Birding Economics and Birder Demographics Studies as Conservation Tools

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Abstract — Birders are the primary user-group of neotropical migratory birds. In the United States, birders number in the tens of millions and spend upwards of $20 billion dollars per year on bird seed, travel, and birding paraphernalia. Average yearly spending by active birders averages between $1,500 and $3,400, with travel being the major expenditure. Research needs include studies of birder demographics and birding economics at the national and state levels, as well as at specific birding sites. In addition, we must learn more about birder knowledge of how wildlife programs are funded and their attitudes toward new means of funding such programs. The meager information available on these topics is reviewed. With funding for nongame wildlife programs floundering, the need for new funding sources is acute. As the primary user-group of neotropical migrant birds, birders represent a large, dependable source of revenue for nongame programs just as hunters and fishermen have funded game programs.

As evidence for the decline of neotropical migrant birds accumulates, government agencies and nongovernment organizations have responded. We now recognize the need to understand why these birds are declining and the need to develop comprehensive strategies to ameliorate the declines. Unfortunately, we do not have the infrastructure or staffing necessary within government and nongovernment sectors to undertake this enormous task, nor do we have funding for such programs. Unlike consumptive wildlife, neotropical migratory birds do not have a recognized user-group to advocate and lobby for them, as well as to help fund recovery efforts. Until this problem is resolved, recovery will not be achieved.

Past responses to declining wildlife populations have been varied. As game species disappeared, federal and state fish and game agencies were created. These agencies are now entrusted with preserving land for wildlife, reintroducing wildlife, monitoring wildlife populations, setting limits on taking of wildlife, and enforcing laws that pertain to wildlife. In addition, funding sources were created that resulted in dependable and substantial revenues for game programs. These include excise taxes on hunting and fishing paraphernalia, various wildlife (hunting and fishing) stamps, and other harvesting permits that fund a sizeable portion of state and federal programs.

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The reason for the enormous success of fish and game agencies is that consumptive wildlife users are easily defined and regulated. For the most part, recreational consumptive wildlife users have been hunters and fishermen who now have enormous input into the workings of federal and state agencies that regulate these activities. Hunters and fishermen also have lobby and advocacy groups that exert enormous power within government and various agencies. These include the National Rifle Association among others.

In the 1950's through 1970's the need to protect a few nongame species approaching extinction was recognized. Endangered species laws and programs at both state and federal levels resulted. Because a paucity of funds has precluded broader efforts, the focus of these programs has been a selected group species of endangered species. Eventually, need for programs that focused on nongame and nonendangered species was recognized. Funding was meager at first, but as state tax-checkoff programs for wildlife were implemented a new wave of programs emerged whose focus included all species not included under the umbrella of game. At this time, state wildlife tax-checkoff funds are no longer growing, and nongame and endangered species programs are languishing as funds become more limited. The need for a broad-based and dependable source of funds is obvious, but that source has not been identified.

Birders, numbering in the tens of millions here in the U. S., represent the primary user- group of neotropical (and other) birds. To date, they have not been recognized as such, nor have

they been considered seriously as a source of revenue for nongame programs. This group, constituting a majority of nonconsumptive wildlife users, would seem an obvious source of funding and advocacy or lobbying efforts. However, we know relatively little about this group; their numbers, demographics, and spending patterns. Before strategies for funding and management programs can be devised, we must understand this user-group in the same way we have come to know hunters and fishermen. The remainder of this paper details types of information we need to gather, research that is needed, and reviews results of research already conducted.

RESEARCH NEEDS

Birding has traditionally been overlooked in studies of nature tourism, both in the U. S. and abroad. There are many examples of this oversight. In a recent compendium on nature tourism (Whelan 1991), neither the term "bird watcher" or "birder" was listed in the index, nor could references to birding ecotourism be found in the entire volume! A similar lack of attention to the importance or potential of birders was obvious in the Manomet Bird Observatory volume devoted to neotropical migratory bird conservation, where the term "bird watcher" seems to have been used only once. This may be understandable in a scientific volume, although my opinion is that it is short-sighted to ignore birders in any discussion of neotropical migratory bird conservation. It is also my opinion that the success of conservation programs for neotropical migratory birds depends, in the long-term, on advocacy and financial support of birders.

The oversight is magnified when other major projects or references are examined. The (USFWS) National Survey of Fishing, Hunting, and Wildlife-Associated Recreation has been conducted at five-year intervals for several decades (U.S.D.I. 1989). The survey separates wildlife users into consumptive and nonconsumptive groups and further dichotomizes consumptive users into fishermen and hunters. (Trapping is also noted, but consists of a relatively small group.) Thus, in most economic and demographic analyses, birding is lumped with all other nonconsumptive, recreational wildlife uses, thus obscuring the actual number and economic impact of American birders. Luckily, most questionnaires used by USFWS contained questions that allow researchers to reanalyze nonconsumptive data for birders, separately. Because this data set has been gathered rigorously and for such a long time, it offers vast insight into the changing role of the birder as a wildlife user-group. The Survey should be the starting point for a programmatic and integrated approach (Table 1) to the study of

Table 1. — Schematic diagram of a proposed multi-level approach to the study of birder demographics and birding economics.

Level I - National Studies of Birders

1. Demographics - age, sex, income, education, activity level
2. Economics
   a. Total economic impact - total number of dollars per year
   b. Specific types of expenditures - travel, optics, bird seed, clothing, field guides, books, cassettes, VCR tapes and equipment, recording equipment, artwork, insect repellent and sunscreen, contributions to conservation organizations (membership and otherwise), magazines, photographic equipment and supplies, ...
3. Knowledge of how wildlife programs are funded
4. Attitude towards new or proposed funding methods

Level II - International Studies of Birding Tourism

1. Demographics - numbers of birding visitors, age, sex, income, education, activity level, place of origin (distance traveled and mode of travel), seasonal pattern of visitation
2. Economics
   a. Total economic impact on a country or local economy
   b. Birder expenditures during visit - food, lodging, travel, field guides, tour guides, gifts ...
3. Attitude towards user-fees or exit-fees for preserving open space
4. Marketing research to learn more about how a destination can be developed

Level III - Site Specific Studies at Domestic Birding Hotspots

1. Demographics - numbers of birding visitors, age, sex, income, education, activity level, place of origin (distance traveled and mode of travel), seasonal pattern of visitation
2. Birder expenditures during visit - food, lodging, travel, field guides, tour guides, gifts ...

birder demographics and birding economics. Furthermore, the Survey offers the opportunity to conduct in-depth follow-up studies of birders so a wider array of questions can be asked.

Perhaps the most important question that we need to ask is, "How many birders are there in the U. S.?" The range of activity among these recreational, non-consumptive wildlife users is vast. Some people bird only in city parks, which includes feeding pigeons and starlings. Many "birders" do not even own binoculars. These are birders in the broadest sense of the avocation and should not be considered among the ranks of American birders. The next step up in activity are those who maintain yard feeders. These people usually own binoculars but do not venture forth to different locations to observe their quarry. At the other end of the spectrum are those who pursue their pastime during more than 50-100 days of the year. Between these extremes are an amazing range and variety of recreational users.

In Table 1, I propose a three-leveled structure for programmatic research that will lead to better understanding of birders and their economic impacts. Three major areas of research are proposed, each focusing on a different geographic scale and each contributing information about birders as a user-group that can be used for different purposes. The data for national economic and demographic studies have already been collected as part of the United States Fish and Wildlife Service National Survey.

A primary goal (Level I in Table 1) of (my) research on birder demographics and birding economics from the Natural Survey is acquisition of data to be fitted to an asymptotic curve as shown in Figure 1. Instead of giving us one number to cite when asked how many U.S. birders there are, we will determine how many people go birding for more than 100, 50, 25, 5, etc. days per year; how many spend more than $2,000, $1,000, $500, $100, etc. per year. Thus, we will characterize the continuum of birder activity and total dollar value spent (economic impact) of the group as a whole or by any defined portion of the birding population.

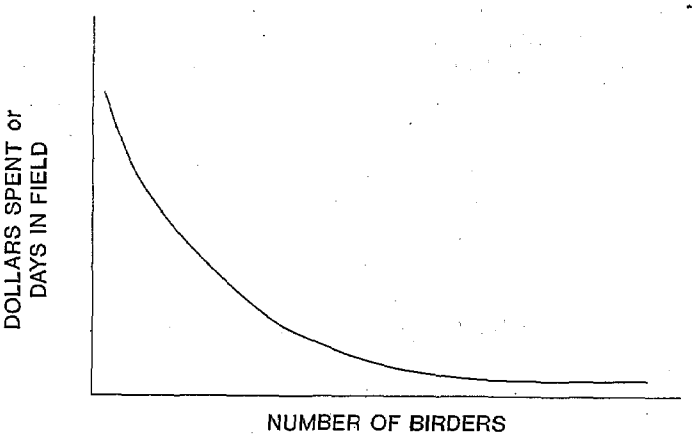

Figure 1. — Theoretical curve showing the activity or spending of birders along a continuum of high to low activity.

Of the remaining proposed research in Table 1, some data exist, but is outdated or exists for only a portion of what is needed. One of the most pressing needs in birding/birder research is a study of birder knowledge of how wildlife programs are funded and a study of birder attitudes toward new means of funding nongame wildlife programs (Table 1; National Studies numbers 3 and 4). Many hunters and fishermen seem to be aware that they "pay" for wildlife through various types of excise taxes, hunting or fishing licenses, wildlife stamps, and other means. It would be interesting to determine how much birders know about funding of state and federal wildlife programs, both game and nongame. It also would be interesting to compare their knowledge with that of hunters and fishermen. The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation would be an ideal vehicle for such studies. (As a further study, the knowledge and attitudes of non-users of wildlife should also be determined.)

Although I am suggesting that comparisons between birders, hunters, and fishermen be made, these data need to be presented carefully. With the volatility of anti-hunting issues and unscrupulous practices of some animal rights groups, data could be used as a divisive tool to polarize consumptive and nonconsumptive users. This would detract from any positive efforts to conserve open space. Information on hunting and fishing from the National Survey should serve as a standard from which we evaluate the true potential of birders as a source of future funding for nongame/neotropical migratory bird programs.

A brief perusal of magazines such as *Bird Watcher's Digest* shows birding travel is big business. The number of advertisements for foreign birding trips and the number of tour companies that lead such trips has increased dramatically in the past decade. The market may now be saturated after geometric growth in the 1980's. This growth reflects broader interest in birding tourism and ecotourism in general.

Birding is just one form of ecotourism touted as a conservation tool by many experts. Birding economic studies for entire neotropical countries (Level II in Table 1) and for specific sites (Level III in Table 1) within those countries would provide information used to argue for open space conservation. In addition to standard economic studies, cost-benefit relations weight alternative forms of economic development. A few cost-benefit analyses have been done, but they are still rare. In the case of ecotourism in Palawan, Philippines (Hodgson and Dixon 1988), a cost-benefit analysis showed a greater economic benefit to the community resulted from scuba diving than logging. Further, the analysis showed that siltation of nearshore waters from logging resulted in fewer ecotourism dollars. Similar analyses might reveal analogous patterns at birding hotspots (often biodiversity centers) in the neotropics. This information is desparately needed by policy makers so that long-term economic planning is possible. The types of tourist destinations that should be targeted include places such as Asa Wright Nature Center in Trinidad and Tobago; Monte Verde in Costa Rica; and Quintana Roo in Yucatan, Mexico, to name a few.

Studies that attempt to examine economic impacts of birding tourism on entire neotropical nations will be difficult to conduct and will probably not result in significant expenditures when compared with broader-scale, less environmentally sensitive industries such as logging or ranching. In many countries there are several different birding destinations such that multiple trips are needed for a birder to sample all major birding opportunities. That is why in most countries site specific studies are needed, along with research to trace the flow of dollars from tourists into the local community. This latter point is important because many ecotourist dollars never enter the local economy. Ecotourism planners need data to determine how much can feasibly be directed to locals who "manage" the actual resource (in this case the birds).

The third level proposed in Table 1 are domestic studies of birding tourism at specific destinations. Recent research has identified some major birding hotspots in the U. S. and Canada (Table 2). These sites are frequently critical stopover sites or breeding locales, most often for neotropical migrants, and should be targeted for in-depth studies. How many birders visit the site, where they stay, how much they spend, why they are there (type of birds, facilities), and much more can be learned. Most importantly, studies should be done in a standardized way so that comparisons can be made and a follow-up can be conducted at 5-10+ year intervals.

In the review of past research that follows, I attempted to follow the structure provided in Table 1.

PAST RESEARCH

Studies of wildlife use in the U. S. have been conducted at many levels. The literature is diffuse and difficult to summarize. Furthermore, it is difficult to compare studies mostly because research methods vary greatly. The following paragraphs include selected information and should not be construed as an exhaustive review of the birding economics/demographics literature.

Table 2. — America's dozen favorite birding sites in descending order of choice along with the nearest federal/state land holdings or private preserve (unpublished data from Wiedner and Kerlinger 1990).

1. Southeastern Arizona (Ramsey Canyon/Mile-Hi Ranch [The Nature Conservancy])
2. Rio Grande Valley, Texas (Rio Grande Valley National Wildlife Refuge)
3. Everglades National Park, Florida
4. Texas Coast (Anuhuac National Wildlife Refuge and others)
5. Cape May, New Jersey (Cape May National Wildlife Refuge)
6. Point Pelee, Ontario (Point Pelee National Park)
7. Big Bend National Park, Texas
8. Point Reyes, California
9. Forsythe (Brigantine) National Wildlife Refuge, New Jersey
10. High Island, Texas
11. Hawk Mountain Sanctuary, Pennsylvania
12. Cheyenne Bottoms, Kansas (Quivera National Wildlife Refuge)

Birder Demographics

In 1970 only about 4% of Americans were considered birders (USDI 1970). By the mid-1980's independent samples suggested about one out of four Americans could be considered birders and 11% watched birds during at least 20 days per year (Kellert 1985). One estimate of the number of people who watched birds in the late 1980's was 61 million (Hall and O'Leary 1989), although this estimate seems high. The problem with estimating number of birders is that activity and proficiency levels vary greatly. There are certainly different levels of birding activity, but defining these levels is problematic. Kellert's definition of a "committed" birder was one who could identify more than 40 species. "Casual" birders were those who could identify fewer than 10 species. "Active" birders defined by Wiedner and Kerlinger (1990) were participants in the 1988-1989 National Audubon Society Christmas Bird Count (CBC). In a study of birding tourism at a specific destination, Kerlinger and Wiedner (1991) identified birders as those who wore binoculars and identified themselves as such when asked.Birders are not a random sample of the American population and statistics from different studies vary. Wiedner and Kerlinger (1990) reported that active birders were primarily male (63% of the sample), although in a study of birding tourists at Cape May, New Jersey, (Kerlinger and Wiedner 1991), the sex ratio was nearly equal (49% female). One statistic that does not seem to vary among studies is that the age of the average birder is in the mid-forties (Kellert 1985, Kerlinger and Wiedner 1991, Wiedner and Kerlinger 1990).

The income levels of birders has been repeatedly shown well above the national average. Income for American Birding Association (ABA) members was nearly three times the national average (Wauer 1991). For the CBC group studied by Wiedner and Kerlinger (1990), less than 30 percent had incomes less than the national average, even when students were included. As expected, active birders are highly educated. Wiedner and Kerlinger (1990) demonstrated that about three-quarters of the respondents in their study held degrees from four-year colleges and 98% graduated from high school. Results reported in the ABA study were similar as was the case with the Kellert (1985) study.

Birding Economics - National Level

Some very large dollar values have emerged from studies of birders and other nonconsumptive wildlife users. Birding was suggested to be a $20 billion industry in the mid-1980's for all of North America. An earlier estimate in 1980 using the National

Survey was $15 billion for just the U.S. (USDI 1982) for all nonconsumptive wildlife use. A better estimate will be available when the 1990 National survey is analyzed.

It is probable that the amount of money spent by American birders parallels the spectrum of birding activity from active (dedicated) to casual birders. Some birders spend thousands of dollars and others spend very few dollars (Figure 1). The most active of birders probably spend the most. In 1990, Wiedner and Kerlinger reported that "active" birders spend $1,850 per year. A study by Wauer (1991) of the membership of the ABA revealed average yearly expenditures of nearly twice this amount ($3,400). Currently, 10,000 ABA members are some of the most active birders in the world. Travel is the largest expenditure in a birder's yearly budget, accounting for more than 70% of total expenditures. A detailed breakdown of an active birder's annual expenditures may be found in Wiedner and Kerlinger (1990) and Wauer (1991).

Studies of active birders focus only on the left side of Figure 1, the relatively small number of very active birders. Unfortunately, we do not know have robust estimates for the entire area under the curve, which would include a heterogeneous group of birders with varying activity levels.

Birding Economics - Site Specific Level

Site specific studies of birders and birding economics have now been completed, probably at fewer than 10 locations in the world (Table 3). Site specific studies refer to a geographic site that attracts birders from a much larger area. Area size can vary. For example, Forsythe National Wildlife Refuge, a birding destination for more than 175,000 people per year, most of whom are birders, is small when compared to the neighboring Cape May peninsula. It could be considered as separate from Cape May. This becomes problematic, because many birders stop at Forsythe on their way to or from Cape May. According to USFWS about 90,000 birders visit the peninsula each year. Other examples of sites include Hawk Mountain Sanctuary, Pennsylvania, and the Everglades (National Park) in Florida. Each differs in size and the area surrounding the site. Thus it is often difficult to identify or delineate the geographic area that reaps the economic benefits. Some sites frequented by traveling birders have virtually no businesses within them that could benefit from birding ecotourism. The Pawnee National Grassland in Colorado has few services, so birders cannot even spend money there. Instead they must find lodging, and restaurants dozens of miles away. Studies of these areas must include communities that may be 100 km or more from the actual birding sites.

The input of birders to other local economies is similar. How many sites in the U. S. benefit from birding tourism is not known. A national study of active birders by Kerlinger and Wiedner conducted in 1988-1989 revealed that birders visit a large number of sites in this country. When asked to list their 5 favorite birding locales in North America, the 1,130 respondents gave the names of more than 900 sites! That different names may have been used for the same sites, or that some sites were very close to each other reduces the actual number. But the number is still impressive.

What happens at other sites listed in Table 2? What happens at the Bald Eagle Days festival in Illinois/Iowa each winter? the hummingbird festival in Texas each autumn? the waterfowl/carving attractions on the eastern shore of Maryland? How many birding events are held in the U. S. each year? How much do birders spend and what do they purchase at these events? The answers have profound implications for conservation.

Only three detailed, site-specific studies have been reported in the literature, although dependable economic estimates of economic impact are available from several other areas. Kerlinger and Wiedner (1991) working in Cape May, New Jersey, demonstrated a conservative $6 million coming into the local economy. An updated estimate suggests more than $10 million are injected in the Cape May economy as of 1991-1992. Hvenegaard et al. (1988) showed a similar economic input into the Point Pelee/Leamington, Ontario economy, as did Lingle (1991) for the Platte River area of Nebraska. These sites differ greatly. Point Pelee attracts 50-60,000 birders per year, mostly in April-June to observe neotropical songbird migrants on their way to northern breeding grounds. The Platte River attracts some

Table 3. — Selected summary of sites where birding economic studies have been conducted along with the numbers of birders and the amount they spent.

Site	Number of Visitors Per Year	Dollars Spent
Cape May, New Jersey	100,000	$ 10 million[1]
Hawk Mountain Sanctuary, Pennsylvania	50,000	$ 2-4 million[2]
Platte/North Platte Rivers, Nebraska	80,000	$ 40 million
Point Pelee, Ontario	57,000	$ 3.2 million
Pembroke, Ontario	10,000	$ 0.5 million

[1] *The $10 million dollar statistic is an upgraded estimate 4 years after the original survey was conducted.*

[2] *This dollar value is estimated from a preliminary analysis of data collected in 1990 by Kerlinger and J. Brett.*

40,000 people who wish to view the spectacle of cranes that stopover during their autumn migration. Cape May is an autumn migration site. Both are excellent birding sites and also have superb general tourist visitation. Birders tend to visit these sites during the off-season for general tourism. This makes birding tourism very special for the local communities because birders inject revenue when general tourism dollars do not.

THE USE OF BIRDING ECONOMICS AND BIRDER DEMOGRAPHICS STUDIES

Of what use are birding economic studies conducted at the national level? Once the user-group is identified and their spending patterns characterized, the information can be used for many purposes. Policy makers and legislators in the government and private sector, who need to know the demand for open space and how much funding should be appropriated for acquisition and management are a key group.

Birders constitute a major user group of open space, especially in the federal refuge and park system. The same is true of state wildlife management areas, parks, and municipal parks. Although hunters and fishermen use public open space, they usually do so during limited (open) seasons. There are no seasons on birding, so it can occur on more days during the year than consumptive activities. This means greater potential for use by birders (and other nonconsumptive users). It also means that consumptive and nonconsumptive activities can be easily partitioned to avoid the potential for negative interaction between groups. Decisions to acquire open space in a particular refuge or management area is based on need for greater area for wildlife and need for more areas for users. Information that characterizes a large number of well educated, upper income, tax-paying, voters as primary users of public open space is very meaningful, especially to legislators.

A group that should be just as interested are businesses that benefit directly and indirectly from birding. These include airlines, optics, wild bird food, publishers, tour companies, travel agents, lodging, and manufacturers of birding related paraphernalia. Because the birding optics industry and other businesses stand to benefit economically, they should be supporting birding economics studies. If manufacturers support such studies, they can be economically justified by including marketing questions (piggy-back research) that will benefit the manufacturer through helping design more saleable items or providing new advertising ideas or identifying places to advertise.

Lest the user-group be forgotten, I must emphasize the importance of information **about** birders **to** birders. There are many of us (birders) who wish to see birding reach its full potential for conservation. Birders need to know their own numerical and economic strength. There is no advocacy or loggying group currently serving birders as is the case for fishermen and hunters. Dozens of national and state organizations serve birders to some degree, but none are completely dedicated to this end. For birders to have power that is commensurate to their numbers, they must have an organization that serves in a lobbying capacity. Advocacy is good, lobbying is stronger.

Economic studies of birding at specific birding destinations are useful in a different way from national studies. Information collected as a result of site-specific birding economic studies can be an invaluable tool for open space conservation and, therefore, for neotropical migrants as well as other bird species. Its first use should be as a general education tool. The information should be disseminated widely in the area concerned. Newspaper and magazine articles, television and radio "spots" all help to educate a public that has no knowledge about how birders and birding affect their community.

Planning boards, chambers of commerce, park managers, refuge managers and superintendents, and others need to be informed about the numbers of birders that visit their area or use their open space. Such information is invaluable for constructing new refuges, not to mention managing existing refuges. For example, the recently established Cape May National Wildlife Refuge has been accepted by many area planners as having an economic potential for the community.

Another result of the Cape May birding economic study is that Cumberland County (adjacent to Cape May County) Planning and Economic Development Board applied for and was awarded a Delaware Estuary Program (U. S. Environmental Protection Agency) grant to produce a site guide to birding in Cumberland County. Their hope is that the abundant wildlife of Cumberland County will be the basis for ecotourism to bring revenue to the county without resorting to development of environmentally sensitive areas. Cumberland County has more (undevelopable) freshwater and tidal wetlands than any county in New Jersey. The county also has a large forested area (much lowland) that hosts many neotropical birds. This enlightened, pioneering effort by a county that is one of the poorest in New Jersey is exemplary. The success (or failure) of these efforts will weigh heavily on future development and environmental plans for Cumberland County and other areas.

More specific uses include fund raising for nonprofit organizations; a tool for reducing or eliminating taxes on wetlands or other open space; and even in court cases where development threatens important habitat. Economic arguments are often more potent than aesthetic arguments, because they appeal to "bottom line," budget conscious planners.

Birding economic studies as a fund-raising tool has been used successfully in several areas. As a result of an economic study of birding tourism in Cape May, the Cape May Bird Observatory was able to add dozens of motel, hotel, restaurant, and campsite owners, as well as realtors, to its membership. All of these new members entered at higher rates than individual or family members. The money derived from these memberships is used for education and research (not to mention paying lawyers to sue the state of New Jersey on wetlands issues and expert witnesses to testify in environmental cases). Without the economic study done by Kerlinger and Wiedner (1991), these

businesses would not have known about how much birders contribute to the Cape May economy, nor would they have supported the Bird Observatory. Furthermore, many owners subsequently became more outspoken regarding environmental issues in their own backyard knowing that environmental degradation would be bad for business. The same sort of environmental-economic issues can be raised in other areas where birders provide a significant economic input to a community. This is most important for grass-roots environmental organizations, nature centers, private refuges, etc. Open space and the birds that occupy that space should be viewed as economic attractors. The issue of jobs vs the environment is a frequently used ruse to avoid long-term solutions to environmental or economic problems. The alternative argument of a clean environment promoting long-term economic stability should be emphasized.

CONCLUSIONS

I introduce the reader to a relatively new field of study that focuses on a previouisly under recognized user-group. Birders are the major, perhaps only, user-group of neotropical migratory birds. Birders, like hunters and fishermen, are easily identified and when their economic and numerical strength is characterized, they will emerge as a powerful group. Most importantly, we need to characterize the group through demographic and economic studies at several different levels (Table 1). The points I made regarding need for studies of birder demographics and birding economics are not new. Diamond and Filion (1987) reported several studies that touted the economic importance of birding and birding tourism, but few studies presented data to substantiate their claims and fewer provided cost-benefit analyses of the sort outlined above. Kellert (1985) drew some of the same conclusions nearly a decade ago, as did several other authors. Kellert found that 78% of committed birders favored "entrance fees to wildlife refuges and other public wildlife areas," but that only about half supported a sales tax on birding equipment. The need for a funding source for nongame wildlife programs, especially neotropical migratory birds, is acute. Birders represent a viable source of long-term and dependable funding for nongame programs, including those for neotropical migratory birds.

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