an average of 45 minutes in the field for each cottontail they bagged.

Many of the routine things that our biologists do in the laboratory are fascinating. If well illustrated they can make a good written story. But, I've found that some of these things can best be used on TV. After all TV is a visual medium...and it doesn't take a great deal of imagination to come-up with some very interesting material. Just recently, I did a rather impromptu interview and experiment with two of our fisheries biologists within the confines of our laboratory. I spent a few minutes discussing what we might do with the two individuals involved...we set-up the camera and sound equipment...did a walk-through and shot the two sequences which I later used on my TV show. I would like to run those for you now...then I will discuss them afterwards..or field any questions that you might have. I don't pretend to be an expert... I can only speak from my own experience...but I've had over thirty years in this business and if I don't know the answer to your questions...perhaps we can work them out together...now let's have the film.

WHY WE DID WHAT WE DID A Readership Analysis of a Wildlife Conservation Magazine

By Bob Wilson Georgia Department of Natural Resources

According to the American Association for Conservation Information, 44 states now publish magazines that may be loosely categorized as "conservation" magazines. The range of specific types within this broad category is fantastic. The group includes rather technical publications on wildlife and fisheries management techniques and research projects, "slick" promotional and travel magazines, and those stressing the environmentalist approach. Almost without exception, they share one rather questionable quality — they are published without the benefit of knowledge of who the readers are.

A number of questions can be applied with equal validity to any publication or group of publications. Who reads it? Why do they read it? How valuable is it to them? What do they particularly like or dislike about it? From the readers' point of view, what can be done to improve it?

From the time it was first published in October of 1966 until early 1972, Georgia Game & Fish existed without the benefit of readership analysis. Outdoors in Georgia replaced Game & Fish with the July, 1972, issue. Content planning for the new magazine has been greatly facilitated by a readership analysis of Game & Fish subscribers conducted during the months immediately prior to its demise, and the results of the analysis justify the format of the new magazine.

A survey was made of a stratified sample of *Game & Fish* paid subscribers to determine which portions of that publication subscribers read and valued, and to identify additional areas of interest to readers for future features. Almost 1600 questionnaires were mailed out, with over 60% being returned before the cut-off date (30 days after mailing). The unexpectedly high percentage of return assures an exceptionally high degree of accuracy.

It is important to keep in mind that the survey population was constituted through a form of self-selection — subscribers unhappy with the content and format of Game & Fish would drop from the population by electing to not renew their subscription. Also, the population underwent continual self-randomization, by the process through which they were carried on the list of subscribers. Each new subscriber is placed on the computerized listing first by

zip-code and then alphabetically within that zip-code class. Thus, viewing the whole population as a sequentially numbered roster, any subscriber had an equal likelihood of being at any regular, stipulated interval.

The survey population was selected on the basis of every fiftieth listing with the starting point, number 27, being selected from a table of random numbers. The interval of 50 was determined to select an adequate population to produce a valid survey. The method of selection applied to the base population produced a survey population of 1596.

The study does not depend entirely on reader testimony to determine reader interest. It also measures reader interest through a reader's length of subscription, willingness to renew his subscription and/or pay a higher rate for subscription, and whether or not a reader has given gift subscriptions.

If we want to be strictly traditional about it, the study needs a hypothesis and rationale. The study was based on a three-part hypothesis: 1) the readers of *Georgia Game & Fish* were hunters and fishermen, 2) readers were already interested and read the topics covered within the magazine and 3) readers would be interested in other topics which relate to outdoor recreation.

The results of the study concerning the first two parts of the hypothesis served to evaluate the function of the magazine through June, 1972.

If the results indicate that current subscribers have an interest in other topics, we may predict success for a new format for the magazine. With suggested topics from readers, the study served as a basis for a solution for appealing to a wider audience and at the same time, be of greater functional and informational value to the Department and to present readers.

A mail-out questionnaire possesses some inherent disadvantages such as self-selection for return and restriction in length and scope, it also provides some advantages which were of utmost importance to this survey. The mail-out questionnaire is economic, suited to limited personnel, and is not restricted by geographic area. It is uniformly controlled with no contribution to interviewer variance and it obtains entrance into every sample home.

To overcome the tendency shown in previous studies using mail-out questionnaires of low return rate, an incentive in the form of a free one year subscription was offered to half of the sample of readers.

A pretest of the questionnaire was made using 25 people picked simply through availability (mostly Department personnel). There were no changes in the questionnaire, but there were several changes in wording to make the questions as clear and simple as possible in order to elicit a usable response.

There were twenty-four questions with several questions having two or more sections. As demographic questions pertaining to age, sex, education, etc. are sometimes considered offensive by respondents, these demographics were put at the end of the questionnaire. Several questions were designed as checks to serve as a guide to respondent consistancy.

Upon the return of the questionnaire, responses were coded and submitted for computer cross-tabulation of responses. Analysis was made with respect to frequency and number, means, medians, chi-square, correlation coefficients, and other applicable statistics and with respect to any trends which were established.

After the first forty questionnaires were returned, the open-ended answers were studied, sorted and incorporated into the code. The open-ended answers were placed in the code in order of frequency of appearance.

Demographics pertaining to length of subscription, method of obtaining subscription, recreational activities, etc. made up the first section of questions.

The first question sought to determine the length of time the reader had subscribed. Thirty percent indicated they had subscribed for five years or more. Considering a normal increase in the number of subscribers, this figure would indicate that the magazine had lost few of its original subscribers. Some 47% had subscribed for two to four years, and 23% had subscribed for one year or less.

The following question dealt with the mode of subscription with a primary purpose of identifying the most productive means of increasing the number of subscribers. Sixteen percent of the respondants had been introduced to the magazine at an exhibit, show, or fair. Another 16% had received their subscription as a gift. Forty-three percent had used a coupon attached to the 1971 hunting and fishing licenses. A final 6% had utilized a coupon from hunting or fishing regulations. These modes serve to indicate whether a reader might have subescribed on a point-of-purchase compulsive act (at an exhibit, show or fair), through no act of his own (gift), interest in the magazine (magazine coupon), or interest in a sport (license or regulation coupon).

In response to the third question, 94% of the respondents said that they had renewed their subscription within the past three months or would do so when their subscription ran out. This is an unusually high rate of subscriber retention,

and further indicates that readers were satisfied with the magazine.

The next two questions concerned hunting. Some 74% of the respondents felt hunting to be one of their major recreational activities. Of these, 46% of the total respondents chiefly hunted deer, with most spending less than fourteen days afield during the season. Small game hunting (various species) was the main pursuit of 23%, and was the secondary activity of 56% of those surveyed. Hunters who responded (70%) to a question of what type of equipment they used were mostly evenly divided between rifle (32%) and shotgun (31%) fans.

The same type of questions were asked about fishing habits of the readers. Some 86% of the readers felt fishing was one of their major recreational activities. Of all readers surveyed, 49% fish chiefly for bass. Only 5% of the fishermen spent less than ten days per year at their sport. Spinning gear was the usual choice of 43% of our reader anglers.

Another section of questions designed to reflect the readers' evaluation of the magazine followed. An unexpected 83% of the respondents indicated that they clip articles or saved magazines for future reference: (Game & Fish magazine). A somewhat surprising 33% saved all of their magazines. We can safely conclude that readers valued their magazines beyond a mere entertainment level.

A rather complex question was designed to determine readership of standard departments within the magazine, i.e. the editorial, letters to the editor, a collection of news bits from the outdoor world, a sportsman's calendar, and book reviews. Respondents indicated whether they read each of these sections always, usually, occasionally, or never.

The editorial was read always by 51%, usually by an additional 32%, and occasionally by another 14%.

Only 1% never read the editorial and 3% did not respond. Letters to the editor were always read by 58%, usually by 27% more, and another 10% occasionally. Again, only 1% said that they never read the letters, and 3% did not respond. The outdoor world section always attracted 61% of the readers, usually an additional 26%, and occasionally another 6%. Only 1% never read the outdoor world section, and 4% did not answer. The sportsman's calendar received an always read vote of 61%, usually 23% more, and occasionally another 11%. Less than ½ of 1% reported never reading the calendar and 4% failed to respond. The book review section, which was the most recently introduced of the standing departments was always read by 28% of the respondents, usually by another 25% and occasionally by 32% more. A seemingly high 6% did not respond to this section.

Skipping over a couple of unimportant questions, another complex question was used to elicit reading habits regarding types of standard features. The types of features listed were frequent or regular fare in the magazine.

Safety articles were read always by 45% of the respondents, usually by 37% more, occasionally by another 13%, never by less than ½ of 1%, with 2% not responding. Conservation subjects were read always by 45%, usually by an ad-

ditional 34%, occasionally by another 11%, never by 1%, with 7% not responding. Fishing articles were always read by 67%, usually by 21% more readers and occasionally by another 8%. Less than ½ of 1% reported that they never read fishing articles and 4% failed to answer the question. Hunting articles also attreacted 67% who always read them, another 17% usually, and 9% more occasionally. There were 2% who never read hunting articles, and 6% did not respond. Articles on contests (big fish and big deer) received the lowest readership ratings with only 22% always reading them, 29% more usually, and a rather large occasional readership of 34%. The contest articles are never read by 6% and 10% failed to respond. Wildlife articles were always read by 64%, usually by another 27%, and occasionally by 6% more. Less than ½ of 1% never read them, and 4% did not answer. Articles on Department personnel and activities fared little better than the contests with only 23% of the respondents always reading them, 35% more usually, and an additional 29% occasionally. Some 3% reported never reading such articles and 9% did not answer.

One of the survey's most important questions, and one on which subsequent content changes were based to a large degree was placed in the middle of the questionnaire. This placement was selected based upon the supposition that readers encountering it there would attach less emphasis to it and respond candidly and that respondents, conditioned by previous questions, would not be as likely to fail to answer. Of ten possible types of articles plus an opportunity to write in their own selection, respondents were free to select as many as they would like to see introduced into the magazine. The results were mostly gratifying, some surprising and some few disappointing.

Of the total survey population, 49% desired articles on state parks; 32% wanted to read about historical locations; 21% were interested in folk crafts; 27% would like ecology articles; a surprising 23% of these hunting and fishing-oriented readers expressed a desire for articles on flowers and trees; 30% were interested in learning about non-game wildlife; 41% wanted articles on camping; only 18% were interested in hiking per se; and 37% would like to read articles on boating. Less than one percent of the respondents could agree on any additional topic, with 91% not making any suggestion.

Asked for any suggestions for improving the magazine, 70% did not respond, 10% desired an increased size, 5% suggested more "how to" articles, and 4% wanted more hunting and fishing material.

Further evaluative responses were elicited by asking if the subscriber had ever recommended that a friend subscribe, if they had ever given a gift subscription, if they would continue to subscribe at an increased cost, and generally how they rated *Georgia Game & Fish* as a hunting and fishing magazine. Some 92% had recommended that a friend subscribe, and 29% had given a gift subscription. If the cost were doubled (to \$2.00 per year and \$5.00 for three years), 89% said they would continue to subscribe, 6% said they would not, and 5% chose to not answer. The magazine was judged better than most of its type by 74%, about the same as most by 21%, and not as good as most by 3%.

In an attempt to compare the effectiveness of the magazine as a communications medium, readers were asked about the source through which they hear most often about the Department. The magazine was selected by 43% of those selecting a single medium as was desired. Radio was chosen by 20%. Other people were credited as being the most frequent source by 18%. Newspapers were picked by 14%, and TV only 5%. Since 23% marked two or more selections instead of the single response desired, these figures could have been somewhat different. However, for subscribers, the magazine is clearly the most frequent source of information concerning the Department.

When asked to identify the medium from which they get the most detailed information about the Department, 68% selected the magazine, 13% the newspapers, 9% other people, 7% radio, and 3% TV. The responses to these two

questions clearly establish the importance of such a publication as a public relations tool for game and fish or natural resource departments.

It was certainly no surprise to discover that 98% of the readers are male and that 86% are married. Readers appear to be well distributed in age groups; 7% under 21, 21% 21-30, 23% 31-39, 23% 40-50, 16% 51-60, and 9% over 60.

Using categories developed in the 1960 census, occupations of subscribers were: professional and technical 19%; business managers, officials and proprietors 17%; clerical and sales workers 14%; craftsmen and foremen 24%; operatives 7%; unskilled 5%; retired 7%; and students 5%.

Questions regarding educational background and income are very susceptible to "stretched" responses. For whatever value it may have, 7% of the respondents completed the eighth grade, 13% 1-3 years of high school, 28% were high school graduates, 9% completed 1-3 years of vocational training, 18% 1-3 years of college, and 24% were college graduates.

In an attempt to determine the rural/urban mix of subscribers, the zip codes of respondents were broken down into population categories. A full 24% of the respondents reside in a locality of 2500 or less population. Eighteen percent live in towns of 2500-9999. Fifteen percent live in cities of 10,000-24,000. Cities of 25,000-49,999 accounted for 9%. Population centers over 50,000 hold 28% of the respondents. Six percent of the subscribers are residents of another state.

The geographic distribution of subscribers was also determined. An area including metropolitan Atlanta and extending 60 miles out in all directions from the city contained 49% of the subscribers. What may be roughly classed as middle Georgia contains 23%. South Georgia, including the coastal area, had 15% of our readers, and north Georgia accounted for 8%.

The circulation of a publication is rarely equal to the readership, so a question was included. Fifty-three percent of the readers said that their copy of the magazine was regularly read by one or two other males, 10% by 3-4, and 4% by 5 or more. Fifty-seven percent reported that one or two females read their copy of the magazine, 3% by 3-4, and 1% by 5 or more.

All of this may be quite correct and some of it may even be interesting, but just how does it help? It has helped in very many ways, both general and specific. It confirmed many beliefs that staffers held about subscribers. It also squashed a few such beliefs. It let us breathe easier about certain changes that seemed imminent.

We know that subscribers to *Georgia Game & Fish* were almost all hunters or fishermen, and many were both. We know that more fishermen subscribe than hunters. We also know that the fishermen spend more days in their recreational pursuit than do the hunters.

The readers of Georgia Game & Fish liked the magazine. Only 5% said they would not renew their subscription. Only 6% said they would not continue to subscribe if the cost were doubled. Only 7% indicated that they had never suggested that a friend subscribe. Almost 30% said they had given gift subscriptions (but only 16% claimed that as the original source of their subscription). The magazine was rated as better than most hunting and fishing magazines by 74% of the respondents.

The readers did, in fact, read the magazine and valued it. Some 82% saved material from the magazine and one out of every three has saved all his magazines. All standing departments and types of articles had usual readership of over 50% of the subscribers, with usual readership of all but one standing department (book reviews) and two classes of features (contests and Department personnel and activities) was at or above 80%.

The value of such a publication to a conservation agency was verified. It was identified by over 1/3 of the readers as being the source through which they most often heard of the Department. As the source of most detailed information about the Department, the magazine was chosen by 68% of the readers.

With 79% of the readers being high school graduates, there is little need to "write down" to them. With 52% living in cities of 10,000 or larger, we have some basis for assuming unfamiliarity with outdoor subjects on the part of a fair number of readers. We also find that nearly half (49%) of the readers live within a 60-mile radius of Atlanta.

Perhaps the single most important finding of the survey was that significant numbers of Georgia Game & Fish readers were interested in a large variety of related subjects not being covered by that magazine. Of ten suggested types of articles that readers might recommend for inclusion in the magazine, only hiking received less than 15% response (it was 13%), and only that and sightseeing attracted less than 20% (sightseeing was 18%).

So, what are we doing about it? A number of things. Some have been well received — a few have not. A simple comparison of ciculation figures for June, 1972, and June, 1973, will provide a good clue as to the success or failure of the new content.

Outdoors in Georgia replaced Georgia Game & Fish with the July, 1972 issue. The new magazine is the publication of the Georgia Department of Natural Resources and as such, it encompasses that Department's scope of activities and interests.

While hunting and fishing-related activities of the Department's Game and Fish Division are identical to those carried out prior to the reorganization of Georgia state government, this is only one part of the responsibilities of the Department of Natural Resources. Outdoors in Georgia covers the whole scope of natural resources. Anything is fair game from hunting and fishing to wildflowers, water pollution or prospecting for gemstones. Water skiing to snow skiing, boating to backpacking, Spanish mackerel to salamanders and state parks — they are all valid to our publication.

If our analysis is indeed valid, and we can provide enough hunting and fishing articles along with the others, we will retain the bulk of our former subscribers and attract a vastly increased readership representing more diverse interests.

SUBSCRIPTION MODES FOR GEORGIA GAME & FISH READERS





