

**THE WOLF IN NORTH AMERICA: DEFINING  
INTERNATIONAL ECOSYSTEMS VS.DEFINING  
INTERNATIONAL BOUNDARIES**

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[W]ildlife as a whole and more especially migratory species of fauna, are the common heritage of humanity and . . . wherever they live they should throughout their lives be managed in the common interest and by the common consent of all peoples.<sup>1</sup>

## I. INTRODUCTION

Prior to European settlement, an estimated 2,000,000 wolves<sup>2</sup> lived on the North American continent.<sup>3</sup> Approximately 500 years later, the

1. Representative of Lesotho, speaking on behalf of the African States at the final conference held to conclude the Bonn Convention in 1979. SIMON LYSTER, INTERNATIONAL WILDLIFE LAW 181 (1985).

2. Two species of wolf, the gray wolf (*Canis lupus*) and the red wolf (*Canis rufus*), populated North America prior to European settlement. This article is concerned with the gray wolf and focuses on its population in the Northern United States and Canada. See *infra* note 21 for a brief discussion of the Mexican wolf, a subspecies of *Canis lupus*. Both the gray wolf and the red wolf are descendants of the credonts, a primitive group of meat eaters, which populated the northern hemisphere approximately 100 to 120 million years ago. L. DAVID MECH, THE WOLF: THE ECOLOGY AND BEHAVIOR OF AN ENDANGERED SPECIES 18 (1970), citing W. D. Matthew (1930). Other species which can be traced to the credonts include bears, dogs, foxes, raccoons, weasels, civets, hyenas and cats. *Id.* at 21. Presently, 24 distinct subspecies of the wolf have been recognized in North America. *Id.* at 30, 350-52. However, a recent study suggests that five or fewer subspecies of gray wolf inhabit North America. See U.S. Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants; Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf in Central Idaho Area, 59 Fed. Reg. 42,118 (1994) (to be codified at 50 C.F.R. § 17).

The gray wolf is a native of most of North America, excluding the southeastern portion of the United States. *Id.* Gray wolf populations were "extirpated" from the western United States around 1930. *Id.* The gray wolf is currently listed as an endangered species in the lower 48 United States, excluding Minnesota. 50 C.F.R. § 17.11 (1993).

The Endangered Species Act (ESA) has defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man." 16 U.S.C. § 1532(6) (1988). Once a species is determined to be endangered by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), the endangered species is listed in 50 C.F.R. § 17.11 (1993).

The red wolf, whose populations were concentrated mainly in the southeastern United States, was exterminated by 1975. U.S. Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Red Wolves in North Carolina and Tennessee, 56 Fed. Reg. 56,325, 56,326-27 (1991) (to be codified at 50 C.F.R. § 17). One year earlier, in 1974, the red wolf was listed as an endangered species under the ESA. 50 C.F.R. § 17.11 (1991); see Endangered Species Act of 1973, 16 U.S.C. § 1531 (1988). A captive breeding program was begun in 1974 resulting in the release of red wolves into the wilds of North Carolina's Alligator River National Wildlife Refuge and Tennessee's Great Smoky Mountain. 56 Fed. Reg. 56,325, 56,327 (1991); *The Wolf in the United States: Reintroduction* [hereinafter *Reintroduction*], INTERNATIONAL WOLF, Fall 1994, at 8 (Special Educational Supplement 111). The reintroduction appears to have been successful, as the red wolves who were reintroduced are not only surviving, but reproducing. *Id.*

In June 1991, geneticists Robert K. Wayne and Susan M. Jenks employed mitochondrial DNA (mtDNA) analysis to present and historical specimens of red wolf. U.S. Fish and Wildlife

wolf population in the United States' lower forty-eight states numbers between 500 and 1,600, with 1,500 to 1,750 located in Minnesota<sup>4</sup> The wolf population in Alaska is between 5,000 and 15,000<sup>5</sup> and the number of wolves in Canada ranges between 52,000 and 60,000<sup>6</sup> There are numerous reasons why the North American wolf population was virtually eliminated. European folklore, the threat to the early settler's livestock, and the competition the wolf gave to early hunters are some of the most frequently cited reasons<sup>7</sup> The combination of these and other factors culminated in the virtual extermination of the wolf population in the United States' lower forty-eight states; with them went an essential part of an ecosystem that had been established for millions of years.

The disappearance of species such as the wolf has led to international concern and cries for protection. Environmental protection and wildlife preservation is now a recognized and significant aspect of

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Service, Endangered and Threatened Wildlife and Plants; Finding on a Petition to Delist the Red Wolf (*Canis rufus*), 57 Fed. Reg. 1246, 1248 (1992) (to be codified at 50 C.F.R. § 17). The study reported that the red wolf had no identifiably unique mtDNA specimens. *Id.* The results of the study "show only coyote mtDNA in existing red wolves and coyote and gray wolf mtDNA in historical specimens." *Id.* One hypothesis that can be drawn from the study is that the red wolf is a hybrid, resulting from coyote/gray wolf interbreeding. *Id.* This presented a problem to the Department of the Interior (DOI) because it was DOI semi-official policy to deny listing to hybrid species. Memorandum from Acting Assistant Solicitor, U.S. Fish and Wildlife Service, U.S. Department of Interior, to Deputy Associate Director, Federal Assistance, U.S. Fish and Wildlife Service (Aug. 2, 1977) (on file with the U.S. Department of the Interior). DOI had been aware of the Wayne and Jenks study, and anticipating its results, retracted the semi-official hybrid policy in 1990. Memorandum from Assistant Solicitor, U.S. Fish and Wildlife Service, to Director, U.S. Fish and Wildlife Service (Dec. 14, 1990) (on file with the U.S. Department of Interior). On September 4, 1991, the American Sheep Industry Association petitioned the FWS to delist *Canis rufus* on the grounds that it is a hybrid. 57 Fed. Reg. 1246 (1992) (to be codified at 50 C.F.R. § 17). The petition was denied. *Id.* DOI is currently examining its hybrid policy at reauthorization hearings. Telephone interview with V. Gary Henry, U.S. Fish and Wildlife Service Red Wolf Coordinator (Oct. 27, 1994).

3. THOMAS B. ALLEN, *VANISHING WILDLIFE OF NORTH AMERICA* 111 (1974).

4. Todd K. Fuller et al., *A History and a Current Estimate of Wolf Distribution and Numbers in Minnesota*, 20 WILDLIFE SOC'Y BULL. 42 (1992).

5. *Alaska Wolf Kill Continues*, THE SPIRIT, Jan.-Mar. 1994, at 1. The Alaska Department of Fish and Game estimated its Fall/Winter 1989 statewide wolf population to be between 5,917 and 7,230. Memorandum from David G. Kelleyhouse, Director, Division of Wildlife Conservation, to Regional Wildlife Conservation Supervisors (August 30, 1993). These estimates are based on surveys, sealing records, trapper questionnaires, and incidental observations and are "far from ideal." *Alaska Wolf Kill Continues*, *supra* at 1.

6. R. D. Hayes & J. R. Gunson, *Status and Management of Wolves in Canada*, in *ECOLOGY AND CONSERVATION OF WOLVES IN A CHANGING WORLD* (forthcoming 1995).

7. It is important to note that it was the United States government that was responsible for the majority of the wolf slaughter. For a discussion on the reasons for the wolf's disappearance and the governmental involvement see BARRY H. LOPEZ, *OF WOLVES AND MEN* 137-277 (1978); David Todd, *Wolves—Predator Control and Endangered Species Protection: Thoughts on Politics and Law*, 33 S. TEX. L.J. 459 (1992).

international law.<sup>8</sup> The principle that wildlife conservation is an international concern, as opposed to solely an intranational concern, gained international recognition at the United Nations Conference on the Human Environment in Stockholm in 1972.<sup>9</sup>

As has been demonstrated by past experience,<sup>10</sup> scholarly research<sup>11</sup> and recent developments,<sup>12</sup> "wildlife protection treaties and

8. See discussion *infra* parts III, IV, for a discussion on international agreements that purport to protect wildlife. See also ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW xiii-xxix (1991) (listing chronologically 255 agreements, conventions, treaties, protocols, statutes, directives, recommendations and resolutions entered into between 1902 and 1989 that purport to protect the environment).

9. Stockholm Declaration on the Human Environment, adopted by the United Nations Conference on the Human Environment at Stockholm, June 16, 1972, Section I of Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14 & Corr.1 (1972), reprinted in 11 I.L.M. 1416 (1972); LYSTER, *supra* note 1, at 181.

10. See DANIEL J. ROHLF, THE ENDANGERED SPECIES ACT: A GUIDE TO ITS PROTECTIONS AND IMPLEMENTATIONS (1989); *Six Reasons Why the Endangered Species Act Doesn't Work and What To Do About It*, in 5 CONSERVATION BIOLOGY 273-82 (1991); MICHAEL J. BEAN ET AL., RECONCILING CONFLICTS UNDER THE ENDANGERED SPECIES ACT: THE HABITAT CONSERVATION PLANNING EXPERIENCE (1991); Christopher A. Cole, Note, *Species Conservation in the United States: The Ultimate Failure of the Endangered Species Act and Other Land Use Laws*, 72 B.U. L. Rev. 343 (1992); Nancy Kubasek et al., *The Endangered Species Act: Time For a New Approach?*, 24 Env'tl. L. 329 (1994); Stuart L. Somach, *Essay: What Outrages Me About the Endangered Species Act*, 24 Env'tl. L. 801 (1994); John C. Kunich, *Species and Habitat Conservation: The Fallacy of Deathbed Conservation Under the Endangered Species Act*, 24 Env'tl. L. 329 (1994). See also Barry Walden Walsh, *The Ecosystem Thinking of Mollie Hanna Beattie; U.S. Fish and Wildlife Service Director*, AMERICAN FORESTS, May 1994, at 13, 15 (quoting Mollie H. Beattie, U.S. Fish and Wildlife Service Director: "I don't think that managing for the maximum possible number of any one species is in the long run of advantage to that species—for instance, waterfowl. If you manage for the maximum possible, you'll end up with too many birds congregating in one place, and inevitably disease.").

11. See Scott D. Slocombe, *Implementing Ecosystem-Based Management: Development of Theory, Practice and Research for Planning and Managing a Region*, 43 BIOSCIENCE 612 (1993); Anne Batchelor, *The Preservation of Wildlife Habitat in Ecosystems: Towards a New Direction Under International Law to Prevent Species Extinction*, 3 FLA. J. INT'L L. 307 (1988); MICHAEL A. TOMAN, ECOSYSTEM VALUATION: AN OVERVIEW OF ISSUES AND UNCERTAINTIES, (Resources For The Future Discussion Paper, 94-43, Sept. 1994); MICHAEL A. TOMAN & MARK S. ASHTON, SUSTAINABLE FOREST ECOSYSTEMS AND MANAGEMENT: A REVIEW ARTICLE, (Resources For The Future Discussion Paper, 94-42, Sept. 1994); Julie B. Bloch, *Preserving Biological Diversity in the United States: The Case for Moving to an Ecosystems Approach to Protect the Nation's Biological Wealth*, 10 PACE ENVTL. L. REV. 175 (1992); Sudhir K. Chopra, *Whales: Toward a Developing Right of Survival as Part of an Ecosystem*, 17 DENV. J. INT'L L. & POL'Y 255 (1989).

12. *Ecosystem Management: Additional Actions Needed to Adequately Test a Promising Approach*, GAO/RCED-94-111 (Aug. 1994) [hereinafter *GAO Report*] (report to Congressional Requestors addressing "(1) the status of federal initiatives to implement ecosystem management, (2) additional actions required to implement this approach, and (3) barriers to government wide implementation."); All four federal land management agencies have announced that they are or will use ecosystem approaches in managing their respective resources. *Id.* at 28. The White House Office on Environmental Policy announced in 1993 that it was establishing an Interagency Ecosystem Management Task Force. *Id.* at 35. It has requested \$610 million for 1995 ecosystem management initiatives. *Id.* Four pilot programs are currently under way which include efforts: "to restore the old-growth forests of the Pacific Northwest; to restore the natural resources damaged from the Exxon Valdez disaster; to restore the ecological health of South Florida"; and "to restore the ecological health of the Anacostia River in Maryland and the

strategies which attempt to protect wildlife on an individual species basis are not as effective as those which emphasize ecosystem conservation."<sup>13</sup> While there is presently no rule of international law that forces sovereign states to apply ecosystem management regimes to natural resources, "international environmental policy is proceeding towards an ecosystem approach which protects wildlife while maximizing genetic diversity."<sup>14</sup>

An ecosystem has been defined as an area "whose boundaries reflect ecosystem population processes and patterns, providing sufficient area, diversity, and complexity for continued self-organiza-

District of Columbia." *Id.* at 36. The Department of the Interior has created a new agency, the National Biological Survey, that will gather, analyze, and circulate biological information that will assist in ecosystem management. *Ecosystem Management: Clinton Administration Needs to Set Clear Policy Goals*, GAO Report Says, Nat'l Envtl. Daily (BNA), Sept. 21, 1994.

See also *Endangered Species Act Reauthorization, Hearings Before the Subcommittee on Clean Water, Fisheries and Wildlife of the Senate Committee on Environment and Public Works*, 103rd Cong., 2nd Sess. (1994) (testimony of Hank Fischer, Northern Rockies Representative Defenders of Wildlife, calling for ESA ecosystem management on private lands, with compensation to affected parties); C. Zinkan, *Waterton Lakes National Park Moving Towards Ecosystem Management*, in *SCIENCE AND THE MANAGEMENT OF PROTECTED AREAS*, 229-32 (S. Bondrup-Nielsen et al. eds., 1992) (addressing the beginnings of ecosystem management in Waterton and Glacier National Park Biosphere Reserves in Alberta and Montana); *THE SCIENTIFIC SIGNIFICANCE OF THE AUSTRALIAN ALPS* (R. Good ed., 1989) (addressing governmental efforts to coordinate management over a large multi-jurisdictional area for the Australian Alps National Parks Liaison Committee and Australian Academy of Science, Canberra); R. Good, *The Kluane/Wrangell-St. Elias National Parks, Yukon and Alaska: Seeking Sustainability Through Biosphere Reserves*, 12 *MOUNTAIN RESEARCH & DEVELOPMENT* 87-96 (1992); R. Good, *Integrating Park and Regional Planning With an Ecosystem Approach*, Presented at the Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela (1992); K. Van Tighem, *Continent's Crown at Risk*, *ENVTL. VIEWS*, Summer 1991, at 3 (1991); Craig Manson, *Natural Communities Conservation Planning: California's New Ecosystem Approach to Biodiversity*, 24 *ENVTL. L.* 603 (1994); *BANFF BOW VALLEY STUDY* (Banff Bow Valley Study Office, 1994) (current study which has as one of its stated purposes to develop an ecosystem-based management approach to the decision-making process in Banff, Canada's oldest national park and part of a UNESCO World Heritage Site). BANFF officials have realized that the best way to protect some species is to protect all species (including the wolf), so that a balanced co-existence can be achieved. Jeff Adams, *Parks Packed With Prey: Well-Fed National Park Wolf Packs Face Habitat Competition*, *CALGARY HERALD*, Oct. 22, 1994, at B4.

Cf. A. Dan Tarlock, *The Nonequilibrium Paradigm in Ecology and the Partial Unraveling of Environmental Law*, 27 *LOY. L.A. L. REV.* 1121, 1134 n.57 (1994) (citing COMMITTEE ON SCIENTIFIC AND TECHNICAL CRITERIA FOR FEDERAL ACQUISITION OF LANDS FOR CONSERVATION, NATIONAL RESEARCH COUNCIL, *SETTING PRIORITIES FOR LAND CONSERVATION* 113-38 (1993)).

[T]he nonequilibrium paradigm as it is being applied to biodiversity protection potentially dissolves the land boundaries that we have built up over centuries and tends the time-scale of management decisions. Public versus private land, national parks versus national forests have no meaning. Under the nonequilibrium paradigm, all natural resources management is an ongoing experiment instead of a series of discrete, final decisions.

*Id.*

13. Batchelor, *supra* note 11, at 334 (citing Edwin M. Smith, *The Endangered Species Act and Biological Conservation*, 57 *S. CAL. L. REV.* 361 (1984)).

14. *Id.*

tion and self-maintenance in the absence of catastrophic external circumstances."<sup>15</sup> Each ecosystem "is a complex, connected system with functional and organizational properties inherent in, and particular to, the individual ecosystem."<sup>16</sup>

Ecological planning that does not take into consideration every element of the given ecosystem is flawed from its inception, and any result of the plan will thus be ineffectual.<sup>17</sup> Ecological planning must take into consideration not only those plants and animals that

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15. Slocombe, *supra* note 11, at 614. See also EDWARD O. WILSON, THE DIVERSITY OF LIFE 396 (1992); JEFFREY A. MCNEELY ET AL., CONSERVING THE WORLD'S BIOLOGICAL DIVERSITY 84 (1990); GAO Report, *supra* note 12, at 20-24; FRANK B. GOLLEY, A HISTORY OF THE ECOSYSTEM CONCEPT IN ECOLOGY (1993). But cf. *Biodiversity: Conservative Groups Blast Treaty, Criticize Use of Ecosystem Management*, Nat'l Envtl. Daily (BNA), Sept. 21, 1994 (arguing that ecosystems are not real, and are nothing more than mental constructs which would probably encroach on private land).

16. Slocombe, *supra* note 11, at 614.

17. For an excellent discussion on how humans have destroyed ecosystems by intentionally and unintentionally "managing" them, see ALSTON CHASE, PLAYING GOD IN YELLOWSTONE: THE DESTRUCTION OF AMERICA'S FIRST NATIONAL PARK, 16-24 (1987). During the 1870's and 1880's there was a severe poaching problem in Yellowstone. In 1886, the U.S. Cavalry was sent in to stop the carnage. The Army put up fencing seven feet high that prevented animals from leaving the park. *Id.* at 16. Between 1892 and 1912 the elk population in the park increased from approximately 25,000 to 35,000, a forty percent increase. *Id.* at 17. Despite concern that the elk population was increasing at too great a pace, the National Park Service (NPS) continued its plan of increasing the size of the herds. *Id.* at 18. During the winter of 1916-1917 many elk died of starvation. The reason for this was that the elk usually left the park in the winter, but now because of fences, roads, and other unnatural barriers, the elk were forced to stay in the park. *Id.* at 19. The effects of the elk wintering in the park was felt throughout the Yellowstone ecosystem. *Id.* at 22. The parts of the park that the elk wintered on began to show severe signs of deterioration. "Sheet erosion had removed from one to two inches of topsoil; cheatgrass and rabbitbrush—and unpalatable grasses whose presence indicates overgrazing—were spreading; browse was disappearing and sagebrush showed heavy use. Elk, confined year round in an area where once they had only summered, were eating all the aspen and willow, preventing these species from regenerating." *Id.*

At the same time, the NPS had been conducting an anti-predator campaign, killing all the wolves and mountain lions in the Park because of declining populations of white-tailed deer, antelope and bighorn. It was discovered afterwards that the reason for the decline of these species was not due to predation, but rather it was caused by the lack of wintering grounds for all the animals in the Park. *Id.* at 23. The elk population, being too large, was severely overbrowsing the winter range. This overbrowsing, which was harmful enough to the elk population, was killing the other populations which could not compete with the elk because of its size. "For two decades the Park Service had been killing predators to save the big-game animals. But instead they had given a competitive advantage to the largest animal—the elk. It was management policy, not predation, that was killing animals and eliminating wildlife species in Yellowstone." *Id.* at 23.

The FWS is presently reintroducing the wolf to Yellowstone. See Endangered and Threatened Wildlife and Plants; Proposed Establishment of a Nonessential Experimental Population of Gray Wolf in Yellowstone National Park in Wyoming, Idaho, and Montana, 59 Fed. Reg. 42,108 (1994) (to be codified at 50 C.F.R. § 17); *Bringing Back Wolves*, N.Y. TIMES, June 17, 1994, at A1; Dirk Johnson, *Yellowstone Will Shelter Wolves Again*, N.Y. TIMES, June 17, 1994, at A12.

presently exist in the ecosystem, but also those that were unnaturally removed from the ecosystem.<sup>18</sup>

Not only must ecological planning take into consideration all present and past exterminated species, it must also avoid creating problems through the establishment of management units which bear no relation to the realities of ecological systems.<sup>19</sup> Arbitrary units defined by lines drawn on the map lead "to great difficulties in achieving sustainable development planning, because [they] fail . . . to foster a sense of community among people in the unit and make . . . consistent management of a complete ecological unit impossible."<sup>20</sup>

This comment contends that restoration and protection of the wolf in North America can only be attained through an ecological planning approach of the North American States. Part II of this comment reviews the current status of the wolf in North America. Part III examines attributes of several international wildlife agreements which could be used as the foundation of a wolf preservation treaty. Part IV assesses the significance of the newly-enacted North American Free Trade Agreement on the wolf. Finally, part V defines the essentials of a successful North American wolf treaty and sets forth a proposed convention which would meet these requirements.

## II. CURRENT STATUS OF THE WOLF IN NORTH AMERICA IN AREAS OF CONCERN<sup>21</sup>

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18. Although as the dominant species on the planet we must strive to replace those species that have been removed from ecosystems, the real battle is "[w]orking on habitat protection and ecosystem management so species don't get endangered in the first-place." Michael Hanback, *Perilous Time For The Endangered Species Act: Its Renewal Is A Critical Concern For Outdoorsmen*, 193 *OUTDOOR LIFE* 38 (1994) (quoting Mike Spear, Assistant Director, U.S. Fish and Wildlife Service Ecological Services).

19. Slocombe, *supra* note 11, at 619.

20. Slocombe, *supra* note 11; see generally *GAO Report*, *supra* note 12. The wolf is a predator and one of the many animals that are essential links in natural ecosystems. For a discussion of the wolf's food habits, hunting habits, selection of prey and the effects of wolf predation see MECH, *supra* note 2, at 168-279. The wolf is tasked with strengthening its prey herds. *Id.*; see Diane K. Boyd et al., *Prey Taken by Colonizing Wolves and Hunters in the Glacier National Park Area*, 58(2) *J. WILDLIFE MGMT.* 289 (1994) (examining kills by wolves in the Glacier National Park area during the winters of 1985-1991). The wolf does this by killing the old, the sick and the young of its prey populations. *Id.* When the wolf kills the sick in the herd it eliminates a diseased animal from the gene pool. These diseased genes will not be passed along to future generations. The killing of some of the young and old serves the purpose of keeping the herd's population in check so that it does not overburden the resources on which it feeds. *Id.* Unlike humans, who hunt and kill the herd's strongest members, thus ensuring that the fittest genes will not be carried on in the offspring, the wolf kills the weak links in the herd and ensures that the sick and diseased do not reproduce. As a result, the most fit genes reproduce, and the herd is strengthened. *Id.*

21. This article does not address the Northeast Wolf Recovery Plan. See U.S. Fish and Wildlife Service, Extension of Comment Period for Draft Revised Recovery Plan for the Eastern

### A. Background of Wolf Recovery Efforts

Wolf recovery efforts began in the 1970's with an interagency recovery team established by the U.S. Fish and Wildlife Service (FWS).<sup>22</sup> The efforts of this interagency team culminated in a 1980 plan which recommended that a "combination of natural recovery and reintroduction be used to recover wolf populations in the area around Yellowstone National Park (Park) north to the Canadian border . . .".<sup>23</sup>

In 1987, the FWS approved a revised recovery plan.<sup>24</sup> The revised plan "identified a recovered wolf population as being at least [ten] breeding pairs of wolves, for [three] consecutive years, in each of [three] recovery areas (northwestern Montana, central Idaho and the Yellowstone area)."<sup>25</sup> Authorities estimate that, had the revised recovery plan been followed, approximately 300 wolves would have populated the identified regions.<sup>26</sup> The plan recommended natural recovery in Montana and Idaho and an experimental population in Yellowstone under section 10(j) of the Endangered Species Act (ESA).<sup>27</sup> The plan recommended the experimental population in Yellowstone because of potential negative impacts.<sup>28</sup> The plan realized that natural recovery efforts might not be successful in Idaho.

Timber Wolf, 55 Fed. Reg. 13,855 (1990); U.S. Fish and Wildlife Service, Availability of Revised Recovery Plan for the Eastern Timber Wolf, 57 Fed. Reg. 22,824 (1992). 1 THE NORTHERN FOREST FORUM 5 (Restore: The North Woods, Concord, Mass.) 1993. If wolf recovery efforts are successful in the Northwest, there will be no further recovery efforts, for the ESA only provides for recovery of the species, and not for recovery of the species in each and every habitat that it once populated. *Id.*

There are, however, recovery efforts underway to reintroduce the Mexican Wolf (*Canis lupus baileyi*), a subspecies of *Canis lupus*, into the southwestern United States. See U.S. Fish and Wildlife Service, Intent to Prepare an Environmental Impact Statement on the Experimental Reintroduction of Mexican Wolves (*Canis lupus baileyi*) into Suitable Habitat within the Historic Range of the Subspecies, 57 Fed. Reg. 14,427 (1992); Barry Burkhar, *Agency Ok's Plan to Release Wolves In Arizona's Wilds*, ARIZ. REPUBLIC, Oct. 23, 1994, at B1 (Arizona has approved a draft to reintroduce the Mexican Wolf into the Blue Range Area of eastern Arizona, however, the final decision regarding reintroduction is to be made by the FWS late 1995). There are presently five sites in Mexico and thirteen in the United States where the Mexican Wolf is being bred or held in captivity in order to maintain the species' genetic diversity and to provide a sufficient number for reintroduction purposes. *Reintroduction*, *supra* note 2, at 8. Six sites are being considered for reintroduction: four in southeastern Arizona, White Sands Missile Range in southcentral New Mexico, and Big Bend National Park in Texas. *Id.*

22. 59 Fed. Reg. 42,118, 42,119 (1994) (to be codified at 50 C.F.R § 17) (proposed Aug. 16, 1994).

23. *Id.*

24. *Id.* (citing U.S. Fish and Wildlife Service, Northern Rocky Mountain Wolf Recovery Plan, Denver, Colorado (1987)).

25. *Id.*

26. *Id.*

27. *Id.* See *infra* note 41.

28. *Id.*

Therefore, other conservation measures were suggested provided that two wolf packs were not established within five years<sup>29</sup>

In 1990, a committee comprised of three federal, three state and four interest groups was appointed to explore and recommend a wolf restoration plan for Yellowstone and central Idaho<sup>30</sup> In May of 1991 the committee recommended, although not unanimously, re-introduction into Yellowstone and the possible reintroduction of an experimental population into central Idaho<sup>31</sup> Congress took no action on the initial recommendations.<sup>32</sup> However, four months later, in November of 1991, Congress directed the FWS to prepare an environmental impact statement (EIS) in consultation with the National Park Service and the Forest Service "that considered a broad range of alternatives on wolf reintroduction to Yellowstone National Park and central Idaho."<sup>33</sup> In 1992, "[c]ongress directed the Service to complete the EIS by January 1994 and indicated that the preferred alternative should be consistent with existing law."<sup>34</sup>

The FWS filed the final EIS with the EPA on May 4, 1994<sup>35</sup> The proposal set forth in the EIS was identical to that proposed by the committee three years earlier. It recommended the reintroduction of nonessential experimental populations of gray wolves to Yellowstone National Park and central Idaho.<sup>36</sup> The Secretary of the Interior signed the Record of Decision on June 15, 1994<sup>37</sup> "The decision directed the implementation of the Service's proposed action as soon as practical."<sup>38</sup>

### B. Idaho<sup>39</sup>

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29. *Id.*

30. *Id.*

31. *Id.*

32. *Id.*

33. *Id.*

34. *Id.* Official comments were accepted beginning July 1, 1993 and continuing until November 26, 1993. *Id.* Comments were received from over 162,000 individuals, organizations and governmental agencies. *Id.*

35. *Id.*

36. U.S. Fish and Wildlife Service, Reintroduction of Gray Wolves to Yellowstone National Park and Central Idaho, Final Environmental Impact Statement, Helena, Montana (1994). The final EIS also considered four alternatives: (1) Natural Recovery (no action); (2) No wolf; (3) Wolf Management Committee; and (4) Reintroduction of Nonexperimental Wolves. 59 Fed. Reg. 42,118, 42,119 (1994) (to be codified at 50 C.F.R. § 17) (proposed Aug. 16, 1994).

37. 59 Fed. Reg. 42,118, 42,119 (1994) (to be codified at 50 C.F.R. § 17) (proposed Aug. 16, 1994).

38. *Id.*

39. Prior to 1986, there was no evidence of wolf repopulation in the Rocky Mountain areas, discussed *infra* note 2, for a period of about 50 years. 59 Fed. Reg. 42,118 (1994) (to be codified

On August 16, 1994, the FWS issued a proposal to reintroduce the wolf into central Idaho.<sup>40</sup> The reintroduced wolf would be classified as a nonessential experimental population according to section 10(j) of the ESA.<sup>41</sup> Thus, the reintroduced wolves would not be accorded the protections that wolves presently living in Idaho are accorded.

The wolf population will be reintroduced into federal land managed by the USDA Forest Service.<sup>42</sup> The reintroduction site consists of approximately 20,000 square miles of national forests and 6,000 square miles of wilderness habitat.<sup>43</sup> The FWS believes that this site is sufficiently distant from the current southern expansion packs in

at 50 C.F.R. § 17). Although there have been sightings and historical reports of reproducing adults, experts state that there is no established population. *Id.*

40. *Id.* A portion of southwestern Montana would also be incorporated into the reintroduction effort. *Id.* The reintroduced wolves, approximately 45 to 75, would be obtained from wolf populations from southwestern Canada. *Id.* at 42,120.

About 15 wild wolves would be captured annually from several different packs over the course of [three to five] years by trapping, darting from helicopters, or net gunning in the autumn and winter. Upon capture, the wolves would receive veterinary care, including examinations and vaccinations as necessary, and they would be transported to central Idaho by truck or plane. In central Idaho, groups of wolves, each consisting of young adults from various packs, would be fitted with radio collars, released in several areas, and monitored by radiotelemetry. This method is referred to as a "hard release," i.e., the wolves would be released upon or shortly after transport to each release site. Wolves to be released would not be held on site for acclimation, nor would any food or care be provided after they were released. It is anticipated that the wolves will move widely, but eventually find mates and form packs. All wolves would be monitored by radio telemetry, and if wolves cause conflicts with humans, they will be recaptured and controlled according to the procedures that have been used with other problem wolves. Subsequent releases would be modified depending upon information obtained during the reintroduction effort. Utilizing information gained from the initial phase of the project, an overall assessment of the success of the reintroduction would be made after the first year, and for every year thereafter. It is thought that the physical reintroduction phase will be completed within [three to five] years. After the reintroduction of wolves has resulted in two packs raising [two] pups each for [two] consecutive years, the wolf population will be managed to grow naturally toward recovery levels. *Id.* at 42,120.

41. Section 10(j) of the ESA provides:

a reintroduced population of a listed species established outside its current range, but within its historic range may now be designated, at the discretion of the Secretary of the Interior (Secretary), as 'experimental.' The Act requires that an experimental population be separated geographically from nonexperimental populations of the same species. Furthermore, an experimental population is treated as a threatened species [10(j)(2)(C)], except that, solely for section seven purposes (except for subsection (a)(1)), an experimental population determined not to be essential to the continued existence of a species is treated, except when it occurs in an area within the National Wildlife Refuge System or the National Park System, as a species proposed to be listed under section 4 of the Act [10(j)(2)(C)(i)]. Activities undertaken on private lands are not affected by section seven of the Act unless they are funded, authorized or carried out by a Federal agency.

*Id.* at 42,118.

42. *Id.*

43. *Id.*

Montana so that wolves documented within the reintroduction area will most likely be from the reintroduction and not from other areas<sup>44</sup>

Once reintroduced into the designated site, all wolves, including those not resulting from reintroduction, will be declared as a non-essential experimental population.<sup>45</sup> Likewise, if a reintroduced wolf leaves its designated area its status will change to endangered. If and when wolves return to such an area, their status will become experimental again.<sup>46</sup> The FWS estimate that this program, in conjunction with reintroduction in Yellowstone and natural recovery in Montana will "result in a viable recovered wolf population (ten breeding pairs in each of three recovery areas for three consecutive years) by about the year 2002."<sup>47</sup>

### C. Montana

It is currently estimated that there are about sixty five wolves living in Montana, most of which are living near the Canadian border<sup>48</sup> The wolf population has continued to expand at about twenty-two percent for the past nine years.<sup>49</sup> Interestingly enough, livestock kills attributed to wolves have gone down during the last three years, with none occurring in 1993.<sup>50</sup> Defenders of Wildlife (DOW) is paying market value compensation to livestock producers who have suffered losses as a result of the destruction caused by wolves. DOW has paid out more than \$16,000 to seventeen livestock producers since the plan's inception in 1987.<sup>51</sup>

Wolves are currently listed as an endangered species in Montana.<sup>52</sup> In order for the "endangered species" status to be changed to "threatened species,"<sup>53</sup> "two of the three targeted areas for wolf

44. *Id.*

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.* at 42,119.

49. *Id.* at 42,120.

50. *Id.* In 1993, there were 20 complaints involving suspected attacks on cattle, sheep, horses, mules and household pets. Government officials deduced, based on the evidence, that wolves took no part in the killing and that they were most likely committed by eagles, grizzly bears, coyotes, calving complications and domestic dogs. John G. Mitchell, *Uncle Sam's Undeclared War Against Wildlife*, WILDLIFE CONSERVATION, Sept.-Oct. 1994, at 24. Nineteen wolves have been removed from northwestern Montana from 1986 to the present due to livestock predation. *Id.*

51. Testimony of Hank Fischer, July 19, 1994 on ESA Reauthorization, 103rd Cong., 2nd Sess., *supra* note 12.

52. 50 C.F.R. § 17.11 (1994).

53. A "threatened species" is "any species which is likely to become an endangered species within the foreseeable future . . ." 16 U.S.C. § 1532(20) (1988).

recovery would need to have breeding pairs for at least three consecutive years."<sup>54</sup> Wolf populations in Montana have reached the plateau where the numbers should increase steadily<sup>55</sup>

Glacier International Peace Park (Glacier) is located in Northwestern Montana. Glacier shares its northern border with Canada's Waterton Park. At this time there are approximately thirty to forty wolves living in Glacier.<sup>56</sup> The population usually increases by five or six during the summer months when a pack migrates from Alberta.<sup>57</sup>

Wolves in Canada are not protected outside of Waterton. Landowners and hunters, assuming they have complied with applicable hunting regulations, are therefore free to kill any wolf regardless of whether the wolf is attacking livestock or posing a threat.<sup>58</sup> Wolves routinely cross the border from Glacier into Waterton and then from Waterton onto private lands, where they can be shot.<sup>59</sup> While this situation has probably slowed wolf recovery in Glacier, the wolf population still appears healthy.<sup>60</sup>

#### D. Washington and Cascades National Park

The exact number of wolves currently populating the State of Washington is unclear. Wolf sightings for 1993 through April 18, 1994 number 140, with approximately 120 of the sightings in Cascades National Park.<sup>61</sup> Of these sightings, approximately ten per year can be attributed to "wolf dogs"<sup>62</sup> who have either been intentionally or unintentionally released.<sup>63</sup>

Currently, there is no plan to augment wolves into North Cascades National Park in an effort to increase the area's wolf popula-

54. *Minnesota: Livestock Kills Cause Concern*, WOLF!, Winter 1994, at 32, 32 (1994).

55. *Id.*

56. Telephone Interview with Steve Gniadek, Wildlife Biologist, Glacier International Park (April 15, 1994).

57. *Id.*

58. *Id.*

59. *Id.*

60. *Id.*

61. Telephone Interview with Jon Almack, Research Biologist for Grizzly Bears and Wolves, Washington Department Fish and Wildlife (April 18, 1994). Although 120 of the 140 sightings were in Cascades National Park, this figure is probably skewed in that this is the area where the research is being concentrated. *Id.*

62. The term "wolf dog" refers to an animal that is part wolf and part dog. States vary as to legislation regulating these animals. WEBSTER'S NEW TWENTIETH CENTURY DICTIONARY UNABRIDGED 2102 (2d ed. 1983). Some ban their breeding and possession outright, while others have minimal restrictions.

63. Almack, *supra* note 61.

tion.<sup>64</sup> Such a decision to augment the wolf would have to be based on scientific evidence which would require a working knowledge of the number of wolves currently in the park and their migratory patterns, none of which is known at the present time.

### E. Minnesota

Minnesota has the largest population of wolves in the lower forty-eight states. Wolves in Minnesota are classified as a "threatened species"<sup>65</sup> as opposed to an "endangered species."<sup>66</sup> The ESA requires the Secretary of the Interior to provide for the conservation of listed species.<sup>67</sup> "[I]n the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, [conservation] may include regulated taking."<sup>68</sup> The ESA further requires the implementation of "all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary."<sup>69</sup>

Six months after the ESA passed, the Minnesota Department of Natural Resources promulgated an administrative order allowing the taking of wolves under certain circumstances.<sup>70</sup> This order began the long process of attempting to fashion a program that was acceptable to hunters, farmers, conservationists and the state and federal governments.

After numerous lawsuits,<sup>71</sup> the parties settled their differences and a court order allowed the FWS to trap one half mile from predation sites. More importantly, the FWS "was still required to use reasonable efforts to trap only offending animals: (1) trap at farms where predation occurred, (2) attempt to trap those animals engaged in the predation, and (3) release young of the year through August 1."<sup>72</sup>

64. Telephone Interview Bob Kuntz, Wildlife Biologist, North Cascades National Park (April 18, 1994).

65. See *supra* note 53.

66. See *supra* note 2.

67. 16 U.S.C. § 1533(d) (1988).

68. 16 U.S.C. § 1532(3) (1988).

69. *Id.*

70. Brian B. O'Neil, *The Law of Wolves*, 18 ENVTL. L. 227, 228 (1988) (citing Minnesota Department of Natural Resources, Commissioner's Order No. 1899 (May, 17, 1974)). See also Dale D. Goble, *Of Wolves and Welfare Ranching*, 16 HARV. ENVTL. L. REV. 101 (1992).

71. See *Brzoznowski v. Andrus*, Civ. No. 5-77-19 (D. Minn. June 9, 1978), *Fund for Animals v. Andrus*, 11 Env't Rep. Cas. (BNA) 2189 (D. Minn. 1978), *Sierra Club v. Clark*, 577 F. Supp. 783 (D. Minn. 1984), *aff'd in part and rev'd in part*, 755 F.2d 608 (8th Cir. 1985), *on remand* 607 F. Supp. 737 (D. Minn. 1985).

72. O'Neil, *supra* note 70, at 236 (citing *Sierra Club v. Clark*, 607 F. Supp. 737, 738 (D. Minn. 1985)).

The appellate court's decision stated three important principles:

First, [the ESA] does not permit a sport season on *threatened species* absent "extraordinary circumstances." Sport seasons on *endangered species* are totally banned. Second, [the ESA] *does* give the Secretary discretion to remove animals depredating on livestock. A program that is designed to deal with problem animals, as opposed to reduction efforts aimed at the general population, may be legally acceptable. Third, [the ESA] extends a targeted livestock predation control program to both threatened *and* endangered animals.<sup>73</sup>

The final Minnesota program adopted the following standards:

1. A sport season is generally not allowed;
2. Control efforts must further wolf recovery;
3. The least restrictive alternative for control must be used . . . ;
4. Control efforts are permissible only if a federal trapper determines that significant predation on lawfully present domestic livestock has occurred. If the area in which the predation occurred, however, is of particular significance to the wolf recovery effort, control efforts are impermissible . . . ;
6. Reasonable, objective limitations for the control effort must be established. For example, how far away from the site trapping occurs and for how long it continues;
7. No trade in wolf pelts or parts is allowed.<sup>74</sup>

The Minnesota program has worked reasonably well<sup>75</sup> In 1992, 118 wolves were killed and livestock owners were compensated approximately \$40,000.<sup>76</sup> The Minnesota program might serve as a model for those parts of the wolf's present ecosystem that are extensively populated by humans. According to FWS researchers, 1,700 wolves share the land with 7,000 farms. On average, only 29 of those farms suffer confirmed livestock losses due to wolves annually<sup>77</sup>

### III. INTERNATIONAL WILDLIFE AGREEMENTS THAT MAY PROTECT THE WOLF IN NORTH AMERICA OR SERVE AS MODELS FOR FUTURE TREATIES

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73. *Id.* at 237.

74. *Id.* at 237-38.

75. A forum was held in Bemidji, Minnesota on January 6, 1994, addressing the concerns of area livestock producers. WOLF!, *supra* note 54, at 32. The forum was facilitated by the University of Minnesota Extension Service and included federal and state officials and legislators. *Id.* Livestock producers expressed concerns regarding the \$400 maximum compensation per kill and bureaucratic details that can hold payments for as long as 18 months. The producers feel "that they are bearing too large a portion of the expense of allowing the wolf to repopulate in Minnesota." *Id.*

76. *Id.*

77. Mitchell, *supra* note 50, at 24.

Wildlife treaties have emerged from a variety of sources. Organizations such as the Pan American Union (now the Organization of American States), the United Nations Educational, Scientific and Cultural Organization, and the Organization of African Unity have all been driving forces behind the formation of important wildlife treaties.<sup>78</sup> There have also been important non-governmental forces such as the International Union for Conservation of Nature and Natural Resources (IUCN) and the World Wildlife Fund (WWF)<sup>79</sup> The following is an examination of some treaties which may be applicable to wolves in North America as written, and others which may serve as models for a future treaty between the United States and Canada that would provide protection for the wolf and the humans that share its world.

A. *UNESCO Convention for the Protection of the World Cultural and Natural Heritages*<sup>80</sup>

The UNESCO Convention for the Protection of the World Cultural and Natural Heritage (UNESCO) was signed in Paris on November 23, 1972.<sup>81</sup> In its preamble, UNESCO states that "it is incumbent on the international community . . . to participate in the protection of the cultural and natural heritage of outstanding universal value, by the granting of collective assistance which, although not taking the place of action by the state concerned, will serve as an effective complement thereto."<sup>82</sup>

In Article 6(3), UNESCO places a duty on the international community to cooperate in implementing UNESCO's purpose. Included in this duty is an obligation not to take "any deliberate measures which might damage directly or indirectly the [world's] cultural and natural heritage . . ."<sup>83</sup> This provision might apply, for instance, to transboundary pollution problems.

The UNESCO duty to co-operate is vague. The United States may argue that wolf migration between Canada and the United States is part of the world's heritage that should not be destroyed. The United States may claim that there is a compelling scientific need to protect wolves and their inherent place in an ecosystem.

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78. Batchelor, *supra* note 11, at 327.

79. KISS & SHELTON, *supra* note 8, at 58.

80. Convention for the Protection of the World Cultural and Natural Heritage, Nov. 16, 1972, 27 U.S.T. 37 [hereinafter UNESCO].

81. *Id.*

82. *Id.* at 40.

83. *Id.* at 42.

While UNESCO is unique in that it deals with the organic and the inorganic, it provides protection primarily to those cultural and natural resources that are situated within a state's borders<sup>84</sup> Accordingly, UNESCO does not offer much protection to the wolf in North America.

### B. *Western Hemisphere Convention*

The Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere (Western Hemisphere Convention) was ratified on October 12, 1940.<sup>85</sup> While Mexico and the United States signed the treaty along with 16 other countries, Canada did not<sup>86</sup>

Its objectives are to:

protect and preserve in their natural habitat representatives of all species and genera of . . . native flora and fauna . . . in sufficient numbers and over areas extensive enough to assure them from becoming extinct through any agency within man's control . . . [and to] protect and preserve scenery of extraordinary beauty, unusual and striking geologic formations, regions and natural objects of aesthetic, historic or scientific value, and areas characterized by primitive conditions in those cases covered by this Convention . . . .<sup>87</sup>

Article V of the Western Hemisphere Convention was intended to protect species found outside national parks, national reserves, nature monuments and strict wilderness areas. This article had the potential to be a powerful tool for use by wildlife conservationists; however, it was not drafted effectively.<sup>88</sup> The article does not require the contracting parties to protect wildlife outside of their countries' parks, but merely asks them to "propose such adoption."<sup>89</sup>

The Western Hemisphere Convention is also flawed in that it does not address concerns such as exploitation of wildlife, threats from toxic substance and modification of natural wildlife habitats. Additionally, the Convention only requires that applied laws be "suitable" and that the taking of species be "proper."<sup>90</sup>

84. *Id.* at 41-42.

85. Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, Oct. 12, 1940, 56 Stat. 1354 [hereinafter Western Hemisphere Convention].

86. *Id.*

87. *Id.* at 1356.

88. Gary D. Meyers & Kyla S. Bennett, *Answering "The Call of the Wild": An Examination of U.S. Participation in International Wildlife Law*, 7 PACE ENVTL. L. REV. 75, 99 (1989); Lyster, *supra* note 1, at 103.

89. Meyers & Bennett, *supra* note 88, at 88.

90. Lyster, *supra* note 1, at 104.

Despite its weakly-drafted provisions, the Western Hemisphere Convention utilizes two methods to protect wildlife which may be helpful to the preservation of the wolf in North America. First, wildlife within parks, reserves, and monuments cannot be killed or captured unless authorized by park personnel. Although wolves are already protected in national parks throughout Canada and the United States, this provision reinforces park policies.<sup>91</sup>

Another possible protection is for the wolf to be defined as one of the species in the annex of wildlife species whose protection "is declared to be of special urgency and importance."<sup>92</sup> The Western Hemisphere Convention states that annexed species "shall be protected as completely as possible, and their hunting, killing, capturing, or taking shall be allowed only with the permission of the appropriate government authorities."<sup>93</sup> The taking of annexed species is allowable only in order to "further scientific purposes, or when essential for the administration of the area . . ."<sup>94</sup> However, as evidenced by the recent Alaska wolf kill program<sup>95</sup> the "essential for the

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91. There has been a recent request by environmental groups to establish a permanent international office to implement the Western Hemisphere Convention. *Environmental Groups Want Secretariat Created To Implement Conservation Treaty*, Nat'l Envtl. Daily (BNA), April 8, 1994. The FWS's Western Hemisphere Program, the Department of the Interior, the EPA and the Agency for International Development have expressed support for this proposal. The State Department, however, has opposed it because it would require budget cuts in other programs to obtain funding. *Id.*

92. Western Hemisphere Convention, *supra* note 85, at art. VIII.

93. *Id.*

94. *Id.*

95. The State of Alaska allows for more than 1000 wolves to be killed each year through "normal" hunting and trapping. *Alaska Wolf Kill Continues*, *supra* note 5, at 1. In addition to the regular allowable killing, Governor Wally Hickel has implemented a "wolf control strategy" which permits the killing of all but 35 of the 150 to 200 wolves located in the 4,000 square mile "Game Management Unit 20A Control Area," south of Fairbanks. *Id.* The goals of this program are: "1) to increase the Delta caribou herd from its current population of 4,000, to 6,000-8,000 with a sustainable annual harvest of 300-500 caribou by the year 1998; and 2) to determine whether ground-based control methods can effectively reduce wolf numbers." *Id.* The wolf kill program resulted in the deaths of 98 wolves in 1993-1994, 70% of which were pups. Telephone Interview with Stacey Zetterberg, Alaska Wildlife Alliance (Apr. 18, 1994). The bodies were taken to an Alaska Department of Fish and Game lab where they were first sexed and weighed, and then had their stomach contents examined, their heads cut off, their tissue sampled and measures of subcutaneous fat taken. *Alaska Wolf Kill Continues*, *supra* note 5, at 1.

Conservationists oppose the Governor's program as being contrary to scientific evidence and motivated by pressure from the hunting lobby. They state that although the caribou population has declined in recent years, this decline comes on the heels of a 12-year increase in herd size which was "initiated by a predator reduction effort in the late-1970's concurrent with a ban on hunting, and sustained by one of the warmest decades in Alaskan history." *Id.* They further cite the fact that the Delta herd population is well above its historical average populations and that caribou populations statewide have nearly quadrupled since the mid-1970's. *Id.*

The wolf kill was suspended in early December of 1994 when a wildlife biologist captured on video a State Department of Fish and Game biologist shooting a snared wolf five times

administration of the area" criteria is not difficult to meet. Thus, even if the wolf is included as one of the species in the annex of wildlife species, the wolf may not be provided any more protection than it currently possesses.

Although the Western Hemisphere Convention, in theory, offers protection to wildlife and their habitats, many changes would have to be made for it to be of any practical value to the wolf in North America, most notable of course would be Canada's inclusion. The strength of the convention lies not in its present condition but in its possibilities.<sup>96</sup> If future wildlife treaties and conventions mandate, rather than suggest, sweeping protections for wildlife and their habitats, they will become more effectual.

*C. The Convention on the Conservation of Migratory Species of Wild Animals<sup>97</sup>*

Twenty-eight states signed the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) on June 23, 1979.<sup>98</sup> It came into effect on November 1, 1983. The contracting parties state in the preamble that they recognize "that wild animals in their innumerable forms are an irreplaceable part of the earth's natural system which must be conserved for the good of mankind."<sup>99</sup>

The Bonn Convention provides strict protection for designated endangered species. The wolf has characteristics similar to the designated endangered species. The Bonn Convention is particularly concerned with "those species of wild animals that migrate across or outside national jurisdictional boundaries."<sup>100</sup>

Article I defines "endangered" as a migratory species "in danger of extinction throughout all or a significant portion of its range."<sup>101</sup> A "migratory species" is defined as "the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional

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before it died and another wolf that chewed its foreleg off in an attempt to escape from one of the over 700 snares set by the Alaska Department of Fish and Game in the 1,000-square-mile area in the Alaskan Range south of Fairbanks. *TV Pictures Lead Alaska to Suspend Wolf Killing*, N.Y. TIMES, Dec. 3, 1994, A8.

96. Meyers & Bennett, *supra* note 88, at 99.

97. Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 19 I.L.M. 11 [hereinafter Bonn Convention].

98. *Id.*

99. *Id.* at pmb1.

100. *Id.* at art. I(a).

101. *Id.* at art. I(e).

boundaries."<sup>102</sup> "Range" is defined as "all the areas of land or water that a migratory species inhabits, stays in temporally, crosses or overflies at any time on its normal migration route."<sup>103</sup>

Particularly noteworthy regarding the wolf in North America, is that the Bonn Convention follows a precedent set out by the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>104</sup> (CITES) by allowing geographically separate populations of a species to be considered independently.<sup>105</sup> This concept has proved extremely useful in the context of CITES in enabling a "State with a non-endangered well-managed population of a species which is endangered in other States to allow limited exploitation of its population and, conversely, in enabling States to single out endangered populations of a species for special protection when populations elsewhere are not endangered."<sup>106</sup> If the United States and Canada were to enter into an agreement which copied Article I language from the Bonn Convention, with a few crucial modifications to the definitions of migratory and range, wolves would be defined as an endangered species and thus protected in both countries, with Canada having limited exploitation rights.

#### D. *Convention on the Conservation of Polar Bears*<sup>107</sup>

Canada, Denmark (including Greenland), Norway, the United States and the Soviet Union signed the Agreement on the Conservation of Polar Bears (Polar Bear Convention) in Oslo on November 15, 1973.<sup>108</sup> Its purpose was to manage the polar bear as a resource. The convention had three main objectives: to coordinate among the parties in regard to research programs, to restrict the killing and

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102. *Id.* at art. I(a). The United States delegation to the Final Conference, held in June of 1979, "suggests that species living in border areas are now not to be considered migratory for the purposes of the Convention unless their trans-boundary movement is in response to seasonal or longer term environmental influences." L YSTER, *supra* note 1, at 281 (citing *Report of the U.S. Delegation to the Conference to Conclude a Convention on the Conservation of Migratory Species of Wild Animals*, at 2-4 (Oct. 17, 1979) (available from the U.S. Department of State, Washington D.C.)). Most parties to the Convention do not agree with the United States' restrictive interpretation of migratory. *Id.* at 282.

103. Bonn Convention, *supra* note 97, at art. I(f).

104. Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1087 [hereinafter CITES]; see L YSTER, *supra* note 1, at 280.

105. *Id.*

106. *Id.* Four of the original forty listings in Appendix I consist of geographically separate populations of species. These four species are the Northwest African populations of dorcas gazelle and houbara, Upper Amazon populations of giant turtles and non-Peruvian populations of vicuna. *Id.* at 281.

107. Agreement on the Conservation of Polar Bears, Nov. 15, 1973, 27 U.S.T. 3918, 3921 [hereinafter Polar Bear Convention].

108. *Id.*

capturing of polar bears, and to protect the ecosystems of which polar bears are a part.<sup>109</sup>

Article II of the agreement states that "[e]ach Contracting Party shall take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such as denning and feeding sites and migration patterns . . .".<sup>110</sup> Because of the migratory patterns of the polar bear, these protections could possibly be extended over large areas of land.

The Polar Bear Convention prohibits the taking of polar bears except as provided for in Article III, which permits takings where it is carried out:

- (a) for *bona fide* scientific purposes; or (b) by that Party for conservation purposes; or (c) to prevent serious disturbance of the management of other living resources, subject to forfeiture to that Party of the skins and other items of value resulting from such taking; or (d) by local people using traditional methods in the exercise of their traditional rights and in accordance with the laws of that Party; or (e) wherever polar bears have or might have been subject to taking by traditional means by its nationals.<sup>111</sup>

Paragraph (e) is particularly confusing and is interpreted differently. The United States has interpreted it "to allow taking by a country's own nationals, but only by traditional means and only where taking has or may have previously been done."<sup>112</sup> Canada, on the other hand, interprets the paragraph as allowing "taking by anyone using any means, provided it is done only in the area where it has or might have been done in the past by traditional means."<sup>113</sup> It follows that this interpretation would allow limited sport hunting by non-residents provided "it is done as part of the Inuit quota and is guided by Inuit hunters."<sup>114</sup>

Article III is also of particular interest because it allows polar bear by-products to be sold for profit if they were taken pursuant to paragraphs (a), (d) and (e).<sup>115</sup> This provision does allow for certain commercial trade, but each country party to the convention has strict

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109. LYSTER, *supra* note 1, at 55 n.78 (citing Consultative Meeting of the Contracting Parties to the Agreement on the Conservation of Polar Bears (1981), Report of the Meeting: Summary and Conclusions, Oslo, January 20-22 (1981)).

110. Polar Bear Convention, *supra* note 107, at art. II.

111. *Id.* at art. III.

112. LYSTER, *supra* note 1, at 57 n.85 (citing MICHAEL J. BEAN, THE EVOLUTION OF NATIONAL WILDLIFE LAW, at 268 (1983)).

113. *Id.*

114. *Id.*

115. *Id.*

national legislation regulating by-products trade.<sup>116</sup> International by-products trade is controlled by CITES.<sup>117</sup> Article II of the Polar Bear Convention states that "[e]ach Contracting Party shall take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such as denning and feeding sites and migration patterns . . . ."<sup>118</sup> Though the methods that each party uses in carrying out this objective are discretionary, "the underlying obligation is firm, and the Agreement makes no provision for any exceptions to be made to it."<sup>119</sup> There have been some measures taken in furtherance of this objective;<sup>120</sup> however, meeting the ultimate objective of protecting denning, feeding sites, and migratory patterns is a difficult, if not impossible, goal due to the wide ranging nature of the polar bear and the fact that the ultimate resting place for a particular pollutant may be hundreds of miles from its point of origin.<sup>121</sup>

The Polar Bear Convention has been viewed as a success in regard to its generally mandatory language.<sup>122</sup> However, the lack of a permanent administrative structure to oversee enforcement and to meet regularly in order to improve the agreement has been viewed as a weakness because it "may make it easier for Parties to ignore the provisions of the Agreement if they prove to be a serious stumbling block to future industrial development in the Arctic."<sup>123</sup>

*E. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*<sup>124</sup>

The preamble to CITES states:

The Contracting States, [recognize] that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come . . . [and] in addition that international co-operation is essential for the protection of certain species of wild

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116. *Id.*

117. *Id.* at 57.

118. Polar Bear Convention, *supra* note 107, at art. II.

119. Lyster, *supra* note 1, at 57.

120. Denmark has created the largest national park in the world by devoting 700,000 square kilometers in east and northwest Greenland. Canada established the Polar Bear Provincial Park in Ontario, and the former U.S.S.R. has protected denning areas in the Wrangel Island Republic Reserve. Lyster, *supra* note 1, at 60.

121. *Id.*

122. *Id.*

123. *Id.*

124. CITES, *supra* note 104.

fauna and flora against over-exploitation through international trade  
 . . . .125

The CITES Convention recognizes that without international unity as a prerequisite, it could not achieve its inherent purpose.<sup>126</sup>

Because CITES is primarily used in curbing abusive trade rather than protecting wildlife habitat, it has no direct application regarding the preservation of the wolf in North America.<sup>127</sup> CITES also has no application to what happens within a party's domestic borders.<sup>128</sup> However, CITES is important because it not only recognizes the need for international cooperation regarding wildlife, but it establishes a concrete administrative structure for implementing its purpose.<sup>129</sup> CITES is not a "sleeping treaty" because its administrative structure constantly keeps the contracting parties alert as to what their responsibilities and obligations are.<sup>130</sup> Other wildlife treaties should use the administrative structure established in CITES as a model when drafting future treaties.

*F. The ASEAN Convention on the Conservation of Nature and Natural Resources*<sup>131</sup>

The Association of South-East Asian Nations of Brunei, Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand signed the Convention on the Conservation of Nature and Natural Resources (ASEAN) on July 9, 1985.<sup>132</sup> Three chapters of ASEAN are of particular interest because they "reflect the most comprehensive approach to viewing conservation problems that exist today."<sup>133</sup> Chapter II has provisions relating to the conservation of species and ecosystems, Chapter III focuses on ecological processes and Chapter IV addresses environmental planning for the protection of wildlife.<sup>134</sup>

125. *Id.* at 1090.

126. Batchelor, *supra* note 11, at 329.

127. *Id.* at 331.

128. Laura H. Kosloff & Mark C. Trexler, *The Convention on International Trade in Endangered Species: No Carrot, But Where's the Stick?*, 17 *Envtl. L. Rep.* (Envtl. L. Inst.) 10,222, 10,223 (1987).

129. The administrative structure of CITES consists of a Secretariat, established in art. XII; Management and Scientific Authorities, established in art. IX; and the Conference of the Parties, established in art. XI. CITES, *supra* note 104, at 1103-07.

130. Lyster, *supra* note 1, at 277.

131. Agreement on the Conservation of Nature and Natural Resources, July 9, 1985, 15 *ENVTL. POL. & LAW* 64 (1985) [hereinafter ASEAN].

132. *Id.*

133. Kiss & Shelton, *supra* note 8, at 279.

134. *Id.*

While ASEAN is similar to other agreements regarding the establishment of protected areas, it has additional provisions "that call for safeguarding the ecological and biological processes essential to the function of the regional ecosystems, pools of genetic material and safe refuges for different species, especially endangered ones."<sup>135</sup> Although the implementation of the ASEAN Convention has yet to prove itself, this agreement has been cited by at least one author to serve not only as a model for international agreements, but also for national regulations.<sup>136</sup> Because it calls for conservation strategies, it addresses problems as a whole, rather than concentrating on each problem as if it is a separate and distinct problem independent of other concerns.

*G. Interim Convention on Conservation of North Pacific Fur Seals*<sup>137</sup>

The Interim Convention on Conservation of North Pacific Fur Seals (Interim Convention) replaced the treaty of 1911, which had expired in 1941.<sup>138</sup> The signature parties include Canada, Japan, the United States and the Soviet Union.<sup>139</sup> While the objective is the national exploitation of the fur seal's resource, the Interim Convention has an interesting characteristic concerning the sharing of royalties.<sup>140</sup> The Interim Convention addresses the form of hunting known as "pelagic hunting."<sup>141</sup> This type of hunting favors the state in whose territory the breeding grounds are located. Article IX(1) attempts to equalize the fur seal resource by requiring the United States and the Soviet Union, on whose ground the majority of breeding sites are, each to contribute to Japan and Canada, fifteen percent of the gross number of seals taken.

This provision is interesting in that it realizes that some countries have more of a given resource than another, but yet treats the resource as a shared possession which is to be used equitably by all. If the United States has voluntarily relinquished rights and revenue to seals located on its territory, might not Canada do the same regarding the wolf on border areas between the United States and Canada?

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135. *Id.* at 280.

136. *Id.* at 281.

137. Interim Convention on Conservation of North Pacific Fur Seals, Feb. 9, 1957, 314 U.N.T.S. 105 [hereinafter Interim Convention].

138. *Id.*

139. *Id.*

140. KISS & SHELTON, *supra* note 8, at 288-89.

141. Interim Convention, *supra* note 137, at art. VII; see KISS & SHELTON, *supra* note 8, at 288-89.

### H. *Convention for the Conservation of Vicuna*

Argentina, Bolivia, Chile, Ecuador and Peru entered into the Convention for the Conservation of the vicuna on August 16, 1969<sup>142</sup> Its objective, to prevent the vicuna, a South American cameloid closely related to the llama hunted for its wool, from becoming extinct, was extremely successful.<sup>143</sup> The Convention not only prohibited international trade in the vicuna, but it also prohibited domestic exploitation and mandated the creation of reserves and breeding centers.<sup>144</sup>

Article I states:

The Signatory Governments agree that the conservation of the vicuna provides an economic production alternative for the benefit of the Andean Population and commit themselves to its gradual use under strict governmental control, applying such technical methods for the management of wildlife as the competent official authorities may determine.

It appears that the governments of the contracting parties realize that they are taking away the livelihood of a substantial number of people by prohibiting the exploitation of the vicuna. Article I implies that these people will become part of the funded conservation program which will be implemented to protect the vicuna. Whether this is what was intended by Article I is not clear, but what is clear is that the quality of life of the Andean population will decline if they are forced to stop trading in the world's best wool, and they will become essentially subsidized governmental employees.

It would be interesting to examine the effects of this program upon the Andean population, but such an examination is beyond the scope of this article. Such an examination is relevant, however, in that when a species is protected, undoubtedly, certain members of the human species will be, from their perspective, negatively affected.

### I. *The Convention on the Conservation of Antarctic Marine Living Resources*<sup>145</sup>

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142. LYSTER, *supra* note 1, at 88. Convention for the Conservation of Vicuna, concluded October 1969, Diaro Oficial (Chile) No. 28,504 (1973). Conventions entered into since this original include the Convention for the Conservation and Management of Vicuna, Oct. 16, 1979, [hereinafter The Lima Convention] and the bilateral Agreement Between the Bolivian and Argentine Governments for the Protection and Conservation of Vicuna, Feb. 16, 1981. *Id.* The Vicuna conventions are also listed in Appendix I of CITES. *Id.*

143. KISS & SHELTON, *supra* note 8, at 297.

144. *Id.*

145. Convention on the Conservation of Antarctic Marine Living Resources, May 20, 1980, 33 U.S.T. 3476 [hereinafter CCAMLR]; see KISS & SHELTON, *supra* note 8, at 302.

Article II(3)(c) of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) is the most developed and most significant provision regarding the management of ecosystems.<sup>146</sup> Its purpose is:

prevention of changes or minimization of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.

Although this treaty recognizes the interdependency of all marine life and "implements a management strategy which focuses on 'a total conservation standard,' as opposed to a management plan centering solely on the 'harvested target species,'"<sup>147</sup> CCAMLR has been criticized for not stating its real objective. It has been said that the main objective of CCAMLR is to "regulate the taking of krill, the primary food source of baleen whales."<sup>148</sup> Thus, it has been argued that CCAMLR is "yet another way to ensure the survival of the whaling industry."<sup>149</sup>

CCAMLR, despite its wonderful Article II(3)(c) objectives, is flawed in that it allows a party to opt-out of any conservation measure if that party is "unable to accept the conservation measure."<sup>150</sup> Hopefully, the days of such "toothless" treaties are numbered. Unfortunately, some countries define conservation treaties as those that conserve their right to opt out rather than to conserve the resource that the treaty is intended to protect.

*J. African Convention on the Conservation of Nature and Natural Resources*<sup>151</sup>

The African Convention on the Conservation of Nature and Natural Resources (African Convention) evolved from one of the first international agreements to conserve wildlife, the Convention for the

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146. CCAMLR, 33 U.S.T. 3476.

147. Batchelor, *supra* note 11, at 335 (citing Martin H. Belsky, *Management of Large Marine Ecosystems: Developing a New Role of Customary International Law*, 22 SAN DIEGO L. REV. 733, 761 (1985)).

148. Meyers & Bennett, *supra* note 88, at 87.

149. *Id.*

150. *Id.*; CCAMLR, *supra* note 145, art. IX(6)(c).

151. African Convention on the Conservation of Nature and Natural Resources, Sept. 15, 1968, 1001 U.N.T.S. 3 [hereinafter African Convention].

Preservation of Wild Animals, Birds and Fish in Africa,<sup>152</sup> which was signed in London on May 19, 1900. The original signatories were the African colonial powers of France, Germany, Great Britain, Italy, Portugal and Spain. This early convention's objective was "to prevent the uncontrolled massacre and to ensure the conservation of diverse wild animal species in their African possessions which are useful to man or inoffensive."<sup>153</sup>

The original convention was revised by the 1933 Convention Relative to the Preservation of Fauna and Flora in their Natural State.<sup>154</sup> This revised convention was then superseded by the African Convention in 1968.<sup>155</sup> The objective of the convention was that parties "undertake to adopt the measures necessary to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people."<sup>156</sup>

The African Convention provides for protection of wildlife both inside protected zones<sup>157</sup> and outside protected zones.<sup>158</sup> However, wildlife is only protected within those areas which are established by each state. There are no provisions regarding transient species and the particular problems such species face as a result of being protected one day and hunted the next depending on their locale. The African Convention has also been criticized for its lack of an effective administrative body to oversee its implementation.<sup>159</sup> Parties to the convention are not required to submit reports on implementation of the Convention, but instead are only required to submit reports "on the results achieved."<sup>160</sup>

#### *K. The Convention on the Conservation of European Wildlife and Natural Habitats<sup>161</sup>*

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152. Convention for the Preservation of Wild Animals, Birds and Fish in Africa, May 19, 1900, 94 B.F.S.P. 715.

153. *Id.* at pmb1.

154. Convention Relative to the Preservation of Fauna and Flora in their Natural State, Nov. 8, 1933, 172 L.N.T.S. 241.

155. African Convention, *supra* note 151.

156. *Id.* at art. II.

157. *Id.* at art. III(4).

158. *Id.* at arts. VI-VIII.

159. KISS & SHELTON, *supra* note 8, at 272; LYSTER, *supra* note 1, at 123.

160. LYSTER, *supra* note 1, at 123, (citing African Convention, *supra* note 151, at art. XVI(2)(b)).

161. Convention on the Conservation of European Wildlife and Natural Habitats, *opened for signature* Sept. 19, 1979, Europ. T.S. no. 104; U.K.T.S. no. 56 (1982), Cmd. 8738 [hereinafter Berne Convention].

The Convention on the Conservation of European Wildlife and Natural Habitats (Berne Convention) came into force on June 1, 1982.<sup>162</sup> The preamble states that the contracting parties:

CONSIDERING the aim of the Council of Europe to co-operate with other States in the field of nature of conservation; . . .

RECOGNIZING the essential role played by wild flora and fauna in  
RECOGNIZING that the conservation of wild flora and fauna should be taken into consideration by the governments in their national goals and programmes, and that international co-operation should be established to protect migratory species in particular; . . .

HAVE AGREED as follows:<sup>163</sup>

1. The aims of this Convention are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several states, and to promote such co-operation.<sup>164</sup>
2. Particular emphasis is given to endangered and vulnerable species, including endangered and vulnerable migratory species.<sup>165</sup>

Chapter III of the Berne Convention addresses the protection of species. Species that are listed in the Second Appendix, including the wolf, are protected by Article 6 of Chapter III. Article 6 prohibits:

- a) all forms of deliberate capture and keeping and deliberate killing;
- b) the deliberate damage to or destruction of breeding or resting sites;
- c) the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention;
- d) the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty;
- e) the possession of and internal trade in these animals, alive or dead, including stuffed animals and any readily recognizable part or derivative thereof, where this would contribute to the effectiveness of the provisions of this Article.

Article 9 of the Berne Convention permits parties to make exceptions to Article 6 provisions "provided that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned."<sup>166</sup> Exceptions are provided to

162. *Id.*

163. *Id.* at pmb1.

164. *Id.* at art. 1(1).

165. *Id.* at art. 1(2).

166. *Id.* at art. 9(1). Finland, which is not a party to the convention, but which is negotiating with the EC regarding their rights and duties to the convention once they accede to the EC, has entered into an agreement which will allow it to continue to hunt the wolf on a strictly regu-

prevent serious damage to livestock and other forms of property, in the interests of public health and safety among other reasons.<sup>167</sup> Although this provision may appear to be subject to abuse, Article 9 requires that any party claiming one of these exceptions to submit reports every two years to the Standing Committee specifying details on the exceptions they invoke.<sup>168</sup>

Article 10 imposes additional duties on the parties "to co-ordinate their efforts for the protection of the migratory species specified in Appendices II . . . whose range extends into their territories."<sup>169</sup> In addition to this requirement, Article 11 states that the contracting parties shall "co-operate whenever appropriate and in particular where this would enhance the effectiveness of measures taken under other article of this convention."<sup>170</sup>

The Berne Convention has the most complete institutional structure of all regional conservation conventions.<sup>171</sup> Chapter VI of the Convention creates the Standing Committee. The duties of the Standing Committee include reviewing the provisions of the Berne Convention and proposed modifications, making recommendations to the contracting parties concerning measures taken pursuant to the Berne Convention, recommending means of keeping the public informed, recommending to the Committee of Ministers regarding non-member states invited to accede to the Berne Convention, and recommending ways of improving the Berne Convention.<sup>172</sup>

The Berne Convention is relatively young, and it remains to be seen whether it will live up to its drafted language. Regardless of whether the Berne Convention's implementation is effective, of the utmost importance is whether it addresses the interconnectedness of the entire world and places duties upon its contracting parties to conserve wildlife not only within their borders, but within the eco system that is shared by all.

#### IV. NORTH AMERICAN FREE TRADE AGREEMENT

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lated basis. *Sweden, Finland Secure Right to Prohibit Import of Nuclear Waste*, 16 Int'l Env'tl. Rep. (BNA) 745 (1993).

167. Berne Convention, *supra* note 161, at art. 9(1).

168. *Id.* at art. 9(2).

169. *Id.* at art. 10(1).

170. *Id.* at art. 11(1)(a).

171. KISS & SHELTON, *supra* note 8, at 275.

172. Berne Convention, *supra* note 161, at art. 14(1).

On January 1, 1994 the North American Free Trade Agreement (NAFTA) became effective between the governments of Canada, Mexico and the United States.<sup>173</sup> Under pressure from concerned environmental groups, the three countries also entered into a Side Agreement which was intended to protect the environment.<sup>174</sup> The Side Agreement was drafted to address concerns from environmental groups fearing that the increase in trade between the contracting parties, among other things, would have an adverse effect upon the environment.

Part 1 of the Side Agreement states the parties' objectives as follows:

[to] foster the protection and improvement of the environment in the territories of the Parties for the well-being of present and future generations; increase cooperation between the Parties to better conserve, protect and enhance the environment, including wild flora and fauna; strengthen cooperation on the development and improvement of environmental laws, regulations, procedures, policies and practices; enhance compliance with, and enforcement of, environmental laws and regulations . . . .<sup>175</sup>

These objectives, like those in other treaties, appear to reflect a sincere desire to achieve international cooperation and protection of the environment. The preamble of the Side Agreement to NAFTA also reflects this by stating that the contracting parties:

RECOGNIZING the interrelationship of their environment; RECALLING their tradition of environmental cooperation and expressing their desire to support and build on international environmental agreements and existing policies and laws in order to promote cooperation between them; and CONVINCED of the benefits to be derived from a framework, including a Commission, to facilitate effective cooperation on the conservation, protection and enhancement of the environment in their territories; HAVE AGREED AS FOLLOWS . . . .<sup>176</sup>

However well intentioned these drafted provisions may have been, there is another provision in the preamble which dilutes most of

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173. North American Free Trade Agreement Between the Government of Canada, The Government of the United Mexican States, and The Government of the United States of America, Dec. 17, 1992 (entered into force Jan. 1, 1994) [hereinafter NAFTA].

174. North American Agreement on Environmental Cooperation Between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America, Sept. 13, 1993, 32 I.L.M. 1480 (entered into force January 1, 1994) [hereinafter Side Agreement].

175. *Id.* at pt. 1, art. (1)(a), (c), (f) & (g).

176. *Id.* at pmb1.

their strength. That provision states that the contracting parties reaffirm "the sovereign right of States to exploit their own resources pursuant to their own environmental and development policies and their responsibility to ensure that activities within their jurisdictions or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."<sup>177</sup>

Therefore, unless the killing of a wolf in Canada is deemed to be "damage to the environment" of the United States, which is unlikely, NAFTA does not provide any protection to the wolf in North America. The NAFTA side agreement is primarily concerned with enforcing existing domestic laws as they apply to the host country. However, if Canada has a law forbidding the killing of wolves, and Canada fails to enforce that law, or if the United States and Canada enter into an agreement which protects wolves along border areas, NAFTA may offer relief through its Commission for Environmental Cooperation.<sup>178</sup>

#### V. CONCLUSION: DEFINING INTERNATIONAL ECOSYSTEMS VS. DEFINING INTERNATIONAL BOUNDARIES

The United States has signified its commitment to the protection of ecosystems by entering into a number of the aforementioned international treaties. In addition to recognizing the need to protect flora and fauna through the signing of international treaties, the United States has also adopted such policies into its domestic laws. For example, the purposes of the ESA,<sup>179</sup> are:

to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.<sup>180</sup>

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177. *Id.*

178. *Id.* at pt. 3.

179. One of the motivating factors behind the 1973 ESA was "pressure for the United States to set an example for the world in protecting endangered species." David K. Kaile, *Evolution of Wildlife Legislation in the United States: An Analysis of the Legal Efforts to Protect Endangered Species and the Prospects for the Future*, 5 GEO. INT'L ENVTL. L. REV. 441, 456 (1993) (citing STEVEN YAFFEE, PROHIBITIVE POLICY: IMPLEMENTING THE FEDERAL ENDANGERED SPECIES ACT 48 (1982)).

180. 16 U.S.C. § 1531(b) (1988). The treaties set forth in subsection (a) include: migratory bird treaties with Canada and Mexico; the Migratory and Endangered Bird Treaty with Japan; the Western Hemisphere Convention; the International Convention for the Northwest Atlantic Fisheries; the International Convention for the High Seas Fisheries of the North Pacific Ocean; and CITES. 16 U.S.C. § 1531(a)(4)(A)-(F) (1988).

The federal government is also empowered to encourage "foreign countries to provide for the conservation of . . . wildlife . . . including endangered species,"<sup>181</sup> and facilitate "the entering into of bilateral or multilateral agreements with foreign countries to provide for such conservation" to protect wildlife.<sup>182</sup>

Under the National Environmental Policy Act<sup>183</sup> (NEPA), federal agencies are directed to cooperate with other countries in achieving NEPA's goals.<sup>184</sup> All agencies are directed to "recognize the worldwide and long range character of environmental problems and where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of [humankind's] world environment."<sup>185</sup>

Despite the FWS's reintroduction efforts, which might not be successful<sup>186</sup> or may be hindered or stopped completely from pending lawsuits, if the United States and Canada do not enter into an agreement to ensure the wolf's repopulation in the Pacific Northwest, it may be "light years" before the wolf reaches the critical mass necessary to once again function in the capacity that is necessary.<sup>187</sup> The United States and Canada should therefore enter into an agreement that will ensure that the repopulation progresses in such a manner that humans, wolves and the ecosystem they share are all protected.<sup>188</sup>

181. 16 U.S.C. § 1537(b)(1) (1988).

182. 16 U.S.C. § 1537(b)(2) (1988).

183. 42 U.S.C. §§ 4321-4370 (1988).

184. 42 U.S.C. § 4332(2)(F) (1988).

185. Joan R. Goldfarb, *Extraterritorial Compliance with NEPA Amid the Current Wave of Environmental Alarm*, 18 B.C. ENVTL. AFF. L. REV. 543, 555 (1991). The legislative history of NEPA also supports the basic principle that everything in the world environment is linked interactively. *Id.* at 556.

186. According to a National Park Service Biologist, reintroduced wildlife typically suffer from a mortality rate of 50% or more, which could dramatically lengthen reintroduction efforts. *Majority of Wolves Won't Make it*, ROCKY MTN. NEWS, Oct. 26, 1994, at A19. See also, William A. Post, *Wolf Recovery Plan Denounced; Expert Says More Land Needed In West For Reintroduction*, ST. LOUIS POST-DISPATCH, Oct. 18, 1994, at B2 (a University of Montana biologist claims the current recovery plans fail to provide enough territory for the successful reintroduction because a large part of the territory is not suited for wolves).

187. Mitchell, *supra* note 50, at 28 (citing Steve Fritts, U.S. Fish and Wildlife Service Wolf Recovery Coordinator for the Northwest). The Canadian Provinces report the following number of wolves killed in 1992 from hunting and/or trapping: Alberta-100; British Columbia-between 600 and 700; Saskatchewan-225; and Manitoba-250. Although these are significant numbers, it is not to be construed that the wolf is not repopulating in a timely fashion solely because of Canadian hunters.

188. See, James Duffus, official in the GAO Resources, Community, and Economic Development Division, testifying before the House Natural Resources Subcommittee on Oversight and Investigation, the House Agricultural Subcommittee on Specialty Crops and Natural Resources, and the House Merchant Marine and Fisheries Subcommittee on Environment and Natural Resources, September 20, 1994 ("since there is no government-wide requirement to

Any agreement that the two countries would enter into would have to consider that the wolf was purposefully eliminated in the United States and was not the victim of negligent environmental degradation. Thus, any financial loss to Canada's livestock owners, hunters and outbackers would have to be absorbed by the United States. Such an arrangement is only fair; Canada has a healthy wolf population and should not be forced to bear a portion of the burden for the United States's past shortsightedness and recklessness.

Such an arrangement would incorporate language to the effect that the continent is a complete ecosystem and, when possible, should be managed as such. Such a concept has been roughly defined and is referred to as the "Crown of the Continent Ecosystem."<sup>189</sup> Individuals in private organizations have even proposed an interagency Crown of the Continent Board and Ecosystem Center.<sup>190</sup> This approach "can provide a framework for describing, understanding, and addressing ecosystems."<sup>191</sup>

There are certain characteristics that are common to most ecosystem-based management systems. These characteristics would have to be considered and reflected in any agreement between Canada and the United States. The following characteristics have proven to be successful approaches in ecosystem management and would provide protection of the wolf in North America:

[approaches which] describe parts, systems, environments and their interactions[;] are holistic, comprehensive, and transdisciplinary[;] include people and their activities in the ecosystem[;] describe system dynamics through concepts such as stability and feedback[;] define the ecosystem naturally, for example bioregionally instead of arbitrarily[;] look at different levels and/or scales of system structure, process, and function[;] recognize goals and take an active, management orientation[;] incorporate stakeholder and institutional factors in the analysis[;] use an anticipatory, flexible research and planning process[;] entail an ethics of quality, well-being, and integrity[;] and recognize systemic limits to action—defining and seeking sustainability.<sup>192</sup>

A successful ecosystem management approach should also "strive to keep away from the factors that dominate urban planning which

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maintain or restore the health of ecosystems as such, the practical starting point for ecosystem management will have to be to maintain or restore the minimum level of ecosystem health necessary . . .").

189. Slocombe, *supra* note 11, at 614.

190. *Id.*

191. *Id.* at 619.

192. *Id.*

are politics, power, and equity."<sup>193</sup> However, not all human factors should be ignored, for in order for the ecosystem to be effectively maximized there must be an "understanding of local and regional economies, cultures, societies, and their points of interaction with the natural environment."<sup>194</sup>

A starting point for the United States and Canada on the road to drafting and implementing a wolf protection treaty would be to "collect, organize, and present a range of information in diverse forms accessible to many different people."<sup>195</sup> This assimilation of information could be in the forms of environmental impact statements, which are required by both countries for projects under federal jurisdiction.<sup>196</sup>

Any agreement entered into must "be adaptable to be able to respond to new issues and problems as they arise."<sup>197</sup> It also needs "to facilitate development of consensus on goals and objectives and provide for ongoing evaluation and feedback on management actions."<sup>198</sup> Varied existing programs and institutions need to be integrated "so that an effective single locus is created for planning and management activities and decision making."<sup>199</sup>

Once a comprehensive and effective program is established there must be an administrative structure in place to implement and monitor it. International treaties such as the Western Hemisphere Convention and the African Convention "have proved relatively ineffectual because, among other things, none of them established a system of administration to monitor and oversee their enforce-

193. *Id.*

194. *Id.* at 621.

195. *Id.* at 622.

196. Goldfarb, *supra* note 185 (citing *Parliament Gives Approval in Principle to Canadian Environment Assessment Bill*, 13 Int'l Env'tl. Rep. (BNA) 467 (1990)).

197. Slocombe, *supra* note 11, at 622. This is referred to as adaptive management, which is summarized by a recent National Research Council-National Academy of Sciences study:

Adaptive planning and management involve a decision making process based on trial, monitoring, and feedback. Rather than developing a fixed goal and an inflexible plan to achieve the goal, adaptive management recognizes the imperfect knowledge of interdependencies existing within and among natural and social systems, which requires plans to be modified as technical knowledge improves

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Tarlock, *supra* note 12, at 1140 (quoting COMMITTEE ON RESTORATION OF AQUATIC ECOSYSTEMS, NATIONAL RESEARCH COUNCIL, RESTORATION OF AQUATIC ECOSYSTEMS: SCIENCE, TECHNOLOGY, AND PUBLIC POLICY 357 (1992)).

198. Slocombe, *supra* note 11, at 622.

199. *Id.*

ment."<sup>200</sup> Such "sleeping treaties" have not had as much impact as they might have had if given the proper administration framework.<sup>201</sup>

The following is draft legislation which, if accepted by the United States and Canada, would ensure the wolf's repopulation into the United State's lower forty-eight states and at the same time protect the humans that share the wolf's ecosystem.<sup>202</sup>

#### THE WOLF CONVENTION<sup>203</sup>

The Government of Canada and the Government of the United States of America:

**CONVINCED** of the importance of the conservation, protection and enhancement of the environment in their territories and the essential role of cooperation in these areas in achieving a healthy and complete ecosystem for the well-being of present and future generations of all species;

**RECOGNIZING** the interrelationship of their environments;

**RECOGNIZING** that wild animals, including the wolf, are an irreplaceable part of the earth's natural system which must be conserved for the good of humankind;

**RECOGNIZING** the essential role played by the wolf in maintaining biological and ecological balances;

**CONVINCED** of the benefits to be derived from a framework, including a Commission, to facilitate effective cooperation on the conservation protection and enhancement of the environment and ecosystems shared between their territories;

#### **HAVE AGREED AS FOLLOWS:**

##### **ARTICLE I**

1. The aim of this Convention is to ensure the repopulation of the wolf in the United State's lower forty-eight states by establishing "neutral zones" along the border of Canada and the United States where the wolf will be protected.

2. Such "neutral zones" will protect migrating or roaming wolves coming from the United States into Canada thus ensuring their safe return to the United States.

##### **ARTICLE II**

200. Batchelor, *supra* note 11, at 336.

201. *Id.*

202. The sooner that an agreement is reached, the better off the wolf will be, for the wolf and its supporters could once again find themselves facing an unfriendly administration in Washington.

203. Some of the language in The Wolf Convention has been adopted by the author from previously discussed conventions.

1. The wolf is an essential part of an ecosystem shared between the two Signatory Parties. As such, both Parties agree that safeguarding the ecological and biological processes essential to the function of their shared ecosystem, pools of genetic material and refuges for different species is of primary concern.
2. Each Party shall take appropriate action to protect the ecosystems of which wolves are a part, with special attention to habitat components such as denning and feeding sites and migration patterns.

### **ARTICLE III**

1. The ecosystem that this treaty intends to protect shall be defined in accordance with completed environmental ecosystem statements and shall include all lands described in such.
2. The environmental ecosystem statements, in addition to defining the complete North American ecosystem will define "neutral zones" along the border of the Contracting Parties where the wolf can roam where the wolf will be protected.
3. There shall be an environmental impact statement prepared individually by each party regarding the effects of the Wolf Convention upon their country. In addition, there shall be a joint environmental ecosystem statement, prepared pursuant to Article III(1), which ignores national borders and addresses the needs of the ecosystem as a whole.
4. Such environmental ecosystem statement shall describe parts, systems, environments and their interactions and shall be holistic, comprehensive, transdisciplinary and include people and their activities in the ecosystem, particularly local and regional economies, cultures, societies and their point of interaction with the natural environment.

### **ARTICLE IV**

The Parties Have Agreed as Follows:

1. The environmental ecosystem statements will define all areas 200 miles north of the United States/Canadian border as "neutral zones." The wolf shall be protected in these areas marked as "neutral zones." All wolves in the "neutral zones" shall be protected as completely as possible, and their hunting, killing, capturing, possession and or taking shall be allowed only within the permission of the Wolf Commission established in Article VI and only after substantial evidence is presented which clearly supports such decision and provided that there is no other satisfactory solution and that the exception will not be detrimental to the repopulation efforts undertaken by the Contracting Parties.

2. The Parties realize that the livelihood of livestock owners and business people may be adversely affected by the creation of such "neutral zones" and agree to reimburse any and all affected Canadian citizens as follows:

**Livestock owners:**

Any livestock kill within the "neutral zone" that is attributable to a wolf shall be reimbursed by the Wolf Commission at the market rate for such animal. Such reimbursement shall be passed to the affected livestock owner no later than 60 days after the kill is reported. This Article, like all the Articles in this Convention, shall be reviewed annually by the Wolf Commission and shall be modified as appropriate.

**Small Businesses:**

The Contracting Parties realize that the creation of the "neutral zone" will adversely affect certain commercial enterprises which hunters<sup>204</sup> support in the "neutral zones."<sup>205</sup> The Contracting Parties thus agree to hear claims regarding those small business parties who feel they have been adversely affected by the creation of such zones. The United States agrees to reimburse, in a timely fashion, any and all such parties whose claims have been approved by the Wolf Commission.

**ARTICLE V.**

1. Parties agree that they have the duty not to take any deliberate measures which might damage directly or indirectly the wolf which this treaty purports to protect. Such damage includes exploitation of wildlife, threats from toxic substances and modification of wildlife habitats as well as others.

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204. Hunters will be adversely affected in that some will have to drive further to hunt wolves than they previously had to. Such a burden does not seem overbearing. The "neutral zones" will be 200 miles from the United States/Canadian border thus increasing the amount of time required for a hunter to reach wolf hunting grounds by a few hours. Such a minimal burden should not be compensable. Hunters, of all people, should realize how essential the wolf is to an ecosystem. Wolves in fact increase the quality of the animals that are available to the hunters by killing the sick and diseased of the herd thus ensuring that only the strongest and fittest reproduce.

205. The losses that small businesses within the "neutral zones" will feel due to the decrease in hunters frequenting their stores is a problem which may carry extreme burdens. However, it is also possible that no burdens will be felt at all because hunters may simply decide to hunt other species rather than drive an extra few hours to hunt wolves. Studies would have to be done which would compare the revenue from pre "Wolf Convention" years to post "Wolf Convention" years with the United States reimbursing the businesses for lost revenue. Additionally, while hunters and the small businesses that they support may be adversely affected by the creation of "neutral zones," outbackers will probably see an increase in business as tourists pay to take hikes where they can hear the howl of the wolf.

**ARTICLE VI**<sup>206</sup>

1. Realizing that the value of any cooperative initiative is in its follow-up and implementation, this Article creates what is to be known as "The Wolf Commission." The goal of the Wolf Commission is to facilitate development of consensus on goals and objectives and provide for ongoing evaluation and feedback on management actions.
2. The Wolf Commission shall have the sole power to receive and investigate complaints from the parties and from citizens concerning violations of the Convention, enforcement deficiencies by a party and other matters related to the mandate of The Wolf Convention.
3. The Commission shall be comprised of a government appointed environmental minister from both the United States and Canada. Each province and state affected by the Convention shall have one representative to the end that representation is equal between provinces and states.
4. The Commission shall additionally be comprised of an equal number of citizens from each country to the extent that they are equal in number to the government representatives. These citizens shall equally represent each state and province affected by the treaty and shall be elected by each such province or state. The primary role of this group is to carry out the work of the commission that is best done by an independent group. In addition, this group would coordinate citizen input into the activities of the Convention and increase public participation in the implementation of the Convention.
6. A Secretariat shall be established to enable the Commission to carry out its mandate. A well-staffed secretariat, with equal representation from each country, is responsible for the Convention's daily operations and will assist the environmental ministers' and citizens' boards in successfully fulfilling their roles. The Secretariat will also provide the institutional research and technical capacity for the Convention.
7. The ministers, citizens and secretariat shall meet as needed, but at least twice annually to review the work and recommendations of the citizen's advisory board, as well as the day-to-day operations of the commission.
8. There shall be public access to all documents, data and procedures of the Commission as well as adequate and effective channels

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206. Many of the suggestions for the proposed "Wolf Commission" have been adopted from Janine Ferretti's suggestions for a North American Commission on the Environment regarding NAFTA. Janine Ferretti, *Elements of an Effective North American Commission on the Environment*, 16 Int'l Env'tl. Rep. (BNA) 311 (1993).

for communication and dialogue between the public and the Commission.