



Economics of Birding: A National Survey of Active Birders

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IN 1981, EXPENDITURES BY UNITED States birders exceeded 20 billion dollars (U.S. Department of the Interior 1982). These funds were spent on a myriad of bird-related activities and paraphernalia from optical equipment to travel and bird seed. For example, the amount spent at the most popular birding sites amounts to many millions of dollars. At Point Pelee, Ontario, the net economic value of birding amounted to more than 6 million Canadian dollars in 1987 (Hvenegaard, Butler and Krystofiak 1989), while at Cape May the actual spending by birders in 1988 totaled about 6 million U.S. dollars (Kerlinger and Wiedner, unpublished manuscript). In the present article, we consider the economics of birding on a national scale. Specifically, we examined the demographics and determined the annual expenditures of "active" birders (called "committed birders" by Kellert 1985) in the United States.

Our rationale for conducting economic studies of birding and birders is that through these types of studies birders can become a stronger lobbying force. Other outdoor activities such as hunting and fishing have been extensively re-searched. Studies have documented the number of participants in these activities and the economic contributions of those participants through direct spending, as well as through sales taxes and excise taxes generated. For example, there is a Sport Fishing Institute that conducts economic studies of sport fishing in the United States. The results of such studies are used to lobby for legislation that will benefit both the businesses that profit from sport fishing and the fishermen.



Birdwatcher, wood engraving by Beth Krommes

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The ranks of birders, now numbering more than 61 million (Hall and O'Leary 1989), continue to grow at a rapid rate. Their economic importance has seldom been studied, although the International Council for Bird Preservation has been interested in this topic for several years. In 1986, the International Council for Bird Preservation sponsored a symposium and workshop on *The Value of Birds* (Diamond and Filion 1987) as part of the XIX World Conference of the International Council for Bird Preservation. Several of the papers in that symposium outlined the economic importance of birding and birding tourism, but few presented the results of actual economic studies. Before economic arguments can be made for the importance of open space for birding tourism, studies such as the present one are necessary. Further, birders must be made aware that they constitute an important economic and, therefore, political force.

METHODS

For this study we operationally defined "active birders" as those individuals who participated in National Audubon Society's 89th Christmas Bird Count. We mailed questionnaires to the compilers of 350 randomly selected 1988 Christmas Bird Counts in the continental United States. Compilers received ten questionnaires, which they were asked to distribute to the first ten birders they encountered while conducting their count. Enclosed with each questionnaire was a self-addressed, stamped envelope in which compilers were requested to return the questionnaires after completion. About 60% of the 1,033 questionnaires (response rate = 29.5%) that were completed were returned in these envelopes. Respondents returned surveys from 308 counties in 48 states. We also received forms from birders visiting from Great Britain, Sweden, and Canada. Each questionnaire consisted of 38 queries and included instructions for participants to remain anonymous and not answer questions they deemed invasive. Seven items on the questionnaire were not related directly to birding demographics or economics.

Because we were interested in determining how much active birders spend on their pastime we asked questions

pertaining to travel, optical equipment, artwork, books, magazines, and miscellaneous birding paraphernalia. Travel questions focused on lodging, meals, mileage driven, car rental, and airplane flights taken in the year for birding trips. Questions on optical equipment included specifics about binoculars, scopes, and tripods. We also queried people as to the type and amount of artwork and books they purchased, birding magazines or journals to which they subscribed, membership in conservation and birding organizations, and the type and amount of miscellaneous equipment (photographic supplies, clothing, backpacks, etc.) they purchased. Determination of total expenditures per birder was made by itemizing all expenditures and calculating an average. As in our unpublished study, we refrained from using a multiplier (multiplying the final figures by 2 or 3 to show the total economic value of expenditures).

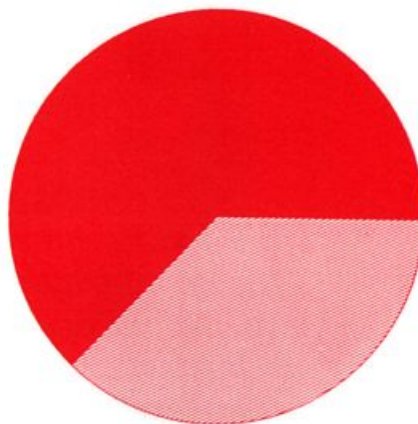


RESULTS

Demographics of American Birders

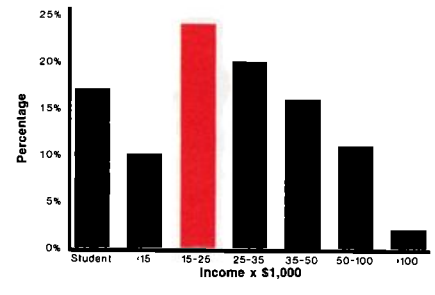
In general, the birders we surveyed were middle-aged, highly educated,

Male = 63%



Female = 37%

and had incomes that were higher than the national average. The average birder was 47 years old, although women were slightly older (average = 51 years) than men (average 45 years, Fig. 1). Respondents had been birding for an average 19 years with men birding for 20 and women for 18 years. In our sample men outnumbered women by a substantial margin (62.9% male, 37.1% female).

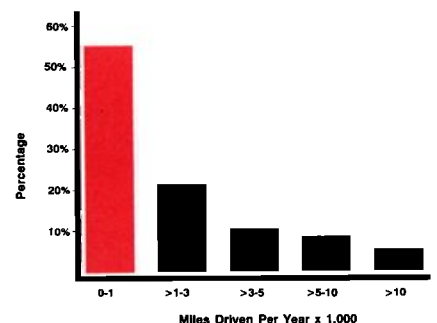


Excluding students (17.1% of the sample), birders' annual incomes average between \$25,000 and \$35,000, well above the national per capita average (less than \$20,000, U S Department of Commerce 1989; Fig 2). This is surprising because 25.7% of all those queried were retired those having incomes of less than \$25,000 accounted for 41.3% of the sample, whereas those having incomes greater than \$50,000 accounted for 16.0%.

As a group, birders may be the most educated group of outdoor "sportsmen." More than 98% of respondents graduated from high school and 74.4% from four-year colleges. Of those surveyed, 38.1% held graduate degrees and 11.2% had degrees from two-year colleges (Fig. 3).

Birding Activity and Travel Characteristics

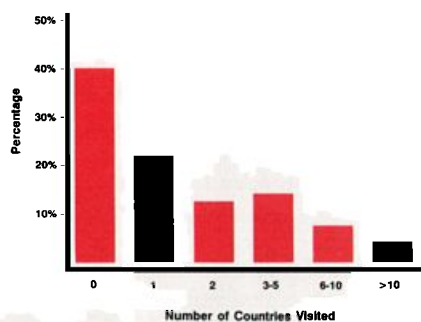
The average respondent spent 93 days birding in 1988. Retirees birded more frequently than those who were



gainfully employed, and women birded, on average, more days than men (104 days for women, 87 days for men). Of interest is the fact that young women birded less than men, but as age increased they birded more than men.

The amount of travel by birders is staggering. They drove automobiles an average of 2,763 miles in 1988 for birding trips. Although both sexes averaged eight trips of more than 100 miles per year, males (3,190 miles) averaged >1,000 more miles per year than females (2,044 miles). Respondents averaged 0.59 airplane flights to birding sites in 1988, and averaged 2.53 flights in the last five years. Birders rented cars for birding an average of 0.50 times in 1988, which is slightly less than the number of times they flew, indicating that when they arrive at birding sites by air they relied on rental cars for local travel. This practice impacts local communities through purchases of gasoline and by distributing the amount spent on lodging and food over a wide area.

Sixty percent of respondents indicated that they had birded in foreign countries. A total of 61 foreign countries was listed. On average, respondents that had birded outside the United States had traveled to two countries, but the number varied greatly, with a subset of birders



accounting for the majority of international travel. The three foreign countries visited most were Canada (32% of respondents who had birded outside the country), Mexico (21%), and Great Britain (12%). These statistics do not reflect repeat visits to individual countries.

When asked about their five favorite North American birding sites, respondents listed 910 different sites! "My own back yard" was listed by many people, but these sites are not included

Table 1. Summary of economic expenditures by birders.

Expenditure	Calculation	Total Dollars Spent Per Birder Per Year
Travel		
Airplane Flights	0.59 flights x \$250 per round trip	\$ 148
Automobile	2,763 miles x \$0.30 per mile	\$ 829
Car Rental	0.50 rentals x \$75 per rental	\$ 38
Hotel/Motel	12.9 nights x 21.7% of birders x \$20 per night	\$ 99
Campsite	12.9 nights x 38.3% of birders x \$10 per night	\$ 28
Both Campsite and Motel/Hotel	12.9 nights x 22.6% of birders x \$15 per night	\$ 44
Meals	13 days x 82% of birders x \$15 per day	\$ 160
Total for Travel		\$1,317
Birding Tour Expenses	28% of birders x \$150 to tour group	\$ 42
Miscellaneous Items		
Books	4.2 books per birder x \$18.40 per book	\$ 77
Magazines	1.6 magazines per birder x \$20 per year	\$ 32
Conservation Organizations	3.1 organizations x \$20 per year	\$ 62
Artwork	average per birder	\$ 56
Other Paraphernalia	average per birder	\$ 172
Optical Equipment		
Binoculars	average per birder	\$ 53
Scopes	average per birder	\$ 30
Tripods	average per birder	\$ 10
Total Optical Equipment		\$ 90
Christmas Bird Count (fee)	\$4 per participant	\$ 4
Total Annual Expenditures Per Birder		\$1,852

in the 910 favorite places to bird. Many of the most popular places to bird are already preserved as national, state, and county parks, although a large number are unprotected (Kerlinger and Wiedner, in prep.).

Itemization of Birder Expenditures

Expenditures for birding were partitioned into categories associated with travel, optical equipment, artwork, books, magazines, membership in conservation/birding organizations, and miscellaneous birding paraphernalia. Each category is examined separately (Table 1).

On birding trips away from home 26% of respondents stayed in campgrounds, 45% stayed in hotels or motels, and 27% reported using both types of accommodation. During birding travel 82% patronized restaurants, whereas 15% did not and 4% did so some of the time. Birders averaged 13 nights away from home in 1988.

A trend that is now increasing in the

birding world is birding tours led by professionals. From our sample, 27.7% of birders paid to bird with a leader or a tour group in 1988. The estimated cost per person is \$150 not including airfare and meals (the latter are included in the travel section). From this we estimated that the average amount paid to tour companies and leaders per birder is \$42 per year.

A majority of respondents (72.1%) owned more than one pair of binoculars, 67.3% owned spotting scopes, and 66.4% owned tripods (a small number preferred shoulder mounts or window mounts). From the array of brands and models of these types of equipment listed by respondents, we estimated that the average birder spends approximately \$53 per year for binoculars, \$30 per year for scopes, and about \$10 per year for tripods. We assumed a life-expectancy of about 5 years for these items.

Other expenses we considered were the costs of magazine subscriptions and

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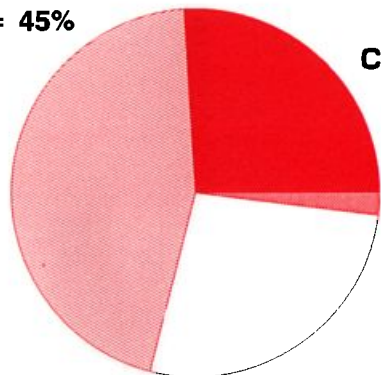
books. The average birder subscribed to 1.6 birding magazines, and purchased 4.2 bird-related books in 1988. Books and magazine subscriptions cost an average of \$18.37 and \$20.00, respectively.

Because birding is done in a variety of weather and physical settings, special equipment is often necessary. Seventy-four percent of the birders we queried indicated that they had purchased camera equipment, film, recording devices, rain gear, packs, vests, insect repellent, sunscreen, etc.. The average amount spent on special equipment in 1988 was \$172.12.

Birders also spent a considerable amount on bird-related art. Expenses averaged \$55.51 per person on an array of artwork including prints, paintings, sculpture, posters, photographs, and calendars (listed in descending order of popularity). Most respondents purchased several types of artwork.

Encouragingly, respondents listed 460 different birding and conservation groups to which they belonged; on average, each person was a member of three organizations. International, national, and local conservation and

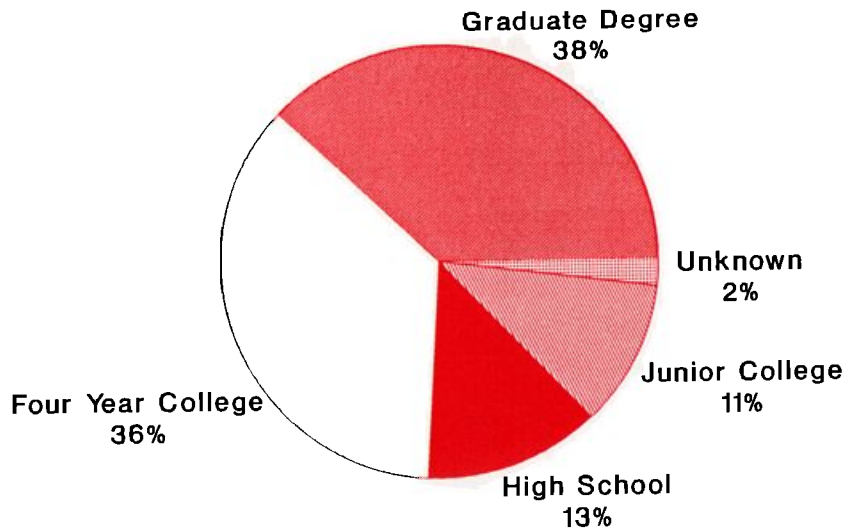
Motels = 45%



Campgrounds = 26%

No Accommodations = 2%

Campgrounds & Motels = 27%



birding associations were represented, totaling \$62.00 (minimum) per year per birder in membership dues.

Calculation of Individual and Overall Expenditures

Using the percentages and averages from the survey with conservative estimates for such things as travel expenses, hotel and campground costs, magazine subscription rates, organizational membership, optical equipment, and other items in our survey (Table 1), we calculated the average yearly amount spent per birder as \$1,852 (Table 1). To determine the total amount spent by “active” or “committed” birders, we multiplied the average yearly expenditure per birder by 43,000 (the approximate number of Christmas Bird Counts participants in 1988). This calculation yields a total of \$79.6 million spent in 1988 by birders who participated in the 89th Christmas Bird Count.

DISCUSSION

What did we learn from our study and why are our findings important? We learned that American birders, at least the active ones, are very well educated, earn incomes that are above the national average, range widely in age between 25 and 65 years, are more likely to be male, and belong to at least three conservation or birding organizations. Our most important finding was that people who watch birds spend a lot of money on their favorite pastime. On average, the birders we surveyed spent \$1,852 per year. Altogether, the 43,000 participants of the 89th annual Christmas Bird Counts spent nearly \$80 million dollars on birding related activities in 1988. Most of this was spent on travel, both foreign and domestic, with a lesser amount spent on optics, books, magazines, artwork, miscellaneous equipment, and contributions to conservation organizations. Our estimates are probably conservative because we did not take into account such expenditures as bird feed, bird houses, bird baths, and several other items that many birders purchase.

The numbers reported above are impressive, but how representative are they of American birders? We sampled Christmas Bird Counts participants, a group that we considered to be active birders. But, how many active birders are there in the United States? Hall and O’Leary (1989) used the 1985 National Survey of Fishing, Hunting, and Wildlife Associated

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Recreation (conducted by the U.S. Census Bureau, U.S.D.I. 1989) data set to determine that there were nearly 61 million birders in the United States. Kellert (1985) concluded that only 0.5% of birders could identify more than 100 species and that about 3% of birders could be considered “committed” to their pastime. Thus, there are between 300,000 and 1.8 million active or committed birders in the United States.

Statistics published in the 1985 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S.D.I. 1989) show that birders outnumber other wildlife “user” groups such as hunters (16.7 million Americans) and fishermen (46.6 million). In marked contrast to hunting and fishing, women are better represented among birders, which may account for the greater number of participants. Using our economic statistics and the number of American birders it is obvious that birding contributes billions of dollars to the national economy each year. Because we are not sure what proportion of the American birding population we sampled, we cannot make accurate estimates as to the total expenditures by this user group. As of 1980, the total spent by birders in North America was recognized to be greater than \$20 billion by the United States Fish and Wildlife Service (U.S.D.I. 1982). Future studies should focus on the expenditures of those birders who are less active than the group we sampled so that we can learn about the economic contributions of American birders as a whole.

How can this information be used? Although birders comprise a large and

growing segment of the population, we do not have a unified voice. This is because we were not aware of the size of our ranks, the need for a common agenda, or the amount of economic leverage at our command. For these reasons, it is imperative that birders learn more about themselves and their economic contributions because this information can be used for both conservation and for improving birding opportunities. By publishing this report and by sponsoring symposia on birding economics such as the 1986 symposium (Diamond and Filion 1987) and the symposium at the 1990 International Council for Bird Preservation meeting in New Zealand, the International Council for Bird Preservation is encouraging economic research and is helping to disseminate this information to the birding public. More research and broad distribution of information from studies such as this one will promote the idea that good conservation policies can be economically beneficial.

It is unfortunate that a great many of the officials who make policy often do not appreciate aesthetics or conservation. Instead, they take polls to learn public opinion and they assess the economic bottom line. Until policy makers realize that birders are a large and economically important group they will continue to ignore us and the strong conservation policies we endorse.

On both local and national levels, birding and conservation organizations should make powerful *economic* arguments to legislators and planning boards, who decide how a region will develop. In addition to land-use planning, local groups might use similar tactics to convince managers of public and private lands to consider alternatives to development, or to the management of selected game species. By preserving and managing open land for a variety of wildlife-associated recreation (including consumptive and nonconsumptive uses), some regions can realize a sustained economic benefit without the tax burden that is associated with home development.

Economic arguments are rarely used in the arsenal of conservation tools, nor are they taught to wildlife or natural resource managers. Resorting to economic arguments in appropriate

situations, may be more persuasive than the standard conservation dialogues that use emotional, aesthetic and scientific arguments. Without a knowledge of the demography and economics of the American birding populace, birders will not be an effective advocacy group. With imagination and planning, however, we can use our influence to promote conservation, balanced land management and creation of more facilities for birders—all of which mean better birding. ■

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