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WILDLIFE RIGHTS: THE EVER-WIDENING CIRCLE

BY
DAVID S. FAVRE*

It is becoming increasingly evident that the American legal system has begun to recognize and implement a new area of law expressly concerned with the rights of animals. While the term "wildlife rights" may seem conceptually awkward, recent federal legislation¹ and its judicial interpretation is creating a body of law responsive to contemporary concerns regarding animal-human relationships² in order to control some of the more serious conflicts between animals and humans.³

The suggestion that entities other than human beings should be allowed access to the judicial system was first proposed by Professor Christopher Stone in 1972.⁴ He argued that the interests of natural objects, such as rivers, forests, mountains and lakes, should be represented in court, and he suggested that humans and their organizations act as guardians and file lawsuits on behalf of

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1. Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1976); Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1407 (1976); National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347 (1970); Wild Free-Roaming Horses and Burros Act, 16 U.S.C. §§ 1331-1340 (1976).

2. In an article, *Talking to Animals Raises Questions*, Joan Beck notes:

If an animal learns to communicate in human words and can converse about its wants, hopes, fears, thoughts, and sense of self-identity, can it still be considered "Animal" subjected to captivity and research? The question is no longer academic and speculative. It's become a moral and practical concern for those involved in successful programs to teach language to chimpanzees, gorillas, and dolphins. And now it's a legal question as well.

Detroit Free Press, July 25, 1977, § A, at 11. See also Lubow, *Riot in Fish Tank II*, New Times, October 14, 1977, at 36; and Holden, *Endangered Species: Review of Law Triggered by Tellico Impasse*, 196 SCIENCE 1426 (1977).

3. "Animal" refers to all nonhuman members of the animal kingdom. While the terms "wildlife" and "animal" are often used interchangeably, for the purposes of this Article, "wildlife" does not include domestic animals. There is no conceptual reason why the arguments and concerns of this Article could not be extended to include the plant kingdom.

4. Stone, *Should Trees Have Standing? — Toward Legal Rights for Natural Objects*, 45 S. CALIF. L. REV. 450 (1972).

endangered natural objects.⁵ While Stone's article did not address the issue of wildlife rights directly, his environmental perspective was in many ways the logical forerunner of a legal analysis in support of wildlife rights.

More recently, other commentators have focused specifically on the rights of animals.⁶ One author recognized that animals are "sentient living creatures" that should be the holders of legal rights⁷ and suggested a Model Act which prescribed the standards of care for three different classes of animals.⁸ The higher the intelligence of the animal the more protection it would receive.⁹ In a narrower context, a student comment suggested imposing the duties and responsibilities of guardianship on any human possessing a dog or a cat¹⁰ and argued that such guardianship rights were justified on the basis that dogs and cats are capable of feeling pain.¹¹

Although animals suffer pain and have varying levels of intelligence, there are more fundamental reasons supporting the case for animal rights. This Article will first explore how the history of human-animal relationships has shaped man's attitude toward animals. Next, it will examine the basic concept of "rights." It will consider whether wildlife could conceptually be a holder of rights and why wildlife are deserving of legal rights. The ecological and biological ties between humans and animals will be highlighted in an effort to demonstrate that humans and animals are interrelated creatures sharing the same ecosystem and dependent on one another for survival. This perspective suggests that there is no longer any reason to draw a sharp line granting humans many legal rights and wildlife none. Finally, the Article will propose three categories

5. *Id.* at 457-89.

6. Burr, *Toward Legal Rights for Animals*, 4 ENV'T'L AFF. 205 (1975); Comment, *Rights for Non-Human Animals: A Guardianship Model for Dogs and Cats*, 14 SAN DIEGO L. REV. 484 (1977).

7. Burr, *supra* note 6, at 228.

8. *Id.* at 232-43.

9. For example, in the Model Act, a Class A animal is defined as a chimpanzee, gorilla or dolphin, Class B is any mammal, and Class C is any vertebrate. *Id.* at 233-34. The comment section of the Act states that "[t]he definition of animal classes is tied to the relative advancement of the animal on the evolutionary scale, and reflects a presumption that the closer the animal is to man, the more deserving it is of protection." *Id.* at 234. The fact that animals have different levels of intelligence, however, does not automatically suggest a legal or moral presumption.

10. Comment, *supra* note 6.

11. *Id.* at 497.

of legal rights—property, individual and species rights—to best protect the interests of wildlife. Since there is no legal basis to allow for the recognition of these rights, an amendment to the United States Constitution will be proposed. While such a proposal might seem premature, it is offered at this time to stimulate a full and open discussion of the many complex issues concerning wildlife rights.

I. THE HISTORICAL ATTITUDE TOWARD ANIMALS

A. *Ancient Times*

The legal principles governing the relationship between humans and animals have remained constant through all of recorded history. In Western civilization, the basic moral and philosophical premise circumscribing this relationship was set out in the Bible.¹² The Biblical attitude of human dominion over animals was echoed in Roman law, which described animals as one category of personal property.¹³ Under Roman law, title to wild animals could be obtained only by exhibiting physical control of the animal.¹⁴ Once ownership arose, most of the rules governing the ownership of personal property were applied to the rights of humans to possess and

12. "Then God Said, 'Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth, and over every creeping thing that creeps upon the earth.' So God created man in his own image, in the image of God he created him; male and female he created them. And God blessed them, and God said to them, 'Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.'"

Genesis 1:26-28. See also *Genesis* 1:20-31, 9:1-3.

13. This perspective was first committed to writing by Justinian in his book *On the Division of Things*. I. JUSTINIAN, *THE INSTITUTES OF JUSTINIAN* 66 (book II, title I, § 12, North-Holland ed. J. Thomas trans. 1975) [hereinafter cited as JUSTINIAN]. The governing principle of *Pierson v. Post*, 3 Cai. R. 175 (N.Y. 1805), was derived from this theory. In that case, the New York Court for the Correction of Errors held that a plaintiff pursuing a fox which his dogs had aroused had no rights against a defendant who intervened and, in the plaintiff's sight, shot and carried away the animal. The court found that the mere chase of wild animals did not in itself give any prior rights to the huntsman or fisherman. Furthermore, the court asserted that title to the animal is acquired by taking possession, so that the first possessor becomes the owner of the property.

14. JUSTINIAN, *supra* note 13, at 66 (book II, title I, § 12). The concept of title by possession was adopted nearly word for word in civil law (Art. 3415 French Civil Law) and emerged in American common law as well. 2 BLACKSTONE, *COMMENTARIES* 403 (Dawson's of Pall Mall reprint ed. 1966).

control animals. Apparently the animals themselves had no rights or protection under Roman law. Moreover, Roman law did not regulate which animals could be possessed, when they could be reduced to possession or what could be done with them once owned by humans.

Nevertheless, animals were an integral part of Roman culture. Wild animals were a principal source of entertainment¹⁵ as well as an inspiration for works of art,¹⁶ but this exposure and interaction did not engender the sense of reverence for animals that existed in Egyptian and Greek cultures.¹⁷ Instead, the Romans treated animals with perverse cruelty, manifesting their belief that animals existed for the use and pleasure of mankind. The exhibition of great masses of exotic wild animals (gathered and transported at no small cost) often climaxed in their slaughter. It is paradoxical that a culture which sought out wild animals for their grace and beauty also found "pleasure in the often hideous sufferings and agonizing deaths of quantities of magnificent and noble creatures."¹⁸

Before and during the Roman period, the Jewish culture manifested a distinctly different attitude toward animals. The Jewish interpretation of Biblical law prohibited cruelty to animals and seemed to profess a concern for the animals' well-being.¹⁹ Additionally, the killing of animals for sport was considered an improper pursuit.²⁰

Surprisingly, references to and concerns for animals do not

15. J.M.C. TOYNBEE, *ANIMALS IN ROMAN LIFE AND ART* 17 (1973) [hereinafter cited as TOYNBEE].

16. *Id.* at 21.

17. 2 HERODOTUS, *THE HISTORIES* § 65. See G. CARSON, *MEN, BEAST AND GODS* 8-10 (1972).

18. Concerning the destruction of exhibited animals, Toynbee related the following facts and figures:

[I]n 13 BC 600 African beasts were slain; in 2 BC 260 lions were slaughtered in the Circus Maximus and 36 crocodiles in the Circus Flaminius; and in AD 12 there was another slaughter of wild beasts . . . including 200 lions. In one of Gaius' shows 400 bears and 400 other Libyan beasts were killed; under Claudius, 300 bears and 300 Libyan beasts; and Nero's bodyguard brought down with javelins 400 bears and 300 lions.

TOYNBEE, *supra* note 15, at 21 (footnotes omitted).

19. G. HOROWITZ, *THE SPIRIT OF JEWISH LAW* 105-19 (1953); G. CARSON, *supra* note 17, at 13-15; C. NIVEN, *HISTORY OF THE HUMANE MOVEMENT* 13-14, 22 (1967).

20. G. HOROWITZ, *supra* note 19, at 114-15.

exist in the New Testament of the Bible.²¹ As the Catholic Church grew in scope and power during the Dark and Middle Ages, a concern for animals was never expressed. St. Thomas Aquinas stated the Church's position: "[F]or by divine providence they [animals] are intended for man's use in the natural order. Hence it is no wrong for man to make use of them either by killing or in any other way whatever."²² The contrasting historical attitudes in the Jewish and Catholic religions are representative of the dichotomy of views held in modern society.

Finally, the important corollary issue of protecting animal species from extinction was never addressed in ancient times. None of the early writers voiced concern that an animal species might be endangered by human activities.²³

B. *Early English Law*

The view that animal ownership was determined by possession found fertile ground in the laws of England, and after several centuries of percolating through English common law, a complex set of rules developed.²⁴ English law first reflected the Roman's concept of free access to all animals without state interference but was later modified on behalf of the Crown to permit the taking of a game animal only with royal permission. Over time, statutes were passed which gave the right to hunt game to the landed gentry.²⁵ This concept, that some individuals had more rights to take animals than others, had not existed under Roman law. The major reason for this new development was the different role which animals played in English society.

21. G. CARSON, *supra* note 19, at 14-15; C. NIVEN, *supra* note 19, at 23.

22. 3 T. AQUINAS, *SUMMA CONTRO GENTILES*, in T. REGAN & P. SINGER, *ANIMAL RIGHTS AND HUMAN OBLIGATIONS* 59 (1976). *See also* C. NIVEN, *supra* note 19, at 31-32.

23. I. DOUGLAS-HAMILTON & O. DOUGLAS-HAMILTON, *AMONG THE ELEPHANTS* 243-46 (1975). The authors discuss the extensive system employed prior to and during Roman time to capture and use elephants and their ivory, which resulted in the extinction of the species over a wide geographical area.

24. 1 HALSBURY'S LAWS OF ENGLAND, *ANIMALS* (2d ed. 1931) [hereinafter cited as 1 HALSBURY'S]; 25 HALSBURY'S LAWS OF ENGLAND, *GAME* (2d ed. 1931) [hereinafter cited as 25 HALSBURY'S]. *See generally* SELDEN SOCIETY, *SELECT PLEAS OF THE FOREST* (1901); M. BEAN, *THE EVOLUTION OF NATIONAL WILDLIFE LAW*, 8-12 (1977) (Council on Environmental Quality).

25. 2 BLACKSTONE, *supra* note 14, at 391-95; 1 HALSBURY'S, *supra* note 24, at 531-33; 25 HALSBURY'S, *supra* note 24, at 412-17.

For the English peasant, wild animals were simply a source of food and goods; however, the nobles, and in particular the king, viewed the uses of animals differently. In a society with few transferable symbols of wealth, such as silver and gold, animals played a major role in differentiating between the powerful and the peasant. Some animals, such as the whale, were regarded as royal animals that could only be taken by the king or by obtaining his permission.²⁶ Other animals were reserved for ownership by the king and the landed gentry.²⁷ Thus, animals were often the object of protective legislation, not out of concern for the animals themselves, but because the animals and the right to kill them were reserved for the upper class. Additionally, animal protection, often accomplished by outlawing the possession of certain weapons, was also aimed at keeping the peasants weaponless and retaining class distinctions.²⁸

One of the first English statutes protecting wild animals was passed in 1581 for the "preservation of pheasants and partridges."²⁹ The preamble to this act stated that "[t]he game of pheasants and partridges is within these few years in manner utterly decayed and destroyed in all parts of this realm"³⁰ The statute prohibited any person from taking birds in the night and outlawed

26. 25 HALSBURY'S, *supra* note 24, at 121.

27. See essay by M. Wolfe in W.F. SIGLES, WILDLIFE LAW ENFORCEMENT 5-9 (1972).

28. T. Lund, *British Wildlife Law Before the American Revolution*, 74 MICH. L. REV. 49 (1975); 2 BLACKSTONE, *supra* note 14, at 404-19.

The following act was passed in 1562 to address the concerns of the Queen and various noblemen:

[T]o their great cost and charge . . . have erected and made in and upon their several demesns, grounds and possessions . . . pools . . . motes, pits or pond for the increase of fish . . . (2) and also have imbarked invironed and enclosed parcels of their said demesns, soils . . . for the breeding . . . of red [and] fallow deer . . . (3) and also having breeding within their woods and grounds diverse eyries of hawks of sundry kind . . . (4) [said previously mentioned places] . . . have been from time to time by evil disposed persons, of a very evil, willful and insolent disposition and of malice and displeasure . . . broke, cut down and set open, and the deer and hawks within the same taken destroid, carried away and stolen

5 Eliz. ch. 21 (1562), contained in 6 Perkering Stat. at Large 212 (1763). The statute also makes the aggrieved actions unlawful. While it afforded some animals protection, it was intended to protect the property and wealth of nobles and the Queen and was not enacted out of any concern for the animals themselves.

29. 23 Eliz. ch. 10 (1581), contained in 6 Perkering Stat. at Large 346 (1763).

30. *Id.*

the hawking of the birds in corn fields.³¹ By limiting the time and manner of hunting, the birds received some protection. However, the law was not enacted for the purpose of recognizing the right of species to exist; rather, it was aimed at protecting a food source and preserving the gentleman's sport of hunting.

C. *Early American Law*

During the early years of the colonial period, Americans tried to adopt the English class system and the English method of controlling wildlife. This attempt was frustrated by the vastness of the American continent, and the "free taking" of wildlife ultimately became the acceptable practice. The complexities of the English law governing the taking of wild animals were stripped back to the bare Roman bones, which permitted anyone who captured or killed wild animals to obtain title to them. Thus, the right of all people to fish and hunt, even on another's land, often was recognized despite the law of trespass.³²

With the legal problems of wildlife taking simplified, wildlife assumed an important role in the economy of the early American colonies:

Deer, turkeys, and other products of the chase provided a ready supply of fresh meat until the colonists could develop their own domesticated flocks and herds. The wild birds and mammals also became an important source of income. Furs, deer hides, and the down and plumes of birds brought high prices in European markets. All were readily available in the vicinity of the early French, English, and Dutch settlements along the Atlantic Coast.³³

From the 1600s to the early 1800s, the economic and internal growth needs of the United States governed the exploitation of wildlife. Animals provided a source of income and food for entrepreneurs and market hunters. Moreover, hunters were independent by nature and felt they were beyond the reach of law. The frontier attitudes of the rugged individualists ultimately created a situation beyond the control of the early state governments.³⁴

31. See Matthew Bacon's discussion of Game for further reference to early protective laws: 3 M. BACON, LAW 324 (Bird Wilson, Am. ed. 1813).

32. Lund, *Early American Wildlife Law*, 51 N.Y.L. REV. 703, 712-14 (1976). See generally M. BEAN, *supra* note 24, at 12-20.

33. J. TREFETHEN, AN AMERICAN CRUSADE FOR WILDLIFE 29 (1975).

34. *Id.* at 41-65.

There were attempts, however, by various state legislatures to control wildlife. The states wished to guarantee the continued existence of the beneficial species for trade or food while exterminating the harmful species. For example, as a response to a serious decline in the number of white-tailed deer in colonized areas, various types of legislation were passed. The most common statute created closed seasons during which hunting was banned. However, due to the lack of enforcement capabilities and the independent attitude of the market hunter, these laws were of little actual protection, and gradually the white-tailed deer was eliminated from many of the Eastern states.³⁵

Another common statute was the bounty law. Such laws were enthusiastically enacted to eliminate predators which the colonists perceived as a threat to either their domestic livestock or to the species of wildlife preferred by hunters. By the mid-1700s, it became an established practice for the state to offer money in return for dead animals. Mountain lions, wolves, bears and wildcats topped most of the lists.³⁶ Early America's indifference to protecting and preserving wildlife was most apparent in the area of species preservation. Animals were viewed in the strictest Biblical sense as existing solely for the use of man. In the United States, animals were consumed or forced out of their natural habitats as Manifest Destiny pushed its way across the continent. Several species were driven to total extinction by economic incentives, habitat destruction and general indifference.³⁷ Even more surprising is the list of animals driven to near extinction. By 1900, almost every species of large mammal in the continental United States had been eliminated from most of its original living range.³⁸ One prime example of the early American attitude toward species preservation was an

35. *Id.* at 39-40, 244-46. See Lund, *supra* note 32, 709-25; G. CARSON, *supra* note 17, at 66.

36. Lund, *supra* note 32, at 727-29. See J. TREFETHEN, *supra* note 33, at 35-37. Many of these species now appear on the threatened and endangered list published by the Department of Interior. In 50 C.F.R. § 17.11 (1977), the brown bear is listed as threatened and the eastern timber wolf as endangered. The long-eared kit fox, Florida wolf and eastern cougar are considered extinct in the eastern U.S. S. REP. No. 1136, 92d Cong., 2d Sess. 265 (1972).

37. The list includes the eastern bison, the sea mink, the Labrador duck, the Carolina parakeet, the heath hen and the passenger pigeon. R. McCLUNG, *LOST WILD AMERICA* 28-53 (1969); J. TREFETHEN, *supra* note 33, at 63-65.

38. For example, the white-tailed deer, elk, mountain sheep, bear, pronghorn antelope, and the buffalo were all substantially reduced in numbers and restricted in habitat. J. TREFETHEN, *supra* note 33, at 3-17, 243-56.

1874 act of Congress passed "to prevent the useless slaughters of the Buffaloes within the territories of the United States."³⁹ On the advice of General Sherman, President Grant pocket-vetoed the bill. Sherman apparently believed that destroying the buffalo would result in better control over the Indians by reducing their incentive and ability to move off the reservation.

In addition to their economic value, animals were used by the first settlers as a source of entertainment. These amusements included live bird shoots, raccoon and bear baiting, cock fights and the ever-present circus and road-side zoo. The killing of wildlife for human recreation and pleasure, while never on the grandiose scale of the Romans, was continually present in America's past and continues unabated in many cases in the 20th century.⁴⁰

Wildlife, therefore, played a substantial role in the settlement and economic development of the colonies. It was viewed as another resource commodity, like forests or mineral deposits, and contributed its share to a strong and expanding economy. Ironically, the financial growth of 19th century America proved to be the foundation out of which developed more modern concerns for wildlife.

D. The Roots of America's Present Concern for Wildlife

As a result of industrial growth in the early 1800s, wealth began to accumulate in a new class of individuals. The members of this class had the leisure time to explore their interests and concerns and the prestige and power to effectuate their desires. Within this new class, three groups of people were primarily responsible for generating a concern for wildlife: the sportsman-hunter, the urban well-to-do and the scientist. The wildlife conservation efforts of all of these groups ultimately became visible during the Industrial Revolution.

The sportsman-hunter is to be distinguished from the market-hunter who made his livelihood from the killing of wildlife. In the mid-1800s, the market-hunters were causing such negative impacts that sportsman-hunters feared their sport would be seriously infringed upon or even eliminated. Out of this selfish motivation,

39. H.R. 921, 43d Cong., 1st Sess., 1874 CONG. REC. 5413 (1874). See J. TREFETHEN, *supra* note 33, at 16.

40. G. CARSON, *supra* note 17, at 63. See E. LEAVITT, ANIMALS AND THEIR LEGAL RIGHTS 110-12 (1968).

a crude conservation movement began, although the term "conservation" was unknown at that time. America's first conservation-oriented group, the New York Sportsmen Club, was formed in 1844 by eighty influential sportsmen.⁴¹

A second group, which became prominent after the Civil War, promoted the humane treatment of animals. Soon after visiting the Humane Society of England in the 1860s, Henry Bergh organized the American Society for the Prevention of Cruelty to Animals (ASPCA) in New York City. His efforts on behalf of animals living in the urbanized areas of the United States soon became a rallying point for many of the urban well-to-do. Companion groups were created in Boston and other big cities.⁴² Although the ASPCA and like organizations were initially interested in urban animals, in recent years they have shown concern for wildlife as well.⁴³

The third group concerned with preserving America's wildlife grew out of the scientific community. The American Ornithologist Union was one of the first scientific organizations to take an active conservation role by seeking protection for birds and their habitats.⁴⁴ By the end of the 1800s, the Audubon Club and Sierra Club had come into existence. These two organizations have consistently pursued conservation and wildlife issues and are currently among the strongest public interest organizations in the United States.⁴⁵

These three interest groups spoke out in order to protect endangered species of wildlife and pressed for political action on both

41. For a detailed account of this development, see J. TREFETHEN, *supra* note 33, at 69-75. This book was written for and published by the Boone and Crockett Club, which is itself an example of a politically powerful sportsmen's club concerned about wildlife protection. It was formed in 1887 by Theodore Roosevelt. *Id.* at vii-viii.

42. See G. CARSON, *supra* note 17, at 99; C. NIVEN, *supra* note 19, at 106.

43. The Humane Society of the United States lists among its purposes preventing the overbreeding of cats and dogs, eliminating cruel hunting practices, exposing the plight of research animals, eliminating the abuse of animals in entertainment and zoos, and stopping cruelty to animals used for food. 1 *ENCYCLOPEDIA OF ASSOCIATIONS* 629 (12th ed. 1978). The encyclopedia lists 37 organizations that are primarily concerned with some aspect of animal welfare. *Id.* at 628-30.

44. J. TREFETHEN, *supra* note 33, at 130-32; C. Buchheister & F. Graham, *From the Swamps and Back*, AUDUBON, Jan. 1973 at 7.

45. The Sierra Club currently has 174,000 members, a staff of 130 people and 300 regional groups; the National Audubon Society has 370,000 members and 398 local groups. 1 *ENCYCLOPEDIA OF ASSOCIATIONS supra* note 43, at 253, 370.

state and national levels.⁴⁶ Over the years, a philosophy dedicated to the conservation of wildlife slowly developed, and it has been embraced by many present-day government decisionmakers.

II. THE NEW ROLE FOR AMERICAN JURISPRUDENCE

A. *What is a Right?*

People make many claims about their rights and the duties other people and the government owe to them. However, only those claims that can be enforced or protected by the judicial system may ascend to the status of a legal right. Dean Pound has described legal rights as "claims or demands recognized and made legally assertable."⁴⁷ A right can guarantee the freedom to engage

46. The early American attitude toward wildlife is portrayed in this account of the derivation of the word "conservation":

The word "conservation" as it applies to natural resources did not come into the English language until 1907. In his autobiography, *Breaking New Ground*, Pinchot wrote that, while riding in Rock Creek Park in Washington, D.C., the thought occurred to him that there was no single word to describe the interrelationship and sustained-yield use of forests, soils, waters, fish, wildlife, minerals, and all other natural resources. "Protection" and "preservation," then in common use by contemporary authorities on natural-resource matters, implied non-use — a locking up of resources — a concept that grated on Pinchot's practical sensibilities. He discussed this gap in the vocabulary with a number of friends, among them Overton Price, an associate in the Forest Service. In this discussion, either he or Price came up with the word "conservation." The word apparently was derived from "conservator," the title of an office in colonial India under British Civil Service. When Pinchot discussed the newly coined term with Roosevelt, the President adopted it immediately and, from that point on, "conservation" became the keynote of the Roosevelt Administration.

J. TREFETHEN, *supra* note 33, at 125-27.

47. 4 R. POUND, *JURISPRUDENCE* § 117, at 41 (1959). The term "rights" is one of the most overused and least understood legal words of art. Even after distinguishing the religious, moral and philosophical uses of the word, the narrower concept of "legal rights" is still a quagmire. Dean Pound lists five different connotations for the term:

(1) One meaning is interest, as in most discussions of natural rights. Here it may mean (a) an interest one holds ought to be recognized and secured. It is generally used in this sense in treatises on ethics. Or (b) it may mean the interest recognized, delimited with respect to other recognized interests, and secured. (2) A second meaning is a recognized claim to acts or forbearances by another or all others in order to make the interest effective, (a) legally, through application of the force of a politically organized society to secure it as the law has delimited it, or (b) morally, by the pressure of the moral sentiment of the community or of extra-legal agencies of social control. Analytical jurists have put this as a capacity of influencing others which is

in certain activities, such as freedom of the press⁴⁸ or freedom of religion.⁴⁹ A right can also act as a restraint upon the actions of others, as by prohibiting the government from searching the home of a private individual without a search warrant.⁵⁰

A right is comprised of four basic elements: (1) the holder of the right, (2) the act or forbearance which is governed by the right, (3) the "res" or thing with respect to which the right is conferred, and (4) the person with the duty imposed by the right.⁵¹ Using freedom from warrantless search as an example, the property owner or lessee is the holder of the right, the act of entrance upon the premises is governed by the right, the property and everything located thereon constitute the "res" of the right, and the duty of seeking a search warrant is placed upon the government and its agents.⁵² In discussing "wildlife rights," the elements comprising a right would apply as follows: (1) individuals and species of wildlife are the holders of rights, (2) the acts of humans are limited by these rights, (3) wildlife and their habitats are the "res" of the right, and (4) human beings and their institutions will have duties imposed upon them due to the recognition of these new rights.

At the present time, the American legal system does not recognize wildlife as holders of legal rights. However, many commentators on the subject of animals and the legal system use the term "animal rights" improperly since the right is actually possessed by the government or humans rather than by the animals.⁵³ When a

recognized or conferred in order to secure an interest. (3) A third use is to designate a capacity of creating, divesting or altering rights in the second sense and so of creating or altering duties. Here the proper term is "power." (4) A fourth use is to designate certain conditions of general or special non-interference with natural faculties of action; certain conditions, as it were, of legal hands off, i.e. occasions on which the law secures interests by leaving one to the free exercise of his natural faculties. These are better called liberties and privileges. (5) In addition, "right" is used as an adjective to mean that which accords with justice or that which recognizes and gives effect to moral rights.

Id. § 118, at 56-57. See also G. PATON & D. DERHAM, JURISPRUDENCE § 52, at 285 (4th ed. 1972).

48. U.S. CONST. amend. I.

49. *Id.*

50. U.S. CONST. amend. IV.

51. 4 R. POUND, *supra* note 47, § 119, at 84-85; G. PATON & D. DERHAM, *supra* note 46 § 62.

52. *Mapp v. Ohio*, 367 U.S. 643. (1961).

53. A prime example of this is anti-cruelty legislation, which may impose criminal sanctions on particular activities of humans who harm animals but does

human physically assaults another human, the injured person may bring a civil action in tort on his own behalf against the tortfeasor. However, if a person assaults an animal, he may be criminally liable for his act, but in no state may the animal seek civil redress for the harm to its body. When an animal is injured, only the state or the animal owner may have rights arising from a breach of duty by the tortfeasor. Therefore, while the animal may be the "res" of a right, the law has never deemed an animal the holder of the right.

Dean Pound has noted that the logical sequential order for the creation and recognition of rights would be interest, right, duty, action and remedy. However, society often begins with a remedy for a problem and ends up by recognizing that a person has a right to that remedy.⁵⁴ This sequence, rather than the logical one, is particularly evident in legislation affecting wildlife. For example, the Federal Endangered Species Act of 1973⁵⁵ imposes criminal sanctions for certain acts⁵⁶ and provides for injunctive relief for certain governmental actions.⁵⁷ While the Act does not recognize

not give any corresponding rights to the animals themselves. See generally E. LEAVITT, *supra* note 40.

54. 4 R. POUND, *supra* note 47, § 117, at 43.

55. 16 U.S.C. §§ 1531-1543 (1976).

56. The Endangered Species Act protects species that have been formally listed as endangered, by making certain acts unlawful:

[W]ith respect to any endangered species of fish or wildlife listed pursuant to section 1533 of this title it is unlawful for any person subject to the jurisdiction of the United States to

- (A) import any such species into, or export any such species from the United States;
- (B) take any such species within the United States or the territorial sea of the United States;
- (C) take any such species upon the high seas;
- (D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C);
- (E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species

16 U.S.C. § 1538(a)(1) (1976). Previously, the term "take" had been defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(14) (1976).

57. Section 7 of the Endangered Species Act prohibits the government from engaging in any action that would jeopardize an endangered species or its habitat. Courts have allowed private citizens to enforce this provision. The most recent case to arise under this section was *Tennessee Valley Authority v. Hill*, ___ U.S. ___, 98 S.Ct. 2279 (1978). See text accompanying notes 125-32 *infra*. The code section reads in part:

any interest that may be possessed by the animals themselves or their species, its remedial intent is the elimination of certain destructive human activities that would otherwise reduce wildlife habitats and endanger the continued existence of certain species. Thus, the legal system has provided a remedy without first recognizing a right to that remedy.

B. *The Holder of Rights*

A key question underlying this article is whether it is conceptually possible for wildlife to possess rights. Under the existing legal system rights are allocated only to legal persons. In the broadest legal sense, legal persons may be defined as "units on behalf or in title of which legally recognized and secured interests are asserted."⁵⁸ The largest category of legal persons is natural persons, which is supplemented by artificial or fictitious persons such as corporations, partnerships, trusts and ships, that also have recognized interests amounting to rights under the American legal system. There are several aspects of the legal persons concept which are relevant to wildlife as potential legal persons.

In the United States today, the status of being a natural legal person arises at birth, when full human rights simultaneously accrue.⁵⁹ However, this consequence has not always been true. In the past, if a human was a Black, a woman or a child, he or she possessed no rights or fewer rights than white men.⁶⁰ As American society matured, the circle of persons elevated to the status of legal

[A]ll other Federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purpose of this chapter . . . by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species.

16 U.S.C. § 1536 (1976).

58. 4 R. POUND, *supra* note 47, § 124, at 192.

59. 4 R. POUND, *supra* note 47, § 127, at 384. In *Floyd v. Anders*, 440 F. Supp. 535 (D.S.C. 1977), the court found that a doctor could not be held on a charge of murder for the abortion of a nonviable fetus, stating, "[i]ndeed the Supreme Court declared the fetus in the womb is neither alive nor a person within the meaning of the Fourteenth Amendment." See *Roe v. Wade*, 410 U.S. 113 (1973).

60. See generally *Dred Scott v. Sandford*, 60 U.S. (19 How.) 383 (1856) (status of Blacks under the Constitution); *In re Goodell*, 39 Wis. 232 (1875) (discussing why women were incapable of practicing law); *Symposium: Women and the Law, a Retrospective View*, 6 HUMAN RIGHTS 107-34 (1977).

persons was significantly enlarged.⁶¹ This change resulted from the gradual enlightenment of the legal system regarding issues of race, sex and age. Today, the legal system accepts the premises that any human life should be respected to the fullest extent possible⁶² and that the mere fact of being a human person creates rights. It is now possible for the circle of recognized rights to expand further and bring wildlife within its confines.

Although animals are denied rights in part upon the premise that only humans possess self-awareness, consciousness and the will to make choices, such distinctions should not preclude society from granting rights to wildlife. Assuming *arguendo* the validity of such distinctions,⁶³ the legal system nonetheless grants rights to humans who may lack self-awareness and the physical or mental ability for self-preservation (*e.g.*, infants and the mentally retarded). Accordingly, a distinction can be drawn between the capacity for possessing legal rights, and the capacity for entering into legal transactions or possessing the power to exercise a particular right.⁶⁴ The fact that infants and the mentally retarded are incapa-

61. Stone, *supra* note 4, at 454-57. As Professor Stone points out, Darwin had made note of his process in his writings.

In *Descent of Man*, Darwin observes that the history of man's moral development has been a continual extension in the objects of his "social instincts and sympathies." Originally each man had regard only for himself and those of a very narrow circle about him; later, he came to regard more and more "not only the welfare, but the happiness of all his fellow men"; then, "his sympathies became more tender and widely diffused, extending to men of all races, to the imbecile, maimed, and other useless members of society, and finally to the lower animals"

Id. at 450 (footnote omitted).

62. In American jurisprudence the Declaration of Independence is often cited as an expression of those concerns which are most fundamental to the individual: "We hold these truths to be self evident, . . . that among these are *Life, Liberty, and the pursuit of Happiness.*" DECLARATION OF INDEPENDENCE (1776) (emphasis added). More recently, a world-wide expression of the basic concerns of humans was drafted as the International Covenant on Civil and Political Rights, which the United States signed on Oct. 5, 1977. It states in part that "[e]very human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life." F. KIRGIS, INTERNATIONAL ORGANIZATIONS 976-77 (1977). Most writers speak in terms of security of the individual. See E. BODENHEIMER, JURISPRUDENCE 217, 236 (1974); R. POUND, AN INTRODUCTION TO THE PHILOSOPHY OF LAW 32 (1954); T. PAINE, COMMON SENSE, in THE ESSENTIAL THOMAS PAINE 26, (New American Library ed. 1969).

63. Research work with chimpanzees has shown that they possess self-awareness, which can be communicated even if not verbalized, as humans do. R. LEAKEY & R. LEVIN, ORIGINS 200 (1977) [hereinafter cited as LEAKEY].

64. 4 R. POUND, *supra* note 47, § 125, at 276.

ble of recognizing or exercising their rights has not negated their ability to possess these rights. Rather, the legal system has made provisions for other capable individuals to represent the interests of those who cannot represent themselves. Indeed, even individuals without any handicap usually require legal counsel to exercise or protect their rights in the legal system. Thus, the mere fact that an animal cannot file a pleading or recognize the need to do so should not create a barrier to the determination of whether or not the animal can be the holder of legal rights.

The determination of who or what shall be a legal person usually has been based on the moral perceptions of a given society. After appropriate self-reflection by its individual members, a society arrives at a consensus that a particular group deserves certain legal rights.⁶⁵ The decision of each society is reflected in its legal structure. In the United States, this judgment is reflected in the Constitution as amended by the people and as interpreted by the Supreme Court.⁶⁶ No new process or test need be created in addressing the issue of wildlife rights. These rights can be determined by the same process that expanded the categories of natural persons deserving of rights.

By analogy to the rights of natural persons who lack capacity, there is no conceptual problem with wildlife possessing legal rights. The judgment and perceptions of society will ultimately be determinative of this issue. Wildlife can become the holder of legal rights when humans come to recognize an inherent interest in wildlife's possession of rights.

C. *The Present Legal Response to Wildlife Issues*

During the past ten years, many new laws⁶⁷ have been enacted

65. For a discussion of what constitutes appropriate self-reflection, see Perry, *Moral and Judicial Reasoning*, 22 *BUFFALO L. REV.* 769 (1973).

66. Several amendments to the U.S. Constitution are examples of the changing moral perspective of U.S. citizens. The fourteenth amendment gave legal equality to Blacks. See *THE FOURTEENTH AMENDMENT* 14-38 (B. Schwartz ed. 1970); and H. MEYER, *THE HISTORY AND MEANING OF THE 14TH AMENDMENT* 125-49 (1977). The nineteenth amendment gave women the right to vote. See B. BABCOCK, A. FREEDMAN, E. NORTON & S. ROSS, *SEX DISCRIMINATION AND THE LAW* 54 (1975).

67. There have been laws passed that protect habitat: National Wildlife Refuge System Administration Act of 1977, 16 U.S.C. §§ 668dd-ee (1976), and the Wilderness Act, 16 U.S.C. §§ 1131-1136 (1976); air: Clean Air Act, 42 U.S.C. §§ 1857-1858a (1976); water quality: Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1376 (1976); and particular wildlife: Bald Eagle Protection Act, 16 U.S.C.

to address environmental concerns. Some of these new laws were intended to protect wildlife, but they failed to grant wildlife legal rights. On the state level, such enactments have been justified by an expanded concept of state police power.⁶⁸ Likewise, the courts should be able to accommodate the new environmental laws by expanding the scope of the "community welfare" as a valid police power purpose. Although courts were unwilling at first,⁶⁹ most courts presently recognize that the protection of animals and ecosystems is within the long-range welfare of the community.⁷⁰

On the federal level, the courts have justified the enactment of environmental protection laws on the basis of legislative powers granted by the Constitution.⁷¹ One could argue that these laws press the limits of the Constitution, but the federal judiciary has shown a strong willingness to support the new public concern for protection of the environment.⁷² The first federal enactment on

§§ 668-668d (1976); Fur Seal Act of 1966, 16 U.S.C. §§ 1151-1187 (1976); Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1407 (1976); Wild Free-Roaming Horses and Burros Act, 16 U.S.C. §§ 1331-1340 (1976); Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1976). For an analysis of the major themes of federal wildlife law, see M. BEAN, *supra* note 24, at 66-322.

68. For discussions of state police power, see *Geer v. Connecticut*, 161 U.S. 519 (1895) (regulation of taking of game birds); *Smith v. Maryland*, 59 U.S. 71 (1885) (regulation of the method of taking oysters); *Lawton v. Steele*, 152 U.S. 133 (1894) (regulation of the method of fishing).

69. *E.g.*, during the late 1960s and early 1970s many states and local governments sought to protect wetlands and marshes through regulatory legislation. Several of these laws and ordinances were found to be an improper exercise of police power. See *Bartlett v. Zoning Comm'n*, 161 Conn. 24, 282 A.2d 907 (1971); *State v. Johnson*, 265 A.2d 711 (Me. 1970); *Morris County Land Improvement Co. v. Parsippany-Troy Hills Township*, 40 N.J. 539, 193 A.2d 232 (1963).

70. Most recent cases have found wetland statutes to be a proper exercise of the police power. See *Potomac Sand and Gravel v. Mandel*, 266 Md. 358, 293 A.2d 241 (1972); *Just v. Marinette County*, 56 Wis. 2d 7, 201 N.W.2d 761 (1972). Many states have also passed their own Endangered Species Acts. In upholding New York's Endangered Species Act, the New York Court of Appeals quoted a previous case, stating: "The police power is not to be limited to guarding merely the physical or material interest of the citizen. His moral, intellectual and spiritual needs may also be considered. The eagle is preserved, not for its use but for its beauty." *A.E. Nettleton Co. v. Diamond*, 27 N.Y.2d 182, 192, 315 N.Y.S.2d 625, 632 (1970), quoting *Barret v. State of New York*, 220 N.Y. 423, 428 (1917). See also *Adams v. Shannon*, 7 Cal. App. 3d 427, 86 Cal. Rptr. 641 (1970).

71. U.S. CONST. art. I, § 8, cl. 3 (commerce clause); U.S. CONST. art. IV, § 3, cl. 2 (property clause) and U.S. CONST. art. II, § 2, cl. 2 (treaty power).

72. Within the parameters of judicial discretion, many federal courts have taken innovative positions in support of environmental interests. See Stewart, *Judicial Review of EPA Decisions*, 62 IOWA L. REV. 713, 717 (1977): "While judges

behalf of wildlife concerns was the Migratory Bird Treaty Act, upheld as a legitimate exercise of the treaty power. In 1976 the Supreme Court upheld the constitutionality of the Wild Free-Roaming Horses and Burros Act⁷⁴ under the property clause.⁷⁵ The Court decided that the power "Congress has over public lands necessarily includes the power to regulate and protect the wildlife living there."⁷⁶ The constitutionality of the Endangered Species Act and the Marine Mammal Protection Act has not been questioned yet, but congressional findings also suggest constitutional bases for both pieces of legislation. The Endangered Species Act is arguably based in part on the treaty power since it refers to the international treaty signed by the United States.⁷⁷ The Marine Mammal Protection Act relies in some degree on both the treaty power and the commerce clause as justifications.⁷⁸

have accordingly declined to recognize a constitutional right to environmental quality, considerable evidence suggests that federal courts reviewing administrative action have accorded special protection to environmental statutory construction and the imposition of procedural safeguards." *See also* Zabel v. Tabb, 430 F.2d 199 (5th Cir. 1970), *cert denied*, 401 U.S. 910 (1971) (dredging permit denial); Sierra Club v. Morton, 405 U.S. 727 (1972) (standing issue); Calvert Cliffs' Coordinating Comm. v. United States Atomic Energy Comm'n, 449 F.2d 1109 (D.C. Cir. 1971) (application of NEPA).

73. 16 U.S.C. §§ 703-711 (1976). *See* Missouri v. Holland, 252 U.S. 416 (1920). The Court found that the Act which regulated the taking of birds was justified under the U.S. Constitution as a proper exercise of the treaty power (art. II, § 2). The treaty in question was The Migratory Bird Convention, 39 Stat. 172 (1916).

74. 16 U.S.C. §§ 1331-1340 (1976). This Act protects horses and burros on public lands in the west.

75. Kleppe v. New Mexico, 426 U.S. 529 (1976).

76. 426 U.S. at 541.

77. 16 U.S.C. § 1531(a)(4) (1976). The treaty referred to is the International Trade in Endangered Species of Wild Fauna and Flora, [1973] 27 U.S.T. 1087, T.I.A.S. No. 8249.

78. The congressional finding states:

(4) negotiations should be undertaken immediately to encourage the development of international arrangements for research on, and conservation of, all marine mammals;

(5) marine mammals and marine mammal products either

(A) move in interstate commerce, or

(B) affect the balance of marine ecosystems in a manner which is important to other animals and animal products which move in interstate commerce,

and that the protection and conservation of marine mammals is therefore necessary to insure the continuing availability of those products which move in interstate commerce

16 U.S.C. § 1361(4) - (5) (1976).

As these examples illustrate, recent environmental laws and judicial decisions concerning those laws approach ecological issues from a human perspective. The legal system views the value of wildlife solely in terms of its relation to humans and ignores any independent value it manifests in the ecosystem.⁷⁹ Through most of American history, the legal system has reflected the general view that wildlife are an economic resource that is worth protecting only to assure society that the "free" resource would always be available for exploitation.⁸⁰ It was presumed that the only interest reflected in the legal system was the human one and that all values were derived from calculations concerning usefulness to humans.⁸¹ It is now time to recognize that wildlife have their own interests⁸² and that they should have equal access to the legal system to protect and promote those interests.

D. *The Comparable Interest of Humans and Wildlife*

The biological ties and ecological relationship that exist between humans and wildlife are indicative of their commonality of

79. Professor Tribe considered this a major problem in adequately dealing with environmental issues in general:

A final obstacle remains. Policy analysts typically operate within a social, political and intellectual tradition that regards the satisfaction of individual human wants as the only defensible measure of the good . . . This tradition is echoed as well in environmental legislation which protects nature not for its own sake but in order to preserve its potential value for man.

Tribe, *Ways Not to Think About Plastic Trees: New Foundations for Environmental Law*, 83 YALE L.J. 1315, 1325 (1974). See Stone, *supra* note 4, at 489.

80. *Geer v. Connecticut*, 161 U.S. 519 (1895). "Indeed, the source of the police power as to game birds flows from the duty of the state to preserve for its people a valuable food supply." *Id.* at 534.

81. See note 79 *supra*.

82. Such a suggestion does not denigrate the efforts of wildlife protection to date. Consider the following historical example of a parallel problem. During the period of slavery in the United States, several states had laws that prohibited the killing of slaves. The premise for such legislation was not concern for the slaves themselves, but rather the idea that slaves represented valuable personal property and the statute was intended to protect this property interest. An Abolitionist would have also supported this legislation but for an entirely different reason. His support for such legislation would not be based on property law but upon the concept that all humans are equally deserving of the protection of the law. This author finds himself in somewhat the same position as the Abolitionist. While most certainly supporting the efforts of most protective legislation, the support arises from a different premise. The legislation should be passed to acknowledge the interest of the wildlife and not just to further the economic and aesthetic interest of humans.

interests. As noted previously,⁸³ throughout recorded history Western society had believed that animals and humans were unrelated entities.⁸⁴ It was not until Charles Darwin published his books, *The Origin of Species*⁸⁵ and *The Descent of Man*,⁸⁶ that findings of science truly began to challenge those beliefs. Darwin concluded that from a biological perspective, the difference between humans and the rest of the animal world "certainly is one of degree and not one of kind."⁸⁷ Darwin's theory has been substantiated further by recent studies of the hemoglobin molecule of humans and other animals; these studies have revealed a similarity in molecular structure that supports Darwin's theory of common ancestry.⁸⁸

83. See notes 12-39 *supra* and accompanying text.

84. Consider the following summary of historical attitudes toward animals:

The ancient Greek Philosophers assumed that the world was serenely fixed and unchanging

In the Middle Ages people believed that the world was created for the sake of man. In the Renaissance Copernicus, Galileo, Kepler, Newton, and others discovered the immensity of the universe, and man appeared to recede in importance in the cosmos

. . . .

In Linnaeus's time [1735-1766] every existing species was regarded as separately created, and in about the same condition in which we observe it now. Nevertheless, in the eighteenth and early nineteenth centuries, biologists such as Buffon, Tyson, Camper, and Cuvier could not fail to be impressed by implications of finding more and more basic similarities between human and animal bodies. And among animals, apes and monkeys resemble us most.

T. DOBZHANSKY, S. AYALA, G. STEBBINS & J. VALENTINE, *EVOLUTION* 438-39 (1977) [hereinafter cited as DOBZHANSKY].

85. C. DARWIN, *THE ORIGIN OF SPECIES* (1859).

86. C. DARWIN, *THE DESCENT OF MAN* (1871).

87. *Id.* at 193. For an excellent summary of current scientific understandings of the history of *homo sapiens*, see the book *ORIGINS*, which states that "[u]nquestionably we are part of the animal kingdom." LEAKEY, *supra* note 63, at 10.

88. Hemoglobin is a complex molecule in the blood that carries the oxygen from the lungs to cells throughout the body. The hemoglobin molecule is composed of subunits called amino acids. The alpha chain in the human hemoglobin has 141 amino acids and the beta chain has 146 amino acids. The hemoglobin of the chimpanzee is identical with that of the human. The hemoglobin of a gorilla is identical to that of the human, with only one amino acid substitution in the alpha chain. The mouse would be the same but for 19 differences, and the rabbit would be the same but for 28 differences. Apparently all vertebrates of the animal world use this same basic mechanism for transporting oxygen to the cells of the body. See DOBZHANSKY, *supra* note 84, at 444-45. See also V. GRANT, *ORGANISMIC EVOLUTION* 278 (1977).

This resemblance does not negate the existence of differences between humans

The ties between humans and animals are strikingly apparent at the most fundamental biological level. Deoxyribonucleic acid (DNA) is the ultimate common denominator among all living things. It is a double-helical molecule composed of four different units or groupings of atoms called nucleotides. The nucleotides function as a genetic alphabet by communicating the information necessary to reproduce the earth's multitude of organisms. This is the most basic information of life itself and all organisms, from bacteria to humans, use this same alphabet to recreate their species. The only difference between the DNA of humans and that of a snail or an eagle is the length and order of the units of the DNA molecule. As an organism becomes more complex, more information is necessary for its recreation each generation. At its most elemental level, the evolution of humans is the evolution of a more lengthy DNA molecule.⁸⁹

Not only do men and animals share a common form of biological communication, but because they evolved from a common ancestry, they also share the same biological mechanisms. Humans and animals have the same vital organs, although they exhibit different levels of sophistication.⁹⁰ The higher orders of the animal kingdom also possess the same five senses as humans; indeed, some members of the kingdom have more highly developed senses than humans.⁹¹

The one area in which humans have a distinct physiological advantage over other animals is in the development of the brain. The human brain is not totally different from the brains of other animals; the hind brain, the cerebellum and the forebrain, which developed early in the evolutionary process, are found in other animals and are still present in the human brain. However, it was from these more ancient parts of the human brain that the neocortex evolved, which gives humans their unique capabilities of com-

and the remainder of the animal world but demonstrates that the similarities are more striking than the differences.

89. See DOBZHANSKY, *supra* note 84, at 20. See generally 237 SCIENTIFIC AM., July 1977 at 22; L. CUDMORE, THE CENTER OF LIFE 89-109 (1977); R. DAWKINS, THE SELFISH GENE 22-48 (1976).

90. For a discussion of comparative anatomy, see DARWIN READER 264-66 (Bates & Humphrey ed. 1956); T. DOBZHANSKY, MANKIND EVOLVING 171-74 (1962).

91. The eagle can see farther and sharper; the bat and the dolphin can use sonar to determine distances; the bloodhound can smell better; and many animals have a more highly developed sense of hearing.

munication, organization and abstract thinking.⁹² With the exception of the human neocortex, which has been responsible for the development of a complex society and technology, the commonality between humans and other animals is overwhelming.

In addition to the biological ties between humans and animals, the ecosystem itself is suggestive of other fundamental links. The term "web of life" describes the ecosystem.⁹³ Notwithstanding human inability to communicate with other animals,⁹⁴ humans and animals are fellow-beings who depend equally on the same air and water and other necessities of life. Each human and animal eventually dies, and its atoms return to the ecosystem from which its life and energy was drawn. The atoms which comprise the muscles, blood or brain of a human, at one time might have been at the bottom of the ocean, in the feather of a bird or part of a tree.

92. For a fuller discussion of the development of the human mind and its comparison to nonhuman minds, see LEAKEY, *supra* note 63, at 179-205; C. SAGAN, *THE DRAGONS OF EDEN* 51-83 (1977). Recent research suggests that a structure for the nerve cells in the cortex has been discovered:

[T]he cortex is made up of a mosaic of modular elements: vertical columns of inter-connected nerve cells oriented perpendicularly to the cortical surface

The modular architecture of the cortex is remarkably similar in diverse mammalian species, ranging from rats to monkeys, suggesting that the dramatic increase in behavioral capabilities as one ascends the evolutionary tree is due not to change in the internal structure of the modules but rather to an increase in their number. Extrapolating to man, it appears that the exceptional qualities of the human brain rest primarily in a quantitative improvement rather than a qualitative one: the number of cortical modules in the human cortex is at least several times greater than that of apes and much greater than that of other mammalian species.

239 *SCIENTIFIC AM.*, Sept. 1978, at 97.

93. One author has described the interrelationships of the web of life:

You see in this beauty a dynamic stabilizing effect essential to all life. Its aim is simple: to maintain and produce coordinated patterns of greater and greater diversity. Life improves the closed system's capacity to sustain life. Life—all life—is in the service of life. Necessary nutrients are made available to life in greater and greater richness as the diversity of life increases. The entire landscape comes alive, filled with relationships and relationships within relationships.

F. HERBERT, *DUNE* 505 (appendix 1) (1965).

94. Some would argue that this statement is no longer correct due to breakthroughs in attempts to communicate with higher order mammals like gorillas, chimpanzees and dolphins. See D. RUMBAUGH, *Land [chimpanzee] Learning Language: A Progress Report*, *BRAIN AND LANGUAGE* 205-12 (vol. 1(2) 1974). See generally E. HAHN, *LOOK WHO'S TALKING* (1978); F. DAVIS, *ELOQUENT ANIMALS* (1978).

One manifestation of the mutual dependence of all living things in the "web of life" is the concept of elemental cycles.⁹⁵ The oxygen cycle is a prime example of an elemental cycle. Oxygen originates from the decomposition of water molecules by light energy in plant photosynthesis. Carbon dioxide, on the other hand, which is partially derived from animal respiration, enables plants to convert water into an organic molecule and provides the oxygen atoms for the organic molecule which is produced by plant photosynthesis and which constitutes the fundamental unit of biochemical energy.⁹⁶ Thus, a disruption of one part of the cycle will have an impact on other segments of the cycle.⁹⁷ In addition to elemental cycles, weather cycles and water cycles also are interrelated with each other, and with plants and animals. Despite enormous technological advances, humans and animals are dependent upon these cycles.

Another fundamental element of the ecosystem is the food chain. Every living thing is a potential food source for other living things, and each animal's body requires food for energy and survival.⁹⁸ Since only plants can derive energy directly from the sun, killing for food is an integral part of the ecosystem because an animal or plant must die in order for another animal to continue living. The food chain is further evidence of commonality of interests between humans and animals since each organism is dependent on those nearer the beginning of the chain for the transfer of food energy.⁹⁹

95. An elemental cycle is the use and re-use of a particular element starting with the element in its free state (e.g., N₂, O₂, Fe) and its conversion into more complex chemical compounds through biochemical processes. Following biochemical absorption by living organisms such compounds break down and by either death or elimination, the element is removed from the organism, subjected to further biochemical reactions, and released, ready to start its cycle anew. *See generally*, E. ODUM, *FUNDAMENTALS OF ECOLOGY* 86-92 (3d ed. 1971).

96. P. CLOUD & A. GIBOR, *The Oxygen Cycle*, in *THE BIOSPHERE* 59-61 (Scientific American 1970).

A representative chemical equation for the conversion of oxygen to carbon dioxide and back to oxygen would be:

$$\text{C}_6\text{H}_{12}\text{O}_6 \text{ (sugar)} + 6\text{O}_2 \longrightarrow 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{energy (animal respiration)}$$

$$6\text{CO}_2 + 6\text{H}_2\text{O} + \text{sunlight} \longrightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \text{ (plant photosynthesis)}$$

See generally E.D.P. DEROBERTS, W. NOWINSKI & F. SAEZ, *CELL BIOLOGY* 244-46 (5th ed. 1970).

97. *See* P. COLINVAUX, *INTRODUCTION TO ECOLOGY* 197-228 (1972); T. EMMEL, *ECOLOGY & POPULATION BIOLOGY* 12 (1973).

98. *See* P. COLINVAUX, *supra* note 97, at 145-80; T. EMMEL, *supra* note 97, at 24-37.

99. E. ODUM, *supra* note 95, at 63.

The relative stability of the earth's ecosystem is derived from the interplay of energy transfers and the elemental cycles. These control mechanisms provide the homeostatic environment which all life has adapted to and is dependent on.¹⁰⁰ Although man has erected many physical barriers between himself and the environment, man's survival is inextricably dependent upon the environment for food, air and water. As man destroys wildlife and its habitats, parts of the web of life are destroyed; if a sufficient amount of the web is destroyed, the ecosystem could be seriously endangered.¹⁰¹

100. *Id.* at 35.

101. One might argue that since humans are part of the ecosystem, all human activities, including the negative impacts, must be part of nature's plan. This logic compels the conclusion that the killing of wildlife, or even an entire species, is part of the "natural" process and therefore is of no particular consequence. This reasoning is faulty, however, when the rate of change is considered from an evolutionary perspective. The House Report on the Endangered Species Act of 1973 noted:

Throughout the history of the world, as we know it, species of animals and plants have appeared, changed, and disappeared. The disappearance of a species is by no means a current phenomenon, nor is it an occasion for terror or panic.

It is however, at the same time an occasion for caution, for self-searching and for understanding. Man's presence on the Earth is relatively recent, and his effective domination over the world's life support systems has taken place within a few short generations. Our ability to destroy, or almost destroy, all intelligent life on the planet became apparent only in this generation. A certain humility, and a sense of urgency, seem indicated.

From all evidence available to us, it appears that the pace of disappearance of species is accelerating. As we homogenize the habitats in which these plants and animals evolved, and as we increase the pressure for products that they are in a position to supply (usually unwillingly) we threaten their—and our own—genetic heritage.

H.R. REP. NO. 412, 93d Cong., 1st Sess. 4 (1973). See 114 SCIENCE NEWS 233 (1978).

Consider the consequences to the human body if the rate of cell reproduction of any individual cell varies from the normal rate. The body is like a small ecosystem which derives its energy from food rather than sunlight. The body is made up of many types of cells, all of which perform various functions. Apparently, with certain exceptions, throughout most of the human life, new cells are formed as needed by the division of existing cells. If, for some reason, one of the cells in the body starts to reproduce at a significantly higher rate than its neighbors, the pathological condition known as cancer arises. If the rate of cell growth is not returned to normal (by removal or treatment) then the entire body will die because, as a self-contained entity, it is unable to adjust to the unnatural rate of growth of a small portion of itself.

The impact of human activities on the earth in many ways is analogous to the impact of cancer on the human body. The similar acceleration in the rate of change or growth is unnatural in the normal evolution of ecosystems. New chemicals are

E. *Recognition of Wildlife's Interest*

Arguably, a major stumbling block to recognizing wildlife rights is the problem of how humans can presume to know animals' best interests when animals cannot communicate with humans. With the possible exception of the most intelligent animals, it may be questionable whether humans can ever truly know what a particular animal or species desires or needs. However, the presumption that certain interests are so fundamental that all humans should be accorded legal rights to protect these interests, whether or not they individually ask for them,¹⁰² should be extended to wildlife. As humans have both a self-interest and a moral obligation to recognize the rights of other human beings, they have an equivalent interest and obligation to recognize the interests of wildlife since the stability and integrity of the ecosystem is at stake. Moreover, the moral burden demanding this recognition is particularly great when human activities cause serious intrusions upon the interests of the wildlife community. Given the reasonable presumption that humans should recognize the fundamental interests of wildlife, important questions remain: What are wildlife's interests? What rights should wildlife be accorded? After these rights are granted, how will conflicts between human rights and wildlife rights be resolved?

III. WILDLIFE RIGHTS

A. *Property Interest*

One of the foundation stones upon which western legal systems are built is the concept of property ownership by individual human beings and other recognized legal persons. There is a wide range of theories purporting to trace and explain the concept of private ownership of property.¹⁰³ However, humans have not al-

constantly being added to the air and water, land is being cleared of its natural vegetation, and wildlife species are being eliminated at a rate much faster than natural history would suggest. It is questionable whether the ecosystem can adjust to these sudden changes and whether the various cycles in the ecosystem can continue to perform their functions of sustaining life on this planet.

102. A partial list of the rights found in the International Covenant on Civil and Political Rights includes (A) the inherent right to life (art. 6); (B) the right to liberty and security of the person (art. 9); and (C) the right to liberty of movement and freedom to choose a residence (art. 12). F. KIRGIS, *supra* note 62, at 976-77.

103. Professor Cribbet mentions the occupation theory, the natural rights theory, the labor theory, the legal theory and the social utility theory. J. CRIBBET, *PRINCIPLES OF THE LAW OF PROPERTY* 6 (1975). See generally *ECONOMIC FOUNDATIONS*

ways made property claims of a private nature. Although man has shared the earth with animals for perhaps three billion years, the concept of private property only arose subsequent to the agricultural revolution ten thousand years ago.¹⁰⁴

The use of land is as important to wildlife as it is to humans. Since wildlife have an inherent interest in survival, they require enough land to effectuate that interest.¹⁰⁵ Wildlife need land to find food, to mate and to engage in those activities that are peculiar to each species. There are three possible approaches that the legal system could use to protect wildlife's interests in land: (1) allow wildlife to possess title to land, (2) impose limitations upon the property rights of legal persons or (3) hold certain lands for the benefit of wildlife. While the first alternative would be extremely difficult to implement, either the second or third alternatives could amply protect wildlife interests.

The property rights accompanying land ownership allow a property owner to ignore the needs of any wildlife located on it.¹⁰⁶ Indeed, unless precluded by game regulations or special federal laws, the owner of land may kill any wildlife found on his property. If the interests of wildlife are to be protected, the "bundle of rights" deemed to inhere in property ownership must be modified. The liberty of a human to use the property or change its form should be allowed only to the extent that the proposed use or change will not unreasonably or unnecessarily interfere with the local ecosystem and its wildlife. This restriction would be comparable to the requirement imposed by several states when the eco-

OF PROPERTY LAW (B. Ackerman ed. 1975); 3 R. POUND, JURISPRUDENCE § 86, at 105; PATON & DERHAM, *supra* note 47, § 119, at 538; G. THOMPSON, 1 REAL PROPERTY 1-4 (1924).

104. LEAKEY, *supra* note 63, at 119-45, 176-77.

105. Air and water are also included in the term "land." Flying animals need enough air as part of their territory; aquatic animals need enough water.

106. Dean Pound lists six basic rights that are included within the concept of ownership of real property:

- (1) *jus possidendi*, the right to have and get possession;
- (2) *jus prohibendi* or *excludendi*, the right to prevent interference by others.
- (3) *jus disponendi*, the power of alienating to others;
- (4) *jus utendi*, the liberty of using the object according to the owner's will;
- (5) *jus fruendi*, the liberty of enjoying the fruits of the property; and
- (6) *jus abutendi*, the liberty of changing its form or even destroying it.

5 R. POUND, JURISPRUDENCE § 133, at 128.

system in question is a wetlands or a marsh.¹⁰⁷ Accordingly, where an area is of prime importance to the ecosystem, wildlife and habitat preservation would take priority over man's unrestricted use¹⁰⁸ and neither humans nor animals could claim absolute rights relative to land.

The proper focus of concern should be the ecosystem rather than a particular bird or mammal because many animals are transient, and proof of interference with a particular animal on a given piece of land may be impossible. The ecosystem itself is always present and is the best measure of the actual and potential presence of the animal kingdom; as the common denominator, it is the best measuring device of the potential interference with the interests of wildlife. In addition, not all wildlife are found in all places, so the best measure of which wildlife have an interest in a particular geographic location is the natural ecosystem at that location.

Presumably, an administrative permit-granting process would be used to give a full public review of proposed human activities that would affect wildlife. Prior to reaching a decision, the administrative hearings officer would need to determine the nature of the proposed project, its potential disruption to the locality and the ecological value of the area that would be disrupted. Ecological value could be measured in terms of the worth of a healthy and balanced ecosystem that could support the native wildlife.

Recent breakthroughs in man's understanding of ecosystems can aid in identifying the ecological value of a particular piece of property. This valuation of ecosystems has already been done for Virginia's coastal wetlands. In 1972, the Commonwealth of Virginia passed a Wetlands Act¹⁰⁹ which required a permit for any activity that would disrupt a wetlands area.¹¹⁰ The Act required the administrative decisionmaker to assess every permit application by the same primary standard: "[w]etlands of primary ecological

107. See text accompanying notes 109-12 *infra*.

108. In *Turner v. County of Del Norte*, 24 Cal. App. 2d 311, 101 Cal. Rptr. 93 (1972), a California Court of Appeals upheld a local ordinance that prohibited the development of plaintiffs' land because of its location in a flood plain. See *Turnpike Realty v. Town of Dedham*, 284 N.E.2d 891 (Mass. 1972) (protection of flood plain); *Speigle v. Beach Haven*, 46 N.J. 479, 218 A.2d 129 (1966) (protection of beach); *Potomac Sand and Gravel v. Mandel*, 266 Md. 358, 293 A.2d 241 (preservation of wetlands); and *Just v. Marinette County*, 56 Wis. 2d 7, 201 N.W.2d 761 (preservation of wetlands).

109. VA. CODE §§ 62.1-13.1 to 13.20 (Supp. 1978).

110. VA. CODE § 62.1-13.3 (Supp. 1978).

significance shall not be altered so that the ecological systems in the wetlands are unreasonably disturbed. . . ."¹¹¹ The Virginia Institute of Marine Science was charged with the responsibility of scientifically evaluating wetlands.¹¹²

The Institute's first report addressed the biological impacts on wetlands of various human activities, such as dredging, building a pier or constructing a bulkhead.¹¹³ It also described many of the marsh plants, explained the role they played in the ecosystem¹¹⁴ and determined that wetlands could be broken down into twelve different types of plant communities. In a later report, the Institute discussed the twelve types of marshes. The report included a scientific evaluation of each type of marsh and rated the types in terms of which were the most valuable to wetlands' ecosystems.¹¹⁵

Scientific studies like those used to implement Virginia's Wetlands Act could be done for all types of ecosystems. The proposal that the welfare of the ecosystem should impose appropriate limits on property rights will require long-range planning of resource and land uses and a detailed scientific appraisal of how various types of land uses interact with ecosystems. By condensing scientific knowledge into a systematic framework, the administrative decisionmaker will have an objective basis for judging the value to wildlife of particular parcels of land and limiting humans' land use accordingly.

Man and wildlife often can use the same land without conflicts, but there are three situations where conflicts will have to be

111. VA. CODE § 62.1-13.3 (Supp. 1978).

112. VA. CODE § 62.1-13.4 (Supp. 1978).

113. L. Marcellus, G. Dawes & G. Silberhorn, *Local Management of Wetlands—Environmental Considerations*, 10-21 (Special Report No. 35, Virginia Institute of Marine Science) (1973).

114. *Id.* at 47-79. *E.g.*, under its listing, cattails' habitats are "freshwater marshes and upland margins of brackish or low saline marshes;" cattail production is "3-4 tons per acre annually;" and associated animal species are muskrats and geese, who eat cattail root stocks, and marsh birds, especially redwing blackbirds, for whom cattails provide a nesting habitat. *Id.* at 67.

115. G. Silberhorn, G. Dawes & T. Barnard, *Guidelines for Activities Affecting Virginia Wetlands*, (Special Report No. 46, Virginia Institute of Marine Science) (1974). The categories used to evaluate each plant community include dominant vegetation, growth, habit, average density, annual production (*i.e.*, food available for the food chain), water fowl and wildlife utility, water quality control and flood buffer. The type I salt marsh cordgrass community is listed among the most important; "[c]onsidering the many attributes of this type of marsh community, its conservation should be of highest priority." *Id.* at 6.

resolved. First, particular species, such as the desert bighorn sheep of the western United States, cannot coexist with humans and their activities.¹¹⁶ Second, the supporting ecosystems of certain species cannot coexist with the economic development of humans. For example, crabs, oysters and fish can coexist with human activity, but the marshes and wetlands upon which they depend for food and shelter cannot support any human development and must remain in their natural states.¹¹⁷ Third, certain endangered or threatened species cannot survive unless humans refrain from interfering with their habitats.

In the first area of conflict, where a particular species cannot coexist with humans, the only realistic solution is to set aside the acreage necessary to support their survival. Much of the critical land already is owned by the United States.¹¹⁸ Moreover, the federal government and some states have shown a willingness to set aside large tracts of land for the benefit of wildlife. Yellowstone National Park was the first example of a substantial amount of land preserved in its natural state.¹¹⁹ Many private organizations are also working toward the goal of preserving land in its natural state. For example, the Nature Conservancy recently completed a transaction that will preserve twenty-six square miles of land in the Santa Rosa Mountains of southern California for the benefit of the desert bighorn sheep. In 1977, the same organization acquired an option on 6,029 acres of land which are part of the critical habitat of the endangered Mississippi sandhill crane.¹²⁰

The clearest example of the second area of conflict, where the animals' supporting ecosystem is unable to withstand human interference is the coastal marshes or wetlands. Only during the past twenty years has the ecological value of these areas become apparent to scientists.¹²¹ Many states have enacted laws restricting the

116. See note 124, *infra*.

117. See E. ODUM, *supra* note 95, at 345-60 for a description of the sensitivity of estuary ecosystems.

118. Nearly one third of the total land area of the United States is federally owned. M. BEAN, *supra* note 24, at 126.

119. Established by 17 Stat. 32 (1872) (presently 16 U.S.C. § 21 (1976)). See J. TREFETHEN, *supra* note 33, at 76-90.

120. Byers, *Let Them Live*, the Nature Conservancy News, Fall 1977 at 8.

121. See, e.g., M. Wass & T. Wright, *Coastal Wetlands of Virginia* (1969), Special Report No. 10, Virginia Institute of Marine Science; J. TEAL & M. TEAL, *LIFE AND DEATH OF THE SALT MARSH* (1969).

use of privately owned wetlands.¹²² While some of the first attempts were rejected by the courts as unconstitutional takings, most courts now consider the infringement of private property rights to protect wildlife and their habitats as within the states' police power.¹²³

In the third category of conflict, where species are endangered or threatened, a partial solution is already available in the Endangered Species Act of 1973.¹²⁴ Man's destruction of animal habitats is one of the principal reasons why an individual species is listed on the endangered species list. Accordingly, section 7 of the Act¹²⁵ requires that all federal agencies cease any activity which will destroy or modify the critical habitat of any endangered or threatened species.¹²⁶

The U.S. Supreme Court recently adjudicated a conflict between a species habitat and human activity in *Tennessee Valley Authority v. Hill*.¹²⁷ The Tennessee Valley Authority wished to dam up a portion of the Little Tennessee River. However, the Secretary of the Interior determined that a portion of the area that would be flooded by the dam was a critical habitat for the snail darter,¹²⁸ a small fish which was listed by the Secretary as endangered.¹²⁹ The Secretary then determined that, under section 7 of the Endangered Species Act,¹³⁰ the construction of the dam must stop. This determination resulted in a direct confrontation between an agency that had already expended approximately \$80 million and a three-inch fish faced with extinction.¹³¹ The Court,

122. See Note, State and Local Wetland Regulation: The Problem of Taking Without Just Compensation, 58 VA. L. REV. 876 (1972); Note, Wetland Fill Restrictions Do Not Constitute a Compensable "Taking" Within the Meaning of the Fifth Amendment, 4 SETON HALL L. REV. 662 (1972); and F. BOSSELMAN, THE TAKING ISSUE 155-63 (1973).

123. See *Potomac Sand and Gravel v. Mandel*, 266 Md. 358, 293 A.2d 241 (upholding a wetlands statute); *Just v. Marinette County*, 56 Wis. 2d 7, 201 N.W.2d 761 (upholding a wetlands statute); and *A.E. Nettleton Co. v. Diamond*, 27 N.Y.2d 182, 315 N.Y.S.2d 625 (upholding New York's Endangered Species Act).

124. 16 U.S.C. §§ 1531-1543 (1976).

125. 16 U.S.C. § 1536 (1976), quoted in note 57, *supra*.

126. "The two major causes of extinction are hunting and destruction of natural habitat." S. REP. NO. 307, 93d Cong., 1st Sess. 2, reprinted in [1973] U.S. CODE CONG. & AD. NEWS 2989, 2990.

127. ___ U.S. ___, 98 S. Ct. 2279 (1978).

128. 50 C.F.R. § 17.95(e) (1977).

129. 50 C.F.R. § 17.11(i) (1977).

130. 16 U.S.C. § 1536 (1976)

131. *T.V.A. v. Hill*, 98 S. Ct. at 2283-91.

in a six to three decision, upheld the injunction forbidding completion of the dam, stating that "Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities, thereby adopting a policy which is described as 'institutionalized caution.'"¹³² Thus, the habitat needs of an endangered species were held paramount to a proposed human development which would be directly at odds with those needs. This result also could have been reached by applying this Article's proposed modification of property rights: if a human land use would destroy an ecosystem essential to the snail darter's survival, the human land use should be prohibited.

The major drawback to the present federal endangered species legislation is that it only protects critical land habitats where the land is owned by the federal government or where the proposed activity requires federal approval. Because federal laws do not protect critical wildlife habitats owned by private individuals, there is a need for additional legislation in this area.

A major habitat issue presently before Congress concerns Alaska. During 1979 Congress must determine the legal status of 100 million acres of federal land in Alaska.¹³³ This situation presents an opportunity to preserve large tracts of wildlife habitats at minimal expense. Congress must decide to what degree, if any, human development and resource exploitation will be allowed in the subject tracts of Alaskan land. The extent that a proposed economic use, such as mining or timber cutting, conflicts with the needs and interests of the existing wildlife and the supporting ecosystem should be carefully weighed. However, wildlife may not have sufficient habitat reserved for their use in Alaska since they have no right to habitat. At present, wildlife are dependent on the political power of various national environmental citizens' groups who seek to preserve their habitats.¹³⁴

Thus, there is a need for legislation that will recognize the interests of wildlife in public and private land use decisions. This

132. *Id.* at 2302.

133. H.R. 39, 95th Cong., 1st Sess., 123 CONG. REC. 79 (1977). The bill passed the House by a 277 to 31 vote on May 19, 1978. 124 CONG. REC. 4329 (1978). The Senate, however, rejected the bill during the close of the 1977 session.

134. As of July 1978, a partial list of the Alaska Coalition's member organizations included Defenders of Wildlife, Environmental Defense Fund, Friends of the Earth, National Audubon Society, Sierra Club and The Wilderness Society.

could be accomplished with a broadly worded statute covering a multitude of potential situations. An example of such an act, which with minor changes would allow wildlife interests to be represented, is the Michigan Environmental Protection Act of 1970.¹³⁵ This Act allows any individual to bring an action when it is believed that the conduct of a particular "defendant has, or is likely to pollute, impair or destroy the air, water or other natural resources or the public trust therein"¹³⁶ Judges are granted broad discretion under this law to effectuate a variety of remedies, including temporary and permanent equitable relief or the imposition of conditions on the defendant.¹³⁷ This law requires one basic addition to insure that the interests of wildlife will be protected: a person may bring a suit when the actions of another would unreasonably or unnecessarily interfere with the habitat of wildlife.¹³⁸

Finally, the other legislative approach to protecting the interests of wildlife would be the permit process used in wetlands preservation.¹³⁹ Under this system, a permit would be required for any land use likely to be adverse to natural ecosystems and wildlife. Thus, either this permit system or the modified Michigan Environmental Protection Act would redefine property rights to preserve wildlife and their essential habitats.

B. Individual Rights.

The suggestion that an individual animal could have legal rights would apparently contradict Western cultural history. To be sure, the notion that an animal is no different from a tree or an iron ore deposit that exists for human exploitation is longstanding in the Western tradition.¹⁴⁰ Therefore, accepting the proposition that individual animals should have legal rights would require a difficult intellectual and cultural transition. Yet the possibilities

135. MICH. COMP. LAWS ANN. § 699.1201-699.1207 (MICH. STAT. ANN. § 14.528(201)-14.528(207)(Callaghan 1976)).

136. MICH. COMP. LAWS ANN. § 691.1203 (MICH. STAT. ANN. § 14.528 (203)(Callaghan 1976)).

137. MICH. COMP. LAWS ANN. § 691.1204(1) (MICH. STAT. ANN. § 14.528(204)(1)(Callaghan 1976)).

138. Such broad language is unlikely to generate frivolous or burdensome numbers of lawsuits. See Sax & Conner, *Michigan's Environmental Protection Act of 1970: A Progress Report*, 70 MICH. L. REV. 1003 (1972), which finds that such broad language has not resulted in a flood of unnecessary litigation.

139. See note 109 *supra*.

140. See notes 12, 22, 27 and 45 *supra* and accompanying text.

for recognizing animals' legal rights are a function of how humans perceive animals' interests.

Most authors who have considered the rights of individual animals agree that the unnecessary suffering that man inflicts on animals should be eliminated.¹⁴¹ While this approach has merit, it is not the one suggested here. Instead, the natural ecosystem provides the basis from which the rights of wildlife can be derived; hence, the focus of this article is "wildlife rights" and not "animal rights." Domestic animals such as cats and dogs, and animals bred for human purposes, such as cattle and sheep, are not wildlife in the ecological sense nor are they part of the natural ecosystem. This is not to say that animals other than wildlife should not receive concern and protection; rather, their rights will have to be derived from an analytical basis other than the ecosystem.

What rights should be allocated to wildlife? Should they have the right to vote or the right to trial by a jury of their peers? Obviously, these rights make no sense since man and animals are unable to communicate. Moreover, such rights are not essential to protect wildlife's interest in living a natural life. In determining which rights should be granted, the natural ecosystem serves as the touchstone: the proper focus is the physical world of wildlife and ecosystems rather than the subjective and nonscientific morass of moral attitudes and religious precepts.

Since the most critical concern for any living being is its continued physical existence,¹⁴² this interest must be articulated as a right within the human legal system. Since human interference poses a serious threat to the survival of wildlife, the legal system must place appropriate limitations on human actions. Wildlife's right to survival would require that criminal and civil liability be imposed on humans violating this right. Certainly, the laws which restrain the government and individual humans from intentionally

141. See J. BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 311 (1907); and T. REGAN & P. SINGER, *supra* note 22, at 190, 197.

142. Again, the issue arises whether humans can speak for wildlife. Since it is presumed that humans prefer life to death, the same premise can reasonably be applied to animals even though the interest of a particular animal may never be known. There is no scientific evidence of animal behavior suggesting that wildlife do not prefer life to death. There is scientific evidence, however, of animals showing the same responses to potentially dangerous situations in an effort to preserve themselves and their families. See note 102 *supra* and accompanying text.

harming a particular human¹⁴³ could be expanded to protect the personal security of wildlife. But the legal system would also generate defenses for alleged human violators, which perhaps would parallel modern tort law. Thus, the guarantee of wildlife's security will be no more absolute than that of humans'.¹⁴⁴

There are three potential exceptions to wildlife's right to personal security and the rule of noninterference by humans: (1) the conflict with individual human survival; (2) the problem of humans acting as substitute predators; and (3) the problem of providing protein for the human population with respect to the concept of sustained yield. The first exception would permit a consumer-hunter to kill wildlife in order to sustain his own life, for humans should be allowed to pursue their own self-interest when there is an issue of personal survival.¹⁴⁵ Thus, the killing of wildlife to provide feathers for hats or skins for coats would not be included in this exception.

The second potential exception concerns another category of hunter, the sport hunter. For example, deer hunting is justified by some hunters on the basis that humans merely serve as substitute predators who control the deer's population levels. However, the intervention of sport hunters has disturbed the normal predator-prey relationships.¹⁴⁶ Moreover, many states have implemented wildlife "management" programs to increase the population levels of desirable species such as deer.¹⁴⁷ If the dignity and interests of individual animals are to be truly recognized, sport hunting must not be allowed to continue.¹⁴⁸ To be sure, an abrupt halt to deer

143. However, the government may demand a person's participation in war, some states permit a person to be executed for the commission of certain crimes, and in situations such as self defense the intentional killing of humans is justified.

144. If animals are granted rights, it follows that the legal system could impose certain obligations on them as well. Any legal person capable of bringing suit is also subject to being sued by others. It may be possible to satisfy a judgment against an animal through a fund of money or other assets that have accumulated by virtue of their previous successful actions. However, defining these rights and obligations would require more extensive treatment than the scope of this Article entails. See Stone, *supra* note 4.

145. While it is doubtful that killing could be justified based on human cultural traditions, it is likely that killing to defend humans and their property could be justified.

146. M. FROME, *BATTLE FOR THE WILDERNESS* 72-75 (1974).

147. J. TREFETHEN, *supra* note 33, at 245-47.

148. Historically, hunters have played a role in the concern and protection of wildlife at a time when very few cared. These prior good deeds, however, cannot justify the continuation of hunting in light of new scientific and social concern.

hunting could have adverse consequences for both humans and deer. A deer population unchecked by the annual rite of hunting would create a short-term population explosion that would be destructive to agricultural interests. In addition, when the deer's food supply was diminished, many deer would become undernourished and susceptible to disease and adverse weather. Thus, while sport hunting should be stopped to insure wildlife's right to survive, temporary human intervention might be required to allow a natural balance to reestablish itself. Programs supporting artificially high population levels should be eliminated, and natural predators should be introduced to control population levels.¹⁴⁹ Until these steps are implemented, hunting might be allowed on a controlled basis when it is in the best interest to reduce a species' population level. Such policies and programs would be for the benefit of the wildlife species, however, and not for the benefit of the hunter.

The third exception to wildlife's right to survival involves the commercial taking of wildlife for food consumption. Sportsmen who consume the game they kill are not engaged in a commercial activity and would not be subject to this exception. Moreover, wildlife that is killed for commercial uses other than food also would not fall within this exception. In the United States, fish constitutes the greatest volume of wildlife that is killed for commercial uses. Commercial enterprises and the society at large have recognized that it is seldom beneficial to eliminate an entire species used in commercial sales because there will be nothing to kill the next year. Therefore, the concept of sustained or optimum yield has developed to determine how much of a species can be "harvested" on an annual basis.

Sustained or optimum yield involves calculating the number of animals that can be harvested for human consumption within a particular ecosystem over the long run without harming the long-term productivity of that species.¹⁵⁰ This concept has become a

149. Man's elimination of predators in many areas was so effective that human intervention will be required to allow predators to return to their natural range. For example, the U.S. Fish and Wildlife Service recently released a pair of red wolves in the Cape Romain National Wildlife Refuge near Charleston, South Carolina. These wolves had been previously trapped in Texas and bred in Tacoma, Washington. U.S. Dep't of Interior, Endangered Species Tech. Bull. No. 1 (1978).

150. The Marine Mammal Protection Act gives the definition of an equivalent concept, an "optimum sustainable population" as follows:

(9) The term "optimum sustainable population" means, with respect to any population stock, the number of animals which will result in the

sophisticated tool of wildlife management, particularly in the area of fisheries.¹⁵¹ The development of this management system is the logical consequence of applying new science and technology to the old belief that animals are merely another form of resource which can be managed to maximize human utilization. While this concept does have the desirable effect of preserving a species, it obviously does not take into account any legal interest that an individual animal may have in preserving its life. The dignity of the individual animal should take precedence over scientific justifications for killing individual animals.

Several criteria should be met by any commercial entity in the business of killing wildlife. First, the commercial entity should seek a permit through an administrative process, which would be granted only after it is shown that the nutritional value of the wildlife is essential for the diet of the society's individual members, and that there is no reasonable alternative. This will require the difficult balancing of options and economic, environmental and political consequences. Second, if wildlife must be taken commercially for food this taking should be subject to the limitations of sustained or optimum yield. Current implementation of this concept in fisheries management indicates that such a requirement would not be overly burdensome.¹⁵² These two criteria would require the government to conduct a very broad evaluation of the nation's food supply needs. Accordingly, the government's ultimate objective should be to phase out this use of wildlife to give maximum effect to wildlife's right to noninterference by humans.

The commercial killing of wildlife for food is intended to represent a very limited exception to the principle that individual wildlife should be free from the interference of humans. The example of the Alaska polar bear demonstrates that the sustained yield

maximum productivity of the population or the species, keeping in mind the optimum carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

16 U.S.C. § 1362(9) (1976).

151. See Fishery Conservation and Management Act, 16 U.S.C. §§ 1801-1882 (1976). In describing the contents of the required fisheries management plan, one of the elements to be calculated is "the maximum sustainable yield and optimum yield" of the affected species. 16 U.S.C. § 1853(a)(3) (1976). As an example of the complexity of the scientific discussion, see Scarff, *The International Management of Whales, Dolphins, and Porpoises: an Interdisciplinary Assessment*, 6 *ECOLOGY L.Q.* 323, 387-427 (1977).

152. *Id.*

concept may be abused. The polar bear is currently protected from hunting by the Marine Mammal Protection Act.¹⁵³ Several wildlife authorities agree that the polar bear is approaching the maximum population that its habitat can support. These authorities argue that Alaska should be allowed to take over control of the polar bear, with the likely result that hunting permits would be granted for limited killing of the polar bear population. Thus, the sustained yield concept would be abused by permitting sport hunters to gratify their urge to kill in derogation of the noninterference principle.¹⁵⁴

C. Species Rights

Species of wildlife have a right to continued existence because each species serves a necessary function in the ecosystem and because the elimination of a species forecloses one possible line of evolution. The preservation of every unique species will promote the strength and complexity of the ecosystem.¹⁵⁵ Whenever a species is eliminated by human intervention, a wide range of options for the future is foreclosed. The House Report on the federal Endangered Species Act¹⁵⁶ recognized the need for preserving the gene pool as a source of further development of the pool and as a data bank for science. Since every species, by definition, displays a unique set of adaptations to the environment, species preservation may help future scientists unlock secrets of nature.

The basic rights of wildlife species can be simply stated: no species of wildlife shall be endangered¹⁵⁷ or eliminated by the activities of human beings. A species that is threatened or endangered

153. 16 U.S.C. §§ 1371-1372 (1976).

154. There is another reason why the sport hunter should not be allowed to engage in the hunting ritual. Since humans are prohibited from killing other humans for personal gratification or any other motive, humans should likewise be prohibited from killing individual animals to protect their personal dignity and interest. However, the enactment of laws in the future to protect the rights of wildlife may not alone solve the problem. *E.g.*, although the American bald eagle has been protected by federal law since 1940, June 8, 1940, ch. 278, § 1, 54 Stat. 250 (codified at 16 U.S.C. § 668 (1976)), it is still intentionally shot and killed. Schueler, *Incident at Eagle Ranch*, Audubon, May, 1978 at 41.

155. See note 93 *supra* and accompanying text.

156. H.R. Rep. No. 412, 93d Cong., 1st Sess. 4 (1973).

157. The federal Endangered Species Act of 1973 gives the following broad definition: "The term 'endangered species' means any species which is in danger of extinction throughout all or a significant portion of its range" 16 U.S.C. § 1532(4) (1976).

should not be hunted for any purpose. If any individual or group believes that the killing of a threatened or endangered species is necessary for human survival, the government is under an affirmative duty to find alternative sources of protein.

A conflict involving species rights has arisen in Alaska, where the natives still hunt and kill the bowhead whale, an endangered species. Due to its low population levels, the bowhead whale is protected under the Endangered Species Act,¹⁵⁸ the Marine Mammal Protection Act¹⁵⁹ and the International Whaling Convention (IWC) of 1938.¹⁶⁰ While the two federal acts have exempted whaling by native Alaskans,¹⁶¹ in 1977 the IWC banned any hunting of the bowhead whale.¹⁶² The United States had the option of objecting to the IWC ruling within 90 days. When it appeared that the State Department was not going to object, the Eskimos filed suit to compel the Secretary of State to file an objection so they could retain their hunting rights. The U.S. District Court for the District of Columbia¹⁶³ ordered the Secretary of State to file an objection immediately. The Secretary appealed and the U.S. Court of Appeals for the District of Columbia found that the Secretary could properly decline to object to the IWC ruling since it involved a question of foreign policy.¹⁶⁴ The court failed to address and resolve the pressing conflict between the interests of an endangered species of whale and the Eskimos' right to kill the bowhead.

The basic concept of species preservation has received worldwide recognition and is the subject of international treaties¹⁶⁵ and federal laws.¹⁶⁶ The most difficult problem posed by a commitment to species preservation is that presented by species that are presently threatened or endangered by previous human interference or indifference.¹⁶⁷ The challenge facing humans is that of correcting prior harmful actions and general lack of concern. The U.S. Fish

158. 16 U.S.C. § 1533 (1976); 50 C.F.R. § 17.11 (1977).

159. 16 U.S.C. § 1371 (1976).

160. 52 Stat. 1460, 1461 (1938) (art. 4 protects right whales of which the bowhead are a subspecies).

161. 16 U.S.C. § 1539(e) (1976); 16 U.S.C. § 1371 (1976).

162. *Adams v. Vance*, 570 F.2d 950, 952-53 (D.C. Cir. 1977).

163. *Adams v. Vance*, No. 77-1834 (D.D.C. Oct. 21, 1977).

164. 570 F.2d at 954-57.

165. *E.g.*, the Convention on Int'l Trade in Endangered Species of Wild Fauna & Flora, [1973] 27 U.S.T. 1087, T.I.A.S. No. 8249.

166. *See notes 55-57 supra*.

167. The species are listed in 50 C.F.R. § 17.11 (1977).

and Wildlife Service has already manifested a sense of obligation by forming Recovery Teams for many endangered or threatened species. These Recovery Teams include wildlife experts whose job involves reporting the present status of the species and recommending how this status can be improved. Their ultimate goal is the removal of the species from the threatened or endangered list.¹⁶⁸ Thus, the basic idea that humans have a duty to rectify the problems they previously created has been recognized and is presently being carried out.

The complex federal Endangered Species Act¹⁶⁹ protects species presently threatened or endangered.¹⁷⁰ However, once a species is removed from its federally protected status, it once again becomes fair game for human exploitation. In order to correct this problem it is suggested that species' rights to continued existence be recognized whether or not a species has been declared threatened or endangered. This would help to assure the existence of each species throughout its entire natural habitat so that each species can maximize its role in the ecosystem. Of course, changes in species are bound to occur over time due to evolutionary factors and changing ecosystems. What is meant to be controlled is short-term human intrusion into an otherwise long-term natural process.

D. Proposed Constitutional Amendment

Since most of the laws and concepts proposed in this article could not be justified under the U.S. Constitution, a constitutional amendment is proposed as a necessary and effective means to provide for wildlife rights:

- (1) All wildlife of the classification mammal, bird, amphibian or reptile shall have the right to a natural life. No state shall make or enforce any law that would deprive any wildlife of life, liberty or habitat without due process of law.
- (2) Every species of wildlife shall have the right to exist in its

168. For an example, see the report on the eastern timber wolf, U.S. Dep't of Interior, Endangered Species Tech. Bull. No. 3 (1977). See also the report on the California condor, U.S. Dep't of Interior, Endangered Species Tech. Bull. No. 4 (1977).

169. See Note, Obligations of Federal Agencies Under Section 7 of the Endangered Species Act of 1973, 28 STANFORD L. REV. 1247 (1976); and Coggins & Hensley, *Constitutional Limits on Federal Power to Protect and Manage Wildlife: Is the Endangered Species Act Endangered?*, 61 IOWA L. REV. 1099 (1976).

170. Burr, *supra* note 6.

natural habitat. This right shall not be infringed upon by the United States or by any state.

(3) Congress may enact statutory exceptions to section (1) to permit the economic taking of wildlife, but all such exceptions shall expire five years from the effective date of this amendment.

(4) Congress shall have the power to enforce by appropriate legislation the provisions of this article.

Section (1) would protect individual animals and would give humans standing to represent wildlife's interests in legal proceedings. This section would not make wildlife's rights absolute but would require due process of law before these rights can be infringed upon. Accordingly, this section would deny humans the right to destroy wildlife or its habitats unless authorized by the government. The government could not authorize the killing or capture of wildlife without an appropriate hearing where the interests of wildlife could be represented by legal counsel. For example, a state game agency might be authorized by statute to hold hearings to determine if a particular animal (*e.g.*, wolf, deer, fox) is engaging in activity harmful to humans or their property. If such were the case, the appropriate relief of capture or killing could be authorized. Similarly, before a government or private citizen could engage in an activity that would reduce wildlife habitat, an appropriate review would be required.

Like the Endangered Species Act of 1973,¹⁷¹ section (2) of the proposed constitutional amendment would require scientific judgment to protect all species of animals. It would prohibit any state action which would have a measurable adverse impact on the ability of a species to continue to exist. Section (3) of the proposed amendment would simply provide a phase-in period for those economically dependent on the taking of wildlife. Only Congress would be authorized to enact exceptions, but this section contains an expiration period to reduce improper political temptations.

The entire animal kingdom would not be protected by the proposed amendment, since only most of the vertebrate members of the animal kingdom are included. The major category of vertebrates not listed is fish. While no distinction has been made in this Article between the different types of wildlife, practical considerations would ultimately require a limited application of wildlife rights theories. As a matter of political and scientific judgment,

171. 16 U.S.C. § 1531-1543 (1976).

the wildlife included in this proposal were chosen because (1) they share the same habitat as humans; (2) they share the physiology of humans more closely; and (3) they represent the most visible of the species with whom humans can identify and understand. While the strictest logic might dictate that no dividing line would be appropriate, it does not make sense at the present time to use the limited resources of the legal system to grant the proposed wildlife rights to bean beetles or waterlife too small for the eye to see. In conclusion, the language of the proposed constitutional amendment could be more or less restrictive and different categories could be used; certainly any modification would be appropriate which provided a politically realistic alternative that maximizes the legal protection of wildlife's interests.

CONCLUSION

Wildlife can be granted legal rights. Wildlife's treatment throughout history by various peoples demonstrates that human awareness has evolved to a level where wildlife rights can be recognized. Concerns for conservation and preservation have increased as humans have depended less upon wildlife as a food source. Present attitudes toward sport hunting and pest control can be changed without harming either humans or animals. Humans must recognize that their activities and those of wildlife are tied together and that they are partners in an ongoing enterprise called the ecosystem. With this recognition, it will be easier for humans to change their attitudes towards animals and to realize that wildlife can be given species, property and individual rights. By focusing on the ecosystem, humans will realize that they have a duty and responsibility toward wildlife. Finally, man's duty to wildlife is most likely to be effectuated by enacting a constitutional amendment granting wildlife both individual and species rights. The American system of jurisprudence can recognize wildlife's interests and capacity to hold rights as a new category of legal persons.

