

The Economic Impact of the Western Reef-
Heron (*Egretta gularis*) on the Town of
Kittery, Maine in August of 2006.

A report by:
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Introduction

The economic impact of birdwatching has been notoriously difficult to determine. Unlike other outdoor pursuits, like fishing and hunting, there is no tax levied on birding-related purchases so there is no concrete method by which to measure economic input. However, it is estimated that birdwatching is a \$32 billion industry nationwide. It is second only to gardening in numbers of participants (46 million), and growing rapidly. Of those 46 million birders, 18 million (40%) take trips away from home (LaRouche, 2003; U.S. Dept. of the Interior, 2001). Local businesses, from hotels, restaurants, and gas stations to car rental agencies and boat operators benefit directly from the birding visitors to Maine coming to view rarities or our charismatic breeders, such as the Atlantic Puffin. A number of individuals and organizations offer tours and/or private guiding services. Birders also pay entry fees at parks.

The presence of a Western Reef-Heron in Kittery, Maine for six days in August 2006 presented an opportunity to perform a case study of the economic boost that birding can bring to a small community. On Friday, August 18, 2006 Lysle Brinker of Cumberland, Maine discovered the Western Reef-Heron (*Egretta gularis*) in Kittery Point. He observed the bird on Fishing and Gooseberry Islands from the town pier at Kittery Point. This constituted a third or fourth North American Record for this western African species. Prior records of this species in North America include Nantucket Island in 1983, Newfoundland in 2005 (Alderfer, 2006), and Nova Scotia earlier this summer. It is hypothesized that the Kittery Point bird is the same individual that over-summered in Nova Scotia, thereby constituting one single (the third) record. In fact, it could be the same individual that was seen in Newfoundland last year.

In other words, this was one really rare bird for North American “birders” (or “bird watchers”). Hundreds of people traveled to these prior locations, however the Kittery Point bird was the first within a short drive of a major population center (Boston), and a day’s drive from a good percentage of North America’s population (the Washington DC-Boston megalopolis). In other words, “The chase was on!”

Within one and a half hours after Lysle’s initial discovery, four birders had arrived. Within the next hour, a dozen more had joined. As the word spread (via cell phone and internet), birders from around the country began to make plans to travel to Kittery Point.

Knowing that hundreds of birders would soon be descending on the area, Lysle Brinker and Derek Lovitch spoke with the employees at Frisbee’s Market, Captain Neil Odom, and others in order to help coordinate the masses. Parking rules and regulations, as well as suggestions for visitors and contact information were discussed. A sightings log was installed at Frisbee’s in order to provide timely information. The website of the Wild Bird Center of Yarmouth, www.yarmouthbirds.com, dedicated itself to providing up-to-the-minute reports, detailed directions, links, and photos.

In this paper, we summarize the demographic and monetary impact that birders had on the local community during the Western Reef-Heron’s stay in Kittery Point, and make

some predictions as to how much money may have been spent in actuality. This provides a nice case study because the heron frequented a small area for a short period of time. With the help of the internet, information could be gathered in a timely fashion as birders traveling en masse from around the country spent their money as they sought the bird of the decade in Maine.

Methodology

We quantified this economic input by producing a simple survey designed to analyze how much money people were spending in Maine, and specifically in Kittery, while pursuing the Western Reef-Heron. A survey was designed (see Appendix 1) to tabulate expenditures. The survey was posted on the Bird News page at www.yarmouthbirds.com, the website of the Wild Bird Center of Yarmouth, the same page that was used to provide up-to-the minute information on observations, locations, directions, etc throughout the bird's stay. Email announcements requesting responses to the survey were posted on the Maine-birds listserv, distributed through various email trees or sent directly, and posted on the Southcoastal Maine Rare Bird Alert (produced by the Wild Bird Center of Yarmouth) that is distributed around the country via the National Birding Hotline Cooperative. In addition, one birder forwarded the survey to the Mass-birds listserv.

Answers to completed survey questions were sent to the Wild Bird Center of Yarmouth, and tabulated in an Excel spreadsheet. We followed up on surveys with incomplete responses. Five surveys were discarded after follow-up questions for clarification or more information were not answered.

Results

Fifty-three responses were received that represented a total of 123 birders. Party size ranged from 1 to 6, with an average of 2.32 people per party.

Thirty-seven of the 53 responses received came from out-of-state visitors. A total of 11 states were represented, with the majority of respondents hailing from Massachusetts (19) or Maine (16), followed by New Jersey (4), Connecticut (3), New Hampshire (3), New York (2), Vermont (2), Alaska (1), California (1), Delaware (1), and Rhode Island (1). Numerous other states were noted, either from license plates or correspondence. It is more than likely that a vast majority of the 50 states were represented, along with multiple Canadian Provinces.

Birders spent an average of 1.38 days in the area, with some parties staying for as little as "20 minutes," (counted as "one day" in the survey results) and others remaining for up to 3 days.

These responses (53) representing 123 birders are only a fraction of the birders that visited the area. It has been estimated that 300-400 birders visited Kittery Point seeking the Western Reef-Heron. For sake of argument, let us use the middle ground of 350 visitors. Therefore, our 123 birders represented by the responses equal only 35% of the actual number of visitors. Multiplying all responses by 2.8 (350/123) would more accurately reflect actual numbers.

Of the 53 responses received, 21 parties spent money on gas, 27 parties purchased snacks, 16 parties purchased breakfast, 11 parties purchased lunch, and 11 parties purchased dinner in the town of Kittery. Purchases made in adjoining towns of Maine and New Hampshire were not included in these figures.

Twenty-six respondents made purchases at Frisbee's Market, 9 respondents dined at Cap'n Simeon's Galley, 5 parties dined at the Sunrise Grill, 5 parties ate at the Chauncey Creek Lobster Pier, 3 at the Dairy Queen, two parties each at the Bagel Caboose, 7-11, Warren's Lobster House, and Loco Coco's Taco (for sake of full disclosure, both of those visits were by this report's authors!). Burger King, McDonald's, Bob's Clam Hut, and Perk's Unlimited each received one party's patronage. (Again, we will assume that multiplying each figure by 2.8 would result in the actual number of parties that visited each establishment, with an average of 2.32 people per party).

Twelve respondents took a boat ride with Captain and Patty's Piscataqua River Tours.

Seven parties stayed overnight in the area: 2 parties each in York, ME and Portsmouth, NH, one party in Rye, NH, one party stayed with a friend in New Hampshire, and one birder spent the night in his car at the Kittery rest area along I-95.

Four parties made other purchases in Kittery, such as souvenirs, during their visits. Two parties visited the Kittery Trading Post, while one party each shopped at Sperry's Top-sider, Stonewall Kitchen, and Frisbee's Market.

In addition to the pier over Pepperrell Cove in Kittery Point, 11 parties visited other parks and public areas while in Maine. Nine parties visited Fort Foster on Gerrish Island, with 4 of those parties paying the entrance fee at the park.

Eight responding parties spent additional time in Maine not directly related to seeking the Western Reef-Heron, resulting in further expenditures and economic impact.

While every one of the 36 out-of-state respondents had visited Maine before, only 26 of those folks had visited Kittery before. Fifteen of the 16 Maine respondents had visited Kittery prior to seeking the Reef-Heron. Meanwhile, only 6 of the 36 out-of-state respondents had planned on visiting Maine prior to the Reef-Heron's arrival. Therefore, the Western Reef-Heron directly resulted in 195 (36 minus 6, times 2.32 birders per party, times 2.8) visitors to Maine that would otherwise not have come.

The mean amount of money spent by the survey's respondents was \$26.67 (\$2960 spent by the 123 birders that responded to the survey). Multiplying that figure by our estimate of 350 would yield a grand total of \$9334.50 spent in the Kittery area by birders seeking the Western Reef-Heron. This does not include money spent on gas, food, etc en route to Kittery Point by birders from Maine, and likewise does not include monies spent outside of Maine for gas, food, and non-Maine lodging from out of state visitors.

Table 1. Summary of key survey results. Calculations were derived from 53 responding parties, representing 123 individual birders, except where noted.

Number of out of state parties	36
Mean number in party	2.32
Mean number of days spent in the Kittery area	1.38
Total dollar amount spent by survey respondents in the Kittery area (gas, food, lodging, souvenirs)	\$2960
Mean dollar amount spent per person in Kittery area	\$26.67
Number of parties who spent time in Maine, other than looking for the heron	9 *
Number of first-time parties to Kittery	12

* out of 37 out-of-state responses

Discussion and Conclusions

The Western Reef-Heron that was discovered in Kittery Point on 18 August, remained there through 23 August, with a return cameo on 27 August. During this short time, an estimated 300-400 birders visited Kittery Point. In addition, birders searched the area on other days, and/or traveled to Kittery to take a boat trip in search of the bird in New Hampshire.

This survey was produced in order to quantify the economic input into the local economy by birders looking for this one bird. Extrapolating the results of this survey to the estimate of 350 visiting birders to Kittery, a total sum of \$9334.50 was spent for food, fuel, boat trips, etc. in Kittery alone. More importantly, since the vast majority of these people, especially from out-of-state, were not otherwise planning a trip to - and therefore spending money in - Kittery at this time, the Western Reef-Heron produced a significant economic benefit for the community.

The Western Reef-Heron continues to be seen in New Hampshire, in the Little Harbor/Sagamore Creek area of Portsmouth, Rye, and New Castle as of 20 September. If the bird had not changed locations, it is likely that many hundreds of additional birders would have visited, and spent money, in Kittery, Maine.

While this survey only reflected expenditures in Kittery, as a case study, it is likely that this one bird resulted in tens of thousands of dollars being spent in the Piscataqua River area of Maine and New Hampshire. Especially after Labor Day, when general tourism declines, this bird likely resulted in a significant positive economic impact in this area as well.

In conclusion, birders spend money. Since there is no dedicated tax or other means of specifically quantifying birders' expenditures, the economic input of bird watching is often ignored. Non-game funding from Federal and State levels are a fraction of the funding received for fish and game projects and initiatives. Local economic development initiatives rarely include non-consumptive wildlife-watching opportunities.

As demonstrated by this case study, birders make a significant contribution to local economies. Therefore, more effort should be made in promoting birding opportunities, protecting critical habitats, maintaining public access to waterfronts, and other conservation initiatives.

Literature Cited

Alderfer, J., ed. 2006. Complete Birds of North America. National Geographic Society, Washington D.C. 664 pp.

U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau. 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

LaRouche, Genevieve Pullis. 2003. Birding in the United States: a demographic and economic analysis. Addendum to the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

Appendix 1: The survey.

State:

Town:

Number in Party:

Days spent in area:

Did you purchase any of the following in, or near, Kittery, Maine?

- a) Gas?
- b) Snacks?
- c) Breakfast?
- d) Lunch?
- e) Dinner?

Did you dine, or make any purchases, at these businesses?

- a) Frisbee's Market?
- b) Cap'n Simeon's Galley?
- c) Bagel Caboose?
- d) 7-11?
- e) Sunrise Grill?
- f) Burger King?
- g) Other: _____

Did you take a boat out of Kittery Point with Captain & Patty's Piscataqua River tours?

Did you stay overnight in the area?

Where did you stay?

About how much did you and/or your party spend while seeking the Heron?

Did you visit any other parks or public land in the area?

- a) Did you pay an entry fee?
- b) Did you visit Fort Foster?

Have you ever visited Maine before?

Have you ever visited Kittery before?

Were you planning on visiting Maine anyway (before the Heron showed up)?

Did you spend any time in Maine besides seeking the Heron?

Any other comments, birding, economic, people-wise, etc?