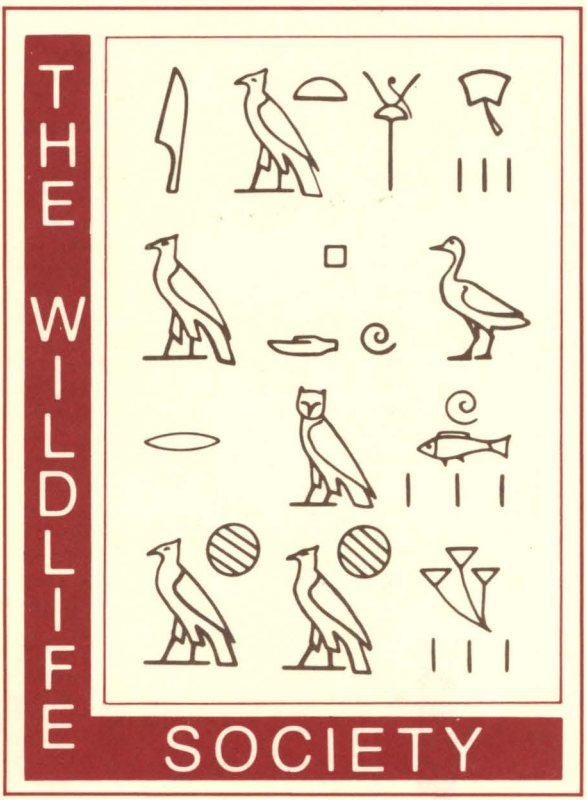
CONSERVATION POLICIES OF THE WILDLIFE SOCIETY



A STAND ON ISSUES
IMPORTANT TO WILDLIFE CONSERVATION

1988

The Wildlife Society
5410 Grosvenor Lane
Bethesda, MD 20814

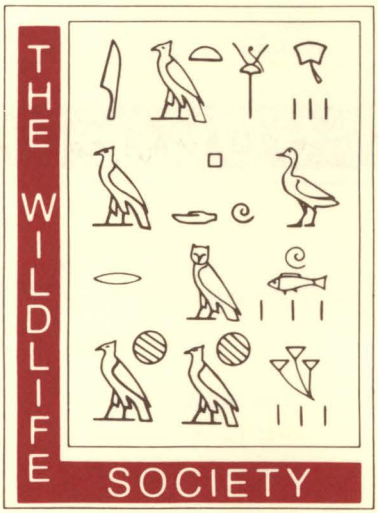
About The Wildlife Society

The Wildlife Society, founded in 1937, is a professional, non-profit organization dedicated to the wise management and conservation of the wildlife resources of the world. Ecology is the primary scientific discipline of the wildlife profession. The interests of the Society, therefore, embrace the interactions of all organisms with their natural environments. The Society recognizes that humans, as other organisms, have a total dependency upon the environment. It is the Society's belief also that wildlife, in its myriad forms, is basic to the maintenance of a human culture that provides quality living.

The principal objectives of the Society are: to develop and promote sound stewardship of wildlife resources and of the environments upon which wildlife and humans depend; to undertake an active role in preventing human-induced environmental degradation; to increase awareness and appreciation of wildlife values; and to seek the highest standards in all activities of the wildlife profession.

The Society's membership of over 8000 is comprised of research scientists, educators, communications specialists, conservation law enforcement officers, resource managers, and administration from more than 40 countries of the world. Its purposes are served through chapter, sectional, national and international meetings, and by publication of *The Journal of Wildlife Management, Wildlife Monographs, Wildlife Society Bulletin, The Wildlifer* newsletter, and selected books on scientific and professional subjects.

The Society's unique emblem features Egyptian hieroglyphics. The literal translation of the hieroglyphics, from top to bottom, is: beasts (mammals), birds, fishes, and flowering plants (vegetation).



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Acknowledgements

These policy statements were prepared by several Position Statements Committees of The Wildlife Society and approved by The Wildlife Society Council.

Additional copies of Conservation Policies of The Wildlife Society may be obtained from:

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Human Populations

Burgeoning human populations continue to place an overwhelming and detrimental demand on many of the world's limited natural resources. Human degradation of terrestrial and aquatic communities is biologically inadvisable. Certain of these resources are irreplaceable, and others must be either preserved intact or managed carefully to ensure the integrity of the ecosystem and humanity. These resources will continue to decline or to sustain irreparable damage, despite scientific and technological advances, if the growth of the human population is not restrained.

The policy of The Wildlife Society, in regard to human populations is to:

1. Actively support an enlightened policy of population stabilization that will encourage the conservation of natural resources and enhance the quality of human existence.
2. Promote a better understanding of mankind's role in the world's ecosystems so as to minimize the contamination and harmful alteration of the global environment.

Environmental Quality

The demands that human societies make upon the earth and its biota inevitably result in environmental change. Many ecosystems have been exploited for immediate monetary profit rather than managed for sustained biotic yields. Careless or excessive exploitation often leads to unnecessary degradation of the environment. The common aim of mankind should be to perfect processes for deriving support from the environment without destroying its stability, diversity, productivity, or aesthetic values.

The policy of The Wildlife Society, in regard to environmental quality, is to:

1. Stimulate and support educational programs that emphasize mankind's dependence on functional ecosystems, and, consequently, the necessity for living in harmony with the environment.
2. Foster research designed to elucidate the complex biotic relationships of ecosystems.
3. Encourage the development and use of methods designed to reduce environmental degradation and to reclaim and reconstitute degraded ecosystems.
4. Contribute to the development of technologies, social systems, and individual behaviors that will maintain the diversity and beauty of the environment.

The Management of Living Natural Resources

Human population growth jeopardizes mankind's existence. The continued well-being of mankind, and earth's other living natural resources, is dependent upon a healthy environment maintained through the skilled management of resources. As human populations increase, wild plant and animal habitats usually decrease. Many people presume that all wild habitats are untouched by humanity. Actually, a few natural areas have escaped the influence of mankind. Often these influences have disrupted natural areas, thus requiring the need for scientific management of these areas and their associated living resources.

A "hands-off," non-manipulative policy for plant and animal resources eventually could result in reestablishing naturally-functioning plant and animal communities as wild areas, if mankind's ever-present impacts could be eliminated. In such areas the actions of nature would dominate and low-priority would be given to material human wants. Such areas have been and are being established where practicable.

Only limited amounts of land can be devoted to wild areas because of the demands of our growing human population. Land is required for housing, crops, mineral and timber production, manufacture and sale of goods, intensive recreation, and other necessary and desirable purposes. Plant and animal communities associated with these more intensive land uses, although often highly productive, are usually unnatural in that they lack the diversity and stability of unaltered communities. Applying sound land and water management practices to these altered lands can assist natural processes in providing habitat suitable for plants and animals which are forced to live in close association with human activities. Plant and animal populations also may be enhanced and optimized at levels within the land's ability to support them through proven professional resource management practices.

The Wildlife Society recognizes the serious implications of mankind's ever-increasing worldwide demands for living space, food, shelter and other products. It also recognizes a need for a policy of continued, intensified and improved management for earth's living resources.

The policy of The Wildlife Society, in regard to management of living natural resources, is to:

1. Support and strengthen scientific management as the rational instrument for maintaining, restoring, and enhancing plant and animal resources for the continued use and appreciation by humanity.
2. Encourage the development and dissemination of information to improve public understanding of the need for, and the positive benefits from, scientific management.
3. Encourage the retention or enhancement of habitat for native plants and animals on public and private lands.
4. Seek support for ethical restraints in the use of living natural resources.
5. Reaffirm our view that scientific management includes both the regulated harvest of the surplus of those species in plentiful supply, as well as the protection of those plant or animal species which are rare, threatened, or in danger of extinction.

Conservation Education

Worldwide growth of human populations is placing unprecedented demands and stresses on the world's finite natural resources. Satisfying human needs for energy, food, fibers, minerals, and wood products has the potential for further destruction of wildlife habitat and aesthetic resources. If these natural resources are to be given adequate consideration in the context of human needs, a sound program of conservation education is of paramount importance.

The educational process must contain four key elements if it is to be effective in enabling people to cope with resource problems. First, it must provide basic understanding of the properties and distribution of natural resources. Second, it must provide and encourage alternatives to current degrading resource uses and promote changes in life styles that can be accommodated by the existing resource base. Third, it must provide people with an understanding of the political, economic, and social processes by which changes in resource use can be effected. And last, it must lead to positive action in behalf of resource conservation.

The policy of The Wildlife Society, in regard to conservation education, is to:

1. Assist in the development and promotion of educational programs that will disseminate ecologically sound knowledge to advance wise management of wildlife and other natural resources.
2. Promote increased cooperation and communication among all agencies and groups concerned with conservation education and resource management.
3. Encourage members of the wildlife profession (a) to interpret and make readily available those results of wildlife research that citizens require for decision-making, and (b) to actively participate in the implementation of sound, publicly oriented programs in conservation education.

Conservation Law Enforcement

Regulation of activities of the participating public is a major element in the management of all natural resources, particularly wildlife. An increase in human populations and a burgeoning recreational interest in the out-of-doors have accelerated public use of an already diminished resource base. In the future, more people will have fewer resources to share. Public information programs, however extensive or imaginative, will not by themselves protect the resource base sufficiently from public abuse. Imperative to the perpetuation and sustained use of natural resources is a sound legal system that combines equitable laws and judicious law enforcement. The effective enforcement of laws governing natural resources depends upon personnel who are adequately trained in the legal and biological aspects of their profession.

The policy of The Wildlife Society, in regard to conservation law enforcement, is to:

1. Advise candidates pursuing law enforcement careers in the field of natural resources management to gain formal training at the university level in biology, ecology, conservation education, and law enforcement.
2. Urge that public agencies concerned with the enforcement of resource laws employ broadly trained professionals, preferably appropriately trained university graduates.
3. Recommend that public resource agencies provide extensive on-the-job training for all law enforcement employees who lack understanding of the modern techniques of their profession.
4. Encourage conservation law enforcement officers to affiliate with resource-oriented professional societies.

The Antarctic

The Antarctic continent and surrounding Southern Ocean, the largest relatively unmolested land and marine ecosystem on earth, support one of the world's most biologically productive food webs. At the base of this web are krill, a planktonic crustacean, with an estimated productivity of perhaps several billions of tons annually. Krill either directly or indirectly provide food for many species of whales, seals, fish, squid, and numerous birds. In response to mounting worldwide pressure for more protein some nations have initiated krill harvesting. However, no one knows how much exploitation the krill population can support without declining. Because these tiny shrimp-like organisms are the base for nearly the entire antarctic food chain, a decline brought about by overharvesting would have tremendous impacts throughout the entire Southern Ocean ecosystem. A sound understanding of the structure and function of the ecosystem is a prerequisite to commercial harvest of antarctic organisms.

The Antarctic is also rich in mineral resources including coal, oil, uranium, and iron. As demands for fuel and raw materials increase, economies associated with exploration and exploitation of these resources will become more favorable, and more nations will begin to look to the globe's most southerly continent for natural resources. However, additional information on the distribution of mineral resources and potential conflicts with biological resources is required before exploitation begins.

As established by the Antarctic Treaty of 1959, 13 countries, 7 land claimants and 6 non-claimants, collectively govern Antarctica as a scientific preserve. This accord, which expires in 1991, has no provision for mineral exploration or exploitation, and only recently have member states begun to address the status of marine fish and mammals. A Convention for the Conservation of Antarctic Marine Living Resources was formulated by treaty states in May, 1980. The Convention holds territorial disputes in abeyance indefinitely and creates a scientific commission to evaluate the status and harvesting of living marine resources of the entire Southern Ocean ecosystem.

Increasing demands for resources will fuel disputes over territorial and resource claims. Additionally, the authority of 13 nations to manage the Antarctic ecosystem will come under increasing scrutiny by other countries as claims for equitable worldwide distribution of resources mount. Thus, Antarctica provides an outstanding challenge and opportunity for cooperation of the international community for the common good rather than the benefit for a few.

The policy of The Wildlife Society, in regard to the Antarctic, is to:

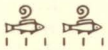
1. Support the Convention for the Conservation of Antarctic Marine Living Resources.
2. Recommend adequate inventory and investigation of the Antarctic ecosystem with the intent of establishing Biological Reserves in the United Nations' Man and Biosphere Program before exploitation of living or mineral resources is permitted.
3. Recommend that natural and historic values of Antarctica be preserved by establishing reasonable controls for exploration and extraction of minerals and fossil fuels, harvest of living resources, and tourism.

The Marine Environment

The quality of the marine environment affects the stability of the marine ecosystem, the abundance of marine food resources for human use, and the aesthetic and recreational values of coastal regions and islands. Moreover, the marine ecosystem contributes one-third of the earth's net production of energy.

The continuing absolute growth of the world's human population is contributing to the degradation of this vital marine environment. Oceans are becoming the ultimate repositories of many pollutants, including chlorinated hydrocarbons, heavy metals, acids, radionuclides, oils, and organic wastes. These contaminants have had a recognized detrimental impact on certain species of phytoplankton, zooplankton, larger invertebrates, fishes, reptiles, birds, and mammals. Effects of pollutants on marine organisms continue to be documented. Delay in activating biologically sound management programs for marine fauna and their habitats at both national and international levels has resulted in the precipitous decline in abundance of certain invertebrates, fishes, and mammals. Recent implementation of antidumping regulations by the U.S.A. and enforcement of innovative regional fishery management plans by several coastal nations hold promise of reversing some of these trends.

Maintaining the marine environment in a quality condition and managing it with biological acumen may well constitute a key to the future survival of mankind.



The policy of The Wildlife Society, in regard to the conservation and management of the marine environment, is to:

1. Promote the establishment of both national and international programs to monitor pollutants entering the marine ecosystem, to eliminate the sources of pollution, and to research effects of pollutants on the marine ecoystem.
2. Encourage legislation designed to promote sound management of the marine environment, including establishment of biologically sound quotas for harvesting marine plants and animals.
3. Support the enactment and enforcement of laws designed to protect the marine environment.
4. Advocate governmental acquisition and preservation of coastlines, estuaries, oceanic islands, and unique and highly productive waters throughout the world.

Alterations of Stream, Riparian, and Wetland Habitats

Wetlands and streams have distinct biotic communities with unique and diverse flora and fauna. They function as stabilizing forces of the physical environment by sustaining high water tables to balance precipitation deficits, by retaining excess surface water to diminish flooding, and by serving as settling basins for silt and chemicals to reduce pollution in downstream waters.

In the past several decades, however, thousands of wetlands have been drained or filled for land reclamation, and thousands of miles of streams have been channelized—or otherwise altered—for flood control, irrigation, power generation, and navigation. Many also have been seriously overgrazed. These practices, which are continuing at a rapid pace, have not only irreparably damaged many water areas but also have adversely affected the associated aquatic and riparian biota. Wetlands have become repositories and dumps for upstream drainage programs, lowering their productive capacity. Environmentally disruptive programs of wetlands and stream alteration have been, and are being, subsidized by taxpayer funds in direct conflict with wetland maintenance efforts supported with other public funds. Furthermore, intra-program measures designed to mitigate wetland and other resource losses resulting from these conflicting programs and injudicious practices have been inadequate.

The policy of The Wildlife Society, in regard to the alteration of stream, riparian, and wetland habitats, is to:

1. Support programs and practices designed to enhance the retention of surface water in its watershed of origin, to conserve natural reservoirs of underground water, and to maintain high standards of water quality.

2. Encourage enactment of legislation that promotes the maintenance and wise management of stream, riparian, and wetland habitats, and their biota.

3. Oppose programs of alteration or utilization that cause permanent damage to the physical and biological resources of stream, riparian, and wetland habitats.

4. Encourage governments having jurisdiction over water rights to set minimum flow rates for streams and minimum levels for lakes and reservoirs necessary to maintain ecologically viable aquatic systems.

Introductions of Exotic Species

The introduction of exotic flora or fauna into new ecosystems often has been more detrimental than beneficial. Responsible agencies should endeavor to ensure that intentional introductions of exotic species be beneficial and the accidental introductions be prevented. This responsibility relates not only to the protection of human health and livelihood but also to the maintenance of ecological integrity.

The policy of The Wildlife Society, in regard to the introduction of exotic flora and fauna, is to:

1. Support the introduction of exotic species only after competent scientists have demonstrated that (a) the exotic can potentially satisfy a specific recreational or biological need in the ecosystem to which it will be introduced, (b) the exotic is ecologically suitable for introduction into the new ecosystem, (c) the exotic will not be deleterious to desirable species (natives or exotics) or cause any deterioration of the ecological complex; and (d) the exotic has satisfied all appropriate quarantine requirements upon entry.

2. Urge that no state, provincial, or national agency shall introduce, or permit to be introduced, any exotic species into any area within its jurisdiction unless such species can be contained exclusively within that jurisdiction, or unless adjoining jurisdictions into which the species could spread have sanctioned the introduction officially.

3. Exclude from the provisions of this policy the importation of exotic species by officially recognized scientific and educational organizations, and the interinstitutional exchange of such species, provided that the exotics are maintained in captivity at all times.

Petroleum Development in Arctic, Subarctic, and Coastal Regions

Untapped petroleum resources of arctic and subarctic regions could contribute significantly to the world's diminishing energy supplies. However, because of inadequate understanding of or disregard for polar and boreal ecosystems, the technological activities associated with development of a northern petroleum industry could cause severe environmental damage. Polar and boreal ecosystems are particularly susceptible to disturbance because their biological diversity and net biological productivity are low. Natural recovery following disturbance is extremely slow in most northern soil-plant systems. Furthermore, animals that reside in colonies or congregate seasonally in small areas in the ecosystems of the Far North could be stressed not only from the degradation of their habitats but also from accelerated human disturbance. Thus, development of a petroleum industry in arctic and subarctic regions must be implemented carefully to avoid or minimize rapid and perhaps irreparable damage to unique and easily disrupted ecosystems.

Coastal and continental shelf regions at all latitudes are also subject to substantial disruption by oil and gas exploration, development, storage, transport, and refining activities. Although environmental recovery may be more rapid in marine than in interrestrial habitats, the potential for damage to ocean and shoreline flora and fauna is great.

The policy of The Wildlife Society, in regard to the development of arctic, subarctic, and coastal petroleum resources, is to:

1. Support those petroleum developments deemed to be in the public interest, only if alternatives to such developments have been thoroughly studied and have been determined not to be environmentally and socio-economically feasible.

2. Urge that practical measures be taken to reduce or mitigate all environmental and biotic damage resulting from petroleum development, such measures to include (a) the establishment of strict environmental standards and surveillance for the exploration and development of petroleum resources, (b) the initiation of international planning for utilization of common petroleum resources and transportation corridors, (c) the use, where possible, of existing road and utility rights-of-way for pipelines, (d) the use of transport vehicles or structures that offer the maximum environmental protection against accidental oil spills, and (e) the avoidance of encroachments upon important wilderness and wildlife areas.

3. Encourage research designed to support comprehensive resource management in arctic, subarctic, and coastal regions.

Management and Conservation of Brown Bears

Conservation of brown bears, which includes the grizzly bear *(Ursus arctos horribilus)* and the Alaska brown bear (*Ursus arctos middendorfi)*, in North America has become an increasingly controversial issue as conflicts between this species and human beings continue to increase. The brown bear continues to decline in the Yellowstone region. Heightened concern over the hunting of and depredations by brown bears is evident across its range. Controversy over management of bears that prey upon ungulates in Alaska and Canada exists. Ongoing confrontations between brown bears and visitors within national parks have not abated. Additionally, the Grizzly Bear Recovery Plan for this species in Idaho, Montana, Washington, and Wyoming has heightened agency involvement in and increased public awareness of brown bear conservation. Mortality of brown bears from conflicts with humans and intensive development and activity within brown bear habitat threaten populations of this species.

Control actions and illegal killing of bears are the major mortality sources in the Yellowstone region, the Cabinet Mountains, the Selkirk Mountains, and southwestern Alberta in the southern portions of occupied brown bear habitat. Mortality of brown bears in national parks usually is related to control of individuals that repeatedly cause damage to property, visit campgrounds, or have been involved in human death or injury. The illegal kill of brown bears is substantial and difficult to estimate or reduce but commonly may be over 25% of the known mortality. Mortality in Alaska, British Columbia, parts of Alberta, and the Northern Continental Divide region in Montana is primarily from legal hunting.

Brown bears are jeopardized when increasingly intensive human activities are carried out in their habitats and people come into close contact with bears. Non-hunting mortality is from conflicts involving perceived or real threats to life and property. People that live, work, and recreate in brown bear habitat often do not keep their living areas sanitized of garbage and food stored properly.

Depredations by brown bears upon livestock may occur whenever bears and livestock occur together. Depredations may increase during periods of natural food shortages. Policies of relocating domestic sheep bands away from brown bear habitat, grazing areas when bears are not likely to be present, and changes in livestock management to minimize depredation probabilities should reduce conflicts. The introduction of livestock into brown bear range where domestic animal grazing previously did not occur poses a threat to some brown bear populations in Canada.

The effect that forest management activities has on brown bear habitat varies regionally, depending upon differences in plant succession, timber rotation lengths, and forest management plans. Attention to the accumulative effects of all management activities on brown bear habitat in time and space should help reduce conflicts.

The effect of forest activities on bear-human interactions also is important. Intensive forest development in brown bear habitat, which is most frequently undeveloped land, generally improves human access and increases both disturbance and direct man-caused mortality of bears. Hydrocarbon and mineral exploration and development pose similar problems of increasing human activity within brown bear habitat.

Responsible management of predator-prey systems such as the moose-predator complex (one predator is the brown bear) requires delineation of specific management objectives and the ability to monitor changes in densities of predators and prey. However, such information is extremely difficult to obtain.

The policy of The Wildlife Society, in regard to conservation of brown bears, is to:

1. Recognize that, because many human activities are incompatible with this species, retention of self-sustaining populations of brown bears represents a major challenge in wildlife conservation.

2. Encourage coordinated efforts to manage brown bear populations and their habitats, as exemplified in the Grizzly Bear Recovery Plan for Idaho, Montana, Washington, and Wyoming. Efforts must include cooperation between Canada and the United States in border areas where bears occur.

3. Encourage all efforts that reduce conflicts between humans and brown bears, including public information programs, and closures to human use

Management and Conservation of Brown Bears (continued)

of areas that are important habitats during periods bears use these areas. Improved sanitation around human habitations in brown bear habitat, establishment of enclosures and other structures that prevent or restrict bears from entering campsites in national parks and wilderness areas, and rigorous enforcement of rules and regulations designed to protect this species also must be considered. Elimination of domestic sheep grazing on public lands occupied by brown bears in the Greater Yellowstone Ecosystem is necessary.

4. Encourage all efforts that reduce nonhunting mortality, including those related to defense of life and property, poaching, livestock depredations, vehicle collisions, and management and research activities. The sale of all bear parts should be forbidden strictly.

5. Encourage all efforts to manage more effectively brown bear harvests to ensure that populations are maintained at self-sustaining levels. Such efforts may include hunter education programs and restrictions on black bear (*Ursus americanus*) hunting in habitat occupied by brown bears.

6. Encourage efforts to develop accurate methods to estimate population parameters, including trend, recruitment, and mortality.

7. Encourage the incorporation of brown bear needs into comprehensive planning for forestry, mining, agricultural, and other human activities in currently or potentially occupied habitats needed for recovery. The accumulative effects of human activities must be monitored and evaluated to minimize human encroachment and retain the integrity and quality of brown bear habitats. Acquisition, leases, and easements of important habitats for brown bear management are encouraged.

8. Discourage roads and motorized vehicle access in important brown bear habitat. When construction is necessary, access and use must be controlled rigidly.

9. Encourage research into brown bear habitat relationships, requirements, and effects of habitat modification. Research should be well designed, reviewed, executed, analyzed, and published.

10. Encourage efforts to understand the ecology of predation by brown bears upon ungulates and to manage predator-prey interactions involving the brown bear with utmost concern for the bear as well as for the prey.

11. Encourage augmentations of existing populations that are at low levels and in need of being increased artificially. Reintroductions of brown bears into previously occupied and currently suitable habitats that are vacant are encouraged, especially within wilderness and national parks, to ensure that this species will exist in as many areas of its former range as possible. Re-establishment efforts must consider the need to manage brown bear populations compatibly with other land uses on adjacent habitats.

12. Encourage the dissemination of accurate information to the public on brown bear conservation and management, and encourage public involvement in the conservation of this species.

13. Encourage management agencies in northern areas, where some brown bear population levels still are high, to take steps now to avoid problems involving bears that have occurred in southern areas.

Urban Wildlife

Wildlife is an important conponent of the environment, including the highly modified habitats of towns, villages, suburbs, and cities where three-fourths of the people of the United States live. Urban wildlife can have an important effect, either positive or negative, upon the quality of human life in these areas. The interactions of wildlife with other environmental components — soil, water, vegetation, people and man-made structures — are of concern to the public, plannners, and professional wildlife biologists, alike. Although some wildlife species are well known for their nuisance potential, there is ample reason to believe that urban areas containing habitats supporting rich and varied wildlife populations constitute a better environment for poeple than areas largely devoid of wildlife, even though some urban residents do not actively pursue an interest in wildlife. In addition, urban wildlife programs may be useful in educating a majority of people to the basic principles and values of wildlife management, thereby stimulating greater support for the full range of national and global wildlife programs.

Wildlife habitat in or near urban areas is necessary if the public's need for wildlife is to be satisfied. With a heightened awareness and better understanding of wildlife by the public and a willingness of urban land managers and biologists to use a holistic approach in planning and management, opportunities exist to enhance wildlife habitat in urban areas whether it be around people's homes, in downtown parks, along urban streets or waterfronts, or in larger open spaces. Management of urban wildlife habitat, educational programs for the public and professionals, and sound research designed to address and provide answers to issues unique to urban environments are the responsibilities of state and federal agencies charged with the stewardship of all wildlife. Private conservation agencies, colleges and universities and well-formed individuals also must take an active role in conserving these resources. Studying, planning for, and managing urban wildlife and related resources represent a logical and needed expansion of traditional professional wildlife concerns.

The policy of The Wildlife Society, in regard to urban wildlife, is to:

1. Advocate that wildlife and their habitat in urban ecosystems are subjects needing the concerted attention of researchers, managers, planners, and educators concerned with the quality of life in urban areas.

2. Foster the awareness among the public, the wildlife profession, and urban land managers of the aesthetic, educational, recreational, economic, and physical/mental health values of wildlife to urban residents.

3. Encourage public and private natural resource agencies to allocate qualified personnel and fiscal resources to the research, planning, and management of urban wildlife.

4. Stimulate development of programs that will provide local governments and urban residents with advice and information on how to better manage wildlife on open space areas and private properties, i.e., promote the management of private and public lands so they provide high quality wildlife habitat.

5. Promote acquisition of unique wildlife habitats and the maintenance of, and access to, existing habitats in or near urban areas for the enjoyment of wildlife by urban residents.

6. Strive to make architects, civil engineers, landscape architects, urban developers, planners, and foresters, and others aware of the amenity values of urban wildlife and both the desirable and undesirable impacts of their activities on wildlife species in urban settings.

7. Advocate sound, integrated wildlife control programs, including habitat alteration and/or removal of offending animals, to minimize conflicts between urban wildlife and people.

8. Promote the establishment and maintenance of diverse, self-sustaining urban wildlife populations at a level of abundance in harmony with ecological, social, and economic values of the human community.

Recognition of Wildlife Needs in Forest Management

Structure and species composition of plant communities may be altered by forest management practices with significant effects upon wildlife. While some wildlife populations may increase or be unaffected, other populations may decline or disappear on intensively managed areas. Wildlife species with a narrow range of tolerance for habitat change usually require special attention in forest management.

Positive effects of management may be optimized and negative effects minimized when wildlife requirements are coordinated and integrated with forest management. Such varied practices as maintaining diversity of tree species, age classes, and stand densities; retaining snags; and varying the size, shape, age, and juxtaposition of stands are used to meet wildlife management objectives established for individual forested areas. Flexibility to conform forest and wildlife plans to specific local conditions is particularly important. Management practices must be selected and prescribed to match site conditions, plant and animal species involved, successional relationships, and other local factors to help ensure that a broad spectrum of wildlife and other forest management objectives is met.

Each forest management decision has a set of consequences for wildlife and wildlife should be an intentional product of any well-managed forest. It is the wildlife biologist's or manager's responsibility to point out these consequences to the land administrator. The latter's responsibility is to review and consider the consequences of forest management and other activities on wildlife, and to recognize the wildlife management objectives and implement appropriate actions to benefit wildlife survival and production in managed forests.

The Wildlife Society recognizes:

1. That all forest management must be designed to maintain healthy functioning ecosystems.
2. That wildlife is an integral part of each forest ecosystem.
3. That to be ecologically acceptable forest management must include considerations and actions for wildlife.

It is, therefore, the policy of The Wildlife Society to recommend and advance wildlife considerations and actions in forest management to accomplish the following:

For Public Forest Lands

1. Ensure that all provisions of law concerning wildlife on public lands be met adequately.
2. Ensure that all public forest lands are managed with full consideration to wildlife as a product of these lands.
3. Ensure that certified or other similarly qualified wildlife biologists and managers participate in all planning and management of public forest lands so that wildlife population survival and production needs are identified and provided.
4. Ensure that each forest management plan sets forth objectives for wildlife management and describes in detail the processes by which these objectives are to be met.
5. Ensure further development and application of approaches and systems by which the impact of forest management activities on wildlife and their habitats may be predicted.

For Other Forest Lands

1. Encourage that forest lands be managed, giving full consideration to wildlife as a product of those lands.
2. Encourage use of certified and other similarly qualified wildlife biologists and managers in forest planning and management processes to ensure that wildlife and their habitats are maintained and enhanced to the extent possible.
3. Advocate coordination of forest and wildlife management plans to include detailed objectives for wildlife and their habitats and to provide an analysis of the anticipated consequences of forest management activities on wildlife.

For All Forest Lands

1. Encourage research necessary to determine and predict consequences of forest management activities on wildlife.
2. Urge strengthening and expansion of comprehensive extension programs to help maintain and enhance wildlife, forest and rangeland resources.

Management and Conservation of Old-Growth Forests in the U.S.

Old-growth forests in the United States have been reduced to less than 5% of their original extent. Remaining **old-growth** stands are being eliminated rapidly, primarily by timber harvest, and cannot be replaced under current silvicultural programs. **Old-growth** forests function in a number of important ways in forest ecosystems, including providing critical habitat for several species of wildlife. Plans for maintaining **old-growth** forests must be developed and implemented if values of **old-growth** forests are to be retained.

Old-growth, or virgin, forests are usually mosaics of variable-size trees ranging in age from seedlings to dominant, 200+-year old trees. They are dynamic, steady-state ecosystems in which total plant biomass is high and net biomass accumulation is low. Also of concern are old forests, defined as non-virgin stands that are "old" compared to the average interval between natural or man-induced disturbances, and in which biomass accumulation is nearly zero. Old forests are the closest facsimile to **old-growth** forests throughout much of the United States. They possess some of the attributes of the original **old-growth** forests and may, with time, become increasingly similar to **old-growth.**

Old-growth forests are especially valuable for timber. Most (over 95%) of the original **old-growth** forests in the United States have been cut or lost to fire or other natural events, and much of the rest is being harvested rapidly. The remaining stands are concentrated on public lands in northern California, western Oregon and Washington, and south-coastal Alaska. Relict stands occur elsewhere in the United States. Old forest stands occur in many forested areas in the United States.

Old-growth forests are unique environments. They provide critical habitat for such species as the spotted owl in the Pacific Northwest, Sitka black-tailed deer in southeast Alaska, and red-cockaded woodpecker in the southeastern United States. Marten, red tree voles, northern flying squirrels, bald eagles, pileated woodpeckers and other cavity-nesting birds, Vancouver Canada geese, marbled murrelets, elk, mountain goats, mountain caribou, brown/grizzly bears, and several species of bats extensively use **old-growth** forests. **Old-growth** forests also are valuable in forest ecosystems because they provide important pathways for fixing nitrogen, retain and recycle nutrients, and help ensure supplies of high quality water.

Management and conservation of **old-growth** forests are mandated by laws (e.g. the National Forest Management Act) that deal with maintaining viable populations of native vertebrates, managing habitats for threatened and endangered wildlife, and perpetuating biological diversity. In the past, however, efforts to consider **old-growth** forests in land-use planning have been fragmentary and limited in scope, and there has been little coordination between and within state and federal agencies. As a result, major questions remain about how much **old-growth** forest still exists, where it is, and how much should be maintained for wildlife and other uses.

Agencies responsible for managing forested lands in the United States, especially the USDA Forest Service (FS) and the Bureau of Land Management (BLM) should take an active and vigorous role in conducting their mandate to ensure the long term existence of sufficient **old-growth** forests. Priority should be placed on inventorying and classifying **old-growth** forests, assessing regional wildlife-habitat relationships related to **old-growth** forests, and developing management plans that conserve **old-growth** ecosystems.

The policy of The Wildlife Society, in regard to management and conservation of **old-growth** forests in the United States, is to:

1. Recognize that **old-growth** forests are rare and unique ecosystems providing critical habitat for some wildlife species, and that maintenance of **old-growth** stands of appropriate size and distribution is essential for maintaining biological diversity.

2. Recognize that **old-growth** forests cannot be recreated with current silvicultural practices and that efforts to maintain **old-growth** forests therefore must be initiated with existing **old-growth** stands and include provisions for replacing these stands through time.

3. Recognize that federal land management agencies (primarily the FS, BLM) control the destiny of nearly all **old-growth** stands that exist outside of National Parks and Wilderness areas.

Management and Conservation of Old-Growth Forests in the U.S. (continued)

4. Recognize that federal land management agencies are directed by laws and accompanying regulations of the United States to maintain diversity of plants and animals and viable populations of native wildlife, and that special efforts must be made to prevent the decline of threatened or endangered species.

5. Call for state and federal land management agencies (especially the FS and BLM) to define, inventory, and map existing stands of **old-growth** forests.

6. Call for state and federal land management agencies to implement plans for maintaining **old-growth** forests that incorporate analyses of long-term cumulative effects, include clearly stated objectives about wildlife populations and biological diversity, and use an ecosystem approach in addition to focusing on high-profile species.

7. Call for the FS, BLM, and the U.S. Fish and Wildlife Service to expand research programs on wildlife-habitat relationships in **old-growth** forests.

8. Call for the FS and the BLM to maintain a sufficient quantity and distribution of **old-growth** stands with comparatively high volumes of wood per unit area so that associated wildlife and other ecological functions are maintained.

9. Call for state and federal land management agencies to retain adequate old forest stands in all areas where the number, size, or distribution of **old-growth** stands are insufficient.

10. Recognize that information presently is not available to determine the number, size, and distribution of **old-growth** stands required to maintain associated wildlife and other ecological values and, that in the absence of such information, sufficient **old-growth** stands should be maintained to permit the widest possible array of management options for the future.

11. Encourage the President and Congress to recognize the unique values inherent in **old-growth** forests, to provide adequate funding for research into the ecological relationships of **old-growth** ecosystems, and to direct the FS and BLM to provide for the conservation and management of the remaining **old-growth** forests.

Threatened and Endangered species

The rapid modification of natural ecosystems by technological development and other human activities is causing the rate of extinction among wild flora and fauna to far exceed the natural evolutionary pace. The U.S. Department of the Interior continues to add to its list of threatened and endangered species of plants and animals, and critical habitats.

The premature and induced extinction of any organism constitutes a degradation of the environment of which humans are an inseparable part. Some species act as sensitive and crucial indicators of environmental quality for other organisms, including mankind. The conservation of threatened and endangered species presents one of the most formidable challenges to our society, demanding not only biological expertise in research and management but also skill and effectiveness in public relations.

The policy of The Wildlife Society, in regard to threatened and endangered species, is to:

1. Encourage the enactment of legislation and the enforcement of existing laws designed to safeguard their wild populations.

2. Oppose activities that joepardize their survival or restoration.

3. Stimulate and support cooperative programs, both national and international, that are designed to manage, including protect, their populations.

4. Foster research on their biology to provide a valid basis for their restoration and management.

5. Promote public support for the restoration, conservation, and management of threatened and endangered species.

Federal Cropland Diversion Programs

The USDA's cropland diversion programs have been established to curtail excessive production of certain farm commodities, thereby assuring producers an available market and an equitable price for their products. These programs, which are administered by the Agricultural Stabilization and Conservation Service, affect millions of acres of agricultural land that are diverted from the production of wheat, feed grains, and cotton in the United States.

These cropland diversion programs are being administered principally on an annual basis. The croplands retired under annual contracts are usually fallowed or left barren of vegetation for most — and sometimes all — of the year. Such practices are environmentally damaging. The erosion of unprotected soils by wind and water depletes soil productivity and contributes to air and water pollution. Also, idle croplands that are devoid of vegetative cover offer little or no habitat for wildlife, thereby reducing the recreational potential of our lands at a time when recreational needs are expanding rapidly. Cropland diversion programs could, however, with minor and no-cost modifications, yield substantial environmental benefits.

The policy of The Wildlife Society, in regard to federal cropland diversion programs, is to:

1. Support the formulation and implementation of cropland diversion programs provided that these programs safeguard air, water, soil, and wildlife.

2. Urge that the maximum acreage of cropland diverted from production be administered under long-term contracts (2 or more years) and that it be devoted to self-maintaining, protective vegetative cover.

Toxic Chemical Compounds

Rapid technological development in the synthesis and production of toxic chemical compounds and their widespread use in agricultural production and public health have resulted in contamination of the earth's biosphere. Released intentionally for control of pest species and inadvertently during manufacture and transport, these compounds occur globally in air, water, soil, and organisms. Many of these chemical compounds are persistent and subsequently accumulate in some animals at levels far greater than those found in the physical components of the environment or in the organisms that constitute their food supply.

Some chemical toxicants have depressed populations of certain nontarget animals by directly causing death, by inducing harmful physiological and behavioral changes, or by eliminating organisms necessary to the maintenance of their food chain. Some chemical toxicants have been shown to be carcinogenic, teratogenic, mutagenic, or otherwise harmful to health. The simultaneous exposure to more than one chemical toxicant or to a combination of chemical toxicants and other environmental stressors may produce additive or synergistic effects on individual organisms, populations, and the ecosystem.

The policy of The Wildlife Society, in regard to toxic chemical compounds, is to:

1. Support legislative, legal, and instructional programs that will materially reduce the release of these compounds into the open environment.

2. Advocate investigative studies designed to ascertain the sources, distribution, and accumulation of toxic chemical contaminants.

3. Advocate increased financial support to study the effects of contaminants on organisms and environments.

4. Support the development of short-lived chemical compounds and of feasible biological methods for control of pests.

5. Ensure that only scientifically correct information on toxic chemicals be disseminated to the public.

Control of Environmental Contamination Due to Lead Shot

Ingestion of lead by waterfowl and other species, both directly and indirectly by accumulation through the food chain, causes deaths. Some large-scale die-offs of waterfowl due to lead poisoning have been reported; however, most deaths are less spectacular and attract little attention. Furthermore, sublethal doses from chronic exposure to lead have a widespread, detrimental effect on survivorship and natality. Lead poisoning of waterfowl is best described as a low visibility, chronic disease of attrition that varies in severity and is distributed over wide geographic areas.

Lead poisoning has been recognized for nearly 100 years in North America, Europe, and Australia. Over the past 30 years, estimates of waterfowl deaths from lead poisoning in the United States vary from 1.6 to 3.6 million birds annually.

Based on the number of shots fired by hunters, the U.S. Fish and Wildlife Service estimates that over 3,000 tons of lead shot are expended annually in the United States. The shot can accumulate in bottom sediments and fields, and feeding waterfowl mistakenly ingest the pellets as food or grit. The availability of shot to waterfowl varies with substrates and other factors in wetlands and with agricultural practices in fields. Acute lead poisoning tends to be localized.

The legal authority for conserving waterfowl populations typically rests with governments and they must be responsible for monitoring and dealing with the lead poisoning problem. In the United States guidelines for identifying lead poisoning "hot spots" have been developed and nontoxic shot zones have been established. In these zones lead shot is prohibited. Nontoxic shot regulations have been challenged in court and in every case have been upheld.

There has been considerable controversy over the effectiveness of lead versus steel shot in killing or crippling waterfowl. For goose hunters in field-shooting trials, no difference in effectiveness between steel and lead shotshells could be detected statistically. Most studies of duck hunters have reported small but not significant increases in the crippling rate and/or decreases in the number of ducks bagged when steel shotshells were used. Furthermore, these studies indicate the number of ducks poisoned and crippled with lead shot would exceed the number of ducks crippled if steel shot were used. Importantly, this comparison does not consider sublethal, toxic effects of lead poisoning on waterfowl and other wildlife.

The policy of The Wildlife Society is that the use of lead shot for waterfowl hunting be eliminated as soon as possible but not later than 1989. By this policy, The Wildlife Society:

1. Recognizes the widespread problem of acute and chronic lead poisoning of waterfowl and other wildlife caused by using lead shot for waterfowl hunting.

2. Urges governments to take leadership roles to protect wildlife resources by immediately prohibiting lead shot for waterfowl hunting on all government-owned lands.

3. During the phase-out period, supports establishment of nontoxic shot zones in local areas based on previous history of lead poisoning, ingestion rates of lead shot, and/or lead residues in body tissues of waterfowl and other wildlife.

4. Recognizes steel shot as the only currently available and suitable substitute for lead shot.

5. Encourages coordinated research to improve our understanding of the effects of toxic materials on ecosystems and wildlife populations.

6. Promotes public and professional education programs concerning the biological effects of toxic and nontoxic shot used for hunting.

Wildlife Damage Control

Wildlife sometimes causes significant damage to private and public property, other wildlife, their habitats, agricultural crops and livestock, forest and pastures, urban and rural structures, and they may threaten human health and safety or be a nuisance. Prevention or control of wildlife damage, which often includes removal of the animals responsible for the damage, is an essential and responsible part of wildlife management. Before wildlife damage control programs are undertaken, careful assessment should be made of the problem, with assurance that the techniques to be used will be effective and biologically appropriate.

The policy of The Wildlife Society in regard to wildlife damage control and the alleviation of wildlife problems is to:

1. Support those wildlife damage prevention and/or control programs that are biologically, environmentally, and economically valid, effective and practical.
2. Encourage research to improve the methods of: (a) preventing and controlling wildlife damage, including health hazards and nuisance problems; (b) delineating the effectiveness and environmental impact of damage control programs; (c) assessing the damage caused by wildlife; and (d) assessing the alternatives available to landowners/managers for wildlife damage prevention and/or control.
3. Recommend wildlife damage control programs that are cost-effective with benefits outweighing the risk that might be encountered in preventing, reducing, or eliminating the damage problem.
4. Support the use of efficient, safe, and economical methods of controlling depredating animals.
5. Encourage and support educational programs in wildlife damage prevention and control.
6. Support biologically sound laws and regulations governing wildlife damage prevention and control directed at individual animals and/or populations.
7. Examine and consider the impact on all wildlife resources when landowners/managers do not have effective control measures and resort to the elimination of wildlife habitat to reduce serious depredation, or threats to human and domestic animal health and safety.

Trapping

The Wildlife Society is dedicated to wise management and conservation of wildlife. Within this framework, we support the most efficient and appropriate techniques available to accomplish specific management goals. Trapping with steel traps has been used for centuries to harvest wildlife and to reduce animal damage. Today, trapping remains an effective, economical, and ecologically sound method of harvesting or controlling certain species of wildlife.

We recognize the need for trapping regulations to accomplish specified management objectives, to assure that humane techniques are used, and to protect non-target species.

The policy of The Wildlife Society, in regard to trapping, is to:

1. Recognize that trapping can be used effectively to take certain animals without impairing the well-being of that species.
2. Recognize that trapping has been and currently is a successful technique for capturing animals for specific purposes.
3. Encourage resource agencies to ensure that trapping is permitted in concert with sound stewardship of wildlife.
4. Recognize that the steel leghold trap represents an effective, practical means for capturing certain species of wildlife, and, simultaneously, to lessen the impact on non-target species, encourage the development of improved traps, better trapping techniques, and efficient alternative methods of taking animals.
5. Promote and encourage development of new approaches for improving decisions affecting the biological and social impacts of trapping.

Shooting Preserves

The opportunity to hunt wild game, especially near metropolitan centers, is diminishing due to increasing human populations, declining wildlife habitats, and decreasing amounts of private land available to the public for hunting. The reduced opportunity to pursue wild game has stimulated increased interest in shooting preserves, where artificially propagated game species are released and harvested under liberalized regulations. Shooting preserves, when properly managed, not only offer recreational opportunities to the hunting public but also provide lands on which desirable practices of wildlife management may be demonstrated to both professional and private land managers. However, since many preserves are stocked with exotic animals which, if they should escape, might disrupt native ecological situations, precautions must be taken to ensure that exotic species are retained on the preserve premises.

The policy of The Wildlife Society, in regard to shooting preserves, is to:

1. Encourage development of high quality shooting preserves, consistent with need and demand, as part of a balanced program of public and private wildlife management.
2. Encourage appropriate state or provincial agencies to license shooting preserves, to establish and enforce high standards of operation for preserves, and to provide management advice.
3. Recommend that shooting preserves remain in the realm of private enterprise, and discourage their establishment by public agencies on public land.

Hunting

Hunting has co-evolved with the needs and cultures of mankind. Archaeological evidence indicates that early cultures were dependent upon wild animals for subsistence. As skills in animal husbandry and agriculture were acquired, dependence on hunting for subsistence decreased. Today hunting is principally useful for recreational purposes, for utilization of the harvestable surplus to benefit man, and for controlling populations.

Most wild animal populations produce more animals than their habitats can support. These surplus animals are removed by mortality factors that regulate population numbers within the limits of the habitat. Hunting can be used to remove a portion of these excess animals that would otherwise be lost to natural mortality.

Professional wildlife managers are charged with the responsibility of managing wildlife populations in an ecologically sound and socially acceptable manner. Hunting, when based on biological information and properly regulated, can be used effectively to satisfy this responsibility. In addition, hunting, through licenses and taxes, provides the major source of financing for habitat acquisition, law enforcement, research, and management programs for wildlife, both game and nongame species.

The policy of The Wildlife Society, in regard to hunting, is to:

1. Assist decision makers so that judgments on hunting and the welfare of wildlife are guided by both biological and societal considerations.
2. Endorse the principle that hunting, when properly regulated, is a biologically sound means of managing wildlife populations.
3. Encourage expansion of programs for hunters to increase their knowledge of wildlife ecology and management and to emphasize hunter ethics and responsibilities.

Firearms Legislation

Many honest citizens own and use firearms in recreational pursuits, such as gun collecting, hunting, and competitive shooting. These gun owners are as concerned about the misuse of firearms as are the advocates of complete gun control. Laws restricting the future ownership and use of guns may prove more advantageous to criminals than to law-abiding citizens. Therefore, common sense and equity demand that legal means be used to reduce the criminal misuse of firearms—not to reduce the ownership and legitimate use of firearms by responsible citizens.

Firearms are essential to recreational hunting, an activity that stimulates the economy of communities. The hunter's deep personal interest in wildlife resources has provided the keystone to modern wildlife management. The continuing financial support derived from the hunting public has provided the most important impetus for wildlife research and for the acquisition and management of public lands for wildlife. Hunters financed most of the major programs in wildlife conservation. Therefore, restrictive gun-control measures that discourage the ownership of guns by law-abiding citizens can only be counter-productive. Unwarranted measures would curtail not only essential programs in wildlife conservation but also reduce opportunities for recreational hunting at a time when public demands for recreational pursuits are expanding.

The policy of The Wildlife Society, in regard to firearms legislation, is to:

1. Oppose legislative programs that prohibit or unnecessarily discourage the ownership and use of firearms by responsible citizens.
2. Support legislative programs that provide stringent and mandatory punishment for the criminal misuse of firearms.
3. Encourage development and continuation of educational programs concerned with gun safety and legitimate recreational uses of firearms.

Estuaries

The estuary (a small, linear coastal zone where the sea meets the land and where salt water mixes with fresh water) is a highly productive ecosystem accounting for half of the energy production from the world's oceans. The high biological productivity, unusual scenic and physical diversity, abundant mineral resources, and strategic location give the estuarine region great biological and economic importance.

Mankind has placed enormous stress on fragile estuarine ecosystems—sometimes damaging them irreparably. To illustrate, the coastal region of the U.S.A., where estuaries are located, embraces 15 percent of the land area, yet holds 33 percent of the population, 40 percent of the industrial complex, and 60 percent of the oil refineries. And, during the past 25 years, nearly 600,000 acres (243,000 hectares) of estuarine fish and wildlife habitat, or about 7 percent of all shallow water bays, have been destroyed by dredging and filling operations. Also, by altering the flow of water, marinas have disrupted the ecological structure and functions of estuaries. Finally, whenever inland drainage systems are unwisely altered, estuaries receive smothering discharges of silt and chemical contaminants from tributary streams.

The policy of The Wildlife Society, in regard to estuaries, is to:

1. Urge that all major estuarine regions be carefully inventoried, and that these inventories include potential demographic, recreational, and industrial encroachments as well as ecological evaluations.
2. Encourage all governments whose jurisdictions include estuarine regions to formulate and implement management programs designed to minimize the environmental degradation of coastal zones by human activities.
3. Advocate the immediate protection and preservation of intact estuarine regions that are ecologically unique, contain threatened and endangered flora and fauna, and provide valuable habitats for both aquatic and terrestrial wildlife.
4. Support research designed to study the ecological, social, economic, and legal aspects of estuarine preservation and management.
5. Promote efforts to foster public understanding of the importance of the estuary as a highly productive ecological system with great biological and economic significance to mankind.