



# Habitat Law in Alberta

## VOLUME 3: Jurisdictional Review of Habitat Laws

Environmental Law Centre  
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October 2019



Environmental  
Law Centre

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# The Environmental Law Centre (Alberta) Society

The Environmental Law Centre (ELC) has been seeking strong and effective environmental laws since it was founded in 1982. The ELC is dedicated to providing credible, comprehensive and objective legal information regarding natural resources, energy and environmental law, policy and regulation in the Province of Alberta. The ELC's mission is to educate and champion for strong laws and rights so all Albertans can enjoy clean water, clean air and a healthy environment. Our vision is a society where laws secure an environment that sustains current and future generations.

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# ACKNOWLEDGEMENTS

The Environmental Law Centre thanks the Alberta Law Foundation for its financial support of our Habitat Law in Alberta report which includes an executive summary and four volumes, related webinar(s) and blog posts on the ELC website at [www.elc.ab.ca](http://www.elc.ab.ca):

- [Habitat Law in Alberta: Executive Summary](#)
- [Habitat Law in Alberta Volume 1: The State of Habitat Laws in Alberta](#)
- [Habitat Law in Alberta Volume 2: Barriers to Habitat Management and Protection in Alberta](#)
- [Habitat Law in Alberta Volume 3: Jurisdictional Review of Habitat Laws](#)
- [Habitat Law in Alberta Volume 4: Recommended Reforms to Habitat Management & Protection Regulations in Alberta](#)

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## Introduction

Managing and preserving habitat is a challenge the world over. As the human population continues to rise encroaching and conversion of habitat has had a significant impact on species across the globe. This report seeks to canvass other jurisdictional approaches to inform how Alberta may evolve its habitat management system.

The jurisdictions that are reviewed in this report were chosen based on several criteria. For the most part, the focus is on legislation that involves species at risk. Species and risk legislation is chosen as it deals most directly with habitat issues and is likely to be most illustrative of challenges and opportunities that may exist to better habitat management. Species at risk legislation is reviewed in for the Canadian provinces of Ontario and Nova Scotia. We review the United States federal *Endangered Species Act* as it has had a long history and has attracted significant amounts of evaluation and critique.

We then provide a review of a broader habitat-based approach in the European Union. Finally, we touch on specific jurisdictions that are highlighted in the global Environmental Performance Indicators of 2018 (*EPI*) published by the Yale Center for Environmental Law and Policy (including Germany, Zambia and Botswana). While we

selected leading states from the EPI it is clear that the pressures for habitat and species conservation are quite different in differing jurisdictions, in particular in those states where poaching and illegal wildlife trade is a greater threat to species.

## Ontario

Within Canada, the Province of Ontario purports to have the “gold standard” of species at risk legislation.<sup>1</sup> The *Endangered Species Act, 2007 (ON ESA)*<sup>2</sup> which came into force June 2008, was enacted for the legislative purpose of (1) identifying species at risk based on the best available scientific information; (2) protecting species at risk and their habitats and promoting their recovery; and (3) promoting stewardship activities to assist in their protection and recovery.<sup>3</sup> Note that, while Ontario does have other types of habitat protection laws (discussed in greater detail below), the *ON ESA* is the leading piece of such legislation in the province.

The *ON ESA* mandates a science-based approach to listing protected species, requires the preparation of recovery strategies, and automatically protects the habitat of any species deemed endangered or threatened. However, recent amendments to the *ON ESA* appear to weaken aspects of the Act including more relaxed timelines for listing species, increased discretion on the part of the Minister to make an order suspending various prohibitions of the Act for a period of up to three years for newly listed species, and increased discretion on the part of the minister to make regulations limiting the prohibitions generally, among others.<sup>4</sup>

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<sup>1</sup> Martin Mittelstaedt, “Ontario to set ‘gold standard’ for species at risk” *The Globe and Mail* (March 21, 2007) online: <https://www.theglobeandmail.com/news/national/ontario-to-set-gold-standard-for-species-at-risk/article961620/>.

<sup>2</sup> *Endangered Species Act, 2007*, SO 2007, c 6 [ON ESA].

<sup>3</sup> *Ibid.*, s. 1.

<sup>4</sup> Bill 108, *An Act to amend various statutes with respect to housing, other development and various other matters*, 1<sup>st</sup> Sess., 42<sup>nd</sup> Leg., Ontario, 2019 (assented to June 6, 2019), SO 2019 C 9 [Bill 108]. Changes to the *ON ESA* came into force July 1, 2019.

## ***Endangered Species Act, 2007***

### ***Assessment and Listing***

The ON ESA mandates the assessment, review and classification of species at risk through an independent Committee on the Status of Species at Risk in Ontario (COSSARO).<sup>5</sup> The Act requires that COSSARO maintain and prioritize a list of species in Ontario, including every Ontario species that is listed by the (federal) Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as extirpated, endangered, threatened, or of special concern, and every Ontario species that has not yet been assessed by COSSARO.

COSSARO is required to classify listed species based on the best available scientific information, including information obtained from community knowledge and aboriginal traditional knowledge.<sup>6</sup> However, amendments now also require consideration of whether the species exists outside Ontario and, if its condition outside Ontario is less dire, than COSSARO's classification of a species shall reflect the lower level of risk.<sup>7</sup> Previously, COSSARO was also composed exclusively of members with scientific expertise or aboriginal traditional knowledge, however, recent amendments have expanded this to include "community knowledge" as well.<sup>8</sup> The categories for listed species are: extinct, extirpated, endangered, threatened, and of special concern.<sup>9</sup> The classification of species may be limited to a specified geographic area.<sup>10</sup>

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<sup>5</sup> ON ESA, *supra* note 2 ss. 3-4.

<sup>6</sup> ON ESA, *ibid.*, s. 5.

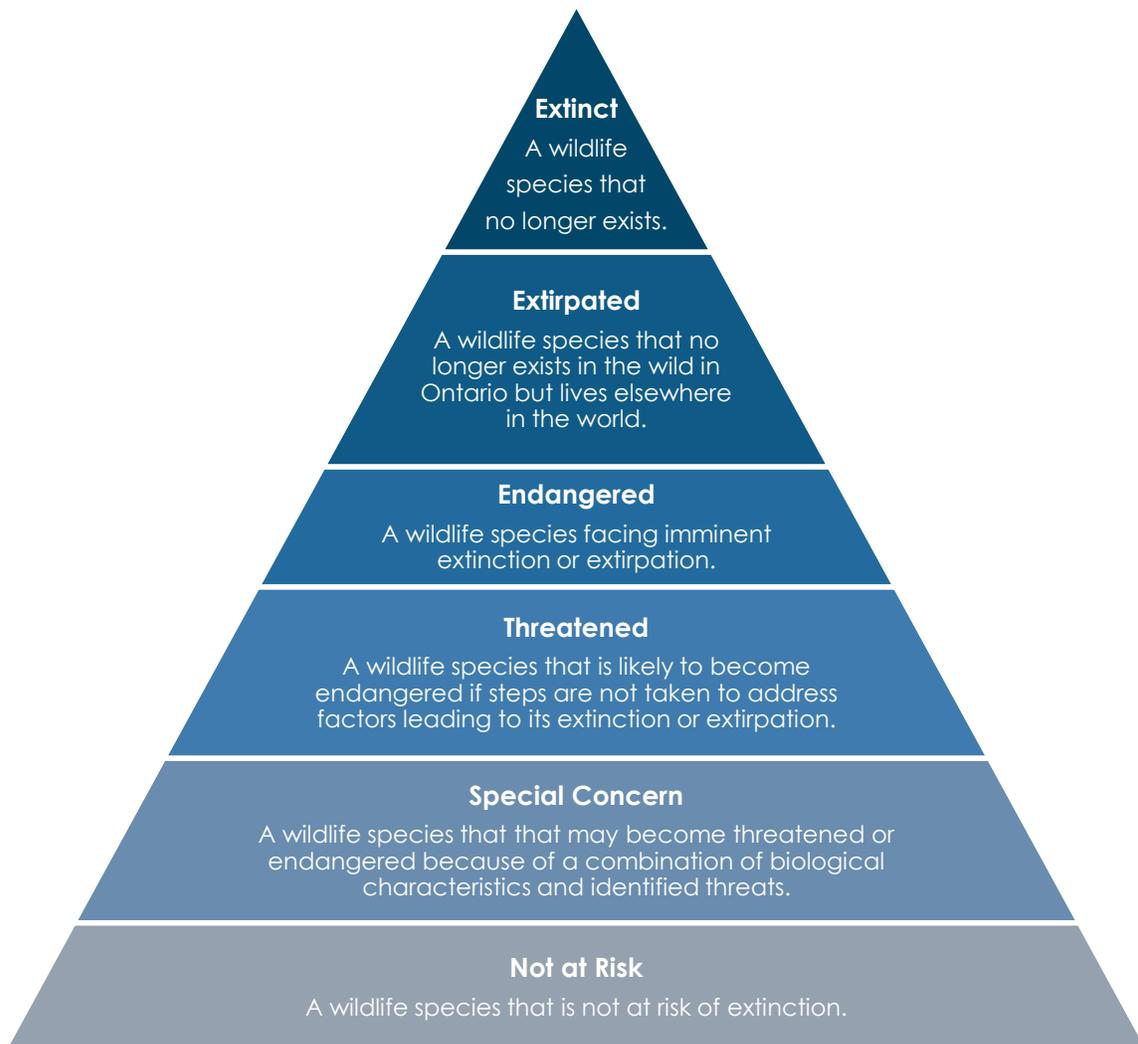
<sup>7</sup> ON ESA, *ibid.*, s. 5(4)-5(5).

<sup>8</sup> ON ESA, *ibid.*, s. 3(4).

<sup>9</sup> ON ESA, *ibid.*, s. 5.

<sup>10</sup> ON ESA, *ibid.*, s. 5(2).

Figure 1 COSSARO Species Classification



COSSARO must report annually to the Minister of Natural Resources who, in turn, is required to file a regulation that lists all the species classified by COSSARO as extirpated, endangered, threatened, or of special concern.<sup>11</sup> This regulation is also known as the *Species at Risk in Ontario List*.<sup>12</sup> The Minister must file amendments to the regulation to reflect any new information reported by COSSARO and there are

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<sup>11</sup> ON ESA, *ibid.*, ss. 6-7. This regulation is intended to be amended to reflect new information reported by COSSARO.

<sup>12</sup> O. Reg 230/08.

provisions in the Act for the emergency assessment of species that the Minister considers to be at risk for imminent extinction or extirpation.<sup>13</sup> Once a species is listed on the *Species at Risk in Ontario List*, it becomes subject to a variety of protections and prohibitions (discussed in further detail below).

### **Recovery Planning and Habitat Protection**

The ESA provides a variety of instruments to protect species at risk and their habitat, including recovery strategies, management plans, and stewardship activities. The applicable instruments can vary by species classification:

<b>Classification</b>	<b>Recovery Strategy</b>	<b>Management Plan</b>	<b>Habitat Protection</b>	<b>Prohibition(s)</b>
Extirpated	✓*		✓**	✓
Endangered	✓		✓	✓
Threatened	✓		✓	✓
Special Concern		✓		

\*If reintroduction is feasible.

\*\*If prescribed by regulation.

The Minister is required to ensure that a recovery strategy is prepared for all species listed as endangered or threatened, as well as any extirpated species that the Minister believes could be feasibly reintroduced in Ontario.<sup>14</sup> A recovery strategy must identify the species' habitat needs, describe their threats, and make recommendations on its protection and recovery, among other things.<sup>15</sup> The Act sets out a deadline for the development of recovery strategies; however, the deadline may be extended by notice of the Minister.<sup>16</sup> Shortly after a recovery strategy has

<sup>13</sup> ON ESA, *supra* note 2, s. 8.

<sup>14</sup> ON ESA, *ibid.*, s. 11.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

been developed, the Minister must publish a statement which summarizes the actions the government intends to take in response to the recovery strategy. It is at this stage that the Minister may consider social and economic factors.<sup>17</sup> A review of progress towards the protection and recovery of the species is required within five years.

Meanwhile, a management plan must be developed for each listed species of special concern.<sup>18</sup> This requirement does not apply if a recovery strategy or management plan is already required by the federal *Species at Risk Act (SARA)*.<sup>19</sup> The *ON ESA* sets deadlines for the development of management plans; however, the deadlines may be extended by notice of the Minister.<sup>20</sup> Once a management plan has been developed, the Minister must publish a statement which summarizes the actions the government intends to take in response to the management plan. Again, the Minister may consider social and economic factors at this stage.<sup>21</sup>

The *ON ESA* also establishes the Species at Risk in Ontario Stewardship Program.<sup>22</sup> The purposes of the program are to promote stewardship activities related to listed species including the preservation and rehabilitation of habitat, the implementation of recovery programs and actions plans, public education and outreach, and other activities to assist in the protection or recovery of species.<sup>23</sup> The Minister may enter into stewardship agreements for the purpose of assisting in the protection or recovery of a listed species and has the power to make grants in support of stewardship activities.<sup>24</sup>

### **Prohibitions**

The *ON ESA* requires that, after a species has been listed, steps be taken to conserve the species and its habitat. A series of prohibitions protect listed species against the killing, harming, harassing, capturing, or taking of a living member of an extirpated,

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<sup>17</sup> *Ibid.*

<sup>18</sup> *ON ESA, ibid.*, s. 12.

<sup>19</sup> SC 2002, c 29 [SARA].

<sup>20</sup> *ON ESA, supra* note 2, s. 12.

<sup>21</sup> *Ibid.*

<sup>22</sup> *ON ESA, ibid.*, s. 47.

<sup>23</sup> *Ibid.*

<sup>24</sup> *ON ESA, ibid.*, ss. 16, 47.

endangered, or threatened species.<sup>25</sup> The *ON ESA* also prohibits the possession, transportation, collection, buying, selling, leasing, trading, or offering to buy, sell, lease, or trade of a member (of part or derivative of) an extirpated, endangered, or threatened species. The Minister may make regulations limiting the application of these prohibitions.<sup>26</sup>

In addition, the *ON ESA* prohibits damaging or destroying the habitat of a species listed as endangered or threatened.<sup>27</sup> This prohibition may apply to the habitat of extirpated species as well (if prescribed by regulation).<sup>28</sup> The Minister may make regulations limiting the application of this prohibition.<sup>29</sup> In addition, the *ON ESA* allows the Minister to issue “habitat protection orders” to prevent a person from engaging in activity that is destroying or seriously damaging habitat of an extirpated, endangered, or threatened species.<sup>30</sup>

### **Exemptions and Permits**

Finally, the Minister may issue permits or other instruments permitting activities that otherwise would be prohibited by the *ON ESA*.<sup>31</sup> The Act was recently amended to include a controversial “pay to slay” provision that authorizes the Minister to issue a permit when the proponent has agreed to pay a “species conservation charge” (without an additional requirement to provide an overall benefit to the species).<sup>32</sup> The Act prescribes limitations and preconditions on the Minister’s discretion to issue permits.<sup>33</sup> Where a party has entered into a stewardship agreement, activities that otherwise would be prohibited by the *ON ESA* may also be allowed.<sup>34</sup>

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<sup>25</sup> *ON ESA, ibid.*, s. 9.

<sup>26</sup> *ON ESA, ibid.*, s. 55. Note O. Reg. 242/08 makes exemptions for the protection of property, health or safety, zoos, etc.

<sup>27</sup> *ON ESA, ibid.*, s. 10.

<sup>28</sup> *ON ESA, ibid.*, s. 10(1)(a).

<sup>29</sup> *ON ESA, ibid.*, ss. 55-56.

<sup>30</sup> *ON ESA, ibid.*, ss. 28-30.

<sup>31</sup> *ON ESA, ibid.*, ss. 17-20.

<sup>32</sup> *ON ESA, ibid.*, s. 18.

<sup>33</sup> *ON ESA, ibid.*, s. 17(2).

<sup>34</sup> *ON ESA, ibid.*, s. 16(3).

### **Compliance and Enforcement**

The *ON ESA* provides that the Minister may appoint enforcement officers to enforce the provisions of the Act.<sup>35</sup> The Act also creates a series of offences, including when a person contravenes any of the above-noted prohibitions or the provisions of a permit.<sup>36</sup> Penalties for a person convicted under the Act include fines and/or imprisonment.<sup>37</sup> Persons may be fined up to \$250,000 and/or imprisoned for up to one year for a first offence or fined up to \$500,000 for a subsequent offence.<sup>38</sup> Corporations may be fined up to \$1,000,000 for a first offence and up to \$2,000,000 for a subsequent offence.<sup>39</sup>



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<sup>35</sup> *ON ESA, ibid.*, ss. 21-35.

<sup>36</sup> *ON ESA, ibid.*, s. 36.

<sup>37</sup> *ON ESA, ibid.*, s. 40.

<sup>38</sup> *Ibid.*

<sup>39</sup> *Ibid.*

### *Other Relevant legislation*

Other pieces of legislation play an incidental role in the protection of species at risk and their habitat in Ontario. These include:

- *Environmental Bill of Rights, 1993*<sup>40</sup> - creates procedural rights for citizens of Ontario that are applicable to the Minister of Natural Resources and Forestry, the Minister of Environment, Conservation and Parks and to the ON ESA. Citizens are entitled to public notice and public participation with respect to environmentally significant proposals for policies, Acts, regulations and instruments and provided with the right to seek a review of decisions.
- *Planning Act*<sup>41</sup> - requires that all decisions by municipalities, planning boards and so forth must be consistent with policy statements issued pursuant to the Act.<sup>42</sup> The Ontario government has issued the Provincial Policy Statement (2014)<sup>43</sup> which provides policy direction on matters of provincial interest regarding land use planning and development. Section 2.1.8 of the Statement requires that “[d]evelopment and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.” If there is a conflict between provincial land plans and the Provincial Policy Statement (2004), the provincial land plans take precedence.
- *Provincial Parks and Conservation Reserves Act, 2006*<sup>44</sup> - establishes a system of provincial parks and conservation reserves with maintenance of ecological integrity as their first priority.<sup>45</sup> Ecological integrity is defined to include the maintenance of viable species populations including species at risk and maintenance of the habitat on which the species depend.<sup>46</sup>

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<sup>40</sup> SO 1993, c 28.

<sup>41</sup> *Planning Act*, RSO 1990, c P.13 [PA].

<sup>42</sup> PA, *ibid.*, s. 3.

<sup>43</sup> Government of Ontario, Provincial Policy Statement (2014), online at: <https://www.ontario.ca/document/provincial-policy-statement-2014>.

<sup>44</sup> *Provincial Parks and Conservation Reserves Act*, SO 2006 c 12 [PPCRA].

<sup>45</sup> PPCRA, *ibid.*, s. 2.

<sup>46</sup> PPCRA, *ibid.*, s. 5(3).

## *Summary and Analysis*

In general, Ontario passed a strong legislative framework from which to manage species at risk. Out of all Canadian jurisdictions, the Ontario legislative approach most closely resembles the federal SARA and, in some provisions, such as the (relative) de-politicization of the listing process, exceeds it.

The ON ESA has many strengths. Species information data is collected through the Natural Heritage Information Centre and species reports and rankings are published.<sup>47</sup> Recovery planning and the government response to these plans are prescribed by the legislation. The Act creates offences for contravening provisions of the ON ESA and imposes significant and proportionate penalties for same.

Yet, the efficacy of the legislation relies on implementation by the relevant Ministry, which as of July 1, 2019, is the Ministry of the Environment, Conservation and Parks, but was previously the Ministry of Environment of Natural Resources and Forestry (MNR). According to the (now defunct) Environmental Commissioner of Ontario (ECO), the MNR “utterly failed” in this regard – reducing “what should have been a robust system for protecting species at risk to what is largely a paper exercise”.<sup>48</sup>

In the ECO's 2017 Environmental Protection Report, entitled *Good Choices, Bad Choices: Environmental Rights and Environmental Protection in Ontario* (“ECO Report”), the ECO reviewed how the MNR's purported modernization of its permit approvals process actually worked to undermine the wellbeing and survival of Ontario's species at risk and their habitat.<sup>49</sup> Specifically, in 2013 the MNR tried to reduce its workload and cut delays by moving to a permit-by-rule system. The permit-by-rule system authorizes various types of otherwise prohibited activities to proceed without actually having to obtain an individual permit, so long as the proponent adheres to a series of rules set out in the regulation.<sup>50</sup> Permit-by-rule covers many of

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<sup>47</sup> Government of Ontario, Ministry of Natural Resources and Forestry, *Natural Heritage Information Centre*, online: <https://www.ontario.ca/page/natural-heritage-information-centre>.

<sup>48</sup> Environmental Commissioner of Ontario, *Good Choices, Bad Choices: Environmental Rights and Environmental Protection in Ontario* (2017 Environmental Protection Report) (Toronto: Environmental Commissioner of Ontario, October 2017) at 248 [ECO Report].

<sup>49</sup> *Ibid.* at 217.

<sup>50</sup> *General*, O. Reg. 242/08, ss. 23.3-23.20; ECO Report, *ibid.* at 222.

the most common activities that can adversely affect species at risk and their habitats, including: forestry operations, ditch and drainage activities, aggregate pits and quarries, and early exploration mining.<sup>51</sup>

The ECO found that, while permit-by-rule is suitable for lower risk activities, it is not appropriate for activities affecting species at risk due to the overall lack of government oversight and lower standard of protection.<sup>52</sup> For instance, whereas issuance of a permit previously required an “overall benefit” to the species be achieved, the MNRF has mostly abandoned this requirement under permit-by-rule.<sup>53</sup> Instead, the vast majority of exemptions require the proponent to “minimize adverse effects”, a lower standard which is likely to leave the species worse off than before.<sup>54</sup>

Evidence also shows that MNRF Enforcement Branch does not conduct any routine compliance monitoring of activities regulated under the *ON ESA*, rather, it relies on complaints, tips or referrals from operations staff.<sup>55</sup> Moreover, the MNRF claims it has no legal authority to actually conduct any routine compliance monitoring of registered activities.<sup>56</sup> Finally, public participation and oversight is also significant reduced as there is no publicly available information on activities that the MNRF allows under permit-by-rule.<sup>57</sup> There is also very limited right to appeal permit decisions.<sup>58</sup>

Overall, many activities that would have previously required a permit now proceed under permit-by-rule and authorizations to harm species have increased dramatically.<sup>59</sup> The 2017 ECO Report recommended that, among other things, the Ministry determine the effects of its authorizations on species at risk and publicly report on the results, amend the *ON ESA* to give enforcement officers the power to conduct investigations of registered activities in order to monitor compliance with

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<sup>51</sup> ECO Report, *supra* note 48 at 222.

<sup>52</sup> ECO Report, *ibid.* at 225.

<sup>53</sup> ECO Report, *ibid.* at 234-235.

<sup>54</sup> *Ibid.*

<sup>55</sup> ECO Report, *ibid.* at 238.

<sup>56</sup> ECO Report, *ibid.* at 239.

<sup>57</sup> ECO Report, *ibid.* at 242.

<sup>58</sup> ECO Report, *ibid.* at 244.

<sup>59</sup> ECO Report, *ibid.* at 227, 242.

permits, amend the *ON ESA* to create a right of appeal for permits, and make all species at risk authorizations public. While the ECO reiterated that it continues to stand behind the *ON ESA* in principle, it found the MNRF was failing to protect species at risk as intended and to lead effective recovery programs.<sup>60</sup>

Finally, while the actual impact of the recent amendments to the *ON ESA* by the Government of Ontario remain to be seen, they were strongly condemned by environmentalists<sup>61</sup> and do appear to have weakened the Act still further.



## Nova Scotia

Nova Scotia was one of the first provinces to enact an *Endangered Species Act (NS ESA)*<sup>62</sup> in 1999. The purpose of the Act is to provide for the protection, designation and recovery of species at risk in the province, including habitat protection.<sup>63</sup> While Ontario's *ESA* is considered stronger overall, the *NS ESA* is still one of the better

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<sup>60</sup> ECO Report, *ibid.* at 248.

<sup>61</sup> For example, Environmental Defence, Ontario Nature and the David Suzuki Foundation released a statement condemning the changes and calling them "regressive and dangerous", see online at: <https://ontarionature.org/news-release/government-proposes-to-gut-endangered-species-act/>.

<sup>62</sup> SNS 1998, c 11 [NS ESA].

<sup>63</sup> NS ESA, *ibid.*, s. 2(1).

provincial laws and provides some protection for habitat. Nova Scotia does, however, appear to have had significant and ongoing issues with compliance and implementation (discussed in further detail below).

## ***Endangered Species Act***

### ***Assessment and Listing***

Listing decisions are made by the Species-at-risk Working group ("Group"), which consists of six members appointed by the Minister.<sup>64</sup> The chair is a non-voting member employed by the department while the remaining five members must be recognized scientific experts regarding species and their habitats.<sup>65</sup> The Group provides the Minister with a categorized list of the species at risk in the province (including those species native to the province that are listed under SARA) and those species listed are deemed to be listed species at risk for the purpose of the Act.<sup>66</sup> Species-at-risk means species determined to be extinct, extirpated, vulnerable, threatened or endangered.<sup>67</sup> The Group shall base its decision to list, add or delete species upon scientific information and traditional knowledge as documented in peer reviewed status reports.<sup>68</sup> The Minister may also, on a precautionary basis, list endangered or threatened species where they believe there is threat to the survival of the species, regardless of whether scientific information is available, but the listing expires after one year unless the Group determines it should be added.<sup>69</sup>

### ***Recovery Planning and Habitat Protection***

Within one year of listing an endangered species (or two years for a threatened species), the Minister must appoint a recovery team and prepare a recovery plan for the species.<sup>70</sup> Among other things, the recovery plan must identify the species'

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<sup>64</sup> NS ESA, *ibid.*, s. 9.

<sup>65</sup> *Ibid.*

<sup>66</sup> NS ESA, *ibid.*, s. 10-12.

<sup>67</sup> NS ESA, *ibid.*, s. 3(q). See section 3 of the Act for specific definitions of extinct, extirpated, vulnerable, threatened or endangered.

<sup>68</sup> NS ESA, *ibid.*, s. 10(2).

<sup>69</sup> NS ESA, *ibid.*, s. 11.

<sup>70</sup> NS ESA, *ibid.*, s. 15(1).

habitat and identify areas to be considered for designation as core habitat.<sup>71</sup> Core habitat refers to specific areas of habitat essential for the long-term survival and recovery of endangered or threatened species.<sup>72</sup> Once identified, the Minister may make regulations respecting core habitat for the purpose of controlling, restricting, or prohibiting the use of or activity on core habitat for such period as considered necessary.<sup>73</sup> The Minister may designate core habitat on private lands but only where they are satisfied that the core habitat on public lands is not sufficient to meet the recovery needs of the species.<sup>74</sup>

### **Prohibitions**

The NS ESA includes provisions that state no person shall kill, injure, process, take, interfere with, or attempt to do any of the foregoing, or to sell, buy, or trade an endangered or threatened species.<sup>75</sup> The Act also prohibits the destruction, disturbance, or interference with the specific dwelling place or area occupied or habitually occupied by endangered or threatened species and/or the contravention of any regulation with respect to core habitat.<sup>76</sup>

### **Exemptions and Permits**

The Minister may issue a permit to a person authorizing the person to possess, disturb, take, or interfere with an endangered or threatened species but only for (a) scientific purposes related to the conservation of the species, or (b) the protection of human health or safety.<sup>77</sup>

### **Compliance and Enforcement**

Every person who contravenes the Act or its regulations are guilty of an offence and liable on summary conviction.<sup>78</sup> Penalties for an individual include a fine not

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<sup>71</sup> NS ESA, *ibid.*, s. 15(4).

<sup>72</sup> NS ESA, *ibid.*, s. 3(b).

<sup>73</sup> NS ESA, *ibid.*, s. 16(5).

<sup>74</sup> NS ESA, *ibid.*, s. 16(4).

<sup>75</sup> NS ESA, *ibid.*, s. 13(a).

<sup>76</sup> NS ESA, *ibid.*, s. 13(c) & (d).

<sup>77</sup> NS ESA, *ibid.*, s. 14(1).

<sup>78</sup> NS ESA, *ibid.*, s. 22(1).

exceeding \$500,000 and/or imprisonment for no more than six months, or in the case of a corporation, a fine not exceeding \$1,000,000.<sup>79</sup> Fines are increased for subsequent offences.<sup>80</sup> Conservation officers are responsible for the enforcement of the Act and its regulations.<sup>81</sup>

### *Other Relevant Legislation*

Nova Scotia also recently proposed to enact a *Biodiversity Act*,<sup>82</sup> the first of its kind in Canada.<sup>83</sup> The purpose of the Act is to “provide for an integrated framework of legislation that supports the stewardship, conservation, sustainable use and governance of biodiversity in the Province”.<sup>84</sup> The Act purports to close gaps where Nova Scotia’s *Endangered Species Act* and other legislation may not apply.<sup>85</sup>

The *Biodiversity Act* enables the Minister to undertake a variety of measures aimed at protecting biodiversity in the province, including promoting the conservation and sustainable use of biodiversity,<sup>86</sup> implementing policies or programs for the management of wildlife pathogens and disease that impact on biodiversity,<sup>87</sup> and/or adopting goals and targets for biodiversity and indicators of ecosystem health.<sup>88</sup>

With respect to habitat, the Act prohibits activity that results in “the loss of an at-risk habitat or ecosystem prescribed by the regulation”.<sup>89</sup> The Act also permits the creation of “biodiversity management zones”, meaning “an area of land managed

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<sup>79</sup> *Ibid.*

<sup>80</sup> *NS ESA, ibid.*, s. 22(2).

<sup>81</sup> *NS ESA, ibid.*, s. 7.

<sup>82</sup> Bill No. 116, *An Act to Provide for the Conservation and Sustainable Use of Biodiversity in Nova Scotia*, 2nd Sess., 63<sup>rd</sup> General Assembly, Nova Scotia, 2019 (First Reading March 14, 2019) [*Biodiversity Act*].

<sup>83</sup> CBC, “Nova Scotia to become first province to regulate biodiversity”, *CBC News* (March 14, 2019), online at: <https://www.cbc.ca/news/canada/nova-scotia/biodiversity-environment-government-legislation-1.5057015>.

<sup>84</sup> *Biodiversity Act, supra* note 82, s. 2.

<sup>85</sup> CBC, “Nova Scotia to become first province to regulate biodiversity”, *CBC News* (March 14, 2019), online at: <https://www.cbc.ca/news/canada/nova-scotia/biodiversity-environment-government-legislation-1.5057015>.

<sup>86</sup> *Biodiversity Act, supra* note 82, s. 7(a).

<sup>87</sup> *Biodiversity Act, ibid.*, s. 7(f).

<sup>88</sup> *Biodiversity Act, ibid.*, s. 7(h).

<sup>89</sup> *Biodiversity Act, ibid.*, s. 31(1)(c).

for a period of time, for the purpose of supporting the conservation or sustainable use of specified biodiversity values”.<sup>90</sup> The Minister may declare any publicly or privately owned (with permission) land as a biodiversity management zone<sup>91</sup> and make regulations respecting the establishment, control and management of biodiversity management zones as well as the activities authorized, restricted, or prohibited within.<sup>92</sup>

The *Biodiversity Act* is still in its first reading, at the time this paper was published, and therefore its strength and/or efficacy remains to be seen. However, it is apparent that the Act is primarily discretionary and uses fairly generic language (i.e. measures to “promote” or “protect” biodiversity). Accordingly, the strength of the Act will likely depend on whether the Minister actually uses it to its potential and implements strong regulations in service of biodiversity and habitat protection.

### ***Summary and Analysis***

The NS ESA is a concise, straightforward piece of legislation aimed at the protection and recovery of species at risk in the province. The Act has some strong elements including that listing decisions are based on peer-reviewed science, it incorporates the precautionary principle and the Act provides for the conservation of core habitat for species at risk.<sup>93</sup> Unfortunately, in practice, implementation of the Act has been poor.

A 2015 review by East Coast Environmental Law found that Nova Scotia's Department of Natural Resources (DNR - now Lands and Forestry) had yet to identify

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<sup>90</sup> *Biodiversity Act, ibid.*, s. 3(1)(b).

<sup>91</sup> *Biodiversity Act, ibid.*, s. 12.

<sup>92</sup> *Biodiversity Act, ibid.*, s. 46(1)(a) & (b).

<sup>93</sup> Jamie Simpson, Steven Evans & Lisa Mitchell, “Protected on Paper Only: Evaluation of Nova Scotia's legal obligations to protect and recover mainland moose and other species-at-risk” (February 2015), East Coast Environmental Law at 2-3, online: <https://www.ecelaw.ca/research-reports/protected-on-paper-only-evaluation-of-nova-scotia-s-legal-obligations-to-protect-and-recover-mainland-moose-and-other-species-at-risk.html> [ECE Report].

a single hectare of core habitat.<sup>94</sup> A 2019 update found that the Minister had still not designated any core habitat in the province.<sup>95</sup>

Similarly, in 2016 the Auditor General (AG) of Nova Scotia reviewed DNR's handling of species at risk and found:

- No recovery or management plans for 5 of 9 endangered or threatened species, with some being more than 7 years late;
- No management plans for 3 of 5 vulnerable species; and
- Timelines for reviewing recovery and management plans (every five years) were not being met.<sup>96</sup>

The AG made a number of recommendations, including that DNR should develop and review recovery and management plans as required by the Act, and review all listed species with an eye to amending or developing appropriate practices to protect their habitat.<sup>97</sup> DNR agreed to implement each of the 5 recommendations and set a deadline of October 31, 2016. However, a follow-up report in 2019 found that 0 of 5 of the recommendations had been completed.<sup>98</sup>

After years of inaction and despite considerable pressure, it appears that the Nova Scotia government lacks the political will or the resources necessary to actually implement the *NS ESA*. Accordingly, in January 2019 a group of naturalists in Nova Scotia commenced a lawsuit that seeks to force the government to meet its legal

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<sup>94</sup> ECE Report, *ibid.*, at 2-3.

<sup>95</sup> Lisa Mitchell & Peter Rak, "Protected on Paper Only: An Evaluation of Nova Scotia's Legal Obligations under the Endangered Species Act" (January 2019), East Coast Environmental Law at 10, online: [https://www.ecelaw.ca/media/k2/attachments/ECELAW\\_Protected\\_on\\_Paper\\_Only\\_2019.pdf](https://www.ecelaw.ca/media/k2/attachments/ECELAW_Protected_on_Paper_Only_2019.pdf) [ECE Report 2].

<sup>96</sup> Office of the Auditor General of Nova Scotia, Report of the Auditor General to the Nova Scotia House of Assembly, June 2016 at 52, online: [https://oag-ns.ca/sites/default/files/publications/Full%20Report\\_0.pdf](https://oag-ns.ca/sites/default/files/publications/Full%20Report_0.pdf). [Report of the NS AG, 2016].

<sup>97</sup> Report of the NS AG, 2016, *ibid.* at 54-57.

<sup>98</sup> Office of the Auditor General of Nova Scotia, Report of the Auditor General to the Nova Scotia House of Assembly: Follow-up of 2015 and 2016 Recommendations, March 2019 at 12, online: [https://oag-ns.ca/sites/default/files/publications/FullMarch2019\\_0.pdf](https://oag-ns.ca/sites/default/files/publications/FullMarch2019_0.pdf).

obligations under the *NS ESA*.<sup>99</sup> The lawsuit is scheduled to be heard in September, 2019.<sup>100</sup>

Finally, Nova Scotia's proposed *Biodiversity Act* is being lauded as being the first of its kind and appears, at least on paper, to provide additional protection to habitat in service of biodiversity. However, much of the Act relies upon the implementation of regulations by the Minister. Given the government's track record with the *NS ESA* it remains to be seen what, if any, actual protections for habitat will arise out of the *Biodiversity Act*.



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<sup>99</sup> CBC, "N.S. naturalists taking province to court", *CBC News* (January 25, 2019), online: <https://www.cbc.ca/news/canada/nova-scotia/naturalists-taking-province-to-court-endangered-species-1.4992554>.

<sup>100</sup> Jamie Simpson, Counsel for the Plaintiffs (personal communication, June 28, 2019).

## United States

The power to regulate the environment in the United States of America (US) is currently shared between the federal and state governments. Historically, state governments were the “chief stewards” of the wildlife within their borders.<sup>101</sup> But at the turn of the century, the federal government also began to exercise its authority in the environmental domain.<sup>102</sup> The US Constitution does not explicitly refer to the environment, however, the Commerce, Treaty, and Property Clauses have all been interpreted to give Congress the power to enact wildlife conservation laws.<sup>103</sup>

Today, while state governments retain significant rights and powers, the federal government has mostly assumed primary responsibility over plants, animals and habitat.<sup>104</sup> The leading piece of species at risk legislation in the US is the federal *Endangered Species Act (US ESA)*.<sup>105</sup> Note the *US ESA* is not applicable to state lands, except where the Act applies to non-federal/private lands generally, such as when federal funding is involved or blanket prohibitions apply. Nevertheless, states are often subject to their own endangered species legislation and the *US ESA* provides various opportunities for co-operation between the two levels of government (all of which is discussed in greater detail below).

**In August of 2019 several changes to the Code of Federal Regulations were made that may have significant impacts on the efficacy of the Act.** See the amendments to Title 50 of the Regulation, Parts 17, 402, and 424. (U.S. Fish and Wildlife Service).

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<sup>101</sup> Susan George & William J. Snape III, “State Endangered Species Acts” in Donald C. Baur & WM. Robert Irvin, eds., *Endangered Species Act Law, Policy and Perspectives* (USA: American Bar Association, 2009) 345 at 345.

<sup>102</sup> Patrick A. Parenteau, “Who’s Taking What? Property Rights, Endangered Species and the Constitution” (2011) 6 *Fordham Environmental Law Review* 619 at 630.

<sup>103</sup> Parenteau, *ibid.* at 630.

<sup>104</sup> George & Snape III, *supra* note 101 at 345.

<sup>105</sup> *Endangered Species Act of 1973*, 16 USC § 1531 [*US ESA*].

## Federal

### *Endangered Species Act*

The *US ESA* is one of the oldest and most comprehensive pieces of species at risk legislation.<sup>106</sup> The Act was passed by Congress in 1973 and recognizes that species of fish, wildlife, and plants are “of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people”.<sup>107</sup> The purpose of the Act is: to provide a means of conserving the ecosystems upon which endangered and threatened species depend on; to provide programs for the conservation of endangered species; and to take additional steps in implementing international treaties and conventions.<sup>108</sup>

Most US states have also enacted endangered species acts and, typically, they are modeled after the *US ESA*. However, as will be discussed in greater detail below, these state acts are usually nowhere near as comprehensive as the *US ESA*.<sup>109</sup> In the event there is a conflict between federal and state laws with respect to endangered or threatened species, the *US ESA* will prevail.<sup>110</sup> State laws may be more restrictive than the exemptions or permits provided for in the *US ESA*, but not less. Similarly, no provisions of the *US ESA* take precedence over any of the more restrictive provisions of the *Marine Mammal Protection Act of 1972* (also discussed below).<sup>111</sup>

### **Assessment and Listing**

The *US ESA* is implemented by the Department of the Interior, through the US Fish and Wildlife Service (“FWS”), and the Commerce Department’s National Marine Fisheries

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<sup>106</sup> Katherine E Gibbs & David J Currie, “Protecting Endangered Species: Do the Main Legislative Tools Work?” (2012) PLoS ONE 7(5) at 1.

<sup>107</sup> *US ESA*, *supra* note 105, s. 2(a)(3).

<sup>108</sup> *US ESA*, *ibid.*, s. 2(b).

<sup>109</sup> Jason Totoiu, “Building a Better State Endangered Species Act: An Integrated Approach Toward Recovery”, (2010) 40 ELR 10299 at 10304.

<sup>110</sup> *US ESA*, *supra* note 105, s. 6(f).

<sup>111</sup> *US ESA*, *ibid.*, s. 17.

Service (NMFS).<sup>112</sup> The FWS has primary responsibility for terrestrial and freshwater organisms, while the NMFS is responsible for marine wildlife.<sup>113</sup>

Section 4 of the Act provides for the listing of species as “endangered” or “threatened”. An endangered species is any species at risk of extinction throughout all or a significant portion of its range,<sup>114</sup> while a threatened species means species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.<sup>115</sup> All species of plants and animals, except pest insects, are eligible for listing.<sup>116</sup>

The process of listing a species can be initiated in two ways: (1) the FWS or NMFS identify a species for listing;<sup>117</sup> or (2) a private citizen or organization may petition the FWS or NMFS to list a species.<sup>118</sup> The listing process differs slightly for each, but in each case the responsible authority must determine whether a species is endangered or threatened based on the following five factors:

1. the present or threatened destruction, modification, or curtailment of its habitat or range;
2. overutilization for commercial, recreational, scientific, or educational purposes;
3. disease or predation;
4. the inadequacy of existing regulatory mechanisms; or
5. any other natural or manmade factors affecting its continued existence.<sup>119</sup>

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<sup>112</sup> US Fish & Wildlife Service, *ESA Basics: 40 Years of Conserving Endangered Species* (Fact Sheet) (January 2013) online at: [https://www.fws.gov/endangered/esa-library/pdf/ESA\\_basics.pdf](https://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf) [US FWS, *ESA Basics*].

<sup>113</sup> *Ibid.*

<sup>114</sup> *US ESA*, *supra* note 105, s. 3(6).

<sup>115</sup> *US ESA*, *ibid.*, s. 3(20).

<sup>116</sup> *US FWS*, *ESA Basics*, *supra* note 112.

<sup>117</sup> *US ESA*, *supra* note 105, s. 4(a).

<sup>118</sup> *US ESA*, *ibid.*, s. 4(b)(3)(A).

<sup>119</sup> *US ESA*, *ibid.*, s. 4(1).

In deciding whether a species should be considered threatened or endangered, the responsible authority must base their decision on the best scientific and commercial data available.<sup>120</sup>

As part of the listing process, FWS develops and maintains a priority list of all species that it believes to be threatened or endangered (i.e. "candidate species").<sup>121</sup> Candidate species are assigned a listing priority from 1-12 based on the magnitude of threats they face, the immediacy of such threats, and their taxonomic uniqueness.<sup>122</sup> This listing priority then dictates the order in which proposed listing rules are prepared (i.e. listing priority 1 through 3 are prepared first).<sup>123</sup> The NMRS also maintains a list of "species of concern" for which more information is needed before listing can be proposed.<sup>124</sup>

In cases where a listing is found to be warranted, and the species has sufficient priority, the responsible agency must publish a listing proposal in the *Federal Register*.<sup>125</sup> Some proposals list multiple species if they share a common ecosystem.<sup>126</sup> Following this, there is a 60-day comment period during which a public hearing may take place, upon request.<sup>127</sup> Within one year of a listing proposal, the responsible agency may: 1) publish a final listing rule; 2) withdraw the proposal; or 3) extend the proposal if there is substantial disagreement within the scientific community on the appropriateness of listing, for up to six months, at which point a decision must be made on the basis of the best scientific information available.<sup>128</sup> A final listing rule generally becomes effective 30 days after publication in the *Federal Register*.<sup>129</sup>

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<sup>120</sup> US ESA, *ibid.*, s. 4(b)(1)(A).

<sup>121</sup> US Fish & Wildlife Service, *Listing a Species as a Threatened or Endangered Species: Section 4 of the Endangered Species Act (Fact Sheet)* (August 2016) online at: <https://www.fws.gov/endangered/esa-library/pdf/listing.pdf> [US FWS, *Listing a Species*].

<sup>122</sup> US Fish & Wildlife Service, *Candidate Species: Section 4 of the Endangered Species Act (Fact Sheet)* (October 2017) online at: [https://www.fws.gov/endangered/esa-library/pdf/candidate\\_species.pdf](https://www.fws.gov/endangered/esa-library/pdf/candidate_species.pdf), [US FWS, *Candidate Species*].

<sup>123</sup> US FWS, *Candidate Species*, *ibid.*

<sup>124</sup> US FWS, *Candidate Species*, *ibid.*

<sup>125</sup> US FWS, *Listing a Species*, *supra* note 121.

<sup>126</sup> US FWS, *Listing a Species*, *ibid.*

<sup>127</sup> US FWS, *Listing a Species*, *ibid.*

<sup>128</sup> US ESA, *supra* note 105 s. 4(6)(A); US FWS, *Listing a Species*, *supra* note 121.

<sup>129</sup> US FWS, *Listing a Species*, *supra* note 121.

In cases where a listing is found to be warranted, but the species does not have sufficient priority, the species is declared “warranted but precluded” and remains on the candidate list. Candidate species do not receive statutory protection under the *US ESA*, but FWS does encourage cooperative conservation efforts for them. The FWS also publishes an annual Candidate Notice of Review in the *Federal Register* so as to advise other federal agencies, state, tribal and local governments, industry and the public that these species are at risk and may eventually have *US ESA* protection.<sup>130</sup>

The Secretary of the Interior is responsible for publishing a list of all species determined to be threatened or endangered in the *Federal Register*.<sup>131</sup> Every five years (at least) the Secretary must review the species in the lists and determine whether any should be removed or changed in status.<sup>132</sup>

### **Recovery Planning and Habitat Protection**

Once a species has been listed as threatened or endangered, the Act provides for several different recovery strategies, including designating critical habitat, implementing a recovery plan, and other statutory tools.

### **Critical Habitat**

The *US ESA* requires that once a species has been determined to be threatened or endangered the Secretary must, when “prudent and determinable”, designate any habitat of the species to be ‘critical habitat’.<sup>133</sup> “Critical habitat” is defined as “the specific areas within the geographical area occupied by the species, at the time it is listed...on which are found...physical or biological features essential to the conservation of the species, and...which may require special management consideration or protection”.<sup>134</sup> Regulations define “physical or biological features” to

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<sup>130</sup> US FWS, *Candidate Species*, *supra* note 122.

<sup>131</sup> *US ESA*, *supra* note 105, s. 4(c)(1).

<sup>132</sup> *US ESA*, *ibid.*, s. 4(c)(2).

<sup>133</sup> *US ESA*, *ibid.*, s. 4(a)(3)(A)(i).

<sup>134</sup> *US ESA*, *ibid.*, s. 3(5)(A).

include: water characteristics, soil type, geological feature, sites, prey, vegetation, symbiotic species, or other features.<sup>135</sup>

Critical habitat may also include areas that were not occupied by the species at the time of listing but that are essential for the conservation of the species.<sup>136</sup> However, a recent decision by the US Supreme Court clarified that these unoccupied areas must still qualify as habitat of the species (i.e. the area must be capable of supporting the species in its current state/without modification).<sup>137</sup>

The Secretary may designate critical habitat at the same time as the species is listed, or wait to address it for up to a year after the date of listing. Determinations must be based on the best scientific data available, and must consider the economic impact, the impact on national security, and any other relevant impact of designating a particular area as critical habitat.<sup>138</sup> The Secretary can exclude an area from critical habitat should they determine (based on economic impact and the interests of national security) that the benefits of the exclusion outweigh the benefits to the species, unless excluding the area would result in the extinction of the species.<sup>139</sup>

Note that designating an area as critical habitat does not create a refuge or sanctuary.<sup>140</sup> It simply creates an obligation for federal agencies to confer with the Secretary on any agency action which is likely to result in the “destruction or adverse modification” of critical habitat.<sup>141</sup> As such, designations mostly affect only Federal Agency actions or federally funded/permitted activities, and not the activities of private landowners, unless there is some nexus with federal funding or authorization.<sup>142</sup>

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<sup>135</sup> 50 CFR § 424.02.

<sup>136</sup> US ESA, *supra* note 105, s. 3(5)(A).

<sup>137</sup> *Weyerhaeuser Co. v. United States Fish and Wildlife Service et al.*, 2018, No. 17-71, US SCC.

<sup>138</sup> *Ibid.*

<sup>139</sup> US ESA, *supra* note 105, s. 4(b)(2).

<sup>140</sup> US Fish & Wildlife Service, *Critical Habitat: What is it?* (Fact Sheet) (March 2017) online at: [https://www.fws.gov/endangered/esa-library/pdf/critical\\_habitat.pdf](https://www.fws.gov/endangered/esa-library/pdf/critical_habitat.pdf) [US FWS, *Critical Habitat*].

<sup>141</sup> US ESA, *supra* note 105, s. 7(a)(4).

<sup>142</sup> US FWS, *Critical Habitat*, *supra* note 140.

## **Recovery Plans**

The US ESA requires the Secretary to develop and implement recovery plans for the conservation and survival of endangered and threatened species (unless such a plan will not promote the conservation of the species).<sup>143</sup> Recovery plans provide a “road map” for conserving listed species and their ecosystems.<sup>144</sup> In developing and implementing recovery plans the Secretary must:

- give priority to the species that are most likely to benefit from such plans;
- incorporate three types of data:
  - site-specific management actions necessary to achieve the conservation and survival of the species;
  - objective measurable criteria which, when met, would result in the species being delisted; and
  - estimates of the time and cost required to carry out these measures.<sup>145</sup>

The Act does not provide a deadline for the preparation of recovery plans.

In developing recovery plans, the Secretary may enlist the services of appropriate public and private agencies and institutions, and other qualified persons.<sup>146</sup> Prior to final approval of a new or revised recovery plan, the Secretary must provide public notice and an opportunity for public review and commentary on the plan.<sup>147</sup> The Secretary must then consider such information prior to approval.

The Secretary must also report to the Committee on Environment and Public Works of the Senate and the Committee on Merchant Marine and Fisheries of the House of

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<sup>143</sup> US ESA, *supra* note 105, s. 4(f)(1).

<sup>144</sup> US Fish & Wildlife Service, *Endangered Species Recovery Program (Fact Sheet)* (June 2011) online at: <https://www.fws.gov/endangered/esa-library/pdf/recovery.pdf> [US FWS, *Endangered Species*].

<sup>145</sup> US ESA, *supra* note 105, s. 4(f)(1).

<sup>146</sup> US ESA, *ibid.*, s. 4(f)(2).

<sup>147</sup> US ESA, *ibid.*, s. 4(f)(4).

Representatives every two years on the status of the efforts to develop and implement recovery plans for listed species.<sup>148</sup>

Note that recovery plans are not regulatory documents and therefore not “enforceable”.<sup>149</sup> FWS cannot be required to implement specific recovery measures set out in a plan. Caselaw suggests that while agencies have a duty to develop a recovery plan, due to the lack of statutory deadlines that duty is not enforceable unless the delay is so long as to constitute an “unreasonable dereliction” of FWS’ duties.<sup>150</sup> Courts also generally defer to the agencies on the sufficiency of the contents of a recovery plan.<sup>151</sup>

### **Additional Statutory Tools**

In carrying out the programs set out under the Act, the Secretary must cooperate with the States.<sup>152</sup> Cooperation is defined as including consultation with the States before acquiring land or water for the purposes of conserving endangered or threatened species and area management agreements.<sup>153</sup>

Additional statutory tools for recovery include:

1. Section 4(d) – provides that the Secretary shall issue “protective” regulations to provide for the conservation of threatened species;
2. Section 6 (b), (c), & (d) – authorizes the Secretary to enter into management agreements and/or cooperative agreements with States for the conservation of endangered and threatened species as well as to allocate funds to any State which has entered into a cooperative agreement;

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<sup>148</sup> *US ESA, ibid.*, s. 4(f)(3).

<sup>149</sup> Dale D. Goble, “Recovery” in Donald C. Baur & WM. Robert Irvin, eds., *Endangered Species Act: Law, Policy and Perspectives*, 2<sup>nd</sup> ed., (USA: American Bar Association, 2010) 71 at 83.

<sup>150</sup> Goble, *ibid.* at 85.

<sup>151</sup> *Ibid.*

<sup>152</sup> *US ESA, supra* note 105, s. 6(a).

<sup>153</sup> *US ESA, ibid.*, s. 6(a) and (b).

3. Section 7(a)(1) – imposes an obligation on other federal agencies to “utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of [listed] species”;
4. Section 10(a)(1)(A) – permits Safe Harbor Agreements between non-federal (i.e. private) landowners and FWS that provide, in exchange for actions that contribute to the recovery of a listed species, that FWS will not impose future property-use limitations without consent;
5. Section 10(a)(1)(B) – requires a Habitat Conservation Plan (HCP) as part of an application for an incidental take permit (discussed in greater detail below) that describes measures designed to minimize and mitigate the potential effects of their actions; and
6. Section 10(j) – authorizes wildlife agencies to transplant experimental populations of listed species to further conservation.

### **Prohibitions**

Section 7(a)(2) of the *US ESA*, known as the “jeopardy prohibition”, prohibits any action that is authorized, funded, or carried out by a federal agency that is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. The term “destruction or adverse modification” is defined as:

[A] direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.<sup>154</sup>

This prohibition is carried out through the interagency consultation process, which is also mandated by section 7(a).

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<sup>154</sup> *Endangered Species Committee Regulations*, 50 CFR § 402.02 (2016).

Section 9 of the *US ESA*, known as the “take prohibition”, applies to non-federal actions and prohibits the following with respect to endangered fish and wildlife:

1. importing any such species into, or exporting any out of, the US;
2. taking any such species within the US or its territorial seas;
3. taking any such species upon the high seas;
4. possessing, selling, delivering, carrying, transporting, or shipping any such species;
5. selling or offering for sale in interstate or foreign commerce such species; and
6. violating any regulation pertaining to such species or to any threatened species.<sup>155</sup>

The Act defines the term “take” to mean “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”.<sup>156</sup> “Harm” includes “significant habitat modification or degradation that actually kills or injures wildlife”.<sup>157</sup>

### **Exemptions and Permits**

Exemptions to the section 7 jeopardy prohibition may be granted by the Endangered Species Committee, although these are rare. No fewer than five members of the committee must determine that (1) there are no reasonable and prudent alternatives to the agency action; (2) benefits of the action “clearly outweigh” those of alternatives; (3) the action is of regional or national significance; (4) no irreversible or irretrievable commitment of resources has taken place; and (5) appropriate mitigation efforts have been undertaken.<sup>158</sup>

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<sup>155</sup> *US ESA*, *supra* note 105, s. 9(a)(1).

<sup>156</sup> *US ESA*, *ibid.*, s. 3(19).

<sup>157</sup> *Babbitt v. Sweet Home Chapter of Cmty. For a Great Or.*, 515 US 687 (D.C. Cir.) (1995).

<sup>158</sup> 16 USC § 1536(g)(1).

Exemptions to the section 9 take prohibitions may be granted by the Secretary for the following reasons:

- Incidental Take – any taking that is incidental to, and not the purpose of, carrying out an otherwise lawful activity (though a permit cannot be issued without an accompanying Habitat Conservation Plan);<sup>159</sup>
- Scientific Purposes – any act for scientific purposes or to enhance the propagation or survival of the affected species, including acts necessary for the establishment and maintenance of experimental populations;<sup>160</sup>
- Hardship – where a person enters into a contract with respect to a species of fish/wildlife/plant before notice of consideration of that species as a listed species is published, and the subsequent listing will cause undue economic hardship to such person (but only for a period of one year);<sup>161</sup>
- Alaskan Natives – the Act does not apply to any Indian, Aleut, or Eskimo (Alaskan Natives) who reside in Alaska, and any non-native permanent resident of an Alaskan native village with respect to the taking of any listed species provided it is primarily for subsistence purposes or the crafting of authentic native articles of handicrafts and clothing.<sup>162</sup>

### **Compliance and Enforcement**

The civil penalties of the Act include a penalty of not more than \$25,000 for a person who knowingly violates a provision of this Act or a provision of their permit issued under the Act.<sup>163</sup> For persons who knowingly violate a regulation issued under the Act, the penalty is not more than \$12,000.<sup>164</sup> A penalty must not be assessed unless the person is given notice and opportunity for a hearing.<sup>165</sup>

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<sup>159</sup> US ESA, *supra* note 105, s. 10(a)(1)(B).

<sup>160</sup> US ESA, *ibid.*, s. 10(a)(1)(A).

<sup>161</sup> US ESA, *ibid.*, s. 10(b).

<sup>162</sup> US ESA, *ibid.*, s. 10(e)(1).

<sup>163</sup> US ESA, *ibid.*, s. 11(a)(1).

<sup>164</sup> *Ibid.*

<sup>165</sup> *Ibid.*

Criminal penalties issued under the Act for persons who knowingly violate a provision are not more than \$50,000 and/or imprisonment for not more than one year.<sup>166</sup> For persons who knowingly violate a regulation issued under the Act, the penalty is not more than \$25,000 and/or imprisonment for not more than six months.<sup>167</sup>

A defense to prosecution under the Act is if the offense was committed based on a “good faith belief that [the defendant] was acting to protect himself or herself, a member of his or her family, or any other individual, from bodily harm from any endangered or threatened species.”<sup>168</sup>

The Act also provides for citizen suits to enjoin any person (including the US and other governmental agencies) who are alleged to be in violation of any provision of the Act or regulation issued under the Act.<sup>169</sup>

### ***Other Relevant Legislation***

The US ESA's marine counterpart is the *Marine Mammal Protection Act (MMPA)*.<sup>170</sup> The MMPA recognizes the importance of marine mammals as resources of “international significance, esthetic and recreational as well as economic”.<sup>171</sup> The Act states that the “primary objective of their management should be to maintain the health and stability of the marine ecosystem.”<sup>172</sup> Except for in accordance with a permit issued under the Act, there is a moratorium on the taking and importation of marine mammals and marine mammal products.<sup>173</sup> In enforcing the provisions of the Act, the Secretary can utilize the service of other Federal agencies.<sup>174</sup> The MMPA includes provisions for civil and criminal penalties for contravention of the Act or its

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<sup>166</sup> US ESA, *ibid.*, s. 11(b)(1).

<sup>167</sup> *Ibid.*

<sup>168</sup> US ESA, *ibid.*, s. 11(b)(3).

<sup>169</sup> US ESA, *ibid.*, s. 11(g)(1).

<sup>170</sup> *Marine Mammal Protection Act of 1972*, 16 USC § 1361 [MMPA].

<sup>171</sup> MMPA, *ibid.*, s.2(6).

<sup>172</sup> *Ibid.*

<sup>173</sup> MMPA, *ibid.*, s. 101.

<sup>174</sup> MMPA, *ibid.*, s. 107(a).

regulations.<sup>175</sup> The Secretary's power to make regulations under the Act includes such regulations needed for habitat acquisition and protection.<sup>176</sup>

The Act also establishes the Marine Mammal Commission, composed of three members appointed by the President.<sup>177</sup> The members, who each have a term of three years, review and study the stocks of marine mammals and give recommendations as to policies, revisions, and steps to be taken.<sup>178</sup>

Other legislation that provides for the protection of certain animals and their habitat includes:

- *Wild Bird Conservation Act* – enacted to ensure that exotic bird species are not harmed by international trade and encourages conservation programs in countries of origin;<sup>179</sup>
- *Multinational Species Conservation Acts* - consist of five Acts established to protect elephants, rhinos, tigers, great apes, and marine turtles around the world by providing funding for projects promoting the conservation and management of the animals and their habitat;
- *Magnuson-Stevens Fishery Conservation Act* – primary law governing marine fisheries management in US federal waters and includes consideration of long-term protection of essential fish habitat;<sup>180</sup>
- *National Marine Sanctuaries Act* – authorizes the designation and protection of areas of the marine environment as “national marine sanctuaries” due to their conservation, ecological, scientific, etc. qualities; <sup>181</sup> and

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<sup>175</sup> MMPA, *ibid*, s. 105.

<sup>176</sup> MMPA, *ibid*, s. 109(b).

<sup>177</sup> MMPA, *ibid*, s. 201(a) and (b)(1).

<sup>178</sup> MMPA, *ibid*, s. 202(a).

<sup>179</sup> *Wild Bird Conservation Act*, 16 USC § 4901-4916.

<sup>180</sup> *Magnuson-Stevens Fishery Conservation Act*, 16 USC § 1824.

<sup>181</sup> *National Marine Sanctuaries Act*, 16 USC § 1431.

- *Wilderness Act* - protects federal wilderness and established the National Wilderness Preservation System.<sup>182</sup>

### *Summary and Analysis*

The *US ESA* was enacted in 1973, in the heyday of American environmental legislation, among a series of landmark environmental statutes such as the *Clean Air Act* of 1970 and the *Federal Water Pollution Control Act* of 1972.<sup>183</sup> The *US ESA* was passed nearly unanimously by US Congress and at the time the US Supreme Court boasted that it was “the strongest law to protect endangered species ever enacted by any nation”.<sup>184</sup>

Yet, despite its auspicious beginnings, in the more than forty years since it was enacted the *US ESA* has proven to be controversial. Listing decisions are “combative and polarizing” and the Act’s overall effectiveness is in question today.<sup>185</sup> Moreover, the current US administration appears to have made it a priority to eliminate federal regulations that it sees as burdensome to big business and is proposing to strip the Act of key provisions and undercut its effectiveness.<sup>186</sup> Several of these challenges are discussed below.

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<sup>182</sup> *Wilderness Act*, 16 USC § 1131.

<sup>183</sup> Donald C. Baur & WM. Robert Irvin, “Overview” in Donald C. Baur & WM. Robert Irvin, eds., *Endangered Species Act: Law, Policy and Perspectives*, 2<sup>nd</sup> ed., (USA: American Bar Association: 2010) 1 at 1.

<sup>184</sup> *TVA v. Hill*, 437 US 153 at 180 (1978).

<sup>185</sup> Christian Langpap, Joe Kerkvliet & Jason F. Shogren, “The Economics of the U.S. Endangered Species Act: A Review of Recent Developments” (2018) 12 *Review of Environmental Economics and Policy* 69 at 69.

<sup>186</sup> Darryl Fears, “Endangered Species Act stripped of key provisions in Trump administration proposal” *The Washington Post* (July 19, 2018) online:

[https://www.washingtonpost.com/news/animalia/wp/2018/07/19/endangered-species-act-stripped-of-key-provisions-in-trump-administration-proposal/?noredirect=on&utm\\_term=.464bc8d40a80](https://www.washingtonpost.com/news/animalia/wp/2018/07/19/endangered-species-act-stripped-of-key-provisions-in-trump-administration-proposal/?noredirect=on&utm_term=.464bc8d40a80); Nadja Popovich, Livia Albeck-Ripka & Kendra Pierre-Louis, “83 Environmental Rules Being Rolled Back Under Trump” *The New York Times* (June 7, 2019) online:

<https://www.nytimes.com/interactive/2019/climate/trump-environment-rollbacks.html?searchResultPosition=1>.

## **Listing**

Today, there are a total of 1663 species listed under the *US ESA*.<sup>187</sup> Listing a species is the first step towards providing it with a variety of protections such as recovery plans, protection from unauthorized take, protection of critical habitat, etc.<sup>188</sup> Listing a species does not automatically guarantee recovery, but research suggests that the longer species are listed, the more likely they are to be improving and the less likely they are to be declining.<sup>189</sup> It is estimated that at least 227 species are around today (i.e. not extinct) due to listing.<sup>190</sup>

Still, listing decisions are one of the most controversial aspects of the *US ESA* and are often seen as pitting conservationists against proponents of economic development.<sup>191</sup> For one, listing does not begin to actually cover the number of species scientists say are likely threatened with extinction.<sup>192</sup> While the number of listings vary year to year, on average 35 species are listed per year.<sup>193</sup> Meanwhile, scientists estimate the number of species actually threatened with extinction ranges from three to ten times more than the number of species listed under the *US ESA*.<sup>194</sup> Data also suggests that listing tends to come late, when populations have grown too small and extinction risks have already reached critical levels.<sup>195</sup>

Second, there is evidence that politics and non-scientific factors may influence listing.<sup>196</sup> Technically, FWS must only consider scientific data. However, a comparison of *US ESA* listings and a list of species at risk of extinction using strictly scientific considerations (compiled by the wildlife conservation non-profit, NatureServe) found

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<sup>187</sup> US Fish & Wildlife Service, "Summary of Listed Species Populations and Recovery Plans as of Thu, 11 Apr 2019", ECOS Environmental Conservation Online System, online at: <https://ecos.fws.gov/ecp0/reports/box-score-report>.

<sup>188</sup> Martin F.J. Taylor, Kieran F. Suckling & Jeffrey J. Rachlinski, "The Effectiveness of the Endangered Species Act: A Quantitative Analysis" (2005) 55 *BioScience* 360 at 361.

<sup>189</sup> Taylor, Suckling & Rachlinski, *ibid.* at 361.

<sup>190</sup> J. Michael Scott *et al.*, "By the Numbers" in Dale D. Goble *et al.* eds, *The Endangered Species Act at Thirty, Volume 1: Renewing the Conservation Promise* (Washington: Island Press, 2006) 16 at 31.

<sup>191</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 69.

<sup>192</sup> Scott *et al.*, *supra* note 190 at 21-22.

<sup>193</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 71.

<sup>194</sup> Scott *et al.*, *supra* note 190 at 21-22.

<sup>195</sup> Scott *et al.*, *ibid.* at 22, 34.

<sup>196</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 74.

that their listing decisions were based on different factors.<sup>197</sup> There is also “mixed evidence on the importance of political influence in listing decisions”.<sup>198</sup> At least some studies have found that states with congressional representation on subcommittees with FWS oversight have fewer species listed, and states’ listings are reduced by conservative representation on the House Oversight Committee as well as Republican representation on oversight and appropriations committees.<sup>199</sup>

Third, as a result of these listing inconsistencies, in recent years, private sector litigation has taken on an increasingly important role in listing activities. Frustrated by delays, many environmental organizations have taken it upon themselves to petition for new listings (approximately 1,230 since 2007). When many of those same species were placed on the “warranted but precluded list”, environmental organizations then sued FWS for delays.<sup>200</sup> Settlements resulted in deadlines for nearly 1,000 species.<sup>201</sup> For better or worse, the impact of this type of litigation appears to be that litigants are defining FWS priorities more than agency personnel.<sup>202</sup>

### **Critical Habitat**

Critical habitat remains another controversial issue. Habitat loss is understood to be the most significant cause of species endangerment.<sup>203</sup> The *US ESA* requires that critical habitat be designated concurrently with listing, however, this is rarely done. By 2004, critical habitat had been designated for only 450 species (35.6 percent of all listed species).<sup>204</sup>

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<sup>197</sup> *Ibid.*

<sup>198</sup> *Ibid.*

<sup>199</sup> *Ibid.*

<sup>200</sup> James Jay Tutchton, “Getting Species on Board the Ark One Lawsuit at a Time: How the Failure to List Deserving Species Has Undercut the Effectiveness of the Endangered Species Act” (2014) 20 *Animal L.* 401 at 420.

<sup>201</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 74.

<sup>202</sup> Langpap, Kerkvliet & Shogren, *ibid.* at 75.

<sup>203</sup> Scott *et al.*, *supra* note 190 at 30; Kieran F. Suckling & Martin Taylor, “Critical Habitat and Recovery” in Dale D. Goble *et al.* eds, *The Endangered Species Act at Thirty, Volume 1: Renewing the Conservation Promise* (Washington: Island Press, 2006) 75 at 76.

<sup>204</sup> Scott *et al.*, *supra* note 190 at 23.

After some initial enthusiasm for the concept, FWS has taken the position that critical habitat is redundant to other protections and provides little additional protection for most listed species.<sup>205</sup> In particular, FWS reportedly believes that critical habitat is already protected by the jeopardy and take prohibitions.<sup>206</sup> However, this conflates the critical habitat standard (i.e. features essential to the conservation of the species) with that which is protected by the jeopardy prohibition (i.e. protects against alteration that *appreciably diminishes* the value of critical habitat for the conservation of a listed species) and the take prohibition (i.e. protects against habitat destruction that *impacts individual animals*).<sup>207</sup> This position is unfortunate given that critical habitat designation is “the only provision that establishes a clear regulatory link between habitat protection and recovery”.<sup>208</sup>

Meanwhile, research suggests that critical habitat designation helps with recovery. Studies show that there is a “consistent correlation between critical habitat and positive recovery trends across differing datasets and methodologies” which provides a “strong indication that species with critical habitat are...recovering faster than those without it”.<sup>209</sup> As such, species recovery in the US may benefit from greater emphasis on, or enforcement of, the *US ESA*'s critical habitat provisions.

### **Prohibitions**

For the most part, the prohibitions in the *US ESA* are well-regarded. The section 7 jeopardy prohibition has forced federal and state (that are in receipt of federal funding) agencies to incorporate species and habitat protection measures into project design and implementation.<sup>210</sup> The section 9 take prohibition gives FWS “leverage to integrate additional protections for listed species into a federal

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<sup>205</sup> Suckling & Taylor, *supra* note 203 at 76.

<sup>206</sup> Suckling & Taylor, *ibid.* at 77.

<sup>207</sup> Suckling & Taylor, *ibid.* at 76-80.

<sup>208</sup> Suckling & Taylor, *ibid.* at 89.

<sup>209</sup> Suckling & Taylor, *ibid.* at 86.

<sup>210</sup> Daniel J. Rohlf, “The Endangered Species Act at Forty: The Good, The Bad and the Ugly” (2014) 20 *Animal L.* 251 at 266.

agency's day-to-day operations" as well as some authority over actions that affect listed species on private lands.<sup>211</sup>

However, some critics take issue with the Act's elevation of prohibitions over purpose.<sup>212</sup> As Federico Cheever notes, "[t]he perception of the [US ESA] as a prohibitive statute prevents the Act from demonstrating the value of biological diversity".<sup>213</sup> Put another way, there is a tendency to focus on those mandates that are clearly enforceable (i.e. prohibitions) when the concept of recovery should be the lens through which all of the Act's mandates are viewed.<sup>214</sup>

There are also a number of weaknesses with the prohibitions themselves. The section 7 jeopardy prohibition considers whether federal action is likely to jeopardize the continued existence of an entire listed species, rather than just the portion of the species likely to be affected by the action.<sup>215</sup> This interpretation permits the FWS to approve projects that adversely impact a listed species all the way up until the entire listed species can no longer withstand additional adverse impacts, eventually allowing species to be "nickel-and-dimed" towards extinction.<sup>216</sup>

Critics also note that FWS has downplayed and frustrated section 7's prohibition against destroying or adversely modifying designated critical habitat, and as a result, this provision has not been used to its full potential.<sup>217</sup> A critical habitat designation is controversial, expensive, and time-consuming regardless, but additional regulation and judicial interpretation has led to the requirement that an economic analysis (i.e. do economic benefits outweigh the benefits to the species) be included in the designation process.<sup>218</sup> To bypass the associated headaches, FWS has often avoided making critical habitat designations.<sup>219</sup>

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<sup>211</sup> Rohlf, *ibid.* at 267.

<sup>212</sup> Federico Cheever, "The Road to Recovery: A New Way of Thinking about the *Endangered Species Act*" (1996) 23:1 *Ecology Law Quarterly* at 27, 30.

<sup>213</sup> Cheever, *ibid.* at 28.

<sup>214</sup> Cheever, *ibid.* at 7, 30.

<sup>215</sup> Rohlf, *supra* note 210 at 268.

<sup>216</sup> Rohlf, *ibid.* at 269.

<sup>217</sup> Rohlf, *ibid.* at 270.

<sup>218</sup> Rohlf, *ibid.* at 271.

<sup>219</sup> Rohlf, *ibid.* at 270.

Furthermore, FWS has also interpreted the section 7 ban on the destruction or modification of critical habitat to mean that the destruction must be to *all* designated critical habitat for the prohibition to be upheld, rather than just to a given area.<sup>220</sup> This narrow interpretation has been upheld by the courts but results in a piece by piece dismantling of critical habitat over time.<sup>221</sup>

Meanwhile, the section 9 take prohibition has largely failed to live up to expectations.<sup>222</sup> Whereas on its face the prohibition appears to apply broadly (e.g. to individuals, corporations, and government entities alike) and provide strict protections for individual animals, the reality is that it is rarely used.<sup>223</sup> This is, in part, because section 9 causes are difficult to prove. The caselaw has evolved in such a way as to require actual death or injury of a protected animal to make out a harm violation.<sup>224</sup> This includes habitat modification for which plaintiffs must prove a land use activity is “reasonably certain to injure” a member of a listed species.<sup>225</sup> This rigour, combined with a low success rate, appears to have contributed to a chill in section 9 ‘take’ litigation.<sup>226</sup>

Nevertheless, the take prohibition still plays an important in habitat conservation. Without the threat of section 9 liability, there may not be enough incentive for landowners to seek out or participate in incidental take permits and conservation agreements (discussed below).<sup>227</sup>

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<sup>220</sup> Rohlif, *ibid.* at 272.

<sup>221</sup> *Ibid.*

<sup>222</sup> Patrick Parenteau, “The Take Prohibition” in Donald C. Baur & WM. Robert Irvin, eds., *Endangered Species Act Law, Policy and Perspectives* (USA: American Bar Association, 2009) 147 at 154 [Parenteau 2].

<sup>223</sup> Parenteau 2, *ibid.* at 147.

<sup>224</sup> Steven P. Quarles and Thomas R. Lundquist, “Land Use Activities and the Section 9 Take Prohibition” in Donald C. Baur & WM. Robert Irvin, eds., *Endangered Species Act Law, Policy and Perspectives* (USA: American Bar Association, 2009) 161 at 168-169.

<sup>225</sup> Quarles & Lundquist, *supra* note 224 at 169 citing *Defenders of Wildlife v. Bernal*, 204 F.3d 920, 925 (9<sup>th</sup> Cir. 2001).

<sup>226</sup> Quarles & Lundquist, *supra* note 224 at 179.

<sup>227</sup> Parenteau 2, *supra* note 222 at 155.

## **Private Land**

Another criticism of the *US ESA* is that it does not do enough to protect listed species on private lands. Most provisions in the *US ESA* are only applicable to federal agencies and lands. Yet, it is estimated that more than two-thirds of all listed species reside on private lands, with approximately one-third residing exclusively on private land.<sup>228</sup>

Where the *US ESA* does apply to private lands (i.e. the take prohibition) it can create “perverse incentives” that discourage landowners from maintaining or improving habitat.<sup>229</sup> This is because, while the benefits of preservation are widespread, the costs of property use restrictions are usually borne by landowners alone.<sup>230</sup> For instance, the red-cockaded woodpecker in the southeastern US requires medium to large tracts of mature southern pine trees for habitat.<sup>231</sup> However, southern pine is commercially valuable and studies have found that the threat of regulation has resulted in pre-emptive timber harvests to prevent the migration of these birds from nearby colonies, thus avoiding regulation but diminishing the red-cockaded woodpecker’s habitat overall.<sup>232</sup>

In order to reduce disincentives and/or create incentives for conserving both listed and as-yet-unlisted species, the FWS has turned to a variety of conservation agreements, including those that arise out of incidental take permits (such as the previously discussed Safe Harbor Agreements and HCPs), as well as Candidate Conservation Agreements and conservation banking. These agreements often include “no surprises” assurances that guarantee participants their obligations will not change, regardless of what happens in the future.<sup>233</sup> These agreements include:

- Safe Harbor Agreement – voluntary agreements pursuant to section 10(a)(1)(A) of the Act between FWS and private or non-federal landowners that declare

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<sup>228</sup> Daniel M. Evans *et al.*, “Species Recovery in the United States: Increasing the Effectiveness of the *Endangered Species Act*” *Issues in Ecology*, Report No. 20 (Ecological Society of America, 2016) at 14.

<sup>229</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 79.

<sup>230</sup> *Ibid.*

<sup>231</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 78.

<sup>232</sup> Langpap, Kerkvliet & Shogren, *ibid.* at 78.

<sup>233</sup> Evans *et al.*, *supra* note 228 at 14.

landowners will provide a net conservation benefit to recovery of the listed species.<sup>234</sup> In return, the landowners receive a permit for incidental take and an assurance that future use limitations will not occur without their consent.<sup>235</sup>

- Habitat Conservation Plan – conservation plans pursuant to section 10(a)(1)(B) of the Act from private or non-federal landowners that detail how landowners will minimize or mitigate impacts of proposed taking in exchange for an incidental take permit. HCPs allow a permit holder to proceed with otherwise illegal taking.<sup>236</sup>
- Candidate Conservation Agreements – agreements between FWS and private landowners that provide that landowners will implement conservation measures to help protect candidate species (i.e. warrant listing but not yet proposed due to priority or resource constraints).<sup>237</sup> In exchange FWS provides assurances that landowners will not be subject to additional restrictions if/when the species becomes listed.<sup>238</sup>
- Conservation banking - whereby private landowners receive payments for permanently conserving and managing land parcels for listed or candidate species. Conservation banks function to offset adverse impacts to these species that occurred elsewhere.<sup>239</sup> FWS approves credits that the landowner can then sell to buyers who need to compensate for some permitted incidental take of a species in a different location.<sup>240</sup>

Arguably, the aforementioned types of agreements increase landowner flexibility, help overcome perverse incentives, and help to elicit greater conservation on

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<sup>234</sup> Evans *et al.*, *ibid.* at 15.

<sup>235</sup> US Fish & Wildlife Service, Endangered Species, “Safe Harbor Agreements Frequently Asked Questions” online at: <https://www.fws.gov/ENDANGERED/landowners/landowners-faq.html>.

<sup>236</sup> US Fish & Wildlife Service, *Habitat Conservation Plans under the Endangered Species Act* (Fact Sheet) (April 2011), online at: <https://www.fws.gov/ENDANGERED/esa-library/pdf/hcp.pdf>.

<sup>237</sup> Evans *et al.*, *supra* note 228 at 15.

<sup>238</sup> *Ibid.*

<sup>239</sup> US Fish & Wildlife Service, Endangered Species, “For Landowners – Conservation Banking” online at: <https://www.fws.gov/endangered/landowners/conservation-banking.html>.

<sup>240</sup> Evans *et al.*, *supra* note 228 at 15.

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private lands. However, their actual effectiveness is still largely unknown.<sup>241</sup> To date, the best studied of the bunch are HCPs.<sup>242</sup> Results from a study conducted by Langpap and Kerkvliet found that HCPs have positive effects on endangered species recovery. In particular, species with plans are more likely to show improvement in recovery status, less likely to be declining or classified as extinct, and on average demonstrate recovery scores between one-third and two-thirds of a point higher than species without.<sup>243</sup> Positive impacts on recovery are larger when a species has plans encompassing more acreage.<sup>244</sup>

Nevertheless, further study is required before it can be concluded that conservation agreements are an adequate substitute for regulation. There is a genuine question as to whether conservation agreements actually help species to recover. For instance, HCPs require landowners to mitigate the impacts of development, but they do not require any actions that actually provide a net benefit to species.<sup>245</sup> Conservation agreements can also lead FWS to forego listing species based on the belief that they are already being protected.<sup>246</sup> Ideally, conservation agreements would directly link management actions to the benefit and recovery of species.

### **Funding**

Research suggests that *US ESA* implementation is effective when supported by substantial funding.<sup>247</sup>

Generally, the amount of funding put towards species recovery is significant. From 1989 to 2014 state and federal agencies spent at least \$30 billion to promote species recovery.<sup>248</sup> The majority of *US ESA*-related expenditures come from federal agencies (90% on average), and most come from sources other than FWS (i.e. Department of

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<sup>241</sup> Evans *et al.*, *ibid.* at 14.

<sup>242</sup> *Ibid.*

<sup>243</sup> Christian Langpap & Joe Kerkvliet, Endangered species conservation on private land: Assessing the effectiveness of habitat conservation plans" (2012) 64 *Journal of Environmental Economics and Management* 1 at 14.

<sup>244</sup> *Ibid.*

<sup>245</sup> Evans *et al.*, *supra* note 228 at 15.

<sup>246</sup> Rohlf, *supra* note 210 at 260.

<sup>247</sup> Langpap, Kerkvliet & Shogren, *supra* note 185 at 85.

<sup>248</sup> Langpap, Kerkvliet & Shogren, *ibid.* at 72.

Defense, NMFS).<sup>249</sup> Spending is directed towards a variety of items including refuges, land acquisition, law enforcement, research, survey, listing, captive breeding, reintroduction, recovery, and consultation.<sup>250</sup>

Nevertheless, there is criticism that this funding is still insufficient. Some argue that not enough of the above-noted funds goes toward actual on-the-ground species recovery actions.<sup>251</sup> Others argue that the total spending itself is insufficient. One study suggests that funding levels in the early 2000's was about 20% of the amount needed to get the job done.<sup>252</sup> Other researchers found that total spending from approximately 2001 to 2016 covered only one third of species' recovery needs.<sup>253</sup>

Funding is also disproportionate between species: from 1998 to 2012, more than 80 percent of all government spending went towards 5 percent of all listed species. Meanwhile, 80 percent of all listed species shared less than 5 percent of funds.<sup>254</sup> In fact, most federal spending during this time frame went to just 15 types of fish, with over USD \$197 million per year going to the Chinook salmon alone.<sup>255</sup>

To some extent, disproportionate spending is a reflection of different species' needs.<sup>256</sup> For instance, there is some evidence that species threatened by extractive resource threats, direct human-caused mortality (e.g. hunting, automobiles), natural threats, and development benefit from higher spending, while those threatened by exotic species, water dams/draining/diversions, and altered disturbance regimes do not.<sup>257</sup> This does not, however, account for all of the differences in species' specific funding.<sup>258</sup>

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<sup>249</sup> Langpap, Kerkvliet & Shogren, *ibid.* at 72; Evans *et al.*, *supra* note 228 at 9.

<sup>250</sup> Langpap, Kerkvliet & Shogren, *ibid.* at 72.

<sup>251</sup> Evans *et al.*, *supra* note 228 at 9.

<sup>252</sup> Julie K. Miller *et al.*, "The Endangered Species Act: Dollars and Sense?" (2002) 52:2 *BioScience* 163 at 167.

<sup>253</sup> Evans *et al.*, *supra* note 228 at 10.

<sup>254</sup> *Ibid.*

<sup>255</sup> *Ibid.*

<sup>256</sup> *Ibid.*

<sup>257</sup> Miller *et al.*, *supra* note 252 at 164.

<sup>258</sup> Evans *et al.*, *supra* note 228 at 10.

## **Recovery**

Finally, the purpose of the *US ESA* is to conserve threatened and endangered species and their ecosystems to the point that protection under the Act is no longer necessary; in other words, to “recover” the listed species. Has the *US ESA* been successful in achieving recovery for its charges?

To date, only 54 species (out of a total of 2,434 historically listed species) have been de-listed due to recovery.<sup>259</sup> Critics argue that this low recovery rate (>1%) is indicative of the Act’s failure.<sup>260</sup> Meanwhile, supporters of the Act tend to argue that this metric misses the bigger picture. Taylor, Suckling and Rachlinski state that the short time period that most species have been protected makes “full recovery” a weak test of the effectiveness of the Act.<sup>261</sup> A better measure is the extent to which the provisions of the *US ESA* are moving species toward recovery.<sup>262</sup> Overall, their findings suggest that “the longer a species is listed and subject to the regulation of take, the more likely it is to be improving and the less likely to be declining, irrespective of recovery plans and critical habitat.”<sup>263</sup>

Similarly, a May 2012 review by the Center for Biological Diversity stated that most species have not been listed long enough to reach their planned recovery level.<sup>264</sup> When they compared the actual recovery rate of a (sample of) species with their projected recovery rate (set out in the federal recovery plan), they found that for those with an elapsed delisting deadline 90 percent had met their recovery timeline.<sup>265</sup>

Still another way of evaluating the Act is to look at whether it has saved any listed species from extinction. Researchers estimate that at least 227 species would have

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<sup>259</sup> US Fish & Wildlife Service, Environmental Conservation Online System, “Delisted Species”, online at: <https://ecos.fws.gov/ecp0/reports/delisting-report> [Delisting Report].

<sup>260</sup> Taylor, Suckling & Rachlinski, *supra* note 188 at 360.

<sup>261</sup> Taylor, Suckling & Rachlinski, *ibid.* at 366.

<sup>262</sup> *Ibid.*

<sup>263</sup> *Ibid.*

<sup>264</sup> Kieran Suckling, Noah Greenwald & Tierra Curry, *On Time, On Target: How the Endangered Species Act is Saving America’s Wildlife*, Center for Biological Diversity, May 2012 at 1.

<sup>265</sup> Suckling, Greenwald & Curry, *ibid.* at 4.

gone extinct in the past 30 years if not for *US ESA* protection.<sup>266</sup> Moreover, only 11 species have been delisted due to extinction since the Act's inception.<sup>267</sup>

It is also important to note that not all species are equally recoverable. Generally, it is easier to recover species with "specific, easily remediable threats".<sup>268</sup> The Act is less successful at recovering species that are threatened due to habitat loss, and habitat loss is the major cause of endangerment.<sup>269</sup>

Recovery itself is also an ill-defined concept and it seems that FWS has "virtually unfettered discretion" in deciding whether a species is recovered.<sup>270</sup> As mentioned above, recovery plans are not legally binding and therefore FWS is not beholden to base its delisting decisions on the recovery criteria set out in a species' recovery plan.<sup>271</sup> FWS also appears to be increasingly willing to define conservation success to include relatively small and isolated populations, including some that need ongoing human intervention to survive (e.g. grey wolf) with no concern for the ecosystem effects of this "museum piece strategy".<sup>272</sup>

In sum, the *US ESA* remains a powerful force for species protection and habitat conservation in the US. However, some uneven court decisions, tepid enforcement by FWS, and a lack of political will from successive US administrations have weakened the overall effectiveness of the original act.

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<sup>266</sup> Evans *et al.*, *supra* note 228 at 31.

<sup>267</sup> Delisting Report, *supra* note 259.

<sup>268</sup> Scott *et al.*, *supra* note 190 at 29-30.

<sup>269</sup> Scott *et al.*, *ibid.* at 30.

<sup>270</sup> Evans *et al.*, *supra* note 228 at 5; Rohlf, *supra* note 210 at 264.

<sup>271</sup> Evans *et al.*, *ibid.* at 5.

<sup>272</sup> Rohlf, *supra* note 210 at 262.



## States

As previously stated, states have historically held the primary role for protecting wildlife within their borders.<sup>273</sup> In fact, the *US ESA* was originally intended as a last resort for species protection, an 'emergency room' measure only to prevent extinction.<sup>274</sup> Today, however, the federal government has mostly assumed primary responsibility for regulating the protection of wildlife and endangered species.<sup>275</sup> This is due, at least in part, to the failure of states' to provide adequate protection for these species.<sup>276</sup>

Forty-six states have enacted endangered species legislation.<sup>277</sup> Although these laws vary, most are not as strong and/or are missing many of the provisions found in the *US ESA*.<sup>278</sup> A 2018 review of state imperiled species legislation by Robert L. Fischman *et al.* found that "on the whole, state imperiled species legislation is weaker than the [US

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<sup>273</sup> George & Snape III, *supra* note 101 at 345.

<sup>274</sup> Totoiu, *supra* note 109 at 10304.

<sup>275</sup> George & Snape III, *supra* note 101 at 345.

<sup>276</sup> Totoiu, *supra* note 1099 at 10304.

<sup>277</sup> Goerge & Snape III, *supra* note 101 at 347.

<sup>278</sup> Totoiu, *supra* note 1099 at 10310.

ESA], 'lacking in regulatory teeth and policy innovation'".<sup>279</sup> Their research found that state legislation was generally more permissive as only:

- 27 states specifically require the use of scientific evidence to support listing decisions;<sup>280</sup>
- 34 states protect plants (and only 15 do so under imperiled species legislation);<sup>281</sup>
- 13 states allow citizens to petition for listing species;<sup>282</sup>
- 3 states require agencies to prepare recovery plans for their own imperiled species;<sup>283</sup>
- 5 states legislate habitat protection for imperiled species;<sup>284</sup>
- 11 states require interagency cooperation (i.e. jeopardy prohibition);<sup>285</sup>
- 1 state clearly prohibits habitat degradation and 5 states ban forms of significant habitat alteration, although at least eight have statutory definitions of "harm" that would be amenable to an interpretation that includes incidental habitat impacts;<sup>286</sup> and
- 7 states provide specifically for incidental take permits, but only 5 require habitat conservation plans in exchange for permit issuance.<sup>287</sup>

In addition, their research found that while states are capable of enacting regulatory schemes that provide protection similar to the *US ESA*, they simply do not.<sup>288</sup> At least

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<sup>279</sup> Robert L. Fischman *et al.*, "State Imperiled Species Legislation" (2018) 48 *Envtl L* 81 at 116.

<sup>280</sup> Alejandro E. Camacho *et al.*, "Assessing State Laws and Resources for Endangered Species Protection" (2017) 47 *ELR* 10837 at 10839.

<sup>281</sup> Fischman *et al.*, *supra* note 279 at 102.

<sup>282</sup> Fischman *et al.*, *ibid.* at 103.

<sup>283</sup> Fischman *et al.*, *ibid.* at 104.

<sup>284</sup> Fischman *et al.*, *ibid.* at 105.

<sup>285</sup> Fischman *et al.*, *ibid.* at 106.

<sup>286</sup> Fischman *et al.*, *ibid.* at 112-113.

<sup>287</sup> Fischman *et al.*, *ibid.* at 115, 117.

<sup>288</sup> Fischman *et al.*, *ibid.* at 119.

part of this is certainly due to the disparity in funding. Federal funds make up the vast majority of *US ESA* spending. Relative to federal funds, state spending is almost negligible (approx. 5%).<sup>289</sup>

Not all states fall short. Fischman et al. found that some state provisions are quite strong and named Illinois, Massachusetts, Oregon, and Wisconsin as being in the “vanguard of protective imperiled species legislation”.<sup>290</sup> Other commentators named the *California Endangered Species Act* as the “most comprehensive of the state acts” as it is modeled after the *US ESA*, and praised Kansas and Hawaii for their substantial measures as well.<sup>291</sup>

States also remain an important partner and vital first line of defence for species at risk. State endangered species acts can list and protect species that are not yet federally listed, as well as shore up protections for species that are listed.<sup>292</sup> States are also largely in charge of decisions about land use and are therefore in the best position to prevent ecosystem fragmentation and habitat destruction.<sup>293</sup>

Nevertheless, as it stands research suggests that state laws on their own are still altogether inadequate to achieve the goals of the *US ESA*.<sup>294</sup> Their modest protections simply do not provide the same level of protection as is found in the more comprehensive statutory regime of the *US ESA*.<sup>295</sup> For this reason states still require the *US ESA* in place to protect imperiled species and it remains the strongest and most influential piece of endangered species legislation in the US.

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<sup>289</sup> Camacho et al., *supra* note 280 at 10842-10843.

<sup>290</sup> Fischman et al., *supra* note 279 at 117.

<sup>291</sup> George and Snape III, *supra* note 101 at 346.

<sup>292</sup> George and Snape III, *supra* note 101 at 355.

<sup>293</sup> *Ibid*; Fischman et al., *supra* note 279 at 121.

<sup>294</sup> Camacho et al., *supra* note 280 at 10843; George & Snape III, *supra* note 101 at 356; Fischman et al., *supra* note 279 at 116.

<sup>295</sup> Camacho et al., *ibid.* at 10843.



## European Union

The foundations of the European Union's (EU) nature conservation legislation are Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the "Birds Directive") and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive"). Collectively, they will be referred to as the "Nature Directives".

The EU first adopted the Birds Directive in 1979 to provide comprehensive protection for all wild bird species naturally occurring in the Union. Among other things, the Directive puts an emphasis on protecting the habitats of endangered and migratory species. Later, in 1992, the EU adopted the Habitats Directive which is aimed at protecting animal and plant species along with their natural habitats. Together, the Nature Directives also establish the basis for the Natura 2000, a Europe-wide ecological network of protected sites.

## ***The Birds Directive***

Article 1 of the Birds Directive provides that it “relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States” (referred to going forward as “Article 1 birds”) and covers the “protection, management and control of these species and lays down rules for their exploitation”.<sup>296</sup> The Birds Directive applies to birds, their eggs, nests and habitats<sup>297</sup> and recognizes in its preamble that the “preservation, maintenance or restoration of a sufficient diversity and area of habitats is essential to the conservation of all species of birds.”<sup>298</sup>

### ***Protections and Prohibitions***

Member States are responsible for taking measures to “preserve, maintain or re-establish a sufficient diversity and area of habitats for all [Article 1 birds]”.<sup>299</sup> The preservation, maintenance and re-establishment should include the following measures:

- creation of protected areas;
- upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones;
- re-establishment of destroyed biotopes; and
- creation of biotopes.<sup>300</sup>

The Birds Directive also requires that particularly threatened species (identified at Annex I) be made subject to “special conservation measures” concerning their habitat to ensure their survival and reproduction.<sup>301</sup> Member States are responsible

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<sup>296</sup> European Commission (EC), *Directive 2009/47/EC of the European Parliament and of the council of 30 November 2009 on the conservation of wild birds*, [2009] OJ, L 20/7 at art. 1 [Birds Directive].

<sup>297</sup> *Birds Directive, ibid.*, art. 1(2).

<sup>298</sup> *Birds Directive, ibid.*, preamble.

<sup>299</sup> *Birds Directive, ibid.*, art. 3(1).

<sup>300</sup> *Birds Directive, ibid.*, art. 3(2).

<sup>301</sup> *Birds Directive, ibid.*, art. 4(1).

for classifying “the most suitable territories” as special protection areas (SPAs) for their conservation.<sup>302</sup>

Member States must also take similar measures for regularly occurring migratory birds not listed in Annex I, with respect to their breeding, moulting and wintering areas as well as staging posts along their migration routes.<sup>303</sup> To this end, Member States “shall pay particular attention to the protection of wetlands and particularly to wetlands of international importance.”<sup>304</sup>

In addition, the Birds Directive requires that Member States take appropriate steps within SPAs to avoid pollution, deterioration of habitats or disturbances affecting the birds.<sup>305</sup> Member states should also strive to avoid pollution or deterioration of habitats outside of the SPAs.<sup>306</sup>

Member States must take measures to establish a general system of protection for all Article 1 birds, prohibiting:

- deliberate killing or capture by any method;
- deliberate destruction of, or damage to, their nests and eggs or removal of their nests;
- taking and keeping their eggs in the wild;
- deliberate disturbance of these birds particularly during periods of breeding and rearing insofar as disturbance would be significant; and
- keeping species of birds that are subject to hunting and capture prohibitions.<sup>307</sup>

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<sup>302</sup> *Ibid.*

<sup>303</sup> *Birds Directive, ibid.*, art. 4(2).

<sup>304</sup> *Ibid.* The term “wetlands of international importance” and the Ramsar Convention is discussed in greater detail in [Volume 1: The State of Habitat Laws in Alberta](#).

<sup>305</sup> *Birds Directive, ibid.*, art. 4(4).

<sup>306</sup> *Ibid.*

<sup>307</sup> *Birds Directive, ibid.*, art. 5.

Member States shall also prohibit the sale, transport for sale, keeping for sale and offering for sale of live or dead birds and of any readily recognisable parts or derivatives of Article 1 birds (with some exceptions).<sup>308</sup>

### **Exemptions and Permits**

The Birds Directive provides that hunting is permitted for select species of birds set out at Annex II.<sup>309</sup> However, Member States must ensure that hunting does not jeopardise conservation efforts and that birds are not hunted during rearing season and various stages of reproduction.<sup>310</sup>

The Birds Directive also provides for the ability of Member States to derogate from the prohibitions where there is no other satisfactory solution, for the following reasons:

- in the interests of public health and safety and air safety; to prevent serious damage to crops, livestock, forests, fisheries and water; and for the protection of flora and fauna;
- for the purposes of research and teaching, of re-population, of re-introduction and for the breeding necessary for these purposes;
- to permit, under strictly supervised conditions and on a selective basis, the capture, keeping or other judicious use of certain birds in small numbers.<sup>311</sup>

Member States must report on these derogations and ensure the consequences of the derogations are not incompatible with the Birds Directive.<sup>312</sup>

### **Compliance and Enforcement**

Generally speaking, compliance and enforcement of the Birds Directive falls to the Member States themselves. However, Member States are required to report to the Commission every three years on the implementation of national provisions taken

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<sup>308</sup> *Birds Directive, ibid.*, art. 6.

<sup>309</sup> *Birds Directive, ibid.*, art. 7.

<sup>310</sup> *Ibid.*

<sup>311</sup> *Birds Directive, ibid.*, art. 9(1).

<sup>312</sup> *Birds Directive, ibid.*, art. 9(4).

under the Birds Directive.<sup>313</sup> In the event that the Commission finds a Member State is failing to implement or enforce the Birds Directive, the Commission (or another Member State) may bring an action for breach of community law before the Court of Justice.<sup>314</sup>

### ***The Habitats Directive***

From a legal perspective, the Habitats Directive is considered to be “the most important instrument promoting biodiversity in the [EU]”.<sup>315</sup> The Habitats Directive recognizes that the “preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora, are an essential objective of general interest pursued by the Community”.<sup>316</sup> The Directive’s stated aim is to “contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States”.<sup>317</sup>

### ***Protections and Prohibitions***

The Habitats Directive provides two main types of protection: 1) for natural habitats and habitats of species;<sup>318</sup> and 2) for species themselves.<sup>319</sup>

### **Habitats**

With respect to habitats, the Directive provides for the establishment of the Natura 2000, an “ecological network of special areas of conservation”.<sup>320</sup> This network is

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<sup>313</sup> *Birds Directive, ibid.*, art. 12.

<sup>314</sup> EC, *Nature and Biodiversity Cases: Ruling of the European Court of Justice* (Luxembourg: Office for Official Publications of the European Communities) at 8.

<sup>315</sup> Jonathan Verschuuren, “Chapter 3 - Effectiveness of Nature Protection Legislation in the European Union and the United States: The Habitats Directive and the Endangered Species Act” in Martin Dieterich & Jan van der Straaten, eds., *Cultural Landscapes and Land Use: The Nature Conservation-Society Interface* (Netherlands: Kluwer Academic Publishers, 2004) 39 at 41.

<sup>316</sup> EC, *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora*, [1992] OJ, L 206/7 at Preamble [*Habitats Directive*].

<sup>317</sup> *Habitats Directive, ibid.*

<sup>318</sup> *Habitats Directive, ibid.*, art. 3-7.

<sup>319</sup> *Habitats Directive, ibid.*, art. 12-16.

<sup>320</sup> *Habitats Directive, ibid.*, art 3(1).

composed of sites hosting the natural habitat types listed in Annex I (i.e. approximately 200 habitat types including grassland and forest types) and the habitats of the species listed in Annex II (i.e. approximately 700 endangered plant and animal species) of the Habitats Directive.<sup>321</sup> It enables the habitats concerned to be maintained or restored to a favourable conservation status.<sup>322</sup> The Natura 2000 also includes the SPAs designated under the Birds Directive and is discussed in greater detail below.<sup>323</sup>

Each Member State is responsible for designating these special areas of conservation (SACs) (approved by the European Commission) and protecting them according to the objectives of the Habitats Directive.<sup>324</sup> Member States must, among other things:

- establish the necessary conservation measures involving, if need be, management plans specifically designed for the sites or integrated into other development plans, as well as appropriate statutory, administrative or contractual measures that correspond to the ecological requirements of the habitat and/or species types;
- take appropriate steps to avoid the deterioration of natural habitats, habitats of species and the species themselves;
- assess the implications of any plan or project likely to have a significant effect on the site and agree to the plan or project only when it has been ascertained that it will not adversely affect the integrity of the site concerned; and
- where, in spite of a negative assessment, a plan or project must nevertheless be carried out for reasons of overriding public interest (including those of social or economic nature), the Member State shall take all compensatory measures to ensure the overall coherence of the Natura 2000 is protected.<sup>325</sup>

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<sup>321</sup> *Habitats Directive, ibid.*, art 3(1).

<sup>322</sup> *Ibid.*

<sup>323</sup> *Ibid.*

<sup>324</sup> *Habitats Directive, ibid.*, art 3(2).

<sup>325</sup> *Habitats Directive, ibid.*, art 6.

Although the language used in the Habitats Directive arguably leaves Member States with a “wide margin of discretion” to decide which sites to include, the European Court of Justice (ECJ) has decided a series of cases that limit this discretion.<sup>326</sup> In particular, the ECJ has decided that only ornithological or ecological interests play a role in the designation of sites, and economic considerations may not be taken into account.<sup>327</sup>

Member States are responsible for taking steps to avoid the deterioration of the designated habitats.<sup>328</sup> Additionally, any project that is likely to have a significant effect on the site is subject to an assessment of the implications for the site.<sup>329</sup> As a result of the assessment, national authorities can only agree to the project or plan after concluding it will not adversely affect site integrity.<sup>330</sup>

The Habitats Directive also states that, in addition to SACs, “Member States shall endeavour... in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora.”<sup>331</sup>

## **Species**

With respect to species, Member States must take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (i.e. species in need of strict protection), which includes prohibitions against:

- all forms of deliberate capture or killing in the wild;
- deliberate disturbance, especially during breeding, rearing, hibernation and migration periods;

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<sup>326</sup> Verschuuren, *supra* note 315 at 47.

<sup>327</sup> Verschuuren, *ibid.* at 47; *Commission v Spain*, C-355/90, [1993] ECR I-4421; *First Corporate Shipping (Severn estuary case)*, C-371/98, [2000] ECR I-9235.

<sup>328</sup> *Habitats Directive*, *supra* note 316, art. 6(2).

<sup>329</sup> *Habitats Directive*, *ibid.*, art 6(3).

<sup>330</sup> *Ibid.*

<sup>331</sup> *Habitats Directive*, *ibid.*, art 10.

- deliberate destruction or taking of eggs from the wild;
- deterioration or destruction of breeding sites or resting places; and
- the keeping, transport and sale or exchange of specimens taken from the wild.<sup>332</sup>

Member States must also take the requisite measures to establish a system of strict protection for the plant species listed in Annex IV, prohibiting:

- the deliberate picking, collecting, cutting, uprooting or destruction of such plants in the wild; and
- the keeping, transport and sale or exchange and offering for sale or exchange of specimens of such species taken in the wild.<sup>333</sup>

With respect to species listed in Annex V (i.e. species whose taking may be subject to management measures), Member States shall take measures to ensure that any takings in the wild is compatible with the maintenance of a favourable conservation status.<sup>334</sup> Member States must also prohibit the use of all indiscriminate means capable of causing local disappearance and/or serious disturbance to populations of such species, including the methods and means of capture and killing and modes of transport listed at Annex VI.<sup>335</sup>

### **Permits and Exemptions**

Member States may derogate from the above-noted prohibitions provided there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species, so long as it is for one or more of the following:

- in the interest of protecting wild fauna and flora and conserving natural habitats;

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<sup>332</sup> *Habitats Directive, ibid.*, art 12.

<sup>333</sup> *Habitats Directive, ibid.*, art. 13.

<sup>334</sup> *Habitats Directive, ibid.*, art. 14.

<sup>335</sup> *Habitats Directive, ibid.*, art. 15.

- to prevent serious damage;
- in the interest of public health and public safety or for other imperative reasons of overriding public interest;
- for the purpose of research and education, of repopulating and reintroducing species and for breeding operations; and
- to allow the taking or keeping of certain specimens of the species listed in Annex IV in limited circumstances by the competent authorities.<sup>336</sup>

The Habitats Directive provides that Member States must report on any derogations to the European Commission every two years in the manner prescribed.<sup>337</sup>

### ***Compliance and Enforcement***

Similar to the Birds Directive, Member States must provide for their own specific compliance and enforcement provisions. They are also subject to reporting requirements on the implementation of the Habitats Directive's measures every six years.

The terms of the Habitats Directive can also be enforced at any time by the European Commission (or another Member State) before the ECJ.

### ***Other Relevant Legislation***

In 2011, following the International Convention on Biological Diversity (2010), the EU adopted an ambitious Biodiversity Strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020.<sup>338</sup> The strategy is focused on 6 priority targets:

1. Protect species and habitat – show better conservation or a secure status for 100% more habitats and 50% more species;

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<sup>336</sup> *Habitats Directive, ibid.*, art. 16.

<sup>337</sup> *Ibid.*

<sup>338</sup> EC, Environment, "Biodiversity Strategy", online:  
[http://ec.europa.eu/environment/nature/biodiversity/strategy/index\\_en.htm#stra](http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm#stra).

2. Maintain and restore ecosystems – establishing green infrastructure and restoring at least 15% of degraded ecosystems;
3. Achieve more sustainable agriculture and forestry – measurable improvement in the conservation of species and habitats depending on or affected by agriculture and forestry;
4. Make fishing more sustainable and seas healthier – sustainable fishing by 2015 and healthy fish stocks by 2020;
5. Combat invasive alien species – identify invasive alien species, control or eradicate priority species and manage pathways to prevent new invasive species from disruption EU biodiversity; and
6. Help stop the loss of global biodiversity – step up the EU's contribution to avert global biodiversity loss.<sup>339</sup>

### *Natura 2000*

Together the Birds Directive and the Habitats Directive help to establish the EU's Natura 2000. The Natura 2000 is the largest coordinated network of protected areas in the world<sup>340</sup> and is considered the “major hallmark of EU nature conservation laws”.<sup>341</sup> It was enacted as part of the Habitats Directive in 1992 and is composed of SPAs (designated under the Birds Directive), SACs and sites of Community importance (SCI), which are designated under the Habitats Directive.<sup>342</sup> As of 2016, the Natura 2000 network included over 27,000 sites and covered more than 1 million

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<sup>339</sup> *Ibid.*

<sup>340</sup> EC, Environment, “Natura 2000”, online:

[http://ec.europa.eu/environment/nature/natura2000/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/index_en.htm).

<sup>341</sup> Hendrik Schoukens & Hans Eric Woldendorp, “Site selection and designation under the Habitats and Birds Directives: a Sisyphean task?” in Charles-Hubert Born *et al.*, eds., *The Habitats Directive in Its EU Environmental Law Context: European Nature's Best Hope?* (London: Routledge, 2014) 31 at 32.

<sup>342</sup> EC, Environment, “Frequently asked questions on Natura 2000”, online:

[http://ec.europa.eu/environment/nature/natura2000/faq\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/faq_en.htm) [Natura 2000 FAQ].

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square kilometres, representing almost one fifth of Europe's total land area and surrounding seas.<sup>343</sup>

Site selection for the Natura 2000 varies according to the Directive. Generally speaking, sites are selected with the aim of ensuring the long-term survival of species and habitats, and selection is based on scientific criteria.<sup>344</sup> More specifically, pursuant to the Birds Directive, which predates the Natura 2000, Member States are required to designate "the most suitable territories in number and size" as SPAs for the conservation of Annex I species in the geographical sea and land area where the Directive applies.<sup>345</sup>

Meanwhile, pursuant to the Habitats Directive, site selection follows a more formal procedure:

1. Member States must identify sites that are important for the conservation of Annex I listed habitats and Annex II listed species on their territory. The choices are made on purely ecological grounds, according to commonly agreed scientific criteria.
2. This list is sent to the European Commission, which examines the information provided across a biogeographical region. Evaluation is undertaken with experts from the Member States, independent scientists, and non-governmental organizations. If the list is deemed insufficient for certain species or habitat types, the Member State must then propose more sites to complete it. The European Commission, with the agreement of the Member States, will then adopt the list as SCIs.
3. Member States must formally designate those areas under national law to protect them from damaging activities. They have a period of six years within which to designate these sites. In the meantime, they must ensure the sites are

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<sup>343</sup> Natura 2000 FAQ, *ibid.*

<sup>344</sup> Natura 2000 FAQ, *ibid.*

<sup>345</sup> *Birds Directive*, *supra* note 296, art. 4(1).

protected. If necessary, they must introduce measures designed to maintain or restore the species and habitats to reach a favourable conservation status.<sup>346</sup>

Once a site has been protected under the Natura 2000 network, Member States must secure the long-term protection and management of the sites under their jurisdiction, to “maintain or improve the conservation status of the species and habitats for which the sites have been designated.”<sup>347</sup> Economic activities, traditional activities, and hunting are not necessarily prohibited at each site, but are evaluated on a case by case basis to determine whether such activities would cause the deterioration or degradation of the species and habitats.<sup>348</sup>

The end objective of the Nature Directives are “to ensure that species and habitat types covered reach a favourable conservation status and that their long term survival is deemed secure, both within and outside the Natura 2000 network.”<sup>349</sup> Monitoring is an important function for determining whether the measures in the Directives are sufficient, and if not, where additional efforts are required.<sup>350</sup> Member states must monitor the status of the species and habitat types present on their territory and report back to the EC which, in turn, determines the overall trends and conservation status of each species and habitat across the EU.<sup>351</sup>

### *Summary and Analysis*

The EU has set the bold goal of halting the loss of biodiversity by 2020. How do the Nature Directives and Natura 2000 stack up?

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<sup>346</sup> *Habitats Directive*, *supra* note 316, art. 4-6; Schoukens & Woldendorp, *supra* note 341 at 33; EC, *Natura 2000: protecting Europe's biodiversity* (Oxford: Information Press, 2008) at 22-24 online: <https://publications.europa.eu/en/publication-detail/-/publication/e4d56202-545d-43d8-972c-6be52cc8fec3> [Natura 2000].

<sup>347</sup> *Natura 2000*, *ibid.* at 17.

<sup>348</sup> *Natura 2000* FAQ.

<sup>349</sup> *Natura 2000*, *ibid.* at 24.

<sup>350</sup> *Natura 2000*, *ibid.*

<sup>351</sup> *Natura 2000*, *ibid.* at 24.

The most recent report on the state of nature in the EU was published in May 2015 ("State of Nature Report").<sup>352</sup> As per the Nature Directives, Member States are required to report every six years on the conservation status of the species and habitats protected under the Directives that are present on their territory. The State of Nature Report covers the 2007-2012 reporting period and listed the following findings:

- **Bird Species** – Some 52% of bird species are secure while 15% are near threatened, 17% are threatened and 16% are unknown. Short term population trends suggest that only 4% are non-secure but increasing, while 6% are non-secure and stable and a further 20% are non-secure and decreasing;<sup>353</sup>
- **Other Species** – Only 23% of species have a favourable status while 60% are unfavourable-inadequate and another 18% are unfavourable-bad. Of those that are rated unfavourable, only 4% are improving, while 20% are stable, 22% are deteriorating and another 14% have an unknown trend;<sup>354</sup>
- **Habitats** – Only 16% of habitat assessments are favourable, while 47% are unfavourable-inadequate and 30% are unfavourable-bad. Of those assessed as unfavourable, only 4% show improvement whereas 33% are stable and 30% are deteriorating, with 10% having an unknown trend.<sup>355</sup>

The State of Nature Report found that, with respect to habitats and species, those that were already favourable/secure remained stable or improving whereas those that were previously determined unfavourable continue to deteriorate (with a small proportion of unfavourable/non-secure showing improving trends).<sup>356</sup> Member States identified the greatest pressure and threats to terrestrial species and habitats as

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<sup>352</sup> EC, Report from the Commission to the Council and the European Parliament, *The State of Nature in the European Union: Report on the status of and trends for habitat types and species covered by the Birds and Habitats Directives for the 2007-2012 period* (Brussels, 2015), online: [http://ec.europa.eu/environment/nature/pdf/SoN%20report\\_final.pdf](http://ec.europa.eu/environment/nature/pdf/SoN%20report_final.pdf) [State of Nature Report].

<sup>353</sup> State of Nature Report, *ibid.* at 6.

<sup>354</sup> State of Nature Report, *ibid.* at 7.

<sup>355</sup> State of Nature Report, *ibid.* at 8.

<sup>356</sup> State of Nature Report, *ibid.* at 10.

coming from agriculture and human modifications of natural conditions, whereas fishing/harvesting and pollution caused the greatest threat to marine systems.<sup>357</sup>

With respect to the Natura 2000, the overall conservation status of species and habits listed in the Habitats Directive were not significantly associated with Natura 2000 coverage.<sup>358</sup> Nevertheless, the State of Nature Report did find a positive correlation between the level of Natura 2000 coverage and conservation status *trends*. A greater proportion of habitats with 75-100% coverage within the Natura 2000 network have a stable conservation trend compared to those with less than 35% of their range within the network.<sup>359</sup> Similar trends were observed with respect to bird species listed under the Birds Directive.<sup>360</sup>

The State of Nature Report posited that the current (disappointing) results could be because the full potential of the network has yet to be realized.<sup>361</sup> While the (terrestrial) network itself has been mostly established, there is insufficient progress with introducing conservation objectives and measures. Only 50% of sites were reported as having comprehensive management plans.<sup>362</sup> Additionally, EU funding instruments were not sufficiently used.<sup>363</sup> Regardless, the report concluded that, absent significant improvements, it would not be possible for the EU to meet its targets under the Habitats Directive and Biodiversity Strategy by 2020.<sup>364</sup>

Now in place for more than 20 years, the strengths and weaknesses of the Nature Directives have had some time to show. In terms of weaknesses, the Directives have been criticized for a number of issues.

For one, implementation of the Nature Directives is at the discretion of the Member States.<sup>365</sup> Different Member States have different domestic policies and those without

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<sup>357</sup> State of Nature Report, *ibid.* at 11-12.

<sup>358</sup> State of Nature Report, *ibid.* at 16-17.

<sup>359</sup> State of Nature Report, *ibid.* at 17.

<sup>360</sup> State of Nature Report, *ibid.* at 17-18.

<sup>361</sup> State of Nature Report, *ibid.* at 16.

<sup>362</sup> *Ibid.*

<sup>363</sup> State of Nature Report, *ibid.* at 19.

<sup>364</sup> State of Nature Report, *ibid.* at 10.

<sup>365</sup> Verschuuren, *supra* note 315 at 41.

well-established rules and regulations governing land use planning and decision-making may be more likely to be laggards.<sup>366</sup> Moreover, these differences have resulted in spotty implementation and enforcement of the Directives throughout the EU.<sup>367</sup>

To that end, four major NGO networks recently joined together to evaluate Member States on the current implementation of different aspects of the Nature Directives. The ensuing report, "The State of Implementation of the Birds and Habitats Directives in the EU"<sup>368</sup> looked at the transposition of the Nature Directives into Member States' legislation, designation of Natura 2000 sites, the presence and use of management plans, and the availability of funding and resources, among other things. The report found that a majority (67%) have satisfactorily transposed the Nature Directives into national law, but that was the only positive trend.<sup>369</sup> The report also found that 75% of member States have a patchy Natura 2000 network, and that more than 50% are overlooking the connectivity of their protected areas.<sup>370</sup> No Member State received positive scores for site management, species protection, appropriate assessments, funding, and stakeholder engagement.<sup>371</sup> Commentators point to this poor compliance with the procedural and substantive requirements of the Directives as one of the major contributors for the limited success of EU nature conservation law thus far.<sup>372</sup>

The Nature Directives have also been criticized for lacking a clear cut duty to restore habitat that falls outside of Natura 2000 protected areas.<sup>373</sup> Generally speaking,

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<sup>366</sup> Geoffrey Wadesforde-Smith & Nicholas S.J. Watts, "Wildlife Conservation and Protected Areas: Politics, Procedure and the Performance of Failure under the EU Birds and Habitats Directives" (2014) *Journal of International Wildlife Law & Policy* 17(1) at footnotes 4 & 14.

<sup>367</sup> Hendrik Schoukens, "Habitat Restoration on Private Lands in the United States and the EU: Moving from Contestation to Collaboration?" (2015) 11:1 *Utrecht Law Review* 33 at 40.

<sup>368</sup> BirdLife International *et al.*, *The State of Implementation of the Birds and Habitats Directives in the EU: An analysis by national environmental NGOs in 18 Member States*, (March 2018) online: [http://d2ouvy59p0dg6k.cloudfront.net/downloads/Nature\\_Scorecards\\_Report\\_March2018.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/Nature_Scorecards_Report_March2018.pdf) [State of Implementation Report].

<sup>369</sup> State of Implementation Report, *ibid.* at 1.

<sup>370</sup> *Ibid.*

<sup>371</sup> *Ibid.*

<sup>372</sup> Schoukens, *supra* note 367 at 42.

<sup>373</sup> *Ibid.*

“conservation measures” (which includes measures required to maintain or restore natural habitats) are envisaged for SACs pursuant to sections 1 and 6(1) of the Habitats Directive. However, there are no similar duties for habitat restoration outside these protected sites.<sup>374</sup> This leaves 80% of EU territory outside the scope of restoration measures, and can threaten the survival of those endangered species whose habitat is not confined to Natura 2000 sites.<sup>375</sup>

Similarly, there is criticism that the Nature Directives do not do enough to facilitate the involvement of private landowners in biodiversity conservation schemes.<sup>376</sup> As a result, biodiversity tends to be protected mainly on designated sites as opposed to the more modern view that exhorts protecting ecosystems as a whole.<sup>377</sup> More links between economy and ecology and more voluntary nature conservation/restoration are necessary to reach biodiversity goals.<sup>378</sup> In order to accomplish these goals, the EC may be wise to incorporate “biodiversity offsetting” such as habitat banking, “temporary nature” (i.e. fostering nature development on lands that have been set aside for future development)<sup>379</sup> and US-style safe harbour agreements.<sup>380</sup> These types of tools could be especially valuable in Europe given its dense population and reliance on economic development make it all but certain that only a tiny fraction of the ecosystem needed for biodiversity can ever be set aside as a “nature museum”.<sup>381</sup>

However, most of the Nature Directives (and resulting ECJ decisions) have come under fire in recent times for being too rigid. The general theme of this criticism is that the heyday of environmentalism is over and Member States today are more preoccupied with economic issues.<sup>382</sup> While the Nature Directives may once have been heralded as the best example of effective international wildlife law, today they

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<sup>374</sup> *Ibid.*

<sup>375</sup> *Ibid.*

<sup>376</sup> Bettina Kleining, “Biodiversity protection under the habitats directive: Is habitats banking our new hope?” (2017) *Environmental Law Review* 19(2) 113 at 114.

<sup>377</sup> Kleining, *ibid.* at 144.

<sup>378</sup> Kleining, *ibid.* at 114.

<sup>379</sup> Schoukens, *supra* note 367 at 50.

<sup>380</sup> Schoukens, *ibid.* at 43.

<sup>381</sup> Kleining, *supra* note 376 at 117.

<sup>382</sup> Schoukens, *supra* note 367 at 34.

are more likely to be viewed as an “obstacle course” for developers.<sup>383</sup> Critics argue that the Nature Directives focus too much on tools of a prohibitive nature (i.e. “command and control”), provoke and increase the number and costs of impact assessments,<sup>384</sup> and can unreasonably limit landowners from developing their property.<sup>385</sup>

Moreover, critics believe that procedural compliance has been elevated above substantive accomplishment, arguing that “[a] preoccupation with complex, even arcane, issues of procedural nicety” has helped to “effectively [eclipse] the question of whether the Directives are reshaping development decisions so that conditions for wildlife in Europe actually improve”.<sup>386</sup> Absent evidence that strict procedural compliance actually equals substantive accomplishment, why do the Nature Directives insist on it?

Note that, despite these perceptions, there is “no concrete evidence that the Habitats Directive poses an insurmountable constraint to sustainable development”.<sup>387</sup> Instead, “research reveals that the picture of the EU [N]ature directives as ‘rigid ‘pieces of EU legislation’ capable of completely prohibiting landowners from developing their property, needs to be adjusted”.<sup>388</sup> Few plans or projects have actually been cancelled due to the Nature Directives.<sup>389</sup> Rather, the reality is that the so-called rigidity of the Nature Directives may be one of their greatest strengths. Strict interpretation of the Nature Directives by the ECJ has made it so that socio-economic considerations are not considered during the selection of the Natura 2000 sites –only ornithological or ecological interests may play a role.<sup>390</sup> The EC’s dogged persistence in instituting infringement procedures against Member

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<sup>383</sup> Wandesforde-Smith & Watts, *supra* note 366 at 2; Schoukens *supra* note 367 at 33; Gregory Jones, ed. *The Habitats Directive: A Developer’s Obstacle Course?* (Oxford: Hart Publishing, 2012) at ix-xiii.

<sup>384</sup> Wandesforde-Smith, *ibid.*

<sup>385</sup> Schoukens, *supra* note 367 at 34.

<sup>386</sup> Wandesforde-Smith, *supra* note 366 at 4.

<sup>387</sup> Hendrik Schoukens & An Cliquet, “Biodiversity offsetting and restoration under the European Union Habitats Directive: balancing between no net loss and deathbed conservation?” (2016) *Ecology and Society* 21(4): 10 at 9.

<sup>388</sup> Schoukens, *supra* note 367 at 34.

<sup>389</sup> Schoukens, *supra* note 367 at 34.

<sup>390</sup> Verschuuren, *supra* note 315 at 47.

States has created a strong impetus for national authorities to comply with the Directives.<sup>391</sup>

In fact, it seems that stricter enforcement of the Nature Directives could actually lead to better recovery chances for the EU's most threatened species.<sup>392</sup> Certainly there is support for this contention in the State of Nature Report (as evidenced by the findings discussed above).

In the end, it seems that the main issue in the EU is the same found everywhere – how to balance habitat protection with economic activities and create contiguous ecological corridors rather than just disparate islands of protections in areas dominated by large-scale economic activities.<sup>393</sup>



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<sup>391</sup> Verschuuren, *ibid.* at 42, 65.

<sup>392</sup> Schoukens, *supra* note 367 at 35.

<sup>393</sup> Verschuuren, *supra* note 315 at 65-66.

## Other Global Leaders: Zambia, Botswana and Germany

The 2018 Environmental Performance Index (EPI) ranks 180 countries on 24 performance indicators across ten categories covering environmental health and ecosystem vitality.<sup>394</sup> The EPI provides a “scorecard” of sorts that highlights the best and worst in environmental performance around the world and provides insight and guidance on best practices. The EPI is jointly produced by Yale University and Columbia University in collaboration with the World Economic Forum.

One of the categories of the EPI is “Biodiversity and Habitat”. This category seeks to evaluate a country’s performance in habitat conservation and species protection. Scores are based on the following six indicators:

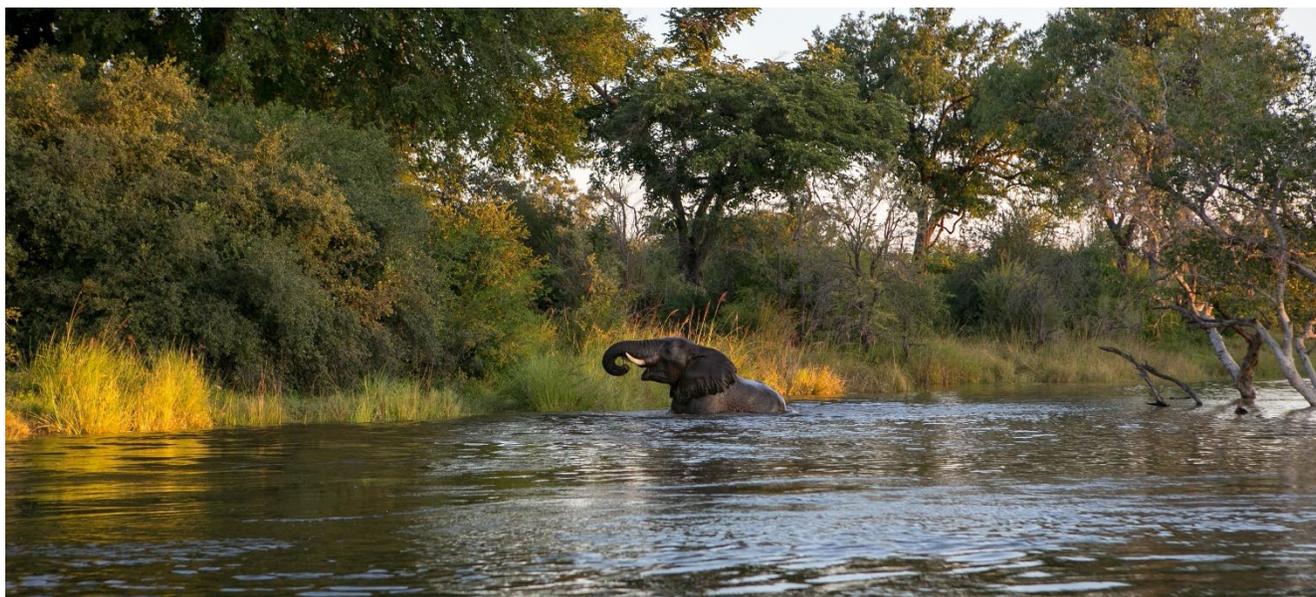
1. Marine protected area: the percentage of marine protected areas (MPAs) within a country's exclusive economic zone;
2. Terrestrial biome protection (national weights): the percentage of biomes in protected areas, weighted by national composition of biomes;
3. Terrestrial biome protection (global weights): the percentage of biomes in protected areas, weighted by global composition of biomes;
4. Species protection index: the average area of species' distributions in a country with protected areas;
5. Protected area representativeness index: the extent to which terrestrial protected areas are ecologically representative; and

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<sup>394</sup> Wendling, Z. A., Emerson, J. W., Esty, D. C., Levy, M. A., de Sherbinin, A., *et al.* (2018). 2018 Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy, online: <https://epi.yale.edu/> [2018 EPI].

6. Species habitat index: the proportion of habitat within a country remaining, relative to a baseline set in the year 2001.<sup>395</sup>

The EPI's overall top ten is made up of various European countries. However, in the "Biodiversity and Habitat" category, the countries of Zambia and Botswana topped the list, scoring an impressive 98.75 and 98.31 respectively.<sup>396</sup> Germany is ranked third (and 13<sup>th</sup> overall) with a score of 96.92.<sup>397</sup> This begs the question, what makes these countries global leaders in the protection of biodiversity and habitat?



## Zambia

According to the EPI, Zambia is a global leader because it has led focused conservation efforts on the sustainable management of its forests, water resources, and wetlands, developed an extensive Protected Areas (PA) network,<sup>398</sup> and adopted a biodiversity protection plan as outlined in its (revised) National Biodiversity

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<sup>395</sup> 2018 EPI, online: <https://epi.envirocenter.yale.edu/2018-epi-report/biodiversity-habitat>.

<sup>396</sup> 2018 EPI, online: <https://epi.envirocenter.yale.edu/2018-epi-report/biodiversity-habitat>.

<sup>397</sup> 2018 EPI, online: <https://epi.envirocenter.yale.edu/epi-indicator-report/BDH>.

<sup>398</sup> 2018 EPI online: <https://epi.envirocenter.yale.edu/2018-epi-report/biodiversity-habitat>.

Strategy and Action Plan (NBSAP-2).<sup>399</sup> Zambia developed the NBSAP-2 as part of its obligations under the Convention on Biological Diversity (CBD) and to “ensure that biodiversity and the strategy are mainstreamed into the planning and activities of all those sectors whose activities can have an impact...on biodiversity”.<sup>400</sup> Zambia's NBSAP-2 identifies five strategic goals and targets:

- A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;
- B. Reduce the direct pressures on biodiversity and promote sustainable use;
- C. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;
- D. Enhance the benefit to all from biodiversity and ecosystem services; and
- E. Enhance implementation of NBSAP-2 through participatory planning, knowledge management and capacity building.<sup>401</sup>

As part of strategic goal “C” and safeguarding ecosystems, Zambia aims to rationalize its PA network to achieve representativeness and ecological connectivity at a landscape level.<sup>402</sup> While Zambia deems their PA network to be adequate in size for biodiversity, it is not necessarily representative of all major ecosystems and habitats and could be improved.<sup>403</sup>

The EPI recognized other important initiatives including the introduction of a *Water Resources Management Act* (2011), *Forestry Act* (2015), and development of a *Wetlands Policy*.<sup>404</sup> However, Zambia's principal legislation aimed at regulating

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<sup>399</sup> Government of the Republic of Zambia, Ministry of Lands, Natural Resources and Environmental Protection, *Zambia's Second National Biodiversity Strategy and Action Plan (NBSAP-2) 2015-2025* online: <https://www.cbd.int/doc/world/zm/zm-nbsap-v2-en.pdf> [NBSAP-2].

<sup>400</sup> NBSAP-2, *ibid.* at 1.

<sup>401</sup> NBSAP-2, *ibid.* at v-vi.

<sup>402</sup> NBSAP-2, *ibid.* at 42-43.

<sup>403</sup> *Ibid.*

<sup>404</sup> *Ibid.*

wildlife trade and establishing a network of conservation areas is *The Zambia Wildlife Act, 2015* (ZWA)<sup>405</sup> which replaces and updates the *Zambia Wildlife Act, 1998*.<sup>406</sup>

## ***The Zambia Wildlife Act, 2015***

### **Protections**

The ZWA replaced the old Zambia Wildlife Authority (ZAWA) with the newly formed Department of National Parks and Wildlife (DNPW) and tasked it with the administration of the Act, encouraging the development of National Parks and other types of protected areas, as well as ensuring the sustainability, conservation, and preservation of ecosystems and biological diversity (among other things).<sup>407</sup>

Pursuant to the ZWA, ownership of every wild animal is vested in the President, on behalf of the Republic.<sup>408</sup>

The Act permits the creation of several different types of protected areas:

- National Parks - established by statutory order by the President in consultation with the Minister “[w]henever...the conservation or protection and enhancement of wildlife, eco-systems, biological diversity and natural beauty so demands”;<sup>409</sup>
- Community Partnership Park - established by statutory instrument by the Minister on application of a local community, etc. where an area has environmental, ecological or scientific value or significance;<sup>410</sup>

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<sup>405</sup> *The Zambia Wildlife Act, 2015*, Law No 14 of 2015 at 331 [ZWA]., online: Parliament of Zambia <http://www.parliament.gov.zm/sites/default/files/documents/acts/The%20%20Zambia%20Wildlife%20Act%202015.pdf>

<sup>406</sup> Law No 12 of 1998, assented to on April 21, 1998.

<sup>407</sup> ZWA, *supra* note 405, s. 5(1) and (2).

<sup>408</sup> ZWA, *ibid.*, s. 3(1).

<sup>409</sup> ZWA, *ibid.*, s. 11.

<sup>410</sup> ZWA, *ibid.*, s. 12(1).

- Wildlife or Bird Sanctuary – an area established by statutory instrument by the Minister to provide for the control of entry into, and regulation of activities of persons within;<sup>411</sup>
- Game Management Areas - an area established by statutory order by the President in consultation with the Minister and local community for the sustainable utilisation of wildlife.<sup>412</sup>

Activities in these areas may be subject to conditions, agreements, or plans.

The ZWA also provides for the specification and classification of protected animals in order to preserve species that are rare, threatened or endangered; to preserve populations of endemic species; and to protect animals that play a role in a healthy ecosystem, and/or carry economic significance in a local or national economy.<sup>413</sup>

### **Prohibitions**

Protected animals may not be hunted without a permit.<sup>414</sup> Under the Act, a person also commits an offence if they, without a permit:<sup>415</sup>

- hunt or disturb a wild animal or fish in a National Park or Community Partnership Park;
- disturb a bird's nest in a National Park or Community Partnership Park;
- remove a wild animal, fish, bird's nest, stone, vegetation or other object from a National Park or Community Partnership Park.

In addition, it is an offence to possess a weapon in a National Park or Community Partnership Park;<sup>416</sup> introduce vegetation in a National Park, Community Partnership Park or bird or wildlife sanctuary;<sup>417</sup> remove a trophy, vegetation or wild animal from

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<sup>411</sup> ZWA, *ibid.*, s. 14.

<sup>412</sup> ZWA, *ibid.*, s.28(1).

<sup>413</sup> ZWA, *ibid.*, ss. 36(1) and (2).

<sup>414</sup> ZWA, *ibid.*, s. 36(3).

<sup>415</sup> ZWA, *ibid.*, s. 19(1).

<sup>416</sup> ZWA, *ibid.*, s. 20(1).

<sup>417</sup> ZWA, *ibid.*, s. 23(1).

such areas;<sup>418</sup> or be in possession of, kill, injure, capture, or disturb a wild animal, egg, nest or habitat or a bird, reptile, or fish within those areas.<sup>419</sup>

Note that mining activities are not permitted within National Parks, Community Partnership Parks, or bird or wildlife sanctuaries without an appropriate environmental assessment done to conserve and protect the air, water, soil, flora, fauna, fish, fisheries, scenic attractions, and features of aesthetic, cultural, architectural, archaeological, historical, or geological interest.<sup>420</sup> These activities can be subject to any condition as decided by the Minister.<sup>421</sup>

Under the ZWA, the Minister also has the authority to make regulations for a long list of conditions in National Parks, Community Partnership Parks, or bird or wildlife sanctuaries.<sup>422</sup> Although these regulations need not necessarily result in prohibitions, the list includes:

- conditions under which buildings can be built;
- conditions under which persons travelling through those areas must abide by (including photographs);
- conditions for fishing;
- rules of conduct and behaviour of persons within the areas;
- the regulation of traffic; and
- general regulations, for the efficient control and management of the areas.

### **Exemptions and Permits**

Various permits and licences may be issued under the ZWA. They include: hunting, bird and professional hunter's licences, and fishing, capture, professional guide,

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<sup>418</sup> ZWA, *ibid.*, s. 24.

<sup>419</sup> ZWA, *ibid.*, s. 26.

<sup>420</sup> ZWA, *ibid.*, s. 16.

<sup>421</sup> ZWA, *ibid.*, s. 6(4).

<sup>422</sup> ZWA, *ibid.*, s. 27(1).

photographic tour operator, and commercial photographic permits. The Minister is responsible for attaching conditions and terms to licences in order to protect animals and habitat.<sup>423</sup>

### ***Compliance and Enforcement***

Authorized officers have broad powers to enforce the ZWA.<sup>424</sup> The Act also provides for a variety of penalties depending on the offence. They can be very strict, with fines up to six hundred thousand penalty units (1 penalty unit – 180 kwacha) or approximately \$11 million CAD and imprisonment for up to twenty-five years.<sup>425</sup> In particular, a person who hunts a game animal or protected animal in an open area without a permit is liable upon conviction for a fine not exceeding four hundred thousand penalty units, or imprisonment for up to five years, or both.<sup>426</sup>

### ***Summary and Analysis***

Overall, Zambia appears to have enacted strong wildlife legislation and established a network of protected areas that contributes to their strong protections for biodiversity and habitat. Zambia does, however, struggle with poaching and a sophisticated illegal wildlife trade. These issues are compounded by poor economic conditions and corruption.<sup>427</sup> Moreover, enforcement of legislation appears to be an issue as Zambia lacks the resources to effectively patrol and monitor its PAs and to effectively prosecute wildlife crimes.<sup>428</sup>

The United Nations Environment World Conservation Monitoring Centre reports that Zambia has 37.87% of its terrestrial area under some form of special management.<sup>429</sup>

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<sup>423</sup> ZWA, *ibid.*, s. 39(3).

<sup>424</sup> ZWA, *ibid.*, ss. 112-125.

<sup>425</sup> ZWA, *ibid.*, ss. 126-144. Also see section 6 of the Fees and Fines Act, c. 45.

<sup>426</sup> ZWA, *ibid.*, s. 63(1).

<sup>427</sup> DLA Piper, *Empty Threat 2015: Does the Law Combat Illegal Wildlife Trade? A Review of Legislative and Judicial Approaches in Fifteen Jurisdictions* (London, May 2015) at 426-427 [Empty Threat 2015].

<sup>428</sup> Empty Threat 2015, *ibid.*, at 426-427.

<sup>429</sup> United Nations Environment World Conservation Monitoring Centre ([UNEP-WCMC](https://www.unep-wcmc.org)) with support from IUCN and its World Commission on Protected Areas (2016) <https://www.protectedplanet.net/country/ZMB>.



## Botswana

Botswana took second place in the EPI's "Biodiversity and Habitat" category. Like Zambia, Botswana is rich in biodiversity – it is home to the Okavango Delta and Africa's largest elephant population. Within Africa, it is known as "one of the success stories" in wildlife conservation which is attributable to their strong legislative framework for habitat and wildlife protection, coupled with committed enforcement.<sup>430</sup> It also has extensive protected areas - Botswana is a fairly large country but has a low population and it has been able to put more than 45% of its land mass under some form of environmental management.<sup>431</sup>

Botswana is also a signatory to the CBD and has developed various National Biodiversity Strategy and Action Plans. Currently in its third iteration, Botswana's

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<sup>430</sup> Didi Wamukoya, "Robust Legal Safeguards secure Botswana's wildlife" *African Wildlife Foundation* (06 May 2018) online: <https://www.awf.org/blog/robust-legal-safeguards-secure-botswanas-wildlife>.

<sup>431</sup> Convention on Biological Diversity, Botswana – Country Profile, online: <https://www.cbd.int/countries/profile/default.shtml?country=bw#measures>.

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National Biodiversity Strategy and Action Plan, 2016 (NBSAP-3) sets the following goals:

1. Biodiversity is mainstreamed and valued across all sectors of society;
2. The pressure on biodiversity is reduced and natural resources are used sustainably;
3. Ecosystems, species and genetic resources are protected through sound management;
4. Fair and equitable access to the benefits of biodiversity is secured; and
5. Participatory planning, knowledge management and capacity-building are in place to support NBSAP implementation.<sup>432</sup>

The NBSAP-3 sets out 20 national targets that map out its strategy to achieve these goals. Botswana's vision is that, by 2025, ecosystems, species and genetic diversity is valued, protected, and used sustainably and equitably, through the involvement of all sectors of society and the provision of sufficient resources for its sound management.<sup>433</sup>

Botswana also has comprehensive environmental legislation that is primarily built around the tourism industry and aimed at protecting environmental assets that are valuable to same.<sup>434</sup> Their leading wildlife/habitat protection legislation is the *Wildlife Conservation and National Parks Act (WCNPA)*<sup>435</sup>, enacted in 1992, which provides for the establishment, control, and management of national parks and game reserves.

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<sup>432</sup> Republic of Botswana, Department of Environmental Affairs, *National Biodiversity Strategy and Action Plan, 2016* at IX online: <https://www.cbd.int/doc/world/bw/bw-nbsap-v3-en.pdf> [NBSAP-3].

<sup>433</sup> NBSAP-3 at IX.

<sup>434</sup> Convention on Biological Diversity, "Botswana – Country Profile", online: <https://www.cbd.int/countries/profile/default.shtml?country=bw#measures>.

<sup>435</sup> 2008, C. 38:01 [WCNPA].

## ***Wildlife Conservation and National Parks Act***

### **Protections**

Part II of the *WCNPA* sets out the establishment and management of national parks, game reserves, sanctuaries and private game reserves. With respect to national parks (set out at Schedule 1), the Act provides that they are for the “propagation, protection and preservation therein of wild animal life, vegetation and objects of geological, ethnological, archaeological, historical or other scientific interests”.<sup>436</sup> The President may, by order, declare any area of State Land or land bequeathed to them to be a national park.<sup>437</sup>

Meanwhile, the Minister is responsible for the control, management, and maintenance of national parks and has the power to:

- take any steps they deem necessary to ensure the security of the animals and vegetation in the parks, including the preservation of the park;
- reserve or set aside areas as breeding places for indigenous animals, and nurseries for indigenous trees, shrubs, plants, and flowers; and
- authorize activities in the parks (i.e. scientific investigations, killing, capture, or destruction, etc.).<sup>438</sup>

Meanwhile, game reserves, sanctuaries (set out at Schedule 2), and private game reserves provide protections, mainly relief from hunting and capture, for select animals.<sup>439</sup> The Minister may also make regulations restricting passage, controlling burning of vegetation or removal of trees, use of vehicles, etc.<sup>440</sup>

Part III of the *WCNPA* permits the establishment of wildlife management areas and controlled hunting areas which can also carry restrictions.<sup>441</sup> The remainder of the Act

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<sup>436</sup> *WCNPA, ibid.*, s. 5(1).

<sup>437</sup> *WCNPA, ibid.*, s. 5(2).

<sup>438</sup> *WCNPA, ibid.*, s. 6.

<sup>439</sup> *WCNPA, ibid.*, ss. 12-13.

<sup>440</sup> *WCNPA, ibid.*, s. 14.

<sup>441</sup> *WCNPA, ibid.*, s. 15-16.

is mostly concerned with protecting game animals and regulating the hunt, capture, and handling (including sale and export) of game animals, animals and their meat, and/or trophies.<sup>442</sup>

### **Prohibitions**

No person is permitted to hunt or capture any animal in a game reserve or sanctuary.<sup>443</sup>

Moreover, no person is permitted to enter, be in, or reside in a national park, except as permitted.<sup>444</sup> Exceptions may be granted for health, study or recreation, travel or transport, or transacting any lawful business. Mining activities are also prohibited in national parks except with the permission of the Minister.<sup>445</sup>

### **Exemptions and Permits**

The WCNPA provides for a variety of licences for the purpose of hunting, including game, bird, single game, small game, and special game licences.<sup>446</sup> The licences are to be made by a licensing officer and are subject to a variety of conditions before issuance.<sup>447</sup> Same goes for permits.<sup>448</sup>

The Act also provides for the destruction of animals by wildlife officers in certain circumstances:

- where the animal has caused or is likely to cause damage to livestock, crops, water installations, or fences;
- where the animal is or is likely to be dangerous to human life; and

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<sup>442</sup> WCNPA, *ibid.*, Part IV-XIV.

<sup>443</sup> WCNPA, *ibid.*, s. 12(3).

<sup>444</sup> WCNPA, *ibid.*, s. 7(1).

<sup>445</sup> WCNPA, *ibid.*, s. 10.

<sup>446</sup> WCNPA, *ibid.*, ss. 26-30.

<sup>447</sup> WCNPA, *ibid.*, s. 31.

<sup>448</sup> WCNPA, *ibid.*, s. 40.

- where the officer has been directed to destroy the animal as part of their official duties.<sup>449</sup>

The WCNPA also exempts killing a “dangerous animal” in a national park where such killing is necessary to protect human life or the infliction of personal injury.<sup>450</sup>

### **Compliance and Enforcement**

Killing, hunting or capturing any animal in a national park can lead to a fine of P10,000 and imprisonment for seven years.<sup>451</sup> Hunting or capturing any animal in a game reserve or sanctuary carries a fine of P5,000 and imprisonment for five years.<sup>452</sup> Hunting and capturing protected game animals generally carries a fine of P10,000 and imprisonment for 7 years, except if it is a rhinoceros, which carries a fine of P100,000 and imprisonment for 15 years.<sup>453</sup>

### **Summary and Analysis**

As evidenced by its rank in the 2018 EPI “Biodiversity and Habitat” category, Botswana is considered to have a relatively successful system of wildlife and habitat protections. Botswana has extensive protected areas, enforcement of its protections is effective (Botswana has a well-trained military force protecting its wildlife), and its judicial system is well developed for investigating and prosecuting wildlife crimes.<sup>454</sup> Corruption is also low in Botswana, which contributes to its success in the war against illegal trafficking of wildlife.<sup>455</sup>

Nevertheless, there has been criticism that few if any of the national parks or wildlife reserves are “ideally configured” to include sufficient areas of diversity or to provide

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<sup>449</sup> WCNPA, *ibid.*, s. 80(1).

<sup>450</sup> WCNPA, *ibid.*, s. 8(2).

<sup>451</sup> WCNPA, *ibid.*, s. 11(1).

<sup>452</sup> WCNPA, *ibid.*, s. 12(3).

<sup>453</sup> WCNPA, *ibid.*, s. 17.

<sup>454</sup> DLA Piper, *Empty Threat: Does the Law Combat Illegal Wildlife Trade? An Eleven-Country Review of Legislative and Judicial Approaches* (London: February 2014) at 6 accessed online: <https://www.dlapiper.com/en/canada/insights/publications/2014/05/illegal-wildlife-trade-report-2014/> [Empty Threat 2014].

<sup>455</sup> Empty Threat 2014, *ibid.*, at 6.

for traditional migration routes for larger species during a drought.<sup>456</sup> This is due to the fact that they were usually created without the benefit of ecological surveys and for the protection of large game animals only. They have also been historically created in the west of the country because it sparsely populated, as compared to the east where land was already inhabited.<sup>457</sup>

The United Nations Environment World Conservation Monitoring Centre reports that Botswana has 29.14% of its terrestrial area under some form of special management.<sup>458</sup>



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<sup>456</sup> Alec Campbell, "Establishment of Botswana's National Park and Game System" (2004) Botswana Notes and Records, Vol. 36, 55 at 65.

<sup>457</sup> Campbell, *ibid.* at 65.

<sup>458</sup> United Nations Environment World Conservation Monitoring Centre ([UNEP-WCMC](https://www.unep-wcmc.org)) with support from IUCN and its World Commission on Protected Areas (2016) <https://www.protectedplanet.net/country/BWA>.

## Germany

Germany, as part of the EU, is subject to the Birds Directive and Habitats Directive, and is host to a number of sites in the Natura 2000 network. In addition, Germany has enacted nature conservation legislation that provides further protection for habitat (among other things) at both the federal and state (also known as “Länder”) level.<sup>459</sup>

The primary source of nature conservation law in Germany is the *Federal Nature Conservation Act (FNCA)*.<sup>460</sup> Not only does the *FNCA* implement the Birds and Habitats Directives into national law, but it also provides for general landscape planning, various types of protected areas, and species and marina nature conservation. Article 1 of the *FNCA* recognizes that “[b]y virtue of their intrinsic value and importance as a basic necessity of human life, and also as a responsibility to future generations, nature and landscape in both settled and non-settled areas are to be protected” with the goals of safeguarding 1) biological diversity; 2) the performance and functioning of the natural balance; and 3) the diversity, characteristic features and beauty of nature and landscape, as well as their recreational value.<sup>461</sup>

Germany is also a signatory to the CBD and developed its own NBSAP in 2007, known as the National Strategy on Biological Diversity (NSBD).<sup>462</sup> Vision B 1.3.1. of the NSBD addresses “areas of wilderness” and imagines that Germany can again “boast fascinating areas of wilderness”. The NSBD includes the aim that: “[b]y the year 2020, Mother Nature is able to develop according to her own laws throughout at least 2% of Germany’s national territory”.<sup>463</sup> These wilderness areas are defined as “sufficiently

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<sup>459</sup> Federal Agency for Nature Conservation, “Protected Areas” online: <https://www.bfn.de/en/activities/protected-areas.html>.

<sup>460</sup> *Act on Nature Conservation and Landscape Management (Federal Nature Conservation Act – BNatSchG) of 29 July 2009*, Federal Law Gazette 2009, part I, no 51, p 2542ff [FNCA]. Note the *FNCA* was accessed from the English version of Germany’s website for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The site cautions that the English version has been translated for information purposes and that only the German version is legally binding.

<sup>461</sup> *FNCA, ibid.*, art 1.

<sup>462</sup> Federal Government of Germany, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, “National Strategy on Biological Diversity”, eds. Dr. Jonna Küchler-Krischun, Alfred Maria Walter & Martina Hildebrand (October 2007) [NSBD].

<sup>463</sup> NSBD, *ibid.* at 40.

large, (predominantly) non-fragmented areas free of intrusive or extractive human activity" and "serve to permanently provide for the ecological functioning of natural processes without human interference".<sup>464</sup> Meanwhile, Vision B 1.2.1. with respect to "forests" aims for forests with natural forest development to account for 5% of wooded area by 2020.<sup>465</sup> As of 2018, only 0.6% of Germany qualified as wilderness areas and approximately 1.9% of forested areas were preserved as permanently unused woodland areas.<sup>466</sup>

## ***Federal Nature Conservation Act***

### ***Protections***

As previously mentioned, the *FNCA* integrates the protections set out in the EU Nature Directives into national law. On top of these protections, the *FNCA* also provides for a network of linked biotopes that covers at least 10% of the area of each Länder (among other things).<sup>467</sup> These areas may be protected as nature conservation areas, national parks or national nature monuments, biosphere reserves, landscape protection areas, nature parks, natural monuments, or protected landscape elements.<sup>468</sup>

The biotope network is designed to conserve populations of wild flora and fauna as well as preserve, restore, and develop "ecological interaction relationships" and improve the coherence of the Natura 2000 network.<sup>469</sup> Surface waters, including their peripheral zones, shoreline zones, and riparian meadows, are also to be conserved as living sites and biotopes.<sup>470</sup>

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<sup>464</sup> H. Schumacher *et al.*, "More wilderness for Germany: Implementing an important objective of Germany's National Strategy on Biological Diversity" (2018), 42 *Journal for Nature Conservation* 45 at 47.

<sup>465</sup> NSBD, *supra* note 462 at 31.

<sup>466</sup> Schumacher *et al.*, *supra* note 464 at 47, 49.

<sup>467</sup> *FNCA*, *supra* note 460, art. 20(1).

<sup>468</sup> *FNCA*, *ibid.*, art. 20(2).

<sup>469</sup> *FNCA*, *ibid.*, art. 21(1).

<sup>470</sup> *FNCA*, *ibid.*, art. 21(5).

These nature and landscape areas are protected by means of declarations.<sup>471</sup> The declarations define the protected area, the purpose of protection, the orders and prohibitions required to fulfill this purpose, and relevant management, development, and restoration measures.<sup>472</sup>

The Act also states broadly that intervening parties shall avoid any significant adverse effects on nature and landscape.<sup>473</sup> Where significant effects are unavoidable, they must be offset via compensation or substitution measures, or where that is not possible, via monetary substitution.<sup>474</sup>

### **Prohibitions**

All actions that may lead to the destruction of, damage to, or changes in a nature conservation area or parts of, are prohibited.<sup>475</sup> This does not mean they cannot be open to the public - just that access must not counter the protection purposes.

Actions which alter the character of the area for landscape protection areas or which are not compatible with the purpose of its protection are also prohibited.<sup>476</sup> Actions that could lead to the destruction or other significant adverse effects on certain biotopes and legally protected biotopes are prohibited as well.<sup>477</sup>

The Act prohibits the impairment or destruction of the living sites of wild animals and plants without good cause.<sup>478</sup> This applies to the habitat of protected species as well.<sup>479</sup> The following actions are also prohibited:

- burning soil cover on meadows, field boundaries, field dikes, unused soil areas, hedges, and slopes;

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<sup>471</sup> FNCA, *ibid.*, art. 22(1).

<sup>472</sup> FNCA, *ibid.*, art. 22(1).

<sup>473</sup> FNCA, *ibid.*, art. 13.

<sup>474</sup> FNCA, *ibid.*, art. 13.

<sup>475</sup> FNCA, *ibid.*, art. 23(2).

<sup>476</sup> FNCA, *ibid.*, art. 26(2).

<sup>477</sup> FNCA, *ibid.*, art. 30(2).

<sup>478</sup> FNCA, *ibid.*, art. 39(1).

<sup>479</sup> FNCA, *ibid.*, art. 44.

- treating areas not used for agriculture, forestry, or fishing purposes in a manner that impairs the pertinent fauna and flora;
- cutting or grafting trees located outside of forests, short-rotation forestry operations, or horticulturally used soil areas;
- cutting back reeds from 1 March to 30 September; and
- using trenchers to clear ditches with continual water flow.<sup>480</sup>

These prohibitions do not apply to actions that are authorized by the authorities.<sup>481</sup>

### **Exemptions and Permits**

A general exemption from the requirements and prohibitions of the Act may be granted, upon application, if:

- it is necessary for reasons of overriding public interest, including those of a social or economic nature; or
- execution of the provisions (on an individual basis) would lead to an unreasonable burden.<sup>482</sup>

With respect to biotopes, exemptions may also be granted, upon application, to those actions that could lead to the destruction of, or other significant adverse effects on, biotopes so long as the relevant adverse effects may be compensated for.<sup>483</sup>

### **Compliance and Enforcement**

Article 69 of the *FNCA* sets out a list of actions that constitute an administrative offence, including capturing, injuring, killing or disturbing a wild animal, damaging or destroying a breeding or resting site, or destroying a biotope. Fines range from EUR

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<sup>480</sup> *FNCA, ibid.*, art. 39(5).

<sup>481</sup> *FNCA, ibid.*

<sup>482</sup> *FNCA, ibid.*, art. 67(1).

<sup>483</sup> *FNCA, ibid.*, art. 30(3).

10,000 to EUR 50,000<sup>484</sup> and terms of imprisonment range from three months to five years.<sup>485</sup>

### *Summary and Analysis*

As evidenced by its 2018 EPI standings, Germany is considered a global leader in environmental protection overall (ranked 13<sup>th</sup>) and with respect to biodiversity and habitat (ranked 3<sup>rd</sup>). In particular, Germany appears to be attuned to the importance of habitat networking and connectivity. Its *FNCA* enables the creation and designation of a variety of protected areas and, in addition to the Natura 2000 targets, it enshrines the goal of establishing a network of linked biotopes that covers at least 10% of the area of each Länder. As of 2019, its terrestrial Natura 2000 network is considered complete, covering some 15.5% of Germany's total land area (though it still needs to put in place certain conservation objectives and measures for the sites).<sup>486</sup>

Still, Germany faces many challenges. It is a densely populated country located in the centre of Europe. While it was previously entirely forested, today there is no primeval wilderness left and only 1/3 of the country is still covered with woodlands (which are mostly shaped by forestry activities).<sup>487</sup> The main threats to species diversity and habitat are intensive farming and forestry, landscape dissection, urban sprawl, soil sealing, and pollutants.<sup>488</sup> Threats to coastal habitats come from recreational use and construction.<sup>489</sup> While research suggests that its NSBD target of 2% wilderness areas is likely achievable, Germany still has a long way to go towards achieving this goal and faces significant pushback from land users such as the forest sector and timber industry.<sup>490</sup>

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<sup>484</sup> *FNCA*, *ibid.*, art. 69(6).

<sup>485</sup> *FNCA*, *ibid.*, art. 71.

<sup>486</sup> EC, *The Environmental Implementation Review 2019: Germany* (Brussels: EC, 2019) at 10 online: [http://ec.europa.eu/environment/eir/pdf/report\\_de\\_en.pdf](http://ec.europa.eu/environment/eir/pdf/report_de_en.pdf).

<sup>487</sup> Schumacher *et al.*, *supra* note 464 at 46.

<sup>488</sup> Convention on Biological Diversity, "Germany – Country Profile", online at: <https://www.cbd.int/countries/profile/default.shtml?country=de#facts>.

<sup>489</sup> *Ibid.*

<sup>490</sup> Schumacher *et al.*, *supra* note 464 at 51.



## Discussion

What, if anything, does this jurisdictional review tell us about how we can improve Alberta's habitat protection legislation?

At the outset, it certainly helps to have legislation that is specifically aimed at habitat preservation and protection. Alberta's habitat protection regime currently relies upon a patchwork of hunting, parks, and land-use planning legislation. Conversely, all of the jurisdictions we canvassed here have some type of endangered species or wildlife legislation that includes a focus on habitat protection (e.g. Ontario, Nova Scotia, US, Zambia, Botswana) or legislation that is specifically aimed at habitat conservation (e.g. EU Nature Directives and Natura 2000, Germany's *FNCA*). As a result, these jurisdictions tend to have stronger habitat laws and protections overall.

Beyond this, an objective set of criteria for evaluating habitat legislation is helpful. Previously, in *Habitat Law in Alberta Volume 1: The State of Habitat Laws in Alberta* the ELC also set out five criteria for good habitat laws: 1) monitoring, assessment and planning tools; 2) area-based conservation tools; 3) localized /biophysical conservation; 4) habitat considerations in decision-making; and 5) conservation

compliance. We have briefly considered how the above-mentioned jurisdictions stack up against these criteria.

### ***Monitoring, assessment and planning tools***

This criterion asks whether legislation enables large-scale habitat planning and monitoring of species at risk. All of the legislation we reviewed above includes some type of monitoring and assessment of species at risk, as well as provisions for the identification and protection of habitat. However, not all of the legislation envisions large-scale habitat planning. Mostly, the endangered species legislation (e.g. the *ON ESA*, *NS ESA* and *US ESA*) is concerned with identifying and protecting species and their specific habitat rather than with the zoning or regional land-planning required for large-scale habitat protection. That is not to say that those jurisdictions lack the ability to do so, just that it was not contemplated as part of their endangered species legislation.

Alternatively, legislation such as the EU's Nature Directives and Germany's *FNCA* identify protected species *and* contemplate large-scale habitat planning as evidenced by the Natura 2000 and Germany's biotope network.

### ***Area-based conservation tools***

Most of the aforementioned jurisdictions have legislation that permits the creation and designation of large-scale protected areas such as national parks or wilderness areas. However, certain jurisdictions have gone a step further and integrated these powers into species and habitat protection legislation, which helps to connect the legislation's stated conservation goals with the creation and management of protected areas. These include:

- **EU** - The Birds Directive and Habitats Directive establish the Natura 2000, currently the world's largest coordinated network of protected areas;
- **Zambia** – The ZWA permits the creation of national parks, community partnership parks, wildlife and/or bird sanctuaries and game management areas;

- **Botswana** – The WCNPA permits the creation of national parks, game reserves, sanctuaries and private game reserves; and
- **Germany** – the FNCA provides for general landscape planning, the establishment and protection of the Natura 2000 network, and the creation of various types of protected areas such as a biotope network, nature conservation areas, parks, nature monuments, biosphere reserves, and protected landscape elements.

Legislation such as the NS ESA and the US ESA also require the establishment of core habitat and critical habitat respectively. However, as previously discussed, these provisions have not been consistently implemented in these jurisdictions.

### *Localized/biophysical conservation*

Each of the above-noted jurisdictions provides for the identification and protection of specific habitat of endangered and threatened species, which can include features such as nests and dens. However, the extent of these protections varies by jurisdiction.

### *Habitat considerations in decision-making*

This criterion asks whether habitat considerations are embedded in the decision-making process and in conditions for authorizations, and whether they are discretionary. Most jurisdictions appear to embed habitat considerations, though it is done to varying degrees.

For instance, in those jurisdictions that rely primarily on endangered species legislation to protect habitat, the connections tend to be weaker. In Ontario, the ON ESA requires habitat considerations be included in recovery plans for endangered and threatened species. However, the Minister is not required to consider habitat directly in deciding whether to issue a permit and/or exemption (although they can require an applicant to rehabilitate habitat damaged or destroyed by the authorized

activity as part of the conditions of a permit).<sup>491</sup> Similarly, in Nova Scotia the *NS ESA* requires habitat considerations and the establishment of core habitat be included in recovery plans for endangered and threatened species but the Act does not require the Minister to consider habitat in deciding whether to issue a permit and/or exemption (although they could conceivably make regulations to that effect). The US is slightly better - the *US ESA* requires the designation of critical habitat for an endangered or threatened species, and also requires a Habitat Conservation Plan in exchange for an incidental take permit.

Meanwhile, the EU's Habitats Directive, along with Germany's *FNCA*, are specifically aimed at protecting habitat (with or without the presence of endangered/threatened species) and therefore tend to incorporate habitat considerations more fully in the decision-making process.

Note that neither Zambia nor Botswana appear to require habitat considerations in exchange for permits and/or authorizations, although they could likely be added by regulation. This makes sense, however, given that most of the permits and authorizations the *ZWA* and *WCNPA* contemplate pertain to tourist activities such as hunting, fishing, photography, or entry into game management reserves, as opposed to say, industrial development, on ecologically delicate lands.

### ***Conservation compliance***

As set out above, the primary pieces of habitat protection legislation in all of the aforementioned jurisdictions include enforcement powers and penalties for non-compliance. Yet, whether or not they are actually carried out effectively is another issue altogether.

Some jurisdictions appear to struggle with enforcement. Zambia reportedly has issues with corruption and lacks the resources necessary to effectively patrol and monitor its PAs and prosecute wildlife crimes.<sup>492</sup> Ontario appears to have its own issues. Between 2007-2017 the Ministry responsible for enforcement of the *ON ESA* reportedly issued 58

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<sup>491</sup> *ON ESA*, *supra* note 2, s. 15(5)(f).

<sup>492</sup> Empty Threat 2015, *supra* note 427 at 426-427.

warnings and laid 132 charges.<sup>493</sup> However, the ECO criticized the Ministry for failing to track any additional information on compliance and enforcement, including any details on these instances of non-compliance.<sup>494</sup> As previously mentioned, the ECO also noted that there was no routine compliance monitoring for any of the activities regulated under the *ON ESA* and that the Ministry lacks authority to conduct site inspections for permit-by-rule activities.<sup>495</sup>

Meanwhile, some of the other jurisdictions appear to do enforcement well. Botswana reportedly relies on its well-trained military force to protect its wildlife and protected areas and its judicial system is well developed for investigating and prosecuting wildlife crimes.<sup>496</sup> In the EU, the EC has brought numerous cases against almost all Member States before the ECJ to enforce the provisions of the Nature Directives and national authorities, therefore, have a strong impetus to comply with the Directives.<sup>497</sup> In the US, enforcement tends to wax and wane depending on the political priorities of the day. However, the *US ESA* permits “citizen suits” that allow any person to commence a civil suit to compel the Secretary to enforce prohibitions and the take provisions of the Act.<sup>498</sup> In this way individuals and NGOs have an avenue by which to hold FWS accountable and force compliance with the Act.

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<sup>493</sup> ECO Report, *supra* note 48 at 239.

<sup>494</sup> ECO Report, *supra* note 48 at 239.

<sup>495</sup> ECO Report, *supra* note 48 at 238-239.

<sup>496</sup> Empty Threat 2014, *supra* note 454 at 6.

<sup>497</sup> Verschuuren, *supra* note 315 at 42.

<sup>498</sup> *US ESA*, *supra* note 105, s. 11(g)(1).



## Conclusion

At the end of the day our review suggests that no jurisdiction has passed the perfect piece of habitat protection legislation. Nevertheless, many jurisdictions do some things well and Alberta's habitat protection and management regime would do well to incorporate some of these lessons.

For instance, the EU Nature Directives are a standout in that they combine species protection with large-scale habitat planning and protection (e.g. the Natura 2000). Furthermore, while each country within the EU has the discretion to implement the Nature Directives as they see fit, the EC requires regular reporting and monitors their status, and does not hesitate to enforce them at the ECJ when necessary.

Meanwhile, the *US ESA* appears to be at the forefront of working with landowners to protect species and habitat on private land. The Act has incorporated various conservation agreements such as Safe Harbor Agreements, HCPs, Candidate Conservation Agreements, and more that give FWS and private landowners additional flexibility to overcome perverse incentives and promote conservation on private lands. While the cumulative effect of these types of agreements remains to be seen, early research (discussed above in the *US ESA* "Summary Analysis") appears promising. The *US ESA* also permits more citizen engagement, and thus government accountability, than most other pieces of habitat protection legislation.

Within Canada, Ontario's *ON ESA* does well to rely mostly on scientific evidence when it comes to listing and ensure that recovery planning and the government response to these plans are prescribed by legislation.

Yet, in the end, our analysis of the above jurisdictions has shown that even the best habitat protection laws in the world cannot overcome a lack of political or public will. There will always be some way to subvert the law or its enforcement.

Accordingly, legislation is important, but perhaps even more so is the political fortitude necessary to enforce it as well as a social consensus that the protection of our habitat, species, and biodiversity is urgent and important.