



# Fishing, Hunting and Wildlife Associated Recreation

Dustin N. Worley  
Editor

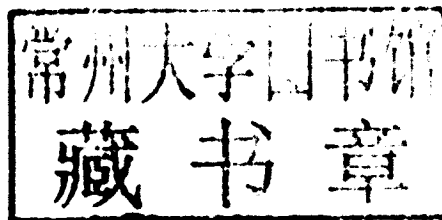
*Wildlife Protection, Destruction and Extinction*

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**WILDLIFE PROTECTION, DESTRUCTION AND EXTINCTION**

# **FISHING, HUNTING, AND WILDLIFE ASSOCIATED RECREATION**

**DUSTIN N. WORLEY**  
**EDITOR**



**Nova Science Publishers, Inc.**  
*New York*

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#### **LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA**

Available Upon Request

ISBN: 978-1-60692-128-9

*Published by Nova Science Publishers, Inc., + New York*

**WILDLIFE PROTECTION, DESTRUCTION AND EXTINCTION**

**FISHING, HUNTING, AND WILDLIFE  
ASSOCIATED RECREATION**

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## PREFACE

This book looks at The U.S. Department of the Interior which protects and manages the Nation's **natural** resources and cultural heritage, provides scientific and other information about those resources and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities. The mission of the Department's U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, and their habitats for the continuing benefit of the American people. The Service is responsible for national programs of vital importance to our natural resources, including administration of the Wildlife and Sport Fish Restoration Programs. These two programs provide financial assistance to the States for projects to enhance and protect fish and wildlife resources and to assure their availability to the public for recreational purposes.

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### **Suggested Citation**

U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

## FOREWORD

I find duck hunting with friends in a bottomland hardwood swamp or fishing with my kids on an Oregon river bolsters my spirit and reminds me why I care about conservation and our wildlife heritage.

But wildlife-associated and vital recreation—activities such as hunting, fishing, and birding—also provide significant financial support for wildlife conservation in our Nation's economy. According to information from the newest National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 87.5 million Americans spent more than \$122 billion in 2006 on wildlife-related recreation. And this spending supports hundreds of thousands of jobs in industries and businesses.

The Survey is conducted every five years at the request of State fish and wildlife agencies to measure the importance of wildlife-based recreation to the American people. The 2006 Survey represents the 11th in a series that began in 1955. Developed in collaboration with the States, the Association of Fish and Wildlife Agencies, and national conservation organizations, the Survey has become one of the most important sources of information on fish and wildlife-related recreation in the United States.

In the 75-year history of the Sport Fish and Wildlife Restoration Programs, excise taxes on firearms, ammunition, archery, and angling equipment have generated a cumulative total of more than \$10 billion for wildlife conservation efforts by State and Territorial wildlife agencies for fish and wildlife management.

My thanks go to the men and women who took time to participate in the survey, as well as to the State fish and wildlife agencies for their financial support through the Multistate State Conservation Grant Programs. Without that support, the 2006 Survey would never have been possible.

I am comforted to know that my children and all Americans will have the opportunity to appreciate our Nation's rich wildlife tradition. Along with a record number of Americans, we continue to enjoy wildlife. We are laying the foundation for conservation's future.

A handwritten signature in black ink, reading "H. Dale Hall". The signature is fluid and cursive, with the first name "H." and last name "Hall" clearly distinguishable.

H. Dale Hall  
Director, U.S. Fish and Wildlife Service

## **SURVEY BACKGROUND AND METHOD**

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Survey) has been conducted since 1955 and is one of the oldest and most comprehensive continuing recreation surveys. The Survey collects information on the number of anglers, hunters, and wildlife watchers; how often they participate; and how much they spend on their activities in the United States.

Preparations for the 2006 Survey began in 2004 when the Association of Fish and Wildlife Agencies (AFWA) recommended that the Fish and Wildlife Service conduct the eleventh Survey of wildlife-related recreation. Funding came from the Multistate Conservation Grant Programs, authorized by Sport Fish and Wildlife Restoration Acts, as amended.

We consulted with State and Federal agencies and nongovernmental organizations such as the Wildlife Management Institute and American Sportfishing Association to determine survey content. Other sportspersons' organizations and conservation groups, industry representatives, and researchers also provided valuable advice.

Four regional technical committees were set up under the auspices of the AFWA to ensure that State fish and wildlife agencies had an opportunity to participate in all phases of survey planning and design. The committees were made up of agency representatives.

Data collection for the Survey was carried out by the U.S. Census Bureau in two phases. The first phase was the screen which began in April 2006. During this phase the Census Bureau interviewed a sample of 85,000 households nationwide to determine who in the household had fished, hunted, or wildlife watched in 2005, and who had engaged or planned to engage in those activities in 2006. In most cases, one adult household member provided information for all members. The screen primarily covered 2005 activities while the next, more in-depth phase covered 2006 activities. For more information on 2005 data, refer to Appendix B.

The second phase of data collection consisted of three detailed interview waves. The first began in April 2006 concurrent with the screen, the second in September 2006, and the last in January 2007. Interviews were conducted with samples of likely anglers, hunters, and wildlife watchers who were identified in the initial screening phase. Interviews were conducted primarily by phone, with in-person interviews for respondents who could not be reached by phone. Respondents in the second survey phase were limited to those who were at least 16 years old. Each respondent provided information pertaining only to his or her activities and expenditures. Sample sizes were designed to provide statistically reliable results at the state level. Altogether, interviews were completed with 21,938 anglers and hunters and 11,279



wildlife watchers. More detailed information on sampling procedures and response rates is found in Appendix D.

## **COMPARABILITY WITH PREVIOUS SURVEYS**

The 2006 survey questions and methodology were similar to those used in the 2001, 1996, and 1991 Surveys. Therefore, the estimates are comparable.

The methodology of these Surveys did differ importantly from the 1985 and 1980 Surveys, so these estimates are not directly comparable to those of earlier surveys. Changes in methodology included reducing the recall period over which respondents had to report their activities and expenditures. Previous Surveys used a 12-month recall period, which resulted in greater reporting bias. Research found that the amount of activity and expenditures reported in 12-month recall surveys was overestimated in comparison with that reported using shorter recall periods.

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## **HIGHLIGHTS**

## **INTRODUCTION**

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reports results from interviews with U.S. residents about their fishing, hunting, and wildlife watching. This report focuses on 2006 participation and expenditures of persons 16 years of age and older. However, in addition to 2006 estimates, we also provide trend information in the Highlights section and Appendix C of the report.

The 2006 numbers reported can be compared with those in the 1991, 1996, and 2001 Survey reports because they used similar methodologies. However, 2006 estimates should not be directly compared with results from Surveys conducted earlier than 1991 because of changes in methodology to improve accuracy. The report also provides information on participation in wildlife recreation in 2005, particularly of persons 6 to 15 years of age. The 2005 information is provided in Appendix B. Information about the Survey's scope and coverage is in Appendix D. The remainder of this section defines important terms used in the Survey.

## **WILDLIFE-ASSOCIATED RECREATION**

Wildlife-associated recreation is fishing, hunting, and wildlife-watching activities. These categories are not mutually exclusive because many individuals participated in more than one activity. Wildlife-associated recreation is reported in two major categories: (1) fishing and hunting and (2) wildlife watching, which includes observing, photographing, and feeding fish or wildlife.

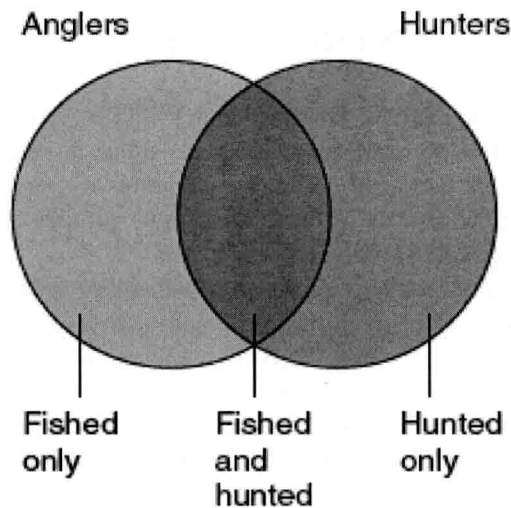
## **FISHING AND HUNTING**

This Survey reports information about residents of the United States who fished or hunted in 2006, regardless of whether they were licensed. The fishing and hunting sections report information for three groups: (1) sportspersons, (2) anglers, and (3) hunters.

## SPORTSPERSONS

Sportspersons are those who fished or hunted. Individuals who fished or hunted commercially in 2006 are reported as sportspersons only if they also fished or hunted for recreation. The sportspersons group is composed of three subgroups as shown in the diagram below: (1) those that fished and hunted, (2) those that only fished, and (3) those that only hunted.

The total number of sportspersons is equal to the sum of people who only fished, only hunted, and both hunted and fished. It is not the sum of all anglers and all hunters because those people who both fished and hunted are included in both the angler and hunter population and would be incorrectly counted twice.



## ANGLERS

Anglers are sportspersons who only fished plus those who fished and hunted. Anglers include not only licensed hook and line anglers, but also those who have no license and those who use special methods such as fishing with spears.

Three types of fishing are reported: (1) freshwater, excluding the Great Lakes, (2) Great Lakes, and (3) saltwater. Since many anglers participated in more than one type of fishing, the total number of anglers is less than the sum of the three types of fishing.

## HUNTERS

Hunters are sportspersons who only hunted plus those who hunted and fished. Hunters include not only licensed hunters using rifles and shotguns but also those who had no license and those who hunted with a bow and arrow, primitive firearm, or pistol or handgun. Four types of hunting are reported: (1) big game, (2) small game, (3) migratory bird, and (4) other

animals. Since many hunters participated in more than one type of hunting, the sum of hunters for big game, small game, migratory bird, and other animals exceeds the total number of hunters.

## **WILDLIFE WATCHERS**

Since 1980, the National Survey has included information on wildlife- watching activities in addition to fishing and hunting. The 1991, 1996, 2001, and 2006 Surveys, unlike the 1980 and 1985 Surveys, collected data only for activities where the primary purpose was wildlife watching. The 1980 and 1985 Surveys included estimates of unplanned wildlife watching around the home and while on trips taken for another purpose.

The 2006 Survey uses a strict definition of wildlife watching. Participants must either take a “special interest” in wildlife around their homes or take a trip for the “primary purpose” of wildlife watching. Secondary wildlife watching, such as incidentally observing wildlife while pleasure driving, is not included. Two types of wildlife watching are reported: (1) away-from-home (formerly nonresidential) activities and (2) around-the-home (formerly residential) activities. Because some people participated in more than one type of wildlife watching, the sum of participants in each type will be greater than the total number of wildlife watchers. The two types of wildlife-watching activity are explained next.

### **AWAY-FROM-HOME WILDLIFE WATCHING**

This group includes persons who took trips or outings of at least 1 mile from home for the primary purpose of observing, feeding, or photographing fish and wildlife. Trips to fish, hunt, or scout and trips to zoos, circuses, aquariums, and museums are not considered wildlife-watching activities.

### **AROUND-THE-HOME WILDLIFE WATCHING**

This group includes those who participated within 1 mile of home and involves one or more of the following:

- (1) closely observing or trying to identify birds or other wildlife;
- (2) photographing wildlife;
- (3) feeding birds or other wildlife;
- (4) maintaining natural areas of at least 1/4 acre where benefit to wildlife is the primary concern;
- (5) maintaining plantings (shrubs, agricultural crops, etc.) where benefit to wildlife is the primary concern; or
- (6) visiting public parks within 1 mile of home for the primary purpose of observing, feeding, or photographing wildlife.



## SUMMARY

The 2006 Survey found that 87.5 million U.S. residents 16 years old and older participated in wildlife-related recreation. During that year, 30.0 million people fished, 12.5 million hunted, and 71.1 million participated in at least one type of wildlife-watching activity such as observing, feeding, or photographing fish and other wildlife in the United States.

The focus of the National Survey is to estimate participation and expenditures of persons 16 years old and older in a single year. These estimates are based on data collected in the detailed phase of the 2006 Survey. They are comparable to estimates from the 1991, 1996, and 2001 Surveys but not with earlier ones because of changes in methodology. A complete explanation of the change is provided in Appendix C.

While the focus of the Survey is to estimate wildlife-related recreationists 16 years old and older and their associated expenditures in a single year, information collected in the survey screen can be used to estimate the number of anglers and hunters who were active over a five-year window of time. Because many do not participate every year, the following estimates may be more representative of the number of individuals considered to be anglers and hunters in the United States: 44.4 million individuals fished and 18.6 million hunted in the United States over the five-year period from 2002 to 2006.

The survey screen also provides some information about 6-to-15-year-olds' participation. Assuming their proportion of participation was the same in 2006 as in 2005, the following estimates were calculated: of the 6-to-15-year-olds in the United States, 1.6 million hunted, 8.3 million fished, and 12 million wildlife watched in 2006. More information about this age group is provided in Appendix B. For the rest of this report, all information pertains to participants 16 years old and older.

There was a considerable overlap in activities among anglers, hunters, and wildlife watchers. In 2006, 68 percent of all hunters also fished and 29 percent of all anglers also hunted. In addition, 52 percent of anglers and 57 percent of hunters wildlife watched, while 25 percent of all wildlife watchers reported hunting and/or fishing during the year.

Wildlife recreationists' avidity also is reflected in the \$122.3 billion they spent in 2006 on their activities, which equated to 1 percent of the Gross Domestic Product. Of the total amount spent, \$37.4 billion was trip-related, \$64.1 billion was spent on equipment, and \$20.7 billion was spent on other items such as licenses and land leasing and ownership.

Sportspersons spent a total of \$76.7 billion in 2006—\$42.0 billion on fishing, \$22.9 billion on hunting, and \$11.7 billion on items used for both hunting and fishing. Wildlife watchers spent \$45.7 billion on their activities around the home and on trips away from home.

## FISHING AND HUNTING

In 2006, 33.9 million U.S. residents 16 years old and older went fishing and/or hunting. This includes 30.0 million who fished and 12.5 million who hunted— 8.5 million both fished and hunted.

In 2006, expenditures by sportspersons totaled \$76.7 billion. Trip-related expenditures, including food, lodging, and transportation, were \$24.6 billion—32 percent of all fishing and hunting expenditures. Total equipment expenditures amounted to \$41.0 billion, 53 percent of the total. Other expenditures—magazines, membership dues, contributions, land leasing and ownership, and licenses, stamps, tags, and permits—accounted for \$11.1 billion, or 15 percent of all sportspersons' expenditures.

### Total Wildlife-Related Recreation

Participants .....	87.5 million
Expenditures .....	\$122.3 billion

### Sportspersons

Total participants* .....	33.9 million
Anglers .....	30.0 million
Hunters .....	12.5 million

Total days .....	737 million
Fishing .....	517 million
Hunting .....	220 million

Total expenditures .....	\$76.7 billion
Fishing .....	42.0 billion
Hunting .....	22.9 billion
Unspecified .....	11.7 billion

### Wildlife Watchers

Total participants** .....	71.1 million
Around the home .....	67.8 million
Away from home .....	23.0 million

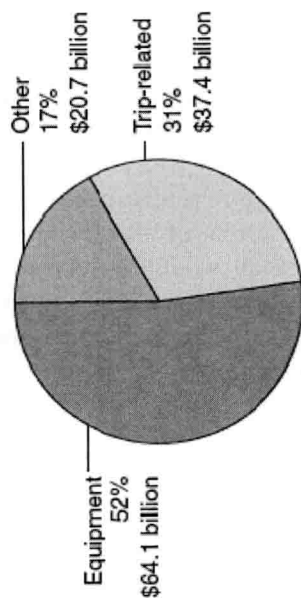
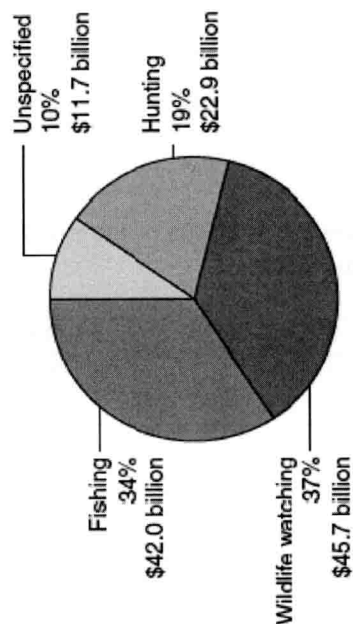
Total expenditures .....	\$45.7 billion
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\* 8.5 million both fished and hunted.

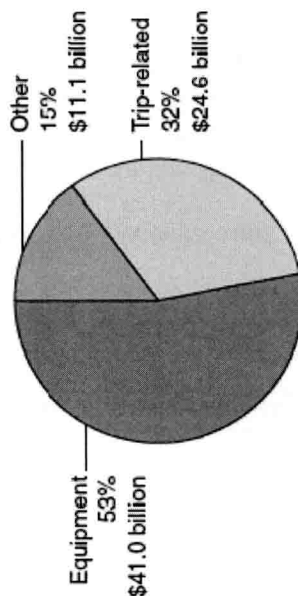
\*\* 19.7 million both wildlife watched around the home and away from home.



# Expenditures for Wildlife-Related Recreation (Total expenditures: \$122.3 billion)



# Expenditures by Sportspeople (Total expenditures: \$76.7 billion)



# Expenditures by Wildlife-Watching Participants (Total expenditures: \$45.7 billion)

