

## CHARACTERISTICS OF 1975-76 GEORGIA RESIDENT FISHING LICENSE HOLDERS

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*Abstract:* A 1975-76 resident fishing license holder survey was conducted to obtain data on the characteristics of Georgia anglers. Sixty-four percent of all anglers were men. The average number of fishing trips per person per year was 17. More anglers fished in ponds at least once (51%) than in any other type of water. Mountain streams supported the heaviest fishing pressure (182 trips/ha). Nearly half of all anglers (45%) supported an increase in license fees if the funds were used solely for fisheries management purposes.

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A mail survey was conducted to determine present characteristics, preferences and opinions of Georgia resident fishing license holders. In 1975 1,359,000 Georgia residents participated in fishing to some degree (National Analysts 1977). Of this number, 571,285 (42%) possessed a 1975-76 Georgia resident fishing license. Only license holders were questioned for the purpose of this survey.

### METHODS

In June 1977 personnel from the Fisheries Section of the Game and Fish Division, in consultation with D. Hayne and D. Turner of the Institute of Statistics at North Carolina State University, chose at random 6 groups of 4 consecutive 4 digit numbers. This would permit 0.24% of all licensed anglers to be questioned. All 1975-76 license receipts with serial numbers ending in any of these 4 digit combinations were separated and sorted into 6 subsamples corresponding to the 6 groups of numbers. A total of 811 usable license receipts were separated from those available (about 400,000). It was assumed that missing license receipts represented a random distribution of anglers.

A number of questions concerning varied topics were placed on the survey form. One item on the questionnaire concerned types of fishing waters. The types chosen were the same as those used in a 1970 habitat inventory in Georgia (Morrow 1973): (1) ponds less than 2 ha; (2) 2 to 20 ha lakes; (3) 21 to 202 ha lakes; (4) reservoirs 203 ha or larger; (5) warmwater streams; (6) mountain trout streams; and (7) saltwater areas. A cover letter from the Director of the Game and Fish Division and a self-addressed envelope were enclosed with the questionnaire and mailed to each license holder in the survey.

Eight hundred eleven questionnaires were mailed on 21 July 1977. After 2 weeks, 498 questionnaires were sent again to the license holders who had not responded. When a questionnaire was returned undelivered (reasons included "moved not forwardable", "incorrect address", or "death of addressee") no further attempt was made to contact this individual. Two weeks after the second mailing, 378 questionnaires were sent to those license holders who still had not responded. No returns were accepted for the purpose of the survey after 10 September.

The numbers of completed and returned questionnaires were computed for each mailing in each subsample. Estimates for the entire sample were derived by the Institute of Statistics based on returned questionnaires from each mailing as well as nonrespondent bias. Expanded estimates were based on the 571,285 resident fishing licenses sold in Georgia in 1975-76.

### RESULTS

Of the 811 license holders who were mailed questionnaires, only 354 (44%) returned them completed. However 201 (25%) of the questionnaires were returned undelivered. The remaining 256 license holders (31%) did not respond.

## Age

The average age of license holders in the sample was 41 years (proportionate standard error 3%). Thirty-one percent of the license holders responding were 30 years old or less. Twenty-five percent were over 50 years old. There was little age difference between participants fishing in different types of waters, except that the youngest group of anglers responding fished in mountain trout streams (averaged 32 years). In Georgia, no residents under the age of 16 or over 65 were required to buy a fishing license, so this group was not sampled.

## Sex

Sixty-four percent of the license holders were males (7% standard error) and 36% were females. No further analyses were made to determine if men had different fishing habits or preferences than women.

## Disability

Present Georgia regulations allow for the free issuance of fishing licenses to totally blind or totally disabled residents. Only veterans were eligible (for the free license) until the 1977-78 legislature voted to include nonveterans in this law. Nine percent of our sampled license holders claimed total disability (25% standard error) in 1975-76.

## Veterans

Recently, some Georgia legislators have considered a bill that would enable all wartime veterans to obtain a free fishing license. Thirty-five percent of all 1975-76 resident license holders (5% standard error) served in the military during wartime (World Wars I and II, Korean or Viet Nam conflicts).

## Fishing Trips

Expanded estimates of trips by Georgia resident license holders in 1975-76 yielded a total of 9,810,360 trips (8% standard error)(Fig. 1). The average number of fishing trips per respondent per year was 17.

More trips were made to 2 to 20 ha lakes (22% of total) in 1975-76 than to any other type of water. Ponds (20%) and reservoirs (17%) ranked second and third in providing the most trips.

The trout streams supported the greatest fishing pressure from resident license holders with 182 trips/ha (Table 1). Reservoirs supported the least fishing pressure by residents with 12 trips/ha. Saltwater estimates were not made because of the limitations in calculating the area available to anglers.

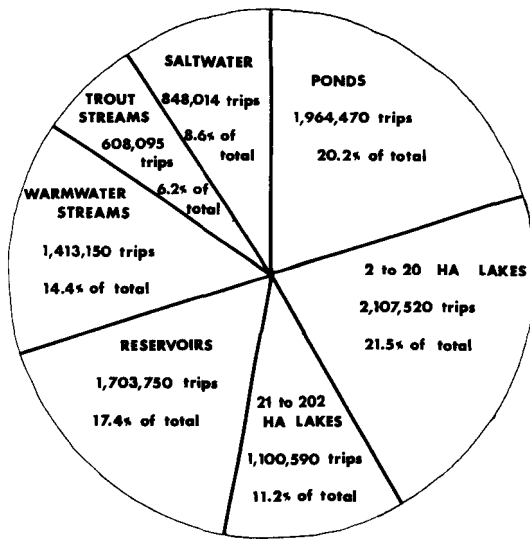
A higher proportion of anglers (51%) fished in ponds (at least once) than in any other type of water (Fig. 2). Second in popularity were reservoirs (48% of all anglers); trout streams lured the smallest percentage of the total angling population (14%).

## Increased License Fees

Presently, resident license fees are \$3.25 for a resident fishing license, \$7.25 for a resident combination hunting and fishing license, and \$2.25 for a resident trout stamp. The anglers surveyed were asked if they would be willing to pay more for a fishing license if the increase would be used only for fisheries management purposes. Forty-five percent of the people surveyed agreed to an increase in fees (6% standard error).

## DISCUSSION

The age distribution of the respondents was fairly uniform, with the average age of those sampled being 41. Any skewing of this distribution in the future may indicate growing interest or disinterest in angling by the young or old.



TOTAL FISHING TRIPS = 9,810,360

Fig. 1. Type waters fished by 1975-76 Georgia resident fishing license holders as taken from a 1977 mail survey questionnaire.

Table 1. Fishing trips, hectares of different types of waters, and fishing pressure as calculated from expanded estimates in 1975-76 Georgia resident fishing license holder survey.

Type of Water	Total Number of Trips by Georgia Resident Fishing License Holders	Approximate Number of Hectares in Georgia	Fishing Pressure in Trips per Hectare
Ponds less than 2 ha	1,964,470	30,378	64.7
2 to 20 ha lakes	2,107,520	35,178	59.9
21 to 202 ha lakes	1,100,590	11,715	93.9
Reservoirs 203 ha or greater <sup>b</sup>	1,703,750	136,031	12.5
Warmwater streams	1,413,150	58,895	24.0
Mountain trout streams (including tailwaters)	608,095	3,333	182.4
Saltwater	848,014	848,014	---

<sup>a</sup>Areas taken from 1970 estimates in Morrow (1973).

<sup>b</sup>Reservoirs area includes all lakes 203 hectares or larger including the total areas of those bordering South Carolina, North Carolina, Alabama, and Florida. Reciprocal agreements exist which allow Georgia anglers to fish in these waters with a Georgia license.

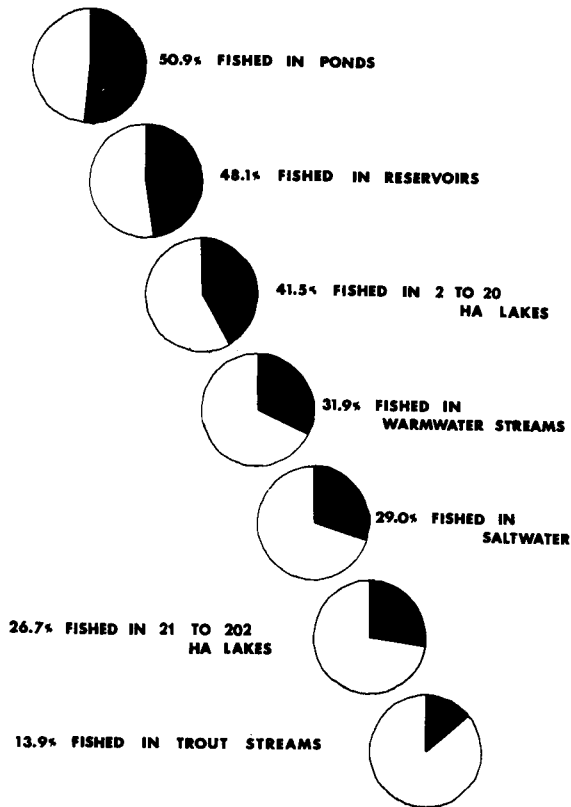


Fig. 2. Estimated proportions of all 1975-76 Georgia resident fishing license holders that fished in the above types of waters at least once from a 1977 mail survey questionnaire.

A 1970 national survey (U.S. Dept. Interior 1972) found that women made up 27% of all angling participants. This figure may be closer to the true value than the 36% found in the present study, since women appeared to have a slightly better response rate to the questionnaire than men.

If wartime veterans (24% of all resident license holders) had been issued free licenses during fiscal year 1976 the projected loss in fishing and combination license sales and potential Dingell-Johnson funding would have been \$683,457. The percentage of wartime veterans under 65 will gradually decrease during peacetime, and thus the fiscal impact of issuing free licenses to this group will decrease over time.

A 1970 study in Georgia (Horvath 1973), estimated that the total number of trips by all Georgia angling participants was 31,500,000. If this figure is accurate, that would mean that the 9.8 million trips made by license holders is less than one-third the total number of trips. The average number of trips per adult was estimated at 11 per year in the 1970 study, and 17 per year in the present study. This may mean that anglers are spending more time on our waters. The 1970 survey indicated that the lack of fishing areas close to home and the lack of leisure time were major reasons for not fishing more often. Perhaps,

these limitations are being reduced for Georgia anglers by more waters being created or managed or becoming more accessible, and the economy of Georgia improving over the past several years.

Ponds and reservoirs are probably the most accessible waters for most Georgians, and thus are fished by more Georgians than other waters. Ponds are plentiful and widely distributed across the state, while large reservoirs normally have numerous access areas open to the public.

The 45% of the anglers agreeing to an increase in license fees was a 15% increase over those willing to pay more in 1970. This may merely be a reflection of the wording of the question however, since the 1977 questionnaire stated that the increase would be used solely for fishery management purposes and the 1970 survey made no such stipulation.

Properly designed mail surveys can be useful in identifying and characterizing the angling population the fishery manager is serving. The results from such surveys could help decision-makers determine priorities and directions for fisheries management programs.

#### LITERATURE CITED

- Horvath, J. C. 1973. Hunting, fishing, and boating - Georgia. Georgia State University, Atlanta. 99 pp.
- Morrow, J. E. 1973. Georgia wildlife habitat and resources inventory. Georgia Department of Natural Resources, Game and Fish Division, Atlanta. 345 pp.
- National Analysts. 1977. 1975 national survey of hunting, fishing and wildlife-associated recreation. United States Department of Interior, Fish and Wildlife Service (data tables for Georgia).
- United States Department of the Interior. 1972. 1970 national survey of fishing and hunting. Fish and Wildlife Service, Resource Publication 95, 108 pp.