

ATTITUDES TOWARD NEW ENGLAND FISHERS: A STUDY OF TOURISTS TO THE NEW HAMPSHIRE SEACOAST

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Abstract: A study of tourists to the New Hampshire Seacoast was conducted during the Summer 1998 and 1999 tourist seasons. A mail survey collected data on how seacoast visitors viewed potential management initiatives for coastal resources, the types of activities visitors have participated in and activities they are interested in participating in the future and visitors' attitudes and opinions regarding marine fisheries, fishers, and fishing communities. Since the cultural and historical aspects of fishing communities is one of the attractions that bring visitors to the seacoast area and public attitudes toward fisheries are not well known, this paper reports on how visitors perceive fishers and fishing communities, how they view the current status of marine fisheries, and examines motivations to participate in tourist activities related to commercial fishing and fishers' heritage.

Introduction

Currently, fisheries management is approached only through stakeholders directly involved, such as commercial fishers, managers and scientists. However, New England marine fisheries are becoming a prominent issue in the media through increasing public concern and litigation by environmental groups over sustainable fisheries. Because of this attention, management of New England fisheries will increasingly shift toward managing fisheries as a common resource, for the public good. However, we do not know much about public opinion and knowledge concerning New England marine fisheries or the fishers that harvest there. An accurate assessment of public opinion is needed to ensure effective policy making representation.

There have been limited studies on public opinion on New England marine fisheries and the cultural value of fishers. Beierle and Konisky (2000) studied the emphasis of public participation in environmental policy making, and demonstrated that public participation plays a central role in ecosystem management and community-based environmental protection. Determining public opinion of fishers and the factors that shape those opinions can lead to predicting the support the public will have for different management measures.

A recent study (Turcin 2001) examining willingness-to-pay for endangered Stellar Sea Lions demonstrated that survey respondents who lived farthest from the issue (and were least likely to be affected by the issue) were more willing to pay to protect Stellar Sea Lions. Studies like this may show that tourists are less affected by the socio-economic issues of the management decision, and may favor protecting the natural resources over cultural resources so these resources may be preserved for themselves and future generations.

However, fishers have been used as "marketing tools" for New England towns, to entice tourists to visit New England and experience a traditional way of life, for example:

"A picture of a typical oceanside New England town always includes the lobsterman, headed out in his boat to empty his traps. The South Coast of Maine is home to that picture: small coastal lobster and fishing villages, quiet coves housing little boats, and dozens of sails flying over the water." (Visit New England 2002)

There have also been popular novels and movies, such as *The Perfect Storm* (Warner Brothers 2000), which dramatize fishers' lifestyles, and there has been a rise in seafood consumption and marketing of the health benefits of seafood (Holliday & O'Bannon 2000), despite declining seafood catch (Figure 1). Because of the romanticism of fishing and increased seafood consumption, the public may believe that it is important to preserve fishers' heritage and their lifestyle even though there has been evidence of declining catch.

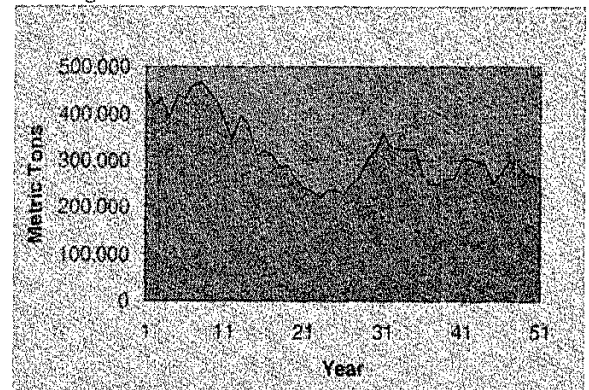


Figure 1 New England Marine Fisheries Landings, 1950-2000.

Source: National Marine Fisheries Service. 2000.

Given the recent attention of the media and environmental groups to New England marine fisheries (Diamon 2002, DeWeese 2002, Lindsay 2002, Dandurant 2002) and sometimes conflicting data, the public is presented with a variety of information and opinions. In order for the public to have an informed opinion on marine fisheries, more public education may be needed to present the public with the right facts.

This study conducted a survey of New Hampshire seacoast residents and tourists to gauge their attitudes toward New England marine fisheries and fishers, whether they believe fishers are an important part of our culture, and whether they would be interested in participating in educational activities involving fishers.

Methods

The target audience was tourists and local residents who took passage on the UNH Sea Grant Discovery cruises, New Hampshire Seacoast Cruises, and Isles of Shoals Steamship Company cruise ships during the summer tourism seasons of 1998 and 1999. The UNH Sea Grant Discovery cruises ("Discovery cruises") are education-based tours offered by the University of New Hampshire on their research vessel *Gulf Challenger*. This is a not-for-profit operation and most passengers are obtained by word of mouth. In contrast, New Hampshire Seacoast cruises and Isles of Shoals Steamship Company vessels ("commercial cruise operators") are for-profit operations, offer sightseeing cruises, party cruises and whale watches (and therefore are both sightseeing/entertainment and educational in nature) and are commercially advertised.

Excursion dates, times and types were randomly selected. Passengers were approached while waiting to board and asked to participate in a mail survey. The mail survey was designed and administered using standard data collection procedures and quality controls detailed in Dillman's Total Design Method (1978). Care was taken to ensure that the researchers and the research instrument did not bias the sample population towards a predisposition to support or oppose marine aquaculture development. A participation incentive program was developed to promote a high response rate (30% was anticipated).

The self-administered questionnaire was distributed to 750 passengers. A total of 420 completed surveys were received, yielding a 56% response rate. Responses were analyzed using SPSS statistical software and Chi-squared (X^2) and one-way analysis of variance (ANOVA) tests were used to examine for significant differences between passenger groups and attitudes.

Results

The UNH/Sea Grant Discovery cruise passengers represented 25% of the sample, while passengers of the commercial day cruise operators comprised 59% of the sample. Variables examined in our analysis included socio-demographic variables such as age, gender, education, income, and the distance of the respondent's

primary residence from a saltwater coast, and attitude measures such as whether the respondent believes the heritage of fishers should be preserved, whether there is a New England marine fisheries crisis and whether large- or small-scale fishers are responsible, and the interest respondents have in attending educational activities involving fishers or scientists

There was no significant difference between the two respondent groups in the demographic variables of age, gender or education (Table 1), but there was a difference in income, employment status and distance from a saltwater coast (Table 2). Commercial cruise passengers tended to have higher income, had a greater percentage with full-time employment, and tended to live farther from the coast. Discovery cruise passengers included more respondents who were retired and live closer to a saltwater coast.

Table 1 Socio-demographic variables for Discovery cruise and commercial cruise passengers

Age	51 years (mean)
Gender	61% female 39% male
Education	16.2% high school 48.9% Bachelor's 25.9% Masters 6.2% Ph.D./Professional degree

X^2 analysis showed no significant differences between groups for these variables ($p < .05$).

Table 2 Socio-demographic variables for Discovery cruise and commercial cruise passengers

	Discovery (n=103)	Commercial (n=250)
Income (\$)		
(median)	45-59,999	45-59,999
(mode)	30-44,999	30-44,999
(sd)	2.06	2.25
Employment Status		
Unemployed/PT	22%	14%
Full-time	43%	63%
Retired	31%	19%
Miles From Saltwater Coast		
0-10	52%	29%
10-50	37%	32%
50-100	10%	15%
>100	2%	24%

X^2 analysis showed significant differences between groups for these variables ($p < .05$).

Respondents were presented with the statement "The New England Marine Fishery in Crisis". Overall, 71% agreed and 20% disagreed. But there were significant differences between the Discovery cruise and commercial cruise passenger groups, with a larger percentage of the Discovery cruise passengers agreeing that there is a fisheries crisis (Figure 2).

Respondents were presented with the statements "Large-scale fishers are responsible for the fisheries crisis" and

"Small-scale fishers are responsible for the fisheries crisis". There were significant differences between groups, with Discovery cruise passengers more likely to agree that large-scale fishers are responsible for the fisheries crisis, while both groups tended to disagree that small-scale fishers were responsible (Table 3).

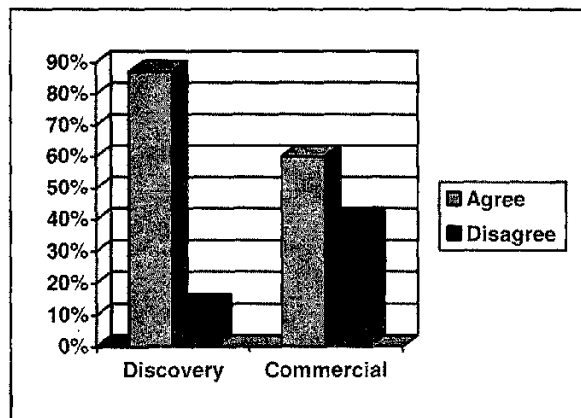


Figure 2 Responses of Discovery and Commercial cruise passengers to the statement "The New England Marine Fishery is in Crisis"

Table 3 Respondents' attitudes towards the statements "Large-scale fishers are responsible for the fisheries crisis" and "Small-scale fishers are responsible for the fisheries crisis"

Overall	Large-scale fishers	64% agree/36% disagree
	Small-scale fishers	9% agree/91% disagree
Discovery	Large-scale fishers	78% agree, 22% disagree
	Small-scale fishers	7% agree, 93% disagree
Commercial	Large-scale fishers	56% agree, 44% disagree
	Small-scale fishers	10% agree, 90% disagree

Differences were significant between groups only for large-scale fishers ($p < .05$).

Respondents were also presented with the statement "Fishers' heritage should be preserved". Overall, 75% agreed with the statement and 25% disagreed and there was no significant difference between the two groups.

We were interested in whether respondents' distance from the coast would influence their attitudes toward New England marine fisheries. As shown by Figure 3, passengers that lived farther from the coast were more likely to disagree there was a crisis or be unsure, while passengers living closer to the coast were more likely to agree that there is a New England marine fisheries crisis. This could indicate that there is a need for greater education of the public that lives in inland areas.

Respondents were presented with a variety of options of educational activities. Overall, respondents expressed interest in participating in the following activities (percentage of respondents answering that they would participate are in parentheses):

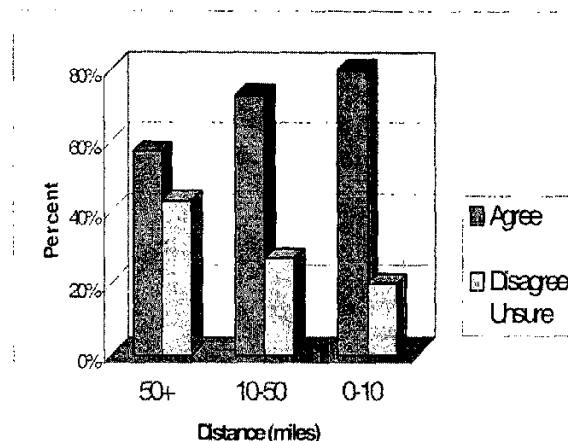


Figure 3 Distance of respondents' primary residence from a saltwater coast compared with whether or not there is a fisheries crisis.

- Presentation by a scientist or fisher (65%)
- Museum about NH marine fisheries (70%)
- Living history museum on fishing (64%)
- Whale watch that includes a visit to an aquaculture farm (82%)
- Excursion on a fishing vessel (52%)
- Marine environment museum (71%)
- Lobster boat excursion (54%)
- Shore-based aquaculture farm (68%)
- Ocean-based aquaculture farm (66%)
- All-day tour about aquaculture (61%)

Interest in the above activities was also associated with respondents' attitudes toward a New England marine fisheries crisis – respondents tended to be more likely to be interested in participating in educational activities if they agreed that there is a New England marine fisheries crisis.

Discussion

Almost three-quarters of the respondents agreed that the New England marine fisheries are in crisis, but that fishers' heritage should be preserved. Respondents also were interested in a variety of educational activities involving fishers, indicating that they are interested in learning more about fisheries. Therefore, recreation, education and tourism opportunities should reflect the growing public interest in marine fisheries issues and the desire for the public to explore and experience fishers' heritage. There is also an opportunity for managers and scientists to communicate with the public through these outlets.

Recommendations

Fishery management agencies, fishers and tourism businesses should work together in spreading awareness about fisheries issues. This could happen through businesses in coastal New England implementing

educational programs regarding fisheries, which could include fishing museums, presentations by fishers or scientists and education on fishing-related current events such as aquaculture, marine protected areas, developments in fishing gear and information on fishing regulations. Many of these ideas could be integrated into already-existing educational programs and displays.

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