Locavore Preferences for Wild Fish and Game: Implications for Wildlife-based Recreation in New York State

September 2014

HDRU Series No 14-6

Prepared by:

K. G. Tidball[2,4] M. Tidball[1], L. R. Larson[3], P. Curtis[4], L. Poindexter[1], R. C. Stedman[3,4]
[1]Sencea County Cornell Cooperative Extension
[2]Civic Ecology Lab
[3]Human Dimensions Research Unit
[4]Department of Natural Resources
Cornell University

`

HUMAN DIMENSIONS RESEARCH UNIT PUBLICATION SERIES

This publication is one of a series of reports resulting from investigations dealing with public issues in environmental and natural resources management. The Human Dimensions Research Unit (HDRU) in the Department of Natural Resources at Cornell University studies the social and economic aspects of natural resources and the environment and the application of social and economic insights in management planning and policy. A list of HDRU publications may be obtained by writing to the Human Dimensions Research Unit, Department of Natural Resources, Bruckner Hall, Cornell University, Ithaca, NY 14853, or by accessing our World Wide Web site at: http://www.dnr.cornell.edu/hdru.

TO CITE THIS REPORT

Tidball, K. G., Tidball, M., Larson, L. R., Curtis, P., Poindexter, L., & Stedman, R. C. (2014). Locavore preferences for wild fish and game: Implications for wildlife recreation in New York State. *Human Dimensions Research Unit Series Publication 14-06*. Ithaca, NY: Department of Natural Resources, Cornell University. This report is available electronically at http://www2.dnr.cornell.edu/hdru/pubs/wildpubs.html#attitudes

`

EXECUTIVE SUMMARY

Purported growth in the number of people who are motivated to eat food that is grown, raised, produced, or harvested locally ("locavores") has catalyzed efforts to understand the mechanisms fueling the locavore movement. To date, much of this research has focused on local, small-scale agricultural producers and consumers. However, growing emphasis on the importance of lean meat in locavore diets has fostered interest in understanding the role of wild-caught fish and game in local food systems. In this study, we sought to (1) explore the extent to which locavores consume wild fish and game, (2) examine preferences, motivations, and barriers associated with fish and game consumption, (3) evaluate level of interest in information about wild-caught fish and game, and (4) explore connections between locavorism and fishing and hunting participation.

We surveyed 471 people in the Finger Lakes Region of central New York. The sample was derived from subscribers to the *Edible Finger Lakes* magazine and newsletter, the premier publication within the local "foodie" community. Potential respondents were contacted via email and asked to complete a web-based questionnaire that included questions related to demographic attributes, general food choices, and specific factors related to the consumption of wild fish and game. These factors included consumption frequency, procurement strategies, preferences and barriers, key information sources, and knowledge and interest in nutrition information pertaining to wild fish and game. Respondents were also asked about their current and potential future participation in fishing and hunting.

Results showed that the demographic attributes of respondents mirrored those documented in previous locavore studies. Respondents were older (mean age = 53 years), female (68%), white (98%), wealthy (mean annual income = $124,000), and well-educated (90% had a college degree). Almost all of the respondents (99%) agreed or strongly agreed with the statement, "I am motivated to eat food that is grown, raised, produced, or harvested locally," suggesting that the sample population was primarily comprised of locavores. Their most important reasons for eating local foods were supporting the local area, personal health, and nature conservation.

Most respondents (85%) had eaten local, wild-caught fish or game at least once: (63%) had eaten wild-caught fish at some point in their lives, and even more (77%) had eaten wild game meat. However, a smaller proportion had eaten fish (<31%) or game meat (<8%) more than twice a year. Cold water fish (i.e., trout or salmon) were consumed more frequently than warm water fish species. Venison was, by far, the most frequently consumed game meat. In general, respondents did not indicate a strong preference for wild-caught fish/game meat caught/harvested locally by themselves or someone they knew, compared to wild-caught fish/game meat purchased at stores, restaurants, or markets. For both fish and game, the meat was most often provided by friends and family, and most respondents seemed to prefer this procurement strategy to the do-it-yourself alternative. Few respondents (<24%) had caught and eaten fish themselves, and even fewer (<11%) had personally harvested game meat for consumption.

The most important factors affecting individuals' decision to eat both wild-caught fish and game centered on meat quality, taste, and conservation-related issues. Respondents were very concerned about "meat quality and freshness" and "sustainable use of natural resources." The most significant barriers to consumption of wild-caught fish were concerns about environmental quality where fish were caught and concerns about meat quality/safety and

`

personal health. The time required to catch fish and a lack of skills needed to catch fish were also major barriers. The most significant barriers to game meat consumption emphasized the lack of skills needed to hunt wild game and process/prepare wild game meat. The time required to catch and prepare game and the general distaste for "killing animals" were also substantial barriers to game meat consumption. Individuals who did not eat wild fish or game (non-consumers) were significantly more likely than consumers to rate lack of skills and lack of people to go fishing/hunting with as barriers to consumption.

Respondents expressed substantial interest in topics related to consumption of wild-caught fish and game. For example, 74% of respondents were somewhat or very interested in learning more about the conservation benefits of eating wild-caught fish, and 69% of respondents were interested to learn more about preparing wild-caught fish. Interest in topics related to catching and processing fish was significantly lower. Patterns were similar for topics related to game meat consumption, with a most respondents interested in conservation benefits (59%) or meat preparation (59%) and fewer interested in information about specific hunting skills. Even those who did not eat wild caught fish and game were interested in learning more about conservation benefits and meat preparation. Preferred sources for obtaining information about wild fish and game consumption were general internet sources (e.g., websites, blogs) and friends and family. Respondents reported a range of preferences regarding the provision of nutrition information for recipes involving fish and game meat. About half of the respondents (49%) indicated this information was important, but fewer (37%) believed this information would increase their consumption of wild fish and game meat.

Respondents' participation rates in fishing and hunting were comparable to the rural U.S. population. In the past 12 months, about 23% of respondents had gone fishing and7% had gone hunting. When asked about future fishing participation, 36% of respondents said they actively fished, 41% said they used to fish but had since quit, 12% said they would consider fishing, and 11% said they would never try it. When asked about future hunting participation, 9% of respondents said they actively hunted, 11% said they used to hunt but had since quit, 23% said they would consider hunting, and 57% said they would never try it. Anglers and hunters were much more likely to have eaten fish/game meat than non-anglers and non-hunters. Additional information about topics related to consumption of wild fish and game was unlikely to increase participation in either fishing or hunting.

In summary, though wild-caught fish and game may at least be a minor component of many locavore diets, these meats were consumed rather infrequently by a majority of our respondents. Most wild fish and game meat was provided by friends and family; few respondents were actively fishing and/or hunting. Although substantial interest in topics related to wild fish and game consumption exists, most of this interest centers on meat preparation and conservation benefits – not the development of fishing and hunting skills. Our data generally call into question the hypothesis that locavores' affinity for local, wild-caught meat will generate increased interest in fishing and hunting participation. However, even if the locavore movement does not produce more license-purchasing anglers or hunters, data suggest that it might generate indirect conservation benefits through the expansion of social worlds that support wildlife-based recreation and management. Future research should continue to explore fish and game consumption patterns and identify key agencies, organizations, and information sources that might that might help foster links between locavores, local wildlife, and fishing and hunting.

`

HIGHLIGHTS

- Central New York respondents in the *Edible Finger Lakes* magazine sample (n = 471) were generally, white, female, older than age 50, highly educated, wealthy, and highly motivated to eat food that is grown, raised, produced, or harvested locally.
- Most respondents have eaten wild-caught fish (63%) and game meat (77%) at some point in their lives, but few consume these meats on a regular basis.
- Relatively few respondents catch/harvest their own fish (< 24%) and game meat (<11%) for personal consumption; most rely on provisions from friends and family.
- Major barriers to wild-caught fish consumption center on concerns about meat safety and the quality of the environment where fish were caught; major barriers to wild game meat consumption include the lack of skills needed to hunt and process/prepare meat that is harvested.
- Most respondents are interested in additional information about wild fish and game meat consumption – particularly topics related to preparation of cooking fish (69%) and game meat (59%) and the conservation benefits associated with eating wild fish (74%) and game (59%).
- Few respondents currently fish (23%) and hunt (7%), though many would consider it.

`

ACKNOWLEDGMENTS

The authors would like to acknowledge the contributions of multiple project collaborators including Seneca County Cornell Cooperative Extension, the *Edible Finger Lakes* magazine editorial team, the Finger Lakes Culinary Bounty, and the Seneca Falls Farmers Market. The study was supported by Hatch and Smith-Lever funds from the U.S.D.A.

`

TABLE OF CONTENTS

`

LIST OF TABLES

`

`

LIST OF FIGURES

INTRODUCTION

Anecdotal reports suggest that the number of individuals in the United States with an interest in eating locally-produced food has increased substantially in the last decade (National Sustainable Agriculture Coalition, 2014). Indicative of this trend, the term "locavore" was named the New Oxford American Dictionary "Word of the Year" in 2007 (K. G. Tidball, Tidball, & Curtis, 2013). According to the dictionary, a locavore is "a person whose diet consists only or principally of locally grown or produced food." Other sources have adapted this definition, characterizing locavores as people who are generally motivated to eat food that is grown, raised, produced, or harvested locally (Cotler, 2009).

Because of its increasingly popularity, the locavore movement has garnered significant attention in both popular and academic circles. Authors like Michael Pollan (2006), Amy Cotler (2009), and Tovar Cerulli (2012) extol the benefits of locavorism through their books featuring firsthand accounts and anecdotal experiences. Various media sources have also documented the emphasized the expanding reach of locavore principles. For example, *National Geographic* magazine recently captured increasing interest in eating local, and farmers' markets in particular, across diverse populations through an ongoing series on "The Future of Food" (Andres, 2014). Locavore-oriented stories have also been prominently featured in many major newspapers across the U.S. (Ruth-McSwain, 2012). The rapid growth of locavorism has outpaced researchers' attempting to develop a better understanding of who locavores are and the factors that influence locavore preferences and behavior. Nevertheless, some important insights are beginning to emerge.

In general, the locavore movement has come to suit the increasingly stringent standards of consumers who, seeking a healthier, more sustainable lifestyle, elect to utilize localized and community-based food systems. For authors like Pollan (2006) and Cerulli (2012), eating locally stems from personal ethical issues associated with the ecology of eating and a rejection of mass-produced or chemically-enhanced produce, meat, fish, and poultry. Such dilemmas include concerns about industrial meat and fast food consumption, the complexity and uncertainty associated with processed foods, and the American obesity epidemic (Pollan, 2006). To ameliorate these concerns, locavores are motivated by a variety of factors including the perceived safety and superior nutritional quality of locally-grown foods and a desire to support rural communities (Byker, Shanks, Misyah, & Serrano, 2012; Stanton, Wiley, & Wirth, 2012; Zepeda & Li, 2006). Researchers have identified accessibility as a prominent barrier to local food consumption (Eastwood, Brooker, & Gray, 1999; Lockeretz, 1986; Nie & Zepeda, 2011), for many local food sources are inconvenient, expensive or difficult to find. These findings, however, generally emerge from studies primarily focused on one particular segment of the locavore population: farmers' market patrons. Recent work suggests that other aspects of the locavore movement such as local-harvested meat consumption should also be considered. According to Rinella (2007), the consistent neglect of wildlife management and harvest in the localism literature is especially lamentable because hunters were the "original locavores."

Increased recognition of personal health and conservation benefits associated with wild-caught, locally-harvested fish and game meat is gradually helping to move locavore thinking beyond its agricultural field crop and livestock roots. Meat, both free-range domestic and wild, is now an important component of the locavore landscape. Because meat production accounts for about 90% of the total food-based ecological footprint in the U.S. (Palmer, 1998), the environmental impacts of a switch to local meat consumption could be significant. Tidball et al.

(2014) therefore note that it would be negligent to omit phrases like "free-range" or "wild-caught" in conversations about local eating. With omnipresent criticism of Concentrated Animal Feeding Operations, more locavores are beginning to seek out local wild fish and game as critical source of protein (Pollan, 2006).

The growing emphasis on wild-caught local meat creates many opportunities and challenges, many of which are related to procurement. Some have speculated that the current trajectory of the locavore movement may help to generate further awareness of and support for consumptive wildlife-based recreation activities such as fishing and hunting (K. G. Tidball et al., 2013). Just as locavores prefer to know the source of their fruits and vegetables, they may be equally interested to know more about the environment a particular fish or game species came from, or the angler/hunter who acquired it. Personal harvest and subsequent processing of wild animals might provide an additional sense of security and self-satisfaction for this type of consumer. Mindful consumption of meat has become increasingly popular to individuals motivated to eat locally (Cerulli, 2012), and some evidence is beginning to suggest that an increase in locavore-oriented thinking may be one of the factors contributing to a recent rise in fishing and hunting participation in the U.S. (Responsive Management, 2013).

Expanding enthusiasm for locally-harvested meat led Seneca County Cornell Cooperative Extension and the Department of Natural Resources at Cornell University to create the Wild Harvest Table educational program and website (www.wildharvesttable.com). The website and associated workshops on the procurement and preparation of wild fish and game were designed to address locavores' information needs and apparent knowledge gaps. By providing outreach and resources for game and fish recipes, including nutrition information and cooking techniques, initiatives such as the Wild Harvest Table hope to entice locavores to introduce wild fish and game into their diets and foster ongoing dialogue about the benefits of eating locally-harvested meat (K. G. Tidball et al., 2013). Similar efforts are exploring potential links between traditional wildlife-based recreation activities (e.g., fishing, hunting) and new perspectives on food ecology (e.g., locavorism) that may reshape the way local food systems and conservation programs are structured and maintained. For example, recent national meetings of the Association of Fish and Wildlife Agencies (2013) and the Wildlife Society (2013, 2014) have convened workshops and panel discussions that focus on connections between "hunting, fishing, and foodies." To date, however, most of these assumptions and assertions are purely speculative.

Statement of Purpose

Although the nascent research outlined above has helped to characterize locavores and their preferences, little is currently known about the factors that contribute to locavores' meat consumption, the barriers that prevent people from eating local wild-caught meat as often as they would like, or the potential contributions of the locavore movement to consumptive forms of wildlife-based recreation. Because decisions people make about the foods they eat influence their well-being and the quality of the environment in which they live, it is critical to understand relationships between locavores' food choices and wildlife resources.

To answer these questions, we developed a study to identify factors that affect the integration of wild-caught fish and game into local food systems of central New York State. The specific goals of the study were to:

1. Explore extent to which locavores consume wild fish and game,
2. Evaluate why locavores are motivated to eat or not to eat wild fish and game,

3. Examine the importance of nutritional analysis for wild fish & game and the way labeling influences consumer choices,
4. Determine how locavores learn about procuring, processing, and preparing wild fish and game, including barriers to finding and adopting this information, and
5. Explore connections among locavorism, wild-caught fish and game consumption, and current (or future) fishing and hunting participation.

METHODS

Survey Sample

To define an appropriate sample of potential locavores for the purposes of this study, we obtained email lists provided by research partners affiliated with the local "foodie" community in the Finger Lakes region of central New York State, an area renowned for its local food productivity. We identified individuals who were "motivated to eat food that is grown, raised, produced, or harvested locally" through their affiliations with one or more of the following entities or organizations:

- *Edible Finger Lakes* Magazine and newsletter (EFL): Mail (n = 1,586) and web-based (n = 420) subscribers to a paper publication and online newsletter exclusively focused on the local food experience in the Finger Lakes region of central NY.
- Finger Lakes Culinary Bounty (FLCB): Individual members (n = 101) of a collaborative regional food network that helps educate consumers about locally-produced foods.
- Seneca Falls Farmers Market (SFFM): Members (n = 127) of the local farmers market listserv.
- Cornell Cooperative Extension program participants (CCE): Participants (n = 49) in past programs offered by Cornell Cooperative Extension (Ontario and Tompkins County) focused on the consumption and preparation of local food.

Though these groups did not constitute a random sample of potential locavores across central New York, such a list does not exist. In our efforts to identify and recruit an appropriate sample, we contacted many other organizations including multiple farmers markets and community supported agriculture (CSA) groups. However, few of these groups were willing to share contact information (specifically, emails) for their constituents. Many of the groups unwilling to participate (often farmers' markets or CSAs) were likely characterized by demographic profiles that were very different than those represented in this study sample. For example, our sampling strategy may have inadvertently excluded younger adults with lower incomes, an expanding segment of the locavore and organic farm movement that undoubtedly warrants more attention (National Sustainable Agriculture Coalition, 2014). Nevertheless, the sample depicted above, though somewhat uni-dimensional, may therefore represent the most comprehensive list of central New York locavores currently available.

Survey Instrument & Methodology

Email addresses were available for every member of the potential locavore sample, so we elected to use a web-based survey implementation approach. We designed the web-based survey instrument using Qualtrics survey software (http://www.qualtrics.com/). Survey themes and questions were based on input from content matter experts and interviews from an earlier phase of the participatory research study focused on the contributions of wild fish and game meat to

food security in rural communities (Gillespie & Sung, 2014). Because the concept of a "local" foodshed varies widely – from within 100 miles of their place of residence (Rose et al., 2008) to broader criteria that encompass entire states or regions (Conner, Colasanti, Ross, & Smalley, 2010) – we defined local food as anything procured with a half-day's drive of an individual's place of residence. After defining "local," the questionnaire included items related to the following topics (Appendix A):

- General food choices: This section included questions about motivations to eat food (and meat) that is "grown, raised, produced or harvested locally" (rated on a Likert scale from -3=Strongly disagree to 3=Strongly agree). Respondents were also asked to indicate the importance of different reasons a person might choose to eat local foods (rated from 1=Not at all important to 5=Extremely important). These reasons included: *nature conservation* (doing what is good for the environment, living sustainably and minimizing impacts, showing care and concern for animals), *personal health* (avoiding food that is chemically enhanced or processed, eating food of high quality and nutritional value), *self-sufficiency* (enjoying the satisfaction of providing for yourself and your family, establishing more direct connections with food you eat), *social interactions* (Developing or maintaining relationships with other people who prefer to eat local foods, meeting new people who share interests), and *support for local area* (buying from local regions, contributing to local economies, utilizing resources available in local area).
- Wild fish and game consumption frequency: This topic was addressed in two different sections that asked nearly identical questions: one about the consumption of wild-caught fish, the other about the consumption of wild game meat. Each section included 3 questions about preferences for eating wild fish/game caught/harvested by "myself, family, or friends" versus wild fish/game purchased at stores or markets (rated on a Likert scale from -2=Strongly disagree to 2=Strongly agree). Respondents were then asked if they had ever eaten wild fish/game caught/harvested by "yourself, your family, or your friends in your local area." The consumption frequency for different species of fish and game were estimated on a scale that included the following categories to indicate how often the meat had been eaten in the past 12 months: never, rarely (once or twice), occasionally (3-11 times), and often (at least once a month). Fish species of interest included warm water species (bass, catfish, perch, sunfish, etc.) and cold water species (trout, salmon, etc.). Game species of interest included venison (deer), small game mammals (squirrels, rabbits, etc.), upland game birds (turkey, grouse, pheasants, etc.), and waterfowl (ducks, geese, etc.). Respondents were also given the option of writing in other types of fish and game.
- Procurement of wild fish and game meat: Several questions in the respective fish and game consumption sections of the questionnaires asked respondents how the various types (i.e., species) of meat they had eaten were obtained, with choices including caught it myself, provided by family or friends, and eaten at potluck or game dinner. Respondents were also given an open-ended option to describe other procurement methods. An additional question was added to each section that asked respondents if they "enjoyed catching/harvesting their own wild fish/game for personal consumption" (rated on a Likert scale from -2=Strongly disagree to 2=Strongly agree).
- Wild fish and game consumption preferences and barriers: These topics were embedded in the respective sections on fish and game consumption. Respondents who indicated that

they had eaten wild fish/game were asked to rate the importance of various factors affecting their consumptions choices (rated from 1=Not at all important to 5=Extremely important). These factors included items such as "taste," "nutritional or health benefits," "support for wildlife conservation," and "connection to local food sources" (Appendix A). All respondents, including those who had not eaten wild fish/game, were asked to rate the significance of multiple potential barriers to consumption (rated from 1=Not a barrier to 4=Major barrier). The list of potential barriers included items such as "don't like the taste," "don't like the act of killing animals," "concerns about environmental quality where animal was captured," "lack skills required to catch animals," "time required to catch or prepare animals," and "cost of catching animals (equipment, travel, etc." (Appendix A).

- Level of interest and key information sources for topics related to wild fish and game consumption: These topics were also embedded in the respective sections on fish and game consumption. Using drop-down menus, respondents were asked to indicate how interested they would be to learn more about the following topics related to fish/game consumption (rated as 0=Not at all interested, 1=Somewhat interested, 2=Very interested): catching fish/harvesting game, processing wild fish/game, preparing wild fish/game meat, and conservation benefits of catching/harvesting wild fish/game. Respondents were also given an opportunity to list other topics of interest. Finally, respondents were asked to identify key sources used to gather information and learn skills related catching (skills, approaches, opportunities, etc.), processing (safe handling, cleaning, and storage), and preparing (cooking for personal or family consumption) wild fish/game (rated from -2=Very unlikely to use to 2=Very likely to use). Potential information sources included friends and family, books or magazines, general internet sources (website, blogs, etc.), foodie organizations, and government agencies.
- Nutrition information for wild fish and game: Respondents were asked two questions to determine level of interest and potential impacts of developing and including nutrition labels for use in wild fish and game recipes. First, respondents were asked to indicate the importance of having nutrition information available for wild fish and game (rated from 1=Not at all important to 5=Extremely important). Second, respondents were asked to predict how their desire to eat wild fish and game would change if nutrition information for these species was easily accessible (rated from -2=Large decrease in consumption to 2=Large increase in consumption).
- Participation in fishing and hunting: This topic was addressed in two different sections that asked nearly identical questions: one about participation in fishing, the other about participation in hunting. Each section asked if respondents had participated in fishing/hunting (a) as a child (age 15 or younger) and (b) at some point in the last 12 months. Individuals who had fished/hunted in the last year were then asked to estimate the number of days in the pasts 12 months where they spent at least some time fishing/hunting and the percentage of their total time fishing/hunting within a half-day drive of the place where they live. Respondents were also asked two questions (one each for fishing and hunting) to gauge their likelihood of future fishing/hunting participation. This question included the following 4 mutually exclusive responses: "I would never go fishing/hunting," "I have never gone fishing/hunting, but I would consider it," "I have gone fishing/hunting in the past, but I have since quit," and "I have gone fishing/hunting in the past, and plan to continue." Respondents then reported how additional information

about the following topics would affect their participation in fishing/hunting (rated from -2=Very unlikely to increase participation to 2=Very likely to increase participation): information about catching, processing, and preparing wild fish/game, as well as information about the conservation benefits of catching and eating wild fish/game. Finally, respondents rated the importance of multiple motivating factors that may or may not influence their decision to fish/hunt (rated from 1=Not at all important to 5=Extremely important). These factors included items such as "spending time outdoors with family and friends," "interacting with and learning about nature," "relaxing and enjoying time outdoors," "becoming more connected to the place where I live," "improving my physical health," "providing for myself and my family," and "catching or harvesting a trophy animal" (Appendix A).

- Demographic information: In the final section of the questionnaire, respondents provided information about their gender, age, race/ethnicity, education, income level, current place of residence by state/county and type of region (e.g., rural, suburban, urban), and type of region where they grew up (e.g., rural, suburban, urban).

The survey was sent to the 2,283 potential locavores from the four groups mentioned above in a four-step mailing process that involved separate email contacts at approximately weekly intervals from April 11 to May 10, 2014. Each individual received an email with a unique survey URL that could be completed once (and only once) by that particular individual. Survey links expired two weeks after they were first accessed. Once an individual responded to the survey, he/she did not receive follow-up mailings. After removing undeliverable email addresses, the overall response rate was 33.2% (Table 2.2.A). A total of 579 of the 732 individuals who began completing the instrument filled out the entire questionnaire. Of these 579, 35 were not current New York residents. After removing individuals living out-of-state, the effective sample of New York respondents was 544. Because of the small sample sizes for the FLCB, SFFM, and CCE groups, we elected to focus our analysis exclusively on the larger sample EFL subscribers. For comparison purposes, demographic differences among the respective locavore-oriented groups are noted in Table 3.2.A. After removing incomplete and out-of-state responses, the effective sample size for the EFL participants was 471.

Table 1. Response rate for survey sample groups in central New York.

Sample Source	Number in Sample	Number of Respondents	Response Rate
Edible Finger Lakes	2,006	641	32.0%
Farmers Market	127	26	20.5%
Finger Lakes Culinary Bounty	101	25	24.8%
Cornell Cooperative Extension	49	40	81.6%
TOTALS	2,283	732	32.1%[a]

[a]After removing 80 undeliverable email addresses, the adjusted response rate was 33.2%.

To assess potential non-response bias among EFL subscribers who did not respond to the original web-based mailing (n = 1,334), the Survey Research Institute (SRI) at Cornell University implemented a brief follow-up telephone survey. The telephone questionnaire asked a subset of key questions from the web-based instrument (Appendix B), focusing particularly on motivations to eat local, fish/game consumption frequency (and barriers), interest in learning additional information about wild fish/game consumption, fishing/hunting participation, and

demographics. Mailing address information needed for telephone number lookups was available for 891 of the 1,334 non-respondents (66.8%). SRI obtained the phone numbers for these respondents and called individuals from May 22-28, 2014, until 50 completed surveys were obtained.

Data Analysis

Data from completed questionnaires were analyzed using SPSS (IBM SPSS Statistics 22.0). Differences between the respondents (n = 471) and the non-respondents (n = 50) in the EFL subscriber population were assessed using Chi-square and t-tests. Basic descriptive statistics, including means and frequencies, were used to characterize general responses to each question in the locavore sample. Chi-square tests, t-tests, and ANOVA tests were used to test for differences among specific groups of locavores at the $\alpha = 0.05$ level of statistical significance. We used Welch-Satterthwaite adjustments to assess the statistical significance of group comparisons when the assumption of equal variances among the groups was not met.

Limitations

This study provided an insightful and previously undocumented snapshot of locavore preferences and perspectives related to wild fish and game consumption. However, several limitations should be acknowledged when interpreting results. First, the study focused primarily on residents of central New York, and characteristics of potential locavores in other geographic regions (including other states) might be different. Second, because the email-derived sample mandated a web-based survey approach, the survey method may have inadvertently excluded populations with limited internet access (e.g., residents of very rural areas, older individuals, low-income individuals). Third, because locavores are defined by various combinations of latent traits such as preferences for locally grown food, objection to the industrial food context, and commitment to environmental sustainability, identification of locavore populations for sampling purposes was inherently difficult. Consequently, the current study sample (i.e., subscribers to *Edible Finger Lakes* magazine and online newsletter) – though indisputably invested in the local food movement – may not accurately represent the entire population of locavores in central New York. Comparisons to smaller subsets of local food-oriented populations in the area demonstrate that the EFL subscribers might be slightly more educated, wealthier, and more likely to live in urban or suburban areas than other types of locavores (Table 3.2.A). However, thorough exploration of these other locavore subpopulations was precluded by limited access to contact information. This information was especially inaccessible for individuals affiliated with farmers markets and community-supported agriculture. Generalizations about broader locavore populations based on the results of this study should therefore be cautiously interpreted.

RESULTS

Tests for Non-response Bias

Before survey data were analyzed, we conducted multiple tests to examine the potential for non-response bias. Comparisons between web-based survey respondents and non-respondents (i.e., individuals who responded to the follow-up telephone survey) did not reveal many significant differences between the two groups. For most key variables including motivation to eat local food, consumption of wild fish and game, and fishing and hunting participation rates, group means and distributions were essentially equal. Differences were only noted for a few variables. Respondents were more likely than non-respondents to report interest in learning about catching fish, $t(508)=-2.3$, $p=0.021$, preparing wild-caught fish, $t(504)=-2.4$, $p=0.017$, and preparing wild game meat, $t(501)=-2.4$, $p=0.018$. Likelihood of future wildlife-based recreation participation also differed by group. Non-respondents (24.0%) were significantly more likely than respondents (11.3%) to indicate that they "would never consider fishing," $\chi^2(3)=9.6$, $p=0.022$. A similar, though statistically non-significant pattern was observed for hunting: non-respondents (72.0%) were significantly more likely than respondents (57.3%) to indicate that they "would never consider hunting," $\chi^2(3)=5.7$, $p=0.127$.

Demographic comparisons showed the respondents and non-respondents did not differ by gender, education, or place of residence (i.e., urban/suburban vs. rural). Age differences were significant, however. Non-respondents (Mean = 61.4 years) tended to be older than respondents (Mean = 52.9 years), $t(513)=4.5$, $p<0.001$, reflecting a pattern that is often observed in web surveys (Vaske, Jacobs, Sijtsma, & Beaman, 2011). Because significant differences between respondents and non-respondents were not evident for most key variables of interest (notably, local food preferences, wild fish and game consumption, self-reported participation in fishing and hunting, and all demographic variables except age), we determined that weighting to account for potential non-response was not necessary.

Overview of Central New York Locavores & their Food Choices

Of the 544 New York-based respondents who completed the survey, a vast majority (86.6%) were from the *Edible Finger Lakes* magazine (EFL) sample (n = 471). Representation from other potential locavore populations including the Finger Lakes Culinary Bounty (FLCB), Seneca Falls Farmers Market (SFFM), and Cornell Cooperative Extension (CCE) was much lower (Table 2). Though members of all four samples generally exhibited similar demographic attributes (e.g., older, white), a few notable differences were evident (Table 3.2.A). For example, SFFM patrons were more likely to be female than respondents in any of the other groups, $\chi^2(3)=8.0$, p=0.047. EFL subscribers and CCE participants reported higher levels of education than either the SFFM or the FLCB participants, $\chi^2(3)=10.3$, p=0.016. The SFFM and FLCB respondents were significantly more likely to live in rural areas, $\chi^2(6)=23.6$, p=0.001 (Table 2).

Table 2. Demographic comparison of survey sample groups in central New York.

Variable	Sample Group				Difference Tests
	EFL	FLCB	SFFM	CCE	
Sample size	471	18	18	37	
Age (mean, in years)	52.9	53.8	53.4	47.8	n.s.
Gender (% Female)	69.6	66.7	100.0	73.0	$\chi^2(3)=8.0$, p=0.047
Education (% Grad Degree)	47.2	33.3	16.7	59.5	$\chi^2(3)=10.3$, p=0.016
Income (mean in USD)	$123,823	$94,667	$87,611	$81,500	F(3,540)=3.1, p=0.025
Race/Ethnicity (% White)	98.1	100.0	100.0	100.0	n.s.
Place of Residence (% Rural)	49.7	83.3	88.9	40.5	$\chi^2(6)=23.6$, p=0.001

Sample Group Codes:
EFL = Edible Finger Lakes magazine and newsletter; These people are subscribers to a publication focused exclusively on the local food experience in the Finger Lakes region of central NY
FLCB = Finger Lakes Culinary Bounty; These people are individual members of a collaborative regional food network that helps educate consumers about locally-produced foods
SFFM = Seneca Falls Farmers Market; These people are members of the local farmers market listserv
CCE = Cornell Cooperative Extension; These people are participants in past programs offered by Cornell Cooperative Extension (Ontario and Tompkins County) focused on the consumption and preparation of local food

Because the remainder of this analysis focuses exclusively on the EFL portion of the sample, the demographic characteristics of this group are outlined in more detail below (Table 3). The mean age of EFL respondents was 52.9 years, with the largest group of respondents (46.9%) between the ages of 50 and 64 years. Very few respondents (9.5%) were in the 18-34 age category. Most respondents (68.4%) were female. EFL subscribers were well educated with 47.2% holding graduate or professional degrees, and 42.7% holding an Associate's or Bachelor's degree. Their mean estimated annual income was a very high $123,823 (in USD), with 20% of respondents earning $150,000 or more, and 22.5% earning $100,000-$149,999. Only 3.2% earned less than $25,000 annually. Nearly all (98.1%) of the EFL participants were white. Other represented races/ethnicities included Hispanic/Latino (1.7%), Asian American (1.3%), Native American (0.8%), and Black/African American (0.4%). Although a majority of respondents had grown up in suburban (48.5%) or urban (14.7%) areas, about half (49.7%) of all respondents reported currently living in a rural area (Table 3).

Table 3. Demographic overview of New York residents in primary sample of Edible Finger Lakes magazine subscribers.

Variable	Distribution/Frequency (%)
Age (mean = 52.9 years)	
18-34 years	9.5
35-49 years	26.2
50-64 years	46.9
65+ years	17.4
Gender	
Female	69.6
Male	30.4
Education	
High school or less	1.3
Some college or technical school	8.8
Associate's or Bachelor's college degree (BA, BS, etc.)	42.7
Graduate or professional degree (MS, PhD, MD, JD, etc.)	47.2
Household income (mean = $123,824 USD)[a]	
Less than $24,999	3.2
$25,000-$49,999	10.8
$50,000-$74,999	17.8
$75,000-$99,999	20.0
$100,000-$149,999	22.5
$150,000 or more	20.0
Did not report	5.7
Race/Ethnicity[b]	
White/Caucasian	98.1
Hispanic/Latino	1.7
Black/African American	0.4
Asian American	1.3
Native American	0.8
Type of Place Where You Grew Up	
Rural	36.8
Suburban	48.5
Urban	14.7
Type of Place Where You Currently Reside	
Rural	49.7
Suburban	36.2
Urban	14.1

[a]Mean income was calculated using midpoint values for all categories except the highest; mean income for the highest category was estimated using the Pareto curve (Hout, 2004)
[b]Respondents could select multiple categories.

Results confirmed that most respondents were indeed locavores. For example, 70.7% of the EFL participants strongly agreed with the statement that "I am motivated to eat *food* that is grown, raised, produced, or harvested locally," and 28.1% agreed. Only 1.3% of respondents fell into the "neutral" or "disagree" categories (Table 4). When asked to respond to the statement, "I am motivated to eat *meat* that is grown, raised, produced, or harvested locally," 52.2% strongly agreed and 36.7% agreed. The number of respondents who were neutral (5.5%) or disagreed (5.4%) was slightly higher, possibly because some of these respondents were vegetarians (Table 4).

Table 4. Motivations to eat local food and meat (n = 471).

				Response Frequencies (%)				
Item	**Mean**	**SD**		Strongly disagree	Disagree or slightly disagree	Neither	Agree or slightly agree	Strongly agree
I am motivated to eat food that is grown, raised, produced, or harvested locally	2.62	0.79		1.1	0.0	0.2	28.1	70.7
I am motivated to eat meat that is grown, raised, produced or harvested locally	2.04	1.45		4.2	1.3	5.5	36.7	52.2

Scale: -3=Strongly disagree to 3=Strongly agree

According to respondents, the most important reasons for eating local foods included supporting the local area, personal health, and nature conservation (Table 5). Each these motives was extremely important to more than 59% of respondents, and the proportion of individuals who rated support local area (94.0%), personal health (91.7%), and nature conservation (91.0%) as extremely important or important was very high. Self-sufficiency and social interaction, though also extremely important or important to many respondents (69.0% and 49.0%, respectively), were not as consistently valued as reasons for eating local. Gender differences were only evident for one category, with women more likely than men to express a desire to eat local to enhance personal health, $F(1,465)=6.7$, $p=0.010$. Other differences between demographic groups were not evident.

The importance of particular reasons for eating local food also varied among respondents who did and did not eat wild-caught fish. Support for local area was equally important to all respondents, but individuals who did not eat wild-caught fish were more likely to view personal health, $F(1,469)=6.8$, $p<0.01$, and nature conservation, $F(1,469)=6.0$, $p<0.01$, as important. On the other hand, individuals who had eaten wild fish reported significantly higher importance scores for social interaction, $F(1,469)=7.2$, $p<0.01$, and slightly higher scores for self-sufficiency. Differences in motivations between individuals who did and did not eat wild game meat were not evident, but similar associations were observed for fishing and hunting participation. Significant differences between individuals who would never fish or hunt, those who would consider fishing or hunting, and those who already fished or hunted were not evident for support local area, personal health, or nature conservation. However, eating local to promote self-sufficiency was significantly more important to those who fished or would consider fishing, $F(2,468)=4.3$, $p<0.05$, and those who hunted or would consider hunting, $F(2,468)=7.3$, $p<0.01$.

Similarly, social interactions associated with eating local foods were more important to those who fished or would consider fishing, $F(2,468)=4.4$, $p<0.05$, and those who hunted or would consider hunting, $F(2,468)=3.3$, $p<0.01$.

Table 5. Reasons for eating local food (n = 471).

				Response Frequencies (%)				
Reason	**Mean**	**SD**		Not at all important	Slightly import.	Mod. import.	Import.	Extremely import.
Support local area	4.60	0.61		0.0	0.4	5.5	28.0	66.0
Personal health	4.53	0.73		0.6	1.3	6.4	27.6	64.1
Nature conservation	4.48	0.73		0.4	1.5	7.0	31.6	59.4
Self-sufficiency	3.90	1.08		3.4	7.6	20.0	33.5	35.5
Social interaction	3.33	1.20		8.5	16.8	25.7	31.0	18.0

Scale: 1=Not at all important, 2=Slightly important, 3=Moderately important, 4=Important, 5=Extremely important

Consumption of Wild Fish & Game

Most respondents (62.8%) had eaten wild-caught fish; 34.6% had not, and 2.5% were not sure. Even more respondents (76.9%) had eaten wild game meat; 22.3% had not, and 0.8% were not sure. Of the 471 respondents in the sample, more than half had eaten both wild-caught fish and wild game meat, and only 15% had not tried either wild fish or game (Figure 1). A substantial proportion of both men and women had eaten wild-caught fish and wild game meat. Men (71.1%) were significantly more likely than women (60.0%) to have eaten wild-caught fish, $\chi^2(1)=5.3$, $p=0.022$. The proportion of men (81.0%) and women (75.4%) who had eaten wild game meat was approximately equal, $\chi^2(1)=1.8$, $p=0.185$.

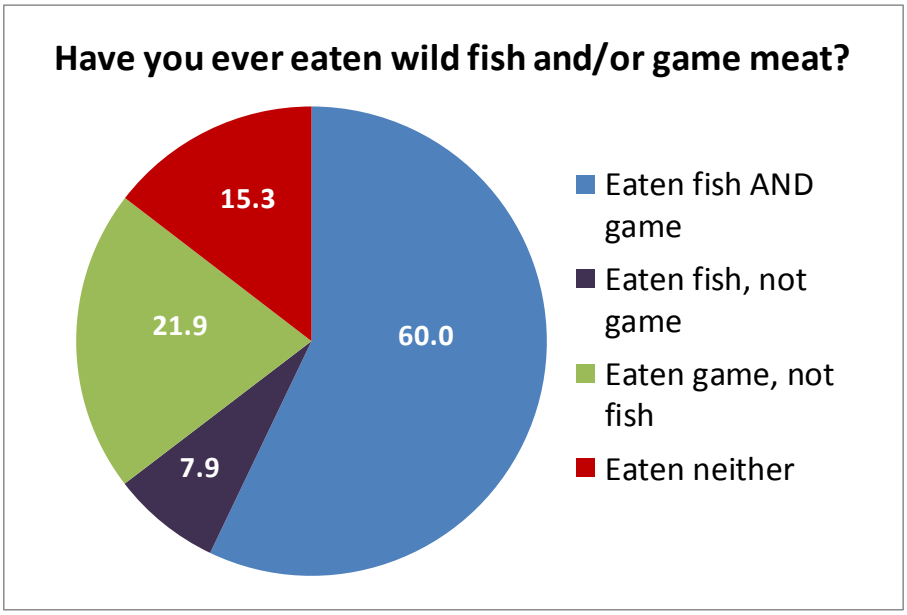

Figure 1. Consumption of wild-caught fish and wild game meat within *Edible Finger Lakes* sample (n = 471).

Respondents who ate wild-caught fish (n=308) were asked to indicate their consumption rates of warm water fish (bass, catfish, sunfish, etc.) and cold water fish (trout, salmon, etc.). Results revealed that 59.3% of respondents had consumed warm water fish caught in their local area, and 5.7% ate them often; 71.1% of respondents had consumed cold water fish caught in their local area, and 11.8% had eaten them often (Table 6). Other fish consumed reported by respondents included cod, haddock, halibut, and striped bass.

Table 6. Frequency of fish consumption (by species type) for respondents who ate wild-caught fish (n = 308).

	Consumption Frequency (%)			
Species	Never	Rarely (once or twice)	Occasionally (3-11 times/yr)	Often (at least once per month)
Warm water fish (bass, catfish, sunfish, etc.)	40.7	28.3	25.3	5.7
Cold water fish (trout, salmon, etc.)	28.9	28.2	31.1	11.8

Other fish consumed: Cod, Haddock, Halibut, Striped bass

Respondents who ate wild game meat (n=363) were asked to indicate their consumption rates for various game species. Results revealed that 84.3% of respondents had consumed venison (e.g., deer), and 15.4% ate it often. Consumption of other game species was not as common. For example, 37.0% of respondents had consumed waterfowl (e.g., ducks, geese), 30.3% of respondents had consumed small game species (e.g., rabbit, squirrel), and 31.5% had consumed upland game species (e.g., turkey, grouse, pheasants). Less than 1% of respondents reported regular consumption (i.e., at least once per month) of any of these three types of game species (Table 7).

Table 7. Frequency of game meat consumption (by species type) for respondents who ate wild game meat (n = 363).

	Consumption Frequency (%)			
Species	Never	Rarely (once or twice)	Occasionally (3-11 times/yr)	Often (at least once per month)
Venison (deer)	15.7	35.3	33.6	15.4
Small game mammals (rabbit, squirrel, etc.)	69.7	22.6	7.4	0.3
Upland game birds (grouse, pheasants, etc.)	68.5	23.5	7.7	0.3
Waterfowl (ducks, geese, etc.)	63.0	26.0	10.2	0.8

Slightly more respondents (68.4%) enjoyed eating wild-caught fish “purchased at stores and markets” than those who claimed to enjoy eating wild-caught fish “caught by myself, my family, or friends in my local area.” However, more respondents (32.3%) preferred wild fish caught locally by themselves, friends, or family to wild-caught fish sold at stores and markets

(19.3%), and many (48.3%) were indifferent or unsure (Table 8). Of the individuals who ate wild-caught fish (n = 308), preferences were more skewed: 46.6% preferred wild fish caught locally by themselves, friends, or family to wild-caught fish bought in stores and markets (13.5%). Gender differences were only evident for one of the items listed above. Men were significantly more likely than women to enjoy eating wild fish caught by themselves, family, or friends in their local area, $t(255.7)=2.1$, $p=0.038$.

Table 8. Wild-caught fish consumption preferences (n = 471).

				Response Frequencies (%)					
Item	**Mean**	**SD**		Strongly disagree	Disagree or slightly disagree	Neither	Agree or slightly agree	Strongly agree	Don't know
I enjoy eating "wild-caught" fish purchased at stores and markets	0.93	1.05		5.3	1.7	17.8	37.4	31.0	6.8
I enjoy eating "wild-caught" fish caught by myself, family or friends in my local area	0.55	1.24		7.9	7.6	26.3	20.6	25.7	11.9
I prefer eating wild-caught fish caught by myself, family or friends more than wild-caught fish purchased at stores and markets	0.23	1.20		9.3	10.0	36.3	15.3	17.0	12.1

Scale: -2=Strongly disagree to 2=Strongly agree

Just over one half of the respondents (51.9%) claimed to enjoy eating wild game meat "harvested by myself, my family, or friends in my local area," slightly more than those who enjoyed eating farm-raised game meat "purchased at stores and markets" (45.0%). Slightly more respondents (36.7%) preferred wild game meat harvested locally by themselves, friends, or family to farm-raised game meat sold at stores and markets (30.0%), and many (32.7%) were indifferent or unsure (Table 9). Similar to the case involving wild-caught fish, preferences were more skewed among individuals who ate wild game meat (n = 363): 46.2% preferred wild game harvested locally by themselves, friends, or family to farm-raised game meat bought in stores and markets (23.2%). Gender differences were not evident for any of the questions about enjoyment of wild game meat consumption.

Table 9. Wild game meat consumption preferences (n = 471).

				Response Frequencies (%)					
Item	**Mean**	**SD**		Strongly disagree	Disagree or slightly disagree	Neither	Agree or slightly agree	Strongly agree	Don't know
I enjoy eating farm-raised game meat purchased at stores and markets	0.23	1.32		14.9	11.0	21.9	27.8	17.2	7.2
I enjoy eating wild game meat harvested by myself, family or friends in my local area	0.44	1.15		14.9	9.3	17.8	23.4	28.5	6.2
I prefer eating wild game meat harvested by myself, family or friends more than farm-raised game meat purchased at stores and markets	0.12	1.40		16.6	14.0	24.6	15.3	21.4	8.1

Procurement of Wild Fish & Game

For both fish and game, the meat was most often provided by friends and family. For example, of the 186 respondents who had eaten warm water fish, 57.0% reported that the fish was provided by family or friends and 23.7% reported catching it themselves. Of the 220 respondents who ate cold water fish, 63.2% reported that the fish was provided by family or friends and 18.2% reported catching it themselves (Table 10). Other fish procurement strategies included "bought local fish at restaurant/store/market." Trends were similar for wild game meat. For example, of the 306 respondents who had eaten venison, 77.1% reported that the meat was provided by family or friends and 7.8% reported catching it themselves. Slight differences in procurement method were observed for small game mammals (a few more people caught these themselves) and waterfowl (a few more people ate these at potlucks or game dinners), but the general pattern remained the same (Table 11). Similar to the case involving local fish, the most common other strategy for procuring game meat was "bought local game meat at restaurant/store/market" (a potential misconception because it is illegal to sell wild caught game meat).

Table 10. Wild-caught fish procurement strategies among respondents who ate wild-caught fish (n= 308).

		Procurement Strategy[a] (%)			
Species	**Number of people eating**	Caught it myself	Provided by family or friends	Eaten at potluck or game dinner	Other
Warm water fish (bass, catfish, sunfish, etc.)	186	23.7	57.0	10.8	10.8
Cold water fish (trout, salmon, etc.)	220	18.2	63.2	6.4	15.5

[a]Respondents could check all that applied.
Other procurement strategies: Bought local fish at restaurant/store/market

Table 11. Game meat procurement strategies among respondents who ate wild game meat (n = 363).

		Procurement Strategy[a] (%)			
Species	**Number of people eating**	Caught it myself	Provided by family or friends	Eaten at potluck or game dinner	Other
Venison (deer)	306	7.8	77.1	9.5	1.3
Small game mammals (rabbit, squirrel, etc.)	110	10.9	67.3	11.8	11.8
Upland game birds (grouse, pheasants, etc.)	114	9.6	69.3	10.5	7.9
Waterfowl (ducks, geese, etc.)	134	8.2	57.5	14.9	11.9

[a]Respondents could check all that applied.
Other procurement strategies: Bought game meat at restaurant/store/market

As noted above, relatively few people who ate wild fish and/or game reported catching it themselves. Even fewer reported enjoying the act of catching/harvesting their own wild fish/game (Table 12). Of the respondents who ate wild-caught fish, only 32.8% enjoyed catching their own fish to eat. Of the respondents who ate wild game meat, only 15.7% enjoyed harvesting their own wild game for consumption. Men were significantly more likely than women to enjoy catching their own fish, $t(228.7)=4.9$, $p<0.001$, and game, $t(210.4)=4.7$, $p<0.001$, for personal consumption.

Table 12. Preferences for personally catching/harvesting wild-caught fish and game meat (n = 471).

				Response Frequencies (%)					
Item	**Mean**	**SD**		Strongly disagree	Disagree or slightly disagree	Neither	Agree or slightly agree	Strongly agree	Don't know
I enjoy catching my own fish to eat	-0.31	1.29		20.8	18.9	28.0	10.8	11.0	10.4
I enjoy harvesting my own wild game to eat	-0.87	1.28		38.9	21.4	17.4	3.8	8.5	10.0

Scale: -2=Strongly disagree to 2=Strongly agree

Wild Fish & Game Consumption Preferences & Barriers

Respondents who ate wild-caught fish were asked to rate the importance of various factors influencing their decision to eat local fish. The most important factors revolved around meat quality and conservation-related issues. "Quality and freshness" was the most important factor, rated as important or extremely important by 91.7% of fish consumers. The next most important factor was "taste" (90.4%), followed by "connection to local food sources" (82.2%), "sustainable use of natural resources" (81.2%), "support for wildlife conservation" (79.9%), and "where fish was obtained" (75.4%, Table 13). Social factors appeared to be less important, with the lowest observed importance rating for "spending time with others who enjoy eating wild-caught fish."

Table 13. Factors influencing fish consumption among respondents who ate wild-caught fish (n=308).

				Response Frequencies (%)				
Factor	**Mean**	**SD**		Not at all important	Slightly import.	Mod. import.	Import.	Extremely import.
Quality & freshness	4.52	0.84		2.3	1.3	4.6	25.3	66.4
Taste	4.37	0.87		2.6	1.7	5.3	36.6	53.8
Connection to local food sources	4.09	0.93		2.6	3.9	11.2	46.7	35.5
Sustainable use of natural resources	4.10	0.97		3.3	3.6	11.9	41.9	39.3
Support for wildlife conservation	4.10	0.98		2.6	4.9	12.5	39.8	40.1
Where fish was obtained	4.09	0.97		2.6	3.0	18.2	35.3	40.9
Nutritional or health benefits	3.94	0.96		3.6	3.9	15.1	49.0	28.3
How fish was obtained	3.79	1.07		4.0	7.9	22.4	36.6	29.0
Demonstrating healthy eating habits for family & friends	3.48	1.26		10.9	10.9	20.4	35.2	22.7
Sharing knowledge about fish & fish consumption	2.80	1.29		21.7	19.7	26.6	21.1	10.9
Spending time with others who enjoy eating wild-caught fish	2.52	1.30		29.3	23.4	21.7	17.4	8.2

Scale: 1=Not at all important, 2=Slightly important, 3=Moderately important, 4=Important, 5=Extremely important

Among respondents who ate wild game, the most important factors influencing game meat consumption again revolved around meat quality and conservation issues. The most important factor was also "quality and freshness," rated as important or extremely important by 89.5% of respondents. The next most important factor was "taste" (81.5%), followed by "sustainable use of natural resources" (76.8%), "support for wildlife conservation" (75.6%), "connection to local food sources" (72.9%), "where game meat was obtained" (70.1%), and "how game meat was obtained" (64.0%, Table 14). Similar to the case involving local fish, social factors appeared to be less important with the lowest observed importance ratings for

"spending time with others who enjoy eating wild game meat" and "sharing knowledge about hunting and game meat consumption."

Table 14. Factors influencing game consumption among respondents who ate wild game meat (n=363).

				Response Frequencies (%)				
Factor	**Mean**	**SD**		Not at all important	Slightly import.	Mod. import.	Import.	Extremely import.
Quality & freshness	4.38	0.96		4.4	0.8	5.3	31.3	58.2
Taste	4.18	1.04		4.2	3.6	10.8	33.0	48.5
Sustainable use of natural resources	3.98	1.05		5.0	3.9	14.4	41.6	35.2
Support for wildlife conservation	3.98	1.08		4.4	6.4	13.6	38.2	37.4
Connection to local food sources	3.93	1.15		5.8	6.6	14.7	34.9	38.0
How game meat was obtained	3.85	1.16		6.4	8.3	21.6	38.8	25.2
Where game meat was obtained	3.81	1.14		6.9	5.8	17.2	39.1	31.0
Nutritional or health benefits	3.69	1.12		6.1	8.3	21.6	38.8	25.2
Demonstrating healthy eating habits for family & friends	3.07	1.37		18.6	17.2	21.3	24.9	18.0
Sharing knowledge about hunting & game meat consumption	2.35	1.35		39.1	19.1	18.0	15.5	8.3
Spending time with others who enjoy eating wild game meat	2.34	1.30		36.7	21.9	20.0	13.6	7.8

Scale: 1=Not at all important, 2=Slightly important, 3=Moderately important, 4=Important, 5=Extremely important

Significant gender differences were only observed for one of the items associated with wild-caught fish consumption preferences. Compared to men, women indicated that sharing knowledge about fishing and fish consumption was significantly less important to them, $t(301)=2.5$, p=0.015. On the other hand, significant gender differences were evident for many of the wild game meat consumption preference items. Compared to men, women were more likely to rate each of the following as important:

- Where game meat was obtained, Mean Diff.=0.47, $t(201.2)=-3.5$, p=0.001.
- How game meat was obtained, Mean Diff.=0.45, $t(208.3)=-3.4$, p=0.001.
- Demonstrating healthy eating habits for family/friends, Mean Diff.=0.36, $t(229.6)=-2.3$, p=0.021.
- Taste, Mean Diff.=0.33, $t(227.3)=-2.9$, p=0.005.
- Connection to local food sources, Mean Diff.=0.26, $t(206.2)=-2.0$, p=0.048.
- Quality and freshness, Mean Diff.=0.26, $t(224.7)=-2.4$, p=0.016.

All respondents were asked about potential barriers to fish and game meat consumption. For consumption of local wild-caught fish, the most significant barriers were "concerns about environmental quality where fish was caught" (62.2% indicated this was a moderate or major barrier), "concerns about fish quality/safety and personal health" (56.4%), "time required to catch and prepare fish" (45.2%), and "lack skills required to catch fish" (41.5%, Table 15). On the other hand, more than 60% of all respondents indicated that "don't like the taste," "don't like the act of killing animal," "cost of fishing license," and "don't know the nutritional content" were not barriers to consumption of wild-caught fish (Table 15). Respondents also mentioned several other barriers to fish consumption, including "not interested in fishing," "don't enjoy fishing," "don't eat meat," and "age/disability."

Table 15. Barriers to consumption of wild-caught fish (n = 471).

				Response Frequencies (%)			
Factor	**Mean**	**SD**		Not a barrier	Minor barrier	Mod. barrier	Major barrier
Concerns about environmental quality where fish was caught	2.73	1.08		18.4	19.5	32.5	29.7
Concerns about fish quality/safety & personal health	2.60	1.11		22.8	20.7	29.7	26.7
Time required to catch & prepare fish	2.32	1.16		34.7	20.2	23.9	21.3
Lack skills required to catch fish	2.25	1.24		41.5	17.0	16.1	25.4
Lack skills required to process/prepare fish	2.22	1.26		43.1	19.0	10.9	27.0
Lack people to fish with & learn from	2.05	1.20		48.8	17.7	13.3	20.1
Lack info about where to catch/obtain fish	1.92	1.09		50.5	20.4	16.1	13.0
Limited access to water & fishing opportunities	1.90	1.07		51.2	18.1	19.7	11.0
Cost of catching fish (travel, equipment, etc.)	1.84	0.99		49.6	25.1	17.2	8.1
Don't like the taste	1.63	1.03		68.0	11.4	10.4	10.2
Don't like the act of killing animal	1.61	1.00		66.7	15.2	8.4	9.7
Cost of fishing license	1.56	0.85		62.6	23.2	9.6	4.6
Don't know the nutritional content	1.40	0.75		73.4	15.3	9.2	2.2
Other barriers	2.09	1.36		58.5	3.3	8.9	29.3

Scale: 1=Not a barrier, 2=Minor barrier, 3=Moderate barrier, 4=Major barrier
Other barriers (mentioned by 79 respondents) : Not interested in fishing, Don't enjoy fishing, Don't eat meat, Age/disability

Barriers to consumption of wild game meat among respondents were notably different than those for wild-caught fish consumption. Lack of skills appeared to be the biggest barrier in this case, with "lack skills required to hunt wild game" and "lack skills required to process/prepare wild game" as the largest obstacles to game consumption (reported as moderate or major barriers by 51.8% and 51.0% of respondents, respectively). Other important barriers

included “time required to catch and prepare wild game” (45.7%), “don’t like the act of killing animal” (40.2%), and “concerns about environmental quality where game was caught” (37.0%, Table 16). On the other hand, more than 60% of all respondents indicated that “cost of hunting license,” and “don’t know the nutritional content” were not barriers to wild game meat consumption (Table 16). Respondents also mentioned several other barriers to game meat consumption, including “not interested in hunting,” don’t like hunting,” and “don’t eat meat.”

Table 16. Barriers to consumption of wild game meat (n = 471).

				Response Frequencies (%)			
Factor	**Mean**	**SD**		Not a barrier	Minor barrier	Mod. barrier	Major barrier
Lack skills required to hunt wild game	2.52	1.36		39.2	9.0	11.9	39.9
Lack skills required to process/prepare wild game	2.51	1.32		37.5	11.5	13.7	37.3
Time required to catch & prepare wild game	2.34	1.26		39.7	14.7	17.8	27.9
Don’t like the act of killing animal	2.25	1.24		41.2	18.6	14.0	26.2
Concerns about wild game meat quality/safety & personal health	2.15	1.11		38.5	24.5	20.8	16.2
Concerns about environmental quality where game was harvested	2.03	1.08		42.5	26.0	17.3	14.2
Lack people to hunt with & learn from	2.00	1.22		54.0	12.8	13.0	20.3
Cost of hunting wild game (travel, equipment, etc.)	1.97	1.14		51.2	16.0	17.6	15.2
Don’t like the taste	1.85	1.10		55.4	17.1	14.4	13.1
Lack info about where to hunt/obtain wild game	1.82	1.12		58.2	16.0	11.0	14.7
Limited access to land & hunting opportunities	1.82	1.12		58.2	15.4	12.1	14.3
Cost of hunting license	1.65	0.98		63.0	17.6	10.8	8.6
Don’t know the nutritional content	1.48	0.83		69.2	18.0	8.1	4.6
Other barriers	2.45	1.45		47.6	3.6	4.8	44.0

Scale: 1=Not a barrier, 2=Minor barrier, 3=Moderate barrier, 4=Major barrier
Other barriers (mentioned by 76 respondents): Not interested in fishing, Don’t like hunting fishing, Don’t eat meat

To better understand specific barriers faced by individuals who have never eaten wild-caught fish/game from their local area, we compared the significantly different absolute and relative rankings of barriers by non-consumers and consumers for both wild-caught fish (Table 17) and wild game meat (Table 18). For wild-caught fish, non-consumers were more likely to rank lack of skills required to process/prepare and catch fish as barriers to consumption. Non-consumers were also significantly more likely than consumers to rate “lack people to fish with & learn from” as a major obstacle to wild-caught fish consumption. For wild game meat, the largest difference was observed for “don’t like act of killing animal.” Non-consumers rated this as a much larger obstacle than consumers. Non-consumers were also significantly more likely

than consumers to rate lacks of skills, information, and people to hunt with and learn from as major obstacles to game meat consumption.

Table 17. Barriers to consumption of wild-caught fish: largest differences between individuals who have and have not eaten wild-caught fish from their local area.

Factor	Barrier Rank[a]: Fish consumers	Barrier Rank[a]: Non-consumers	Mean Rating Difference[b]	df[c]	t[c]	Sig.
Lack skills required to process/prepare fish	5	2	0.84	303.5	6.9	<0.001
Lack people to fish with & learn from	8	5	0.76	289.0	6.5	<0.001
Lack skills required to catch fish	4	3	0.73	326.7	6.2	<0.001
Lack info about where to catch/obtain fish	7	7	0.43	303.8	4.0	<0.001
Time required to catch & prepare fish	3	6	0.28	337.3	2.5	0.015
Don't like the act of killing animal	12	10	0.26	289.9	2.5	0.012
Cost of catching fish (travel, equipment, etc.)	9	9	0.25	323.0	2.5	0.012

[a]Mean rank of barrier relative to other potential barriers, with 1 as the most significant barrier and 13 as the least significant barrier (Note: only includes barriers with significant between-group differences).
[b]Mean rating differences were calculated by subtracting the mean barrier rating for the wild-caught fish consumers from the mean barrier rating for individuals who had not eaten wild-caught fish; The barrier rating scale was 1=Not a barrier, 2=Minor barrier, 3=Moderate barrier, 4=Major barrier.
[c]Values reflect the Welch-Satterthwaite adjustment due to unequal group variances.

Table 18. Barriers to consumption of wild game meat: largest differences between individuals who have and have not eaten wild game from their local area.

Factor	Barrier Rank[a]: Game consumers	Barrier Rank[a]: Non-consumers	Mean Rating Difference[b]	df[c]	t[c]	Sig.
Don't like the act of killing animal	5	1	0.92	145.4	6.5	<0.001
Lack people to hunt with & learn from	8	4	0.60	136.1	4.0	<0.001
Lack info about where to hunt/obtain wild game	11	7	0.59	131.4	4.1	<0.001
Lack skills required to hunt wild game	1	2	0.56	161.3	3.7	<0.001
Lack skills required to process/prepare wild game	2	3	0.52	155.1	3.4	0.001
Limited access to land & hunting opportunities	10	9	0.41	134.0	2.9	0.005
Don't like the taste	9	11	0.33	137.6	2.4	0.018
Concerns about wild game meat quality/safety & personal health	4	6	0.27	149.9	2.1	0.037

[a]Mean rank of barrier relative to other potential barriers, with 1 as the most significant barrier and 13 as the least significant barrier (Note: only includes barriers with significant between-group differences).
[b]Mean differences were calculated by subtracting the mean barrier rating for the wild game meat consumers from the mean barrier rating for individuals who had not eaten wild game; The barrier rating scale was 1=Not a barrier, 2=Minor barrier, 3=Moderate barrier, 4=Major barrier.
[c]Values reflect the Welch-Satterthwaite adjustment due to unequal group variances.

Women reported significantly more barriers to wild-caught fish consumption than men. The largest observed differences between men and women occurred for the following factors:

- Lack skills required to process/prepare fish, Mean Diff.=0.67, $t(336.2)=-5.9$, $p<0.001$.
- Lack skills required to catch fish, Mean Diff.=0.63, $t(330.1)=-5.7$, $p<0.001$.
- Lack people to fish with and learn from, Mean Diff.=0.51, $t(368.6)=-4.9$, $p<0.001$.
- Don't like the act of killing animal, Mean Diff.=0.44, $t(397.8)=-5.3$, $p<0.001$.

Women generally reported more barriers to wild game meat consumption than men, though differences were less pronounced than they were for fish consumption. The largest observed differences between men and women occurred for the following factors:

- Don't like act of killing animal, Mean Diff.=0.54, $t(301.7)=-4.6$, $p<0.001$.
- Lack skills required to hunt wild game, Mean Diff.=0.32, $t(292.1)=-2.4$, $p=0.017$.
- Lack skills required to process/prepare wild game, Mean Diff.=0.29, $t(292.3)=-2.2$, $p=0.026$.

Level of Interest & Key Information Sources for Topics Related to Wild Fish & Game Consumption

Results indicated substantial interest among respondents in topics related to wild-caught fish consumption. For example, 74.0% of respondents were somewhat or very interested in learning more about the conservation benefits of eating wild-caught fish, and 69.1% of respondents were somewhat or very interested in learning more about preparing wild-caught fish. Interest in topics related to fish processing (49.8%) and actual fishing (48.3%) was slightly lower (Table 19). Other fish-related topics of interest included "contamination concerns and safety of eating local fish" and "best locations to find quality fish."

Individuals who had eaten wild-caught fish were significantly more interested in learning about catching, $t(395.4)=-4.3$, $p<0.001$, processing, $t(399.1)=-4.1$, $p<0.001$, and preparing, $t(364.1)=-3.7$, $p<0.001$, fish than individuals who had never eaten wild-caught fish. More than half of the respondents who had never eaten wild-caught fish were nevertheless interested in learning more about preparing wild-caught fish and the benefits of consuming wild-caught fish (Table 20).

Men were significantly more interested in learning about catching, $t(454)=3.0$, $p=0.003$, and processing, $t(454)=3.4$, $p=0.001$, fish than women. However, women were equally interested in information about preparing wild-caught fish and the conservation benefits associated with wild-caught fish consumption.

Table 19. Interest in topics related to consumption of wild-caught fish.

				Response Frequencies (%)		
Topic	**Mean**	**SD**		Not interested	Somewhat interested	Very interested
Conservation benefits of eating wild-caught fish	1.95	0.68		26.0	53.3	20.7
Preparing wild-caught fish	1.95	0.75		30.9	43.0	26.1
Processing wild-caught fish	1.63	0.71		50.2	36.5	13.3
Catching fish	1.59	0.68		51.7	37.2	11.1

Scale: 1=Not interested, 2=Somewhat interested, 3=Very interested
Other topics of interest: Contamination concerns and safety of eating local fish; Best locations to find quality fish

Table 20. Percentage of respondents somewhat or very interested in topics related to wild-caught fish consumption: significant differences between individuals who have and have not eaten wild-caught fish from their local area.

	Eaten wild-caught fish?	
Topic	Yes	No
Conservation benefits of eating wild-caught fish	73.3%	69.7%
Preparing wild-caught fish	71.7%	58.8%
Processing wild-caught fish	54.8%	38.3%
Catching fish	54.0%	35.4%

Scale: 1=Not interested, 2=Somewhat interested, 3=Very interested

Results also indicated substantial interest among respondents in topics related to consumption of wild game meat. For example, 58.7% of respondents were somewhat or very interested in learning more about preparing wild game meat, and 58.9% of respondents were somewhat or very interested in learning more about the conservation benefits of eating wild game. Interest in topics related to game meat processing (35.4%) and actual hunting (27.2%) was substantially lower (Table 21). Other game-related topics of interest included "connecting local hunters to butchers and purchasers."

Similar to the fishing scenario, individuals who had eaten wild game meat were significantly more interested in learning about catching, $t(315.7)=-5.2$, $p<0.001$, processing, $t(278.7)=-6.1$, $p<0.001$, preparing, $t(201.1)=-6.2$, $p<0.001$, and conservation benefits associated with eating, $t(178.4)=-3.4$, $p=0.001$,wild game than individuals who had never eaten wild game meat. Surprisingly, many respondents who had never eaten wild game meat were also interested in learning more about preparing wild-caught game and the benefits of consuming wild-caught game (Table 22).

Men were significantly more interested in learning about catching, $t(453)=6.6$, $p<0.001$, processing, $t(454)=5.0$, $p<0.001$, and preparing, $t(447)=2.9$, $p=0.004$, wild game than women; however, women were equally interested in information about the conservation benefits associated with wild game meat consumption.

Table 21. Interest in topics related to consumption of wild game meat consumption.

				Response Frequencies (%)		
Topic	**Mean**	**SD**		Not interested	Somewhat interested	Very interested
Preparing wild game meat	1.79	0.76		41.3	38.4	20.3
Conservation benefits of harvesting and eating wild game	1.72	0.68		41.0	46.3	12.6
Processing wild game meat	1.46	0.68		64.6	25.0	10.4
Hunting wild game	1.34	0.59		72.8	20.9	6.3

Scale: 1=Not interested, 2=Somewhat interested, 3=Very interested
Other topics of interest: Connecting local hunters to butchers and purchasers

Table 22. Percentage of locavores somewhat or very interested in topics related to wild game meat consumption: significant differences between individuals who have and have not eaten wild game their local area.

	Eaten game meat?	
Topic	Yes	No
Conservation benefits of harvesting and eating wild game	60.5%	43.1%
Preparing wild game meat	63.0%	34.8%
Processing wild game meat	40.0%	16.5%
Hunting wild game	30.4%	13.8%

Scale: 1=Not interested, 2=Somewhat interested, 3=Very interested

Respondents were also polled about their likelihood of using various sources to obtain information related to consumption of fish and game. For wild-caught fish consumption, the most likely sources of information were general internet sources such as websites and blogs (64.3% rated as likely or very likely to use), friends and family (60.5%), books and magazines

(52.3%), and "foodie" organizations (41.1%, Table 23). The number of individuals likely to obtain information from county extension offices (32.2%), the NYS Dept. of Environmental Conservation (29.9%), and other fishing-related organizations was substantially lower. Other sources of information about wild-caught fish consumption mentioned by respondents were TV programs and point-of-purchase interactions (e.g., grocery stores).

Table 23. Sources for obtaining information about wild-caught fish consumption.

				Likelihood of Use (%)					
Information Source	**Mean**	**SD**		Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
General internet sources (websites, blogs, etc.)	0.56	1.37		14.0	9.1	7.6	38.6	25.7	4.9
Friends & family	0.51	1.43		15.5	9.8	8.7	32.3	28.2	5.5
Books or magazines	0.21	1.34		14.9	17.2	10.6	37.2	15.1	5.1
"Foodie" organizations	0.04	1.28		16.1	16.1	21.7	30.1	11.0	4.9
County extension offices	-0.23	1.26		20.2	20.4	22.3	25.3	7.0	4.9
NYS DEC	-0.31	1.28		23.4	19.7	22.3	22.5	7.4	4.7
Tackle shops & outdoor outfitters	-0.62	1.21		28.2	28.2	17.8	16.3	4.7	4.7
Local fishing clubs/groups	-0.72	1.12		27.6	32.1	20.2	11.5	3.6	5.1

Scale: -2=Very unlikely to use to 2=Very likely to use
Other sources: TV programs; Point of purchase (e.g., grocery stores)

In terms of information related to consumption of wild game meat, the most likely sources were friends and family (54.4% rated as likely or very likely to use) and general internet sources (47.4%, Table 24). All other sources featured a mean rating on the "unlikely" side of the spectrum. For instance, the number of individuals likely to obtain information from county extension offices (24.8%), the NYS Dept. of Environmental Conservation (22.8%), and other hunting-related organizations was substantially lower. Similar to the fishing information question, TV programs and point-of-purchase interactions were also mentioned as important source of information about wild game meat consumption.

Table 24. Sources for obtaining information about wild game meat consumption.

				Likelihood of Use (%)					
Information Source	**Mean**	**SD**		Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
Friends & family	0.27	1.54		22.5	8.7	6.2	30.6	23.8	8.3
General internet sources (websites, blogs, etc.)	0.06	1.45		22.1	12.5	10.4	32.5	14.9	7.6
Books or magazines	-0.10	1.43		23.1	16.8	8.3	31.8	11.0	8.9
"Foodie" organizations	-0.13	1.36		24.4	15.9	17.6	25.3	9.1	7.6
County extension offices	-0.52	1.32		30.1	18.9	17.6	18.0	6.8	8.5
NYS DEC	-0.58	1.31		31.4	18.7	18.3	16.6	6.2	8.9
Local fishing clubs/groups	-0.95	1.16		39.3	24.6	15.5	8.5	3.8	8.3
Tackle shops & outdoor outfitters	-1.01	1.10		40.8	25.3	14.9	9.1	2.1	7.9

Scale: -2=Very unlikely to use to 2=Very likely to use
Other sources: TV programs; Point of purchase

Nutrition Information for Wild Fish and Game

Substantial variation was evident in respondents' ratings of the importance of providing nutrition information for recipes involving wild fish and game meat. For example, while 48.8% of respondents indicated it was important or extremely important to include this information, 32.3% suggested this was of slight or no importance (Table 25). Opinions regarding the value of nutrition information for wild fish and game did not differ significantly among respondents who had and had not eaten wild fish or game meat (Table 26), though individuals who did not eat wild fish, $t(450)=1.6$, $p=0.119$, and game, $t(450)=1.9$, $p=0.052$, were slightly more likely to rate nutrition information as important. Women were significantly more likely than men to rate nutrition information as important, $t(446)=-2.1$, $p=0.038$.

Table 25. Importance of providing nutrition information for recipes involving wild fish and game meat.

			Response Frequencies (%)					
Mean	**SD**		Not at all important	Slightly import.	Mod. import.	Import.	Extremely import.	No opinion
3.22	1.38		15.3	17.0	14.9	29.1	19.7	4.0

Scale: 1=Not at all important, 2=Slightly important, 3=Moderately important, 4=Important, 5=Extremely important

Table 26. Mean ratings for questions related to nutrition information about wild fish and game: significant differences between individuals who have and have not eaten wild fish and/or game meat.

	Eaten wild-caught fish?			Eaten wild game meat?	
Item	Yes	No		Yes	No
How important is it to have nutrition information available for recipes involving wild fish and game meat[a]	3.17	3.41		3.12	3.39
If nutrition information for wild fish and game was easily accessible, how would that affect your desire to eat wild fish and game meat[b]	0.76	0.70		0.77	0.71

[a]Scale: 1=Not all all important to 5=Extremely important
[b]Scale: -2=Large decrease to 2=Large increase

Anticipated changes in wild fish and game meat consumption due to the provision of nutrition information were generally minimal, with a minority of respondents (37.1%) suggesting that the provision of such information might slightly or substantially increase their consumption (Table 27). Significant differences between consumers and non-consumer were not evident in projected consumption patterns for wild fish/game in response to nutrition information.

Table 27. Potential change in consumption of wild fish and game meat due to provision of nutrition information.

			Response Frequencies (%)					
Mean	**SD**		Large decrease	Small decrease	No change	Small increase	Large increase	No opinion[a]
0.75	0.76		0.6	0.6	20.6	28.2	8.9	41.0

Scale: -2=Large decrease, -1=Small decrease, 0=No change, 1=Small increase, 2=Large increase
[a]A large number of respondents (n = 193) did not answer this question. Reasons for skipping undoubtedly vary, but many of the individuals who skipped the question likely anticipated little or no change in their consumption patterns due to nutrition information.

Fishing Participation among Respondents

Most respondents (72.2%) said they had participated in fishing as a child (1.4% were not sure). When asked about their fishing participation in the last 12 months, 22.9% said they had gone fishing and 77.1% said they had not. Individuals who had fished as children were significantly more likely to fish as adults than those who did not (Phi correlation coefficient = 0.232, $p<0.001$). Men (36.6%) were significantly more likely than women (17.2%) to have gone fishing in the past 12 months, $\chi^2(1)=20.9$, $p<0.001$.

Of the respondents who had fished in the past year (n=108), the mean time spent fishing was 9.1 days (2.0 days for the whole sample). During the last 12 months, 43.7% of anglers fished 1-4 days (9.5% of whole sample), 24.3% fished 5-9 days (5.3% of whole sample), 17.5% fished 10-19 days (3.7% of whole sample), and 14.6% fished 20 or more days (3.0% of whole sample). The anglers reported spending an average of 73.7% of their total fishing time in a place that was within a half-day drive of where they lived, and 65.3% of anglers spent 90-100% of their time close to home. Only 8.2% of anglers in the sample had not spent any time fishing locally in the past year.

Anglers in the sample were much more likely to have eaten wild-caught fish than non-anglers. For example, 90.7% of the individuals who had gone fishing in the last 12 months had eaten wild-caught fish from their local area. Among individuals who had not gone fishing in the last 12 months, that number was 54.5%, $\chi^2(1)=46.7$, $p<0.001$.

When asked about their likelihood of future fishing participation, 35.9% of respondents said they fished and planned to continue fishing. Slightly more (40.6%) said they had fished in the past but since quit. Only 11.3% of respondents said they would never go fishing (Figure 2). Men were significantly more likely to actively fish (50.0%) or consider fishing (46.5%) than women (30.2% and 55.4%, respectively), $\chi^2(2)=22.9$, $p<0.001$. Conversely, women (14.5%) much more likely than men (3.5%) to report that they would never consider fishing.

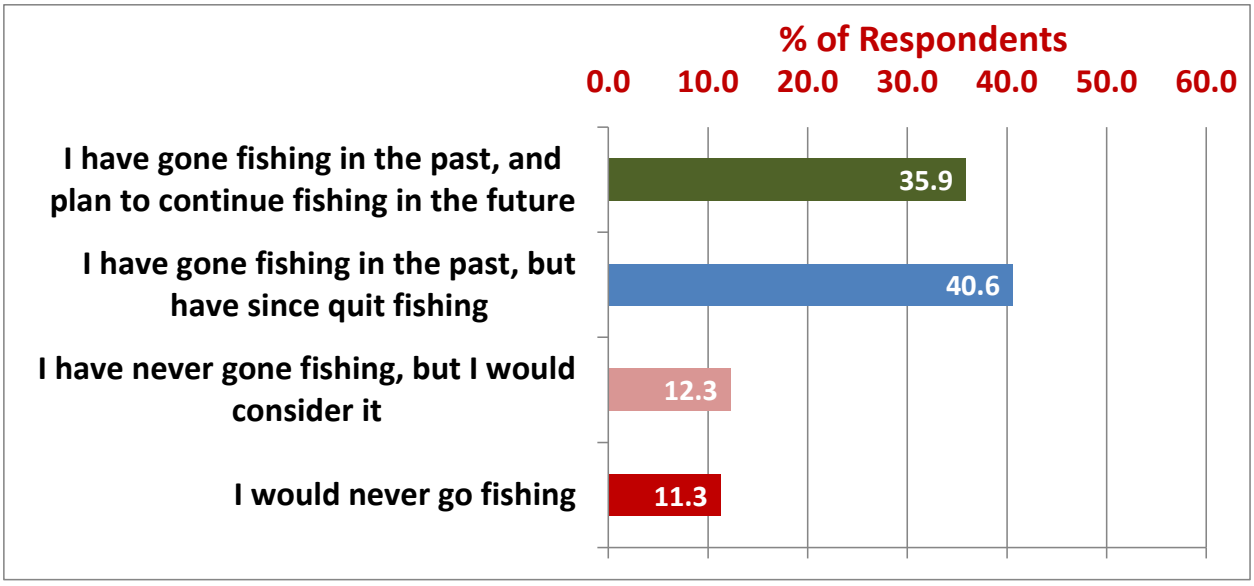

Figure 2. Likelihood of future fishing participation among respondents (n = 471).

Results showed that, for the most part, respondents' fishing participation was unlikely to change even if additional information and education opportunities were available (Table 28). Positive effects on fishing participation were most likely with additional information about preparing wild-caught fish (32.7% reported likely or very likely to increase participation) and information about conservation benefits of catching and eating wild-caught fish (30.0%)

Table 28. Effect of additional information related to wild-caught fish consumption on respondents' participation in fishing.

				Likelihood of Increasing Participation (%)					
Information about…	**Mean**	**SD**		Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
Processing wild-caught fish	-0.58	1.31		31.8	25.7	13.4	19.5	6.8	2.8
Catching fish	-0.53	1.30		30.8	22.9	18.3	19.1	6.6	2.3
Conservation benefits of catching & eating wild-caught fish	-0.46	1.31		29.1	22.5	15.3	23.8	6.2	3.2
Preparing wild-caught fish	-0.43	1.37		30.1	21.9	12.5	24.6	8.1	2.8

Scale: -2=Very unlikely to increase participation to 2=Very likely to increase participation

Hunting Participation among Respondents

Most respondents (87.9%) said they had not participated in hunting as a child (0.2% were not sure) – a marked difference from the fishing numbers. When asked about their hunting participation in the last 12 months, 7.4% said they had gone hunting and 92.6% said they had not. Again, these reported hunting participation rates were significantly lower than the fishing participation rates. Individuals who had hunted as children were significantly more likely to hunt as adults than those who did not (Phi correlation coefficient = 0.271, $p<0.001$). Individuals who had gone fishing in the last 12 months were significantly more likely to have gone hunting as well, compared to those who had not fished (Phi correlation coefficient = 0.346, $p<0.001$). Men (16.9%) were significantly more likely than women (3.4%) to have gone hunting in the past 12 months, $\chi 2(1)=26.0$, $p<0.001$.

Of those who had hunted in the past year (n=35), the mean time spent hunting was 14.1 days (0.9 days hunting for the whole sample). During the past 12 months, 33.3% of hunters hunted 1-4 days (2.0% of whole sample), 20.0% hunted 5-9 days (1.2% of whole sample), 16.7% hunted 10-19 days (1.0% of whole sample), and 30.0% hunted 20 or more days (1.8% of whole sample). The hunters reported spending an average of 88.6% of their total hunting time in a place that was within a half-day drive of where they lived, and 88.6% of hunters spent 90-100% of their time close to home. Only 2.9% of hunters in the sample had not spent any time hunting locally in the past year.

Similar to anglers, hunters in the sample were much more likely to have eaten wild game meat than non-hunters. For example, 100% of the individuals who had gone hunting in the last 12 months had eaten wild game meat from their local area. Among individuals who had not gone hunting in the last 12 months, that number was 75.0%, $\chi^2(1)=11.4$, $p<0.001$, still remarkably high.

When asked about their likelihood of future hunting participation, 9.3% of respondents said they hunted and planned to continue hunting. An additional 10.6% had previously hunted but quit, and 22.7% had never hunted but would consider it. Most respondents (57.3%), however, indicated that they would never go hunting (Figure 3). Overall, respondents' likelihood of wildlife-based recreation participation was substantially lower for hunting than it was for fishing. Men were significantly more likely to actively hunt (19.7%) or consider hunting (45.8%) than women (4.9% and 28.3%, respectively), $\chi^2(2)=50.0$, $p<0.001$. Conversely, women (66.8%) were much more likely than men (34.5%) to report that they would never consider hunting.

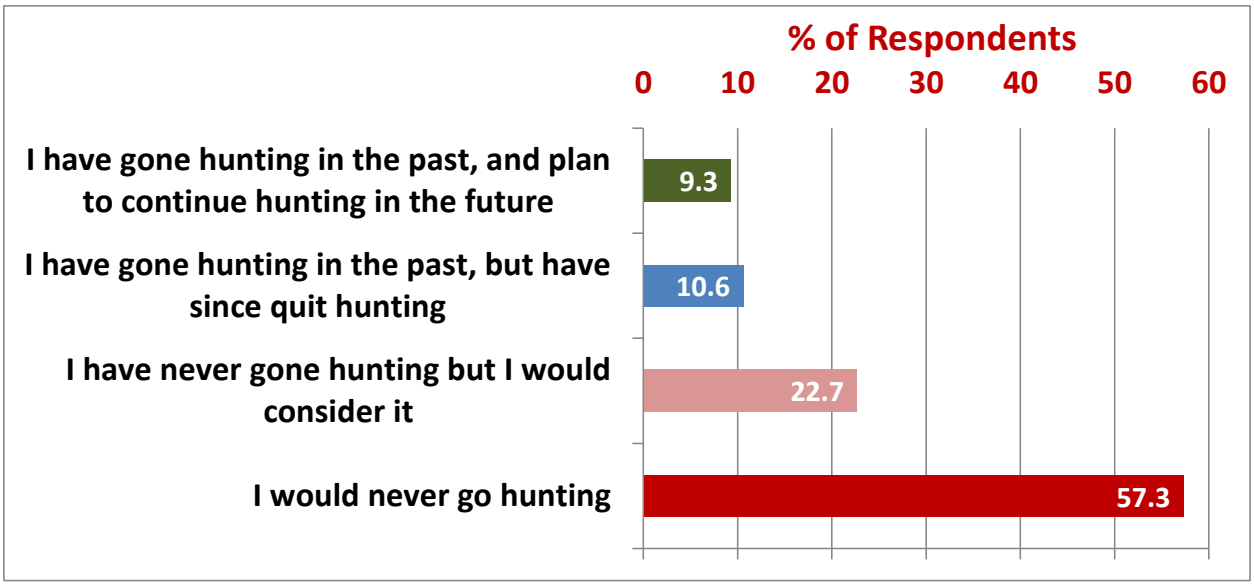

Figure 3. Likelihood of future hunting participation among respondents (n = 471).

Similar to the case surrounding fishing, results showed that locavore hunting participation was unlikely to change even if additional information and education opportunities were available (Table 29). Positive effects on hunting participation were most likely with additional information about preparing wild game meat (19.8% reported likely or very likely to increase participation), and information about conservation benefits of harvesting and eating wild game (16.2%), but the number of people indicating change was unlikely was much higher.

Table 29. Effect of additional information related to wild game meat consumption on respondents' participation in hunting

				Likelihood of Increasing Participation (%)					
Information about…	**Mean**	**SD**		Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
Hunting wild game	-1.15	1.23		58.6	14.0	9.6	11.5	3.8	2.5
Processing wild game meat	-1.12	1.25		58.4	13.4	9.3	12.7	3.8	2.3
Conservation benefits of harvesting & eating wild game	-1.08	1.23		54.1	14.4	11.5	13.0	3.2	3.8
Preparing wild game meat	-1.03	1.32		56.3	12.7	8.5	14.9	4.9	2.8

Scale: -2=Very unlikely to increase participation to 2=Very likely to increase participation

Motivations for Wildlife-based Recreation among Respondents

All respondents, including those who did and not report participation in fishing or hunting (n = 471), were also asked to rate the importance of potential reasons for engaging in wildlife-based recreation. Across the entire sample, the popular motives were "relaxing and enjoying time outdoors" (53.2% listed as important or extremely important), "interacting with and learning about nature" (46.9%), "spending time outdoors with family and friends" (44.4%), "improving mental health" (44.7%), and "improving physical health" (42.2%). The next motivations on the list, "obtaining my own natural food from local sources" (41.6%) and "becoming more connected to the place where I live" (40.6%), were the two most directly related to the locavore movement (Table 30). Other motives, including those centered on community-centric benefits such as control of wildlife populations to benefit humans and nature and those focused on social interactions, were generally less important to respondents. The least important motive was "to obtain a trophy animal," rated as important or extremely important by 3.0% of respondents. Other motivations to engage in wildlife-based recreation listed by respondents included spiritual reasons and trying something new.

Table 30. Importance of various motivations for wildlife-based recreation among respondents.

				Response Frequencies (%)				
Factor	**Mean**	**SD**		Not at all important	Slightly import.	Mod. import.	Import.	Extremely import.
Relaxing & enjoying time outdoors	3.28	1.46		21.0	8.2	17.6	28.0	25.2
Interacting with & learning about wildlife & nature	3.01	1.42		24.4	11.4	17.3	32.2	14.7
Spending time outdoors with family & friends	2.97	1.47		26.4	11.9	17.3	27.1	17.3
Improving my mental health (feeling mentally refreshed)	2.95	1.44		26.1	12.4	16.8	29.4	15.3
Improving my physical health (getting exercise)	2.93	1.39		24.0	14.7	19.0	28.8	13.4
Obtaining my own natural food from local sources	2.92	1.48		27.3	13.9	17.3	23.2	18.4
Becoming more connected to the place where I live	2.91	1.37		23.0	16.5	19.8	27.8	12.8
Challenging & improving my outdoor recreation skills & knowledge	2.87	1.43		26.5	14.8	18.2	26.0	14.5
Contributing to fish & wildlife management efforts that help local ecosystems	2.78	1.39		27.2	14.9	21.4	23.8	12.1
Participating in fish & wildlife management efforts that help local communities	2.61	1.32		28.4	20.8	19.1	24.3	7.4
Providing for myself & my family	2.29	1.40		43.4	18.2	15.6	11.8	11.0
Helping others develop outdoor recreation skills & knowledge	2.28	1.28		39.0	21.6	17.1	17.3	5.0
Meeting &/or building friendships with other anglers & hunters	1.95	1.15		50.8	19.2	17.9	8.9	3.2
Catching or harvesting a trophy animal	1.23	0.74		88.9	4.1	3.9	1.3	1.7
Other	1.71	1.45		76.8	5.8	1.4	1.4	14.5

Scale: 1=Not at all important, 2=Slightly important, 3=Moderately important, 4=Important, 5=Extremely important
Other motivations: I would never hunt or fish; Trying something new; Spiritual reasons (e.g., appreciated God's creations)

Men rated each motivation item as more important than women, and most of these differences were significantly different. However, significant differences between men and women were not observed for the following items:

- Obtaining my own natural food from local sources, $t(280.4)=0.8$, $p=0.415$.
- Providing for myself and my family, $t(262.4)=1.2$, $p=0.215$.
- Improving my physical health, $t(293.9)=1.8$, $p=0.067$.
- Contributing to fish and wildlife management efforts that help local ecosystems, $t(293.9)=1.8$, $p=0.070$.

Not surprisingly, respondents who actively fished or would consider fishing rated every wildlife-based recreation motivation item higher than individuals who would never consider fishing. Active or likely anglers placed a greater relative importance on interacting with and learning about wildlife and nature, spending time outdoors with friends and family, and becoming more connected to the place where they live (Table 31). Individuals who would never fish placed a greater relative importance on improving mental and physical health. Very similar patterns in importance ratings were observed among respondents who actively hunted or would consider hunting, compared to individuals who would never hunt (Table 32).

Table 31. Wildlife-based recreation motivations: comparison of individuals who would never fish (n=53) and those who would consider or are actively fishing (n = 418).

	Would Never Fish				Actively Fish or Would Consider Fishing		
Factor	Rank[a]	Mean[b]	SD		Rank[a]	Mean[b]	SD
Relaxing & enjoying time outdoors	1	1.96	1.49		1	3.43	1.38
Interacting with & learning about wildlife & nature	5	1.73	1.20		2	3.16	1.36
Spending time outdoors with family & friends	4	1.81	1.41		3	3.10	1.41
Obtaining my own natural food from local sources	6	1.73	1.35		7	3.05	1.44
Improving my mental health (feeling mentally refreshed)	3	1.85	1.41		4	3.08	1.39
Improving my physical health (getting exercise)	2	1.92	1.43		6	3.05	1.34
Becoming more connected to the place where I live	7	1.69	1.15		5	3.05	1.32
Challenging & improving my outdoor recreation skills & knowledge	8	1.60	1.09		8	3.02	1.39
Contributing to fish & wildlife management efforts that help local ecosystems	9	1.50	0.90		9	2.93	1.36
Participating in fish & wildlife management efforts that help local communities	11	1.35	0.70		10	2.76	1.30
Providing for myself & my family	10	1.39	0.88		12	2.39	1.42
Helping others develop outdoor recreation skills & knowledge	12	1.33	0.69		11	2.39	1.28
Meeting &/or building friendships with other anglers & hunters	13	1.13	0.61		13	2.04	1.17
Catching or harvesting a trophy animal	14	1.02	0.14		14	1.25	0.77

[a]Mean rank of item relative to other potential wildlife-based recreation motivations, with 1 as the most important motivation and 14 as the least important motivation

[b]Scale: 1=Not at all important to 5=Extremely important

Table 32. Wildlife-based recreation motivations: comparison of individuals who would never hunt (n=270) and those who would consider or are actively hunting (n = 201).

	Would Never Hunt				Actively Hunt or Would Consider Hunting		
Factor	Rank[a]	Mean[b]	SD		Rank[a]	Mean[b]	SD
Relaxing & enjoying time outdoors	1	2.82	1.51		1	3.88	1.15
Interacting with & learning about wildlife & nature	3	2.52	1.40		2	3.67	1.14
Spending time outdoors with family & friends	6	2.46	1.42		3	3.64	1.23
Obtaining my own natural food from local sources	7	2.39	1.42		4	3.60	1.27
Improving my mental health (feeling mentally refreshed)	4	2.52	1.43		6	3.52	1.24
Improving my physical health (getting exercise)	2	2.57	1.41		8	3.40	1.22
Becoming more connected to the place where I live	5	2.47	1.36		7	3.49	1.15
Challenging & improving my outdoor recreation skills & knowledge	9	2.38	1.38		5	3.52	1.22
Contributing to fish & wildlife management efforts that help local ecosystems	8	2.38	1.38		9	3.30	1.24
Participating in fish & wildlife management efforts that help local communities	10	2.29	1.32		10	3.05	1.20
Providing for myself & my family	12	1.78	1.19		11	2.95	1.39
Helping others develop outdoor recreation skills & knowledge	11	1.92	1.16		12	2.75	1.27
Meeting &/or building friendships with other anglers & hunters	13	1.60	0.99		13	2.40	1.20
Catching or harvesting a trophy animal	14	1.11	0.53		14	1.38	0.92

[a]Mean rank of item relative to other potential wildlife-based recreation motivations, with 1 as the most important motivation and 14 as the least important motivation

[b]Scale: 1=Not at all important to 5=Extremely important

DISCUSSION

Overview of Study Population

As the locavore movement grows in popularity, it is important to understand the factors that influence locavores' food choices and the factors that influence them. This study used data provided by subscribers to the New York-based *Edible Finger Lakes* (EFL) magazine and newsletter to explore the role of wild fish and game meat consumption in the locavore movement and its potential implications for wildlife-based recreation and conservation.

Initial screening question confirmed that nearly all respondents in the EFL sample self-identified as locavores, with 99% of the population agreeing with the statement "I am motivated to eat food that is grown, raised, produced, or harvested locally." Respondents were white (98%), female (70%), and typically older than age 50 (64%), with an average age of 52. Respondents also tended to be highly educated (90% had a college degree, and almost half had a graduate degree), and the mean annual income of respondents was over $100,000. About 50% of the survey respondents lived in rural areas, reflecting the landscape and low population density that typifies central New York. This demographic profile reflects results of previous research and supports the widely-held belief that locavores are generally individuals that possess both disposable time and income (Byker et al., 2012; Conner et al., 2010; Nie & Zepeda, 2011; Stanton et al., 2012). However, it may not effectively capture a new wave of younger recruits transforming conventional views of locavores and locavorism. This group likely includes a growing population of young college graduates whose personal interests and values spark careers in small-scale farming and urbanites who support, invest, and occasionally participate in similar types of community-supported agriculture (CSA) endeavors (Landis et al., 2010). National agriculture data reflects these trends, showing higher levels of gender (more females) and age diversity (more young farmers ages 18-35) among organic farmers compared to larger primary farm operators (National Sustainable Agriculture Coalition, 2014). In fact, the number of young farmers in the U.S. tripled from 1997 to 2007, and exhibited even more rapid proportional growth in New York (U.S.D.A. Census of Agriculture, 2009). The new wave of recruits may also encompass young or middle-aged adults that are keenly aware of links between locavore principles and wildlife-based recreation. These individuals are driven to harvest their own wild meat for consumption, and the virtues of locavore-inspired hunting are exemplified by multiple authors such as Jackson Landers (2011), Tovar Cerulli (2012), and Lily Raff McCaulou (2012). Future studies attempting to characterize locavores and their consumption preferences could more explicitly account for younger locavore cohorts that have developed around organic farming and locally-harvested game meat consumption. Additional research could also consider populations of low-income individuals who adopt locavore principles and engage in local farming, fishing, and hunting not by choice, but out of necessity (Brown, 2011; Corburn, 2002). Little is known about the prevalence and consumption rates of these subsistence locavores, but they may experience motivations and constraints very different from those identified by respondents in our sample of *Edible Finger Lakes* subscribers.

Despite the limitations of the current EFL sample, this study provided a novel perspective on factors motivating locavore behavior. Supporting the local area, personal health, and nature conservation were rated as important or extremely important reasons for eating local by over 90% of respondents. Self-sufficiency and social interaction were rated as important or extremely important by more than 50% of respondents. Support for the local economy and dietary concerns

revolving around personal health are commonly cited reasons for eating local food (Rinella, 2007; Thomas & McIntosh, 2013). However, motives related to nature conservation (e.g., doing what is good for the environment) have often been understated. A passion for environmental conservation and the desire to construct an ecologically-sustainable lifestyle could therefore be emphasized as key motivations in future locavore studies. More research is also needed to understand the influence of self-sufficiency (e.g., enjoying the satisfaction of providing for yourself and your family) and social interactions (e.g., developing and maintaining relationships with other people who prefer to eat local foods) on locavores' food choices.

Consumption of Wild Fish & Game Meat

Results revealed that most respondents (i.e., locavores in central New York) (85%) had eaten wild fish or game at least once, though less than 20% of respondents appeared to eat wild fish and game meat on a regular basis (at least once a month). In other words, it appeared that wild-caught fish and game meat were not current dietary staples for most respondents. Surprisingly, a larger percentage of respondents had eaten locally harvested wild game meat (primarily venison) than local wild-caught fish. This unexpected discrepancy may be due to several factors, including the wide availability of non-local, wild-caught fish at stores and markets and the absence of wild game meat available for purchase at similar venues (making locally-harvested game meat the only option). Concerns about meat quality and safety were much more prominent for fish than game, which might also lead to decreased consumption rates. Some of the most important factors influencing an individual's decision to eat both fish and game were meat quality, freshness, and taste – considerations that might be relevant for any type of meat (wild or farm-raised, local or non-local). However, respondents also placed a high level of importance on food choices that built stronger connections to local food sources and supported sustainable use of natural resources. Emphasis on these factors might entice more locavores to try wild fish and game.

Barriers to consumption differed by type of meat. For fish, major barriers were concerns about environmental quality and fish safety. Given the historical emphasis on environmental contaminants and long-standing public recognition of fish consumption advisories sponsored by government agencies such as the U.S. Environmental Protection Agency (2014), these concerns might be expected. For hunting, the most prominent barriers were a general lack of skills required to hunt and/or prepare game meat. Without proper training, it seemed that many respondents were not willing or able to attempt to procure or prepare wild game meat on their own. The time required to fish and/or hunt and process/prepare meat harvested from these activities was a substantial obstacle for many respondents. Cost (including fishing/hunting licenses, equipment, travel, etc.) was not a major barrier. In some cases, basic moral opposition to the act of "killing an animal" was enough to deter potential consumers. This barrier applied most strongly to wild game meat and appeared to be more prominent among non-consumers. Among individuals who did not consume wild fish and game, the most significant obstacle appeared to be the absence of skills needed to acquire, process, and prepare fish and game meat – an issue that could be addressed given sufficient educational resources and participant interest.

Though we did not directly ask if respondents were vegetarians or vegans, it is likely that some individuals in the EFL sample abstained from consumption of meat or animal products for other reasons. For example, about 5% of respondents disagreed or strongly disagreed with the statement "I am motivated to eat *meat* that is grown, raised, produced, or harvested, locally," and

several respondents wrote in "vegetarian" or "I don't eat meat" into the open-ended option for "other" on the barriers to consumption questions. Future studies could specifically investigate support for wild fish and game meat consumption among vegetarians and vegans, who might disagree with meat consumption on ethical grounds but generally support local fish and game harvest for other reasons (e.g., environmental benefits).

Although many respondents had eaten wild fish and game meat (albeit infrequently), most locavores who ate wild fish and game meat were not catching these species themselves. For instance, less than 24% of respondents enjoyed catching their own fish for consumption, and even fewer (<11%) enjoyed harvesting their own game meat to eat. Most respondents relied on friends and family to provide wild-caught meat, and many seemed to prefer this option to the do-it-yourself alternative. This pattern was particularly evident for venison and other types of wild game. Dominance of procurement strategies centered on friends and family might stem from number of factors including a lack of fishing/hunting skills required to obtain wild meat and a strong preference among fish and game consumers for social interactions with other like-minded individuals (i.e., locavores).

Information Related to Wild Fish & Game Consumption

Respondents were generally interested in receiving more information about fish and game consumption. Two topics of particular interest to both consumers and non-consumers were preparation (i.e., cooking) of wild fish and game and conservation benefits associated with wild fish and game consumption. Other studies have found that positive attitudes toward and enjoyment of cooking is one of the strongest predictors of locavore behavior (Zepeda & Li, 2006), which might explain why respondents in the EFL sample were more inclined to crave culinary support. While interest in developing a better understanding of the conservation value of eating wild fish and game was evident, it was not clear what types of conservation-oriented information respondents were looking for. Future research could address this particular question in more detail.

Topics centered on the development of fishing and/or hunting skills garnered substantially less interest. Because most respondents were not interested in obtaining meat themselves, strategies for encouraging fish and game consumption might include mentoring programs that pair this type of locavore with local anglers/hunters and/or education programs that emphasize themes with nearly universal appeal (e.g., meat preparation and conservation). Such an approach could help to meet consumer demand and provide locavores with information they desire, minimizing potential barriers and thereby facilitating consumption of wild-caught meat.

The most commonly referenced source of information related to wild fish and game consumption was general internet sources such as websites and blogs. One example, the Wild Harvest Table blog (www.wildharvesttable.com) created and maintained by Seneca County Cornell Cooperative Extension and the Department of Natural Resources at Cornell University provides locavores with an array of useful web-based information about harvesting and cooking wild-caught local meats. Trusted input from family and friends was also important - particularly for wild game meat consumption. Few respondents said they were likely to seek support from state institutions such as county extension offices and government agencies. In fact, "foodie" organizations ranked higher than any other formal group, underscoring the importance of communication and messaging strategies originating within existing social circles. State agencies

and institutions could facilitate these connections by providing consumers with direct links to these existing sources of trusted information.

Because research has shown that labelling of food products, including nutrition information, is particularly important to consumers (Conner et al., 2010; Howard & Allen, 2006; M. M. Tidball et al., 2014), we also sought to explore the value of providing nutrition facts for wild fish and game meat recipes. The U.S. Food and Drug Administration does not currently require nutrition labeling for purchased meat and fish. Results revealed about 50% of respondents believed information regarding fish and game nutrition was important, but this information would be unlikely to dramatically alter patterns of fish or game consumption. However, such information could help to assuage concerns about meat quality and safety associated with wild-caught fish. Additionally, nutrition facts could also reinforce the benefits of local meat consumption for health-conscious consumers. For these reasons, future studies should continue to explore the rationale for and implications of information labeling (including nutrition facts and other information such as place/date of capture) for wild fish and game meat, particularly within the locavore community.

Fishing and Hunting Participation

According to self-reports, few respondents (23%) had gone fishing in the past 12 months, and even fewer (7%) had gone hunting. Both numbers are slightly higher than the average national participation rates for both fishing (14%) and hunting (6%) among individuals age 16 or older (United States Fish & Wildlife Service, 2012). In the EFL sample, men were nearly twice as likely as women to have gone fishing and five times as likely to have gone hunting. Again, both ratios were a bit smaller than nationwide participation rates, indicating slightly higher representation of female anglers and hunters (United States Fish & Wildlife Service, 2012). Although a majority of respondents reported participation in fishing during childhood, few had engaged in hunting as children. Participation in both fishing and hunting during childhood was significantly associated with participation in the same wildlife-based recreation activities as adults.

Collectively, these data suggest that members of the EFL sample, nearly all of whom self-identified as locavores, were slightly more likely than the average American to participate in fishing and hunting during the last 12 months. However, this trend should be cautiously interpreted. Observed differences may have little practical significance as respondent numbers were not weighted to reflect the sex, age, income, and residence type ratios of the general population. For example, only 6% of the total U.S. population lives outside of metropolitan statistical areas; of these rural residents, 24% fish and 18% hunt (United States Fish & Wildlife Service, 2012). On the other hand, nearly half of the EFL sample reported living in a rural area. This difference suggests that slightly elevated rates of fishing and hunting among survey respondents in central New York might be due in part to their predominantly rural place of residence rather than, or in addition to, their desire for local foods.

When survey respondents were asked about future participation in fishing and hunting, general trends were similar. About 36% of respondents had fished in the past and were actively planning to fish in the future, and an additional 53% would consider fishing in the future. Although men were more likely to actively fish or consider fishing than women, nearly 86% of women had previously fished or would at least consider fishing. Unfortunately, national level data were not available for comparisons of projected fishing participation. A majority of

respondents (57%) indicated they would never go hunting, while 9% planned to hunt in the future and 33% would consider hunting. National, general population estimates were available for future hunting participation (Larson, Stedman, Decker, Siemer, & Baumer, 2014b). When compared to the general public, fewer respondents in our locavore sample were active hunters who planned to continue hunting (17% vs. 9%), though slightly more had previously hunted or would consider hunting in the future (30% vs. 33%). Respondents in our locavore sample were also slightly more likely to claim that they would never consider hunting in the future (53% vs. 57%). The overall proportion of men and women who would *not* consider fishing and hunting was approximately equal across our sample and the general U.S. population (Larson et al., 2014b). Responses showed that, for the most part, additional information about topics associated with fish and game consumption was unlikely to significantly increase locavores' participation in fishing and hunting.

Respondents' motivations for engaging in wildlife-based recreation activities were similar to motivations observed in the general population. For example, the top reasons for engaging in wildlife-based activities in our sample and the general population were appreciative (e.g., relaxing and enjoying time outdoors, interacting with and learning about nature) or affiliative (e.g., spending time with friends and family) (Decker, Brown, & Siemer, 2001). Relatively high on the list of respondents' recreation motivations, however, were two items that have not been typically included on motivation scales: "obtaining my own food from natural sources" and "becoming more connected to the place where I live." Both of these reasons appeared to be more important than any type of achievement–oriented motives, (e.g., challenging and improving outdoor skills, catching/harvesting a trophy animal), and both could be emphasized in future studies of locavore anglers and hunters. Growing interest in and acceptance of locally-procured food is also supported by recent national surveys examining public approval of hunting. These studies reveal that "obtaining local, free-range meat" is consistently ranked among the most highly acceptable reasons for hunting (Duda, Jones, & Criscione, 2010; Larson et al., 2014b). However, despite apparent connections between locavore thinking and wildlife recreation (Responsive Management, 2013), it is not yet clear if the escalating enthusiasm and support for harvesting local meat that is currently observed among locavores and the general public will lead to a sustained increase in fishing and hunting participation. Results of this study provide little additional support for that proposition, but future research is needed to explore this potential in a larger, more diverse population of locavores. It is also important to note that, whether or not they fish and hunt, most locavores readily consume fish and game procured by family and friends. Through these indirect links, locavores may therefore provide a strong voice supporting fishing, hunting, and other conservation-related activities.

CONCLUSIONS & IMPLICATIONS

Results from our sample of *Edible Finger Lakes* subscribers suggest that self-identified locavores in central New York are eating wild fish and game, but they are generally doing so infrequently. Most of this wild fish and game meat comes from friends and family, and very few locavores are actively fishing and/or hunting. Prominent barriers to consumption include concerns about meat quality and safety (for wild-caught fish) and a lack of skills required for catching/harvesting, processing, and preparing meat (for both wild-caught fish and wild game). There is substantial interest in additional information about topics related to consumption of wild fish and game – particularly those related to preparing (i.e., cooking) wild game meat and conservation benefits linked to wild fish and game consumption. Efforts to address barriers by providing this type of essential information and conservation-oriented messaging could reinforce the value of fishing and hunting for locavore-minded individuals.

Even if additional information about the preparation of wild fish and game meat and links between wild fish/game meat consumption and conservation does not produce more license-buying anglers or hunters, it might generate indirect benefits through the expansion of social worlds that support wildlife-based recreation and management (Larson, Stedman, Decker, Siemer, & Baumer, 2014a). Future research could explore these possibilities and identify key agencies, organizations, and information sources that might that might help foster links between locavores, local wildlife, and fishing and hunting. By providing a preliminary glimpse of wild fish and game consumption preferences and the connections between locally-procured meat and outdoor recreation among central New York residents, this study represents an early step in the ongoing process to understand the conservation implications of the rapidly evolving locavore movement.

LITERATURE CITED

Andres, J. (2014). Farmers markets and our feature. from **http://theplate.nationalgeographic.com/2014/05/02/chef-jose-andres-on-farmers-markets/**

Brown, P. L. (2011). When the uprooted put down roots. from **http://www.nytimes.com/2011/10/10/us/refugees-in-united-states-take-up-farming.html?pagewanted=all&_r=1&**

Byker, C., Shanks, J., Misyah, S., & Serrano, E. (2012). Characterizing farmers' market shoppers: a literature review. *Journal of Hunger & Environmental Nutrition, 7*(1), 38-52. doi: 10.1080/19320248.2012.650074

Cerulli, T. (2012). *The mindful carnivore: A vegetarian's hunt for sustenance*. New York: Pegasus Books.

Conner, D., Colasanti, K., Ross, R. B., & Smalley, S. B. (2010). Locally grown foods and farmers markets: consumer attitudes and behaviors. *Sustainability, 2*, 742-756. doi: 10.3390/su2030742

Corburn, J. (2002). Combining community-based research and local knowledge to confront asthma and subsistence-fishing hazards in Greenpoint/Williamsburg, Brooklyn, New York. *Environmental Health Perspectives, 110*(Supplement 2), 241-248.

Cotler, A. (2009). *The locavore way: discover and enjoy the pleasures of locally grown food*. North Adams, MA: Storey Publishing.

Decker, D. J., Brown, T. L., & Siemer, W. F. (2001). Understanding hunting participation. In D. J. Decker, T. L. Brown & W. F. Siemer (Eds.), *Human dimensions of wildlife management in North America* (pp. 289-306). Bethesda, MD: The Wildlife Society.

Duda, M. D., Jones, M. F., & Criscione, A. (2010). *The sportsman's voice: Hunting and fishing in America*. State College, PA: Venture Publishing, Inc.

Eastwood, D. B., Brooker, J. R., & Gray, M. D. (1999). Location and other market attributes affecting farmer's market patronage: the case of Tennessee. *Journal of Food Distribution Research, 30*(1), 63-72.

Environmental Protection Agency. (2014). Fish consumption advisories. from **http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/index.cfm**

Gillespie, A. H., & Sung, G.-J. (2014). Enhancing interdisciplinary communication: Collaborative Engaged Research on food systems for health and well-being. In M. O'Rourke, S. Crowley, S. Eigenbrode & J. D. Wulfhorst (Eds.), *Enhancing Communication and Collaboration in Interdisciplinary Research* (pp. 148-170). Los Angeles, CA: Sage.

Howard, P. H., & Allen, P. (2006). Beyond organic: consumer interest in new labelling schemes in the Central Coast of California. *International Journal of Consumer Studies, 30*(5), 439-451. doi: 10.1111/j.1470-6431.2006.00536.x

Landers, J. (2011). *The beginners guide to hunting deer for food*. North Adams, MA: Storey Publishing.

Landis, B., Smith, T. E., Lairson, M., McKay, K., Nelson, H., & O'Briant, J. (2010). Community-supported agriculture in the Research Triangle region of North Carolina: Demographics and effects of membership on household food supply and diet. *Journal of Hunger & Environmental Nutrition, 5*(1), 70-84. doi: 10.1080/19320240903574403

Larson, L. R., Stedman, R. C., Decker, D. J., Siemer, W. F., & Baumer, M. S. (2014a). Exploring the social habitat for hunting: Toward a comprehensive framework for understanding hunter recruitment and retention. *Human Dimensions of Wildlife, 19*(2), 105-122. doi: 10.1080/10871209.2014.850126

Larson, L. R., Stedman, R. C., Decker, D. J., Siemer, W. F., & Baumer, M. S. (2014b). *Understanding public support for hunting: a national perspective*. Paper presented at the Northeast Association of Fish & Wildlife Agencies Annual Conference, Portland, ME.

Lockeretz, W. (1986). Urban consumers' attitudes towards locally grown produce. *American Journal of Alternative Agriculture, 1*(2), 83-88. doi: 10.1017/S0889189300000941

McCaulou, L. R. (2012). *Call of the mild: Learning to hunt my own dinner*. New York: Grand Central Publishing.

National Sustainable Agriculture Coalition. (2014). 2012 Census drilldown: Organic and local food. from **http://sustainableagriculture.net/blog/2012-census-organic-local/**

Nie, C., & Zepeda, L. (2011). Lifestyle segmentation of U.S. food shoppers to examine organic and local food consumption. *Appetite, 57*, 28-37. doi: 10.1016/j.appet.2011.03.012

Palmer, A. R. (1998). Evaluating ecological footprints. *Electronic Green Journal, 1*(9), 1-11.

Pollan, M. (2006). *The omnivore's dilemma*. New York: Penguin Press.

Responsive Management. (2013). Exploring recent increases in hunting and fishing participation. Harrisonburg, VA: American Sportfishing Association, Responsive Management, Oregon Department of Fish and Wildlife & Southwick Associates.

Rinella, S. (2007, December 14, 2007). Locavore, get your gun, Opinion, *New York Times*. Retrieved from **http://www.nytimes.com/2007/12/14/opinion/14rinella.html?_r=5&scp=1&sq=locavore%2C+get+your+gun&st=nyt&oref=slogin&**

Rose, N., Serrano, E., Hosig, K., Haas, C., Reaves, D., & Nickols-Richardson, S. (2008). The 100-Mile Diet: a community approach to promote sustainable food systems impacts dietary quality. *Journal of Hunger & Environmental Nutrition, 3*(2-3), 270-285. doi: 10.1080/19320240802244082

Ruth-McSwain, A. (2012). Eating green: coverage of the locavore movement. *Journal of Extension, 50*(5), 5FEA7.

Stanton, J. L., Wiley, J. B., & Wirth, F. F. (2012). Who are the locavores? *Journal of Consumer Marketing, 29*(4), 248-261. doi: 10.1108/07363761211237326

Thomas, L. N., & McIntosh, W. A. (2013). "It justs tastes better when it's in season": Understanding why locavores eat close to home. *Journal of Hunger & Environmental Nutrition, 8*, 61-72. doi: 10.1080/19320248.2012.761572

Tidball, K. G., Tidball, M. M., & Curtis, P. (2013). Extending the locavore movement to wild fish and game: questions and implications. *Natural Sciences Education, 42*(1), 185-189. doi: 10.4195/nse.2013.0024

Tidball, M. M., Tidball, K. G., & Curtis, P. (2014). The absence of wild game and fish species from the USDA National Nutrient Database for Standard Reference: addressing information gaps in wild caught foods. *Ecology of Food and Nutrition, 53*(2), 142-148. doi: 10.1080/03670244.2013.792077

U.S.D.A. Census of Agriculture. (2009). 2007 Census of Agriculture: United States summary and state data. from **http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_US/usv1.pdf**

United States Fish & Wildlife Service. (2012). 2011 National Survey of Fishing, Hunting, and Wildife-Associated Recreation: National Overview. Washington, DC: US Department of the Interior, US Fish & Wildlife Service.

Vaske, J. J., Jacobs, M. H., Sijtsma, M. T. J., & Beaman, J. (2011). Can weighting compensate for sampling issues in internet surveys? *Human Dimensions of Wildlife, 16*(3), 200-215. doi: 10.1080/10871209.2011.571230

Zepeda, L., & Li, J. (2006). Who buys local food? *Journal of Food Distribution Research, 37*(3), 1-11.

APPENDIX A

Fish & Game Consumption in New York State: Your Views on Wild-Caught Food

A study conducted by the Human Dimensions Research Unit of the Department of Natural Resources at Cornell University, in association with Cornell University Cooperative Extension and WildHarvestTable.com.

Cornell University
Human Dimensions Research Unit

Cornell University
Cooperative Extension
Seneca County

Fish & Game Consumption in New York State:
Your Views on Wild-Caught Food

The Cornell University Department of Natural Resources is working with Cornell University Cooperative Extension to identify factors that affect your consumption of wild-caught fish and game. This survey will help us to better understand your food choices. Information collected will be used to understand consumption of wild fish and game and explore connections between health eating and outdoor recreation among New York residents.

Your participation is completely voluntary, but we sincerely hope you will take a few minutes to answer our questions. Your identity will be kept confidential, and the information you give us will never be associated with your name.

If you respond, your name will also be entered for a chance to win a local gift basket featuring Finger Lakes locally-sourced food products - an estimated value of over $100!

THANK YOU FOR YOUR HELP!

SECTION 1: Your Food Choices

Please tell us about your typical food consumption choices and what affects them.

1a. How do you feel about the following statements?

(Check ONE response for each statement.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
I am motivated to eat food that is grown, raised, produced, or harvested locally.	☐	☐	☐	☐	☐	☐
I am motivated to eat wild fish and game meat that is caught or harvested locally.	☐	☐	☐	☐	☐	☐

1b. There are many different reasons a person might choose to eat food that is grown, raised, produced, or harvested locally. These reasons can be grouped into several different categories. Please read each category description carefully and indicate how important each is to you as a reason for eating food that comes from your local area.

(Check ONE response for each category.)

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Personal Health Avoiding food that is chemically enhanced or processed, consuming food of high quality and nutritional value	☐	☐	☐	☐	☐
Self-Sufficiency Enjoying satisfaction of providing for yourself and your family, establishing more direct connections with food you eat	☐	☐	☐	☐	☐
Nature Conservation Doing what is good for the environment, living sustainably and minimizing impacts, showing care and concern for animals	☐	☐	☐	☐	☐
Support for Local Area Buying from local regions, contributing to local economies, utilizing resources available in local area	☐	☐	☐	☐	☐
Social Interactions Developing or maintaining relationships with other people who prefer to eat local foods, meeting new people who share interests	☐	☐	☐	☐	☐

1c. Which of the categories described above is the MOST IMPORTANT to you as a reason for eating food that is grown, raised, produced, or harvested locally.
(Check only ONE category.)

☐	Personal Health
☐	Self-Sufficiency
☐	Nature Conservation
☐	Support for Local Area
☐	Social Interactions
☐	None of these is important
☐	Other (please describe):

--- *PAGE BREAK*

SECTION 2: Your Consumption of Wild-Caught FISH

Please tell us about your experience eating wild-caught fish, particularly fish caught in your local area (within a half-day drive of the place where you live) by yourself, your family or your friends.

2a. Do you disagree or agree with the following statements?

(Check ONE response for each statement.)

	Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**	**Don't know**
I enjoy eating "wild-caught" fish I can purchase at stores and markets.	☐	☐	☐	☐	☐	☐
I enjoy eating wild fish caught by myself, family or friends in my local area.	☐	☐	☐	☐	☐	☐
I prefer eating wild fish caught by myself, family or friends in my local area more than "wild-caught" fish I can purchase at stores and markets.	☐	☐	☐	☐	☐	☐
I enjoy catching my own fish to eat.	☐	☐	☐	☐	☐	☐

2b. Have you ever eaten wild fish caught by yourself, your family or your friends in your local area?

☐	Yes
☐	No ***(SKIP to Question 2f.)***
☐	Not sure

2c. During the last 12 months, how often have you eaten the following types of wild-caught fish from your local area? *(Check ONE response for each type of fish.)*

Type of Fish	Never	Rarely (once or twice)	Occasionally (about 3-9 times per year)	Often (about once per month)	Very Often (about once per week)
Cold water fish (salmon, trout)	☐	☐	☐	☐	☐
Warm water fish (bass, catfish, perch, sunfish, walleye, etc.)	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

2d. How have you obtained the wild-caught fish from your local area that you have eaten in the last 12 months (excluding "wild-caught" fish purchased at stores or markets)? *(Check ALL that apply for each type of fish.)*

		How Fish Was Obtained			
Type of Fish	**NEVER eaten it**	**Caught it myself**	**Provided by family or friends**	**Eaten at potluck or game dinner**	**Other method** (please describe below)
Cold water fish (salmon, trout)	☐	☐	☐	☐	☐
Warm water fish (bass, catfish, perch, sunfish, walleye, etc.)	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

2e. How important are the following factors to you when deciding whether or not to eat wild-caught fish from your local area?
(Check ONE response for each factor.)

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Taste	☐	☐	☐	☐	☐
Quality and freshness	☐	☐	☐	☐	☐
Where fish was obtained	☐	☐	☐	☐	☐
How fish was obtained	☐	☐	☐	☐	☐
Nutritional or health benefits	☐	☐	☐	☐	☐
Sustainable use of natural resources	☐	☐	☐	☐	☐
Support for wildlife conservation	☐	☐	☐	☐	☐
Connection to local food sources	☐	☐	☐	☐	☐
Demonstrating healthy eating behavior for family and friends	☐	☐	☐	☐	☐
Sharing knowledge about fishing and fish consumption	☐	☐	☐	☐	☐
Spending time with others who enjoy eating wild caught fish	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

2f. Which of the following are obstacles or barriers to your consumption of wild-caught fish from your local area? *(Check ONE response for each factor.)*

	Not a barrier	Minor barrier	Moderate barrier	Major barrier
Don't like the taste	☐	☐	☐	☐
Don't like the act of killing fish	☐	☐	☐	☐
Don't know the nutritional content of the fish	☐	☐	☐	☐
Lack information about where to catch or obtain fish	☐	☐	☐	☐
Lack skills required to catch fish	☐	☐	☐	☐
Lack skills required to process and prepare fish	☐	☐	☐	☐
Lack people to fish with and learn from	☐	☐	☐	☐
Limited access to land and fishing opportunities	☐	☐	☐	☐
Time required to catch and/or prepare fish	☐	☐	☐	☐
Cost of fishing license	☐	☐	☐	☐
Cost of catching fish (equipment, travel, etc.)	☐	☐	☐	☐
Concerns about environmental quality where fish was caught	☐	☐	☐	☐
Concerns about fish quality/safety and personal health	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐

2g. How interested would you be to learn more about the following topics related to wild-caught fish consumption? *(Check ONE response for each topic.)*

	Not at all interested	Somewhat interested	Very interested
Catching fish (fishing skills, approaches, opportunities, etc.)	☐	☐	☐
Processing wild caught fish (safe handling, cleaning, and storage)	☐	☐	☐
Preparing wild caught fish (cooking for personal or family consumption)	☐	☐	☐
Conservation benefits of catching and eating wild caught fish	☐	☐	☐
Other (please describe):	☐	☐	☐

2h. How likely are you to use the following sources to gather information and learn skills related to catching, processing, and/or preparing wild-caught fish?
(Check ONE response for each source.)

	Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
Friends & family	☐	☐	☐	☐	☐	☐
Books or magazines	☐	☐	☐	☐	☐	☐
General Internet sources (websites, blogs, etc.)	☐	☐	☐	☐	☐	☐
Local fishing clubs/groups	☐	☐	☐	☐	☐	☐
"Foodie" organizations	☐	☐	☐	☐	☐	☐
Tackle shops and outdoor sport outfitters (Bass Pro Shops, etc.)	☐	☐	☐	☐	☐	☐
County extension offices	☐	☐	☐	☐	☐	☐
NYS Dept. of Environmental Conservation (DEC)	☐	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐	☐

SECTION 3: Your Consumption of Wild GAME Meat

Please tell us about your experiences eating wild game meat (venison, game birds, etc.), particularly game harvested in your local area (within a half-day drive of the place where you live) by yourself, your family or your friends.

3a. Do you disagree or agree with the following statements?

(Check ONE response for each statement.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
I enjoy eating farm-raised game meat I can purchase at stores and markets.	☐	☐	☐	☐	☐	☐
I enjoy eating wild game meat harvested by myself, family or friends in my local area.	☐	☐	☐	☐	☐	☐
I prefer eating wild game meat harvested by myself, family or friends in my local area more than farm-raised game meat I can purchase at stores and markets.	☐	☐	☐	☐	☐	☐
I enjoy harvesting my own wild game to eat.	☐	☐	☐	☐	☐	☐

3b. Have you ever eaten wild game meat (venison, game birds, etc.) harvested by yourself, your family or your friends in your local area?

☐	Yes
☐	No ***(SKIP to Question 3f.)***
☐	Not sure

3c. During the last 12 months, how often have you eaten the following types of wild game meat harvested in your local area? *(Check ONE response for each type of wild game meat.)*

Type of Wild Game Meat	Never	Rarely (once or twice)	Occasionally (about 3-9 times per year)	Often (about once per month)	Very Often (about once per week)
Venison (deer)	☐	☐	☐	☐	☐
Upland game birds (grouse, pheasants, etc.)	☐	☐	☐	☐	☐
Waterfowl (ducks, geese, etc.)	☐	☐	☐	☐	☐
Small game mammals (rabbit, squirrel, etc.)	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

3d. How have you obtained the wild game meat from your local area that you have eaten in the last 12 months? *(Check ALL that apply for each type of wild game meat.)*

		How Meat Was Obtained			
Type of Wild Game Meat	**NEVER eaten it**	**Harvested/ hunted it myself**	**Provided by family or friends**	**Eaten at potluck or game dinner**	**Other method** (please describe below)
Venison (deer)	☐	☐	☐	☐	☐
Upland game birds (grouse, pheasants, etc.)	☐	☐	☐	☐	☐
Waterfowl (ducks, geese, etc.)	☐	☐	☐	☐	☐
Small game mammals (rabbit, squirrel, etc.)	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

3e. How important are the following factors to you when deciding whether or not to eat wild game meat from your local area? *(Check ONE response for each factor.)*

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Taste	☐	☐	☐	☐	☐
Quality and freshness	☐	☐	☐	☐	☐
Where game meat was obtained	☐	☐	☐	☐	☐
How game meat was obtained	☐	☐	☐	☐	☐
Nutritional or health benefits	☐	☐	☐	☐	☐
Sustainable use of natural resources	☐	☐	☐	☐	☐
Support for wildlife conservation	☐	☐	☐	☐	☐
Connection to local food sources	☐	☐	☐	☐	☐
Demonstrating healthy eating behavior for family and friends	☐	☐	☐	☐	☐
Sharing knowledge about hunting and game meat consumption	☐	☐	☐	☐	☐
Spending time with others who enjoy eating wild game meat	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐

3f. Which of the following are obstacles or barriers to your consumption of wild game meat from your local area? *(Check ONE response for each factor.)*

	Not a barrier	Minor barrier	Moderate barrier	Major barrier
Don't like the taste	☐	☐	☐	☐
Don't like the act of killing wild game	☐	☐	☐	☐
Don't know the nutritional content of the wild game meat	☐	☐	☐	☐
Lack information about where to hunt or obtain game meat	☐	☐	☐	☐
Lack skills required to hunt wild game	☐	☐	☐	☐
Lack skills required to process and prepare wild game meat	☐	☐	☐	☐
Lack people to hunt with and learn from	☐	☐	☐	☐
Limited access to land and hunting opportunities	☐	☐	☐	☐
Time required to catch and/or prepare wild game	☐	☐	☐	☐
Cost of hunting license	☐	☐	☐	☐
Cost of hunting wild game (equipment, travel, etc.)	☐	☐	☐	☐
Concerns about environmental quality where game was harvested	☐	☐	☐	☐
Concerns about wild game quality/safety and personal health	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐

3g. How interested would you be to learn more about the following topics related to wild game meat consumption? *(Check ONE response for each topic.)*

	Not at all interested	Somewhat interested	Very interested
Hunting wild game (hunting skills, approaches, opportunities, etc.)	☐	☐	☐
Processing wild game meat (safe handling, cleaning, and storage)	☐	☐	☐
Preparing wild game meat (cooking for personal or family consumption)	☐	☐	☐
Conservation benefits of harvesting and eating wild game	☐	☐	☐
Other (please describe):	☐	☐	☐

3h. How likely are you to use the following sources to gather information and learn skills related to hunting, processing and preparing wild game meat?
(Check ONE response for each source.)

	Very unlikely	Unlikely	Unsure	Likely	Very likely	N/A
Friends & family	☐	☐	☐	☐	☐	☐
Books or magazines	☐	☐	☐	☐	☐	☐
General Internet sources (websites, blogs, etc.)	☐	☐	☐	☐	☐	☐
Local hunting clubs/groups	☐	☐	☐	☐	☐	☐
"Foodie" organizations	☐	☐	☐	☐	☐	☐
Hunting supply stores and outdoor sport outfitters (Bass Pro Shops, etc.)	☐	☐	☐	☐	☐	☐
County extension offices	☐	☐	☐	☐	☐	☐
NYS Dept. of Environmental Conservation (DEC)	☐	☐	☐	☐	☐	☐
Other (please describe):	☐	☐	☐	☐	☐	☐

SECTION 4: Nutrition Information for Wild Fish & Game

Please tell us what you think about the value of including nutrition information in wild fish and game recipes.

Nutrition Facts

Serving Size 172 g

Amount Per Serving

Calories 200 — Calories from Fat 8

% Daily Value*

Total Fat 1g — 1%
- Saturated Fat 0g — 1%
- Trans Fat

Cholesterol 0mg — 0%

Sodium 7mg — 0%

Total Carbohydrate 36g — 12%
- Dietary Fiber 11g — 45%
- Sugars 6g

Protein 13g

Vitamin A 1% • Vitamin C 1%

Calcium 4% • Iron 24%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

NutritionData.com

4a. How important do you believe it is to have nutrition information available (such as the label pictured above) for recipes involving wild fish and game meat? *(Check ONE response.)*

☐	Not at all important
☐	Slightly important
☐	Moderately important
☐	Important
☐	Extremely important
☐	No opinion

4b. If nutrition information for wild fish and game was easily accessible for use or consideration in recipes, how would that affect your desire to eat wild fish and game meat? *(Check ONE response.)*

☐	Large decrease
☐	Small decrease
☐	No change in consumption
☐	Small increase
☐	Large increase
☐	Don’t know

SECTION 5: Your FISHING Experience

Wild fish are typically obtained through recreational fishing. Please tell us about your past, present, and (potential) future fishing experience.

5a. Did you participate in fishing as a child (age 15 or younger)?

☐	Yes
☐	No
☐	Not sure

5b. Have you gone fishing in the past 12 months?

☐	Yes
☐	No ***(If NO, skip to Question 5e.)***

5c. About how many days in the <u>last 12 months</u> did you spend some time participating in fishing?

_____ days

5d. Use the scale below to estimate what percentage of your total fish catch in the last 12 months occurred within a half-day drive of the place where you live.
(Check ONE response.)

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

[Skip Q5e, proceed to Q5f.]

5e. Which of the following statements best describes you? *(Check ONE response.)*

☐	I would never go fishing
☐	I have never gone fishing, but I would consider it
☐	I have gone fishing in the past, but have since quit fishing
☐	I have gone fishing in the past, and plan to continue fishing in the future

5f. If you had access to additional information about the following topics, how likely would this information be to INCREASE your participation in FISHING?
(Check ONE response for each topic.)

	Likelihood of Increasing Fishing Participation					
Information about…	**Very unlikely**	**Unlikely**	**Unsure**	**Likely**	**Very likely**	**Don't Know**
Catching fish (fishing skills, approaches, opportunities, etc.)	☐	☐	☐	☐	☐	☐
Processing wild caught fish (safe handling, cleaning, and storage)	☐	☐	☐	☐	☐	☐
Preparing wild caught fish (cooking for personal or family consumption)	☐	☐	☐	☐	☐	☐
Conservation benefits of catching and eating wild caught fish	☐	☐	☐	☐	☐	☐

SECTION 6: Your HUNTING Experience

Wild game meat is typically obtained through recreational hunting. Please tell us about your past, present, and (potential) future hunting experience.

6a. Did you participate in hunting as a child (age 15 or younger)?

☐	Yes
☐	No
☐	Not sure

6b. Have you gone hunting in the past 12 months?

☐	Yes
☐	No ***(If NO, skip to Question 6e.)***

6c. About how many days in the <u>last 12 months</u> did you spend some time participating in hunting?

_____ days

6d. Use the scale below to estimate what percentage of your total animal harvest in the last 12 months occurred within a half-day drive of the place where you live.
(Check ONE response.)

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

[Skip Q6e, proceed to Q6f.]

6e. Which of the following statements best describes you? *(Check ONE response.)*

☐	I would never hunt
☐	I have never hunted, but I would consider it
☐	I have hunted in the past, but have since quit hunting
☐	I have hunted in the past, and plan to continue hunting in the future

6f. If you had access to additional information about the following topics, how likely would this information be to INCREASE your participation in HUNTING?
(Check ONE response for each topic.)

	Likelihood of Increasing Hunting Participation					
Information about…	**Very unlikely**	**Unlikely**	**Unsure**	**Likely**	**Very likely**	**Don't Know**
Hunting wild game (hunting skills, approaches, opportunities, etc.)	☐	☐	☐	☐	☐	☐
Processing wild game meat (safe handling, cleaning, and storage)	☐	☐	☐	☐	☐	☐
Preparing wild game meat (cooking for personal or family consumption)	☐	☐	☐	☐	☐	☐
Conservation benefits of harvesting and eating wild game	☐	☐	☐	☐	☐	☐

6g. How important are the following factors to you when deciding whether or not you will participate in fishing and hunting? *(Circle ONE response for each factor.)*

	Not at all important	**Slightly important**	**Moderately important**	**Important**	**Extremely important**
Spending time outdoors with family and friends	☐	☐	☐	☐	☐
Interacting with and learning about wildlife and nature	☐	☐	☐	☐	☐
Obtaining my own natural food from local sources	☐	☐	☐	☐	☐
Meeting and/or building friendships with other anglers and hunters	☐	☐	☐	☐	☐
Contributing to fish and wildlife conservation efforts that help local ecosystems	☐	☐	☐	☐	☐
Helping others develop outdoor recreation skills and knowledge	☐	☐	☐	☐	☐
Becoming more connected to the place where I live	☐	☐	☐	☐	☐
Improving my physical health (getting exercise)	☐	☐	☐	☐	☐
Participating in fish and wildlife management efforts that help local communities	☐	☐	☐	☐	☐
Improving my mental health (feeling mentally refreshed)	☐	☐	☐	☐	☐
Relaxing and enjoying time outdoors	☐	☐	☐	☐	☐
Challenging and improving my outdoor recreation skills and knowledge	☐	☐	☐	☐	☐
Catching or harvesting a trophy animal	☐	☐	☐	☐	☐
Providing for myself and my family	☐	☐	☐	☐	☐
Other (describe):	☐	☐	☐	☐	☐

SECTION 7. Background Information

7a. I am a…

☐	Female
☐	Male

7b. I was born in… *(Write year.)* 19_____

7c. Which of the following best describes your race/ethnicity? *(Check ONE response.)*

☐	White/Caucasian
☐	Hispanic/Latino
☐	Black/African American
☐	Asian American
☐	Native American
☐	Other (please describe):

7d. What is the highest level of education you have completed? *(Check ONE response.)*

☐	Some high school
☐	High school diploma / G.E.D.
☐	Some college or technical school
☐	Associate's or Bachelor's college degree (B.A., B.S., etc.)
☐	Graduate or professional degree (M.S., Ph.D., M.D., J.D., etc.)

7e. What was your total household income range last year (before taxes)?
(Check ONE response.)

☐	Less than $24,999
☐	$25,000-$49,999
☐	$50,000-74,999
☐	$75,000-$99,999
☐	$100,000-$149,999
☐	$150,000 or more

7f. How would you best describe the area where you grew up? *(Check ONE response.)*

☐	Rural
☐	Suburban
☐	Urban

7g. How would you best describe the area where you currently live? *(Check ONE response.)*

☐	Rural
☐	Suburban
☐	Urban

7h. In which New York county do you currently reside?

Name of New York county: _____

If not a NY resident, please list U.S. state or country of residence: _____

Thank you for your time and effort!

APPENDIX B

"Leveraging the Locavore Movement"
Follow-up Phone Interview with Non-respondents

[ONCE APPROPRIATE PERSON TO INTERVIEW HAS BEEN LOCATED]:

Good (morning, afternoon, evening):

My name is _____, and I work at Cornell University. I'm calling about a survey that was sent to you a few weeks ago. The survey asks about factors that influence your food choices, focusing on food that is grown or harvested locally. We are particularly interested in your consumption of wild-caught fish and game meat.

We realize that you may have been too busy to fill out the survey we sent last month, but we want to make sure that the survey results reflect the preferences and perspectives of people living in New York. Do you spend most of the year living in New York?

[IF NO, END INTERVIEW AND NOTE REASON FOR NON-RESPONSE AS "OUT OF STATE."]

[IF YES, CONTINUE…]

Would you be willing to take about 5 minutes right now to answer a few key questions from the survey?
[IF NO, FIND OUT WHEN IT WOULD BE CONVENIENT TO CALL AGAIN.]

[IF YES, BEGIN…]

[NOTE: INTERVIEWER IS REQUIRED TO READ THE FOLLOWING STATEMENTS BEFORE PROCEEDING]:

Before we begin, there are a few points that I need to cover:

I want to assure you that your identity will be kept completely confidential and the results will never be associated with your name. Your participation in this study is, of course, voluntary. If there is any question you would prefer not to answer, just tell me and we will go on to the next question.

1. First, please tell me whether you disagree or agree with the following statement.

- **I am motivated to eat food that is grown, raised, produced, or harvested locally**
  - *If they answer "disagree"…*
    - **Would you say you disagree or strongly disagree?**
  - *If they answer "agree"…*
    - **Would you say you agree or strongly agree?**

[Response choices and codes: 1=Strongly disagree, 2=Disagree, 3=Neither disagree or agree, 4=Agree, 5=Strongly agree, 6=Don't know]

2. Next, we'll focus on your consumption of wild-caught fish. Have you ever eaten wild fish from your local area (within a half-day drive of the place where you live) that:

- **You caught yourself?**
- **Was caught and provided to you by someone else (family, friend, etc.)?**

[Response choices and codes: 1=Yes, 2=No]

3. *[If NO to both sub-questions in Q2]* **What is the main reason that you choose not to eat wild-caught fish?**
[Open ended response.]

4. How interested would you be to learn more about the following topics related to wild-caught fish consumption?

- **Catching fish** (fishing skills, approaches, opportunities, etc.)
- **Processing and/or preparing wild caught fish** (safe handling, cleaning, and cooking for personal or family consumption)
- **Conservation benefits of catching and eating wild caught fish**

[Response choices and codes: 1=Not all interested, 2=Somewhat interested, 3=Very interested]

5. Now, we'll focus on your consumption of wild game meat. Have you ever eaten wild game meat (venison, game birds, etc.) from your local area (within a half-day drive of the place where you live) that:

- **You harvested yourself?**
- **Was harvested and provided to you by someone else (family, friend, etc.)?**

[Response choices and codes: 1=Yes, 2=No]

6. *[If NO to both sub-questions in Q5]* **What is the main reason that you choose not to eat wild game meat?**
[Open ended response.]

7. How interested would you be to learn more about the following topics related to wild game meat consumption?

- **Hunting wild game** (hunting skills, approaches, opportunities, etc.)
- **Processing and/or preparing wild game meat** (safe handling, cleaning, and cooking for personal or family consumption)
- **Conservation benefits of harvesting and eating wild game**

[Response choices and codes: 1=Not all interested, 2=Somewhat interested, 3=Very interested]

The next few questions focus on your participation in fishing and hunting.

8. Have you gone fishing in the past 12 months?

- Yes
- No

9. Which of the following statements best describes you?

- I would never go fishing
- I have never gone fishing, but I would consider it
- I have gone fishing in the past, but have since quit fishing
- I have gone fishing in the past, and plan to continue fishing in the future

10. Have you gone hunting in the past 12 months?

- Yes
- No

11. Which of the following statements best describes you?

- I would never go hunting
- I have never gone hunting, but I would consider it
- I have gone hunting in the past, but have since quit hunting
- I have gone hunting in the past, and plan to continue hunting in the future

We're almost done. Just a few additional questions:

12. Gender? *(Female or Male)*

13. Year of birth? *(WRITE answer in space provided.)* 19_____

14. What is the highest level of education you have completed?

- Some high school
- High school diploma / G.E.D.
- Some college or technical school
- Associate's or Bachelor's college degree (B.A., B.S., etc.)
- Graduate or professional degree (M.S., Ph.D., M.D., J.D., etc.)

15. How would you best describe the area where you <u>currently live</u>?

- Rural
- Suburban
- Urban

16. In which New York county do you currently reside?

Name of New York county: _____

Thank you again for your help with this study!

[END INTERVIEW, HANG UP PHONE.]