisory role in Ujung Kulon's management and he was able to keep some freedom of movement.<sup>258</sup> Although it remains unclear why or how Hoogerwerf was able to enjoy these privileges, something can be said about how he navigated the new web of power relations that had emerged. Hoogerwerf assumed different roles to use his position in the new political situation to his advantage and to promote the continuation of Ujung Kulon's fortress conservation regime.

Hoogerwerf actively portrayed himself and the Botanical Garden as 'the' experts of Ujung Kulon's conservation to the Japanese authorities, instead of the Forest

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<sup>255</sup> Among the personnel that continued their work were also H.J.V. Sody, whose dispute with Hoogerwerf was discussed earlier in this thesis, and the botanist and NIVN member C.G.G.J. van Steenis. Nationaal Archief, Den Haag, Het Nederlandse Rode Kruis - Informatiebureau: lijsten, berichten en radiogrammen met betrekking tot Nederlands-Indië, access number 2.19.275, inv. Nr. 1293, 'Aanwezigenlijst Beatrix en Kedoeng Halang opvangkampen, Buitenzorggemaakt op basis van gegevens van NIRK binnengekomen op het Informatiebureau op 27-2-1946 betreffende 141 personen in Buitenzorg'; Steenis-Kruseman, *Verwerkt Indisch Verleden*.

<sup>256</sup> Arnscheidt, *'Debating' Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, 97.

<sup>257</sup> NL-HaNA, Het Nederlandse Rode Kruis – Informatiebureau, 2.19.275, inv. nr. 1293, 'Aanwezigenlijst Beatrix en Kedoeng Halang opvangkampen'.

<sup>258</sup> J.H. Becking, son of the former head of the Forest Service, accused Hoogerwerf of stealing (parts of) collections, reports and notes of other Botanical Garden scientists in this period due to Hoogerwerf's freedom of movement, and publishing about them as his own findings. A. Hoogerwerf, 'Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting', *Natuurwetenschappelijk Tijdschrift Voor Nederlandsch-Indie* 102, no. 9 (December 1946): 205–8; Becking, 'The Bartels and Other Egg Collections from the Island of Java, Indonesia, with Corrections to Earlier Publications of A. Hoogerwerf'.

Service, in order to increase his influence on the area.<sup>259</sup> Due to his former position as nature protection ‘expert’, Hoogerwerf was able to convince the Japanese authorities to visit the reserve three times in September and October 1942 and in January 1943, sometimes together with Japanese officials or Indonesian Forest service staff.<sup>260</sup> Hoogerwerf lobbied with the Japanese authorities for the continuation of Ujung Kulon’s protection based on the importance of protecting the Javan rhino from “total extermination”.<sup>261</sup> The extent of Hoogerwerf’s influence could not be entirely reconstructed. What became evident, however, was that Nakai personally urged the Forest Service to maintain the existing management and infrastructure in the reserve and demanded reports on the situation within the park, which came in monthly.<sup>262</sup> Nakai’s letter was written in Dutch, specifically mentioned Hoogerwerf’s advice and reminded the Forest Service of specific management suggestions, tasks and requests. This suggests Hoogerwerf possibly convinced Nakai of the need to protect Ujung Kulon, or he might have written the letter for Nakai to sign, who agreed to this. Although these possibilities can not be verified, it seems either way that Hoogerwerf could successfully convince Nakai of the importance to continue Ujung Kulon’s fortress conservation regime: guards remained stationed in the reserve until the Japanese capitulation in August 1945.<sup>263</sup>

Hoogerwerf tried to make use of his expert function to convince the Japanese authorities to transfer governance and management from the new Indonesian Forest

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<sup>259</sup> Hoogerwerf, ‘Proposal to Make an Official Journey’.

<sup>260</sup> Hoogerwerf; Hoogerwerf, ‘Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting’; A. Hoogerwerf, ‘Ontmoetingen Met Javaanse Neushoorns in Het Natuurpark Oedjong-Koelon (West Java)’, in *In Het Voetspoor van Thijsse: Een Reeks Bijdragen over Veldbiologie, Natuurbescherming En Landschap*, by A.F.H. Besemer (Wageningen: H. Veenman & Zonen, 1949), 359–70, [http://www.rhinoresourcecenter.com/index.php?s=3a65d4f23b16399cac2fd7f9c7a9744e&act=refs&CODE=ref\\_detail&id=1165237228](http://www.rhinoresourcecenter.com/index.php?s=3a65d4f23b16399cac2fd7f9c7a9744e&act=refs&CODE=ref_detail&id=1165237228); Cribb, *Historical Atlas of Indonesia*, 150.

<sup>261</sup> A. Hoogerwerf, ‘Some Remarks Regarding the Intended Shooting of 2000 Deer on Java and Neighbouring Islands’, 14 November 1942, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>262</sup> Takenoshin Nakai to Syo Tyo, ‘Inlichtingen inzake Het Wildreservaat Oedjoen Koelon’, Bogor, 15 November 1943, inv. nr. 40, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Hoogerwerf, ‘Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting’, 207.

<sup>263</sup> Hoogerwerf, ‘Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting’, 206; J.P. Nanlohy to A. Hoogerwerf, ‘Letter on an Encounter with the “Abonese” Guard Elisa Boernama near Meeuweneiland’, Batavia, 15 August 1947, inv. nr. 40, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

Service staff to Dutch officials. The Japanese authorities had promoted the Indonesian staff to positions formerly held by Dutch foresters. According to Hoogerwerf, the Indonesian guards did not maintain the reserve's infrastructure well-enough and their supervision could not sufficiently be arranged.<sup>264</sup> Hoogerwerf even used this discontent as an argument to carefully lobby for the release of the former forester of Bantam from an internment camp to replace the Indonesian superintendent who had filled his position.<sup>265</sup> Although it is unclear if this attempt succeeded, it is striking that Hoogerwerf had a position in which he could plead for the reappointment of Dutch officials for conservation purposes.

The other way around, Hoogerwerf used his connection to the Japanese authorities to try and pressure Indonesian civil servants to better enforce protective regulations in Ujung Kulon. This can be illustrated with “classified” correspondence between Hoogerwerf and Indonesian forester O. Noerhadi.<sup>266</sup> Hoogerwerf claimed how important it was to the Japanese government as well as humankind at large to protect the reserve and the Javan rhino. In this regard, he reminded Noerhadi that the Japanese authorities strictly forbade the possession of firearms and that thus any case of rhino poaching would bring the Indonesian officials in a bad light.

The Japanese authorities' acknowledgement of scientists' authority and the tendency of the Japanese military regime to oppress the Indonesian population helps to explain why Hoogerwerf could navigate the tensions and opportunities the Japanese regime brought about. The continuation of Hoogerwerf's employment at the Botanical Garden and Hoogerwerf's ambiguous position in the new political situation – in-between the Japanese authorities and Indonesian population – explains how

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<sup>264</sup> A. Hoogerwerf, 'Verslag over Het Onderhoud Met Inspectie-Boschwezen Te Bandoeng Inzake Oedjoeng-Koelon' (Bogor, 19 November 1942), Archief Andries Hoogerwerf (2.21.281.27), Nationaal Archief; A. Hoogerwerf to O. Noerhadi, 'Secret Letter on the Protection of Ujung Kulon and the Javan rhino', Bogor, 2 August 1943, Accessed 26 November 2021, Nationaal Archief; Hoogerwerf, 'Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting'; A. Hoogerwerf, 'Enkele Waarnemingen in Het Natuurmonument Oedjoengkoelon in de Bezettingstijd', *Tectona* 38, no. 4 (1948): 205–14; Hoogerwerf, 'Ontmoetingen Met Javaanse Neushoorns in Het Natuurpark Oedjong-Koelon (West Java)'; A. de Vos and A. Hoogerwerf, 'Java's One-Horned Rhinoceros', *Nature Magazine* 43, no. 6 (1950): 297–98; Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 21.

<sup>265</sup> Hoogerwerf, 'Verslag over Het Onderhoud Met Inspectie-Boschwezen Te Bandoeng Inzake Oedjoeng-Koelon'.

<sup>266</sup> Hoogerwerf to Noerhadi, 'Secret Letter on the Protection of Ujung Kulon and the Javan rhino', 2 August 1943.

Hoogerwerf could assume different roles to continue to promote the enforcement of some fortress conservation practices to the Japanese and Indonesian Forest Service staff during the Second World War.

In hindsight, Hoogerwerf considered the impact of the Indonesian population on the Javan rhino's existence more disruptive than the impact of the Japanese occupier. He was convinced the Japanese had indirectly contributed to Ujung Kulon's protection, by large scale confiscation of weapons from Indonesians, both to disarm the population and to melt the metals for the war.<sup>267</sup> According to Hoogerwerf, the disarmament and severe Japanese punishments of offences had led to a relative low number of 'poached' Javan rhinos during the war.<sup>268</sup> Hoogerwerf's mentality was thus based on the idea of the righteousness of strictly controlling the Indonesian population and its effectiveness for conservation, although these controlling measures were implemented for war purposes rather than for conservation.<sup>269</sup> It is not certain to which extent Hoogerwerf's perceptions on the influence Japanese rule on the conservation of the Javan rhino were true. It is possible that the Japanese authorities did not pay too much attention to offences in the remote peninsula and the Indonesian population also knew other hunting techniques they could have used to kill rhinos besides using firearms. Nevertheless, Hoogerwerf used this claim to securitize the Javan rhino's protection when the Indonesian population rearmed themselves after the Japanese capitulation in August 1945. In his line of thinking, Indonesians formed an imminent threat to the Javan rhino's security and restrictive conservation measures needed to be implemented as soon as possible.

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<sup>267</sup> Hoogerwerf, 'Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting', 205–6.

<sup>268</sup> Vos and Hoogerwerf, 'Java's One-Horned Rhinoceros'; Hoogerwerf, *Udjung Kulon. The Land of the Last Javan rhinoceros*, 21; O. Noerhadi, 'Natuurmonumenten in Banten' (Bogor, 5 April 1950), Archief Andries Hoogerwerf (2.21.281.27), Nationaal Archief.

<sup>269</sup> Hoogerwerf even considered exploiting the Japanese power structure to use the Japanese gestapo (Kempetai) for punishing 'poaching' offences. A. Hoogerwerf, 'Nature Protection in the Indonesian Archipelago (Netherlands Indies)', in: *Proceedings of the Seventh Pacific Science Congress of the Pacific Science Association*. Held at Auckland and Christchurch 2nd of February - 4th of March (Auckland 1953) 597–605, there 602.

### ***(Re)establishing Power and Contesting Decolonization***

In 1944 the tide had turned, and the Japanese power diminished due to Dutch and Indonesian local resistance and Allied military operations and reoccupations.<sup>270</sup> The Japanese emperor announced the capitulation on the 15<sup>th</sup> of August just after the nuclear bombing of Hiroshima and Nagasaki.<sup>271</sup> The political instability of the Second World War continued in the form of the Indonesian War of Independence between 1945 and 1949. At the end of the Second World War, the Japanese authorities had agreed to tolerate the rearmament of the Indonesian population for their attempt at decolonization.<sup>272</sup> Two days after the Japanese capitulation, Sukarno and Mohammad Hatta proclaimed the independent Republic of Indonesia. In the following months, many former Japanese internment camps were used by Indonesians to detain Dutch or Indo-Dutch people. Other former camps and newly erected ‘camps’ (often buildings or neighborhoods guarded by the Japanese, English or Dutch military) were used to guard the Dutch population against the large-scale Indonesian violence and to await their evacuation.<sup>273</sup> The Dutch government refused to acknowledge the Indonesian Republic and instigated two major military campaigns in 1947 and 1948 to curb the revolution.<sup>274</sup> In December 1949 the Dutch government finally transferred the sovereignty to Indonesia.

Relatively little is known about the situation in Ujung Kulon at the time.<sup>275</sup> Hoogerwerf went on sick leave to the Netherlands between 1948 and 1950, which created an extra gap in source material in this period. However, from his articles, reports and conference contributions during or after the decolonization war, we can construct his vision on the new relationship between conservation institutes and on the influence of the political situation on Ujung Kulon and the Javan rhino.

During the decolonization war, the Botanical Garden lost its pre-war position and influence to the Indonesian Forest Service. The continuation of Dutch scientific

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<sup>270</sup> Cribb, *Historical Atlas of Indonesia*, 150–55; Anderson, *Java in a Time of Revolution*, 35–60.

<sup>271</sup> A.D. Coox, ‘The Pacific War’, in *The Cambridge History of Japan*, ed. P. Duus, E-Book, vol. 6 (Cambridge: Cambridge University Press, 2008), 373–76, <https://doi.org/10.1017/CHOL9780521223577.008>.

<sup>272</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*, 31–37.

<sup>273</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*.

<sup>274</sup> Vickers, *A History of Modern Indonesia*, 103–16.

<sup>275</sup> More information on the situation within Ujung Kulon during this period might be found in, for example, the archives of the (Indonesian) Forest Service.

leadership was one of the main pillars of the Dutch authorities' attempt to safeguard authority in Indonesia.<sup>276</sup> A few weeks after the Japanese capitulation, however, work at the Botanical Garden came to a halt, because Buitenzorg became a violent front line in the first months of the decolonization war.<sup>277</sup> Initially, the institute's remaining staff mostly seems to have concerned themselves with safeguarding natural history collections, notes and equipment from large-scale theft.<sup>278</sup> In regard to Ujung Kulon and other nature reserves, the Botanical Garden had even fewer possibilities to restore their pre-war authority and activities. Trips to Ujung Kulon were not possible and any plans on its governance or management were difficult to organize. The Director of the Botanical Garden, Prof. dr. L.G.M. Baas Becking, even tried to convince the Dutch Navy to help Hoogerwerf visit Ujung Kulon to assess the rhino population, but to no avail.<sup>279</sup>

The Forest Service's influence rapidly increased after the Second World War. Since 1942, Indonesian foresters had assumed the role formerly held by Dutch foresters.<sup>280</sup> This Dutch-Indonesian Forest Service can be characterized by the struggle between the older generation, who had worked during the colonial regime and mostly wanted to restore the balance between exploitation and conservation, and a younger generation of foresters who argued for less control and the 'fair' and 'inexpensive' exploitation of forest production for the Indonesian population to use.<sup>281</sup> Until the

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<sup>276</sup> A. Goss, 'Reinventing the Kebun Raya in the New Republic: Scientific Research at the Bogor Botanical Gardens in the Age of Decolonization', *Studium* 11, no. 3 (2018): 212–13.

<sup>277</sup> The command of Kamp Beatrix was taken over by Ghurka's (Nepalese soldiers in the British Army) and later by British-Indian troops until the Dutch military arrived to start the camp's evacuation in 1946. Steenis-Kruseman, *Verwerkt Indisch Verleden*, 33; Goss, 'Reinventing the Kebun Raya in the New Republic', 211–12.

<sup>278</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*, 33–37.

<sup>279</sup> Baas Becking had been on leave to the Netherlands when the Second World War broke out in Europe. Van den Honert had served as interim director until the Japanese occupation of Java in 1942. Baas Becking returned as director in late 1945. See, Steenis-Kruseman, 33; L.G.M. Baas Becking to Vice-Admiraal, Commandant der Zeemacht en Hooft van het Departement der Marine in Nederlandsch-Indië, 'Verzoek Om Medewerking Bij Een Inspectie-Tocht Aan Enkele Natuur-Parken', Buitenzorg, 18 June 1947, inv. nr. 38, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>280</sup> N.L. Peluso, "'Traditions' of Forest Control in Java: Implications for Social Forestry and Sustainability', *Global Ecology and Biogeography Letters* 3, no. 4/6 (1993): 140.

<sup>281</sup> Arnscheidt, *'Debating' Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, 109.



1950s, it seems the institute was mostly concerned with the restoration of forest lands that had been destroyed during the wars.<sup>282</sup>

As discussed in the previous chapters, one of the characteristics of Dutch late colonialism, just as in other colonies, was that it was driven by the idea of a civilizing mission and the inaptitude of the Indonesian population. The Indonesian population was considered unable to properly continue the work formerly done by Dutch officials. The new Indonesian character of the Forest Service in combination with the experiences of former colonial officials during the decolonization war might have contributed to conservationists' negative perception of the war's influence on nature protection. Based on these mentalities, conservationists perceived decolonization, especially via Indonesian armament, as a grave security threat to the Javan rhino's existence and to species protection in general.<sup>283</sup> In this regard, most of the Dutch conservationist's discussions on nature and species protection in this period were focused on how to effectively regulate the possession and use of firearms before having to transfer responsibility for conservation to Indonesian authorities.<sup>284</sup> This illustrates how, at the time of Indonesian independence, Ujung Kulon's conservation regime was structured around the goal of limiting and regulating as much Indonesian disturbances in the hope these measures would be enforced after the transfer of sovereignty.

Colonial Dutch conservationists, among which Hoogerwerf, considered the tumultuous period of the Indonesian War of Independence more disruptive to the protection of Ujung Kulon and the Javan rhino than the Second World War.<sup>285</sup> This sentiment was mostly based on the fact the whole pre-war fortress conservation system had fallen apart after the Japanese capitulation, while the Indonesian population was rearming. Their view might have been influenced by the fact that during both wars the amount of wildlife on Java seemed to have declined considerably. This was possibly an

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<sup>282</sup> Arnscheidt, 110–11; Peluso, “‘Traditions’ of Forest Control in Java: Implications for Social Forestry and Sustainability”, 140.

<sup>283</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*, 33; Vos and Hoogerwerf, ‘Java’s One-Horned Rhinoceros’, 297–98.

<sup>284</sup> See for example: Amsterdam City Archives, Archive of the Dutch Committee for International Nature Protection, access number 1283, inventory number 174, ‘Stukken betreffende de (re)organisatie van de natuurbescherming en de jacht in Indonesië tijdens en vlak na de dekolonisatie., 1946 – 1952’.

<sup>285</sup> Vos and Hoogerwerf, ‘Java’s One-Horned Rhinoceros’, 297–98; A. Hoogerwerf, ‘Nature Protection in Indonesia’, *Oryx* 2 (1953): 221; Hoogerwerf, *Ujung Kulon. The Land of the Last Javan Rhinoceros*, 21.

effect of the great Indonesian famine that had taken place during the Second World War.<sup>286</sup> Hoogerwerf spoke and wrote about these concerns on conferences and in academic publications, such as at the Seventh Pacific Science Congress (1949):

“One shudders at the very thought of poachers entering our Fauna Reserve [Ujung Kulon] with modern automatic guns.... Or at the probable results of the fact that the “terrorists” believe that certain parts of a rhino give invulnerability to the bearer (so-called Djimat). We can only be extremely pessimistic about the position of our game and our last specimens of *Rhinoceros sondaicus*, as we are still not able to visit this reserve and nearly all other reserved areas, owing to the chaotic situation prevailing.”<sup>287</sup>

This does not inform us about the actual impact of the decolonization war on Ujung Kulon or the Javan rhino, but it shows how Hoogerwerf actively securitized the Javan rhino with new international audiences. By using the term ‘terrorists’ Hoogerwerf seemed to group together the violence executed by Indonesian nationalists and the ‘poaching’ carried out by local Indonesian and Chinese hunters as the same evil. In Hoogerwerf’s view, the combination of an armed population and “the lack of interest shown by the [Indonesian] authorities” under the chaotic circumstances of decolonization could lead to the demise of the Javan rhino.<sup>288</sup> Hoogerwerf used this securitized narrative to warrant his plea for immediate conservation action. If conservationists wanted to protect “our” – humankind’s – threatened species, now was the time to act. However, restoring and improving the restrictive pre-war conservation measures would prove to be more difficult than Hoogerwerf had hoped.

## **Renegotiating Authority in a New Power Balance**

After the transition to Indonesian rule in December 1949, the authorities replaced many Dutch officials by Indonesians.<sup>289</sup> In multiple branches, however, colonial

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<sup>286</sup> L. Brennan, L. Heathcote, and A. Lucas, ‘War and Famine Around the Indian Ocean During the Second World War’, *Ethics in the Global South: Research in Ethical Issues in Organizations* 18 (2017): 5–70.

<sup>287</sup> Hoogerwerf, ‘Nature Protection in the Indonesian Archipelago (Netherlands Indies)’, 602.

<sup>288</sup> Vos and Hoogerwerf, ‘Java’s One-Horned Rhinoceros’, 298.

<sup>289</sup> Goss, ‘Reinventing the Kebun Raya in the New Republic’, 214; Peluso, “‘Traditions’ of Forest Control in Java: Implications for Social Forestry and Sustainability’.

officials were reappointed until suitable Indonesian candidates were found to take their place.<sup>290</sup> These former colonial officials sought new legitimizations for the continuation of ideas, practices and institutes for what essentially were the continuation of colonial ones. Hoogerwerf was among those reappointed and became Head of the newly established Department for Nature Protection and Wildlife Management at the Botanical Garden under the Indonesian government.<sup>291</sup> It remains unclear why Hoogerwerf was reappointed by the Indonesian authorities, given his past attitude towards the Indonesian population. One explanation is that Hoogerwerf was the only official nature conservation expert of the former political regime and that the Indonesian authorities wanted to develop their own approach to conservation before replacing him. In this position, Hoogerwerf would continuously lobby for building back the pre-war fortress conservation regime.

In the aftermath of the independence war, Ujung Kulon's governance and management was centered around a power struggle and conflict of interests between the Forest Service and Hoogerwerf. This power struggle illustrates how Hoogerwerf continued to use the entanglement of species protection and park management to enforce his territorial claim and authority over Ujung Kulon and control the activities of Indonesian population within it. This section will therefore focus on how Hoogerwerf, as former colonialist under a new political regime, tried to renegotiate and re-establish his authority, influence and participation in the governance and management of Ujung Kulon. I will also analyze how Hoogerwerf tried to enforce the restoration of the pre-war fortress conservation regime. In this light, the post-war relationship between the Forest Service and the Botanical Garden and its effect on Ujung Kulon's management will be discussed first.

As discussed in previous sections, the Forest Service had already replaced many of its employees since the Japanese occupation. Some of Dutch foresters were re-employed as 'advisors' (*pembantu*) after independence but they did not hold the same status as they did before the war.<sup>292</sup> The Service was still the executive power responsible for Ujung Kulon's management. It also established its own 'section on

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<sup>290</sup> Goss, 'Reinventing the Kebun Raya in the New Republic', 214.

<sup>291</sup> A. Hoogerwerf, 'Inquiries of Vanishing Mammals (with Reference to the Letter of Int. Office for the Protection of Nature of June, the 18th, 1951)' (Bogor, 28 August 1951), inv. nr. 56, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>292</sup> Steenis-Kruseman, *Verwerkt Indisch Verleden*, 39; Hoogerwerf, 'Verslag over Het Onderhoud Met Inspectie-Boschwezen Te Bandoeng Inzake Oedjoeng-Koelon'.

forest protection' (*Seksi Perlindungan Hutan*).<sup>293</sup> The leadership of the Botanical Garden, on the other hand, was taken over by Kusnoto Setyodiwiryono. He was trained at Wageningen University in the Netherlands and had worked at the Agricultural Experiment Station before the wars.<sup>294</sup> Colonial science and its research agenda were gradually reinvented and put under Indonesian leadership in the following decade.<sup>295</sup> However, there was continuity in regard to other staff members because there were very few Indonesian scientists at the time.<sup>296</sup> The newly established Department for Nature Protection and Wildlife Management at the Botanical Garden, of which Hoogerwerf was the head, held an advisory position but was 'responsible' for conservation.<sup>297</sup> The issue of nature protection thus institutionalized further within both organizations but with a different role, point of focus and character. The power struggle about Ujung Kulon that followed illustrates how both conservation authorities were trying to implement their own conservation regime.

The entanglement of the park-species conservation regime still formed the basis for the protection of Ujung Kulon in this period. As former colonial official under an Indonesian regime, however, Hoogerwerf could not use the anti-Indonesian arguments he had used during the independence war to argue for the Javan rhino's protection. Instead, he legitimized the urgency of building back Ujung Kulon's fortress conservation regime by using arguments on the international and scientific importance of the reserve and its species. In this period, concepts of nature as a global heritage that should be protected for posterity gained influence (see also Chapter 1).<sup>298</sup> In this light, science provided the means with which to preserve this global heritage, but it was also

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<sup>293</sup> Hoogerwerf, 'Nature Protection in Indonesia', 221; Arnscheidt, *'Debating' Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, 111; Hoogerwerf, *Ujung Kulon. The Land of the Last Javan rhinoceros*, 22.

<sup>294</sup> Goss, 'Reinventing the Kebun Raya in the New Republic', 213.

<sup>295</sup> Goss, 'Reinventing the Kebun Raya in the New Republic'.

<sup>296</sup> Goss, 213–14.

<sup>297</sup> Arnscheidt, *'Debating' Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present*, 110–11; Hoogerwerf, 'Inquiries of Vanishing Mammals'.

<sup>298</sup> Wöbse, 'Framing the Heritage of Mankind'; Ross, 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century'; S.J. Macekura, 'Towards "Sustainable" Development: The United Nations, INGOs and the Crafting of the World Conservation Strategy', in *International Organizations and Environmental Protection: Conservation and Globalization in the Twentieth Century*, ed. W. Kaiser and J.H. Meyer (New York: Berghahn Books, 2017), 241–67.

a goal in itself; by studying nature, science provided insights in the history and evolution of mankind. In 1943, Hoogerwerf already stressed the desirability “to preserve the species [Javan rhino] for future generations and to maintain [it] as an object of study for the entire world”.<sup>299</sup> This narrative was taken up by Kusnoto, who argued that “Also in the field of nature protection the Indonesian State had international obligations”, among which the Javan rhino’s protection.<sup>300</sup> Hoogerwerf framed the 1940s wars to justify that it was now ‘the’ time to preserve ‘what was left’ of nature in reserves as a duty to posterity:

“I need not explain here the importance of the Fauna- and Nature Reserves from a scientific point of view. Especially after a war, which annihilated so many irreplaceable objects of beauty or interest, we must realize that these aspects of nature should be protected as a matter of duty for later generations.”<sup>301</sup>

War symbolized mankind’s destruction to the environment and helped to securitize Indonesian nature protection by provoking feelings of threat and risk to arouse support for new conservation measures.

To gain support for the Javan rhino’s protection, Hoogerwerf now connected the significance of species protection more strongly to the role of Ujung Kulon’s territory than before the 1940s wars through securitization. Hoogerwerf took advantage of the decline of various species *outside* the reserve, such as banteng and deer, to highlight the importance of protecting species *within* Ujung Kulon as a ‘last refuge’. One striking example is that Hoogerwerf suddenly connected Ujung Kulon’s importance to its role in protecting the Javan tiger, “next to the *Rhinoceros sondaicus*, the most threatened animal of Indonesia”.<sup>302</sup> This re-evaluation of the Javan tiger – previously considered a harmful species not in need of any conservation efforts – indicated a shift in the approach towards species protection. Hoogerwerf further enforced the territorial importance of Ujung Kulon by framing it as “the last stronghold” of the 20 Javan

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<sup>299</sup> Hoogerwerf to Noerhadi, ‘Secret Letter on the Protection of Ujung Kulon and the Javan rhino’, 2 August 1943, 2.

<sup>300</sup> Kusnoto, ‘Pemburuan Badak Setjara Gelap Dll.’, Letter to the National Police, 31 January 1951, inv. nr. 19, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>301</sup> Hoogerwerf, ‘Nature Protection in the Indonesian Archipelago (Netherlands Indies)’, 600.

<sup>302</sup> Hoogerwerf, ‘Nature Protection in Indonesia’, 227; Hoogerwerf, ‘Proposal to Make an Official Journey’.

rhino's left in the reserves.<sup>303</sup> By using this phrase, he literally compared the territory to a fortress, an enclosed bulwark in which its 'citizens' were protected against outside invaders. In this regard, Ujung Kulon was the embodiment of the fortress conservation model, which Hoogerwerf tried to re-establish. This securitization approach was meant to increase the perceived 'value' of Ujung Kulon's territory because of the importance conservationists attributed to the species living within it.

As head of the Botanical Garden's conservation department, Hoogerwerf used all these tropes and narratives to gain more influences in the management of Ujung Kulon. However, convincing the Indonesian authorities and Forest Service proved to be more difficult than he expected. In the early 1950s, Hoogerwerf was still optimistic to reintroduce the fortress conservation model in which the Botanical Garden's scientific expertise enjoyed its former privilege in the reserve's management.<sup>304</sup> Together with Forest Service officials, Hoogerwerf assessed the post-war situation in the reserve with the former fortress conservation regime in mind. They considered all previous 'fines and fences' measures in need of restoration; patrol routes and former pastures had been overgrown and became 'useless' to grazing species in their current state, nobody knew where the escape trees had been anymore and former guard stations had completely disappeared or their materials had been removed by the local population during the decolonization war.<sup>305</sup> According to forester Noerhadi and Hoogerwerf, the reintroduction of guards and the restoration of pastures needed to be prioritized.<sup>306</sup> The men also considered some measures to adapt the reserve's terrain and to manipulate the mobility of grazing species to better control their health.<sup>307</sup>

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<sup>303</sup> Hoogerwerf, 'Nature Protection in Indonesia', 223; A. Hoogerwerf to Head of the Nature Protection Department of the Forest Service, 'Pengaduan Hal Rangka Badak Di Tjibandawah Udjung-Kulon', Bogor, 26 September 1956, inv. nr. 56, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Noerhadi, 'Natuurmonumenten in Banten'.

<sup>304</sup> Hoogerwerf, 'Inquiries of Vanishing Mammals', 3; Kusnoto Setyodiwiryo, 'Ontwerp-Begroting Suaka Margasatwa National Udjung-Kulon.', Bogor, 13 March 1951, inv. nr. 56, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>305</sup> Noerhadi, 'Natuurmonumenten in Banten'.

<sup>306</sup> Hoogerwerf to Head of the Nature Protection Department of the Forest Service, 'Pengaduan Hal Rangka Badak Di Tjibandawah Udjung-Kulon', 26 September 1956; Noerhadi, 'Natuurmonumenten in Banten'.

<sup>307</sup> For example, the contagious disease distomatosis (liver fluke), a parasite that prospers in water-rich environments, posed a problem to especially banteng health in the reserve. In this regard, Noerhadi suggested to reclaim some of the pastures that flooded during the monsoon season. Hoogerwerf explored the option of using electric fencing to manipulate the banteng's

The collaboration between Hoogerwerf and the Indonesian government and the Forest Service soon became a struggle. This struggle represents Hoogerwerf's attempt at continuing colonial science and conservation versus the attempt of the Indonesian authorities to reinvent their own approach to nature protection. The Forest Service cleared some pastures and re-established patrol routes, but the conservation measures were not executed in the way, extent or pace as Hoogerwerf had envisioned them. Rather, the Forest Service reconfigured his 'best practice' of colonial fortress conservation into a different conservation approach based on tourism. The Service considered exploiting the area, planning on creating public infrastructure like jetties, bathrooms and places visitors could stay overnight.<sup>308</sup> Consequently, Hoogerwerf considered the state of the reserve "worse than she has ever been since in 1938 management began" and wrote frustratedly to the head of the Forest Service's nature protection department that he would never succeed in improving Ujung Kulon's management if he did not change his method.<sup>309</sup>

His response can be understood as frustration that the Indonesian authorities did not grant him the authority he had previously enjoyed. Already in early 1949, Hoogerwerf thought the power in nature conservation matters should be transferred from the Forest Service to the Botanical Garden:

"It is a pity, in the opinion of everybody interested in this field of science, that this authority [Botanical Garden] has not more influence in the development of the protection of nature than up to the present time. [...] An increase of authority of the Director of the Botanical Gardens is urgently and badly required in order to improve this situation. It seems to be the keystone of any effective organization. The central office which should carry this authority logically belongs not in the Forestry Service, but should be entirely in the hands of the Botanic Gardens, while in the future it even might be entrusted to a special department with its own personnel and budget."<sup>310</sup>

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mobility so they could not graze near marshes. See, Noerhadi, 'Natuurmonumenten in Banten'; Hoogerwerf, 'Nature Protection in Indonesia', 226.

<sup>308</sup> Hoogerwerf to Head of the Nature Protection Department of the Forest Service, 'Pengaduan Hal Rangka Badak Di Tjibandawah Udjung-Kulon', 26 September 1956.

<sup>309</sup> "She" is used because it refers to the word 'reserve', which in Dutch is a feminine word. Hoogerwerf to Head of the Nature Protection Department of the Forest Service.

<sup>310</sup> Hoogerwerf, 'Nature Protection in the Indonesian Archipelago (Netherlands Indies)', 599.

This statement shows how Hoogerwerf considered the Forest Service's conservation approach as too little based on science and, maybe because of it, ineffective in regard to nature protection. This statement showcases Hoogerwerf's anxiety for the loss of power and control in nature protection in the new Indonesian state. In the course of the 1950s, the Indonesian Government increasingly consulted the Forest Service's nature protection department instead of Hoogerwerf.<sup>311</sup> It seems the Indonesian authorities had only re-appointed temporarily to develop a conservation management regime on their own terms in the meantime.

As Hoogerwerf could not get a grip on the Forest Service management of Ujung Kulon, he tried to exert influence over the reserve via new measures, instead of trying to improve the Service's execution of the existing measures to a for him acceptable level. An example is that Hoogerwerf asked the government to expand the reserve's territory one nautical mile around the reserve, in which public access would be forbidden, similarly as he had tried before the Second World War.<sup>312</sup> This time, however, Hoogerwerf explicitly acknowledged that the local fisheries' interests were not to be harmed, while the underlying argumentation for implementing this measure was still to exclude them as much as possible from access to the reserve.<sup>313</sup> The proposal indicates that Hoogerwerf approached the Indonesian authorities differently but that his plea for the continuation of a fortress conservation regime was still his motive. Likely, he hoped that this nautical mile would be a good additional measure besides the 'proper' guarding of the reserve's terrestrial territory, on which he had so little influence at the time.

In the first years after decolonization, Hoogerwerf and the Indonesian authorities thus implicitly and explicitly renegotiated Ujung Kulon's fortress conservation regime. Although not all aspects of fortress conservation were implemented to the same extent as during Dutch colonial rule, this conservation model continued to influence the protection of the Javan rhino and the way in which conservation was executed within Ujung Kulon in these years.

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<sup>311</sup> A. Hoogerwerf to Ministry of Agriculture, 'Memperlindungi Taman Bunga Karang Dalam Daerah Suaka Margasatwa Ujung Kulon', 26 November 1956, inv. nr. 56, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>312</sup> A. Hoogerwerf and Soebagjo, 'Sluiting Voor Het Publieke Verkeer van Suaka Margasatwa Ujungkulon-Pulau Peutjang (Meeuweneiland)', Letter to the Ministry of Agriculture, 11 June 1956, 56, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>313</sup> Hoogerwerf and Soebagjo.



## Conclusion

This chapter has shown why and how the park-species conservation regime in Ujung Kulon altered the practices of Ujung Kulon's governance and management, and the control of species and people within it, between 1937 and 1957. I have illustrated how conservationists enforced and negotiated the conservation of the Javan rhino in Ujung Kulon during three political phases in this period. The authorities' reliance on the park-species conservation regime of Ujung Kulon resulted in the implementation of a fortress conservation model in the reserve under Dutch colonial rule. This park-species conservation model made it possible for government institutes and conservationists to intensify territorial and biopolitical control over Ujung Kulon, the Javan rhino and the local Indonesian population. In the 1940s, nature conservation officer Hoogerwerf navigated the opportunities the political regime changes brought about to promote a continuation of the fortress conservation approach. His relative success during Japanese rule can be explained by the acknowledgment of the importance of science by Japanese authorities, and their similar approach in repressing the Indonesian population as during Dutch rule. In this regard, the colonial conservation regime fitted into the Japanese military framework. During the Indonesian War of Independence, Hoogerwerf intensified the securitization of the Javan rhino, both within the Dutch East Indies as internationally. After Indonesian independence, Hoogerwerf negotiated with the Forest Service to re-establish Ujung Kulon's pre-war fortress conservation regime and the Botanical Garden's role in its protection. When his attempt and authority were contested by the Indonesian authorities and Forest Service, Hoogerwerf lobbied for new conservation measures and the transfer of governance to enlarge the Botanical Garden's authoritative function in Ujung Kulon's protection. As will be discussed in the next chapter, in the meantime Hoogerwerf had turned to the international stage with his story on the Javan rhino to look for help in enforcing fortress conservation through foreign pressure on the new Indonesian state.

## Chapter 4 – Towards a Global Conservation Regime

*“Where man moves in, game must move out, and the only hope of survival for large animals lies in the establishment of vast nature reserves”.<sup>314</sup>*

If threatened species were to be saved, the creation of reserves was the first and foremost measure to do so. This idea was extensively promoted by the IUCN from the 1950s onwards. As I have shown in the second chapter, conservationists developed the entangled park-species concept in the 1930s as a political strategy to gain control over territory. In the third chapter, I discussed how this type of conservation regime enabled a fortress conservation model under Dutch colonial rule in Indonesia. Nature conservation officer Andries Hoogerwerf renegotiated this approach during the political regime changes of Japanese occupation, Indonesian decolonization and after Indonesian independence. This fortress conservation model continued to influence the conservation and management of Ujung Kulon in the long run. This chapter translates these findings into an international context.

The main purpose of this thesis was to investigate how the rise of an entangled park-species conservation approach enabled a surge in the creation of protected areas from the 1960s onwards. In this chapter, I will analyze how international conservation organizations created legitimacy for the worldwide proliferation of protected areas by transnationalizing the park-species concept between 1930 and 1970 and how this affected the management practices within reserves. The concept of transnationalization is used here to show how international organizations framed species protection as a matter that transcended nation-state boundaries by institutionalizing threatened species lists as conservation instrument.<sup>315</sup> This legitimized their interference as non-state actors in nature conservation matters across the world (see Introduction).<sup>316</sup> I will more specifically analyze how the

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<sup>314</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), ‘International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers’ (Paris & Brussels, 1950), 123, IUCN Digital Library.

<sup>315</sup> M.L. Djelic and K. Sahlin-Andersson, eds., *Transnational Governance: Institutional Dynamics of Regulation* (Cambridge: Cambridge University Press, 2006).

<sup>316</sup> G. Morgan, ‘Transnational Actors, Transnational Institutions, Transnational Spaces: The Role of Law Firms in the Internationalization of Competition Regulation’, in *Transnational*

transnationalization of the park-species approach affected the governance and management of the Javan rhino in Ujung Kulon between 1950 and 1970, and why this occurred in the way it did.

The organizations I study in this chapter are the International Union for the Protection of Nature (IUCN) from the 1950s, and the World Wildlife Fund (WWF) from the 1960s. These international organizations presented the protection of the Javan rhino within Ujung Kulon as example to stress why protecting ‘vanishing’ species in parks was necessary. This raises the question how the process of Indonesian decolonization has influenced international discussions on the Javan rhino’s protection. It also raises the question how the transnationalization of the Javan rhino as threatened species affected the management of Ujung Kulon and other Indonesian reserves.

The chapter is divided into four parts. First it will be discussed how earlier internationally oriented conservation organizations slowly began to scientize and transnationalize the Javan rhino’s case in the 1930s. This will be followed by a section on the accelerated transnationalization of the Javan rhino as a threatened ‘flagship species’ between 1945 and 1949 through a series of international conservation conferences.<sup>317</sup> Subsequently, I will analyze how the IUCN and WWF used threatened species lists to visualize the security threat endangered species were under, including the Javan rhino and how this influenced the transnationalization of the park-species approach. The chapter will conclude with a section on how the park-species narrative affected the practices of Ujung Kulon’s management through the continuation of older conservation patterns and institutes, and what this meant for conservation in other Indonesian protected areas.

## **Scientizing Species through International Networks**

States, governments and other authorities commonly use practices of standardization, classification and rationalization to gain and legitimize control over people, territory or resources.<sup>318</sup> Nature conservation organizations also employed these acts of

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*Governance: Institutional Dynamics of Regulation*, ed. M.L. Djelic and K. Sahlin-Andersson (Cambridge: Cambridge University Press, 2006), 140–41.

<sup>317</sup> The term ‘flagship species’ is derived from: Adams, *Against Extinction*, 128.

<sup>318</sup> James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven & London: Yale University Press, 1998).

scientization to create an ‘objective’ foundation of legitimacy for their cause which gained them authority (see also Chapter 1, 2 and 3). The practice of red listing – the creation of threatened species lists based on the perceived extinction risk of species – is an important example of this scientization trend. This section will analyze how early internationally oriented conservation organizations used threatened species lists to raise international awareness for the Javan rhino’s situation.

Three internationally-oriented conservation organizations played a prominent role in the collection and dissemination of knowledge on threatened species in the 1930s, including the Javan rhino: the *Nederlandse Commissie voor Internationale Natuurbecherming* (1925, NCIN), the Brussels-based *Office Internationale de Documentation et de la Corrélation pour la Protection de la Nature* (1928, IOPN), and the American Committee for International Wild Life Protection (1930, ACIWLP).<sup>319</sup> The NCIN, IOPN and ACIWLP attempted to classify and standardize the natural environment through paper technologies (f.e. surveys, statistics, reserve categorizations, threatened species lists and biogeographical maps), which enabled and facilitated the rise of a park-species approach to conservation.<sup>320</sup>

The NCIN’s activities were mostly focused on the Indonesian archipelago. A great part of its elite membership (had) worked in (behalf of) the Dutch colony for an extended period of time or had studied or visited the region on another account. Some were also member of both the NCIN and the *Nederlandsch-Indische Vereeniging tot Natuurbescherming* (NIVN), or switched membership after their return to the Netherlands.<sup>321</sup> Based on requests of the NIVN or its own members, the NCIN

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<sup>319</sup> The NCIN was closely connected to the *Stichting tot Internationale Natuurbescherming*, established in 1930. This foundation consisted of a smaller selection the NCIN members and was established because the NCIN itself did not enjoy corporate rights while the new foundation did. The Brussels Office was later renamed as International Office for the Protection of Nature and will therefore hereafter be referred to as IOPN. *Nederlandsche Commissie voor Internationale Natuurbescherming, Mededeelingen No. 10*, vol. (1931-1933) (Amsterdam, 1934).

<sup>320</sup> Bont, *Nature’s Diplomats*, 7, 255; Gissibl, Höhler, and Kupper, ‘Introduction’, 13–16; Braverman, ‘En-Listing Life: Red Is the Color of Threatened Species Lists’.

<sup>321</sup> See, for example, the membership list in the NCIN’s *Mededeelingen* series and the lists of colonial officials and NIVN members in all second parts of the *Regeerings-Almanak voor Nederlandsch-Indië*, or in NIVN publications like: Steenis, *Album van Natuurmonumenten in Nederlandsch-Indië*; *Nederlandsch-Indische Vereeniging tot Natuurbescherming, 3 Jaren Indisch Natuurleven: Opstellen over Landschappen, Dieren En Planten, Tevens Elfde Verslag (1936-1938)*.

pressured the colonial government directly, or indirectly through the Ministry of the Colonies in the Netherlands, to enforce better protective regulations or create new nature reserves.<sup>322</sup>

The NCIN's founder, Pieter G. van Tienhoven, was a prominent figure in conservationist circles in the Netherlands and abroad. Van Tienhoven used his elite network to promote the establishment of a 'truly' international nature conservation organization.<sup>323</sup> As a first step, the IOPN was established in 1928 with again Tienhoven as main instigator and its first head.<sup>324</sup> Its purpose was to collect, classify, publish and disseminate data on nature protection worldwide and aid the collaboration between like-minded organizations in this field. Under the supervision of Belgian zoologist Jean-Marie Derscheid, the IOPN mostly collected information on threatened animals and plants, existing hunting laws and nature reserves in colonial settings.<sup>325</sup> The IOPN would prove to be very influential because of its pivotal role in linking pre- and postwar communities and connecting influential American and European conservationists.<sup>326</sup>

One of the outcomes of these increased contacts was the establishment of the ACIWLP by the American Boone & Crockett Club on the initiative of John Phillips and Harold Coolidge Jr. and was supported by Van Tienhoven. The ACIWLP financially supported the IOPN and was based on the same principles as the NCIN but focused

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<sup>322</sup> Despite their collaboration, the NCIN and NIVN were not always on good terms with each other in this period. Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 1-6*, vol. (1925-1928) (Amsterdam: De Spiegel, 1929), 44-46, 66-68; Nederlandsch-Indische Vereeniging tot Natuurbescherming, 'Korte Mededeelingen van de Ned.-Indische Vereeniging Tot Natuurbescherming', *De Tropische Natuur* 19, no. 5/6 (1930): 108; Boomgaard, 'Oriental Nature', 269; Jepson and Whittaker, 'Histories of Protected Areas', 150-51; Windt, 'Parks without Wilderness, Wilderness without Parks?', 213.

<sup>323</sup> Boardman, *International Organization and the Conservation of Nature*, 31-35; Boomgaard, 'Oriental Nature', 269; Jepson and Whittaker, 'Histories of Protected Areas'; Bont, *Nature's Diplomats*, chap. 2 'Van Tienhoven's Address Book'; Windt, 'Parks without Wilderness, Wilderness without Parks?', 212.

<sup>324</sup> Boardman, *International Organization and the Conservation of Nature*, 32; Bont, *Nature's Diplomats*, 51.

<sup>325</sup> Bont, *Nature's Diplomats*, 51; Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 1-6*, (1925-1928):42, 61; Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 7* (Amsterdam, 1929), 5-6; Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 8*, 30-31; Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 9* (Amsterdam, 1931), 28-29; Nederlandsche Commissie voor Internationale Natuurbescherming, *Supplement Op Mededeelingen No. 10*, (1931-1933):78.

<sup>326</sup> Wöbse, "'The World after All Was One": The International Environmental Network of UNESCO and IUPN, 1945-1950', 336, 338.

more than these organizations on promoting wider public knowledge on nature protection.<sup>327</sup> To this end, the ACIWLP made use of the IOPN as documentation center and kept up to date with the publications of the NCIN. For example, in 1938 the ACIWLP republished 'The situation of nature conservation in various countries' (1931), which had previously been published in Dutch by the NCIN.<sup>328</sup>

In the 1930s, surveys were an important means with which these conservationist organizations rationalized the protection of threatened species. Two functions of these surveys will be highlighted here. First of all, the surveys provided a global overview of the problem of species protection at hand to the organizations themselves. This facilitated the construction of a system to control species protection on a large scale. The information these surveys provided, expanded knowledge on the occurrence and distribution of animal and plant species worldwide. This helped to visualize an action program of exactly where in the world conservation efforts were most needed. However, the surveys often focused on species in colonial territories that were already considered to be threatened. This meant the construction of the subsequent threatened species lists were more affirmative of existing views than they were innovative. Through these surveys the condition of Indonesian wildlife, among which the Javan rhino, gained more international attention. In 1931 Van Tienhoven urgently appealed to Indonesian government departments, officials and civil servants of all bureaucratic layers, private organizations and other "nature lovers and naturalists" with a survey on behalf of the NCIN and the IOPN.<sup>329</sup> They were asked to supply as much information

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<sup>327</sup> Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 8*, 27–28; Boardman, *International Organization and the Conservation of Nature*, 32–33; Wöbse, "The World after All Was One": The International Environmental Network of UNESCO and IUPN, 1945-1950', 336.

<sup>328</sup> G.A. Brouwer and Nederlandsch-Indische Vereeniging tot Natuurbescherming, *De Organisatie van de Natuurbescherming in de Verschillende Landen* (Amsterdam: De Spieghel, 1931); G.A. Brouwer, *The Organisation of Nature Protection in the Various Countries*, vol. Special Publication of the American Committee for International Wild Life Protection No.9 (Cambridge, Massachusetts: American Committee for International Wild Life Protection, 1938).

<sup>329</sup> Original text: "natuurliefhebbers en - kenners". P.G. van Tienhoven, 'Natuurbescherming', *De Tropische Natuur* 21, no. 3 (1932): 47–48; Nederlandsche Commissie voor Internationale Natuurbescherming, 'Correspondentie Naar Aanleiding van Een Enquête over Het Voorkomen En de Biologie van Planten- En Diersoorten in Nederlands-Indië En de Wijze Waarop Deze Geëxploiteerd Worden', 1933, 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam; Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 10*,

as possible on the condition of especially, but not exclusively, a list of thirty-two (groups of) animal species, among which the Javan rhino. The survey provided a wealth of information and started to make a wider audience aware that the Javan rhino was going extinct.<sup>330</sup>

A second function of the surveys was that conservationists used their outcome as objective information to universalize and visualize the problem of worldwide species decline. The urgency that stemmed from these surveys was used to gain international attention for the need of organized species protection. In 1937, the IOPN send out a new survey on threatened animals in “the Malay Archipelago” via the NCIN.<sup>331</sup> This time, data was collected to supply the ACIWLP’s publication of Francis Harper’s *Extinct and Vanishing Mammals of the Old World* (1945).<sup>332</sup> This book was a turning point in the development of organized species protection through securitization. The questions of the 1937 survey were purposefully geared towards a narrative that could be used to advocate species protection, specifically asking for information on diminishing habitats, reasons for a species’ demise and their importance, and what protective measures were already taken to protect them. In this process, the use of statistics on extinction rates and species distribution played an important role in framing the urgent need for species protection and enabled a monitoring system for its governance. In *Extinct and Vanishing Mammals*, Harper put a number on the vast rate of extinction losses to get the urgency of the matter across: of all known extinct mammal species and subspecies, 67 percent had vanished in the past century and the previous fifty years had known the extinction of 38 percent of them. Harper estimated that in the next century even more than 600 endangered mammals could be extinguished at a rate of one species a year.<sup>333</sup> In this regard, the publication framed

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(1931-1933):76–80; Nederlandsche Commissie voor Internationale Natuurbescherming, *Supplement Op Mededeelingen No. 10*.

<sup>330</sup> Nederlandsche Commissie voor Internationale Natuurbescherming, *Supplement Op Mededeelingen No. 10*, (1931-1933):5, 40–48, 76.

<sup>331</sup> For the responses to the survey, see the Amsterdam City Archives, 1283 Archive of the Nederlandse Commissie voor Internationale Natuurbescherming, inv.nr. 255. For the survey itself, see Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 11*, vol. (1934-1936) (Amsterdam, 1937), 35, 118–19.

<sup>332</sup> Harper’s publication succeeded Grover M. Allen’s *Extinct and Vanishing Mammals of the Western Hemisphere with the Marine Species of All the Oceans* (1942), that had also been published by the ACIWLP.

<sup>333</sup> Francis Harper, *Extinct and Vanishing Mammals of the Old World*, vol. Special Publication no.12 (New York: American Committee for International Wild Life Protection, 1945), 9.

the Javan rhino as being “in the most serious condition” of the archipelago’s vanishing mammals and in general “one of the rarest and most famous of the large mammals now facing extinction”.<sup>334</sup> This increased awareness of the Javan rhino’s situation and perceived extinction risk would put the species more firmly on the international conservation agenda in the late 1940s.

The NCIN, IOPN and ACIWLP together rationalized the problem of species decline to legitimize the institutionalization of the governance of nature protection on an international level. The wealth of information in Harper’s *Extinct and Vanishing Mammals* was framed as a “sound foundation for future plans that would have to be developed to meet the ever-increasing threats of extermination”.<sup>335</sup> The assembled documentation, and the narrative that it enabled, provided the NCIN, IOPN and ACIWLP with a legitimization to create an action plan for worldwide species protection.

## National Politics at International Conferences

After the Second World War, the institutionalization of species protection gained momentum through a series of international nature protection conferences at Brunnen (1947, Switzerland), Fontainebleau (1948, France) and Lake Success (1949, U.S.A.). These conferences were organized by prominent conservationists (Van Tienhoven among them) to create an international nature protection organization after the example of Paul Sarasin’s earlier attempt in the 1910s and early 1920s (see Chapter 1).<sup>336</sup> The emergence of the threatened species subject on the international agenda took place in a period of political instability just after the disruptive Second World War and at the start of a period of decolonization. The Indonesian War of Independence (1945-1949) was the first decolonization war of the post-1945 period (see Chapter 3).

This raises the question how Dutch delegates at the international nature protection conferences contributed to put the Javan rhino on the international conservation agenda and how this affected ideas on international governance of Ujung Kulon and other Indonesian reserves. This paragraph will discuss how Dutch delegates

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<sup>334</sup> Harper, Special Publication no.12:11, 381.

<sup>335</sup> Harper, Special Publication no.12:v.

<sup>336</sup> Wöbse, “‘The World after All Was One’: The International Environmental Network of UNESCO and IUPN, 1945-1950”; Wöbse, ‘Framing the Heritage of Mankind’.



promoted the Javan rhino's situations through securitization at these conferences, framing conservation as a measure to counter the threats of the Indonesian population on the rhino's security. This shows how Dutch conservationists attempted to maintain control on the governance and management of Indonesian nature protection through international governance at a time that their political authority in the area itself was under threat.

In this regard, the Dutch (East Indian) delegates made two important contributions to the Brunnen conference that would also play an important role at discussions on species protection in Fontainebleau and Lake Success. First of all, they promoted the protection of the Javan rhino through securitization, arguing that Indonesian decolonization thoroughly threatened the species' existence (see also Chapter 3). This meant that Dutch delegates internationally promoted the continuation of existing national political structures of oppression and that conservation was the political instrument with which to achieve this control. Secondly, they promoted the idea to establish "international reserves" in an attempt to transfer the governance of Indonesian reserves to an international conservation organization. Through this transfer of authority, the Dutch delegates wanted to continue their influence and supervision on Indonesian conservation management.

The Dutch delegates had well-established connections in pre- and post-Second World War conservation networks and held various official positions in the newly established International Union for the Protection of Nature (IUCN). These connections and positions will be shortly assessed first, before discussing the two Dutch contributions in more detail. The connections and positions of the Dutch delegates at the international nature protection conferences inform us on how the Dutch delegates navigated the political playing field at the conferences. This helps to explain why they succeeded in putting the Javan rhino on the international agenda and regain influence in Ujung Kulon's protection, as will be discussed later. At the Brunnen conference in 1947, the Provisional International Union for the Protection of Nature was founded.<sup>337</sup> Its first president, Charles J. Bernard, with a dual Dutch-Swiss nationality was an important connection for the Dutch and Dutch East Indian

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<sup>337</sup> Johann Büttikofer, *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)* (Basle: Provisional International Union for the Protection of Nature, 1947), 15.

delegations.<sup>338</sup> The IUCN was officially founded at Fontainebleau and the Dutch delegates took up important positions in the IUCN's Executive Board and in all its committees.<sup>339</sup> Charles Bernard was reappointed as the first president of the IUCN. Almost all the Dutch delegates at Fontainebleau had close connections to the Dutch East Indies and were concerned with its protection.<sup>340</sup> The former Director of the Botanical Garden, Karel W. Dammerman, and nature conservation officer Andries Hoogerwerf were among the official Dutch delegates. Apart from physical presence at the conferences, Dutch conservationists also extensively contributed by sending in papers and reports which were discussed at the conferences and informed decision-making.<sup>341</sup> Members of the IOPN and ACIWLP, who previously had been interested in species protection in the Indonesian archipelago, were also present at the conferences. They were in close contact with, for example, Bernard and Van Tienhoven. ACIWLP's co-founder, Harold Coolidge, had been appointed as vice-president of the IUCN at Fontainebleau. He would play a very important role in the organization's engagement

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<sup>338</sup> He had worked for over twenty years in the Dutch East Indies in various high positions, among which at the Botanical Garden's Treub Laboratory, and was member of both the NIVN and the NCIN. Émile Dottrens, 'Un Pionnier de La Conservation de La Nature: Charles-Jean Bernard (1876-1967)', *Biological Conservation* 1 (1968): 54; Holdgate, *The Green Web*, 18.

<sup>339</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), *International Union for the Protection of Nature (Established at Fontainebleau 5 October 1948)* (Brussels: M. Hayez, 1948), 28–29.

<sup>340</sup> The position of Dutch East Indian delegates at the conferences seems to have been a political statement and strategy from the Dutch authorities. The official appointment of Dutch East Indian delegates at Fontainebleau by the Dutch government could be read as a contestation of the Indonesian proclamation of independence on an international level. In Lake Success, however, Hoogerwerf received instructions to carefully balance his role and not take in a prominent stance which would oblige the authorities in Indonesia to anything. He was only to provide information, explanations, or very careful advice. J.K. van der Haagen and W.G. van der Kloot, 'Verslag van de Internationale Natuurbeschermingsconferentie Te Brunnen' (n.d.), inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Ch. J. Bernard, 'Verslag van de Brunnen Conferentie Gericht Aan de Minister van Overzeese Gebiedsdelen' (Geneve, 18 July 1947), inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27); Büttikofer, *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)*, 22; D.F. van Slooten, 'Correspondence with A. Hoogerwerf' (8 August 1949), inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>341</sup> Büttikofer, *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)*; International Union for the Conservation of Nature and Natural Resources (IUCN), *International Union for the Protection of Nature (Established at Fontainebleau 5 October 1948)*; UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 'International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers'.

with species protection in the year to come, especially in regard to the Javan rhino. The encounters between Hoogerwerf and Coolidge at Fontainebleau, and later at Lake Success, were therefore most important for the development of the Javan rhino as a prime example of the park-species approach.

The Dutch delegates used these networks and positions in an attempt to promote the Javan rhino's dire fate to an international audience. They used the political struggle of the Indonesian decolonization as the main legitimization to plead for international interference on behalf of the Javan rhino. Hoogerwerf's international promotion of the Javan rhino should therefore be understood against the backdrop of Indonesian decolonization and colonial officials' anxiety for losing influence and authority in Indonesia. This shows how they tried to re-establish and re-invent Dutch political authority on conservation matters through international governance. As Hoogerwerf himself implies, he deliberately chose to focus on the Javan rhino as a representation of larger issues he thought were at stake in Indonesia:

“[...] het is mijn bedoeling geweest door aandacht te vragen voor deze dieren [Javan rhino and Javan tiger] de aandacht te vestigen op de benarde positie waarin onze natuurschatten in Indië zich bevinden.”<sup>342</sup>

His focus on “our” could be understood in two ways. On the one hand, he could refer to “our natural treasures” as Dutch possessions. On the other, he might consider that these “treasures” belonged to the entire humankind. I argue that the first option is more likely. The quote is an excerpt from a rather confidential letter between Hoogerwerf and the Director of the Botanical Garden at the time, in which the circumstances of the imminent transfer of political power to an independent Indonesia is discussed. Hoogerwerf hoped setting the Javan rhino on the international agenda would gain him a continued influence in the species protection.

The Dutch delegates securitization of the Javan rhino's situation in light of the Indonesian War of Independence formed the main strategy of their attempt to let the IUCN intervene in Indonesia. Hoogerwerf, for example, sent in a report to the Brunnen

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<sup>342</sup> Translation: ““[...] It was my intention by drawing attention to these animals [Javan rhino and Javan tiger] to draw attention to the plight of our natural treasures in the Dutch East Indies”. A. Hoogerwerf, ‘Correspondence with Dr. D.F. van Slooten (Director of the Botanical Garden in Buitenzorg)’, 25 July 1949, inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

conference that claimed the Javan rhinos were “butchered” by “terrorists” during the independence war to arouse support for interference.<sup>343</sup> Although this paper was not officially presented at the conference, it was included in the official report and Bernard considered it an “excellent piece”.<sup>344</sup> This securitized narrative found common ground at later conferences, as discussions on the use of weapons by native populations was a recurrent theme at the conferences. This might be explained by the increasing political tensions that the post-1945 decolonization wave brought about in multiple colonies.

As part of the securitization strategy, Hoogerwerf displayed a film about the mammal at the Fontainebleau conference to visualize and help the audience imagine what was at risk. Hoogerwerf was the only person in the world who possessed imagery of the Javan rhino in the wild. This strategy therefore boosted support by arousing feelings of rareness and stressing the importance of conservation for assembling knowledge on threatened species. According to the Dutch delegates, Coolidge was impressed by the film and Hoogerwerf’s efforts to protect the Javan rhino.<sup>345</sup> Hoogerwerf actively tried to convince Coolidge to take up the matter of the Javan rhino more seriously at Fontainebleau’s Technical Symposium.<sup>346</sup> Coolidge openly agreed with Hoogerwerf’s concerns, stressed the importance of taking action to protect the Javan rhino and considered the possibility of publicly reminding the Indonesian authorities on their nature conservation duties.<sup>347</sup> Although it is unclear to what extent Coolidge already considered promoting the urgency of protecting the Javan rhino at the conference, the Dutch delegates influenced the right person with their securitization strategy. On the Lake Success conference, Coolidge instigated the

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<sup>343</sup> It was the same report Hoogerwerf would later present at the Seventh Pacific Science Congress. Bernard, ‘Verslag van de Brunnen Conferentie Gericht Aan de Minister van Overzeese Gebiedsdelen’; Büttikofer, *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)*, 268.

<sup>344</sup> Bernard, ‘Verslag van de Brunnen Conferentie Gericht Aan de Minister van Overzeese Gebiedsdelen’.

<sup>345</sup> J.K. van der Haagen et al., ‘Verslag Betreffende de Conférence Internationale Pour La Protection de La Nature, Fontainebleau, 30 September Tot 7 October 1948’, n.d., inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>346</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Documents Préparatoires a La Conférence Technique Internationale Pour La Protection de La Nature, Août 1949, États-Unis’ (Paris & Brussels, 1949), 84–85, IUCN Digital Library.

<sup>347</sup> J.K. van der Haagen et al., ‘Technisch Symposium Ter Conferentie van Fontainebleau Voor de Stichting Eer Internationale Unie Voor Natuurbescherming’, n.d., inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

institutionalization of threatened species lists as an official conservation tool. Under the influence of Coolidge and Hoogerwerf, the Javan rhino was elected among IUCN's fourteen designated threatened species at Lake Success.<sup>348</sup>

Conservationists had acknowledged the importance of species protection at earlier conferences, but it was at Lake Success that the issue was framed more urgently and in need of an action plan. IUCN seized the opportunity to use the matter of species protection as a means to reinforce their right of existence and expand their sphere of influence. As Coolidge stated, the field of species protection offered "an opportunity for the IUCN to perform a very valuable function in a heretofore neglected field".<sup>349</sup> On Coolidge's instigation, the Survival Species Commission (SSC) was established at Lake Success had to assemble and co-ordinate information on threatened fauna and flora species.<sup>350</sup> The SSC used a globally oriented threatened species lists instrument to visualize where conservation efforts should be prioritized, providing the conservation movement with a better defined point of focus for taking action. Two threatened species lists were drafted: one list of thirteen bird species and another of fourteen mammals.<sup>351</sup> The two lists were deliberately short, as Coolidge argued "It would undoubtedly be desirable to recommend for international attention at the start only a few species whose survival is very precarious and whose numbers are extremely

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<sup>348</sup> The official name of the conference was the International Technical Conference on the Protection of Nature. It would be held at Lake Success in 1949 and was organized with the help of UNESCO, who held a conference on natural resource use in Lake Success at the same time. International Union for the Conservation of Nature and Natural Resources (IUCN), *International Union for the Protection of Nature (Established at Fontainebleau 5 October 1948)*, 12–13.

<sup>349</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 'International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers', 133.

<sup>350</sup> At Lake Success, this commission was called the "International Survival Office". At the 1956 General Assembly at Edinburgh, the office was renamed as the Survival Service Commission. UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 133, 135, 486; Harold J. Coolidge, 'An Outline of the Origins and Growth of the IUCN Survival Service Commission', in *World Program for Endangered Species* (Thirty-Third North American Wildlife and Natural Resources Conference, Washington, D.C.: Wildlife Management Institute, 1968), 410.

<sup>351</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 'International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers', 182–85.

limited, like the *Rhinoceros sondaicus* in Java”.<sup>352</sup> This shortlist approach was considered to function better “in focusing international attention on at least some of the species that seem to be in danger of extinction”.<sup>353</sup> The Javan rhino was put on top of the final mammal list, implying its status as most endangered in this category. Coolidge had personally promoted the inclusion of the Javan rhino on the list, because it had already been discussed at Fontainebleau and at the Seventh Pacific Science Congress, especially by Hoogerwerf and himself.<sup>354</sup>

The second Dutch contribution to the conferences was the proposal on ‘international reserves’, which had been instigated by Dammerman at Brunnen.<sup>355</sup> His proposal to legitimize international supervision and interference in the national management of reserves was also influenced by fears on the consequences of political instability and the ongoing Indonesian decolonization process. This anxiety became more explicit when Indonesian independence became reality. In light of Fontainebleau’s Technical Symposium, Dutch delegates stated:

"Voor al ook met het oog op Indonesië moet het van grote betekenis worden geacht zo spoedig mogelijk te komen tot instelling van internationale reservaten, eensdeels om internationale contrôle, zo nodig ook internationale steun voor die belangrijke reservaten te verkrijgen, anderdeels om de ambtelijke instanties het besef bij te brengen, welke grote waarde en betekenis deze aan hun zorg toevertrouwde reservaten hebben.”<sup>356</sup>

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<sup>352</sup> The list only contained species which the delegates thought could benefit most from immediate conservation action, not necessarily because they were the most threatened. Some birds species were omitted, for example, because the delegates considered their situation hopeless. UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 135, 487.

<sup>353</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 135.

<sup>354</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 489.

<sup>355</sup> Büttikofer, *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)*, 178.

<sup>356</sup> Translation: “Especially with Indonesia in mind, it must be considered of great importance to establish international reserves as soon as possible, partly to obtain international control, if necessary also international support for those important reserves, and partly to make the official bodies aware what great value and significance these reserves entrusted to their care have”. van der Haagen et al., ‘Technisch Symposium Ter Conferentie van Fontainebleau Voor de Stichting Ener Internationale Unie Voor Natuurbescherming’.

This proposal represents a plea for the continuation of old ideas, patterns and practices. It shows how Dutch delegates considered the creation of international reserves a means to transfer control of the natural environment to international organizations until the new Indonesian authorities learned to appreciate the international organization's conservation approach.

At Lake Success, the Dutch proposal on 'international reserves' was more specifically integrated in discussions about international cooperation on stimulating ecological research, especially in regard to saving threatened species.<sup>357</sup> Dutch delegates reasoned that international interference and supervision by the IUCN in Indonesian conservation was necessary as the Indonesian population would not take the matter up on their own in the foreseeable future. They argued this might cause the extinction of various large Indonesian mammals and the serious decline of others. Dutch conservationists, with support of other delegates, therefore liked "to see action taken on an international scale with regard to the Indonesian authorities".<sup>358</sup> The reports of Hoogerwerf and F.J. Appelman (former forester and NIVN conservationist in the Dutch East Indies), presented at Lake Success are illustrative of the Dutch conservationist sentiment towards the prospect of an Indonesian governed conservation regime. At the conference Hoogerwerf had argued in regard to "grave situation" of the Javan rhino:

"Oriental peoples are even less open to the idea of nature protection than are the people of the West, and an animal of such high commercial value cannot be saved except by strenuous control in national parks. The study of *Rhinoceros sondaicus* must also be furthered as soon as the political situation makes it possible. Very little is known by scientists about its behaviour. Everything should be done to learn more about the biology of this animal in trying to carry through protective measures".<sup>359</sup>

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<sup>357</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 'International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers', 117, 119, 133.

<sup>358</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 117, 133.

<sup>359</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 141.

In his written contribution to the conference, Appelman also stressed how “the emancipation of the Indonesian peoples, many of whom are as of yet not enough developed to have respect for the wild life and nature of their countries” was a “serious complication”.<sup>360</sup> Therefore, Appelman argued that the IUCN:

“should study the possibility of taking over and maintaining the management of valuable nature reserves, etc., in countries which for the moment are not in a position to provide adequate control and which are willing to accept the aid of the Union [IUCN]. [...] It should be clearly understood that Asiatic (and other) tropical fauna and flora can be saved only by continuous pressure and financial aid from the civilized peoples of the West.”<sup>361</sup>

This narrative echoed the trope of imperial stewardship and the duty of ‘civilized’ nations to protect species where the ‘uncivilized’ were ‘unable’ to. The Dutch lobby was successful and at Lake Success a resolution was adopted that the IUCN would “obtain documentation on this matter and take the necessary steps” to ensure the protection of threatened species in the soon to be Indonesian state.<sup>362</sup>

## **Transnationalizing the ‘Park-Species’ Narrative**

In the 1950s and 1960s, the IUCN internationally promoted the narrative that species protection within protected areas was of paramount important to humankind. In this paragraph, I will focus on how IUCN’s use of threatened species lists enabled the rise of the park-species conservation regime. It will further assess how the Javan rhino and Ujung Kulon became a role model in the promotion of the park-species narrative. I argue that the institutionalization of threatened species lists as a conservation tool fulfilled a crucial role in this transnationalization process of the park-species approach.

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<sup>360</sup> F.J. Appelman, ‘Concerning Botanical and Vertebrate Species, That Are Menaced with - or Already on the Way to - Extinction, for the Protection of Which Immediate Measures Are Necessary’, in *Report of Discussion on Threatened and Vanishing Species of Flora and Fauna, Requiring Immediate Action for Their Preservation*, 1949.

<sup>361</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), ‘International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers’, 475.

<sup>362</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 119, 183.



The park-species narrative legitimized the IUCN's position as a science-based environmental watchdog that could pressure governments into taking action for conservation.

The threatened species lists approach of Lake Success was built on two important principles that enabled the IUCN's permanence and expansion as a nature conservation authority. First of all, the IUCN had set up the design of threatened species lists as an ever expanding instrument for conservation from the start.<sup>363</sup> Preferably, in the future these lists would also help conservationists to anticipate on the situation of unstable species "long before they were reduced to a critically low level".<sup>364</sup> Therefore, scientists took up an important role in IUCN's self-assumed watchdog position. They had to gather information, monitor the condition of (to be) threatened species, and consider the best strategy for their conservation and habitat protection. The role IUCN envisioned for themselves in globally supervising species' welfare in the long run was officially integrated in one of Lake Success's resolutions:

"[...] the Union [IUCN] should maintain an open list of such rare and threatened animal species with their areas, associations and habitats, and that it should promote or sponsor such ecological research as would determine the exact status of such habitats and would enable adequate and reliable advice to be offered to the governments concerned and to the interested local organizations as to what measures would be necessary and effective for their preservation".<sup>365</sup>

This anecdote hints to a development that also contributed to the rise of the park-species regime: the rise of ecology as a field of study.<sup>366</sup> Ecologists studied the relationship between species and their habitat and the human pressure on this system. This affirmed the park-species narrative IUCN was promoting and it could be used to

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<sup>363</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 135, 141.

<sup>364</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 137, 141.

<sup>365</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), 185.

<sup>366</sup> Ross, 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century', 234; Schleper, *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*, 31; Kaiser and Meyer, *International Organizations and Environmental Protection : Conservation and Globalization in the Twentieth Century*, 2.

justify sending ecologists to (future) reserves to study how threatened species could be best protected. During the 1950s, the SSC mostly focused on collecting and verifying information on threatened species by sending out questionnaires on vanishing animals and employing ecologists to study their situation ‘on the ground’. As the SSC acknowledged itself, this was a necessary first step in species protection:

“Our intervention is only justified when it concerns animals whose status is well known. This is the first condition to be filled [...] It is not until the Union has all this information at its disposal that intervention will seem opportune.”<sup>367</sup>

In collaboration with the IOPN, the SSC used a system of card indexes to keep information on the status of various species – not only the ‘officially’ threatened ones – up to date in one place.<sup>368</sup> The organizations decided to no longer include general biological information on species but only focus on keeping track of their “numerical decline or the causes of these declines, or the effects of protective measures”.<sup>369</sup> This enabled IUCN to establish itself as an authority in the field of species protection with the prevention of species extinction as a permanent field of action.

Secondly, the IUCN used the argument that reserves were of paramount importance in species protection to legitimize their interference in countries’ internal territorial affairs. One of IUCN’s main objectives was to promote “appropriate legislation such as the establishment of national parks, nature reserves and monuments and wild life refuges, with special regard to the preservation of species threatened with extinction”.<sup>370</sup> By the 1960s, this park-species connection had become thoroughly entangled. If threatened species were to be saved, Coolidge stated at the

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<sup>367</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Proceedings and Reports of the Second Session of the General Assembly, 18-23 October 1950, Brussels’ (Brussels, 1951), 26, IUCN Digital Library.

<sup>368</sup> ‘Projet de Reorganisation Du Classement de l’Office International Pour La Protection de a Nature’ (n.d.), 4, 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam.

<sup>369</sup> Original French: “n’y entrèrent plus d’informations sur la biologie générale des espèces mais seulement des renseignements concernant soit les diminutions numériques ou les causes de ces diminutions, soit les effets de mesures de protection.” ‘Projet de Reorganisation Du Classement de l’Office International Pour La Protection de a Nature’, 4.

<sup>370</sup> van der Haagen et al., ‘Verslag Betreffende de Conférence Internationale Pour La Protection de La Nature, Fontainebleau, 30 September Tot 7 October 1948’; International Union for the Conservation of Nature and Natural Resources (IUCN), *International Union for the Protection of Nature (Established at Fontainebleau 5 October 1948)*, 6–7, 10, 17.

First World Conference on National Parks (1962), the creation of reserves was the first and foremost measure to do so:

“Only those species whose natural habitat is included in the wilderness or primitive areas of national parks and reserves which are established under effective and enforced laws are the chosen few as far as probable protection from extinction is concerned.”<sup>371</sup>

The explicit relationship conservationists now made between the protection of threatened species in their habitat was the result of the upcoming field of ecology in combination with a better understanding of the position of the ‘human species’ in the natural world.<sup>372</sup> In this regard, conservationists often blamed the ‘uncivilized’ people in (former) colonies more specifically for contributing to species decline. National parks and reserves were considered a necessary territorial boundary with which to guard species against people’s continuous pressure.<sup>373</sup>

From the 1950s, the IUCN therefore also started to gather more information on the state of protected area initiatives worldwide.<sup>374</sup> Protected areas formed the cornerstone of the conservation regime IUCN envisioned, especially in regard to species protection. In order to promote park creation, IUCN began to standardize the nomenclature and management approaches of the various types of protected areas that existed. The perception of protected areas as ‘best practice’ in nature conservation was further institutionalized within the IUCN through the establishment of the International Committee on National Parks (ICNP) in 1958, again under the instigation of Harold Coolidge.<sup>375</sup> The commission repeatedly collaborated with the

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<sup>371</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), ‘International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers’, 480.

<sup>372</sup> See, for example, the Proceedings and Papers of the Lake Success conference, which for the greatest part is dedicated to subjects of ecology.

<sup>373</sup> UNESCO and International Union for the Conservation of Nature and Natural Resources (IUCN), ‘International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers’, 123.

<sup>374</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘The Position of Nature Protection throughout the World in 1950’ (Brussels, 1951), IUCN Digital Library.

<sup>375</sup> In 1958 a Provisional National Parks Commission was established, which was renamed as ICNP in 1960. Coolidge played an important role in the programme of both the ICNP and the

SSC or the IUCN's Commission for Ecology. Not coincidentally, the Indonesian archipelago was one of the first points of focus of the ICNP.<sup>376</sup> As Coolidge argued when announcing the establishment of the ICNP, there was "no more efficient form of conservation than setting aside territories as national parks or nature reserves" to protect biotopes.<sup>377</sup> The ICNP organized the First World Conference on National Parks (Seattle, 1962). Conference delegates explicitly stressed the importance of parks because of their role in species protection and officially recommended:

"[...] that for every kind of animal or plant threatened with extinction an appropriate area of natural habitat be provided in a national park, wildlife refuge, wilderness area, or equivalent reserve to maintain an adequate breeding population, and takes the view that any species so threatened which is not accorded such official sanctuary proclaims the failure of the Government concerned to recognize its responsibility to future generations of mankind."<sup>378</sup>

The anecdote shows how park creation was perceived by the ICNP, and by the IUCN at large, as the best instrument for the biopolitical regulation and control of a species' population demographics and birthrate to ensure their future existence. It also shows how they perceived the park-species approach a duty of any national government. A lack of such an approach, was thought to warrant IUCN's interference. The conservation instrument of park creation had now also become an ever-extending tool, because of its close entanglement with the framework of threatened species lists.

Aided by the threatened species list instrument, IUCN extensively promoted and universalized this 'park-species' narrative in the 1950s, and in the 1960s together with the World Wildlife Fund (WWF). Conservation organizations often used 'flagship

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SSC, and from 1966 to 1972 he was even president of the entire IUPN. In 1963, the position of chairman of the SSC had been taken over by Peter Scott, who had been SSC member since 1956 and would be co-founder of the World Wildlife Fund. International Union for the Conservation of Nature and Natural Resources (IUCN), 'Proceedings Sixth General Assembly, September 1958, Athens' (Brussels, 1960), 75–76, IUCN Digital Library; International Union for the Conservation of Nature and Natural Resources (IUCN), 'Proceedings Seventh General Assembly, June July 1960, Warsaw' (Brussels, 1960), 95, IUCN Digital Library.

<sup>376</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Seventh General Assembly', 72.

<sup>377</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Sixth General Assembly', 75.

<sup>378</sup> Adams, *First World Conference on National Parks*, 384.

species' as icons that symbolized extinction threats and aroused public sympathy and support.<sup>379</sup> In the 1950s and 1960s, IUCN and WWF adopted the Javan rhino as one of their 'flagship species' and subsequently presented Ujung Kulon and the work carried out in the reserve as a role model for the preservation of threatened species. Here, it will be illustrated how IUCN and WWF redefined the relationship between the Javan rhino's situation and its existence in Ujung Kulon and promoted this in various popular publications. As will be discussed below, the IUCN and WWF essentially securitized endangered species in order to gain support of a wider audience and create legitimacy and authority for action and interference by their organizations.

The publications *Les Fossiles de Demain* (1954) by J.M. Vrydagh and *A Look at Threatened Species* (1960) by Lee M. Talbot were the first important outcomes of IUCN's studies on endangered mammals.<sup>380</sup> Both publications were partly a scientific, partly a popular work, to supply the scientific community with necessary data, while keeping it an "interesting, readable and understandable" work for a wider audience.<sup>381</sup> The title *Les Fossiles de Demain* in itself illustrates how the SSC deliberately framed an image of abrupt danger to popularize a feeling of urgency to invest in species protection. This was part of their securitization strategy. The SSC used this image to legitimize the need for the IUCN to focus on the field of species protection:

"Le titre de ce premier volume "Les Fossiles de demain" est non seulement une fort heureuse trouvaille: il est symbolique pour ceux qui savent, et il sera révélateur pour ceux qui apprendront. Puisse l'effort nouveau, né de l'illumination dont certains seront frappés, contribuer à la fois à encourager l'UIPN [IUCN] et à éclairer aussi sa route."<sup>382</sup>

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<sup>379</sup> Adams, *Against Extinction*, 128.

<sup>380</sup> Vrydagh only focused on the Lake Success species list. Talbot focused on some Lake Success species in this region, as well as on species that were added on the list during the Third General Assembly in Caracas (1952). International Union for the Conservation of Nature and Natural Resources (IUCN), 'Proceedings and Reports of the Third General Assembly, 3-9 September 1952, Caracas' (Brussels, 1952), 44, IUCN Digital Library; J.M. Vrydagh, *Les Fossiles de Demain: Treize Mammifères Menacés D'Extinction, Études Par Le 'Service de Sauvegarde' de l'Union Internationale Pour La Protection de La Nature*, Pro Natura (Brussels: International Union for the Protection of Nature, 1954); Lee M. Talbot, 'A Look at Threatened Species', *Oryx* 5, no. 4-5 (1960): 155-293.

<sup>381</sup> Talbot, 'A Look at Threatened Species', 166.

<sup>382</sup> Translation: "The title of this first volume "The Fossils of tomorrow" is not only a very happy discovery: it is symbolic for those who know, and it will be revealing for those who will learn.

The SSC thus deliberately securitized the protection of threatened species in the hope others would be struck by the imminent threat these species were supposedly under and support the IUCN.

To reach a wider audience, shortened and translated versions of “The Fossils of Tomorrow” were also published or referred to in popular newspapers and magazines. For example, a popular version was published in the American magazine *Life* in 1955, accompanied with large coloured paintings of the Lake Success threatened mammals. In 1956, ecologist Lee M. Talbot described his IUCN field mission under the same title. The newspaper *The Times* (London), and *The UNESCO Courier* magazine published a story on some of the “Fossils” in 1958.<sup>383</sup> The Javan rhino and Ujung Kulon appeared in all these publications and in the original publication, it was even discussed first and the most extensive. The UNESCO Courier even stated that Ujung Kulon was “among the best-known reserves and national parks of Asia and the Pacific area [...] concerned almost exclusively with protecting a single rare species threatened with extinction [the Javan rhino]”.<sup>384</sup> All these publications contributed to the emergence a park-species conservation regime with the Javan rhino as one of its protagonists.

First in *Les Fossiles de Demain*, and more elaborately in *A Look at Threatened Species*, the relationship between threatened species and the functioning of reserves as refuges was also illustrated very explicitly through the technique of biogeographical mapping. In *A Look at Threatened Species*, Talbot showed maps of the Javan rhino’s “historical” distribution compared to its unconfirmed and present one and the existing management areas in Ujung Kulon (see Figure 6 and 7).<sup>385</sup> Maps convey meanings

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May the new effort, born from the inspiration with which some will be struck, contribute both to encouraging the IUPN [IUCN] and also to enlighten its path.” Vrydagh, *Les Fossiles de Demain: Treize Mammifères Menacés D’Extinction, Études Par Le ‘Service de Sauvegarde’ de l’Union Internationale Pour La Protection de La Nature*, 4.

<sup>383</sup> ‘Tomorrow’s Fossils: Many Rare Animals Face Extinction as Civilization Expands’, *Life*, 14 March 1955; Lee M. Talbot, ‘Fossils of To-Morrow: American Naturalist Describes His Quest for Rare Animals’, *The Times*, 8 July 1956, The Times Digital Archive; M. Caram and J.J. Petter, ‘Fossils of Tomorrow’, *The UNESCO Courier*, Man Against Nature, 11, no. 1 (1958): 6–8.

<sup>384</sup> Unknown, ‘Last Refuge’, *The UNESCO Courier*, Man Against Nature, 11, no. 1 (1958): 14.

<sup>385</sup> This practice built on a similar strategy that had been used by Henry Fairfield Osborn and H.E. Anthony in their ‘Close of the Age of Mammals’ (1922). Vrydagh, *Les Fossiles de Demain: Treize Mammifères Menacés D’Extinction, Études Par Le ‘Service de Sauvegarde’ de l’Union Internationale Pour La Protection de La Nature*, 11; Talbot, ‘A Look at Threatened Species’, 207, 209; H.F. Osborn and H.E. Anthony, ‘Close of the Age of Mammals’, *Journal of Mammology* 3, no. 4 (1922): 219–37.

about how one should regard and approach the territory that is depicted and are therefore important instruments of territoriality.<sup>386</sup> In this regard, the historical distribution map delivered a very strong image (see Figure 6): highlighting how the Javan rhino's distribution had shrunk all the way down to the point Ujung Kulon was the only territory in which it was known to exist, implicitly emphasized the species' endangered situation and the importance of the reserve in species protection. As the only one in the whole *A Look at Threatened Species*, the Javan rhino's distribution map even mentioned the low population number next to the reserve's name to highlight the critical relationship between both. Ujung Kulon was also the only reserve Talbot depicted with delineated management areas (Figure 7), which he also described more in-depth in his text. This might be explained by the fact that Talbot thought very highly of the measures already taken in Ujung Kulon, although these measures were in fact more directed at other species than the Javan rhino:

“The Government of Indonesia deserves great credit for the fine condition of the Ujung Kulon Game Reserve. Without its active and well-directed program the Javan rhino would probably be extinct.”<sup>387</sup>

After Talbot's publication, the IUCN also stressed the “satisfactory” protection of the Javan rhino in Ujung Kulon at General Assemblies and even commended the Indonesian government for their efforts in protecting Ujung Kulon and “all its botanical and zoological species”.<sup>388</sup> The fact that an international spectator had perceived Ujung Kulon's conservation regime as well-established (Hoogerwerf, conservation officer in Indonesia, would probably disagree with his statements, see Chapter 3) might have contributed to the development of Ujung Kulon as role model for the creation of parks for other threatened species.

The Javan rhino was territorially bound to Ujung Kulon, and this connection sent out a stronger image of the importance of reserves than the protection of a threatened species that could still be saved in multiple places, even though their condition could

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<sup>386</sup> Hannah de Korte and David Onnekink, ‘Maps Matter. The 10/40 Window and Missionary Geography’, *Exchange* 49 (2020): 110–44.

<sup>387</sup> Talbot, ‘A Look at Threatened Species’, 214.

<sup>388</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Proceedings Eighth General Assembly, September 1963, Nairobi’, IUCN Publication New Series (Morges, 1964), 114, 138, IUCN Digital Library.

be more unstable than the Javan rhino's. Already in 1954, SSC ecologist J.J. Petter stated that reserves for the protection of the Sumatran rhino in Burma (Myanmar) and Malaya (Malaysia) "could be modelled on the Oedjong-Koelon National Park in Java".<sup>389</sup> The IUCN often explicitly stressed the exclusive relationship between the Javan rhino and Ujung Kulon by referring to the reserve with phrases like "its only known remaining home" or "stronghold".<sup>390</sup> In 1969 the SSC published *The Red Book: Wildlife in Danger*, a popular version of the loose leaflet *Red Data Book* used by scientists since the early 1960s.<sup>391</sup> Here, it was even suggested Ujung Kulon was the most important protected area worldwide because of the Javan rhino:

"Udjong Kulon must be regarded as the last remaining stronghold of the Javan rhinoceros, and thus the reserve can justifiably claim to be one of the most important in the world. [...] Various proposals have been made for ensuring the survival of the Javan rhino. In considering the merits and demerits of the various schemes, it becomes clear that all hope for the future of the species hinges on the Udjong Kulon Reserve."<sup>392</sup>

This shows how the park-species conservation regime was established internationally in the 1950s and 1960s, through the institutionalization of threatened species lists and park creation and their mutually enforcing functioning. The IUCN now highly valued the protection of the Javan rhino within Ujung Kulon and had gathered information on its ecology, the organization considered it justifiable to interfere in Ujung Kulon's management.

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<sup>389</sup> Survival Service Commission (SSC), 'Report on the Work of J.J. Petter' (Proceedings and Papers of the Fourth General Assembly, 25 August - 3 September. Copenhagen, Brussels: International Union for the Protection of Nature, 1955), 48.

<sup>390</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Eighth General Assembly', 114; James Fisher et al., *The Red Book: Wildlife in Danger* (London: Collins, 1969), 113–14.

<sup>391</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Proceedings and Summary of Business (Volume II), Tenth General Assembly, 24 November - 1 December 1969, New Delhi', IUCN Publication New Series (Morges, 1970), 48, IUCN Digital Library.

<sup>392</sup> Fisher et al., *The Red Book: Wildlife in Danger*, 113–14.



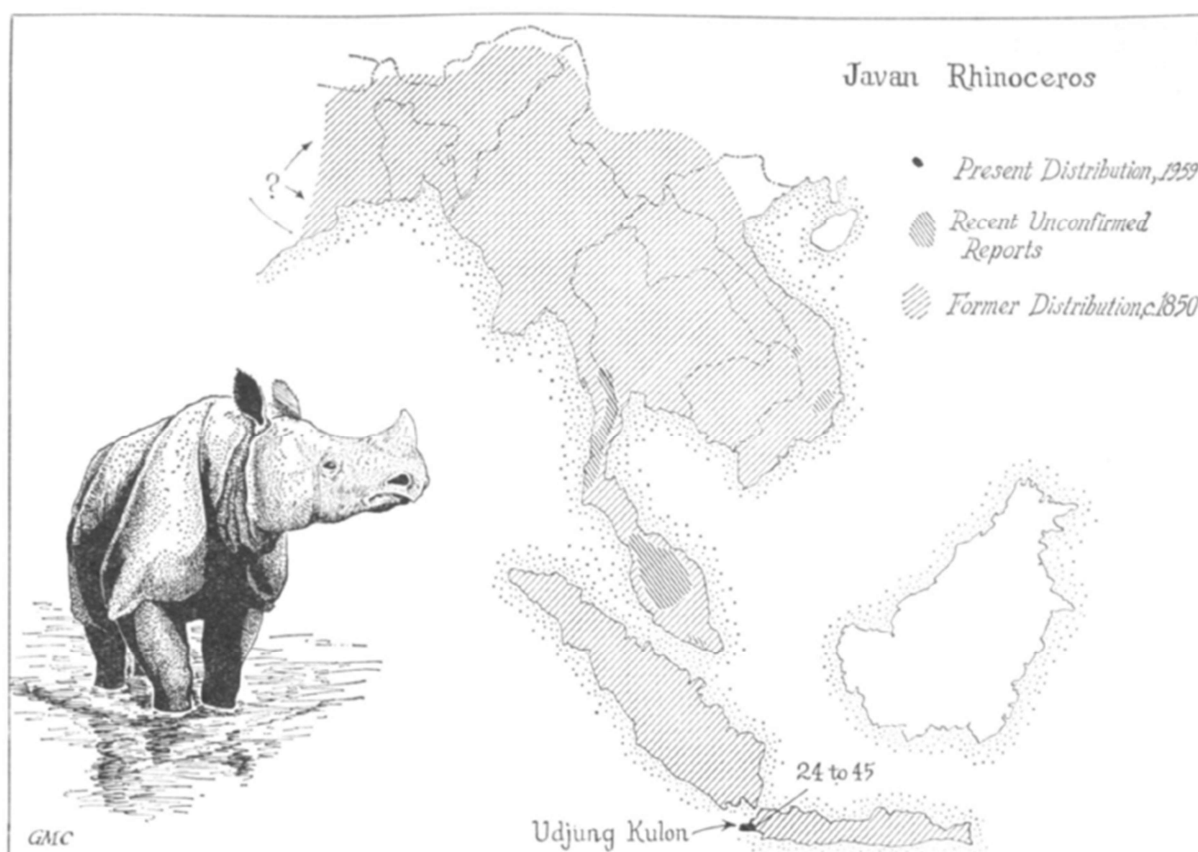


Figure 6 – Historical and present distribution of the Javan rhino. Lee M. Talbot, 'A Look at Threatened Species', *Oryx* 5 (1960) 4–5, 155–293, there 207.

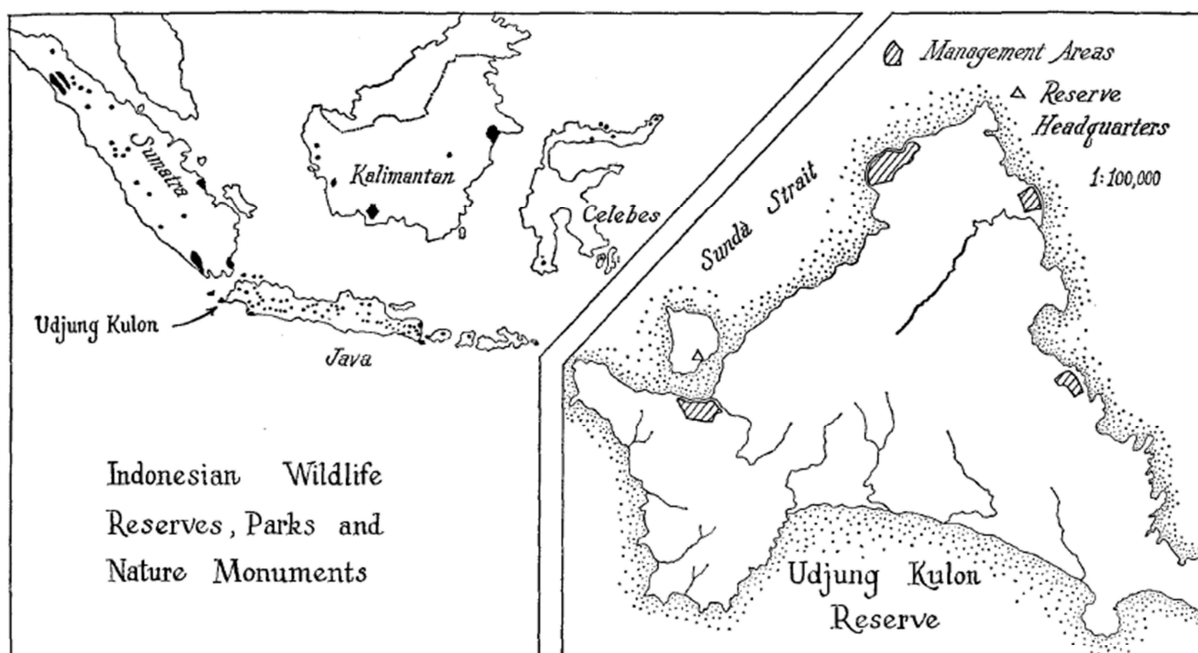


Figure 7 - Management areas in the Ujung Kulon Game Reserve Lee M. Talbot, 'A Look at Threatened Species', *Oryx* 5 (1960) 4–5, 155–293, there 208.

## Weaving a ‘Green Web’

This paragraph explores how IUCN, and later WWF, affected the practical execution of Ujung Kulon’s governance and management between the 1950s and 1960s, based on the park-species approach discussed in the last paragraph. An important factor in this process was the continuity of former colonial officials and conservationists who now promoted their ideas on an international level rather than within the former colonies (see the previous paragraphs).<sup>393</sup> This mirrored trends in continuity of colonial elites in other new international organizations focused on ‘development’, such as the Food and Agriculture Organization (FAO).<sup>394</sup> As a consequence of these continuities, IUCN and WWF attracted new scientific institutions and used celebrity environmentalism to re-establish former power relations and conservation practices. The concept of celebrity environmentalism can be understood as activism by celebrities – individuals who enjoy public recognition – to publicly support environmental causes.<sup>395</sup> The concept will be used to analyze how the IUCN and WWF used Javan rhino as a celebrity animal, and how they attracted prominent men as ambassadors for the rhino’s protection in Ujung Kulon. This will help to illustrate how IUCN and WWF affected Ujung Kulon’s conservation regime.

In the 1950s and 1960s, IUCN and WWF took over the role previously held by Dutch nature conservation organizations NCIN and NIVN to continue influencing the government of Indonesia on conservation issues.<sup>396</sup> In the meantime, the NCIN

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<sup>393</sup> Schleper, *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*, 26.

<sup>394</sup> E.M. Muschik, ‘The Art of Chameleon Politics: From Colonial Servant to International Development Expert’, *Humanity: An International Journal of Human Rights, Humanitarianism, and Development* 9, no. 2 (2018): 219–44; J.M. Hodge, ‘British Colonial Expertise, Post-Colonial Careerism and the Early History of International Development’, *Journal of Modern European History* 8, no. 1 (2010): 24–46.

<sup>395</sup> C. Abidin et al., ‘The Tropes of Celebrity Environmentalism’, *Annual Review of Environment and Resources* 45 (2020): 390; Dan Brockington, *Celebrity and the Environment: Fame, Wealth and Power in Conservation* (London & New York: Zed Books, 2009).

<sup>396</sup> After Indonesian independence, the NIVN was soon disbanded and the NCIN lost their influence in their main sphere of activity up to then. Their other point of focus, gathering information about species protection and reserves, was taken up by IUCN. Developing countries were hardly represented in the executive board of the IUCN until 1966 and therefore their voice only influenced the IUCN’s program later onwards. It took until 1963 for an Indonesian representative joined the general assembly, but still as an observer in name of the Indonesian Forest Service, and only 1969 that grew to multiple representatives but again not

switched tactics in order to maintain the organization's relevance. Especially under the guidance of F.J. Appelman, the NCIN increasingly focused on *ex situ* conservation in zoos as an alternative 'last resort' rescue measure for when conservation in reserves failed.<sup>397</sup> The Javan rhino's protection by captivity was considered as well, as zoological gardens were very interested in showcasing this rare species. Despite its incredible rareness, or rather because of it, scientists considered the Javan rhino's situation too precarious and thus at the moment unfit for captive conservation.<sup>398</sup> Threatened species and their ecological circumstances also appeared to be the most understudied ones.<sup>399</sup> This lack of knowledge made it extremely difficult to set up a system of sound protective measures, both in their 'natural habitat' as in captivity. Therefore, the NCIN lost its value in protecting the Javan rhino over the years.

In the early 1950s, Dutch delegates continued to ask the IUCN to take up the role of "arbitrator in all international matters dealing with nature protection", including in Indonesia.<sup>400</sup> In regard to Indonesia, Dutch conservationist M. van der Goes van Naters emphasized that this role of arbitrator was reserved for an international organization par excellence:

"The Dutch Government is rightly opposed to the intervention of an official organization in the affairs of another sovereign state. There is only one authority which can intervene: namely, our Union, and Mr. President, I am happy to learn by the report which has just been distributed, that the Secretary-General has already approached the Indonesian Government."<sup>401</sup>

The IUCN indeed actively tried to influence the new Indonesian government to 'improve' their conservation activities. At the suggestion of the Survival Service, a

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as member state but as delegate of governmental agency or institution, don't know when they went to more than that. Holdgate, *The Green Web*, 198.

<sup>397</sup> Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 16* (Amsterdam, 1955); Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 17* (Amsterdam, 1956); Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 18* (Amsterdam, 1959); Nederlandsche Commissie voor Internationale Natuurbescherming, *Mededeelingen No. 19* (Amsterdam, 1959).

<sup>398</sup> Talbot, 'A Look at Threatened Species', 215.

<sup>399</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Second General Assembly', 25.

<sup>400</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 17.

<sup>401</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 18–19.

resolution had been adopted at the Second General Assembly that granted the Executive Board the “authority to take immediate action in all urgent cases as, for example, the *Rhinoceros sondaicus*”.<sup>402</sup> Consequently, IUCN’s president Charles Bernard had approached the Indonesian president Sukarno in early 1950 about nature conservation in the archipelago.<sup>403</sup>

The IUCN’s organizational structure was set up to enforce the park-species approach worldwide: the SSC provided the organization with a goal of what needed protection most and in which order, while the ICNP demarcated the first and foremost means with which to enforce conservation and enabled a global framework of and network between protected areas. The ICNP’s main objective was “to strengthen international cooperation in matter relating to national parks and equivalent reserves throughout the world”.<sup>404</sup> In order to do so, the ICNP aimed to stimulate scientific research, especially ecological and wildlife studies, within protected areas and wanted to facilitate the exchange of expertise between reserves of various countries.<sup>405</sup> This set up affected the way in which IUCN tried to influence the conservation approach of national governments.

From the 1960s, the newly established World Wildlife Fund (WWF) built on the IUCN’s approach, and it became one of IUCN’s main financial sponsors.<sup>406</sup> The WWF’s entire *modus operandi* was primarily based on and motivated by the early version of SSC’s Red Data Books.<sup>407</sup> The transfer of IUCN’s ideas and practices to WWF, and WWF’s subsequent conservation projects, illustrates the powerfulness of the park-species conservation approach for coordinated action in (to be) reserves. The WWF internalized the park-species concept and established their own “Green Book” with “priority projects in priority order based on scientific considerations”.<sup>408</sup> Species were

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<sup>402</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 49–50.

<sup>403</sup> J. de Graaf to P.G. van Tienhoven and J.P. Harroy, ‘Rapport van Indonesië Voor En Vertegenwoordiging van Indonesië Op de 2e Algemene Vergadering van de IUPN Te Brussel in October 1950’, 10 March 1950, inv. nr. 30, NL-HaNA, Archive A. Hoogerwerf (2.21.281.27).

<sup>404</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Seventh General Assembly’, 95.

<sup>405</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 95.

<sup>406</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Proceedings Ninth General Assembly, 25 June - 2 July 1966, Lucerne’, IUCN Publication New Series (Morges, 1967), introductory page, IUCN Digital Library.

<sup>407</sup> Peter Scott, ed., *The Launching of a New Ark: First Report of the World Wildlife Fund*, World Wildlife Fund (WWF) (London: Collins, 1965), 155.

<sup>408</sup> Scott, 19–20.

ranked in a 'star listing', which visualized the species most in need of immediate protective measures and legitimized WWF's choice for the prioritized funding of some projects over others. The Javan rhino was rated as a 'three-star species', meaning there was "cause for *very grave anxiety*".<sup>409</sup> The WWF even claimed that saving this "rarest large mammal in the world" from extinction was "one of the most urgent of all the WWF projects" and that if they would not succeed there would be "reason to be ashamed of ourselves".<sup>410</sup>

The entire set up of WWF was based on celebrity environmentalism. This approach affected the way in which Ujung Kulon's governance and management was executed. The organization did not only focus on flagship species, such as the Javan rhino, but also set up its entire structure around the inclusion of famous and prominent people who could more effectively raise funds and pressure governments into taking action. WWF strongly recommended, for example, to choose someone "of unsurpassable distinction" as the president of National Appeals, which had to be "one of the six most distinguished and best-known people in the land".<sup>411</sup> The first patron and later President of WWF International was, for example, Prince Bernhard of the Netherlands, who was approached by the President of the British branch of WWF, Prince Philip, Duke of Edinburgh. These foreign ambassadors, among whom thus former colonial suppressors, tried to meddle in the governance and management of Indonesian reserves. The IUCN and WWF repeatedly put Prince Bernhard forward to convince Indonesian president Suharto to undertake more conservation projects and establish more protected areas to preserve species in the Indonesian archipelago (See Figure 8).<sup>412</sup> The (in)famous aviator Charles Lindbergh joined WWF's Board of Trustees between 1966 and 1972, and functioned more specifically as an ambassador for the Javan rhino and Ujung Kulon, visiting the reserve for the first time in 1967.<sup>413</sup> According to the IUCN's Executive Board, Lindbergh's visit had "stimulated

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<sup>409</sup> Scott, 155.

<sup>410</sup> Scott, 130, 138.

<sup>411</sup> Scott, 45.

<sup>412</sup> For one example, see Executive Board IUCN, 'Fourth Executive Committee Meeting', 21 February 1968, 6, inv. nr. 587, Stadsarchief Amsterdam.

<sup>413</sup> N.M. Simon, 'A Proposal for Ensuring Continuity of Research in Certain National Parks and Equivalent Reserves' (Morges, 27 July 1697), 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam.

considerable in the reserve among senior Government officials”.<sup>414</sup> I was not able to fully reconstruct their direct impact on Ujung Kulon’s management. However, from the various conservation projects that were instigated to save the Javan rhino in this period, it seems the Indonesian government agreed to international interference in their reserves more often.

The IUCN continued old patterns by granting scientists and scientific institutions the authority to draft conservation ‘best practices’ and providing them access to otherwise closed-off reserves for research. Until the mid-1960s, IUCN and WWF seem to have achieved relatively little to affect the actual management of Ujung Kulon and estimations of the Javan rhino population kept fluctuating between the 20 and 45 individuals. Between 1964 and 1968, the IUCN and WWF employed several scientists “in collaboration with” the Indonesian government to perform research on the Javan rhino in Ujung Kulon that would improve their management.<sup>415</sup> The extent of this collaboration could not be reconstructed. The statement on “collaboration” shows us, however, that the IUCN and WWF, from their own point of view, gained influence on the actual management of the reserve. These ecological surveys were a means to enlarge the influence of international conservation organizations in the area.

In its first years, WWF funded several projects to study the Javan rhino’s ecology and improve its protection in Ujung Kulon based on this scientific research.<sup>416</sup> Mr. and Ms. Talbot, for example, executed a “census” of Ujung Kulon’s wildlife in 1964.<sup>417</sup> This was meant to quantify and visualize the scale of the problems within the reserve, which could be used to improve the park’s management. Conservationist-scientists Rudolph Schenkel and Lotte Schenkel-Hulliger still considered ‘poaching’ as the main threat to the Javan rhino. Subsequently, they argued for the immediate reinstatement of the

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<sup>414</sup> Executive Board IUCN, ‘Minutes 42nd Session Meetings Executive Board’, 1 November 1967, inv. nr. 587, Stadsarchief Amsterdam.

<sup>415</sup> R. Schenkel and L. Schenkel-Hulliger, ‘The Javan rhinoceros (Rh. Sondaicus Desm.) in Ujung Kulon Nature Reserve. Its Ecology and Behaviour: Field Study 1967 and 1968’, *Acta Tropica* 26, no. 2 (1969): 98.

<sup>416</sup> Several other projects received funding to assess the existence of the Javan rhino (and the Sumatran rhino) in Sumatra, Thailand and Myanmar. Scott, *The Launching of a New Ark: First Report of the World Wildlife Fund*, 67, 119, 130, 138; Nederlandsche Commissie voor Internationale Natuurbescherming, ‘Overzicht van Werkzaamheden Op Het Gebied van de Internationale Natuurbescherming in Het Jaar 1967’ (Den Haag, 21 February 1968), 7, 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam.

<sup>417</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Ninth General Assembly’, 161.

reserve's guard system the most imported conservation measure.<sup>418</sup> Under the supervision of Schenkel, the former guard system was reinstated, huts were renovated, guards received courses in shooting and guard techniques, and new equipment, a Land Rover and motorboat were purchased to facilitate patrolling.<sup>419</sup> Furthermore, a research station was constructed within the protected area as part of the Indonesian participation in the International Biological Programme (IBP).<sup>420</sup> These measures essentially embodied a reinstatement, improvement and continuation of the former colonial fortress conservation regime based on the Javan rhino's protection. This time, however, this park-species conservation approach was executed by new international nature protection organizations, which had been influenced by Dutch conservationists in their approach to the Indonesian government and their focus on the Javan rhino.

As the funded WWF and IUCN projects approached an end, the organizations thought of ways to ensure the "continuity in scientific investigations and park administration". They were not convinced that the Indonesian authorities would continue their line of work and were worried that "much of the money and effort that has already been invested in the project will have been dissipated."<sup>421</sup> This illustrates how the perception of the so-called unwillingness or inability of the Indonesian population to execute nature protection also continued until at least the 1970s. In regard to this problem in Ujung Kulon, the IUCN thought of a method to continue this issue and increase their influence, which could also be used in other protected areas:

"One possible method of dealing with this problem would be to arrange for an individual university or group of universities to 'adopt' a particular national park, game reserve or other important conservation area. If this were done it would have the advantage not only of ensuring continuity but also stimulating the

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<sup>418</sup> Schenkel and Schenkel-Hulliger, 'The Javan Rhinoceros (Rh. Sondaicus Desm.) in Ujung Kulon Nature Reserve. Its Ecology and Behaviour: Field Study 1967 and 1968', 99–100.

<sup>419</sup> Schenkel and Schenkel-Hulliger, 'The Javan rhinoceros (Rh. Sondaicus Desm.) in Ujung Kulon Nature Reserve. Its Ecology and Behaviour: Field Study 1967 and 1968', 100; International Union for the Conservation of Nature and Natural Resources (IUCN), 'Ninth General Assembly', 161.

<sup>420</sup> International Union for the Conservation of Nature and Natural Resources (IUCN), 'Ninth General Assembly', 206; International Union for the Conservation of Nature and Natural Resources (IUCN), 'Tenth General Assembly', 54.

<sup>421</sup> Simon, 'A Proposal for Ensuring Continuity of Research in Certain National Parks and Equivalent Reserves'.

university in question to undertake research work of a kind that probably would not normally be attempted if there were no ‘personal’ link with the area.”<sup>422</sup>

This ‘adopt a park’ approach altered the territorial strategy with which conservationists tried to navigate political barriers and influence the governance and management of parks. In regard to Ujung Kulon, the “Patronage Committee for Ujung Kulon” was established by scientists at the University of Basel, where Schenkel was employed. Further research would still be partly sponsored by the WWF’s Swiss and US national branches, as well as by the Fauna Preservation Society.<sup>423</sup> The Basel Patronage Committee inspired Dutch conservationists to establish a similar Dutch Patronage Committee for the Indonesian Gunung Leuser Reserve in Atjeh (Sumatra).<sup>424</sup> This was done under the auspices of WWF, who in turn received technical assistance from IUCN.<sup>425</sup> In this committee, which was approved by the Indonesian government, former colonialists took place who had previously worked in – or in close connection to – the Dutch East Indies, such as Hoogerwerf, botanist C.G.G.J. van Steenis and J.H. Westermann.<sup>426</sup> Formally the Netherlands Gunung Leuser Committee was co-responsible for the reserve’s governance and management and the Indonesian authorities would remain “in full charge” of the reserve. However, the committee seems

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<sup>422</sup> Simon.

<sup>423</sup> Nederlandsche Commissie voor Internationale Natuurbescherming, ‘Overzicht van Werkzaamheden Op Het Gebied van de Internationale Natuurbescherming in Het Jaar 1967’, 7; International Union for the Conservation of Nature and Natural Resources (IUCN), ‘Tenth General Assembly’, 135; Schenkel and Schenkel-Hulliger, ‘The Javan rhinoceros (*Rh. Sondaicus* Desm.) in Ujung Kulon Nature Reserve. Its Ecology and Behaviour: Field Study 1967 and 1968’, 98.

<sup>424</sup> Interestingly, this chosen region has another difficult history of military presence and war in combination with a struggle for power and conservation. Minarchek, ‘Creating Environmental Subjects: Conservation as Counter-Insurgency in Aceh, Indonesia, 1925-1940’.

<sup>425</sup> World Wildlife Fund (WWF), ‘Agreement under the Auspices of the World Wildlife Fund, Morges, between Agencies in Indonesia and the Netherlands Pertaining to the Preservation and Management of the Gunung Leuser Reserves, Province of Atjeh (Sumatra), and the Research to Be Carried out in These Reserves and in Their Surroundings’ (n.d.), 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam.

<sup>426</sup> J.H. Westermann, ‘Short Report of the Extraordinary of the World Wildlife Fund Netherlands and the Dutch Committee for International Nature Protection (NCIN)’ (Den Haag, 27 January 1970), 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam, Short Report; Netherlands Gunung Leuser Committee, ‘Report of the Meeting of 23 November 1970’ (Den Haag, 23 November 1970), 1283 Archive of the NCIN and IOPN, Stadsarchief Amsterdam.



to have provided the greatest parts of the funds, the research- and the management agenda of the reserve.<sup>427</sup>

The IUCN and WWF continued former colonial ideas, patterns and practices based on the park-species approach, but through an international political framework. As science-based ‘objective’ arbiters, IUCN and WWF could influence national territorial affairs, helped by celebrity environmentalists and foreign scientific institutions. Through this framework, former Dutch colonial conservationists had re-established their influence in Indonesian nature protection. As a result, the circle was complete.

## Conclusion

In this chapter, I have analyzed how international conservation organizations created legitimacy for the worldwide proliferation of protected areas by transnationalizing the park-species concept between 1930 and 1970 and how this affected the management practices within reserves. I have illustrated how international nature conservation organizations established a global park-species conservation regime between the 1930s and the 1960s. This was done by analyzing how Dutch conservationists and the IUCN transnationalized and securitized the Javan rhino between 1930 and 1949. I have also illustrated how Dutch delegates shaped IUCN’s ideas on how Indonesian nature should be protected and how they influenced the organization’s approach to the Indonesian government. Ujung Kulon and the Javan rhino mutually enforced each other’s importance, which conservationists used to showcase them as a prime example for the park-species narrative. Threatened species lists were an important technology that enabled the IUCN’s permanence and expansion as a nature conservation authority. It was further assessed how the park-species narrative, aided by the instrument of threatened species lists, enabled IUCN and WWF to pressure the Indonesian government and take further action to influence the governance and management of Ujung Kulon. Through the biopolitical and territorial approach the IUCN and WWF took, they essentially continued older patterns of fortress conservation in Indonesia. However, the park-species approach had now been institutionalized into a global conservation regime that legitimized new actors and institutions to promote and participate in species protection and their management within protected areas.

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<sup>427</sup> World Wildlife Fund (WWF), ‘Agreement under the Auspices of the World Wildlife Fund’.



*Figure 8 - Prince Bernhard of the Netherlands (smoking pipe) and Dr. Rudolph Schenkel (left) in Ujung Kulon (1970). Unknown, 'Prince Bernhard of The Netherlands (when President of WWF) on a visit to Ujung Kulon National Park in March 1970. On his left is Dr Rudolph Schenkel', Original Source: R. Schenkel, B. Nievergelt and F. Bucher, 8 Horner auf 5 Nasen: ein Nashornbuch (Zurich: Zurcher Tierschutz, 2007), Rhino Resource Center.*

## Conclusion

*“If you want to check the likelihood that it’s going to storm this afternoon, you check the barometer. If you want to check the health of a person, you consult a thermometer. And if you want to know the health of a species or population of animals, you check the IUCN Red List of Threatened Species.”<sup>428</sup>*

The purpose of this thesis has been to explain the second wave of park creation from the 1960s onwards. The main premise of this research was that between the 1920s and 1960s a conservation regime change occurred which was caused by the increased harmonization of the conservation tools of species prioritization and park creation. I used the concept of ecogovernmentality to study the protection of the Javan rhino in Ujung Kulon on Java (Indonesia) as a case study. Through the lens of ecogovernmentality, I studied the implicit and explicit mentalities of government behind Ujung Kulon’s conservation regime on a national and transnational level. As a result, I have shown in this thesis how the second wave of park creation was the result of the institutionalization of a global park-species conservation regime, which culminated around 1960.

The park-species regime change was the outcome of long process of conservation politics. In this regard, I considered threatened species lists to function as a biopolitical technology with vast territorial implications, and park creation as a territorial technology with vast biopolitical ones. In regard to the broader conservation scholarship, some literature on the politics of conservation has also recognized the biopolitical nature of Red Lists.<sup>429</sup> However, these studies do not directly connect this to the function of these lists in conservation territorialization and often take the 1960s IUCN Red Lists as their point of departure. Historian Raf de Bont has acknowledged the important regulatory function of the red list as paper technology for in situ conservation since the 1930s.<sup>430</sup> Building further on his argumentation, I have shown in this thesis that the practice of red listing should be regarded as one of the most

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<sup>428</sup> Global Wildlife Conservation (now: Re:wild), ‘Taking The Temperature Of Wildlife Health Across The Planet’, 15 October 2018, <https://www.rewild.org/news/taking-the-temperature-of-wildlife-health-across-the-planet>.

<sup>429</sup> Braverman, ‘En-Listing Life: Red Is the Color of Threatened Species Lists’; Braverman, ‘Anticipating Endangerment. The Biopolitics of Threatened Species Lists’.

<sup>430</sup> Bont, *Nature’s Diplomats*, 260.

important and long-lasting tools for nature conservation. These lists held vast territorial implications which contributed to the reformation of conservation territoriality from the 1960s onwards. This thesis therefore takes the argumentation of Bernhard Gissibl, Sabine Höhler and Patrick Kupper on the role of territoriality in the second wave of park creation one step further. The protected area system could proliferate from the 1960s onwards because of the way in which international nature protection organizations used the mutually enforcing territorial and biopolitical conservation instruments of park creation and red listing.

This thesis has shown that between 1945 and 1960 conservationists established a global conservation regime in which park creation became thoroughly entangled with species prioritization. As the case study on the Javan rhino's protection in Ujung Kulon has illustrated, the conceptualization of the park-species relationship already developed and further institutionalized on a local level in the 1930s. The colonial authorities and scientist-conservationists enforced a coercive fortress conservation regime that they legitimized by prioritizing the protection of the Javan rhino in the management of Ujung Kulon. Having established the park-species conservation regime based on the Javan rhino, the scientists-conservationists of the Botanical Garden had made themselves 'indispensable' in the 'proper' management of Ujung Kulon. Consequently, they expanded their position by stressing how new conservation measures were also needed to preserve other species, like banteng and deer. International organizations used the Javan rhino's protection in Ujung Kulon as a role model to promote the idea of the importance of species protection within protected areas on a world-wide scale. Through the scientization, securitization and transnationalization of the threatened species narrative, conservationists gained political power with which they territorialized and biopolitically regulated the natural environment.

An important catalyst in this conservation regime change was the use of threatened species lists. Conservationists used these lists to visualizing and ranking species' security threats. From a territorialization perspective, these lists provided both the national and international conservation agenda with urgent points of focus where park creation and other further action was needed. From a biopolitical perspective, these lists formed the legitimization for the monitoring and disciplining of some people and species over others, and justified the implementation of science-based controlling measures. This rationalization of nature protection enabled a seemingly objective

foundation for conservationists to lobby with governments for the creation of new reserves or for better enforcement of protective regulations within existing protected areas. The lists were therefore a political tool for conservationists to increase their role in the governance over natural territories and to justify the close regulation of people and species. In this process of classification, the role of fame, reputation and status in conservation increased when species prioritization led to ‘flagship’ species and an increased role of celebrity advocacy in post-1945 conservationism. This trend further contributed to the proliferation of the protected area system based on species protection.

The new legitimization that threatened species lists provided for the worldwide proliferation of the protected area system was the driving force behind the second wave of park creation. It was around 1960 that the International Union for the Conservation of Nature (IUCN) and World Wildlife Fund (WWF), the only two largescale international nature conservation organizations at the time, incorporated the park-species narrative within the foundations of their committees and programs. The urgency and focus for action which threatened species lists embodied were the prime means for conservationists to lobby and negotiate with governments and other interested parties. The post-1945 international conservation network was characterized by a continuation of former colonial elites after decolonization. These conservationists exploited the new political sphere and its opportunities to press for the continuation of former colonial fortress conservation measures in a neocolonial setting.

In the early 1960s, conservationists further institutionalized the red list technology by rebranding threatened species lists as Red Lists. These were the visualization of an imminent security threat. The IUCN Red List of Threatened Species has been a guiding principle in global nature conservation efforts ever since. Due to its initial normative framework that was set up on the 1949 Lake Success conference, this Red List has become an ever-expanding instrument for biopolitical and territorial control over the natural environment. At the present-day, not only black and amber have been added to the color-coded IUCN ‘barometer’, but since 2012 the World Commission on Protected Areas (WDPA, the successor of IUCN’s International Committee of National Parks) has instigated the IUCN Green List as a “global

campaign for successful nature conservation”.<sup>431</sup> The WDPA’s classification, categorization, standardization and universalization of past, present, potential future and even recovered extinction risks illustrates the embeddedness of the park-species approach in conservation and park creation. The thorough entanglement of the protected area system and threatened species protection is in the case of the Javan rhino and Ujung Kulon also still felt very strongly today. The large international nature conservation organizations, like the WWF, still rely on a strong park-species discourse to promote wildlife conservation, also in regard to the Javan rhino:

“The population in Ujung Kulon National Park represents the only hope for the survival of a species that is on the brink of extinction. Until the late 19th century and early 20th century, Javan rhinos existed from northeast India and the Sunderbans, throughout mainland Southeast Asia, and on the island of Sumatra. If we lose the population in Java, the entire species will disappear.”<sup>432</sup>

Essentially, the combined governmental strategies of biopolitics and territoriality functioned as an overarching mechanism of which trends like scientization, securitization and internationalization were ‘symptoms’. This mechanism highlights the implicit political rationality behind conservationist governance and management since the 1930s. This thesis therefore builds upon existing historical conservation literature by explicitly bringing the biopolitical aspects of conservation, enhanced by species prioritization, more prominently into the equation of conservation territoriality.

Better recognition of this political mechanism in conservation development can clarify to a wider audience how nature conservation is highly political and a reconstruction of the interests of specific people or organizations. Nature protection organizations still widely use science-based classifications, standards and ‘universal’ values to promote various types of conservation within parks for the benefit of species,

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<sup>431</sup> World Commission on Protected Areas (IUCN), ‘What Is the IUCN Green List?’, 2022, <https://iucngreenlist.org/about/>; H. Resit Akçakaya e.a., ‘Quantifying Species Recovery and Conservation Success to Develop an IUCN Green List of Species’, *Conservation Biology*, Contributed Paper, 32, no. 5 (2018): 1128–38; M. Hockings et al., ‘The IUCN Green List of Protected and Conserved Areas: Setting the Standard for Effective Conservation’, *Parks* 25, no. 2 (2019): 57–66.

<sup>432</sup> World Wildlife Fund (WWF), ‘Why They Matter’, in *Javan rhino*, Published 2017, Accessed August 2021, <https://www.worldwildlife.org/species/javan-rhino>.

ecosystem and biodiversity protection. These tropes can undermine otherwise fruitful cooperation and knowledge sharing with new actors that would benefit the conservation cause. For example, the attitude of geographers P. Jepson and J. Whittaker stressed in their history of conservation in colonial Indonesia how “the root motivations of protected area policy are noble” and how these ideas “are international values to which civilized nations and societies aspire”.<sup>433</sup> This is illustrative of the prominence of universalist and neocolonial thought in contemporary conservation discourse. Highlighting the political construct of conservationism is not to discredit conservationists’ well-intended efforts or to discredit or contradict the apparent need for species, biodiversity or ecosystem conservation. Recognition of this biopolitical-territorial mechanism only helps to clarify the reasons for difficulties in enforcing effective conservation. As a result, it can contribute to a more tolerant approach to the inclusion of different worldviews in future conservationism.

Related to this topic, I suggest that a crucial subject for further research would be the study of the cooperation, negotiation and contestation of the Indonesian local population, staff of the Forest Service and post-1949 government in regard to the Javan rhino’s protection in Ujung Kulon. This thesis solely focused on the mentalities of former colonial conservationists and their continuous influence on international nature protection organizations to assess the establishment of the global park-species conservation regime. However, these conservation ideas developed in interaction with and oppositely to other epistemologies and ontologies, such as those of the various subcultures within the diverse and dynamic Indonesian population. The ideas, practices and experiences of Indonesian authorities and conservation employees should be studied for their valuable insights in the actual realization of park management and its effect on the native Indonesian population. Some examples are the so-called ‘*veldpolitie*’ and other local security guards in charge of managing the parks, and local residents in or near Ujung Kulon whose use of the park was delimited or who were used as spies in trying to reduce poaching practices. In this regard, the study of the relationship between decolonization and conservationism should also receive further attention. Studying these relationships would provide greater nuance to the development of conservation in Indonesia and of nature protection in general.

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<sup>433</sup> Jepson and Whittaker, ‘Histories of Protected Areas’, 129.

In this same light, it would be useful for future research to focus on the internal discussions and deliberations within especially IUCN in the process of integrating the park-species conceptualization in its programs and organizational structure. As international organization, the organization's global membership also brought different national, regional and local interests to the negotiating table. In this thesis I have especially focused on how Dutch conservationists brought about discussions based on their interests and concerns on the former Dutch East Indies. I have also focused on the mentality behind the general organization's code of conduct, as represented in, for example, its publications, general assemblies and conservation programmes. More in-depth research on the intercultural exchange between ideas and practices within these international conservation organizations would benefit our understanding of conservationism since mid-twentieth century. One problem in this regard is the general difficult access to internal IUCN sources, as much of its archive has been lost or discarded, for example during moves the organization made to different headquarters. However, archives of smaller nature protection organisations or individual experts affiliated with the IUCN might still hold miscellaneous material that could be consulted to reconstruct these discussions and intercultural exchange of ideas and practices. For example, I have found some provisional evidence of this archival presence of internal minutes or speeches in the Archive of the *Nederlandse Commissie voor Internationale Natuurbescherming*, de *Stichting tot Internationale Natuurbescherming* and the *Office Internationale pour la Protection de la Nature* in the Amsterdam City Archives.

The park-species entanglement has for a long time enabled a fortress conservation approach and created a protected area system more resembling isolated islands than a well-connected web of reserves. Although generally the protected area system is still regarded as the most important tool for *in situ* nature conservation, their functioning is increasingly disputed. Experts such as conservation biologists often voice critical concerns about the failure of protected areas to safeguard global biodiversity due to their fragmentation and lack of coherence.<sup>434</sup> As concisely put by geographer and conservation scientist William M. Adams in his *Against Extinction* (2004): “The 20<sup>th</sup> century saw conservation's creation, but nature's decline”.<sup>435</sup>

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<sup>434</sup> Gissibl, Höhler, and Kupper, ‘Introduction’, 1.

<sup>435</sup> See, for example: Adams, *Against Extinction*, 231; J.E.M. Watson et al., ‘The Performance and Potential of Protected Areas’, *Nature* 515, no. 7525 (2014): 67–73; A.S.L. Rodrigues, S.



According to historians Bernhard Gissibl, Sabine Höhler and Patrick Kupper, “the blatant discord between the enthusiastic appraisal of protected areas as the most successful instrument of nature conservation on the one hand and their questionable ecological performance on the other, is a result of the history and political ecology of the worldwide proliferation of protected areas.”<sup>436</sup> The political dimensions highlighted in this thesis might help to explain how this “blatant discord” is a consequence of the increased incorporation of threatened species prioritizations within protected area management by the conservation experts in charge of the parks and their interaction with (inter)national lobby networks. Further research could study the way in which the prioritization of certain species over others, especially of flagship species, has dominated conservation discourse and affected management approaches within reserves, contributing to the degradation or ‘mismanagement’ of protected areas and their species. After all, (flagship) threatened species not necessarily play a crucial ecological role in biodiversity and ecosystem conservation and can distract from other conservation objectives.<sup>437</sup>

Today, about seventy-five Javan rhino’s still roam Ujung Kulon National Park.<sup>438</sup> Although the population number has almost doubled since the 1960s, the Javan rhino is still one of the most endangered species in the world. Building on the conservation framework of the last century, various rhino conservation organizations emerged the last decades, such as the International Rhino Foundation, who took up the challenge of protecting the Javan rhino in Ujung Kulon. Hopefully, they will learn from the past.

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Andelman, and M. Bakarr et al., ‘Effectiveness of the Global Protected Area Network in Representing Species Diversity’, *Nature* 428 (2004): 640–43; J. Geldmann, M. Barnes, and L. Coad et al., ‘Effectiveness of Terrestrial Protected Areas in Reducing Habitat Loss and Population Declines’, *Biological Conservation* 161 (2013): 230–38.

<sup>436</sup> Gissibl, Höhler, and Kupper, ‘Introduction’, 2.

<sup>437</sup> For a concise discussion on the functioning of flagship species, see for example M.J. Walpole and N. Leader-Williams, ‘Tourism and Flagship Species in Conservation’, *Biodiversity and Conservation* 11 (2002): 543.

<sup>438</sup> Save the Rhino International, ‘Rhino Populations’, Save the Rhino, n.d., <https://www.savetherhino.org/rhino-info/population-figures/> (Accessed 13 April 2022).

# Bibliography

## Primary Sources

### *Archival Source Material*

#### *National Archives (NL-HaNA)*

Nationaal Archief, Den Haag, Collectie 579 A. Hoogerwerf, access number 2.21.281.27,  
inventory number 19  
inventory number 21  
inventory number 23  
inventory number 28  
inventory number 30  
inventory number 38  
inventory number 39  
inventory number 40  
inventory number 41  
inventory number 42  
inventory number 43  
inventory number 44  
inventory number 45  
inventory number 53  
inventory number 56

Nationaal Archief, Den Haag, Het Nederlandse Rode Kruis - Informatiebureau: lijsten, berichten en radiogrammen met betrekking tot Nederlands-Indië, access number 2.19.275, inventory number 1293, 'Aanwezigenlijst Beatrix en Kedoeng Halang opvangkampen, Buitenzorggemaakt op basis van gegevens van NIRK binnengekomen op het Informatiebureau op 27-2-1946 betreffende 141 personen in Buitenzorg'.

#### *Amsterdam City Archives*

Stadsarchief Amsterdam, Amsterdam, Archief van de Nederlandse Commissie voor Internationale Natuurbescherming, de Stichting tot Internationale Natuurbescherming en het Office Internationale pour la Protection de la Nature, access number 1283,  
inventory number 174

inventory number 254  
inventory number 255  
inventory number 261  
inventory number 293  
inventory number 307  
inventory number 350  
inventory number 453  
inventory number 454  
inventory number 454A  
inventory number 541  
inventory number 547  
inventory number 578  
inventory number 579  
inventory number 582  
inventory number 587

*Yale Archives (Digital requests)*

Charles Augustus Lindbergh Papers (MS 325), Manuscripts and Archives, Yale University Library, 'List of Correspondence: Bernhard, Prince of the Netherlands. World Wildlife Fund: 1966 Dec 15; 1967 May 15; 1969 Nov 9; 1970 Jan 14, Feb 2, 12, Dec 2; 1971 Jan 18; 1972 Feb 11, Jun 9, Dec 13, 23, 31; 1973 Jan 9, 22, Nov 24.', <https://archives.yale.edu/repositories/12/resources/4817>.

Charles Augustus Lindbergh Papers (MS 325), Manuscripts and Archives, Yale University Library, "My Two Weeks in the Ujung Kulon Jungles," *Indonesia Travel and Trade*, 1967 October', Box 199, Folder 316, [https://archives.yale.edu/repositories/12/archival\\_objects/1956741](https://archives.yale.edu/repositories/12/archival_objects/1956741).

Lindbergh Picture Collection (MS 325B), Manuscripts and Archives, Yale University Library, 'In Indonesia, 1967 June', Box 18, Folder 32, [https://archives.yale.edu/repositories/12/archival\\_objects/2004660](https://archives.yale.edu/repositories/12/archival_objects/2004660).

Lindbergh Picture Collection (MS 325B), Manuscripts and Archives, Yale University Library, 'Ujung expedition, 1967 May', Box 18, Folder 31,

<https://archives.yale.edu/repositories/12/resources/4858>.

*Delpher*

Delpher, Bulletin of Acts, Orders and Decrees of the Dutch East Indies,

[https://www.delpher.nl/nl/tijdschriften/results?facets%5BalternativeFacet%5D%5B%5D=Staatsblad+van+Nederlandsch-](https://www.delpher.nl/nl/tijdschriften/results?facets%5BalternativeFacet%5D%5B%5D=Staatsblad+van+Nederlandsch-Indie%CC%88+voor+...&page=1&maxperpage=50&sortfield=datedesc&coll=ds)

[Indie%CC%88+voor+...&page=1&maxperpage=50&sortfield=datedesc&coll=ds](https://www.delpher.nl/nl/tijdschriften/results?facets%5BalternativeFacet%5D%5B%5D=Staatsblad+van+Nederlandsch-Indie%CC%88+voor+...&page=1&maxperpage=50&sortfield=datedesc&coll=ds)

(Accessed 13 April 2022),

‘Ordonnantie Tot Bescherming van Sommige in Nederlandsch-Indië in Wild Levende Diersoorten’. In *Staatsblad van Nederlandsch-Indië 1909*. No. 497 and 594, 14 October 1909.

‘Tijdstip van Inwerkingtreding van de Ordonnantie Tot Bescherming van Sommige in Nederlandsch-Indië in Wild Levende Diersoorten’. In *Staatsblad van Nederlandsch-Indië 1910*. No. 337, 1 July 1910.

‘Natuurmonumenten. Maatregelen Ter Bescherming van de Natuurrijdommen van Nederlandsch-Indië’. In *Staatsblad van Nederlandsch-Indië 1916*. No. 278, 27 March 1916.

‘Aanwijzing van Terreinen Als Natuurmonumenten En Verbod Op Tot Het Doen van Mijnbouwkundige Opsporingen En/of Ontginningen Door Particulieren in de Tot Natuurmonument Aangewezen Terreinen’. In *Staatsblad van Nederlandsch-Indië 1921*. No. 683, 28 November 1921.

‘Jachtordonnantie’. In *Staatsblad van Nederlandsch-Indië 1924*. No. 234, 4 June 1924.

‘Dierenbeschermingsordonnantie’. In *Staatsblad van Nederlandsch-Indië 1931*. No. 134, 14 April 1931.

‘Jachtordonnantie’. In *Staatsblad van Nederlandsch-Indië 1931*. No. 133, 14 April 1931.

‘Voorschriften Ter Uitvoering van de Jachtordonnantie’. In *Staatsblad van Nederlandsch-Indië 1931*. No. 265, 30 June 1931.

‘Natuurmonumenten- En Wildreservatenordonnantie’. In *Staatsblad van Nederlandsch-Indië 1932*. No. 17, 15 January 1932.

‘Natuurbeschermingsordonnantie’. In *Staatsblad van Nederlandsch-Indië 1941*. No. 167, 13 June 1941.

Delpher, State Almanacs for the Dutch East Indies Part 2 between 1920-1942,

<https://www.delpher.nl/nl/tijdschriften/results?facets%5BalternativeFacet%5D%5B%5D=Regerings-almanak+voor+Nederlandsch-Indie%CC%88&page=1&maxperpage=50&sortfield=datedesc&coll=ds> (Accessed 9 April 2022),

*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1920).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1921).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1922).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1923).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1924).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1925).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1926).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1927).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1928).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1929).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1930).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1931).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1932).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1933).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1934).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1935).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1936).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1937).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1938).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1939).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia:Landsdrukkerij, 1940).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia: Landsdrukkerij, 1941).  
*Regerings-almanak voor Nederlandsch-Indië, Deel 2* (Batavia: Landsdrukkerij, 1942).

#### Newspaper articles

Bedding, J.C. 'Waarschuwing'. *De Preangerbode*. 12 June 1923, 28 edition. Delpher, <https://www.delpher.nl/nl/kranten/view?query=natuurmonument+1921&coll=ddd&identifier=MMKB08:000135148:mpeg21:a0015&resultsidentifier=MMKB08:000135148:mpeg21:a0015&rowid=2> (Accessed 13 April 2022).

Horst-Brinks, M. 'Vereeniging Tot Bescherming van Natuurmonumenten van Ned.-Indië'. *De Locomotief*. 30 March 1918, 87 edition. Delpher, <https://www.delpher.nl/nl/kranten/view?query=natuurmonumenten+1916&coll=ddd&page=2&facets%5Bspatial%5D%5B%5D=Nederlands-Indi%C3%AB+%7C+Indonesi%C3%AB&sortfield=date&identifier=MMKB23:001670052:mpeg21:a00006&resultsidentifier=MMKB23:001670052:mpeg21:a00006&rowid=10> (Accessed 13 April 2022).

Koorders, S.H. 'Natuur-Monumenten. Iets over Een Belangrijk Gouvernementsbesluit, Waarbij Eenige Ned.-Indische Natuur-Monumenten Onder Staatsbescherming Gebracht Zijn'. *De Preangerbode*. maart 1919, 24 edition, Delpher, <https://www.delpher.nl/nl/kranten/view?query=natuurmonumenten+belangrijk+gouvernementsbesluit&coll=ddd&identifier=MMKBo8:000132035:mpeg21:a0001&resultsidentifier=MMKBo8:000132035:mpeg21:a0001&rowid=1> (Accessed 13 April 2022).

### *IUCN Digital Library*

International Union for the Conservation of Nature and Natural Resources (IUCN).

*International Union for the Protection of Nature (Established at Fontainebleau 5 October 1948)*. Brussels: M. Hayez, 1948.

———. 'Proceedings and Reports of the Second Session of the General Assembly, 18-23 October 1950, Brussels'. Brussels, 1951. IUCN Digital Library.

———. 'Proceedings and Reports of the Third General Assembly, 3-9 September 1952, Caracas'. Brussels, 1952. IUCN Digital Library.

———. 'Proceedings and Summary of Business (Volume II), Tenth General Assembly, 24 November - 1 December 1969, New Delhi'. IUCN Publication New Series. Morges, 1970. IUCN Digital Library.

———. 'Proceedings Eighth General Assembly, September 1963, Nairobi'. IUCN Publication New Series. Morges, 1964. IUCN Digital Library.

———. 'Proceedings Fifth General Assembly, 20-28 June 1956, Edinburgh'. Brussels, 1957. IUCN Digital Library.

———. 'Proceedings Ninth General Assembly, 25 June - 2 July 1966, Lucerne'. IUCN Publication New Series. Morges, 1967. IUCN Digital Library.

———. 'Proceedings Seventh General Assembly, June July 1960, Warsaw'. Brussels, 1960. IUCN Digital Library.

- . ‘Proceedings Sixth General Assembly, September 1958, Athens’. Brussels, 1960. IUCN Digital Library.
- . ‘The Position of Nature Protection throughout the World in 1950’. Brussels, 1951. IUCN Digital Library.
- UNESCO, and International Union for the Conservation of Nature and Natural Resources (IUCN). ‘Documents Préparatoires a La Conférence Technique Internationale Pour La Protection de La Nature, Août 1949, États-Unis’. Paris & Brussels, 1949. IUCN Digital Library.
- . ‘International Technical Conference on the Protection of Nature, Lake Success, 22-29 August 1949: Proceedings and Papers’. Paris & Brussels, 1950. IUCN Digital Library.

#### *UNESDOC Digital Library*

- Caram, M., and J.J. Petter. ‘Fossils of Tomorrow’. *The UNESCO Courier*, Man Against Nature, 11, no. 1 (1958): 6–8, UNESDOC Digital Library.
- Unknown. ‘Last Refuge’. *The UNESCO Courier*, Man Against Nature, 11, no. 1 (1958): 9–14, UNESDOC Digital Library.

#### *Natuurtijdschriften (Digital Database)*

- Dammerman, K.W. ‘Naschrift Natuurbescherming’. *De Tropische Natuur* 21, no. 3 (1932): 48, <https://natuurtijdschriften.nl/pub/510908> (Accessed 13 April 2022).
- Franck, P.F., and A. van der Schaaf. ‘Enkele Opmerkingen Naar Aanleiding van “Honderd Uren de „ongeziene” Gast Der Bantengs in Oedjoengkoelon”’. *De Tropische Natuur* 28, no. 2 (1939): 34–36, <https://natuurtijdschriften.nl/pub/511468> (Accessed 13 April 2022).
- Nederlandsch-Indische Vereeniging tot Natuurbescherming. ‘Korte Mededeelingen van de Ned.-Indische Vereeniging Tot Natuurbescherming’. *De Tropische Natuur* 19, no. 5/6 (1930): 107–8, <https://natuurtijdschriften.nl/pub/510762> (Accessed 13 April 2022).
- Tienhoven, P.G. van. ‘Natuurbescherming’. *De Tropische Natuur* 21, no. 3 (1932): 47–48, <https://natuurtijdschriften.nl/pub/510908> (Accessed 13 April 2022).

*Rhino Resource Center (Digital Database)*

- Appelman, F.J., and P.F. Franck. 'Rhinoceros Sondaicus in West-Java'. *De Tropische Natuur* 23 (1934): 73–79.
- Endert, F.H. 'Jaarverslag over 1933'. *Verslag van de Nederlandsch Indische Vereeniging Tot Natuurbescherming 1933-1934*, 1935, 7–13.
- . 'Lijst van Bestaande Natuurmonumenten En Wildreservaten in Nederlandsch Indie Op 1 Mei 1936'. *Verslag van de Nederlandsch Indische Vereeniging Tot Natuurbescherming* 10 (1936): 181–84.
- Franck, P.F. 'Waarnemingen over Neushoorns En Bantengs in Het Natuurmonument Oedjon Koelon.' In *Verslag van de Nederlandsch Indische Vereeniging Tot Natuurbescherming 1933-1934*, 40–45. Buitenzorg, 1935.
- . 'Waarnemingen over Neushoorns En Bantengs in Het Natuurmonument "Oedjon Koelon"'. *Verslag van de Nederlandsch Indische Vereeniging Tot Natuurbescherming 1933-1934* (1935): 40–55.
- Hazewinkel, J.C. 'A One-Horned Javanese Rhinoceros Shot in Sumatra, Where It Was Not Thought to Exist'. *The Illustrated London News*, 23 December 1933.
- . 'A Rhino-Hunt in Sumatra'. *The Java Gazette* 1, no. 5 (1932): 1–10.
- . 'Rhinoceros Sondaicus in Zuid-Sumatra'. *De Tropische Natuur* 22, no. 6 (1933): 101–9.
- Hoogerwerf, A. 'Enkele Waarnemingen in Het Natuurmonument Oedjoengkoelon in de Bezettingstijd'. *Tectona* 38, no. 4 (1948): 205–14.
- . 'Enkele Waarnemingen in Het Natuurmonument Oedjoengkoelon in de Bezettingstijd'. *Tectona* 38, no. 4 (n.d.): 205–14.
- . 'Jacht En Natuurbescherming Op Java Gedurende de Japansche Bezetting'. *Natuurwetenschappelijk Tijdschrift Voor Nederlandsch-Indie* 102, no. 9 (December 1946): 205–8.
- . 'Nature Protection in Indonesia'. *Oryx* 2 (1953): 221–27.
- . 'Ontmoetingen Met Javaanse Neushoorns in Het Natuurpark Oedjong-Koelon (West Java)'. In *In Het Voetspoor van Thijssse: Een Reeks Bijdragen over Veldbiologie, Natuurbescherming En Landschap*, by A.F.H. Besemer, 359–70. Wageningen: H. Veenman & Zonen, 1949.
- Leefmans, S. 'Jaarverslag over 1930'. In *Verslag over de Jaren 1929-1931*, by Nederlandsch-Indische Vereeniging tot Natuurbescherming, 27–31. Buitenzorg, 1931.



- Schenkel, R., and L. Schenkel-Hulliger. 'The Javan Rhinoceros (Rh. Sondaicus Desm.) in Ujung Kulon Nature Reserve. Its Ecology and Behaviour: Field Study 1967 and 1968'. *Acta Tropica* 26, no. 2 (1969): 97–135.
- Sody, H.J.V. *De Javaanse Neushoorn, Rhinoceros Sondaicus, Historich En Biologisch*. Buitenzorg: Archipel Drukkerij en 't Boekhuis, 1941.
- Voogd, C.N.A. de. 'De Rhinoceros Uit Zuid Sumatra Nu Bijna Verdwenen'. *De Tropische Natuur* 22, no. 8 (1933): 159–60.
- Vos, A. de, and A. Hoogerwerf. 'Java's One-Horned Rhinoceros'. *Nature Magazine* 43, no. 6 (1950): 297–98.

*International Environmental Agreements (IEA) Database*

- 'Convention Designed To Ensure The Conservation Of Various Species Of Wild Animals In Africa, Which Are Useful To Man Or Inoffensive'. London, 1900.  
<https://iea.uoregon.edu/treaty-text/2594>.

***Books, Reports and Other Publications***

- Adams, Alexander B., ed. *First World Conference on National Parks: Proceedings of a Conference Organized by the International Union for Conservation of Nature and Natural Resources, Seattle, Washington, June 30-July 7, 1962*. Washington, D.C.: United States Department of the Interior & National Park Service, 1964.
- Appelman, F.J. 'Concerning Botanical and Vertebrate Species, That Are Menaced with - or Already on the Way to - Extinction, for the Protection of Which Immediate Measures Are Necessary'. In *Report of Discussion on Threatened and Vanishing Species of Flora and Fauna, Requiring Immediate Action for Their Preservation*, 1949.
- Becking, J.H. 'The Bartels and Other Egg Collections from the Island of Java, Indonesia, with Corrections to Earlier Publications of A. Hoogerwerf'. *Bulletin of the British Ornithologists' Club* 129, no. 1 (2009): 18–48.
- Brouwer, G.A. *The Organisation of Nature Protection in the Various Countries*. Vol. Special Publication of the American Committee for International Wild Life Protection No.9. Cambridge, Massachusetts: American Committee for International Wild Life Protection, 1938.

- Brouwer, G.A., and Nederlandsch-Indische Vereeniging tot Natuurbescherming. *De Organisatie van de Natuurbescherming in de Verschillende Landen*. Amsterdam: De Spiegel, 1931.
- ‘Convention Designed To Ensure The Conservation Of Various Species Of Wild Animals In Africa, Which Are Useful To Man Or Inoffensive’. London, 1900. <https://iea.uoregon.edu/treaty-text/2594>.
- Conwentz, Hugo. *The Care of Natural Monuments with Special Reference to Great Britain and Germany*. Cambridge: Cambridge University Press, 1909.
- Coolidge, Harold J. ‘An Outline of the Origins and Growth of the IUCN Survival Service Commission’. In *World Program for Endangered Species*, 407–17. Washington, D.C.: Wildlife Management Institute, 1968.
- Dammerman, K.W. *Preservation of Wild Life and Nature Reserves in the Netherlands-Indies*. Fourth Pacific Science Congress (Bandung, Java). Weltevreden: Emmink, 1929.
- Dehler, Gregory J. ‘Our Vanishing Wildlife’. In *The Most Defiant Evil: William Temple Hornaday and His Controversial Crusade to Save American Wildlife*, 116–36. Charlottesville: University of Virginia Press, 2013.
- Fisher, James, Noel Simon, Jack Vincent, Survival Service Commission (SSC), and International Union for the Conservation of Nature and Natural Resources (IUCN). *The Red Book: Wildlife in Danger*. London: Collins, 1969.
- Harper, Francis. *Extinct and Vanishing Mammals of the Old World*. Vol. Special Publication no.12. New York: American Committee for International Wild Life Protection, 1945.
- Hoogerwerf, A. *Udjung Kulon. The Land of the Last Javan Rhinoceros*. Leiden: E.J. Brill, 1970.
- Koorders, S.H. *Oprichting Eener Nederlandsch-Indische Vereeniging Tot Natuurbescherming*. Nederlandsch-Indisch Landbouw Syndicaat. Soerabaia: E. Fuhri & Co, 1912.
- Nederlandsche Commissie voor Internationale Natuurbescherming. *Mededeelingen No. 1-6*. Vol. (1925-1928). Amsterdam: De Spiegel, 1929.
- . *Mededeelingen No. 7*. Amsterdam, 1929.
- . *Mededeelingen No. 8*. Amsterdam, 1930.
- . *Mededeelingen No. 9*. Amsterdam, 1931.
- . *Mededeelingen No. 10*. Vol. (1931-1933). Amsterdam, 1934.

- . *Mededeelingen No. 11*. Vol. (1934-1936). Amsterdam, 1937.
- . *Supplement Op Mededeelingen No. 10*. Vol. (1931-1933). Amsterdam, 1935.
- Nederlandsch-Indische Vereeniging tot Natuurbescherming. *3 Jaren Indisch Natuurleven: Opstellen over Landschappen, Dieren En Planten, Tevens Elfde Verslag (1936-1938)*. Batavia: Drukkerij Visser & Co, 1939.
- . *Verslag over de Jaren 1924-1928*. Buitenzorg: Archipel Drukkerij, 1928.
- Osborn, H.F., and H.E. Anthony. 'Close of the Age of Mammals'. *Journal of Mammology* 3, no. 4 (1922): 219–37.
- Scott, Peter, ed. *The Launching of a New Ark: First Report of the World Wildlife Fund*. World Wildlife Fund (WWF). London: Collins, 1965.
- Steenis, C.G.G.J. van, ed. *Album van Natuurmonumenten in Nederlandsch-Indië*. Album Serie 2. Batavia: Nederlandsch-Indische Vereeniging tot Natuurbescherming, 1937.
- Talbot, Lee M. 'A Look at Threatened Species'. *Oryx* 5, no. 4–5 (1960): 155–293.
- . 'Fossils of To-Morrow: American Naturalist Describes His Quest for Rare Animals'. *The Times*. 8 July 1956. The Times Digital Archive.
- . 'The International Role of Parks in Preserving Endangered Species'. In *First World Conference on National Parks: Proceedings of a Conference Organized by the International Union for Conservation of Nature and Natural Resources, Seattle, Washington, June 30-July 7, 1962.*, edited by Alexander B. Adams, 295–304. Washington, D.C.: United States Department of the Interior & National Park Service, 1964.
- Unknown. 'Tomorrow's Fossils: Many Rare Animals Face Extinction as Civilization Expands', *Life*. 14 March 1955.
- Vrydagh, J.M. *Les Fossiles de Demain: Treize Mammifères Menacés D'Extinction, Étudies Par Le 'Service de Sauvegarde' de l'Union Internationale Pour La Protection de La Nature*. Pro Natura. Brussels: International Union for the Protection of Nature, 1954.

## Academic Literature

- Abidin, C., D. Brockington, M.K. Goodman, M. Mostafanezhad, and L.A. Richey. 'The Tropes of Celebrity Environmentalism'. *Annual Review of Environment and Resources* 45 (2020): 387–410.
- Adams, William M. *Against Extinction: The Story of Conservation*. London & Sterling, VA: Earthscan, 2004.
- Agrawal, Arun. *Environmentality: Technologies of Government and the Making of Subjects*. New Ecologies for the Twenty-First Century. Durham & London: Duke University Press, 2005.
- Akçakaya e.a., H. Resit. 'Quantifying Species Recovery and Conservation Success to Develop an IUCN Green List of Species'. *Conservation Biology*, Contributed Paper, 32, no. 5 (2018): 1128–38.
- Anderson, B.R.O. *Java in a Time of Revolution: Occupation and Resistance, 1944-1946*. Ithaca & London: Cornell University Press, 1972.
- Arnscheidt, J. 'Debating' Nature Conservation: Policy, Law and Practice in Indonesia. A Discourse Analysis of History and Present. Dissertation. Leiden: Leiden University Press, 2009.
- Balzacq, T., ed. *Securitization Theory. How Security Problems Emerge and Dissolve*. Abingdon & New York: Routledge, 2011.
- . 'The Three Faces of Securitization: Political Agency, Audience and Context'. *European Journal of International Relations* 11, no. 2 (2005): 171–201.
- Barnard, Timothy P. 'Protecting the Dragon: Dutch Attempts at Limiting Access to Komodo Lizards in the 1920s and 1930s'. *Indonesia* 92 (October 2011).
- Bemmel, A.C.V. 'In Memoriam H.J.V. Sody'. *Lutra* 2 (1960): 1–5.
- Benjaminsen, T.A., and I. Bryceson. 'Conservation, Green/Blue Grabbing and Accumulation by Dispossession in Tanzania'. *The Journal of Peasant Studies* 39, no. 2 (2012): 335–55.
- Biermann, Christine, and Becky Mansfield. 'Biodiversity, Purity, and Death: Conservation Biology as Biopolitics'. *Environment and Planning D: Society and Space* 32 (2014): 257–73.
- Bluwstein, Jevgeniy. 'Colonizing Landscapes/Landscaping Colonies: From a Global History of Landscapism to the Contemporary Landscape Approach in Nature

- Conservation'. *Journal of Political Ecology* 28, no. 1 (2021): 1-23 (Preprint).  
<https://doi.org/10.2458/jpe.2850>.
- Boardman, Robert. *International Organization and the Conservation of Nature*. London & Basingstoke: The Macmillan Press LTD, 1981.
- Bont, Raf de. 'Borderless Nature: Experts and the Internationalization of Nature Protection, 1890-1940'. In *Scientists' Expertise as Performance: Between State and Society, 1860-1960*, edited by J.. Vandendriessche, E. Peeters, and K. Wils, 49-65. *History and Philosophy of Technoscience* 6. Abingdon & New York: Routledge, 2015.
- . 'Dieren Zonder Grenzen: Over Wetenschap En Internationale Natuurbescherming, 1890-1940'. *Tijdschrift Voor Geschiedenis* 125, no. 4 (2012): 520-35.
- . *Nature's Diplomats: Science, Internationalism, and Preservation, 1920-1960*. Intersections: Histories of Environment, Science, and Technology in the Anthropocene. Pittsburgh, Pa: University of Pittsburgh Press, 2021.
- . "'Primitives" and Protected Areas: International Conservation and the "Naturalization" of Indigenous People, ca. 1910-1975'. *Journal of the History of Ideas* 76, no. 2 (2015): 215-36.
- Boomgaard, Peter. 'Oriental Nature, Its Friends and Its Enemies: Conservation of Nature in Late-Colonial Indonesia, 1889-1949'. *Environment and History* 5, no. 3 (1999): 257-92.
- Braverman, Irus. 'Anticipating Endangerment. The Biopolitics of Threatened Species Lists' 12, no. 1 (2016): 132-57.
- . 'Chapter 1: The Regulatory Life of Threatened Species Lists'. In *Animals, Biopolitics, Law: Lively Legalities*, Draft. eBook: Routledge, 2016.
- . 'Conservation without Nature: The Trouble with in Situ versus Ex Situ Conservation'. *Geoforum* 51 (2014): 47-57.
- . 'En-Listing Life: Red Is the Color of Threatened Species Lists'. In *Critical Animal Geographies: Politics, Intersections and Hierarchies in a Multispecies World*, 184-202. London: Routledge, 2015.
- . *Wild Life: The Institution of Nature*. Stanford, California: Stanford University Press, 2015.

- Brennan, L., L. Heathcote, and A. Lucas. 'War and Famine Around the Indian Ocean During the Second World War'. *Ethics in the Global South: Research in Ethical Issues in Organizations* 18 (2017): 5–70.
- Brockington, D., and J. Igoe. 'Eviction for Conservation: A Global Overview'. *Conservation & Society* 4, no. 3 (2006): 424–70.
- Brockington, Dan. *Celebrity and the Environment: Fame, Wealth and Power in Conservation*. London & New York: Zed Books, 2009.
- . *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*. African Issues. Oxford, Dar es Salaam, Bloomington & Indianapolis: The International African Institute in association with James Curry, Mkuki Na Nyota & Indiana University Press, 2002.
- Brockington, Dan, Rosaleen Duffy, and Jim Igoe. *Nature Unbound: Conservation, Capitalism and the Future of Protected Areas*. London & Sterling, VA: Earthscan, 2008.
- Büttikofer, Johann. *International Conference for the Protection of Nature (Brunnen, June 28th - July 3rd 1947)*. Basle: Provisional International Union for the Protection of Nature, 1947.
- Buzan, B., O. Wæver, and J. de Wilde. *Security: A New Framework For Analysis*. Boulder & London: Lynne Rienner Publishers, 1998.
- Carruthers, J. 'Conservation and Wildlife Management in South African National Parks, 1930s-1960s'. *Journal of the History of Biology*, no. 41 (2008): 203–36.
- Cioc, Mark. *The Game of Conservation: International Treaties to Protect the World's Migratory Species*. Ohio University Press Series in Ecology and History. Athens: Ohio University Press, 2009.  
<https://ebookcentral.proquest.com/lib/uunl/detail.action?docID=1743684>.
- Coox, A.D. 'The Pacific War'. In *The Cambridge History of Japan*, edited by P. Duus, E-Book., 6:315–82. Cambridge: Cambridge University Press, 2008.  
<https://doi.org/10.1017/CHOL9780521223577.008>.
- Cribb, Robert. 'Birds of Paradise and Environmental Politics in Colonial Indonesia, 1890-1931'. In *Paper Landscapes: Explorations in the Environmental History of Indonesia*, edited by Peter Boomgaard, Freek Colombijn, and David Henley, 379–408. Leiden: KITLV Press, 1997.
- . *Historical Atlas of Indonesia*. Honolulu: University of Hawai'i Press, 2000.
- Darier, Éric, ed. *Discourses of the Environment*. Oxford: Blackwell Publishers, 1999.

- Davids, Karel. 'Lage Landen, Verre Horizonten. De Verbinding van Natuur, Landschap En "Nederlandse" Identiteit in Internationaal Perspectief'. *BMGN-Low Countries Historical Review* 121, no. 4 (2006): 605–19.
- Dean, Mitchell. *Governmentality: Power and Rule in Modern Society*. London: SAGE Publications, 2010.
- Delaney, D. 'Territory and Territoriality'. In *International Encyclopedia of Human Geography*, edited by R. Kitchin and N. Thrift, 11:196–208. Oxford: Elsevier, 2009.
- Djelic, M.L., and K. Sahlin-Andersson, eds. *Transnational Governance: Institutional Dynamics of Regulation*. Cambridge: Cambridge University Press, 2006.
- Doolittle, Amita A. 'Fortress Conservation'. In *Encyclopedia of Environment and Society*, edited by Paul Robbins, 704–5. London: SAGE Publications, 2007.
- Dottrens, Émile. 'Un Pionnier de La Conservation de La Nature: Charles-Jean Bernard (1876-1967)'. *Biological Conservation* 1 (1968): 54.
- Dowie, M. *Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples*. Cambridge, Massachusetts: MIT Press, 2009.
- Drori, G.S., and J.W. Meyer. 'Scientization: Making a World Safe for Organizing'. In *Transnational Governance: Institutional Dynamics of Regulation*, edited by M.L. Djelic and K. Sahlin-Andersson, 31–52. Cambridge: Cambridge University Press, 2006.
- Drori, G.S., Meyer, J.W., and H. Hwang, eds. *Globalization and Organization: World Society and Organizational Change*. Oxford: Oxford University Press, 2006.
- Fairhead, James, Melissa Leach, and Ian Scoones. 'Green Grabbing: A New Appropriation of Nature?' *Journal of Peasant Studies* 39, no. 2 (2012): 237–61.
- Ford, Caroline. 'Nature, Culture and Conservation in France and Her Colonies 1840-1940'. *Past & Present* 183 (2004): 173–98.
- Foucault, Michel. *Security, Territory, Population: Lectures at the Collège de France, 1977-78*. Edited by Michel Senellart, François Ewald, and Alessandro Fontana. Translated by Graham Burchell. Michel Foucault: Lectures at the Collège de France. Basingstoke & New York: Palgrave Macmillan, 2009.
- . *The Birth of Biopolitics: Lectures at the Collège de France, 1978-79*. Edited by Michel Senellart, François Ewald, and Alessandro Fontana. Translated by

- Graham Burchell. Michel Foucault: Lectures at the Collège de France. Basingstoke & New York: Palgrave Macmillan, 2008.
- . *The History of Sexuality, Volume 1: An Introduction*. Translated by Robert Hurley. New York: Pantheon Books, 1978.
- Geldmann, J., M. Barnes, and L. Coad et al. 'Effectiveness of Terrestrial Protected Areas in Reducing Habitat Loss and Population Declines'. *Biological Conservation* 161 (2013): 230–38.
- Gissibl, Bernhard. 'A Bavarian Serengeti: Space, Race and Time in the Entangled History of Nature Conservation in East Africa and Germany'. In *Civilizing Nature: National Parks in Global Historical Perspective*, edited by Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, 102–19. The Environment in History: International Perspectives 1. New York & Oxford: Berghahn Books, 2012.
- . *The Nature of German Imperialism: Conservation and the Politics of Wildlife in Colonial East Africa*. Vol. 9. The Environment in History: International Perspectives. New York & Oxford: Berghahn Books, 2016.
- Gissibl, Bernhard, Sabine Höhler, and Patrick Kupper, eds. *Civilizing Nature: National Parks in Global Historical Perspective*. The Environment in History: International Perspectives 1. New York & Oxford: Berghahn Books, 2012.
- . 'Introduction: Towards a Global History of National Parks'. In *Civilizing Nature: National Parks in Global Historical Perspective*, by Idem, 1–27. The Environment in History: International Perspectives. New York & Oxford: Berghahn Books, 2012.
- Global Wildlife Conservation (now: Re:wild). 'Taking The Temperature Of Wildlife Health Across The Planet', 15 October 2018. <https://www.rewild.org/news/taking-the-temperature-of-wildlife-health-across-the-planet>.
- Goldman, Michael. 'Constructing an Environmental State: Eco-Governmentality and Other Transnational Practices of a "Green" World Bank'. *Social Problems* 48, no. 4 (2001): 499–523.
- . *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. Yale Agrarian Studies Series. New Haven & London: Yale University Press, 2005.



- Goss, A. 'Reinventing the Kebun Raya in the New Republic: Scientific Research at the Bogor Botanical Gardens in the Age of Decolonization'. *Studium* 11, no. 3 (2018): 206–19.
- Graaf, B. de. 'Historisering van Veiligheid. Introductie'. *Tijdschrift Voor Geschiedenis* 125, no. 3 (2012): 305–13.
- Griffin, C.J., R. Jones, and I.J.M. Robertson, eds. *Moral Ecologies: Histories of Conservation, Dispossession and Resistance*. Palgrave Studies in World Environmental History. Cham: Palgrave Macmillan, 2019.
- Grove, Richard H. *Green Imperialism. Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860*. Studies in Environment and History. Cambridge: Cambridge University Press, 1995.
- Hockings et al., M. 'The IUCN Green List of Protected and Conserved Areas: Setting the Standard for Effective Conservation'. *Parks* 25, no. 2 (2019): 57–66.
- Hodge, J.M. 'British Colonial Expertise, Post-Colonial Careering and the Early History of International Development'. *Journal of Modern European History* 8, no. 1 (2010): 24–46.
- Holdgate, Martin. *The Green Web: A Union for World Conservation*. Abingdon & New York: Earthscan Publications Ltd, 1999.
- Hommel, Patrick W.F.M. 'Landscape-Ecology of Ujung Kulon (West Java, Indonesia)'. Dissertation, Landbouwniversiteit Wageningen, 1987.
- Jepson, Paul, and Robert J. Whittaker. 'Histories of Protected Areas: An Internationalisation of Conservationist Values and Their Adoption in the Netherlands Indies (Indonesia)'. *Environment and History* 8, no. 2 (2002): 129–72.
- Kaiser, W., and J.H. Meyer, eds. *International Organizations and Environmental Protection : Conservation and Globalization in the Twentieth Century*. New York: Berghahn Books, 2017.
- Kamat, V.R. 'Dispossession and Disenchantment: The Micropolitics of Marine Conservation in Southeastern Tanzania'. *Marine Policy* 88 (2018): 261–68.
- Kilroy, R.J. 'Securitization'. In *Handbook of Security Science*, edited by A. Masys, Ebook., 1–19. Cham: Springer, 2018. [https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-51761-2\\_11-1](https://doi-org.proxy.library.uu.nl/10.1007/978-3-319-51761-2_11-1).
- Korte, Hannah de, and David Onnekink. 'Maps Matter. The 10/40 Window and Missionary Geography'. *Exchange* 49 (2020): 110–44.

- Kupper, P. *Creating Wilderness: A Transnational History of the Swiss National Park*. The Environment in History: International Perspectives. New York & Oxford: Berghahn Books, 2012.
- Loperena, C.A. 'Conservation by Racialized Dispossession: The Making of an Eco-Destination on Honduras's North Coast'. *Geoforum* 69 (2016): 184–93.
- Luke, Timothy W. 'Environmentality as Green Governmentality'. In *Discourses of the Environment*, edited by Éric Darier, 121–51. Oxford: Blackwell Publishers, 1999.
- . 'On Environmentality: Geo-Power and Eco-Knowledge in the Discourse of Contemporary Environmentalism'. *Cultural Critique* 31 (1995): 57–81.
- MacDonald, Gregory E. 'Cogongrass (*Imperata cylindrica*) - Biology, Ecology, and Management'. *Critical Reviews in Plant Sciences* 23, no. 5 (2004): 367–80.
- Macekura, S.J. *Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century*. Global and International History 2. New York: Cambridge University Press, 2015.
- . 'Towards "Sustainable" Development: The United Nations, INGOs and the Crafting of the World Conservation Strategy'. In *International Organizations and Environmental Protection: Conservation and Globalization in the Twentieth Century*, edited by W. Kaiser and J.H. Meyer, 241–67. New York: Berghahn Books, 2017.
- Massé, F., and E. Lunstrum. 'Accumulation by Securitization: Commercial Poaching, Neoliberal Conservation, and the Creation of New Wildlife Frontiers'. *Geoforum* 69 (2016): 227–37.
- Meyer, J.W., D.J. Frank, A. Hironaka, E. Schofer, and N.B. Tuma. 'The Structuring of a World Environmental Regime, 1870-1990'. *International Organization* 51, no. 4 (1997): 623–51.
- Minarchek, Matthew. 'Creating Environmental Subjects: Conservation as Counter-Insurgency in Aceh, Indonesia, 1925-1940'. *Political Geography* 81, no. 102189 (2020).
- . 'Plantations, Peddlers, and Nature Protection: The Transnational Origins of Indonesia's Orangutan Crisis, 1910-1930s'. *TRaNS: Trans –Regional and –National Studies of Southeast Asia* 6, no. 1 (2018): 101–29.
- Morgan, G. 'Transnational Actors, Transnational Institutions, Transnational Spaces: The Role of Law Firms in the Internationalization of Competition Regulation'.

- In *Transnational Governance: Institutional Dynamics of Regulation*, edited by M.L. Djelic and K. Sahlin-Andersson, 139–60. Cambridge: Cambridge University Press, 2006.
- Muschik, E.M. ‘The Art of Chameleon Politics: From Colonial Servant to International Development Expert’. *Humanity: An International Journal of Human Rights, Humanitarianism, and Development* 9, no. 2 (2018): 219–44.
- O’Neil, Patrick H. *Essentials of Comparative Politics*. 6th Edition. New York & London: W.W. Norton & Company, n.d.
- Park, C., and M. Allaby, eds. ‘Environmental Regime’. In *A Dictionary of Environment and Conservation*. Oxford: Oxford University Press, 2017.  
<https://www.oxfordreference.com/view/10.1093/acref/9780191826320.001.0001/acref-9780191826320-e-2622#>.
- , eds. ‘Regime’. In *A Dictionary of Environment and Conservation*. Oxford: Oxford University Press, 2017.  
<https://www.oxfordreference.com/view/10.1093/acref/9780191826320.001.0001/acref-9780191826320-e-6777#>.
- Peluso, N.L. ‘Coercing Conservation? The Politics of State Resource Control’. *Global Environmental Change* 3, no. 2 (1993): 199–217.
- . “‘Traditions’ of Forest Control in Java: Implications for Social Forestry and Sustainability”. *Global Ecology and Biogeography Letters* 3, no. 4/6 (1993): 138–57.
- Pelzers, E. ‘Geschiedenis van Het Archiefbeheer’. Inventaris van het archief van A. Hoogerwerf [levensjaren 1906-1977], 1900-1974. Archiefvorming (Beschrijving), Edition 2015.  
<https://www.nationaalarchief.nl/onderzoeken/archief/2.21.281.27>.
- Penrose, Jan. ‘Nation, States and Homelands: Territory and Territoriality in Nationalist Thought’. *Nations and Nationalism* 8, no. 3 (2002): 277–97.
- Raphael, L. ‘Die Verwissenschaftlichung Des Sozialen Als Methodische Und Konzeptionelle Herausforderung Für Eine Sozialgeschichte Des 20. Jahrhunderts’. *Geschichte Und Gesellschaft* 22, no. 2 (1996): 165–93.
- Rodrigues, A.S.L., S. Andelman, and M. Bakarr et al. ‘Effectiveness of the Global Protected Area Network in Representing Species Diversity’. *Nature* 428 (2004): 640–43.

- Rodrigues, A.S.L., J.D. Pilgrim, J.F. Lamoreux, M. Hoffmann, and T.M. Brooks. 'The Value of the IUCN Red List for Conservation'. *TRENDS in Ecology and Evolution* 21, no. 2 (2006): 71–76.
- Ross, Corey. 'Tropical Nature as Global Patrimoine: Imperialism and International Nature Protection in the Early Twentieth Century'. *Past and Present* 226, no. Supplement 10 (2015): 214–39.
- . 'Tropical Nature in Trust: The Politics of Colonial Nature Conservation'. In *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World*, 239–347. Oxford: Oxford University Press, 2017.
- Runte, Alfred. *National Parks: The American Experience*. Fourth Edition. Lanham: Taylor Trade Publishing, 2010.
- Rutherford, Paul. "'The Entry of Life Into History'". In *Discourses of the Environment*, edited by Éric Darier, 37–62. Oxford: Blackwell Publishers, 1999.
- Sack, R.D. *Human Territoriality: Its Theory and History*. Cambridge, 1986.
- Save the Rhino International. 'Rhino Populations'. Save the Rhino, n.d. <https://www.savetherhino.org/rhino-info/population-figures/>.
- Schleper, Simone. *Planning for the Planet: Environmental Expertise and the International Union for the Conservation of Nature and Natural Resources, 1960-1980*. The Environment in History: International Perspectives 16. New York en Oxford: Berghahn Books, 2019.
- Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven & London: Yale University Press, 1998.
- Spence, M.D. *Dispossessing the Wilderness: Indian Removal and the Making of National Parks*. New York & Oxford: Oxford University Press, 1999.
- Steenis-Kruseman, M.J. van. *Verwerkt Indisch Verleden*. Oegstgeest: Privately Published, 1988.
- Stevenson, H. *Global Environmental Politics: Problems, Policy and Practice*. Cambridge: Cambridge University Press, 2018.
- Storey, D. 'Territory and Territoriality'. In *Handbook of the Geographies of Regions and Territories*, edited by A. Paasi, J. Harrison, and M. Jones. Cheltenham & Northampton: Edward Elgar Publishing, 2018.
- Sysling, Fenneke. "'Protecting the Primitives": Indigenous People as Endangered Species in the Early Nature Protection Movement, 1900-1940'. *Environment and History* 21, no. 3 (2015): 381–99.

- Taylor, P.J, and F.H. Buttel. 'How Do We Know We Have Global Environmental Problems? Science and the Globalization of Environmental Discourse'. *Geoforum* 23, no. 3 (1992): 405–16.
- Tilley, H. *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870-1950*. Chicago & London: University of Chicago Press, 2011.
- Valdivia, Gabriela. 'Eco-Governmentality'. In *The Routledge Handbook of Political Ecology*, edited by Tom Perreault, Gavin Bridge, and James McCarthy, 467–80. London & New York: Routledge, 2015.
- Vickers, A. *A History of Modern Indonesia*. Second Edition. New York: Oxford University Press, 2013.
- Walpole, M.J., and N. Leader-Williams. 'Tourism and Flagship Species in Conservation'. *Biodiversity and Conservation* 11 (2002): 543–47.
- Watson, J.E.M., N. Dudley, D.B. Segan, and M. Hockings. 'The Performance and Potential of Protected Areas'. *Nature* 515, no. 7525 (2014): 67–73.
- Wille, Robert-Jan. 'The Coproduction of Station Morphology and Agricultural Management in the Tropics: Transformations in Botany at the Botanical Garden at Buitenzorg, Java 1880-1904'. In *New Perspectives on the History of Life Sciences and Agriculture*, edited by D. Phillips and S. Kingsland, 253–75. Archimedes 40. Springer International Publishing Switzerland, 2015.
- Wilson, Edward O. *The Diversity of Life*. Third Edition. Questions of Science. London: Penguin Books, 1994.
- Windt, Henny J. van der. 'Parks without Wilderness, Wilderness without Parks? Assigning National Park Status to Dutch Manmade Landscapes and Colonial Game Reserves'. In *Civilizing Nature: National Parks in Global Historical Perspective*, edited by Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, 206–23. *The Environment in History: International Perspectives* 1. New York & Oxford: Berghahn Books, 2012.
- Wöbse, Anna-Katharina. 'Framing the Heritage of Mankind: National Parks on the International Agenda'. In *Civilizing Nature: National Parks in Global Historical Perspective*, edited by Bernhard Gissibl, Sabine Höhler, and Patrick Kupper, 140–56. *The Environment in History: International Perspectives* 1. New York & Oxford: Berghahn Books, 2012.

- . ‘Seperating Spheres: Paul Sarasin and His Global Nature Protection Scheme’. *Australian Journal of Politics and History* 61, no. 3 (2015): 339–51.
- . “‘The World after All Was One’: The International Environmental Network of UNESCO and IUPN, 1945-1950’. *Contemporary European History* 20, no. 3 (2011): 331–48.
- Worboys, G.L., M. Lockwood, A. Kothari, S. Feary, and I. Pulsford, eds. *Protected Area Governance and Management*. Canberra: ANU Press, 2015.
- World Commission on Protecte Areas (IUCN). ‘What Is the IUCN Green List?’, 2022. <https://iucngreenlist.org/about/>.
- World Wildlife Fund (WWF). ‘Why They Matter’. In *Javan Rhino*, Published 2017. Accessed August 2021. <https://www.worldwildlife.org/species/javan-rhino>.
- Zanden, J.L. van, and D. Marks. *An Economic History of Indonesia, 1800-2012*. Routledge Studies in the Growth Economies of Asia. London & New York: Routledge, 2012.
- Ziemann, B., R.F. Wetzell, D. Schumann, and K. Brückweh, eds. ‘Introduction: The Scientization of the Social in Comparative Perspective’. In *Engineering Society: The Role of the Human and Social Sciences in Modern Societies, 1880-1980*, 1–40. Basingstoke & New York: Palgrave Macmillan, 2012.

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Brockington, D., R. Duffy and J. Igoe, *Nature Unbound* (London & Sterling, VA: Earthscan, 2008) 2.

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Dammerman, K.W., Preservation of Wild Life and Nature Reserves in the Netherlands-Indies, Fourth Pacific Science Congress (Bandung, Java) (Weltevreden 1929) 34-35.

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Appelman, F.J., and P.F. Franck. 'Rhinoceros Sondaicus in West-Java'. *De Tropische Natuur* 23 (1934): 73–79, 74.

Figure 4 – Picture of J.C. Hazewinkel, two Indonesian helpers and a shot Javan rhino.

Hazewinkel, J.C., 'A rhino-hunt in Sumatra', *Java Gazette* 1 (1932) 5, Supplement, i-viii.

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Hoogerwerf, A., *Ujung Kulon. The Land of the Last Javan rhinoceros* (Leiden: E.J. Brill, 1970) 30-31.

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Talbot, Lee M, 'A Look at Threatened Species', *Oryx* 5 (1960) 4–5, 155–293, there 207.

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Talbot, Lee M, 'A Look at Threatened Species', *Oryx* 5 (1960) 4–5, 155–293, there 208.

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Unknown, 'Prince Bernhard of The Netherlands (when President of WWF) on a visit to Ujung Kulon National Park in March 1970. On his left is Dr Rudolf Schenkel', Original Source: R. Schenkel, B. Nievergelt and F. Bucher, *8 Horner auf 5 Nasen: ein Nashornbuch* (Zurich: Zurcher Tierschutz, 2007), Retrieved from:  
[http://www.rhinoresourcecenter.com/images/Prince-Bernhard-and-Rudolf-Schenkel\\_i1568983761.php](http://www.rhinoresourcecenter.com/images/Prince-Bernhard-and-Rudolf-Schenkel_i1568983761.php).

## List of Abbreviations

ACIWLP	American Committee for International Wild Life Protection
ICNP	International Committee on National Parks
IOPN	Office Internationale de Documentation et de la Corrélation pour la Protection de la Nature (renamed: International Office for the Protection of Nature)
IUCN	International Union for the Protection of Nature (renamed: International Union for the Conservation of Nature and Natural Resources)
NCIN	Nederlandse Commissie voor Internationale Natuurbecherming
NIVN	Nederlandsch-Indische Vereeniging tot Natuurbescherming
SSC	Species Survival Commission
WWF	World Wildlife Fund



## Appendix I – Vegetation Map Ujung Kulon

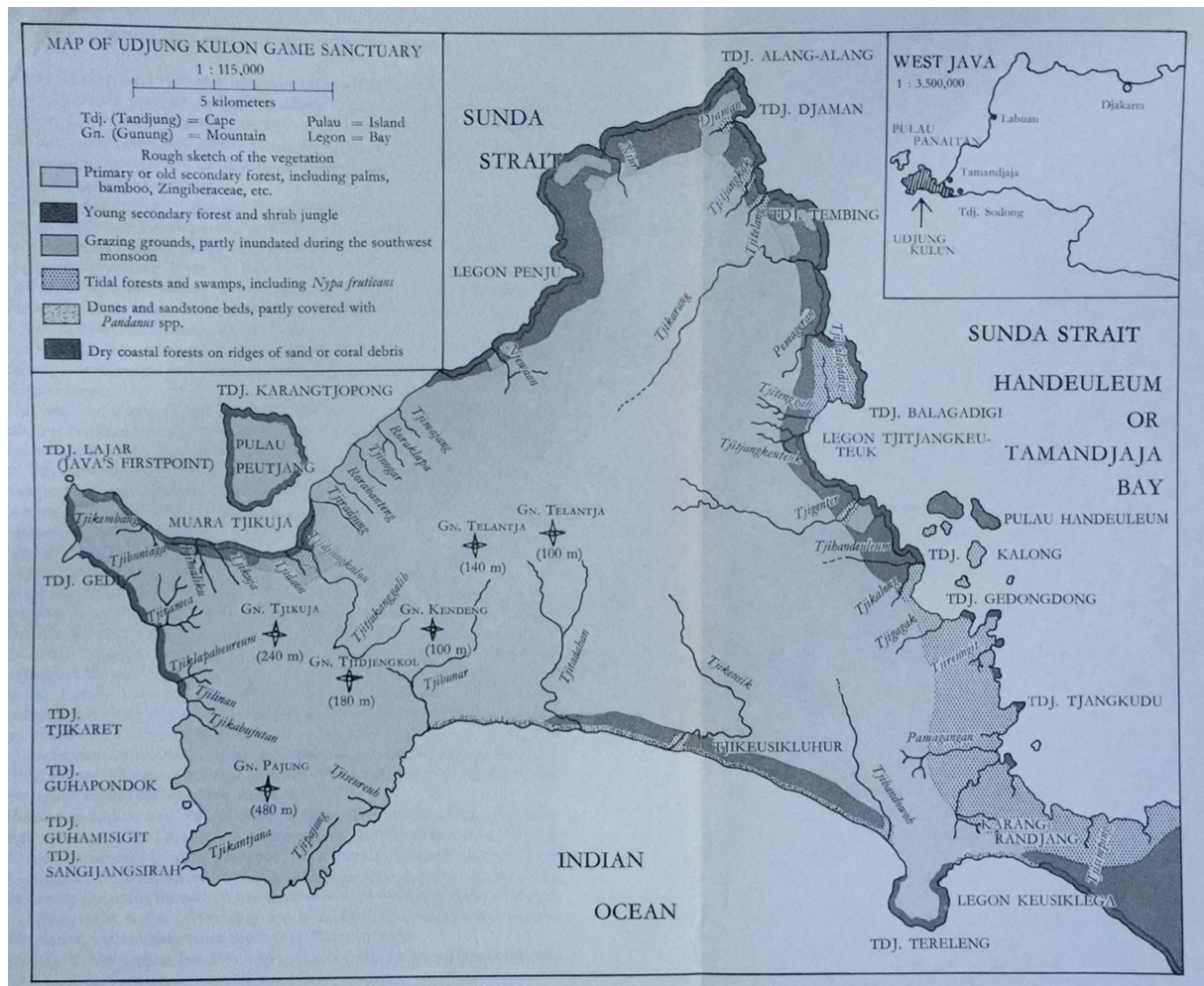


Figure 9 - Map of the vegetation of Ujung Kulon Peninsula. A. Hoogerwerf, Ujung Kulon. *The Land of the Last Javan rhinoceros* (Leiden: E.J. Brill, 1970) 24-25.

## Appendix II – Terrain Map Ujung Kulon

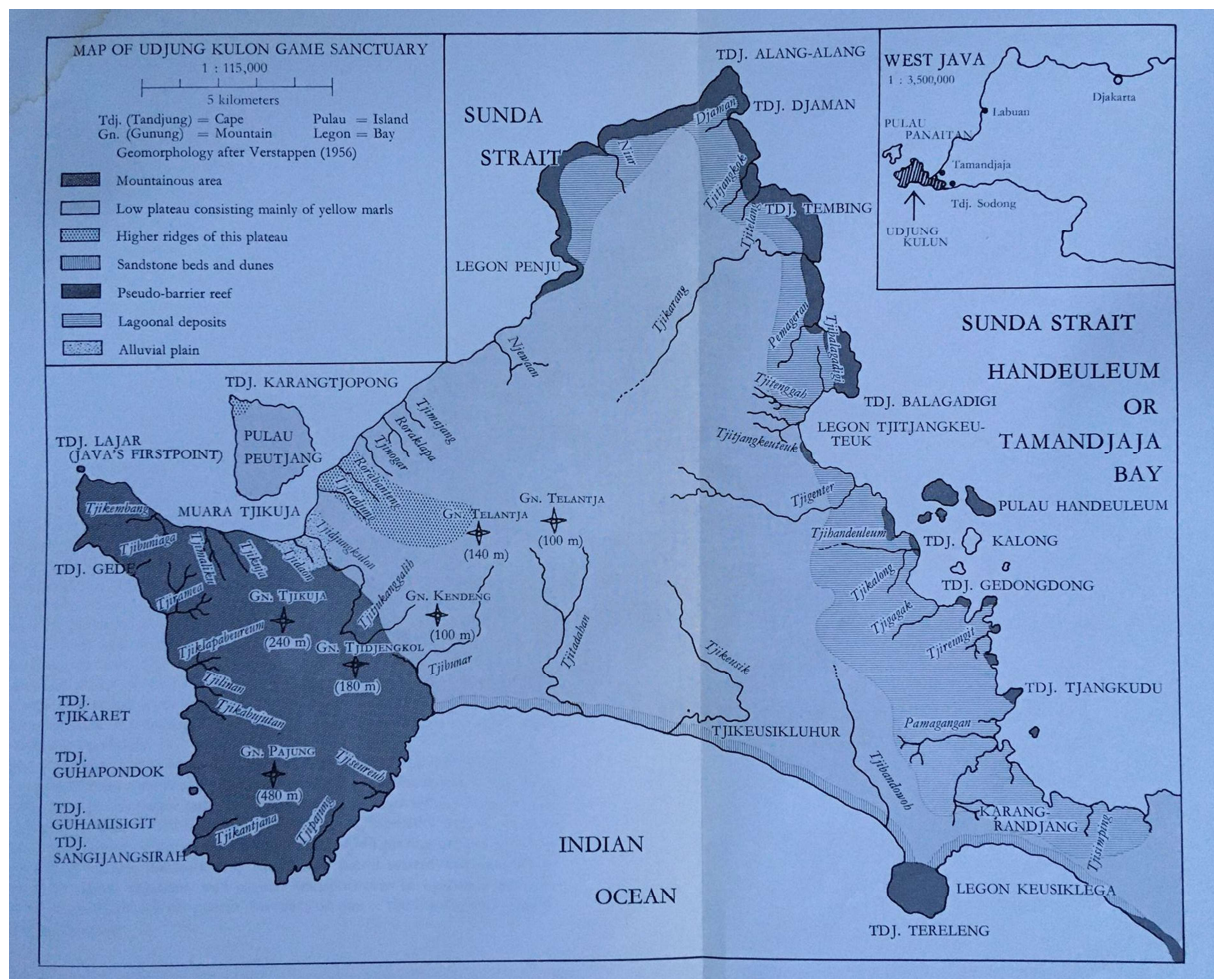


Figure 10 - Map of the terrain of Ujung Kulon Peninsula. A. Hoogerwerf, Ujung Kulon. *The Land of the Last Javan rhinoceros* (Leiden: E.J. Brill, 1970) 18-19.