Waterbirds around the world

A global overview of the conservation, management and research of the world's waterbird flyways

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Cover photography: Whooper Swans *Cygnus cygnus* arriving at Martin Mere, England. Photo: Paul Marshall. (www.paulmarshallphotography.com)

Birding in the United States: a demographic and economic analysis

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ABSTRACT

Bird-watchers are an untapped source of support for bird conservation. Data from the United States Fish and Wildlife Service's 2001 National Survey of Fishing, Hunting and Wildlife-Related Recreation provide socio-demographic and economic information about birders that can be used when planning outreach and building public backing for bird conservation plans. The Survey, conducted since 1955, is one of the oldest and most comprehensive continuing recreation studies. Conducted every five years, it was initially created to collect participation and expenditures of sportspersons, but was expanded in 1980 to include non-consumptive recreation – feeding, photographing and observing of wildlife. In August 2003, the Survey's first report on bird-watching was released as an Addendum to the 2001 Survey (Pullis La Rouche 2003). It revealed that in the United States 46 million people watched birds – nearly one in five adults – and they spent US$ 32 billion in retail sales thereby contributing US$ 85 billion in economic output and creating 863 405 jobs. The data also provide a wealth of information about the kind of birds being watched (47% of bird-watchers watch waterbirds), and trends in participation, avidity, and spending.

INTRODUCTION

In January 2002 an unprecedented major media event unfolded in a Louisiana swamp. A team of top ornithologists set out to find the Ivory-billed Woodpecker *Campephilus principalis*, a bird last seen in the United States in 1943 and, until a recent credible sighting by a turkey hunter, considered extinct in the U.S. The expedition, funded by a corporate sponsor, received worldwide media attention including coverage by the New York Times, USA Today, and National Public Radio. This high-profile search for the Ivory-billed Woodpecker is just one indicator of the growing popularization of birds and birding. Other evidence abounds. A field guide, *Sibley's Guide to Birds*, became a New York Times bestseller. And a quick search of the internet yields numerous birding sites, some of which list hundreds of birding festivals held around the country each year.

This growing awareness of birding comes at an odd time; birds are in jeopardy. According to 35-year trend data (1966-2001) from the U.S. Geological Service, almost one-in-four bird species in the United States show "significant negative trend estimates" (Sauer *et al*. 2003). This decline is attributed primarily to the degradation and destruction of habitat resulting from human population growth and short-sighted environmental practices such as the razing of wetlands needed by migratory birds. Although there is a certain irony in people becoming enthusiastic about birds as they disappear, it also presents an opportunity: birders may be the economic and political force that can help save the birds. The following report provides up-to-date information so birders and policy makers can make informed decisions regarding the protection of birds and their habitats. This report identifies who birders are, where they live, how avid they are, where they bird and what kinds of birds they watch. In addition to demographic information, this report also provides two kinds of economic measures. The first is an estimate of how much birders spend on their hobby and the economic impact of these expenditures. The second is the net economic value of birding, that is, the value of birding to society.

By understanding who birders are, they can be more easily educated about pressures facing birds and bird habitats. Conversely, by knowing who is likely *not* a birder, or who is potentially a birder, information can be more effectively tailored. The economic values presented here can be used by resource managers and policy makers to demonstrate the economic might of birders, the value of birding – and by extension, the value of birds. In fact, research shows that these kinds of values help wildlife managers make better decisions and illustrate the value of wildlife to American society (Loomis 2000).

All data presented here are from the wildlife-watching section of the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR). It is the most comprehensive survey of wildlife recreation in the U.S. Overall, 15 300 detailed wildlife-watching interviews were completed with a response rate of 90 percent. The Survey focused on 2001 participation and expenditures by U.S. residents 16 years of age and older.

BIRDERS

In 2001 there were 46 million bird-watchers or birders, 16 years of age and older, in the United States – a little over one in five people. What is a birder? The National Survey uses a conservative definition. To be counted as a birder, an individual must have either taken a trip a mile or more from home for the primary purpose of observing birds and/or closely observed or tried to identify birds around the home. So people who happened to notice birds while they were mowing the lawn or picnicking at the beach were not counted as birders. Trips to zoos and observing captive birds also did not count.

Backyard birding or watching birds around the home is the most common form of bird-watching. Eighty-eight percent (40 million) of birders are backyard birders. The more active form of birding, taking trips away from home, is less common with 40 percent (18 million) of birders partaking.

The average birder is 49 years old and more than likely has a better than average income and education. She is slightly more likely to be female, and highly likely to be white and married. There is also a good chance that this birder lives in the northern half of the country in a small city or town. Does this paint an accurate picture of a birder? Like all generalizations the description of an "average" birder does not reflect the variety of people who bird, with millions falling outside this box. The tables show in numbers and participation rates (the percentage of people who participate) birders by various demographic breakdowns.

Table 1. Age distribution of the United States population and birders: 2001. (Population 16 years of age and older; numbers in thousands).

Age	US population	Number of birders	Participation rate
16 and 17	7 709	1 043	14%
18 to 24	22 234	1 894	9%
25 to 34	5 333	5 990	17%
35 to 44	4 057	10 414	24%
45 to 54	40 541	10 541	26%
55 to 64	25 601	7 177	28%
65 plus	36 823	8 893	24%

Table 2. Income distribution of the United States population and birders: 2001. (Population 16 years of age and older; numbers in thousands).

Income	US population	Number of birders	Participation rate
Less than $10 000	10 594	2 212	21%
$10 000 to $19 000	15 272	2 754	18%
$20 000 to $24 000	10 902	2 335	21%
$25 000 to $29 000	11 217	2 392	21%
$30 000 to $34 000	11 648	2 618	22%
$35 000 to $39 000	9 816	2 005	20%
$40 000 to $49 000	16 896	4 116	24%
$50 000 to $74 000	31 383	7 476	24%
$75 000 to $99 000	17 762	4 771	27%
$100 000 or more	19 202	5 224	27%

Table 3. Educational distribution of the United States population and birders: 2001. (Population 16 years of age and older; numbers in thousands).

Education	US population	Number of birders	Participation rate
11 years or less	32 820	4 627	14%
12 years	73 719	13 933	19%
1 to 3 years at college	49 491	11 363	23%
4 years at college	34 803	8 922	26%
5 years or more college	1 646	7 107	33%

Table 4. Racial and ethnic distribution of the United States population and birders: 2001. (Population 16 years of age and older; numbers in thousands).

Race/ ethnicity	US population	Number of birders	Participation rate
Hispanic	21 910	1 880	9%
White	181 129	43 026	24%
African-American	21 708	1 243	6%
Native American	1 486	321	22%
Asian	7 141	436	6%
Other	833	55	7%

The tendency of birders to be middle-age or older is reflected in both the number of birders and participation rates. Looking at the different age breakdowns in Table 1, the greatest number of birders were in the 35 to 44 and 45 to 54 age groups. People aged 55 to 64 had the highest participation rates while the participation rate was particularly low for people aged 18 to 24. Birders who take trips away from home to pursue their hobby were on average slightly younger, at 45 years old compared to backyard birders who were on average 50 years old.

The higher the income and education level the more likely a person is to be a birder. Twenty-seven percent of people who live in households that earn US$ 75 000 or more were bird-watchers – 5 percent above the national average of 22 percent. Education, which is often highly correlated with income, shows the same trend. People with less than high school education participated at 14 percent – far below the national average – while people with five or more years of college had the highest participation rate at 33 percent. See Tables 2 and 3 for more information.

Unlike hunting and fishing where men were overwhelmingly in the majority, a slightly larger percent of birders were women – 54 percent in 2001. And most birders, 72 percent, were married.

Excepting Native American participation, birders are not a racially or ethnically diverse group. Ninety-four percent of birders identified themselves as white. The scarcity of minority birders is not just a reflection of their relatively low numbers in the population at large, it is also a function of low participation rates. The participation rates of African-Americans, Asians, and Hispanics were all 9 percent or lower while the rate for whites, 24 percent, was slightly above the 22 percent national average. Native Americans on the other hand had a participation rate (22 percent) on par with the national average. See Table 4.

The sparser populated an area, the more likely its residents were to watch birds. The participation rate for people living in small cities and rural areas was 28 percent – 6 percent above the national average. Whereas large metropolitan areas (1 million residents or more) had the greatest number of birders, their residents had the lowest participation rate, 18 percent. See Table 5.

When measured in terms of the percent of state residents participating, states in the northern half of the United States generally had higher levels of participation than did states in the southern half. While 44 percent of Montanans and 43 percent of Vermonters watched birds, only 14 percent of Californians and Texans did. See Table 6.

The participation rate was highest (30%) in the West North Central region of the United States. The New England states had the second highest participation rate at 27 percent with a close third going to the Rocky Mountain states (26 percent). The West South Central states had the lowest rate of 17 percent while the Pacific and South Atlantic states yielded slightly higher rates, both 19 percent. However, in terms of sheer numbers, the Pacific and South Atlantic states had the most resident birders – 7 million and 8 million respectively, while New England had the least, 3 million.

Bird-watching by state residents tells only part of the story. Many people travel out-of-state to watch birds and some states are natural birding destinations. Wyoming reaped the benefits of this tourism with a whopping 67 percent of their total birders coming from other states. The scenic northern states of New Hampshire, Vermont, Montana, and Alaska also attracted many birders – all had more than 40 percent of their total birders coming from other states. See Table 7.

Table 5. Percentage of United States population who birded by residence: 2001. (Population 16 years of age and older; numbers in thousands).

Metropolitan Statistical Area	US population	Number of birders	Participation rate
1 000 000 or more	112 984	20 868	18%
250 000 to 999 999	41 469	8 991	22%
50 000 to 249 000	16 693	4 622	28%
Outside MSA	41 151	11 470	28%

Table 6. Birding participation rates by state residents: 2001. (Population 16 years of age and older).

	US average 22%		
Montana	44%	Vermont	43%
Wisconsin	41%	Washington	36%
Minnesota	36%	Maine	36%
Alaska	36%	Kentucky	35%
Oregon	35%	New Hampshire	34%
Wyoming	34%	Iowa	34%
South Dakota	33%	Idaho	29%
Indiana	29%	New Mexico	28%
Virginia	28%	Utah	27%
Oklahoma	27%	Pennsylvania	27%
Missouri	26%	Colorado	25%
Tennessee	25%	Nebraska	25%
Connecticut	25%	West Virginia	24%
Arkansas	24%	Kansas	24%
Michigan	23%	Maryland	22%
Arizona	22%	Massachusetts	22%
South Carolina	20%	Ohio	20%
Rhode Island	19%	North Carolina	18%
Illinois	18%	New Jersey	18%
Delaware	18%	Mississippi	18%
Alabama	18%	North Dakota	17%
New York	17%	Florida	16%
Louisiana	16%	Georgia	15%
Nevada	15%	Texas	14%
California	14%	Hawaii	9%

Where and what are they watching?

Backyard birding is the most prevalent form of birding with 88 percent of participants watching birds from the comfort of their homes. Forty percent of birders travel more than a mile from home to bird, visiting a variety of habitats on both private and public lands. Of the 18 million Americans who ventured away from home to watch birds, public land rather than private land was visited more frequently, although many visited both. Eighty-three percent of birders used public land such as parks and wildlife refuges, 42 percent used private land, and 31 percent visited both.

The most popular setting to observe birds was in the woods (73%), followed by lakes and streamside areas (69%) and brush-covered areas and fields (62% and 61%). Less popular sites were the ocean (27%) and manmade areas (31%) such as golf courses and cemeteries. See Table 8.

What kinds of birds are they looking at? Seventy-eight percent reported observing waterfowl, making them the most spied on

Table 7. Birding by state residents and non-residents: 2001. (Population 16 years of age and older; numbers in thousands).

State	Total birders	Percent state residents	Percent non-residents
Alabama	703	90	10
Alaska	321	51	49
Arizona	1 168	70	30
Arkansas	548	88	12
California	3 987	91	9
Colorado	1 077	74	26
Connecticut	732	88	12
Delaware	172	63	37
Florida	2 363	80	20
Georgia	1 063	84	16
Hawaii	164	48	52
Idaho	478	60	40
Illinois	1 815	90	10
Indiana	1 423	94	6
Iowa	813	93	7
Kansas	569	87	13
Kentucky	803	91	9
Louisiana	608	86	14
Maine	595	61	39
Maryland	1 068	82	18
Massachusetts	1 263	86	12
Michigan	1 961	88	12
Minnesota	1 471	90	10
Mississippi	437	88	12
Missouri	1 299	85	15
Montana	558	55	45
Nebraska	386	83	17
Nevada	343	63	37
New Hampshire	569	57	43
New Jersey	1 335	85	15
New Mexico	531	70	30
New York	2 802	88	12
North Carolina	1 296	80	20
North Dakota	134	60	40
Ohio	1 899	93	7
Oklahoma	760	91	19
Oregon	1 187	77	23
Pennsylvania	2 721	91	10
Rhode Island	193	76	25
South Carolina	742	84	16
South Dakota	271	68	32
Tennessee	1 420	76	24
Vermont	383	53	47
Virginia	1 818	86	14
Washington	1 877	86	14
West Virginia	428	80	20
Wisconsin	1 944	86	14
Wyoming	388	33	67

Table 8. Sites visited by away-from-home birders: 2001. (Population 16 years of age and older; numbers in thousands).

	Number of birders	Percent
Total, all birders	18 342	100
Woodland	13 405	73
Lake and streamside	12 615	69
Brush-covered areas	11 324	62
Open field	11 184	61
Marsh, wetland, swamp	8 632	47
Man-made areas	5 770	31
Oceanside	4 921	27
Other	2 418	13

Table 9. Percentage of birders* who can identify birds by sight or sound and who kept birding life lists: 1980 and 2001.

	1980	2001
1-20 bird species	74%	74%
21-40 bird species	14%	13%
41 or more bird species	5%	8%
Kept birding life list	4%	5%

* In 1980, the question was asked of all wildlife-watchers (formerly called non-consumptive) and in 2001 the question was asked of only birders.

type of bird. Songbirds were also popular with 70 percent of birders watching them, followed in popularity by birds of prey (68%) and other waterbirds such as herons and shorebirds (56%).

Birding trends

Is birding increasing? Despite recent popularization (high visibility within the media and popular culture and increased recognition of the sport within American homes) of birding, past FHWAR Survey results point to a more complicated story. A comparison of results from the 1991, 1996, and 2001 estimates show that bird-watching around the home has decreased rather than increased over that 10-year period (USFWS 1993, 1997, 2002). In 1991, 51.3 million people reported observing birds around their homes. In 1996 that number dropped to 42.2 million and in 2001 to 40.3 million. Because the 2001 Survey is the first time people were asked if they specifically watched birds on trips away from home, it cannot be said conclusively if this activity increased or decreased. However, in all three Surveys, people were asked if they observed, fed, or photographed birds away from home. These numbers indicate a net decrease in away-from home birding from 24.7 million in 1991 to 18.5 million in 2001 but a slight uptick from 1996 (17.7 million) to 2001.

Avidity

All people identified as birders in this report said that they took an active interest in birds – defined as trying to closely observe or identify different species. But what is the extent of their interest? In order to determine their "avidity" the following factors were considered: the number of days spent bird-watching; the number of species they could identify; and if they kept a bird life list. Presumably because of the relative ease of backyard birding, birders around the home spent nine times as many days watching birds as did people who traveled more than a mile from home to bird-watch. In 2001, the median number of days for backyard birders was 90 and for away-from-home birders it was 10.

Although birders are investing a fair amount of time pursuing their hobby, most do not appear to have advanced identification skills. Seventy-four percent of all birders could identify only between 1 to 20 different types of bird species, 13 percent could identify 21 to 40 birds and only 8 percent could identify more than 41 species. Skill levels are higher for birders who travel from home to bird-watch compared to backyard birders – 10 percent of away-from-home birders could identify 41 or more birds as opposed to 6 percent of backyard birders. Tallies of birds seen during a birder's life, sometimes called birding life lists, were kept by only 5 percent of birders. This was roughly the same for backyard birders and away-from-home birders alike.

Avidity trends

If we can't say there are more birders can we say that birders are more knowledgeable about their hobby than in the past? In order to gauge birders' avidity and level of expertise, the 2001 Survey asked birders how many birds they can identify – a question last asked in the 1980 Survey (USFWS 1982). A comparison of responses shows that skill levels did not change much in that 20 year time period. For both years, the same percent, 74, was in the beginner category (1 to 20 species of birds) and roughly the same percent, 13 and 14, respectively, fell into the intermediate (21 to 40 birds) level. A slightly higher percentage of expert birders, however, (41 or more species) was found in the 2001 Survey, 8 percent versus 5 percent in the 1980 Survey. Yet another sign that the more things change the more they stay the same, almost the same portion, 4 and 5 percent, kept birding life lists. See Table 9.

THE ECONOMICS OF BIRD-WATCHING

Measures of economic value

Putting a dollar figure on birding can appear a tricky business. How can dollars be used to value something as intangible as the enjoyment of birds and birding? Looked at from a practical perspective we live in a world of competing resources and dollars. Activities such as golfing and industries such as computer software are regularly described in terms of jobs generated and benefits to consumers. The same economic principles that guide the measure of golf and software apply also to birding.

Expenditures by recreationists and net economic values are two widely used but distinctly different measures of the economic value of wildlife-related recreation. Money spent for binoculars in a store or a sandwich in a deli on a trip has a ripple effect on the economy. It supplies money for salaries and jobs which in turn generates more sales and more jobs and tax revenue. This is economic output or impact, the direct and indirect impact of birders' expenditures and an example of one of two economic values presented in this paper. Economic impact numbers are useful indicators of the importance of birding to the local, regional, and national economies but do not measure the economic benefit to an individual or society because, theoretically, money not spent on birding (or golf, or software) would be spent on other activities, be it fishing or scuba diving. Money is just transferred from one group to another.

However, from the perspective of a given community or region, out-of-region residents spending money for birding represents real economic wealth.

Another economic concept is birding's economic benefit to individuals and society: the amount that people are willing to pay over and above what they actually spend to watch birds. This is known as net economic value, or consumer surplus, and is the appropriate economic measure of the benefit to individuals from participation in wildlife related recreation (Bishop 1984, Freeman 1993, Loomis *et al*. 1984, McCollum *et al*. 1992). The benefit to society is the summation of willingness to pay across all individuals. Net economic value is measured as participants' "willingness to pay" above what they actually spend to participate. The benefit to society is the summation of willingness to pay across all individuals.

Table 10. Birders' expenditures for wildlife-watching: 2001. (Population 16 years of age and older; numbers in thousands of US dollars).

Expenditure item	Expenditure (thousands of US$)
Total: all items	31 686 673
Total: trip-related expenditures	7 409 679
Food	2 646 224
Lodging	1 851 206
Public transportation	682 202
Private transportation	1 790 951
Guide fees, pack trip or package fees	110 374
Private land use fees	48 999
Public land use fees	108 414
Boating costs	135 381
Heating and cooking fuel	35 928
Total: equipment and other expenses	**24 276 994**
Wildlife-watching equipment, total	6 010 141
Binoculars, spotting scopes	471 264
Cameras, video cameras, special lenses, and other photographic equipment	1 431 807
Film and developing	837 868
Bird food	2 239 259
Nest boxes, bird houses, feeders, baths	628 060
Daypacks, carrying cases and special clothing	288 648
Other wildlife-watching equipment (e.g. field guides, maps)	113 235
Auxiliary equipment, total	523 700
Tents, tarps	163 999
Frame packs and backpacking equipment	121 217
Other camping equipment	238 835
Other auxiliary equipment (such as blinds)	117 267
Special equipment, total	11 158 302
Off-the-road vehicles	5 512 624
Travel or tent trailers, pickups, campers, vans, motor homes	4 657 752
Boats, boat accessories	946 688
Other	41 238
Magazines	297 780
Land leasing and ownership	4 197 666
Membership dues and contributions	808 101
Plantings	639 986

Table 11. Economic impact of birders: 2001. (Population 16 years of age and older).

Retail sales (expenditures)	US$ 31 686 673 000
Economic output	US$ 84 931 020 000
Salaries and wages	US$ 24 882 676 000
Jobs	863 406
State income taxes	US$ 4 889 380 000
Federal income taxes	US$ 7 703 308 000

Facts-at-a-glance

- 46 million birders
- US$ 32 billion in retail sales
- US$ 85 billion in overall economic output
- US$ 13 billion in State and Federal income taxes
- 863 406 jobs created

Birders' expenditures and economic impact

Birders spent an estimated US$ 32 billion on wildlife-watching in 2001 (see Table 10). This estimate includes money spent for binoculars, field guides, bird food, bird houses, camping gear, and big-ticket items such as boats. It also includes travel-related costs such as food and transportation costs, guide fees, etc. When using the numbers in Table 10 it is important to know that these dollar figures represent the money birders spent for all wildlife-watching recreation – not just birding. The 2001 Survey collected expenditure data for people who fed, photographed, or observed wildlife. Expenditure data were not collected solely for birding. It is possible that people who watched birds in 2001 may have spent money on other types of wildlife-related recreation such as binoculars for whale-watching or gas for a moose-watching trip rather than only bird-watching. Therefore, these estimates for birding expenditures may be overestimates.

This US$ 32 billion that birders spent generated US$ 85 billion in economic benefits for the nation in 2001. This ripple effect on the economy also produced US$ 13 billion in tax revenues and 863 406 jobs. See Table 11.

The sheer magnitude of these numbers proves that birding is a major economic force, driving billions in spending around the country. On a local level, these economic impacts can be the life-blood of an economy. Towns such as Cape May, New Jersey, and Platte River, Nebraska, attract thousands of birding visitors a year generating millions of dollars – money that would likely otherwise be spent elsewhere.

Table 12. Net economic values for wildlife-watching: 2001. (Population 16 years of age and older).

Net economic values	State residents	Non-residents
Net economic value per year	US$ 257	US$ 488
Standard error of the mean	12	37
95 percent confidence interval	US$ 233-282	US$ 415-561
Net economic value per day of bird-watching	US$ 35	US$ 134
Standard error of the mean	2	12
95 percent confidence interval	US$ 32-39	US$ 110-158

Estimated net economic values

As stated earlier, the willingness to pay above what is actually spent for an activity is known as net economic value. This number is derived here by using a survey technique called contingent valuation (Mitchell & Carson 1989). Respondents to the 2001 Survey were asked a series of contingent valuation (CV) questions to determine their net willingness to pay for a wildlife-watching trip. Please note that the data presented here are net economic values for wildlife-watching trips – not for bird-watching trips solely. However, since the vast majority of away-from-home wildlife-watchers are birders (84 percent), the values presented here are acceptable for use in valuing birding trips.

As seen in Table 12, the net economic value per year for a wildlife-watcher in their resident state is US$ 257 per year or US$ 35 per day. Wildlife-watchers who travel outside their state have a different demand curve (they generally take fewer trips and spend more money) and therefore have their own net economic values of US$ 488 per year and US$ 134 per day. When and how can these values be used? These numbers are appropriate for any project evaluation that seeks to quantify benefits and costs. They can be used to evaluate management decisions (actions) that increase or decrease participation rates. In a simple example, if a wildlife refuge changed its policies and allowed 100 more birders to visit per year, the total value to society due to this policy change would be US$ 25 700 (257 x 100) per year (assuming all visitors are state residents). This value, however, assumes that these 100 birders could and would watch birds only at this refuge and that they would take a certain number of trips to this refuge. In a more realistic example, if the refuge changed its policy and stayed open two more weeks a year and knew that 100 people visited each day during this period then the benefit to society could be estimated by multiplying the number of people by days (100 x 14) by the average value per day (US$ 35) for a total of US$ 49 000. If the refuge had data on the number of in-state and out-of-state visitors then the numbers could be adjusted to reflect their appropriate value.

Net economic values also can be used to evaluate management actions that have a negative affect on wildlife-watching. For example, if a wildlife sanctuary was slated for development and birders were no longer able to use the site, and if the sanctuary manger knew the number of days of birding over the whole year (e.g. 2 000 days) it is possible to develop a rough estimate of the loss from this closure. This estimate is accomplished by multiplying net economic value per day (US$ 35) by the days of participation (2 000) for a value of US$ 70 000 per year.

Two caveats exist to the examples above: (1) if bird-watchers can shift their birding to another location then the values are an over-estimate; and (2) if a loss of wildlife habitat causes an overall degradation in the number of birds and in the quality of birding then the values are an under-estimate.

CONCLUSION

Back in Louisiana, the search for the Ivory-billed Woodpecker ended in disappointment. After an exhaustive two week search, none were found. Optimism, however, continues to prevail. In a group statement the expedition team said they think the bird may exist based on the availability of good quality habitat and other evidence. This optimism of always looking hopefully into the next tree is the esprit-de-corps of birders. As this report shows, birders come from many walks of life and watch a variety of birds in different settings. Their enthusiasm for birding also translates into spending, thereby contributing significantly to national and local economies. The high values birders place on their birding trips is a solid indicator of birding's benefit to society. While the numbers of birders may not have grown statistically, the power of a mobilized birding community and the willingness of mass media sources and the general public to give play to birding issues has an impact felt deeply in the economy and promotes the sustainability of bird habitats. Hopefully, the information in this paper will allow resource managers and policy makers to make informed management decisions when birds and birding are involved.

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