

Pennsylvania Game Commission - State Wildlife Management Agency

Pennsylvania's Wildlife Action Plan

4.2. Pennsylvania's Valuable Wild Resources



William Penn

"The air is sweet and clear, and the heavens serene . . . Of living creatures, fish, fowl, and the beasts of the wood, here are divers sorts . . ."

- William Penn, 1683

Pennsylvania is blessed with a rich diversity of fish, wildlife, and plants. More than 10,000 species of plants and animals are known to exist in the Commonwealth. As inventory efforts continue, it is estimated that the total number of known plants and animals in Pennsylvania will reach 20,000 species. This diversity of species contributes to Pennsylvanians' well being by providing important recreational, economic, and biological benefits to the Commonwealth.

Recreational Values

While the number of hunters and anglers has been declining across the country for several decades, the number of people involved in watchable wildlife activities like bird feeding and wildlife photography has exploded. Birdwatching is the fastest-growing outdoor pastime in the country, growing 232 percent between 1983 and 2001, according to the latest National Survey on Recreation and the Environment.

This national trend is echoed in Pennsylvania. Pennsylvanians rank first in the nation in time spent hunting and third in time spent wildlife watching. In 2001 (the most recent year for which data exists), about 1 million Pennsylvanians hunted, more than 1.2 million fished, and 3.7 million participated in nonconsumptive wildlife recreation, such as viewing, feeding, and photographing wildlife. More than one in four Pennsylvanians actively participates in watchable wildlife recreation. When the number of resident and visiting participants are combined, those who enjoy wildlife viewing in Pennsylvania outnumber the combined populations of Maine and West Virginia!



Wood Turtle
Hal Korber

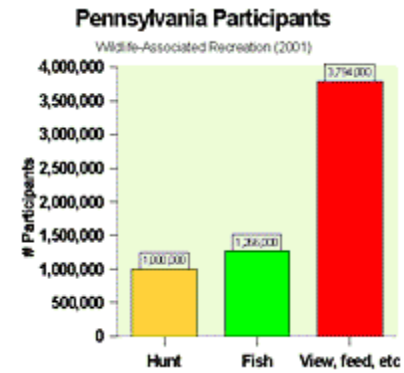
A recreation participation survey conducted in 1990 revealed that Pennsylvanians spent more time birdwatching and wildlife watching (23.9 activity days per capita) than any other outdoor recreation activity except walking and jogging. In addition, hiking/nature walks showed a greater increase in activity days per participant and a greater increase in activity days per capita over the past 20 years than all other outdoor activities.

Watchable Wildlife Recreation- Quick Facts!

(Source: Southwick Associates, Inc.)

- More than one Pennsylvanian in four actively participates in watchable wildlife recreation, such as viewing, feeding, and photographing wildlife. The state ranks third nationally, behind only California and New York, in the number of people participating in watchable wildlife recreation.

- Those who enjoy wildlife viewing in Pennsylvania, including residents and visitors, number more than the combined populations of Maine and West Virginia.
- A live webcam showing a peregrine falcon nest on the Rachel Carson Office Building in Harrisburg registered 54 million hits in 2001, making it one of the most popular nature sites on the World Wide Web.
- The number of out-of-state residents who visited Pennsylvania in 2001 to view wildlife outnumbered the residents of Allentown nearly 3 to 1.



Economic Values

With nearly six million Pennsylvanians (nearly 50 percent of the adult population) using and enjoying the outdoors, this activity makes a significant contribution to the Commonwealth's economy. Wildlife-related recreation is an economic heavyweight in Pennsylvania - hunting, fishing, and wildlife watching combined generates nearly \$6 billion in total economic impact each year. In 2001, economic activity associated with hunting and fishing totaled more than \$2.2 billion and \$1.6 billion respectively, while nonconsumptive wildlife recreation (viewing, feeding, and photographing wildlife) generated nearly \$2 billion in economic activity. Altogether, wildlife-associated recreation supported more than 50,000 jobs and contributed \$190 million to the Commonwealth's General Fund via state sales and income tax.



Elk Watching
Hal Korber/PGC

While they may not buy rifles or fishing rods, Pennsylvania's wildlife viewers purchase varied equipment to enjoy their pursuits, including: bird seed, feeders, field guides, binoculars, boats, gas, lodging and meals. In fact, the total economic impact of watchable wildlife recreation in Pennsylvania is \$1.98 billion - more than the annual value of dairy products, our state's top agricultural commodity.

Total economic effect of nonconsumptive bird and waterfowl recreation alone is estimated at more than \$450 million per year in Pennsylvania. Like other forms of outdoor recreation, nonconsumptive wildlife recreation creates significant benefits for communities surrounding the recreation site. As an example, more than 50,000 birdwatchers visit Hawk Mountain Sanctuary in Berks county each year and spend roughly \$3 million in surrounding

communities. These birdwatching expenditures are an important source of revenue for more than 200 local motels, bed and breakfasts, campgrounds, restaurants, gas stations, and gift shops.

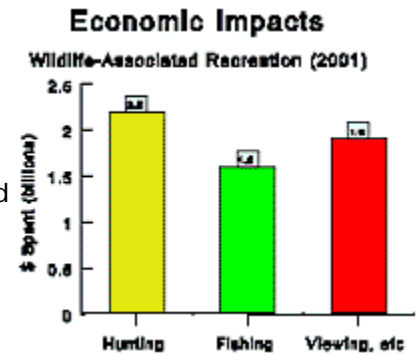
Clearly, wildlife-associated recreation is an important economic engine in Pennsylvania. Wildlife-associated recreation also serves as a low-cost, high-benefit sector in Pennsylvania's economy. This is especially true when one considers that the Fish & Boat Commission and the Game Commission - the agencies responsible for managing fish and wildlife - do not draw from the state's General Fund when managing our wild resources.

Watchable Wildlife Economics - Quick Facts!

(Source: Southwick Associates, Inc.)

- In 2001, watchable wildlife recreation generated twice the value of all cattle and beef produced by Pennsylvania's farms, and three times the total spent nationally by moviegoers to see 2001's top-grossing film, "Harry Potter and the Sorcerer's Stone."

- Watchable wildlife generated \$70 million in state sales and income taxes, \$87 million in federal taxes, and \$962 million in retail sales, (including \$96 million for bird seed and \$16 million for food, travel and lodging) in 2001.
- Watchable wildlife recreation supports almost 19,000 full- and part-time jobs with wages of more than \$509 million. It supports more workers in Pennsylvania than are employed nationally by Sunoco, a PA-based Fortune 500 company.
- Wildlife viewing expenditures in 2001 in Pennsylvania were nearly a third greater than all of the money spent nationally on skiing and snow-boarding equipment.
- Watchable wildlife recreation overwhelmingly benefits rural communities, often at times of the year when other income sources are low.



Biological Values

Pennsylvania's natural communities perform vital ecological functions such as photosynthesis, climate regulation, nutrient cycling, erosion control, soil formation, pest control, pollination, and water purification and storage. Through these processes, Pennsylvania's wild species contribute to the maintenance of ecosystems that support human life.

In the interrelated web of Pennsylvania's wild resources, obscure species are the foundation upon which well-known, charismatic species rely: meadow voles feed birds of prey and furbearers; countless terrestrial insects support wild turkeys, grouse, pheasants, and songbirds; aquatic insects form the mainstay of trout populations; "forage" fish feed sportfish, and; diverse plant communities support a host of herbivores from chipmunks to elk. Across Pennsylvania, the survival of game birds and mammals, sportfish, and "showy" wildlife - that collectively support a \$5.8 billion annual industry - is dependent upon the continued well-being of some of our most obscure, least understood species.

Unfortunately, habitat changes that have occurred since the settlement of Pennsylvania have taken their toll on the Commonwealth's fish and wildlife. During the past 300 years, 156 plant and animal species have disappeared from Pennsylvania, and another 351 species have become threatened or endangered. Thus, 507 species (13 percent of Pennsylvania's plants and animals) are threatened, endangered, extirpated, or extinct. Although Pennsylvania still enjoys a rich diversity of fish and wildlife, many species have already been lost and many more are in jeopardy (Table 4-1).

Because fish and wildlife are so valuable to humans in so many ways, declines in numerous populations are a reason for concern. Some wildlife, such as the northern bobwhite quail, have declined so rapidly that they are in danger of disappearing entirely. These Immediate Concern species require immediate conservation action. Others, including the wood thrush, remain widespread but deserve attention to prevent continued decreases. The sobering state of the Commonwealth today is that most fish and wildlife species currently enjoying population increases are exotic invaders from other countries, or species that are undergoing population explosions due to a lack of predators or other population control mechanisms.

The causes of population declines among fish and wildlife are numerous; but the loss, modification, degradation, and fragmentation of habitat almost always play a major role. Threats to habitats come primarily from intensified land-use practices in agricultural and forested regions and from other impacts associated with human population growth.

Because fish and wildlife habitats are directly affected by human use of the land, the health of Pennsylvania's fish and wildlife is in our hands. We have a stewardship responsibility for

maintaining healthy populations of still-common species in addition to preventing extinctions. For though our understanding of the wild systems of Pennsylvania is greater now than it ever has been, no one knows what a continued loss of species would mean for the Commonwealth's interrelated web of life.



Aldo Leopold

"The outstanding scientific discovery of the twentieth century is not television, or radio, but rather the complexity of the land organism. Only those who know the most about it can appreciate how little is known about it. The last word in ignorance is the man who says of an animal or plant "what good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.

- Aldo Leopold, Essays on Conservation from Round River

Table 4-1. Percent of Pennsylvania's native species that have been lost from the Commonwealth or are in danger of becoming so.

(Source: PA Biological Survey)

Taxon	Found Wild in Pennsylvania*	Threatened or Endangered
Mammals	73	6
Birds	394/186**	16
Amphibians	36	4
Reptiles	37	5
Fish	217/160**	43
Invertebrates	11,722??	144
Mussels	165	18

* Totals include native and non-native species.

**The higher number includes species that visit Pennsylvania but are not year round residents.

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