Understanding Involved Fishermen: A Survey of Members of the Gulf Coast Conservation Association

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by

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ABSTRACT

The Gulf Coast Conservation Association is a group of about 10,000 individuals concentrated in Texas, but with members in other Gulf States. They have concerned themselves with fishery conservation issues in general and in protecting the interests of recreational fishermen in particular.

This report is based on a mail survey of 559 randomly selected members in the Houston-Galveston area. A total of 392 members repsonded (70 percent) and a non-response check was made. The majority of the respondents were male, middle-aged fishermen who held professional-technical occupations with family incomes over $40,000 per year. Virtually all were active fishermen who fished an average of 37 days a year. They participated in a variety of types of fishing: 86 percent fished from a boat in the coastal bays, 75 percent engaged in shore fishing, 55 percent fished freshwater and 48 percent went boat fishing in the Gulf. The most sought after fish were speckled trout, redfish, flounder, largemouth bass and king mackerel, respectively. Two-thirds of the respondents specialized in speckled trout fishing.

When asked their reasons for fishing, members reported "the opportunity to escape the daily routine by relaxing outdoors" and "to seek the challenge and sport of fishing" were paramount. Members exhibited a pattern of enhanced involvement in fishing through magazines, club membership, tournament participation, boat ownership and higher self-reported skill and catch levels. In addition, a majority supported a variety of fishery conservation options, even if it required self-sacrifice in the form of reduced catch or increased fees.

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Dick Ingram, Larry Teague and Sherry Vance of the GCCA cooperated and assisted fully with those aspects of the study that required coordination with the association.

Finally, we would like to thank the GCCA members who donated their time and opinions through their survey responses. We hope that this report gives them an opportunity to achieve a broader understanding of their fellow fishermen and their association.

RBD

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INTRODUCTION

Management of recreational resources is based on understanding recreational activity elements. These include the public's desire for recreation (demand) and availability of recreation resources (supply). Supply is provided by the private sector (e.g., amusement parks, private swimming pools) and the public sector (e.g., public parks, large bodies of water). From the manager's viewpoint, demand should be understood on an activity by activity basis.

Resource management requires a knowledge of specifics, not generalities. As a result, resource managers need maps, photographs, inventories, and descriptions of the resource supply under their stewardship. There is now a much weaker understanding and appreciation for the demand side. In the past, managers did little more than count people who utilized their area or facility. There was an underlying assumption that all users were similar. In the last 10 years, however, there has been a growing recognition of the value of understanding recreationists and their experiences. This understanding assists managers in effective planning and enhancement of the user's recreation experience.

One of the most popular recreation activities is fishing. The 1962 Outdoor Recreation Resources Review Commision reports ranked fishing as the seventh most popular outdoor recreation activity (U.S. Outdoor Recreation Resources Review Commission 1962). The National Hunting and Fishing Survey, which is conducted every five years, recently reported that more than 50 million Americans participated in fishing as a leisure pursuit (U.S. Fish and Wildlife Service 1982). Although most of the attention of marine

fishery resource managers has focused on resource optimization, sustained yield, and commercial harvesting, there is a growing recognition of recreational fishing impact and potential. The large number of saltwater anglers (Deuel 1973; U.S. Fish and Wildlife Service 1972, 1977; U.S. Heritage Conservation and Recreation Service 1977), number of fish harvested (Deuel 1978; Merriner 1976; Stroud 1973), and the economic impacts generated (Falk, Graefe and DuBose 1981; North 1976; Sport Fishing Institute 1983) are difficult to ignore.

The Magnuson Fishery Conservation and Management Act of 1976 (U.S. Congress 1976) mandates "comprehensive fisheries management" in federal jurisdictions with equitable treatment of both commercial and sport interests. The Act has helped bring recreational fishing concerns to the forefront.

Any understanding of recreational fishing demand is dependent on a reasonable grasp of various social dimensions of fishing. Descriptive summaries of demographic profiles, attitudes, preferences, participation distributions and social organizations are the social parallel to species lists, depth charts and inventories. So, for effective and comprehensive management, social concerns must be considered along with natural resources. A certain balance of information is required to effectively coordinate recreational fisheries supply and demand.

A number of approaches toward understanding the relationship of recreation resources to the recreation user exist. One approach characterizes the relationship as extractive or appreciative (McCool 1978). Another bases its premise on an urbanism - wilderism polarity (Heberlein 1973). One of the more promising theories on social-natural resource

interactions is the concept of recreational specialization. A derivative of "leisure social worlds" theory, the conceptual framework outlines an organized pattern of developmental leisure activity participation. Bryan (1977, 1979) has advanced the most complete description of the theory which explains some of the underlying processes accounting for variability in the intensity of participation in recreational activities. He contends that recreationists can be placed on a continuum of experience and commitment ranging from beginning novice to expert specialist.

The theory suggests that as a person becomes more familiar with the activity, he advances through a predictable set of alterations in reaching his goal in that activity. Orientation also changes toward the resources utilized in that activity, the use of equipment, management philosophy, leisure orientation, and social setting. For example, a novice fisherman is out to catch any fish on any tackle at any water resource in the company of his normal social group, the family. The more advanced technique-setting specialist attempts to catch a specific fish under exacting conditions in specific locations using specialized equipment usually in the company of fellow specialists. Bryan (1977) found empirical support for this thesis in a case study of trout fishermen. Graefe also (1980, 1981) empirically demonstrated that frequent participation is related to a greater degree of activity involvement. This involvement is evidenced by a series of indicators and different rewards being sought from the activity.

A possible indicator of greater fishing participation is club membership. About 4 percent of anglers in a Gulf coast sample were members of a fishing club and 7 percent of an Atlantic coast sample and a Pacific coast sample also indicated club membership (KCA Research, Inc. 1983).

Graefe (1980) found that a significantly higher proportion of active fishermen were club members. Graefe and Ditton (1976) also found support for this in a study of a shark fishing club in Corpus Christi. The scenario of club involvement enhancing recreational participation is not difficult to imagine. What was once perhaps a solo trip in the dark to a quiet fishing hole becomes a group event with contests, food, trading of information about techniques, locations and equipment, and perhaps organized political involvement. The pattern is consistent with reference group theory (Merton 1968) and the leisure social world framework (Devall 1973, Strauss 1977). Research on primary and secondary social groups is also supportive of the view (Olmsted 1978). Recent political and legal actions in Texas have also demonstrated the power of fishing association involvement in protecting the interests of recreational fishermen (Reavis 1983; Rootes 1981).

A literature search revealed few studies on the behavior of club members regarding fishing involvement and participation. There is a brief discussion of the activities of an offshore fishing club (Schutt 1978) and of several economic cooperatives for commercial fishermen (Garoyan and Taylor 1980; Matsuda 1980). It is reasonable to suggest that active fishermen can be found in fishing associations and clubs, but there is little evidence to judge the accuracy of the hypothesis.

Club members are an organized constituency who could be targeted and possibly recruited to enhance the adoption of certain management decisions. Organized groups of fishermen may provide the best lobbying voice that recreational fishermen have to communicate their side of the story (Goldstein 1982). Associations and clubs are likely to become more prominent in future political decisions on resource allocations and

regulations (Burch 1980). As an attempt to further understand a managerially relevant segment of fishermen, the present study undertakes a systematic exploration of fishing association members.

METHODS

Study Design

To identify a particular group of fishermen, a common basis of involvement was established. Club membership has been shown to be an indicator of more active fishermen. Thus, surveying members of a fishing association offered access to a managable sample and availability of fishermen from a known geographic area. By concentrating on a particular area, specific observations about that area could be made. If data were collected from across the state, different problems arising in different areas could cloud the results. In addition, there is a greater concentration of active saltwater fishermen in coastal areas compared to inland areas. For these reasons, a survey of club members in a coastal area offered the most potential for locating a sample of active fishermen.

Study Population

Previous studies by the Marine Recreation Research Laboratory at Texas A&M University have identified the Galveston Bay area as one of the most intensely utilized segments of the Gulf Coast (Ditton and Fedler 1983). In order to contact as many active fishermen as possible, the potential study area was limited to counties including and surrounding the Houston-Galveston area. One of the most politically involved and fastest growing fishing associations in the area is the Gulf Coast Conservation Association (GCCA). Because of their involvement in advocating passage of H.B. 1000 (the Redfish Bill) in 1981, the GCCA has assumed a leadership role in representing interests of recreational fishermen on the Texas Gulf Coast. The group has several classes of membership and due to the recent redfish and speckled

trout controversy in Texas (Heffernan and Kemp 1982; Matlock 1982), many actively involved fishermen likely joined the organization to show support for their interests and assist in defending "rights" in which they believed (Orbach 1976). Preliminary conversations with Dick Ingram, Executive Director of GCCA, confirmed this view and elicited an offer of cooperation with research efforts.

Survey Design

A four-page self-administered survey was designed (Appendix A), based largely on questions which had proven effective in previous fishing studies. A collection of standard demographic items, reason for fishing items, catch orientation and preferences, specialization indicators and management alternative questions were included. The "reason for fishing" items were based on the long-term project of Dr. Driver to identify reasons for recreational activity participation (1977) and more specifically, reasons for fishing (Driver and Knopf 1976; Driver and Cooksey 1978). Orientation toward catch scales were based on the work of Graefe (1977; 1980). Various indicators of fishing specialization were selected from Graefe's dissertation (1980). The indicators were based on the conceptual work of Bryan (1977; 1979). Most items were successfully employed during the black drum run of spring 1982 in Galveston (Ditton and Holland 1983) and in a previous mail survey of boat fishermen (Graefe 1980).

Sampling

An up-to-date membership list was provided by GCCA. The list included a potential statewide population of about 9,500 general chapter members. Honorary and complimentary memberships sent to legislators, county judges and news media were excluded. The sampling frame was further reduced to

members whose zip codes ranged between 77001 and 77599 (inclusive) which covers the Houston-Galveston area and surrounding counties (Galveston, Brazoria, Matagorda, Wharton, Fort Bend, Colorado, Austin, Harris, Walker, Montogomery, Liberty, Polk, San Jacinto, Liberty and Chambers counties). For the most part, members were chosen from the Houston, Galveston, Baytown, Pasadena and Bay City chapters of the GCCA. The reduction lowered the member count to 4,585.

Statistical calculations of required sample size to adequately represent a population of this size indicate that a sample of at least 360 members was necessary (Krejcie and Morgan 1970). To further reduce the sample, a systematic sub-sampling was undertaken.

After a random start, every eighth name was selected, resulting in a final sample of 572 members. Fifteen of these were business names, not specific people, so alternative members were substituted randomly from the master list. The systematic sampling approach offers advantages of efficiency while creating a sample that is equivalent to (and can be treated as) a random sample (Scheaffer et al. 1979).

Data Collection

Surveys were sent by first class mail on March 14, 1983 with a cover letter explaining the purpose of the survey (Appendix B) and a postage paid return envelope. A serial number was listed on each survey to identify returned surveys. By March 29, 262 (47 percent) had been returned completed. On March 30, a second mailout was made to members who had not yet responded. The mailout included an additional cover letter from the researchers further encouraging their support (Appendic C). By April 15, 29 additional completed surveys were received for a total response rate of 52 percent (291 surveys).

Beginning April 18, a brief phone reminder (Appendix D) was directed toward the remaining 273 members who could be reached by phone. Eighty-six of these people were not available because of unlisted numbers or failure to answer the phone during at least four attempts over a two week period. The status of the remaining 187 potential respondents is listed in Table 1. The phone reminder was generally successful. An additional 101 individuals were encourged to respond. Five names were removed due to death or upon learning that the person listed on the membership roster was not a member of GCCA. Eliminating these, as well as those surveys which were returned for incorrect addresses in our initial mailout, resulted in an actual original sample of 559 and with the final return of 392 completed, usable surveys. The final return rate was 70 percent. A short non-response check survey over the phone (Appendix E) with 25 other members produced a total cooperation rate of 74 percent.

Non-Response Member Check

One hundred and sixty-seven members (30 percent of the selected sample) did not respond to two mail survey attempts or phone call reminders. Of these, 25 individuals (15 percent) were reachable by phone and agreed to complete a short non-response survey (Appendix E). Seven questions from the original survey (Appendix A) were read over the phone and responses recorded by an interviewer. The results are presented in Table 2.

Results indicate non-respondents were more likely to have a lower self-rated fishing ability, a lower rate of fishing during the last year and the last three years, and were slightly younger. A greater number of non-respondents were not able to specify a fish that they fish for most during the year. Likewise, more non-respondents were neutral or did not know how they felt about the state's saltwater policies. These findings

Table 1: Status of Various Attempts to Obtain Responses from Sampled Members.

	MAILOUT FIGURES N	%	RETURN RESULTS N	%
Actual Viable First Mailout Sample *	559	100		
Completed Returns from First Mailout			262	46.8
Second Mailout	302	54		
Completed Returns from Second Mailout			29	5.2
Total Return after Second Mailout			291	52.0
Completed Returns after Phone Call Reminder			101	18.0
Final Completed Return Total			392	70.0
Unreachable by phone			86	15.4
Said They Would Respond but Did Not			45	8.1
Refused Cooperation			9	1.6
Did Not Speak English			2	0.4
Completed Non-response Form			25	4.5

* The first mailout was actually 572 surveys but 8 were returned with a bad address and 5 were to deceased or non-members leaving an effective mailout of 559.

indicate that responses from the four-page survey are weighted toward the more active fishermen, and toward those fishermen with greater ability and overall fishing experience. Opinions and parameters of less experienced or non-participating fishermen in the GCCA are therefore underrepresented. However, with a response rate of 70 percent, a majority of sampled members

are represented. All surveys encounter difficulty in encouraging participation of individuals who have little or no interest in the survey topic. Thus, comparison of these results with other survey research on fishing participation is valid, since previous surveys also report results in which non-respondent input is absent.

Table 2: Comparison of Respondents and Non-Respondents on Selected Items

ITEM		RESPONDENT SAMPLE (N=392)	NON-RESPONDENT SAMPLE (N=25)
Have you fished in the last three years?	YES	99%	67%
	NO	1%	33%
What is the fish you fish most frequently for during the year?	TROUT & REDS	76%	50%
	DON'T FISH	1%	23%
	FRESHWATER	5%	14%
How do you compare your fishing ability to that of other fishermen in general?	LESS	15%	48%
	EQUAL	50%	38%
	MORE	35%	14%
What is the total number of days spent fishing in 1982?	MEAN	37	10
Do you own a boat 17 feet or longer?	YES	50%	42%
	NO	50%	58%
How do you feel about the state's saltwater fishing policies and regulations?	DISAGREE	9%	6%
	NEUTRAL	7%	28%
	AGREE	81%	55%
	DON'T KNoW	3%	11%
What is your age?	MEAN	55	44

RESULTS

To understand the fishing activity of Houston-Galveston GCCA members, an examination of various elements contributing to the sport was necessary. We were interested in knowing about the members themselves, how they interacted with the fishery resource, what their attitudes toward fishing were and how they felt about certain management actions. In the following sections, descriptive results based on the 392 members who responded are presented.

Socio-Demographic Profile

Almost all of the sampled members were male. Only 2 percent of the respondents were female. This is congruant with the image of fishing as a predominantly male sport. However, population studies indicate a higher percentage of women who fish, usually in range of 15 to 30 percent (U.S. Fish and Wildlife Service 1982).

The age distribution was notably weighted towards middle age, with less than 3 percent of the members under 25 years of age (Table 3). This also deviates from the distribution of younger fishermen found in the population which averages around 35 percent (U.S. Wildlife Service 1982). Occupationally, the majority of respondents (64 percent) were involved in professional-technical fields, including sales (Table 4). These were followed, in order, by skilled and semi-skilled, retired, self-employed, and managerial professions (high level management is included in the professional category). Most members are in an age bracket indicating they are probably well established in their professions.

Table 3: Frequency Distribution of Respondent Ages

AGE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
10-17	2	0.5	0.5	0.5
18-24	9	2.3	2.3	2.8
25-49	253	64.5	65.4	68.2
50-64	90	23.0	23.3	91.5
65-80	33	8.4	8.5	100.0
No Response	5	1.3	- -	100.0
TOTAL	392	100.0	100.0	

Table 4: Frequency Distribution of Occupation Categories Listed by Respondents

OCCUPATION	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Professional-Technical-Sales	246	62.8	63.7	63.7
Skilled or Semi-Skilled	46	11.7	11.9	75.6
Retired	30	7.7	7.8	83.4
Manager	24	6.1	6.2	89.6
Self-Employed	24	6.1	6.2	95.8
Farmer	9	2.3	2.3	98.1
Clerical	3	0.8	0.8	98.9
Student	3	0.8	0.8	99.7
Unemployed	1	0.3	0.3	100.0
No Response	6	1.5	- -	100.0
TOTAL	392	100.0	100.0	

The senior member of the household is likely to enter his/her name as a member and since GCCA does not offer a family membership category, it is possible that many households with younger fishermen and/or female anglers are represented by a male head of household. In addition, it appears that GCCA is primarily an organization that appeals to middle-aged, established men. With this in mind, one should view the following results as

representative of the individuals who are members of GCCA and not representative of the associated family members.

Only five percent of the respondents said they were involved in some business aspect of sport fishing in addition to their primary occupation (Table 6). Most of these members were involved in sport fishing services that are boat-related, including sales, repair and operations. The extent of sport fishing related business participation in GCCA is underestimated since memberships to businesses instead of individuals were eliminated from the sample (15).

With this age and occupation distribution it could be expected that the average income would approach that of the middle class. Surprisingly, more than one-third of the respondents reported an annual family income greater than $70,000 (Table 5). Less than one-third of the respondents had family incomes less than $40,000. The finding offers further evidence of established, financially secure individuals forming the majority of GCCA membership.

Table 5: Frequency Distribution of Income Categories of the Respondents

INCOME	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
< 10,000	5	1.3	1.3	1.3
10-19,999	11	2.8	2.9	4.2
20-29,999	37	9.4	9.9	14.1
30-39,999	54	13.8	14.6	28.7
40-49,999	55	14.0	14.7	43.4
50-59,999	47	12.0	12.6	56.0
60-69,999	32	8.2	8.6	64.6
> 70,000	132	33.7	35.4	100.0
No Response	19	4.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 6: Frequency Distribution of Respondents among Various Sport Fishing Related Businesses

BUSINESS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
No Sport Fishing Related Business	366	93.4	95.0	95.0
Charter Boat Operator	6	1.4	1.5	96.5
Boat Sales or Repair	6	1.4	1.5	98.0
Tackle-Shop	3	0.8	0.8	98.8
Build-Sell Rods	1	0.3	0.3	99.1
Guide	1	0.3	0.3	99.4
Shrimper	1	0.3	0.3	99.7
Water Resource Management	1	0.3	0.3	100.0
No Response	7	1.8	- -	100.0
TOTAL	392	100.0	100.0	

Social Group Factors

The importance of social groups to recreation activities is well recognized. Not only are friends involved in fishing but fishing acquaintances often become friends. When asked about how many of their close friends fish; 1 percent said none, 45 percent said some, and 54 percent said most of their close friends fish. Fewer work friends were part of the member's fishing "social world." They indicated that among their co-workers, 6 percent of the members had no friends at work who fish, 76 percent said some fish, and 19 percent were in a situation where most of their co-workers fish. Virtually all kinds of groups were reported as potential fishing groups. Table 7 shows the kind of group(s) most often fished with.

Peer groups of friends were the most frequently mentioned group with families second. The stability of these fishing groups is fairly high since 82 percent of the respondents said they usually fish with the same group of

Table 7: Frequency Distribution of Type of Group Most Often go on Fishing Trip With.

TYPE OF GROUP	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Friends	187	47.7	48.8	48.8
Family	121	30.9	31.5	80.3
Family & Friends Together	42	10.7	10.9	91.2
By Oneself	30	7.7	7.8	99.0
Club	4	1.0	1.0	100.0
No Response	8	2.0	- -	100.0
	392	100.0	100.0	

people. Finally, some idea of how these groups are organized can be ascertained from the answers to a question asking if they or another member of the group usually initiated the idea to go fishing. Over half, 55 percent said that both were involved in deciding to go, while 39 percent said that they took the lead and 6 percent indicated that they usually let someone else take the lead. This indicates that about half of the fishing groups were rather democratically organized, while the other half relied upon some leader to initiate action. The fact that only 6 percent of the respondents let someone else make the decision to go fishing is evidence that most of the respondents were actively involved in their fishing, not passive observers.

Fishery Resource Interaction

Basic to fishing is the equipment used to catch fish. The amount of fishing equipment owned is visible evidence of interest in fishing (Table 8). Over one-half the sample owned between five and ten rod and reel combinations, with the average being eight. About one-quarter of the sample owned four or fewer rods and reels and one-fifth owned more than 10.

Table 8: Frequency Distribution of Number of Rod and Reels Owned

NUMBER OF ROD & REEL COMBINATIONS OWNED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
1	4	1.0	1.0	1.0
2	21	5.4	5.5	6.5
3	38	9.7	9.8	16.3
4	42	10.7	10.9	27.2
5 - 7	114	29.1	29.6	56.8
8 - 10	90	23.0	23.3	80.1
11 - 15	43	11.6	11.9	92.0
16 - 29	23	5.9	5.9	97.9
30 +	8	2.1	2.1	100.0
No Response	6	1.5	- -	100.0
	392	100.0	100.0	

How much of this gear was homemade? Twenty-seven percent of the respondents said they made their own gear with 22 percent making rods and the other 5 percent making assorted other equipment such as lures and flys.

Any doubts about the economic impact of fishing or the importance of fishing to this sample should be abated after examining the amount of money spent on reels, rods and tackle (Tables 9, 10, and 11). These questions pertained to the previous years' (1982) expenditures. On the average, about $200 per year per person was spent. Thus, these 400 or so fishermen spent about $60,000 on equipment in just one year, not counting boats, gasoline for trips to and from site or any food or motel costs. Of the three expenses (reels, rods, and tackle), tackle accounted for the highest amount on the average.

Table 9: Frequency Distribution of Amount of Money Spent on Fishing Reels during the Previous Year

AMOUNT OF MONEY SPENT ON REELS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
$0	90	23.0	24.2	24.2
$1 - 25	10	2.6	2.7	26.9
$26 - 50	60	15.3	16.1	43.0
$51 - 75	39	9.9	10.5	53.5
$76 - 100	60	15.3	16.1	69.6
$101 - 150	37	9.4	9.9	79.6
$151 - 200	40	10.2	10.8	90.3
$201 - 250	2	0.5	0.5	90.9
$250 - 1,000	30	7.7	8.1	98.9
> $1,000	4	1.0	1.1	100.0
No Response	20	5.1	- -	100.0
	392	100.0	100.0	

Mean = $80.78

Table 10: Frequency Distribution of Amount of Money Spent on Fishing Rods during the Previous Year

AMOUNT OF MONEY SPENT ON RODS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
$0	98	25.0	26.3	26.3
$1 - 25	26	6.6	7.0	33.3
$26 - 50	71	18.1	19.1	52.4
$51 - 75	25	6.4	6.7	59.1
$76 - 100	54	13.7	14.6	73.7
$101 - 150	32	8.2	8.6	82.3
$151 - 200	34	8.7	9.1	91.4
$201 - 250	7	1.8	1.9	93.3
$250 - 1,000	21	5.4	5.6	98.9
> $1,000	4	1.0	1.1	100.0
No Response	20	5.1	- -	100.0
	392	100.0	100.0	

Mean = $72.30

Table 11: Frequency Distribution of Amount of Money Spent on Fishing Tackle during the Previous Year

AMOUNT OF MONEY SPENT ON TACKLE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
$0	20	5.1	5.4	5.4
$1 - 25	46	11.7	12.4	17.7
$26 - 50	120	30.6	32.3	50.0
$51 - 75	31	7.9	8.3	58.3
$76 - 100	50	12.8	13.4	71.8
$101 - 150	25	6.4	6.7	78.5
$151 - 200	36	9.2	9.7	88.2
$201 - 250	5	1.3	1.3	89.5
$250 - 1,000	33	8.4	8.9	98.4
> $1,000	6	1.5	1.6	100.0
No Response	20	5.1	- -	100.0
	392	100.0	100.0	

Mean = $85.55

Boat ownership can be viewed as further evidence of interest in water based recreation. Many boat owners are fishermen (Ditton and Fedler 1983) and a boat does increase the options for the type of fishing available to the fisherman. This survey inquired about ownership of a boat 17-feet or longer to distinguish those boats that would be practical for use in Gulf waters. The members were split; 50 percent said they owned such a boat and 50 percent said they did not. We estimate from the number of people who reported boatfishing in bays that the total number of boatowners (when boats of all sizes are counted) is approximately 75 to 80 percent. This is a higher rate of boat ownership than found in the general population, even in coastal counties (Ditton and Fedler 1983).

Sources of information about fishing are also important. Almost two-thirds of the respondents reported subscribing to another fishing

magazine beside Gulf Tide (the GCCA magazine). Just under three-fourths read newspaper fishing reports regularly. These are impressively high figures which fit well with the scenario of a well educated, upper middle class, informed and involved group of fishermen.

Table 12: Frequency Distribution of Number of Respondents Who Subscribe to Fishing Magazines

FISHING MAGAZINE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Do Subscribe	245	62.5	63.1
Don't Subscribe	143	36.5	36.9
No Response	4	1.0	- -
	392	100.0	100.0

Table 13: Frequency Distribution of Number of Respondents Who Read Fishing Reports in the Newspaper

NEWSPAPER FISHING REPORTS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Rarely Read	33	8.4	8.5
Occasionally Read	71	18.1	18.2
Regularly Read	286	73.0	73.3
No Response	2	0.5	- -
	392	100.0	100.0

Participation

Two of the objectives in the 1983 GCCA membership survey were to find out if members were currently active fishermen and which fish species they most frequently sought. Nearly all (99 percent) responded that they had fished in the past three years (Table 14), with less than 1 percent not having fished in 1982.

Table 14: Frequency Distribution of the Number of Respondents who Have Fished in the Last Three Years

FISHED IN LAST THREE YEARS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	383	97.7	99.2
No	3	0.8	0.8
No Response	6	1.5	- -
TOTAL	392	100.0	100.0

In response to the question, "How much time do you spend fishing compared to the average fisherman?", 28 percent of the respondents said less time, 39 percent said an equal amount of time and 32 percent said more time (Table 15). This perception was well supported by a computation of the total number of days fished in 1982 for fishermen in each category. The mean number of days increased by 80 percent for each higher participation category. The respondents were then asked to report the number of days they spent fishing the previous year (Table 16).

Table 15: Self-rated Amount of Time Spent Fishing Compared to the Average Fisherman

RESPONSE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)	MEAN ANNUAL DAYS FISHED
Less Time	108	27.6	28.2	28.2	18
Same Time	151	38.5	39.4	67.6	32
More Time	124	31.6	32.4	100.0	58
No Response	9	2.3	- -	100.0	
TOTAL	392	100.0	100.0		

Table 16: Frequency Distribution of Number of Days Spent Fishing during the Previous Year (1982)

NUMBER OF DAYS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	3	0.8	0.8	0.8
1 - 13	69	17.6	17.9	18.7
14 - 33	168	42.8	43.7	62.4
34 - 63	91	23.2	23.6	86.0
64 - 230	54	13.8	14.0	100.0
No Response	7	1.8	- -	100.0
TOTAL	392	100.0	100.0	

Mean = 37 days Median = 28 days Std. Deviation = 33 days

The number of fishing days was collapsed into the categories established by Graefe (1980) as natural groupings of similar participation levels. The majority of respondents (67 percent) fish between 14 and 63 days per year (Table 16). A little less than half of the fishermen (44 percent) went fishing about two to three days a month if activity was distributed across the year. Another 24 percent went fishing more frequently, about three to five days a month. These two categories accounted for two out of three GCCA fishermen, who fished between 14 - 63 days per year. This distribution is generally equivalent to a survey of the population of boat fishermen by Graefe (1980). The highest two categories (34 - 63 and 64 - 230 days) contain 7 percent more fishermen in the GCCA sample.

Less than 1 percent of the GCCA respondents had not fished in 1982 (Table 16). The fishing participation question was subdivided into four resource types to determine the amount of time devoted to different kinds of

fishing. The categories of fishing included were freshwater, marine shoreline, and marine boat (sub-divided into bay and Gulf fishing). The respondents were asked to estimate the number of days spent on each type of fishing during 1982.

About half of the GCCA members did not fish at all in offshore Gulf waters or in freshwater during 1982. Ninety percent of the members did some boat fishing, mostly in the bays. GCCA members fished most commonly from 1-13 days per year in each setting (Tables 18, 19, 20, 21, 22). Though roughly the same absolute number of members (about 160) fished with this frequency in the four different locations, most of the fishing occurred in shallow marine waters (Table 17).

Table 17: Percentage of Respondents Who Participate in Selected Types of Fishing

TYPE OF FISHING	BAY BOAT FISHING (PCT)	PIER OR SHORE FISHING (PCT)	FRESH WATER FISHING (PCT)	GULF BOAT FISHING (PCT)
Yes	85.6	74.8	55.3	47.5
No	14.4	25.2	44.7	52.5

A sign of active interest in fishing for some people is tournament participation (Graefe 1980). About 70 percent of the sample had never fished in a tournament. The remaining 30 percent were divided into 15 percent who enter a tournament once every two or three years, 9 percent who participate once a year and 6 percent who fish a tournament more than once a year.

Table 18: Number of Days Spent Pier, Shore or Wade Fishing in 1982

DAYS FISHED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	97	24.7	25.2	25.2
1-13	167	42.7	43.4	68.6
14-33	88	22.4	22.8	91.4
34-63	22	5.6	5.7	97.1
64-230	11	2.8	2.9	100.0
No Response	7	1.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 19: Number of Days Spent Boat Fishing in 1982

DAYS FISHED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	40	10.2	10.4	10.4
1-13	163	41.6	42.3	52.7
14-33	129	32.9	33.5	86.2
34-63	42	10.7	10.9	97.1
64-230	11	2.8	2.9	100.0
No Response	7	1.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 20: Number of Days Spent Bay Fishing from a Boat in 1982

DAYS FISHED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	55	14.0	14.4	14.4
1-13	169	43.1	44.4	58.8
14-33	116	29.7	30.4	89.2
34-63	35	8.9	9.2	98.4
64-230	6	1.5	1.6	100.0
No Response	11	2.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 21: Number of Days Spent Fishing in the Gulf of Mexico from a Boat

DAYS FISHED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	200	51.0	52.5	52.5
1-13	147	37.5	38.6	91.1
14-33	28	7.1	7.3	98.4
34-63	5	1.3	1.3	99.7
64-230	1	0.3	0.3	100.0
No Response	11	2.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 22: Number of Days Spent Freshwater Fishing in 1982

DAYS FISHED	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0	172	43.9	44.7	44.7
1-13	171	43.6	44.4	89.1
14-33	29	7.4	7.5	96.6
34-63	8	2.0	2.1	98.7
64-230	5	1.3	1.3	100.0
No Response	7	1.8	- -	100.0
TOTAL	392	100.0	100.0	

Favorite Fish

Members were asked to list the three fish species they most commonly fished for (Tables 23, 24, 25). The compiled list of responses consisted primarily of nearshore marine fishes, but included a few offshore marine and freshwater species. The most frequently listed "first choice" fish species were speckled trout and redfish, with over half of the respondents actively fishing for speckled trout (Table 23). Together, the two species were mentioned by 76 percent of the GCCA members as their favorite fish.

Table 23: Frequency Distribution of Most Sought Fish During the Year

FISH SPECIES	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Speckled Trout	207	52.7	53.1	53.1
Redfish	90	23.0	23.1	76.2
Largemouth Bass	36	9.2	9.3	85.5
Flounder	20	5.1	5.1	90.6
King Mackerel	10	2.6	2.6	93.2
Offshore	7	1.8	1.8	95.0
Red Snapper	4	1.0	1.0	96.0
Ling	3	0.7	0.8	96.8
Crappie	2	0.5	0.5	97.3
Catfish	2	0.5	0.5	97.8
Croaker	2	0.5	0.5	98.3
Fresh Water	2	0.5	0.5	98.8
Redfish & Speckled Trout	1	0.3	0.3	99.1
Black Drum	1	0.3	0.3	99.4
Tarpon	1	0.3	0.3	99.7
Anything	1	0.3	0.3	100.0
No Response	3	0.7	- -	100.0
TOTAL	392	100.0	100.0	

Redfish and speckled trout were also cited as being the most often targeted second choices, with redfish leading in importance (Table 24). No other marine or freshwater species approached the two with respect to the number of people listing them as their favorite fish.

Flounder was the most commonly sought third choice in fish species (Table 25). These were followed by redfish, speckled trout, and king mackerel. All were desired by about an equal number of fishermen. Largemouth bass was the only freshwater fish rated as a sought species by a sizable number (25 percent across all three choices) of respondents. GCCA members fished primarily for marine species (Table 26). The pattern is consistent with concerns of the organization's leaders and their location on the coast.

Table 24: Frequency Distribution of Second Most Sought Fish During the Year

FISH SPECIES	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Redfish	189	48.1	49.2	49.2
Speckled Trout	108	27.6	28.1	77.3
Flounder	24	6.1	6.3	83.6
Largemouth Bass	14	3.6	3.6	87.2
King Mackerel	10	2.6	2.6	89.8
Fresh Water	6	1.5	1.6	91.4
Ling	6	1.5	1.6	93.0
Crappie	5	1.3	1.3	94.3
Croaker	5	1.3	1.3	95.6
Red Snapper	3	0.8	0.8	96.4
Dolphin	2	0.4	0.4	96.8
Catfish	2	0.4	0.4	97.2
Black Drum	1	0.3	0.3	97.5
Gafftop	1	0.3	0.3	97.8
Shark	1	0.3	0.3	98.1
Whiting	1	0.3	0.3	98.4
Offshore	1	0.3	0.3	98.7
Striper	1	0.3	0.3	99.0
Tripletail	1	0.3	0.3	99.3
Gar	1	0.3	0.3	99.6
Other	2	0.4	0.4	100.0
No Response	8	2.0	- -	100.0
TOTAL	392	100.0	100.0	

When asked if they put most of their effort into fishing for one particular kind of fish, 63 percent of the respondents replied affirmatively (Table 27). Speckled trout was the preferred species for one-half of those fishermen who specialized in seeking particular fish. Another 18 percent expressed a preference for both redfish and speckled trout.

The unexpectedly low percentage of redfish specialists may reflect the low success rate in catching the species due to decreased population and/or catch restrictions.

Table 25: Frequency Distribution of Third Most Sought Fish During the Year

FISH SPECIES	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Flounder	141	36.0	38.7	38.7
Redfish	45	11.4	12.4	51.1
Largemouth Bass	43	11.0	11.8	62.9
Speckled Trout	39	9.9	10.7	73.6
King Mackerel	35	8.9	9.6	83.2
Fresh Water	8	2.0	2.2	85.4
Offshore	8	2.0	2.2	87.6
Red Snapper	6	1.5	1.7	89.3
Crappie	5	1.3	1.4	90.7
Croaker	5	1.3	1.4	92.1
Dolphin	4	1.0	1.1	93.2
Anything	4	1.0	1.1	94.3
Shark	3	0.8	0.8	95.1
Ling	2	0.5	0.6	95.7
Catfish	2	0.5	0.6	96.3
Striper	2	0.5	0.6	96.9
Sheepshead	1	0.3	0.3	97.2
Redfish & Speckled Trout	1	0.3	0.3	97.5
Black Drum	1	0.3	0.3	97.8
Tarpon	1	0.3	0.3	98.1
Other	7	1.8	1.9	100.0
No Response	29	7.4	- -	100.0
TOTAL	392	100.0	100.0	

Table 26: Percentage of Marine and Freshwater Species among the Three Most Sought Fish Species

CHOICE	MARINE (PCT)	FRESHWATER (PCT)
First	89.2	10.8
Second	93.5	6.5
Third	84.6	15.4

Table 27: Frequency Distribution of Fish Species Which Are Subject to the Most Attention by the Respondents

SPECIES	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Speckled Trout	121	30.9	49.6	49.6
Redfish & Speckled Trout	45	11.5	18.4	68.0
Redfish	33	8.4	13.5	81.5
Largemouth Bass	17	4.3	7.0	88.5
Offshore Species	8	2.0	3.3	91.8
King Mackerel	5	1.3	2.1	93.9
Other	15	3.8	6.1	100.0
Do Not Specialize	148	37.8	- -	100.0
	392	100.0	100.0	

Reasons for Participation

It is always of interest to know why people engage in a particular activity. A set of 15 items was presented to the members in order to identify perceptions of why they participate (Table 28). The first seven reasons for participation were rated very important or extremely important by more than half of the respondents. Two themes in this set of statements are present: 1) to get away from the daily routine by relaxing outdoors and 2) to seek the challenge and sport of fishing. There is little doubt of the importance of fishing as a source of outdoor relaxation for this group. This is a basic "given" that is reconfirmed by the responses. Moreover, it is interesting to note the priority given to other statements about fishing participation. Still rated highly but more moderately than previous statements were desires to be with friends or family and to be close to the sea. Reasons considered slightly to moderately important by the majority included "To obtain fish for eating", "To experience new and different

things" and "To develop skills". Fishing for a trophy fish or testing equipment were of only minor consequence in fishing participation. The fishing behavior of the respondents seem guided by classic parameters of leisure: freedom, lack of constraints, change from the routine, and a chance to be with friends in a comfortable setting. Any suggestions of specific goals such as to obtain fish for eating, obtaining a trophy fish or testing equipment were generally ranked of low importance. It can be argued that due to the urbanized residence, professional-technical training, high income and moderate participation aspects of these members, fishing is primarily an escape from the daily pressures of city life and an opportunity to share an enjoyable sport with friends and/or family. It would be difficult to believe that they fish because they need to put food on their table.

Orientation Toward Catch

A series of nine questions were included in the survey to solicit GCCA members opinions on consumptive aspects of their sport fishing. A Likert scale was used to measure opinion, ranging in five categories from strongly disagree to strongly agree. The questions covered general factors of satisfaction in catching fish and whether the number and size of the fish caught are important (Table 29). The majority of GCCA respondents said the type of fish they catch is important (item nine). This is indicated by their preference for speckled trout and redfish (Tables 23, 24). Almost all respondents said they do eat the fish they catch (item one). Most said they would be unhappy if they were required to release them (item seven). However, in reference to redfish, most agreed they would release the fish if it were necessary for maintenance of the fish population (Table 30).

Table 28: Reasons for Participation in Fishing, ranked by mean score

ITEMS	MEAN	1 NOT	2 SLIGHTLY	3 MODER.	4 VERY	5 EXTREMELY
		I M P O R T A N T (FIGURES GIVEN IN PERCENT)				
To be outdoors	4.3	1.0	3.4	9.9	40.1	45.6
For relaxation	4.2	1.3	5.1	12.1	31.4	50.1
To get away from the regular routine	3.9	4.8	8.6	18.0	32.2	36.4
To experience natural surroundings	3.7	4.9	9.4	22.4	35.8	27.5
For the experience of the catch	3.6	6.4	10.2	27.5	27.8	28.1
To get away from the demands of other people	3.6	11.3	11.1	18.1	27.8	31.7
For the challenge of sport	3.5	7.9	11.3	27.4	28.1	25.3
To be with friends	3.4	4.0	11.9	36.3	35.4	12.4
To be close to the sea	3.3	12.1	16.6	22.3	25.1	23.9
For family recreation	3.2	12.9	16.4	23.4	28.8	18.5
To obtain fish for eating	2.9	11.5	24.9	34.4	20.1	9.1
To experience new and different things	2.9	16.2	22.7	30.8	18.9	11.4
To develop my skills	2.8	20.1	20.1	31.1	17.2	11.5
To obtain a 'trophy' fish	2.2	41.8	21.6	19.5	9.1	8.0
To test my equipment	2.1	40.4	29.7	18.2	8.0	3.7

About half of respondents said they are happier when they catch more fish (item four). The other half, however, were either neutral or disagreed, indicating that many GCCA members are interested in aspects of fishing other than catching fish. This second stance is further reinforced

Table 29: Frequency Distribution of Responses to Orientation Toward Catch Items

ITEMS	MEAN	1 STRONGLY DIS-AGREE	2 DIS-AGREE	3 NEUTRAL	4 AGREE	5 STRONGLY AGREE
		(FIGURES GIVEN IN PERCENT)				
1. I usually eat the fish I catch	4.3	0.5	3.7	8.9	42.6	44.3
2. A fishing trip can be successful even if no fish are caught	3.8	2.8	9.3	13.0	54.9	20.0
3. I would rather catch one or two big fish than 10 smaller	3.4	4.7	20.9	22.7	31.3	20.4
4. The more fish I catch, the happier I am	3.3	5.0	19.6	23.0	43.3	9.1
5. The bigger the fish I catch, the better the fishing trip	3.2	5.5	27.2	24.3	31.3	11.7
6. A successful fishing trip is one in which many fish are caught	3.2	5.0	24.2	29.8	31.8	9.2
7. I'm just as happy if I don't keep the fish I catch	2.8	10.2	34.3	26.2	22.5	6.8
8. When I go fishing, I'm just as happy if I don't catch a fish	2.5	13.3	47.4	18.8	16.9	3.6
9. It doesn't matter to me what type of fish I catch	2.3	19.6	48.8	13.3	14.4	3.9

by responses that most members agree or strongly agree that a fishing trip can be successful even if no fish are caught (item two). The premise was further reiterated in response to another question in which most members said they were neutral or disagreed that a successful trip is one in which many fish are caught (item six).

Table 30: Frequency Distribution of Responses to: If you felt it was necessary to the maintenance of the redfish population, would you agree to releasing all redfish caught?

RELEASE ALL REDFISH CAUGHT	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Yes	289	73.7	76.5	76.5
No	89	22.7	23.5	100.0
No Response	14	3.6	- -	100.0
TOTAL	392	100.0	100.0	

Although a fishing trip can be perceived by GCCA members as being successful irrespective of fish caught, the degree of satisfaction received does seem related to the number and size of the fish caught. Nearly half of the respondents indicated they are not as happy with a fishing trip in which no fish were caught (item eight). Just over half prefer to catch a few large fish rather than a number of smaller ones (item three). This includes a considerable number (20 percent) that strongly prefer large fish (item three).

GCCA members gain satisfaction and enjoyment from fishing for reasons not limited to catching fish. However, though not the only criterion for fishing satisfaction, the number and size of fish caught are directly related to the amount of satisfaction gained by many fishermen.

Management

Another objective of the GCCA survey was to solicit the memberships' opinions on Texas fishing. Responses were sought in the areas of fisheries management and goals the GCCA should seek. The management-oriented questions dealt with general Texas saltwater fishing policies and regulations, as well as those for specific fisheries. Additionally, GCCA members responded to questions concerning problems and leadership in Texas fisheries management.

Although GCCA members generally agreed with Texas' saltwater fishing policies and regulations (Table 31), a small number disagreed (9 percent). To get an indication of where perceived problems exist, GCCA members were asked what one thing they would most like to see done to improve fishing (Table 32). While opinions varied, there were two basic response themes. One, there was a perceived breakdown in the regulatory-enforcement aspects of Texas fisheries. The two most commonly stated suggestions for improving fishing were stricter netting laws and increased law enforcement (52 percent). There was a feeling that sport fishing is not optimal due to illegal practices and efficiency of netting.

Table 31: Frequency Distribution of Reactions to Texas Fishing Policies and Regulations

RESPONSE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Disagree	35	8.9	9.1	9.1
Neutral	25	6.4	6.5	15.7
Agree	312	79.6	81.5	97.1
Don't Know	11	2.8	2.9	100.0
No Response	9	2.3	- -	100.0
TOTAL	392	100.0	100.0	

Table 32: Frequency Distribution of Responses to: What one thing would you most like to see done to improve fishing?

SUGGESTIONS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Stricter Netting Laws	100	25.4	28.5
Increased Enforcement of Laws	83	21.2	23.6
Greater Restrictions on Commercials	34	8.7	9.7
Take Trout & Reds Off Market	24	6.1	6.9
Greater Pollution Controls	22	5.6	6.3
Keep the Trout - Redfish Bill	17	4.3	4.9
Increase Hatcheries & Stocking	14	3.6	4.0
Protect Tx Coastal Resources	7	1.8	2.0
Increase or Improve Fishing	5	1.3	1.4
Initiate Flounder Regulations	4	1.0	1.1
Increase Public Facilities	3	0.8	0.9
More Public Education	2	0.5	0.6
Improve Habitat	2	0.5	0.6
Greater Political Involvement	1	0.3	0.3
Eliminate or Lower Possession Limits	1	0.3	0.3
Other	31	7.9	8.9
No Response	42	10.7	- -
TOTAL	392	100.0	100.0

Two, there was the expression of rivalry between sport and commercial fishermen. Rivalry was reflected in suggestions for stricter netting laws and that more restrictions be placed on commercial fishing (38 percent). Other suggestions along the same theme included taking speckled trout and redfish off the commercial market altogether and maintaining the trout and redfish bill which designates these fish exclusively for sport fishing (Table 32).

Though not as frequently suggested as commercial restrictions and enforcement, some GCCA members expressed a desire to improve Texas fisheries through constructive environmental practices and active fish population management (14 percent). Suggestions include protection of Texas coastal

resources, pollution control, and fish stocking with the establishment of a hatcheries system (Table 32).

The concensus was that a state agency or the Texas legislature should take the leadership in improving saltwater fishing policies and regulations rather than citizen's groups or the private sector (Table 33). The respondents expressed a belief that citizen's letters and/or actions do influence public policies (Table 34).

Table 33: Frequency Distribution of Responses to: Who should take leadership for improving fishing?

LEADERSHIP	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
State Agency	124	31.6	34.9
Tx Legislature	85	21.6	24.0
Citizens Group	31	7.9	8.7
Private Sector	8	2.0	2.3
State Agency & Tx Legislature	35	8.9	9.9
Tx Legislature & Citizen Groups	21	5.4	5.9
All Four Entities	15	3.8	4.2
State Agency & Citizen Groups	12	3.1	3.4
State Agency & Tx Legis & Citizens Gp	11	2.8	3.1
Citizen Groups & Private Sector	5	1.3	1.4
Tx Legislature & Private Sector	3	0.8	0.8
State Agency & Private Sector	3	0.8	0.8
Tx Legisl. & Citizen Gps & Private Sec	1	0.3	0.3
State Agency & Citizens Gps & Priv Sec	1	0.3	0.3
No Response	37	9.4	- -
TOTAL	392	100.0	100.0

GCCA members were asked to comment on current size and possession limits for both speckled trout and redfish (Tables 35, 36, 37, 38). A strong majority (86-95 percent) of the respondents felt that current limits were both fair to the fisherman and adequate to maintain fish population levels for a sustained yield. However, as mentioned previously, most

Table 34: Frequency Distribution of Responses to: Do citizen's letters or actions influence policies?

DO ACTIONS INFLUENCE POLICIES	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	362	92.4	96.0
No	15	3.8	4.0
No Response	15	3.8	- -
TOTAL	392	100.0	100.0

respondents suggested that fishing could be improved by better enforcement of regulations including these limits and stronger restrictions on netting and commercial fisheries (Table 32).

Table 35: Frequency Distribution of Responses to: Do you agree with the current redfish limits with regard to size?

AGREE WITH CURRENT SIZE LIMITS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	364	92.9	94.8
No	20	5.1	5.2
No Response	8	2.0	- -
TOTAL	392	100.0	100.0

Of those few respondents that did not agree with current limits on redfish, there was an apparent feeling that an inequity exists in the number of fish caught and kept by fishermen. On one hand, they suggested that the catch and possession limits be cut approximately in half (Tables 39, 40). This would (if enforced) keep the more active, or better fishermen from being able to utilize as large a portion of the fish stocks, leaving more

Table 36: Frequency Distribution of Responses to: Do you agree with the current redfish limits with regard to number of fish kept?

AGREE WITH CURRENT POSSESSION LIMITS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	336	85.7	89.1
No	41	10.5	10.9
No Response	15	3.8	- -
TOTAL	392	100.0	100.0

Table 37: Frequency Distribution of Responses to: Do you agree with the current speckled trout limits with regard to size?

AGREE WITH CURRENT SIZE LIMITS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	350	89.3	91.1
No	34	8.7	8.9
No Response	8	2.0	- -
TOTAL	392	100.0	100.0

Table 38: Frequency Distribution of Responses to: Do you agree with the current speckled trout limits with regard to number of fish kept?

AGREE WITH CURRENT POSSESSION LIMITS	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)
Yes	328	83.7	86.1
No	53	13.5	13.9
No Response	11	2.8	- -
TOTAL	392	100.0	100.0

for the occasional fishermen. While most respondents preferred to keep the current size range on legal "keepers," the few who did not agree wanted to

raise the upper size limit (Tables 41 and 42) so that more of the fish caught could be kept. Hypothetically, the changes proposed by a distinct minority of members would allow the occasional, less serious fishermen more of a chance to catch "enough" redfish.

Table 39: Frequency Distribution of Responses to: What do you suggest as fair limits on number of redfish kept per day?

NUMBER OF FISH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limit (10)	350	89.3	91.6	91.6
2	1	0.3	0.3	91.9
5	20	5.1	5.2	97.1
6	3	0.7	0.8	97.9
8	3	0.7	0.8	98.7
20	2	0.5	0.5	99.2
Lower Limits	2	0.5	0.5	99.7
Raise Limits	1	0.3	0.3	100.0
No Response	10	2.6	- -	100.0
TOTAL	392	100.0	100.0	

As with redfish, those few who disagreed with current speckled trout limits felt possession limits should be lowered, generally to half the current levels (Tables 43, 44). Again, this would theoretically have the effect of more evenly distributing the stocks among the fishermen (excluding possibility of stock under-utilization). However, unlike the redfish case, about 8 percent of the respondents who did not agree with current limits felt that the lower size limit should be raised (Table 45), with the consequence of narrowing the legal size range. The change would effectively lower the number of fish taken, and give the smaller fish a greater chance at reproductive success. Unlike redfish, speckled trout currently have no upper size limit, nor was any recommended by the respondents.

Table 40: Frequency Distribution of Responses to: What do you suggest as fair limits on the number of redfish kept in possession at one time?

NUMBER OF FISH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limit (20)	348	88.8	91.0	91.0
3	1	0.3	0.3	91.3
5	1	0.3	0.3	91.6
10	22	5.5	5.8	97.4
12	1	0.3	0.3	97.6
15	2	0.5	0.5	98.2
16	2	0.5	0.5	98.7
40	2	0.5	0.5	99.2
Lower Limits	2	0.5	0.5	99.7
Raise Limits	1	0.3	0.3	100.0
No Response	10	2.5	- -	100.0
TOTAL	392	100.0	100.0	

Table 41: Frequency Distribution of Responses to: What do you suggest as fair limits on the minimum keeper size for redfish?

FISH LENGTH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limit (16")	369	94.0	97.3	97.3
13"	1	0.3	0.3	97.6
14"	5	1.3	1.2	98.8
15"	1	0.3	0.3	99.1
18"	1	0.3	0.3	99.4
30"	1	0.3	0.3	99.7
Raise Limits	1	0.3	0.3	100.0
No Response	13	3.2	- -	100.0
TOTAL	392	100.0	100.0	

GCCA members were asked to respond to propositions that would either restrict the fish they could keep, or cost them more money for licenses and fees. The three propositions were doubling fishing license fees, creation

Table 42: Frequency Distribution of Responses to: What do you suggest as fair limits on the maximum keeper size for redfish?

FISH LENGTH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Llimit(30")	370	94.3	97.6	97.6
26"	1	0.3	0.3	97.9
34"	2	0.5	0.5	98.4
36"	2	0.5	0.5	98.9
Raise Limits	3	0.8	0.8	99.7
No Limit	1	0.3	0.3	100.0
No Response	13	3.3	- -	100.0
TOTAL	392	100.0	100.0	

Table 43: Frequency Distribution of Responses to: What do you suggest as fair limits on the number of speckled trout kept per day?

NUMBER OF FISH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limit (20)	336	85.7	88.1	88.1
5	2	0.5	0.5	88.6
6	1	0.3	0.3	88.8
10	28	7.1	7.3	96.1
15	7	1.8	1.8	97.9
30	2	0.5	0.5	98.4
Lower Limits	4	1.0	1.0	99.5
Raise Limits	2	0.5	0.5	100.0
No Response	10	2.6	- -	100.0
TOTAL	392	100.0	100.0	

of a mandatory redfish stamp, and release of all redfish caught. A majority of respondents were for these propositions (Tables 46, 47, 48) on the condition they were necessary to maintain and/or benefit fisheries. GCCA members were apparently willing to make some personal sacrifices for positive management practices that should benefit future fisheries.

Table 44: Frequency Distribution of Responses to: What do you suggest as fair limits on number of speckled trout kept in possession at any one time?

NUMBER OF FISH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limit (40)	342	87.2	89.8	89.8
10	4	1.0	1.0	90.8
12	1	0.3	0.3	91.1
15	2	0.5	0.5	91.6
20	16	4.1	4.2	95.8
28	1	0.3	0.3	96.1
30	8	2.0	2.1	98.2
50	1	0.3	0.3	98.4
Lower Limits	4	1.0	1.0	99.5
Raise Limits	2	0.5	0.5	100.0
No Response	11	2.8	- -	100.0
TOTAL	392	100.0	100.0	

Table 45: Frequency Distribution of Responses to: What do you suggest as fair limits on the minimum keeper size for speckled trout?

FISH LENGTH	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Keep Current Limits (12")	351	89.4	91.8	91.8
10"	1	0.3	0.3	92.1
14"	21	5.4	5.5	97.6
15"	2	0.5	0.5	98.2
16"	6	1.5	1.6	99.7
Lower Limits	1	0.3	0.3	100.0
No Response	10	2.6	- -	100.0
TOTAL	392	100.0	100.0	

A majority of GCCA members expressed a belief that citizen's letters and actions influence policies (Table 34). To test if these ideas are carried into practice, the survey included three questions to determine if members had ever called or written to a legislator, or attended a hearing on

Table 46: Frequency Distribution of Responses to: How would you react to a doubling of the state fishing license fee if monies were to benefit fisheries in some way?

DOUBLE STATE LICENSE FEE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
For	302	77.1	78.3	78.3
Neutral	48	12.2	12.4	90.7
Against	36	9.2	9.3	100.0
No Response	6	1.5	- -	100.0
TOTAL	392	100.0	100.0	

Table 47: Frequency Distribution of Responses to: How would you react to having to purchase a redfish stamp, for example if the funds were earmarked for fisheries conservation?

MANDATORY PURCHASE OF REDFISH STAMP	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
For	286	73.0	74.1	74.1
Neutral	46	11.7	11.9	86.0
Against	54	13.8	14.0	100.0
No Response	6	1.5	- -	100.0
TOTAL	392	100.0	100.0	

a fisheries related issue. Apparently GCCA members are motivated to express their opinions to legislators. Sixty percent had written letters, and 20 percent had called and/or attended meetings (Table 49). Of course, these results are based on self reports which cannot be verified.

Trends in bait use are also of interest to coastal fisheries managers. Members were asked what kind of bait they usually used (Table 50). Ninety-two percent of the respondents said artificial or live bait, or a combination of the two. Live bait was used by half of the respondents and dead bait by about 15 percent.

Table 48: Frequency Distribution of Responses to: If you felt it was necessary to the maintenance of the redfish population, would you agree to releasing all redfish caught?

RELEASE ALL REDFISH CAUGHT	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Yes	289	73.7	76.5	76.5
No	89	22.7	23.5	100.0
No Response	14	3.6	- -	100.0
TOTAL	392	100.0	100.0	

Table 49: Frequency Distribution of Respondents who Have Taken Political Action on a Fisheries Matter

TYPE OF ACTION	YES	NO	NO RESPONSE
Called Legislator on a Fisheries Matter	18.1	72.5	9.4
Wrote Legislator on a Fisheries Matter	57.9	38.3	3.8
Attended Hearing on a Fisheries Issue	18.6	74.8	6.6

Table 50: Frequency Distribution of Type of Bait Usually Fished With

TYPE OF BAIT	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
Artificial	130	33.2	33.3	33.3
Live	122	31.1	31.3	64.6
Dead	12	3.1	3.1	67.7
Artificial and Live	78	19.9	20.0	87.7
Live and Dead	7	1.8	1.8	89.5
Artificial and Dead	13	3.3	3.3	92.8
All Three Types	28	7.1	7.2	100.0
	392	100.0	100.0	

Specialization

Fishing involves more than simply putting a hook and line in the water. A number of related actions contribute to the phenomenon of fishing. For example, bantering with friends about fish stories, reading fishing magazines, tinkering with gear and the comraderie associated with travel to and from the fishing site are all manifestations of fishing. As a recreational activity, these associated behaviors are important to the social satisfactions expected during leisure. They can also be interpreted as indications of the degree of one's involvement in fishing. A person who belongs to a fishing club, owns a number of rods and reels, subscribes to a fishing magazine and participates in tournaments is likely to be more involved in "fishing" than a person who does none of these but still fishes occasionally. The term used to describe these differences is "recreational specialization." A person who is heavily involved in fishing tends to be more specific in his fishing behavior while a novice tends to exhibit general behavior.

Bryan (1979) and Graefe (1980) have discussed the systematic associations between various indicators of fishing involvement and specialization. A number of variables have been examined in this study to discern which were more useful in determining commitment to fishing. Also, several variables measuring certain aspects of fishing commitment that were consistent and successful at identifying degrees of specialization have been identified. The variables were: number of rod and reels owned, money spent on reels, rods and tackle last year, making one's own fishing tackle, self-rated fishing ability, days spent fishing last year and specializing in one fish. Information was collected from GCCA members on each of these as well as a number of other fishing involvement indicators.

One of the most valuable investments one can make to an activity is to contribute time to it. Slightly less than half of the fishermen (44 percent) went fishing about two to three days a month, if the total were distributed across the year. Another 24 percent went fishing more frequently, about three to five days a month. The two categories accounted for two out of three fishermen.

Self-rated ability is an important perception of fishing capability. Although fishermen have a reputation for bragging, answers to this question were consistent with other items measuring dedication to fishing. About half of the respondents felt they were on par with other fishermen. Another 35 percent claimed to be more skilled and 14 percent less skilled than others. The same percentage distribution held (within 2 percent of these figures) for fishermen who said they caught fewer, the same, or more fish than the average fisherman.

Another sign of active interest in fishing for some people is tournament participation (Graefe 1980). About 70 percent of the sample had never fished in a tournament. The remaining 30 percent were divided into 15 percent who enter a tournament once every two or three years, 9 percent who participate once a year and 6 percent who join a tournament more than once a year.

In conjunction with tournaments which may focus on particular fish species, any sign that a fisherman concentrates on a particular species is usually an indication that he is more than just lightly involved in fishing. When asked if they put most of their effort into fishing for one particular kind of fish, 63 percent of the respondents replied affirmatively. By focusing on one fish, respondents demonstrated they are beyond the stage

where they are happy to catch anything. They have learned enough about fishing to be discriminating and socialized enough in fishing lore to know that they will only be recognized for catching certain species.

Members were asked how many of their close friends were members of GCCA. This is a question that sheds some light on the degree of "networking" going on in the organization. Responses indicate that 13 percent had no close friends in GCCA, 72 percent had some friends and 15 percent said most of their close friends were GCCA members. The percentages were somewhat lower than the report of how many close friends fish; 1 percent said none, 45 percent said some, and 54 percent said most of their close friends fish. Fewer work friends were part of the member's fishing "social world." They indicated that among their co-workers, 6 percent of the members had no friends at work who fish, 76 percent said some fish, and 19 percent were in a situation where most of their co-workers fish.

Once an individual becomes more discriminating in his fishing goals, he soon becomes more involved with equipment. Equipment can be matched to one's goals (e.g., light rods, saltwater rods, deep sea gear and tackle). Equipment is also a source of status among fishermen. The details of equipment ownership have been presented in the 'Fishery Resource Interaction' section. The average number of rod and reel combinations owned was eight, with a median of six. Less than 20 percent of the respondents owned three or less sets. On the average, individuals in the sample spent about $200 a year on gear and tackle. About $85 of this was spent on tackle, divided by the average 37 days per year works out to about $2.25 per trip on tackle. About one-quarter of the respondents made some of their own fishing gear.

Specialization has not been carefully operationalized. As a result, quantifying the specialization level of a group is not yet possible. There is some evidence that specialization depends basically on the commitment level of the individual fisherman. The pattern of answers clearly indicates that most GCCA members are committed to fishing and are involved in a number of ways. Later analyses, when specialization is a better developed concept, should show a higher specialization level among GCCA members compared to other fishing samples.

Comparison with Other Studies

The value of new information on recreational fishing depends on an accurate assessment of how the information contributes to an understanding of the fisheries system. Data collected in this study were designed to assist researchers and managers in understanding one segment of the demand side of fisheries utilization. Organized fishermen are a minority. Nevertheless, their organization overcomes this weakness through effective communication and the combined action of organized individuals.

Involved fishermen organized into an association carry weight greater than the sum of its parts. The weight is translated into a voice and a "presence" that influences management actions affecting recreational fishermen, be they club members or not. An understanding of involved fishermen and how they interact with fisheries resources is therefore important.

The primary method of isolating the "identity" of involved fishermen was comparison with other segments of the fishing population. It is futile to speak of comparing this sample to a group of "average" fishermen. An average consists only of an aggregate of identifiable segments, with the

specific segments melted together. Comparisons needed to be made with other identifiable segments of coastal fishermen. It would make little sense to compare this sample to an inland sample from Colorado or Kentucky. Although comparisons are made to the National Hunting and Fishing Surveys (U.S. Fish and Wildlife Service 1977, 1982), the comparisons were made with marine segments of the studies. Three other studies conducted with Texas coastal fishermen are also used as reference points.

Initiating a statistical comparison of relevant results is beyond the scope of this study. But, a descriptive analysis of summary results was made to highlight noticeable differences. In the following discussion, the bibliographic citations are replaced with numbers to save space: 1) Graefe 1980; 2) U.S. Fish and Wildlife Service 1977; 3) U.S. Fish and Wildlife Service 1982; 4) Ditton and Fedler 1983; 5) Ditton and Holland 1983; 6) KCA Research, Inc. 1983.

The GCCA respondents were weighted toward male, middle-aged individuals with high incomes. Studies (2, 3, 5, 6) on the demographic profile of fishermen indicate a male majority of between 70 and 95 percent and an age distribution that includes about 35 percent of fishermen below 25 years of age. The GCCA sample was 98 percent male and only 3 percent between the ages of 10 - 24 years. They also differed from previous sketches of fishermen characteristics in income level. In the six comparison studies (1, 2, 3, 4, 5, 6), all reported a modal income in the $20,000 to $30,000 range, with median incomes in the same range. In the GCCA case, the modal category was $70,000 and above and median income was about $55,000. Only 15 percent of the GCCA respondents reported incomes under $30,000. Information on education level was not collected but three out of four respondents were

in professional-technical or skilled/semi-skilled trades. This is in line with previous studies (2, 3, 5). However, the professional-technical category dominated the GCCA sample, while the skilled category was larger in another study (5). As expected when compared to national samples, this group of fishermen was much more saltwater-oriented (90 percent compared to 30 percent). The most popular form of saltwater fishing was saltwater bay fishing which 85 percent of the GCCA members participated in during 1982. About 75 percent participated in pier, shore, or wade fishing and 49 percent in Gulf boat fishing. The figures were in line with previous distributions among resource types except the boat fishing figures are about 25 percent higher (1, 5). The finding was further supported by other results. About one out of three fishermen own a boat (2, 3) and 45 percent of a sample of Gulf coast fishermen (6) owned a boat of any size. In the GCCA sample 50 percent replied that they owned a boat 17 feet or longer. Undoubtedly, if all boats had been included, a greater number of GCCA members would be listed as boatowners, probably about 75 percent. It is safe to conclude that more GCCA members own boats than would be expected in an equivalent number of non-GCCA fishermen. There was moderate participation in freshwater fishing, but freshwater was not the primary focus of this group.

There are a number of fishing activity measures, some of which have been discussed in the specialization section. In number of days fished per year, the evidence indicates that 81 percent of the members fished more than 13 days per year and the mean was 18 days per year. This was more than the average 12 days per year among saltwater fishermen in a national survey (3) or equivalent to the average 20 days annually among a sample of Gulf coast fishermen (6), and slightly more than the 70 to 75 percent of respondents to two Texas coastal surveys (1, 5) who fish more than 13 days per year.

However, it was less than the average 31 days per year (26 days per year when high outliers in the range were removed) for a sample of Texas boat owners (1).

Equipment expenditure information across several studies varied widely. The average amount of money spent on rods, reels and tackle in one year was listed as $30, $75, $223 and $300 (3, 1, 2, 5). The average amount spent by GCCA members was $165 which would be characterized as within reported ranges.

Information on fishing tournament participation is scarce. In a Texas sample of coastal boat owners (1), 86 percent said they never participate in tournaments, 12 percent said occasionally, and 2 percent frequently. A majority of GCCA members (70 percent) have also never participated but 24 percent did occasionally and 6 percent participated in several a year. While still a minority, about one out of three GCCA members had some experience with tournaments, which is more than twice the rate of the comparison study.

The 90 percent of GCCA members who reported occasionally or regularly reading of newspaper fishing columns is on par with comparison studies (1, 5). However, GCCA members were more avid readers since 75 percent read these columns regularly compared to 50 percent and 63 percent in two other studies (1, 5). Greater involvement with fishing literature was also evidenced in the number of members who subscribe to fishing magazines. All members received Gulf Tide, so the 63 percent who reported subscribing receive at least two fishing magazines. The comparison studies (1, 5) report 51 percent and 43 percent who subscribe and 49 percent who read (3) at least one fishing magazine.

Other important dimensions of fishing behavior are reported reasons for participation and orientation toward catch. Two Texas studies (1, 5) of saltwater fishermen have examined these aspects of fishing. The reason for participation items are reported in Table 28. The GCCA responses were similar to those of other studies. The three items rated most important by 90 percent of the respondents (To be outdoors, For relaxation, and To get away from the regular routine) were within the top four rated reasons of the other two studies (1, 5). There is a slight additional emphasis given to being outdoors and getting away from the demands of other people. Fishing as family recreation was rated moderately to extremely important by 71 percent of GCCA members, 68 percent of a sample of Texas coastal fishermen (5) and 85 percent of a sample of boat fishermen (1). Slightly less importance was placed on fishing with the family, but this may be only a reflection of older age and fewer dependent family members available to fish. The lowest rated three items (To develop my skills, To obtain a trophy fish, and To test my equipment) were also among the lowest rated in the other studies, except skill development was rated somewhat higher in the on-site coastal fishermen sample (5). The similarity of the three studies offers convincing evidence of the recreational value of fishing as non-goal oriented outdoor activity with relaxational and natural experience rewards outweighing the need to catch fish.

Of the nine orientation toward catch items (Table 29), six were rated at the same agreement-disagreement score as the two comparison studies (1, 5). The remaining three items exhibited some differences. The "I'm just as happy if I don't catch a fish" item elicited the agreement of 29 percent of the GCCA sample, 44 percent of the boat fishermen and 49 percent of the

on-site coastal fishermen. For the item, "When I go fishing, I'm just as happy if I don't catch a fish", 19 percent of the GCCA sample agreed, 26 percent of the boat fishermen agreed and 47 percent of the on-site coastal sample agreed.

A greater number of GCCA members were oriented toward catching and keeping fish than in the other samples. The final item demonstrates that they were also more selective in what they catch. When asked did it matter what type of fish they caught, 68 percent of the GCCA sample said it did, compared to 49 percent of boat fishermen and 41 percent of on-site Texas coastal fishermen. In a Gulf coast sample (6), about five times as many fishermen listed number of fish caught as more important than species caught to their fishing trip satisfaction. Overall, the relaxation and outdoor natural experience aspects were central to the fishing experience. The focus on catching and keeping a selected type of fish was also of importance, especially for the GCCA members.

Attention to type of fish caught is also demonstrated by the number of members who focus on particular species. Only 31 percent of a sample of boat fishermen (1) said they specialize in one particular kind of fish and 45 percent of a Gulf coast sample (6) reported a target species, while 63 percent of the GCCA sample said they put most of their effort into seeking one kind of fish. Fewer GCCA fishermen made their own tackle (27 percent) compared to these same two studies which reported 63 percent and 32 percent of their respondents who made their own tackle. With higher income levels, purchasing equipment may be more convenient and less time demanding than making equipment for GCCA members. The number of rod and reels owned closely matches the on-site sample of coastal fishermen (5) with a mean of

eight in both studies, the figure is slightly higher than the boat fishermen who have a mean of six rod and reel combinations.

The GCCA sample indicated a higher percentage of fishermen (35 percent) who rated their fishing ability as more skilled than the average fisherman when compared to the boat fishermen (1), (14 precent) or to the on-site coastal sample (5), (21 percent). The pattern also carried over into relative catch. Thirty seven percent of the GCCA members said they caught more than the average fishermen, while 26 percent of the coastal sample (5) and 18 percent of the boat owner sample (1) reported catching more than average.

CONCLUSIONS

Fishing associations are a rallying point for people with a variety of fishing experiences. They are a visible and organized set of individuals, united by the goals of the association. The characteristics of individuals who join such associations, especially their fishing involvement, has been a matter of speculation. The results of this study have begun to identify the involvement level of these members in the recreational activity related to the purpose of the association.

The Gulf Coast Conservation Association evolved out of a concern for the commercial fishing threat to redfish and speckled trout recreational fishing. Until now, the only characteristic that was known about the members, was that they shared the beliefs and political and education actions of the association to the extent that they were willing to contribute money (in the form of membership) to support the "cause." Caution should be exercised in generalizing the results presented in this report to the entire GCCA membership. It is not known to what extent members in the Houston-Galveston area represent members elsewhere.

In this study, several elements stood out because more than 90 percent of the members possessed the same characteristics. Virtually all respondents were male, active fishermen who fished in saltwater. They fished as a form of outdoor recreation to get away from the daily routine and to be outdoors. And they usually ate their catch and monitored fishing activity through occasional or regular reading of newspaper fishing columns.

Other characteristics stood out as well. While there was some variation among the members, the distribution differed from other studies of

fishermen. In this regard, the sample was weighted toward middle-aged and higher income fishermen. Boat ownership was higher and members participated in boat fishing more often than reported in other fishing samples. In addition, GCCA members had a higher rate of subscription to fishing magazines and there were more fishing tournament participants among members. They were more focused on catching fish (i.e., more members rate this higher than other samples) and more focused on particular species, notably speckled trout and redfish than other fisherman samples surveyed. More individuals reported their ability and catch as higher than the average fisherman.

Even so, members were similar to fishermen interviewed in other fishing studies. The rate of participation in bay, offshore and freshwater fishing exhibited a similar distribution to other coastal area samples. The number of days spent fishing per year was more or less in the middle range between other studies, although the average fishing days per year was about 50% higher than a national sample of saltwater fishermen, perhaps because of milder winter climate. Equipment expenditure data from other studies indicated a wide range. However, the expenditure on rods, reels and tackle among these members was again in the middle range, which might not be expected considering the high household income levels of most of the respondents. The reasons for fishing and attitudes toward particular aspects of fishing were generally similar to previous samples. Their motives were almost universally recreational rather than goal oriented. Also, a variety of opinions were indicated on the importance of type, size or number of fish caught with a stronger agreement that type of fish was important.

A pattern of involved, recreational fishermen begins to emerge. There is no question that the underlying motives for participating in fishing among this sample is recreational escape and opportunity to be outdoors in a natural setting, usually with friends or family. Fishing is a regular part of their recreation activity during the year, but it is clear that these individuals have other lives to live too.

The sample was predominantly urban, middle-aged males with high income professional-technical occupations and probably considerable responsibilities. For an individual to spend an average of four days a month, 9 months a year at an activity which is voluntary, is quite a committment. Moreover, evidence suggests that equipment investments were made and more than half of the sample owned a boat. A majority read fishing magazines and articles. About a third joined tournaments. And, many focused on particular species of fish which implies a further committment of specialized equipment and knowledge. Finally, most contributed money, time and some kind of political action (e.g., letters to their state representative) to an organization (GCCA) representing their interests.

There is no question that the majority of these individuals are involved, concerned and committed to the natural resources and activities that contribute to their sport. Involvement is concentrated compared to the general population's concern for recreational fishing. Indeed, the involvement approaches the limit of what can pass as truly recreational. If these individuals spent any more time, money or action on fishing, they would at some point soon cross the boundary of perceived recreation into becoming "professional" or "full-time" recreational fishermen. Fishing would become the routine and they would need to escape it, just as a

professional fishing guide is likely to participate in something other than fishing to relax. The fact they voluntarily allocate so much of their free time and resources to fishing demonstrates a level of committment that exceeds the level of dedication of most participants.

These "involved" fishermen were concerned about their sport. They shared the goals of the association they joined. As a result, the association has gained visibility, primarily as a major proponent of the commercial redfish-speckled trout ban. Virtually all the members support this goal. In fact the main voice of dissent was that even "stricter, increased or greater" (see Table 32) actions should be taken.

Most members are willing to spend even more money to support actions that they perceive will lead to restoration of the Gulf coast fishery resource. As such, the GCCA forms a constituency likely to effectively voice the desires of recreational fishermen, at least as well, and probably better than most other segments of recreational fishermen.

BIBLIOGRAPHY

Bryan, Hobson. 1977. Leisure value systems and recreational specialization: the case of the trout fishermen. Journal of Leisure Research 9(3):174-187.

_____. 1979. Conflict in the Great Outdoors: toward an understanding and managing for diverse sportsmen preferences. Bureau of Public Administration, University of Alabama, Sociological Studies No. 4. 99 p.

Burch, William R. 1980. Trends in Organizational Memberships and Lobbying. In: Proceedings of 1980 National Outdoor Recreation Trends Symposium. Volume 1. Broomall, Pennsylvania: U.S.D.A. Forest Service Northeastern Forest Experiment Station. General Technical Report NE-57. pp. 89-103.

Deuel, David G. 1973. 1970 Salt-Water Angling Survey. National Marine Fisheries Service, U.S. Department of Commerce. Current Fishery Statistics 6200. 54 p.

_____. 1978. National Marine Recreational Fishery Statistics Program. National Marine Fisheries Service, U.S. Department of Commerce. Washington, D.C. 15 p.

Devall, Bill. 1973. The development of leisure social worlds. Humboldt Journal of Social Relations 1(1):53-59.

Ditton, Robert B. and Anthony J. Fedler. 1983. A Statewide Survey of Boatowners in Texas and Their Saltwater Fishing Activity. College Station: Texas A&M University Sea Grant College Program. TAMU-SG-83-205. 65 pp.

_____ and Stephen M. Holland. 1983. Unpublished data from an on-site coastal survey of Black Drum run fishermen. Texas A&M University: College Station, Texas.

Driver, Beverly L. and Richard C. Knopf. 1976. Temporary escape: one product of sport fisheries management. Fisheries 1(2):21-29.

Driver, Beverly L. 1977. Item pool for scales designed to quantify the psychological outcomes desired and expected for recreation participation. Unpublished paper, USDA Forest Service, Rocky Mountain Forest and Range Experiment Station: Fort Collins, Colorado. 31 p.

Driver, Beverly L. and R.W. Cooksey. 1978. Psychological outcomes that are desired and expected from recreational fishing and their relevance to sport fishing management. Unpublished manuscript, USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. Fort Collins, Colorado. 30 p.

Falk, James M., Alan R. Graefe and William P. DuBose IV. 1981. 1981 Milford World Championship Weakfish Tournament: A Socio-Economic Analysis. University of Delaware Sea Grant College Program: Newark. DEL-SG-25-81. 50 p.

Garoyan, Leon and Stephen Taylor. 1980. Forming a Fisheries Association. California Sea Grant Publication: Leaflet Number 21210. University of California: Berkeley. 6 p.

Goldstein, Robert J. 1982. Organizing public constituencies for change. In: Marine Recreational Fisheries 7. Washington D.C. Sport Fishing Institute. pp. 141-150.

Graefe, Alan R. and Robert B. Ditton. 1976. Recreational shark fishing on the Texas Gulf coast: an exploratory study of behavior and attitudes. MFR Paper 1175. Marine Fisheries Review 38(2):10-20.

_____. 1977. Development of an attitude scale to measure fishermen's desire to catch fish. Unpublished paper. Available from author, Department of Recreation, University of Maryland. 15 p.

_____. 1980. The Relationship between Level of Participation and Selected Aspects of Specialization in Recreational Fishing. Unpublished Dissertation. Department of Recreation & Parks, Texas A&M University, College Station, Texas. 155 p.

_____. 1981. Understanding diverse fishing groups: the case of Drum fishermen. In: Marine Recreational Fisheries 6. H. Clepper (ed.), Sport Fishing Institute: Washington D.C. pp. 69-79.

Heberlein, Thomas A. 1973. Social psychological assumptions of user attitude surveys: the case of the wildernism scale. Journal of Leisure Research 5(3):18-33.

Heffernan, Thomas L. and Robert J. Kemp. 1982. The conflicts and controversies surrounding red drum and spotted sea trout. In: Marine Recreational Fisheries 7. H. Clepper (ed.), Sport Fishing Institute: Washington D.C. pp. 57-63.

KCA Research, Inc. 1983. Socioeconomic Aspects of Marine Recreational Fishing. Contract report to the National Marine Fisheries Service. Alexandria, Virginia.

Krejcie, Robert V. and Daryle W. Morgan 1970. Determining sample size for research activities. Educational and Psychological Measurement 30:607-610.

Matlock, Gary C. 1982. The conflict between user groups of red drum and spotted sea trout in Texas. In: Marine Recreational Fisheries 7. Washington D.C.: Sport Fishing Institute. pp. 101-108.

Matsuda, Gizelle. 1980. Hana Fisherman's Club. In: Proceedings of the Fifth Annual Student Symposium on Marine Affairs. Sea Grant Publication MR-80-03. Hawaii. pp. 238-243.

McCool, Stephen F. 1978. Recreation activity packages at water-based resources. Leisure Sciences 1(2):163-173.

Merriner, John V. 1976. Differences in management of marine recreational fisheries. In: Marine Recreational Fisheries 1. H. Clepper (Ed.). Washington D.C.: Sport Fishing Institute. pp. 123-131.

Merton, Robert K. 1968. Social Theory and Social Structure. New York: Free Press. 702 p.

North, Ronald M. 1976. Economic values for marine recreational fisheries. In: Marine Recreational Fisheries 1. H. Clepper (Ed.). Washington D.C.: Sport Fishing Institute. pp. 37-52.

Olmsted, Michael S. 1978. The small group. New York: Random House. 173 p.

Orbach, Michael K. 1976. Rights to fisheries resources. In: Proceedings of the Workshop on Extended Jurisdiction. Woods Hole, Massachusetts: Woods Hole Oceanographic Institution. pp. 21-23.

Reavis, Dick J. 1983. The new rustlers. Texas Monthly 11(4):129-133, 221-228.

Rootes, Rebecca S. 1981. Role of sportfishermen in Texas "Redfish" legislation. In: Proceedings of 7th Annual Conference of the Coastal Society. Bethesda, Maryland: The Coastal Society. pp. 373-378.

Sasser, Ray. 1983. Redfish revival. Saltwater Sportsman 44(8):36-39.

Scheaffer, Richard L., William Mendenhall and Lyman Ott. 1979. Elementary Survey Sampling. North Scituate, Massachusetts: Duxbury Press. 278 p.

Schutt, Charles E. 1978. Jacksonville Offshore Sport Fishing Club. In: Artificial Reefs in Florida. Sea Grant Program Report. Number 24. St. Petersburg, Florida: State University System of Florida. 1 p.

Sport Fishing Institute. 1983. Report on the Economic Activity Associated with Marine Recreational Fishing in 1980. Contract report prepared for the National Marine Fisheries Service, U.S. Department of Commerce. Washington D.C.

Strauss, Anselm. 1977. A social world perspective. In: Studies in Symbolic Interaction. N. Denzin (Ed.), Greenwich, Connecticut: JAI Press. pp. 119-128.

Stroud, Richard H. 1973. Environmental, recreational and commercial relationships within fisheries management. Sport Fishing Institute Bulletin 250: 1-4.

Teague, Larry. 1981. Story of the Gulf Coast Conservation Association. Unpublished paper available from the GCCA. 1 p.

U.S. Congress. 1976. Fishery Conservation and Management Act of 1976. Public Law 94-265 [H.R. 200] April 13, 1976. See especially Sections 2a(3); 2b(3); 302g(1) and 303a(2).

U.S. Fish and Wildlife Service. 1972. 1970 National Survey of Fishing and Hunting. Washington D.C.: U.S. Government Printing Office. 108 p.

U.S. Fish and Wildlife Service. 1977. 1975 National Survey of Fishing, Hunting, and Wildlife Associated Recreation. Washington D.C.: U.S. Government Printing Office. 99 p.

U.S. Fish and Wildlife Service. 1982. 1980 National Survey of Fishing, Hunting, and Wildlife Associated Recreation. Washington D.C.: U.S. Government Printing Office. 156 p.

U.S. Heritage Conservation and Recreation Service. 1977. National Outdoor Recreation Survey. Unpublished draft printout. General Population Cross Tabs. Federal Building: Ann Arbor, Michigan.

U.S. Outdoor Recreation Resources Review Commission. 1962. Sport fishing - today and tomorrow. ORRRC Study Report 7. Washington D.C.: U.S. Government Printing Office. 127 p.

APPENDIX A: Mail Survey Instrument

TEXAS A&M UNIVERSITY **DEPARTMENT OF RECREATION AND PARKS**

1983 FISHING STUDY

QUESTIONNAIRE #

PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR FISHING ACTIVITY.

1. Have you fished in the last three years? ☐ Yes ☐ No

2. Please list in order of importance to you, the fish you most frequently fish for during the year:

   Favorite Fish _____

   2nd Favorite _____

   3rd Favorite _____

3. Do you subscribe to any fishing magazines (other than Gulf Tide)? ☐ Yes ☐ No

4. How often do you read fishing reports in the newspaper?
   ☐ Rarely
   ☐ Occasionally
   ☐ Regularly

5. About how many of your close friends fish? ☐ None ☐ Some ☐ Most

6. How many of your close friends are members of GCCA? ☐ None ☐ Some ☐ Most

7. About how many of your co-workers fish? ☐ None ☐ Some ☐ Most

8. What types of groups do you fish with? (CHECK AS MANY AS APPLY)
   ☐ By yourself
   ☐ Friends
   ☐ Family
   ☐ Family & friends together
   ☐ Club

9. Which type of group do you fish with most often? _____

10. Do you usually fish with the same group of people? ☐ Yes ☐ No

11. Which member of the fishing group usually initiates the idea to go fishing?
    ☐ Yourself
    ☐ Another member of the group
    ☐ Both you and another member of the fishing group

12. Do you put most of your effort into fishing for one particular kind of fish?

    ☐ Yes ☐ No If yes, what species: _____

13. Do you make any of your own fishing gear? ☐ Yes ☐ No What kind? _____

14. How many rod and reel combinations do you own? _____

15. Do you usually fish with: ☐ Artificial Bait ☐ Live Bait ☐ Dead Bait?

16. How many fish do you usually catch compared to the average fisherman?

    ☐ Fewer fish ☐ About the same number ☐ More fish

17. Below is a list of various reasons why people go fishing. Please circle the number that indicates how important each item is to you as a reason for fishing.

REASONS:	NOT AT ALL IMPORTANT	SLIGHTLY IMPORTANT	MODERATELY IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT
To be outdoors.	1	2	3	4	5
For family recreation	1	2	3	4	5
To experience new and different things.	1	2	3	4	5
For relaxation.	1	2	3	4	5
To be close to the sea.	1	2	3	4	5
To obtain fish for eating	1	2	3	4	5
To get away from the demands of other people.	1	2	3	4	5
For the experience of the catch	1	2	3	4	5
To test my equipment.	1	2	3	4	5
To be with friends.	1	2	3	4	5
To experience natural surroundings.	1	2	3	4	5
To develop my skills.	1	2	3	4	5
To get away from the regular routine.	1	2	3	4	5
To obtain a "trophy" fish	1	2	3	4	5
For the challenge of sport.	1	2	3	4	5

18. How do you compare your fishing ability to that of other fishermen in general?

☐ Less skilled ☐ Equally skilled ☐ More skilled

19. How much did you spend on the following types of fishing equipment during 1982?

reels _____

rods _____ tackle (lures, hooks, lines, etc.) _____

20. Considering all the fishing you did during 1982, about how many days did you spend doing each of the following types of fishing?

_____ Number of days saltwater pier, shore or wade fishing.

_____ Number of days saltwater boat fishing.

Number of days in bays _____ Number of days in Gulf _____

_____ Number of days freshwater fishing.

21. How much time do you usually spend fishing compared to the average fisherman?

☐ Less time ☐ About the same ☐ More time

22. Who first took you fishing?

☐ Self ☐ Mother ☐ Father
☐ Spouse ☐ Brother ☐ Close relative
☐ Grandparents ☐ Friend ☐ _____

23. Who was most influential in teaching you to fish? _____

24. During the following time periods of your life, how active were you in fishing?

	DID NOT FISH	FISHED OCCASIONALLY	FISHED REGULARLY	NOT APPLICABLE
5 to 12 years old	NF	FO	FR	
13 to 20 years old	NF	FO	FR	
21 to 30 years old	NF	FO	FR	NA
31 to 40 years old	NF	FO	FR	NA
41 to 50 years old	NF	FO	FR	NA
51 to 60 years old	NF	FO	FR	NA
60+ years old	NF	FO	FR	NA

25. **PLEASE INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH EACH OF THE FOLLOWING STATEMENTS ABOUT FISHING.**

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
The more fish I catch, the happier I am.	1	2	3	4	5
A fishing trip can be successful even if no fish are caught	1	2	3	4	5
When I go fishing, I'm just as happy if I don't catch a fish	1	2	3	4	5
I usually eat the fish I catch	1	2	3	4	5
A successful fishing trip is one in which many fish are caught	1	2	3	4	5
I would rather catch one or two big fish than ten smaller fish	1	2	3	4	5
It doesn't matter to me what type of fish I catch.	1	2	3	4	5
The bigger the fish I catch, the better the fishing trip	1	2	3	4	5
I'm just happy if I don't keep the fish I catch	1	2	3	4	5

26. How often do you participate in fishing tournaments?
- ☐ Never
- ☐ Once every 2-3 years
- ☐ Once a year
- ☐ More than once a year

27. Do you own a boat 17 feet or longer? ☐ Yes ☐ No

IN THE FOLLOWING QUESTIONS, WE ARE INTERESTED IN YOUR OPINIONS ON FISHING IN TEXAS. PLEASE GIVE US YOUR OWN OPINION.

28. How do you feel about the state's saltwater fishing policies and regulations?

☐ Disagree ☐ Neutral ☐ Agree ☐ Don't know

29. What one thing would you most like to see done to improve fishing?

_____

30. Who should take the leadership for this? ☐ State Agency ☐ Citizen's Group ☐ Texas Legislature ☐ Private Sector

31. Do citizens letters or actions influence policies? ☐ Yes ☐ No

32. Do you agree with the current red fish limits with regard to:

size? . . . . . .(16" minimum, 30" maximum) ☐ Yes ☐ No

number of fish kept?. .(10 per day, 20 in possession) ☐ Yes ☐ No

If not, what do you suggest as fair limits? _____

33. Do you agree with the current speckled trout limits with regard to:

size?. . . . . .(12" minimum) ☐ Yes ☐ No

number of fish kept? . .(20 per day, 40 in possession) ☐ Yes ☐ No

If not, what do you suggest as fair limits? _____

34. How would you react to a doubling of the state fishing license fee if monies were to benefit fisheries in some way?

☐ For ☐ Neutral ☐ Against

35. How would you react to having to purchase a redfish stamp, for example, if the funds were earmarked for fisheries conservation?

☐ For ☐ Neutral ☐ Against

36. If you felt that it was necessary to the maintenance of the redfish population would you agree to releasing all redfish caught? ☐ Yes ☐ No

37. What are the most important goals that GCCA should strive to attain?

_____

_____

38. Are you a member of a fishing club (other than GCCA)? ☐ Yes ☐ No

39. Should GCCA broaden its objectives to get more involved with the problems of freshwater fisheries? ☐ Yes ☐ No

40. How did you hear about GCCA before you joined?

☐ Gulf-Tide ☐ Radio ☐ Printed Ad
☐ Friends ☐ News ☐ _____

41. Have you ever: called your legislator on a fisheries matter? ☐ Yes ☐ No
written your legislator on a fisheries matter? ☐ Yes ☐ No
attended a hearing on a fisheries issue? ☐ Yes ☐ No

THE FOLLOWING QUESTIONS WILL HELP US TO KNOW MORE ABOUT FISHERMEN. YOU WILL NOT BE IDENTIFIED WITH YOUR ANSWERS, SO PLEASE BE FRANK.

42. What is your occupation? _____ 43. What is your age? _____

44. Besides your main occupation, do you work in or are you self-employed in any sportfishing related business? ☐ Yes ☐ No If yes, specify: _____

45. What is your approximate annual household income before taxes?

☐ Under $10,000 ☐ $30,000 to $39,999 ☐ $60,000 to $69,999
☐ $10,000 to $19,999 ☐ $40,000 to $49,999 ☐ $70,000 and above
☐ $20,000 to $29,999 ☐ $50,000 to $59,999

THANK YOU! PLEASE RETURN IN THE STAMPED RETURN ENVELOPE AS SOON AS POSSIBLE.

Department of Recreation and Parks
Texas A&M University
College Station, Texas 77843

APPENDIX B: Cover Letter from GCCA

GULF COAST CONSERVATION ASSOCIATION

Dear GCCA member:

As you are aware, recreational fishing along the Texas coast is an important and popular sport. Participation is steadily increasing and fishing issues which affect your fishing activity are receiving increasing media attention. You have demonstrated that you are an involved and informed fisherman through your membership in GCCA.

In cooperation with Texas A&M University, randomly selected GCCA members are participating in a survey designed to tell us about your fishing activity, preferences, and opinions on a variety of issues. Your name has been chosen and we would like you to spend a few minutes answering the survey. It is very important to the validity of the results that you respond. Your responses will assist both GCCA and Texas A&M in understanding more about your fishing activity. Individual responses are confidential with responses being tallied anonymously and results available only in summary form. There will be a summary of the results presented in an issue of Gulf Tide later this year.

We thank you for your time and continued support of GCCA.

Sincerely,

Dick Ingram

Dick Ingram
Executive Director

DEDICATED TO THE CONSERVATION OF MARINE AND ANIMAL LIFE
333 West Loop North, Suite 110, Houston, Texas 77024
713/688-6840

APPENDIX C: Cover Letter from Texas A&M University

TEXAS A&M UNIVERSITY
COLLEGE STATION, TEXAS 77843
A/C 713-845-5411

Department of
RECREATION AND PARKS

March 25, 1983

Dear GCCA Member:

About two weeks ago we sent you a Survey Questionnaire which asked about your fishing activity. If you have already returned the questionnaire, we thank you for your prompt reply. If you have not completed the questionnaire, would you please take time to do so today?

The information you provide us helps to increase the accuracy of our study. The more questionnaires we receive, the better will be our understanding of fishing on the Texas Coast and the more information we can provide to the Gulf Coast Conservation Association about their members.

A questionnaire and prepaid envelope are enclosed in case you did not receive one or no longer have the first one we sent you. All responses will be summarized and handled in strict confidentiality.

Thank you for your time and cooperation.

Sincerely,

Robert B. Ditton
Professor

Stephen M. Holland
Research Assistant

Enclosures

APPENDIX D: Phone Call Reminder Script

TELEPHONE SURVEY FOLLOW-UP RECORD

Respondent Name _____

Phone Number _____

-Hello, is this the _____ residence?

IF NO....The number I was calling is _____ and it was for the _____residence.

IF WRONG NUMBER.... Terminate with: I am sorry to have bothered you.

IF YES.....May I speak with _____ please?

IF NO.....Can you tell me when I might catch him/her? (Record in call status box)

IF YES.....This is (your name) _____ from Texas A&M University.

-May I talk with you for just a few minutes?

IF NO....May I call back at a more convenient time?

IF YES....When? (Record in call status box)

IF NO.....Thank you for your time. Good-bye.

IF YES....I am calling from the Marine Recreation Research Lab in College Station on behalf of the GCCA. We are in the process of surveying members of the Gulf Coast Conservation Association about their recreational fishing. We attempted to mail a survey to you but we have not received a reply from you yet. (Pause for response).

It is very important to the accuracy of our results that we include your opinions in our study. GCCA is very interested in obtaining input from their members so that they can represent you better. I would like to encourage you to participate by returning a completed survey to us as soon as possible. (Pause for response).

IF YES....Do you have a blank survey to complete?

IF NO.....We will send you one tomorrow, can we count on you to return it soon?

IF YES....Thank-you for your time and good fishing to you.

APPENDIX E: Non-Response Survey Form

IF PERSON CANNOT/WILL NOT COMPLETE A MAIL SURVEY

I understand. In that case, could I ask you several very short and quick questions right now that would help us and only take two more minutes of your time?

IF NO....I am sorry to have interrupted your evening. Thank-you. Good-bye.

IF YES...Thank-you. Here's the first question:

1. Have you fished in the last three years? Yes No
2. What is the fish you fish most frequently for during the year? _____
3. How do you compare your fishing ability to that of other fishermen in general?

   Less skilled Equally skilled More Skilled
4. Considering all the fishing you did during 1982 (last year), about how many days did you spend doing each of the following types of fishing?

   _____Number of days saltwater pier, shore or wade fishing.

   _____Number of days saltwater boat fishing.

   Number of days in boat in bays _____ Number of days in boat in Gulf _____

   _____Number of days freshwater fishing
5. Do you own a boat 17 feet or longer? Yes No
6. How do you feel about the state's saltwater fishing policies and regulations?

   Disagree Neutral Agree Don't know
7. And finally, may I ask your age? _____

Thank you on behalf of GCCA and myself for taking time to talk with me. Goodnite.