WILDLIFE AND WILDLANDS
A Christian Perspective

Holmes Rolston III

biblical faith originated with a land ethic. Within the covenant, keeping the commandments, the Hebrew people entered a Promised Land. That land is to be inhabited justly and charitably, and the twin commandments of biblical faith are to love God and to love neighbor. Israel is to be a holy people, a righteous nation, and the principal focus of biblical faith is not nature in the land, but the culture established there. At the same time the Bible is full of constant reminders of the natural given that undergird all cultural achievements. Justice is to run down like waters, and the land flows with milk and honey.

The Hebrew covenant of redemption is prefaced by the covenant of creation. The Creator commands, "Let the earth put forth vegetation" and "Let the earth bring forth living creatures according to their kinds" (Gen. 1:11, 24). The fauna is included within the covenant. "Behold I establish my covenant with you and your descendants after you, and with every living creature that is with you, the birds, the cattle, and every beast of the earth with you" (Gen. 9:9-10). To use modern terms, the covenant was both ecumenical and ecological.

In subsequent developments, both Judaism and Christianity, emerging from Judaism, became more universalist and less land-based. In the Diaspora, the Jews were a people without a country, and, though this was widely regarded as tragic, Judaism remains a faith that transcends residence in Palestine. Christianity has often been regarded as more spiritual and less material, more universal and less provincial than its parent Judaism. Both these movements out of a geographically particular Promised Land, which are sometimes thought to make the land irrelevant to faith, can as well make every people residents of a divinely
given landscape. In that sense the vision of many nations blessed in Abraham, is inclusive, not exclusive.

Jesus says, "My kingdom is not of this world" (John 18:36), Teaching as he did in the Imperial Roman world, his reference "this" is to the fallen world of the culture he came to redeem and to false trust in politics and economics, in armies and kings. God loves "the world" and in the landscape surrounding him Jesus found ample evidence of the presence of God. He teaches that the power organically manifest in the wild-flowers of the field is continuous with the power spiritually manifest in the kingdom he announces. There is an ontological bond between nature and spirit.

PROMISED LANDS

The North American landscape with its purple mountains' majesties, its fruited plains, its fauna and flora front sea to shining sea is divinely created no less than Canaan from the Negev to Mount Hermon. Exodus into a Promised Land has been a repeated theme wherever Judaism and Christianity have gone. All lands are to be inhabited justly and charitably, in freedom and in love. The divine imperative continues, addressed now both to Earth and to the humans who reside there, "Let the earth bring forth vegetation and every living creature." If this command was first biological, addressed to creation, it is now also ethical, addressing human duty. A people without a country is a continuing tragedy. Earth is a promised planet, chosen for abundant life.

The divine Spirit is the giver of life. "In the beginning God created the heavens and the earth. The earth was without form and void, and darkness was upon the face of the deep; and the Spirit of God was moving over the face of the waters" (Gen. 1:1-2). This wind of God inspires the animated Earth, and "the earth produces of itself (Mark 4:28; the Greek says "automatically"). The days of creation are a series of divine imperatives. The wild creatures (as well as humans) are blessed and commanded to be fruitful, to multiply, and to fill the earth.

Only humans are made in the image of God; and humans, placed within Earth, are placed over, not under, the nonhuman fauna and flora. Humans are to be free on Earth, to live under God, and to care for this creation. Animals are biologically equipped for the ecological niches they inhabit; each is an impressive and satisfactory fit in its place. Humans are adapted for culture and inhabit the world ethically and cognitively. The animal lives within its own sector, but it cannot take an interest in sectors of the world other than its own. Humans can and
should care beyond themselves; they can espouse a view of the whole. Adapting biblical metaphors for an environmental ethic, humans on Earth are and ought to be prophets, priests, and kings—roles unavailable to nonhumans. Humans should speak for God in natural history, should reverence the sacred there, and should rule creation in freedom and in love.

In contrast with the views of surrounding faiths from which biblical faith emerged, the natural world is disenchanted; it is neither God, nor is it full of gods, but it remains sacred, a sacrament of God. Although nature is an incomplete revelation of God's presence, it remains a mysterious sign of divine power. The birds of the air neither sow nor reap yet are fed by the heavenly Father, who notices the sparrows that fall. Not even Solomon is arrayed with the glory of the lilies, though the grass of the field, today alive, perishes tomorrow (Matthew 6). There is in every seed and root a promise. Sowers sow, the seed grows secretly, and sowers return to reap their harvests. God sends rain on the just and unjust. "A generation goes, and a generation comes, but the earth remains for ever" (Eccles. 1:4).

In Israel biblical faith was a focus of national life, and often in classical Christendom nations claimed to be Christian. In modern eras, with increasing separation of church and state, the connections between Christian conviction and national policy are more indirect. The twentieth century has seen increasing privatization of religion, but the same century has brought increasing awareness that the natural environment is a commons that cannot be privatized. Religion may be personal, each with his or her own creed, but the environment is a public domain. In America a land ethic can and ought to offset the interiorizing of religion to the neglect of its communal aspects. Divinely given earthen nature is the original act of grace. The commons is the fundamental sphere of divine creativity.

Facing the next century, indeed turning the millennium, there is growing conviction that theology has been too anthropocentric; the nonhuman world is a vital part of Earth's story. Certainly in a century of two world wars, a great depression, a cold war, the threat of nuclear holocaust, civil rights struggles, and increasing secularization and alienation, there have been, and remain, urgent human problems with which Christianity must cope. It is now increasingly obvious, in addition, that environmental welfare is an inescapable part of our global agenda. Nor does this require simply the conservation of a desirable human environment; duty requires preservation of the natural world and the coexistence of wild creation with the human community. In
that sense Christianity, together with other faiths that influence human
conduct, needs again to become a land ethic, to restore every living
creature to the divine covenant.

This divinely given natural world is also vanishing. Recent centuries,
especially the twentieth, have dramatically increased the built environ-
ment at the expense of the creation. After our generation comes and
goes, Earth may not remain, or may remain only in a degraded state.
God made the country; people made the towns, plowed the fields,
clearcut the timber, dammed the rivers, and paved the roads. About 20
percent of the global land surface—almost all of the readily inhabitable
land—has been drastically modified. In temperate countries the per-
centage of occupied land is much higher. Vast areas of land surface in
high latitudes or arid lands have survived relatively unmodified because
they cannot be inhabited, but that is changing with new technologies
for exploiting tundra and sea, and with pollutants that travel to the
poles, with ozone depletion and global warming.

About 96 percent of the contiguous United States is developed,
farmed, grazed, timbered, or designated for multiple use. Only about
2 percent has been designated as wilderness; another 2 percent might
be suitable for wilderness or semi-wild status, such as cut-over forests
that have reverted to the wild or areas as yet little developed. National
forests include about 14 percent of the American continent; they are
public lands, sometimes with impressive wildlife, but, being lands of
multiple uses (or multiple abuses!), they often have degenerate faunas
and floras. We have only scraps of undisturbed once-common ecosys-
tems, such as hemlock forests or tall grass prairies, and we have no
chestnut forests at all. Acid rain is impoverishing the Adirondacks and
the Great Smokies. In the western United States, our few old growth
forests are being clearcut at the rate of 1,000 acres each week.

In the last two centuries the native fish flora of the North American
continent has been more tampered with than have the fish floras of
other continents in two thousand years of civilization. Hardly a stretch
of landscape in the nation is unimpoverished of its native species—otters
and peregrine falcons, wolves and bison. The higher up the species on
the ladder of creation (the ecosystemic trophic pyramid), the more likely
this is so. Americans regarded it as their manifest destiny to conquer
the wilderness, and with this came profligate wasting of resources and
prodigal slaughter of wildlife. The big predators have been decimated;
the bison no longer roam the plains. The passenger pigeon is gone;
bluebirds and many warblers are vanishing; we face a silent spring.
The natural world inescapably surrounds us, wherever we reside and work, and yet the built environment, necessary for culture, also is increasingly difficult to escape. Culture is and ought to be superimposed on the landscape, but not so as to extinguish wildlands and wildlife. This duty arises because of what the fauna, flora, and landscapes are in themselves, but it also arises because of human welfare. Humans need, in differing degrees, elements of the natural to make and keep life human. Life in completely artificial environments, without options for experiencing natural environments, is undesirable. A society attuned to artifact forgets creation. Life without access to the divine creation is ungodly.

**LANDSCAPES AND WILDLANDS**

Land, a gift of God, can also be owned as property. As did Israel before it, and as do most societies, America recognizes private property, the personal and corporate ownership of real estate. When property is developed within culture, its value reflects both the natural resources and the labor expended on it in varying proportions. Not only economic systems but all cultural values, beyond those of hunter-gatherer cultures, require modified natural systems; on completely wild lands modern culture is impossible. But land owned as a gift of God is imperfectly owned, and the creative processes on land transcend ownership. Property, even when domesticated, may also retain much naturalness, and some owned properties can retain elements of wildness. Regardless of whether lands are privately owned or in the public commons, the spontaneous natural givens can still be present. In this larger view of natural environment, land is always vastly more than real estate. The promised land is never a sector of private property, but a landscape, an environment in which one resides. The abundant life requires a larger landscape than the tract of property that supplies one's residence.

Land in this larger sense is crucially a "commons," that is, a public good. Whatever values are protected by the institution of private property, there is no invisible hand that regulates markets to guarantee an optimal harmony between a people and their landscape. Nothing ensures that the right things are done in encounter with fauna, flora, ecosystems, or regarding future generations. A test of the abundant life in a promised land, as we inherit biblical faith today, integrating it with other faiths that fund an American land ethic, is whether a people can see the whole commonwealth of a human society set in its ecosystem, and through this develop an environmental ethics. It is not simply what a society does to its slaves, women, blacks, minorities, handicapped, children, or
future generations, but what it does to its fauna, flora, species, ecosystems, and landscapes that reveals the character of that society.

Despite the twentieth-century trend toward privatizing religion, national policy toward landscapes must involve collective choice producing a public land ethic. Some ethical choices are made by individuals, but in other cases citizens must choose together. Governments, like businesses, have large influence in our lives; both have vast amounts of power to affect the landscape for good or ill. Private conservancies are significant, and a conservation ethic is vital for landowners and their private lands, but unless landscapes, whether public or private, are protected by national, state, and local policy, they will be inadequately protected. In setting policy, citizens, including Christians who join other conservationists, can by mutual coercion, mutually agreed upon, do in concert what private persons cannot do alone. Christians, along with other interest groups, can unite to help forge this consensus. Christianity is thus forced to become public and to join in shaping the public ethic and reforming public policy.

There must be a management ethic for the landscape commons—about soil, air, water, forest preserves, environmental quality, the ozone layer, wildlife, endangered species, and future generations. This ethic will be voluntary in the sense that it is an enlightened and democratically achieved consensus with the willing support of millions of citizens. Such policy will also be written into law and therefore mandatory. No laws can be enforced without the widespread voluntary compliance of citizens. This voluntary compliance depends on the expectation that even those who do not wish to obey will be required to do so. Unless such an ethic is enforced, as well as encouraged, it is largely useless. There can be no effective merely private, voluntary land ethic.

Such concerted action can be taken with full or only partial agreement about reasons for so acting; it can sometimes involve agreeing about conduct while disagreeing about rationale. This is especially true in terms of minimum standards (for example, that game and timber harvests be renewable, that critical habitats be preserved for endangered species, or that surface-mined lands be reclaimed). Decisions here must be political decisions; but they are also taking place in the midst of a philosophical and theological reassessment, coupled with ecological and moral concerns, about how humans should value nature. They are political decisions entwined with reforming world views.

There should be many kinds of built environments, but an environmental policy also insists that natural sectors be preserved and incorporated into the built environments—greenbelts in cities, rural areas,
waterfalls and cascades, mountains on the skyline, seashores and lakeshores unspoiled by development, spits and headlands, islands, swamps, oxbow lakes, and forests interspersed with pastures.

Most of the national landscape will be integrated with cultural activities. The landscape cannot and should not be entirely wild; but neither should it be entirely cultural. Culture should everywhere be mingled with nature. An environmental policy also insists that there be wild domains "where the earth and its community of life are untrammelled by man, where man is only a visitor who does not remain".

For many persons today, especially in an increasingly urban society, the principal opportunities to experience wildlands and wildlife take place on public lands, as these have been designated for conservation and preservation. Most remaining wildlands are public lands—national forests, parks, wilderness areas, seashores, grasslands, wildlife refuges, lands under the Bureau of Land Management, state or county parks and forests. Many of these areas are largely managed for multiple uses and are only semiwild; still they constitute a major component of the natural environment. They also contain most of the relict pristine wildlands, as nearly as these remain anywhere.

Judgments about the extent to which natural landscapes are and ought to be rebuilt for culture are difficult to make. In view of the extent to which the American landscape has already been dramatically transformed, there should be a maxi-min principle in wildland preservation policy, something like the ratio of continental domestication to wildness. The relict, minimum level of wildland values needs maximizing (remembering the 96 to 4 domestication ratio) opposing a maxi-max principle (maximum consumption increasing to 100 percent our available acreage) to raise our already high standard of living.

Values earned by wildlife and wildlands, like the values for which Christians stand, are in critical part noneconomic. Christians have often and admirably focused on economic values where humans have been unjustly deprived of these, such as jobs, food, shelter, and health care. But in wildland decisions, where wildlands are proposed to be sacrificed to meet human needs. Christians should insist that these values be met instead on the enormous sectors of nonwild, domesticated lands, which are more than adequate to meet these needs, given a just distribution of their produce. Disproportionate distribution among humans is not to be cured by further disproportion of the human-built environment to the pristine, natural environment. The values that Christians wish to defend for remaining wildlands are often the softer, more diffuse, and
deeper values essential to an abundant life. Without these experiences, the land cannot fulfill all its promise.

One cannot look to the market to produce or protect the multiple values that citizens enjoy on public lands, much less in wilderness areas, since many of the values sought here are not, or not simply, economic ones. A pristine, natural system is a religious resource, as well as a scientific, recreational, aesthetic, and economic one. To see a wildland as merely resource profanes such experiences and nature alike. A forest, mountain, or prairie is more than a resource instrumental to civilization and more than even a religious resource. It is primeval, wild, creative source.

Religious people can bring a perspective of depth to wildland conservation. They see forests as a characteristic expression of the creative process. In a forest, as on a desert or the tundra, the realities of nature cannot be ignored. The forest is both presence and symbol of forces in natural systems that transcend human powers and human utility. Like the sea or the sky, the forest is a kind of archetype of the foundations of the world. The central "goods" of the biosphere—forests and sky, sunshine and rain, rivers and earth, the everlasting hills, the cycling seasons, wildflowers and wildlife, hydrologic cycles, photosynthesis, soil fertility, food chains, genetic codes, speciation and reproduction, succession and its resetting, life and death and life renewed—were in place long before humans arrived, though they have lately become human economic and social resources. The dynamics and structures organizing the forest do not come out of the human mind; a wild forest is something wholly other than civilization. It is presence and symbol of the timeless natural givens that support everything else.

A pristine forest is prime natural history, a relic of the way the world was for almost forever. The forest as a tangible preserve in the midst of a culture contributes to the human sense of duration, antiquity, continuity, and identity. A visit thereregenerates the sense of human late-coming and sensitizes us to our novelty. In the primeval forest (or on the desert or tundra) humans know the most authentic of wilderness emotions, the sense of the sublime. We get transported by forces aweful and overpowering, by the signature of time and eternity.

"The groves were God's first temples,"2 "The trees of the Lord are watered abundantly; the cedars of Lebanon which he planted" (Ps. 104:16). With forests, America is even more of a promised land than is Palestine. John Muir exclaimed, "The forests of America, however slighted by man, must have been a great delight to God; for they were the best he ever planted."3 Such forests are a church as surely as a
commodity. The forest is where the "roots" are, where life rises from the ground. Trees pierce the sky like cathedral spires. Light filters down as through stained glass. The forest canopy is lofty; much of it is over our heads. In common with churches, forests invite transcending the human world and experiencing a comprehensive, embracing realm. Forests can serve as a more provocative, perennial sign of this than many of the traditional, often outworn, symbols devised by the churches. The churches should welcome and seek to preserve such experiences. Muir continued, "The clearest way into the Universe is through a forest wilderness."

Being among the archetypes, a forest is about as near to ultimacy as we can come in the natural world—a vast scene of sprouting, budding, flowering, fruiting, passing away, and passing life on. Mountaintop experiences, the wind in the pines, solitude in a sequoia grove, autumn leaves, the forest vista that begins at one's feet and disappears over the horizon—these generate experiences of a motion and spirit that impels ... and rolls through all things." We feel life's transient beauty sustained over chaos. A forest wilderness is a sacred space. There Christians recognize God's creation, and others may find the Ultimate Reality or a Nature sacred in itself. A forest wilderness elicits cosmic questions different from those a town may evoke. Christians have particular interest in preserving wildlands as sanctuaries for religious experiences, both for themselves and for others inspired there.

A wildland is a wonderland, a miracle, standing on its own. "Praise the Lord from the earth, you sea monsters and all deeps, fire and hail, snow and frost, stormy wind fulfilling his command! Mountains and all hills, fruit trees and all cedars! Beasts and all cattle, creeping things and flying birds!" (Ps. 148:7-10). "Thou crownest the year with thy bounty; the tracks of thy chariot drip with fatness. The pastures of the wilderness drip, the hills gird themselves with joy, the meadows clothe themselves with flocks, the valleys deck themselves with grain, they shout and sing together for joy" (Ps. 65:11-13). "Who has cleft a channel for the torrents of rain, and a way for the thunderbolt, to bring rain on a land where no man is, on the desert in which there is no man; to satisfy the waste and desolate land, and to make the ground put forth grass?" (Job 38:25-27). God not only sends rain on the just and the unjust; God sends rain to satisfy wildlands. God not only blesses humans; God blesses the desolate wastes. These fierce landscapes, sometimes supposed to be ungodly places, are godly after all. God does not want all these places subdued and cultivated; rather, God delights in places with no people!
That the fair land of Palestine, with its cities and fields, should again become desert and wilderness is a frequent prophetic threat. The collapse of cultural life in the Promised Land is indeed a tragedy, and in that sense a relapse to the wild is sometimes used in the Bible as a symbol for judgment on an aborted, promised culture. Jackals roam the land, destroyed in punishment for sin. Such wildness is a tragedy only in foil to failed culture.

Certain biblical passages suggest that the natural world is implicated in the fall, resulting from human sin. It is incontestably true that human sinfulness can affect the natural world adversely, and in that sense human redemption also brings restoration of nature. But these passages are not to be taken to suggest that existing wildlands are fallen, nor can they be interpreted in terms of redemptive wildland management. Additionally, a peaceable natural kingdom, where the lion lies down with the lamb, is sometimes used as the symbol of fulfillment in the Promised Land. This too is a cultural metaphor and cannot be interpreted in censure of natural history.

Taken for what it is in itself, prior to using it to symbolize human hopes and disappointments, wildness in the Bible is never a bad thing. To the contrary, all creation is good. From this perspective, Christians can join with Aldo Leopold and his land ethic. "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." 6 Those who wish to reside in a promised land must promise to preserve its integrity, stability, and beauty. "That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics." 7 If so, we cannot inherit our promised lands until we extend Christian ethics into ecology. "The land which you are going over to possess is a land of hills and valleys, which drinks water by the rain from heaven, a land which the Lord your God cares for; the eyes of the Lord your God are always upon it, from the beginning of the year to the end of the year" (Deut. 11:11-12).

ANIMALS AND WILDLIFE
In theocratic Israel, animals belonged to God, as indeed did all property, "For every beast of the forest is mine, the cattle on a thousand hills, I know all the birds of the air, and all that moves in the field is mine" (Ps, 50:10-11). Though animals belong to God, they can also be owned by humans, and such ownership is a divine blessing (for example, Abraham at Hebron with his herds of goats and sheep). Such domesticated
animals require care, morally as well as prudentially. "A righteous man has regard for the life of his beast" (Prov. 12:10). Cattle are to be rested on the sabbath (Exod. 20:10); the ox in the pit requires rescue, even at breach of the sabbath (Luke 14:5). The ox that treads out the grain is not to be muzzled (Deut 25:4). Indeed, the care of a shepherd for his sheep is used as a model of divine care. "The Lord is my shepherd; I shall not want" (Ps. 23:1). The good shepherd searches for the lost sheep (Matt. 18:12).

Such metaphors presume compassionate treatment of animals, but they do not prescribe this conduct in detail. Whether and how far animals count morally is outside the central circle of ethical interests in the Bible, which is largely focused on interhuman relationships. But it is not outside the covenant nor is it outside the larger circle of moral relationships. Animal husbandry is compatible with Christian faith. Where animals suffer owing to human domestication, they are removed from nature, and compassion is warranted.

Animals in Israel were eaten and even ritually slaughtered in sacrifice, a practice in which Jesus participated. Some herbivores and all carnivores were considered unclean as food or sacrificial animals, but this does not demean their status as good creatures of God. Christians and Jews have abandoned animal sacrifice; both have continued to eat meat. Judaism seeks, in kosher slaughter, both to kill humanely and to eliminate the blood, the latter a symbol of reverence for life. "Every moving thing that lives shall be food for you; and as I gave you the green plants, I give you everything. Only you shall not eat flesh with its life, that is, its blood" (Gen. 9:3-4). This command suggests that humans were originally vegetarian and later, by concession, ate meat.

That divine permission and imperative authorizes meat hunting, which is not incompatible with monotheistic faith. A few biblical persons are admired for their prowess in the hunt: Nimrod "was a mighty hunter before the Lord" (Gen. 10:9). Esau brought game to Isaac, and David slew lions and bears to protect his sheep. Hunters used bows, arrows, spears, nets, traps, and pits, and wild game existed in parts of Palestine throughout the biblical period. Sport hunting, it should be noted, is not hereby permitted; killing merely for sport is nowhere endorsed in biblical faith. Orthodox Judaism has largely ceased to hunt, since kosher slaughter is difficult under the circumstances of hunting. Several of Jesus' disciples were fishermen. Jesus ate of their catch and gave fish to others to eat. Again, however, this is not sport fishing.

Though the ownership of domestic animals and the hunting of wild ones is legitimate, wild animals in biblical Israel were not private prop-
WILDLIFE AND WILDLANDS

In democratic America, wildlife are a commons, no matter whether on public or private land. Wild animals, birds, and stream fish in the United States, wherever they are found, on public lands or private, are held in public trust by the state for the good of the people. Hence the state fish, game, and wildlife commissions have power to manage, license, and regulate fishing and hunting. Landowners control access to their property, but when and what wildlife may be taken is the prerogative of the state. On public lands open to hunting, the wildlife present there is owned by no person until the occasion of legal capture, at which point it becomes the possession of the taker.

In traditional law, this was sometimes thought of as state ownership of wildlife, but in more recent law this has been subsumed under the state's power to regulate all natural resources, known as the public trust doctrine. We do not think that farmers own the migratory geese that fly over their fields, stopping there temporarily to eat corn, though we sometimes think of farmers as owning the rabbits that reside in their fields. This concept results largely from the mobility of wildlife; migratory birds have figured significantly in developing wildlife law. Large animals are also mobile. The elk shot in October on a private ranch, coming to lower elevations to winter, may have spent the summer in the national forest. The big predators inhabit a landscape as much as an ecosystem niche. Such animals are wild in the sense that they know no human property boundaries and cannot therefore be thought of as real estate.

Sedentary wild animals (barnacles and clams, possibly even the rabbits with restricted habitats, or pond fishes) do not know human property boundaries either, but nevertheless remain contained within them, and thus can successfully be owned by the landholder. Unlike the fauna, the flora, being rooted to the real estate, is considered to belong to the landowner. Mobile animals are also wild in the sense that they result from no human labor and are largely outside the control of humans. They are not livestock. So far as they are the product of game and fish management by the landowner, often thereby losing much of their wildness, they sometimes are thought of as coming to belong to their landowner and producer. There is also a widespread conviction that wild animals, differing from domesticated animals, ought not to be imprisoned without just cause, and thus states typically forbid the capture and continuing possession of wildlife without special permit.

Superimposed on the godly natural created order, biblical faith permits and enjoins humans to rebuild such orders in the interests of a just
and loving culture. No forms of human life—hunter-gatherer, agricul-
tural, or industrial—are possible without damage to the welfare of wild
animals. A dominant view in national and state wildlife policy is that
wildlife are a resource for humans to harvest, exploit, and enjoy on a
sustainable basis. Certainly that view has precedent in the biblical out-
look on animals. God utilized the first animals, for human benefit! "And
the Lord God made for Adam and for his wife garments of skins, and
clothed them" (Gen. 3:21).

But the resource view, unconstrained by appropriate respect for the
full spectrum of animal values, is inadequate for forming a mature
Christian environmental ethics. Under God, wildlife have intrinsic as
well as instrumental value. When coats made of pelts taken in leghold
traps are worn to flatter female varieties, this betrays an ethical stance
that hardly seems to love wildlife intrinsically and theistically. Neither
does shooting stags and mounting antlers to flatter masculine varieties.
Nor does the keeping of wild animals for entertainment, as in circuses
and some aquaria, or keeping them as caged pets. Even zoos have to
be justified in terms of conservation and education, not simply as rec-
reation. The fewer captive wild animals, the better, since captivity always
degrades wildness. Despite the permission to capture animals for culture,
Christians must remember that in God, animals are born free.

"Who has let the wild ass go free? Who has loosed the bonds of the
swift ass, to whom I have given the steppe for his home, and the salt
land for his dwelling place? He scorns the tumult of the city; he hears
not the shouts of the driver, He ranges the mountain as his pasture,
and he searches after every green thing" (Job 39:5-8). Letting wild
animals "go free" provides a general orientation for the ethical treatment
of wild animals. Christianity has no particular expertise in wildlife man-
agement, and many of the questions faced in environmental ethics have
not been addressed by Christian thought. Thus, for instance, when a
bison fell through the ice in Yellowstone National Park, some persons
took compassion and attempted its rescue, but park policy forbade this,
letting nature take its course. Policy also forbade mercy killing the
suffering animal. On the other hand, United States federal and state
wildlife personnel, joined by a Russian icebreaker, rescued two whales
from winter ice at considerable expense, amidst international concern.

The bighorn sheep of Yellowstone caught pinkeye in an epidemic
that partially blinded many sheep and caused their lingering death from
starvation. They were left by policy to the ravages of the disease. On
the other hand, in Colorado veterinarians treated an epidemic of lung-
worm, lest weakened sheep the of pneumonia. A relevant difference in
the two cases is that the Yellowstone pinkeye epidemic was believed to be natural, while the Colorado lungworm was contracted from domestic sheep, and, additionally, these sheep have lost much of their original winter range due to human settlements.

Although Christianity cannot adjudicate the details of such cases, it can endorse a general principle that, among wild animals, nature ought to be left to take its course, even though this involves animal suffering. That is part of what it means to let them "go free" under God. In environments that humans preserve wild, we are under more obligation to respect nature than to reconstruct it. The ecological and biological processes of natural history reflect the will of God. Though Christianity has no particular insight into wildlife management practices, Christianity insists that the processes and products of natural history, being what they are under divine imperative, are good. "O Lord, thou preservest man and beast" (Ps. 36:6; KJV).

Compassion, which is appropriate and morally required for persons, can therefore be misplaced when applied without discrimination to wild animals. The Golden Rule, for instance, is prescribed for persons. If it can be extended at all to wild animals, this must be with due regard for their radically different circumstances. More often than not, the most compassionate benevolence respects their wildness and lets nature take its course. "As you did it to one of the least of these..." (Matt. 25:40) requires the feeding of hungry persons, but it does not require the feeding of wildlife. Wild creatures are in some sense neighbors to be loved, but the kind of love appropriate for them is neither agape nor eros. It is a love of their wildness for what it is, intrinsically and under God. Pointless suffering in culture is a bad thing and ought to be removed, where possible; but pain in wild nature is not entirely analogous to pain in an industrial, agricultural, and medically skilled culture. Pain in nature remains in the context of natural selection; it is pain instrumental to survival and to the integrity of species.

The nonhuman creation is wild, outside human ordering, outside culture. But it is not outside both divine and biological order. The Creator's love for the creation is sublime precisely because it does not conform to human purposes. Wild animals and wildflowers are loved by God for their own sake. That God is personal as revealed in interhuman cultural relations does not mean that the natural relationship of God to ground squirrels is personal, nor that humans should treat ground squirrels as persons. They are to be treated with appropriate respect for their wildness. The meaning of the words "good" and "divine" is not the same in nature and in culture.
Just as Job was pointed out of his human troubles toward the wild Palestinian landscape, it is a useful, saving corrective to a simplistic Jesus-loves-me-this-I-know, God-is-on-my-side theology to discover vast ranges of creation that now have nothing to do with satisfying our personal desires, and earlier eons of evolutionary time that had nothing to do with satisfying human desires. What the wildlands do "for us" if we must phrase it that way, is teach that God is not "for us" humans alone. God is for these wild creatures too. God loves wildness as much as God loves culture, and in this love God both blesses and satisfies wildness and also leaves it to its own spontaneous autonomy. To be self-actualizing under God is a good thing for humans, and it is a good thing, mutatis mutandis, for coyotes and columbines. That is the blessing of divinity in them. That the world is nothing but human resource, with nature otherwise value free, is sometimes taken to be the ultimately modern conviction, following which we will become fully human and be saved. It is in fact the ultimate in fiction, where the sin of pride comes around again to destroy.

Is it by your wisdom that the hawk soars, and spreads his wings toward the south? Is it at your command that the eagle mounts up and makes his nest on high? On the rock he dwells and makes his home in the fastness of the rocky crag. Thence he spies out the prey; his eyes behold it afar off. His young ones suck up blood; and where the slain are, there is he ... Shall a faultfinder contend with the Almighty? He who argues with God, let him answer it.

(Job 39:26-40:2)

The high mountains are for the wild goats; the rocks are a refuge for the badgers ... The young lions roar for their prey, seeking their food from God. ... O Lord, how manifold are thy works! In wisdom hast thou made them all; the earth is full of thy creatures.

(Ps. 104:18,21,24)

In Earth's wildness there is a complex mixture of authority and autonomy, a divine imperative that there be communities (ecosystems) of spontaneous and autonomous ("wild") creatures, each creature defending its form of life. A principal insight that biblical faith can contribute, beyond its constraints on the exploitation of wildlife, is a forceful support of the concept of wildlife refuges or "sanctuaries" in national policy. A wildlife sanctuary is a place where nonhuman life is sacrosanct, that is, valued in ways that surpass not only economic levels but even in ways that transcend resource use in the ordinary senses. In that sense Christian conviction wants sanctuaries not only for humans, but also for wildlife.
ENDANGERED SPECIES

About five hundred faunal species and subspecies have become extinct in the United States since 1600, and another five hundred species are (officially or unofficially) threatened and endangered. In the American West, 164 fishes are endangered or vulnerable. About 56 percent of fish species in the United States and Canada are in need of protection. About 70 percent of the endangered and threatened fishes of the world are in North America. About 14 percent of the native continental United States flora, approximately 3,000 taxa, are either endangered or approaching endangerment. About 100 native plant taxa may already be extinct. In Hawaii, of the 2,200 native taxa, about 40 percent is in jeopardy and 225 species are believed extinct. Even where not nationally in danger, once-frequent species are locally extinct or rare. Utah, California, Texas, Oregon, Arizona, Nevada, Florida, and Michigan stand to lose plant species numbered in the hundreds. (See chart, p. 138.)

On global scales, about 20 percent of plant and animal species are projected to be lost within a few decades. These losses will be distributed widely throughout the faunal and floral orders, from large animals to insects, from trees to mosses. Losses will be heavier in the tropical rain forests than anywhere else, partially because of the inequitable distribution of resources in the involved nations, partially because of the biological richness of these forests, partially because, though naturally stable, these ecosystems do not absorb large-scale human interventions well.

Although Christianity does not have any particular expertise in endangered species management, biblical faith does have the conviction that these species originate in God. God ordered earth to "bring forth swarms of living creatures" (Gen. 1:20); "Swarms" is the Hebrew word for biodiversity! Adam's first job was, we might say, a taxonomy project, naming the animals.

Genesis also relates the first recorded endangered species project—Noah and his ark! Whatever one makes of the Flood historically, the teaching is abundantly clear. God wills for each species on Earth to continue, despite what judgments fall on the wickedness of humans. The fall of humans ought not to bring the fall of creation. Although individual animals perish in the Flood, God is concerned for preservation at the level of species. After the Flood, the covenant is reestablished with both humans and with the surviving natural kinds. "God said, This is the sign of the covenant which I make between me and you and every living creature that is with you, for all future generations: I
### SOME ENDANGERED SPECIES IN NORTH AMERICA

<table>
<thead>
<tr>
<th>Common name</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
</tr>
<tr>
<td>Ozark big-eared bat</td>
<td>Oklahoma</td>
</tr>
<tr>
<td>Brown or grizzly bear</td>
<td>48 conterminous states</td>
</tr>
<tr>
<td>Eastern cougar</td>
<td>Eastern North America</td>
</tr>
<tr>
<td>Columbian white-tailed deer</td>
<td>Washington, Oregon</td>
</tr>
<tr>
<td>San Joaquin kit fox</td>
<td>California</td>
</tr>
<tr>
<td>Fresno kangaroo</td>
<td>Florida</td>
</tr>
<tr>
<td>Southeastern beach mouse</td>
<td>Texas, Arizona</td>
</tr>
<tr>
<td>Ocelot</td>
<td>Washington, Oregon, California</td>
</tr>
<tr>
<td>Southern sea otter</td>
<td>Louisiana, Arkansas east to South Carolina</td>
</tr>
<tr>
<td>Florida panther</td>
<td>Florida</td>
</tr>
<tr>
<td>Utah prairie dog</td>
<td>Utah</td>
</tr>
<tr>
<td>Morro Bay kangaroo rat</td>
<td>California</td>
</tr>
<tr>
<td>Carolina northern flying squirrel</td>
<td>North Carolina, Tennessee</td>
</tr>
<tr>
<td>Hualapai Mexican vole</td>
<td>Arizona</td>
</tr>
<tr>
<td>Red wolf</td>
<td>Southeast to central Texas</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
</tr>
<tr>
<td>Masked bobwhite (quail)</td>
<td>Arizona</td>
</tr>
<tr>
<td>California condor</td>
<td>Oregon, California, Rocky Mountains east to</td>
</tr>
<tr>
<td>Whooping crane</td>
<td>Carolinas, Canada</td>
</tr>
<tr>
<td>Eskimo curlew</td>
<td>Alaska and N. Canada</td>
</tr>
<tr>
<td>Bald eagle</td>
<td>Most states and Canada</td>
</tr>
<tr>
<td>American peregrine falcon</td>
<td>Canada to Mexico</td>
</tr>
<tr>
<td>Hawaiian hawk</td>
<td>Hawaii</td>
</tr>
<tr>
<td>Attwater's greater prairie-chicken</td>
<td>Texas</td>
</tr>
<tr>
<td>Bachman's warbler (wood)</td>
<td>Southeast U.S., Cuba</td>
</tr>
<tr>
<td>Kirland's warbler (wood)</td>
<td>U.S., Canada, Bahama Islands</td>
</tr>
<tr>
<td>Ivory-billed woodpecker</td>
<td>Southcentral and Southeast U.S., Cuba</td>
</tr>
<tr>
<td><strong>Reptiles</strong></td>
<td></td>
</tr>
<tr>
<td>American crocodile</td>
<td>Florida</td>
</tr>
<tr>
<td>Atlantic salt marsh snake</td>
<td>Florida</td>
</tr>
<tr>
<td>Plymouth red-bellied turtle</td>
<td>Massachusetts</td>
</tr>
<tr>
<td><strong>Fishes</strong></td>
<td></td>
</tr>
<tr>
<td>Yaqui catfish</td>
<td>Arizona</td>
</tr>
<tr>
<td>Bonytail chub</td>
<td>Arizona, California, Colorado, Nevada, Utah, Wyoming</td>
</tr>
<tr>
<td>Gila trout</td>
<td>Arizona, New Mexico</td>
</tr>
</tbody>
</table>

Source: U.S. Fish and Wildlife Service, U.S. Interior Department; as of July 1989
set my bow in the cloud, and it shall be a sign of the covenant between me and the earth'" (Gen. 9:12-13). After the Flood, the command to humans is also repeated: "Be fruitful and multiply, and fill the earth" (Gen. 9:1). But this human development cannot legitimately be a threat to the diverse species that have just been saved from the Deluge; rather, the bloodlines are protected at threat of divine reckoning (Gen. 9:4-7). The Hebrews did not know anything about genes and so could not speak, as we do, of genetic diversity, but they spoke rather of protecting the bloodlines, a concept close enough to our modern concept of species.

These myriad species are often useful to humans, and on the ark clean species were given more protection than other species. After the Flood, plants were again given for food, and God gave permission to eat animals as well. Today, preservation of species is routinely defended in terms of human benefits. From a utilitarian viewpoint, species have medical, agricultural, and industrial possibilities. They can be used for scientific study; they can be enjoyed recreationally. Even species that are not directly useful may be indirectly useful for the roles they occupy in ecosystems, adding resilience and stability. High-quality human life requires a high diversity of species. But today we live on a sinking ark.

Humanistic justifications for the preservation of species, although correct and required as part of endangered species policy, fall short of a mature environmental ethic. They are inadequate for either Christian or Hebrew faith, neither of which is simply humanistic about species. Noah was not simply conserving global stock. He was not taking on board only those species with economic, agricultural, medical, industrial, and recreational value. Humanity is not the measure of things. What is offensive in the impending extinctions is not merely the loss of resources but the maelstrom of killing and insensitivity to forms of life and the biological and theological forces producing them. What is required is not human prudence but principled responsibility to the biospheric Earth. Indeed, for Christians, this is principled responsibility to God.

The Noah story is quaint and archaic, despite its profound insights. It is parable more than history. Yet, a floodlike threat is imminent. One form of life has never endangered so many others. Never before has this level of question been faced. Humans have more understanding than ever of the speciating processes, more power to foresee the intended and unintended results of their actions, and more power to reverse the undesirable consequences.

The United States Congress has lamented the loss of species.
The Congress finds and declares that—(1) various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation; (2) other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of, or threatened with, extinction; (3) these species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational and scientific value to the Nation and its people.

A Christian position, endorsing all that is here said, will wish to add that these species are also of religious value, of value not only to U.S. citizens, but to God.

The protection Congress has authorized for species is a strong one. Interpreting the Endangered Species Act of 1973, the U.S. Supreme Court insisted "that Congress intended endangered species to be afforded the highest of priorities." "The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost." Notably, "economic" is not among the listed criteria of value, almost as though Congress by omission intended to deemphasize that value. But, since economic costs must sometimes be considered (and Congress itself has consistently underfunded the Act), Congress in subsequent legislation authorized a high-level, interagency committee to evaluate difficult cases, and, should this committee deem fit, to permit human development at cost of extinction or threatened extinction of species that impede development. Interestingly this committee has been termed "the God committee," and the nickname is not without some theological insight. God wills for species to continue, subject to natural processes, consonant with human development, and any who will to destroy species in the name of development take, fearfully, the prerogative of God, "Keep them alive with you" (Gen. 6:19).

In that light, at the level of species, all concepts of ownership ought to lapse, whether private, state, or national. Wildlife—individual deer, eagles, bears—are not owned by landowners, perhaps not even owned by government, but are a commons regulated by government for the benefit of all, in such way that wildlife ought to be perennially on the land. Landowners do not own species, whether fauna or flora, though they may own a field with rare plants in it, individual tokens of that endangered type. In legal terms, land ownership is imperfect and does not carry the right irreplaceably to destroy. In theological terms, land ownership is stewardship.
A species is a dynamic natural kind, a historical lineage persisting through space and time, typically over many millions of years. In that perspective, it is arrogant for even a nation to think of owning species. The United States would be a quite late-coining owner of such species.

From a biological point of view, several billion years' worth of creative toil and several million species of teeming life have been handed over to the care of this late-coming species in which mind has flowered and morals have emerged. From a political point of view, the United States inherits part of a continent over which life has flowed for a thousand times as long as the nation itself has existed. From a theological point of view, humans threaten the divine creation. These species belong not to us, either as persons or as a nation, but to God. There is something unchristian and ungodly about living in a society where one species takes itself as absolute and values everything else relative to its national or personal utility. It is more than appropriate for Christians to call for humans to respect the plenitude of being that surrounds us in the wild world, once so vast and now so quickly vanishing,

THE MEEK INHERIT THE EARTH

Biblical meekness is the controlled use of power, disciplined by respect and love. In the Beatitudes, the meek inherit the promised earth. That blessing is conferred upon peacemakers, upon humans who control their desires in their relations with other humans, but it is also conferred upon humans who control their desires in their relations with the land. The human power on Earth is divine gift, but it is divine gift to be used, reflecting the Creator God, in humility and in love.

To travel into such a promised land, monotheistic faith will orient for general directions of travel, something like a compass. But specific paths will have to be figured out locally. In wildland and wildlife conservation, with this general orientation, such strategies as the following apply:

• Avoid irreversible change.
• Optimize natural diversity.
• Optimize natural stability,
• Respect life, the species more than the individual.
• Increase options for experiencing natural history.
• Avoid toxic threats.
• Do not discount the future environmentally.
• Keep remaining public wildlands off the market,
• Optimize recycling.
• Accept no-growth sectors of the economy.
• The more fragile an environment, the more carefully it ought to be treated.
• The more beautiful an environment, the more carefully it ought to be treated.
• The rarer an environment, the more carefully it ought to be treated.
• Respect life, the more so the more sentient.
• Think of nature as a community first, a commodity second.
• Remember, morality often exceeds legality in environmental affairs.
• Work for environmental benefits that can only be had in concert.
• Avoid cutting remaining pristine forests on public lands.
• Preserve wildlands in all the diverse lands of ecosystems.
• Restore degraded wildlands, reintroducing all the original native fauna and flora, where possible.
• Discourage trophy hunting and killing merely for sport.
• Make animal welfare high priority for all zoo and other captive wild animals.
• Strive for no net loss of wetlands.
• Place special concern on critical environments that support internationally migratory wildlife.
• Prefer the most environmentally sensitive alternatives for development over alternatives that maximize economic returns.
• Avoid below-cost timber sales on public lands.
• Preserve and restore wildlands adjacent to and integrated with urban areas.
• Support opportunities for environmental education for everyone.
• Provide interpretation and support for those persons whose lives and jobs must be altered in the interest of long-range environmental quality.
• Support Native American efforts to retain and restore wildness on their lands.
• Condemn all illegal trade in wildlife and wild plants, and products made from these.
• Keep life wild and free.
• Love your neighborhood as you do yourself.

Within their own community and life, Christians should:
• Include an understanding and appreciation of wildlife and wildlands in all teaching efforts.
• Include opportunities for experience of nature in church camps and conferences where possible.
• Provide opportunities for wilderness experience combined with Christian fellowship.
• Manage church lands and properties according to the most environmentally sensitive alternative.
• Integrate for maximum effectiveness the resources of church camp and conference centers across the nation.
• Support Christian ministries in national and state parks and on other public wildlands.
• Include in seminary education a theological understanding of creation, appropriate respect for wildlands and wildlife, and biological conservation.
• Support the annual environmental sabbath (first Sunday in June).

What on Earth are we doing? Humans cannot know what they are doing on Earth unless they also know what they are undoing. They can and ought to create their cultures, under God; but this ought not to be by undoing creation. Can humans genuinely gain by exploiting the fractional wilds that remain? What does it profit to gain the world, only to lose it—to gain it economically, to fence it in, pave it over, and harvest it only to lose it scientifically, aesthetically, recreationally, and religiously, as a wonderland of natural history, and as a realm of integral wildness that transcends and supports us—and perhaps even to lose some of our soul in the trade-off?
CHAPTER 7: WILDLIFE AND WILDLANDS

Holmes Rolston III

An earlier draft of this chapter appeared in *Church and Society* 80 (March-April 1990): 16-40.

2. William Cullen Bryant, "A Forest Hymn."
5. William Wordsworth, "Lines Composed a Few Miles above Tintern Abbey."
7. Ibid., viii-ix.