

PUBLIC OPINION ABOUT ALLIGATORS IN FLORIDA

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Abstract: A public opinion survey designed to measure human attitudes toward wild alligators (*Alligator mississippiensis*) and alligator management was carried out. Most (92%) Florida residents view the alligator as a valuable species, but 73% felt that large alligators are dangerous. There was variation in the degree of danger attributed to alligators by various socioeconomic groups. Opinions about management strategies were more variable than for the other topics examined. In urban areas, 52% felt that wild-life officers should capture large alligators, a sizable group (50%) favored commercial harvest and sport hunting in wild areas, and 25% favored complete protection in wild areas.

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Alligator populations began to expand substantially in 1969 in Florida after the passage of the Lacey Act Amendment effectively curtailed interstate shipment of illegal alligator hides. Further protection was provided by the Endangered Species Act of 1973. Alligator populations in some parts of Florida have increased by 30 percent per year recently (Hines 1975, unpublished data).

The increase in the human population and the numbers of alligators in Florida during the last decade have produced conflicts between people and alligators. More than 10,000 persons called Game and Fresh Water Fish Commission offices during 1976 to request that live alligators be removed. However, other people in Florida have said that conflicts between humans and alligators were not serious and that further expansion of the wild alligator population in Florida was justified. This study was undertaken to characterize public opinion about alligators and measure support for certain management approaches.

METHODS

The questionnaire used focused on: perception of the alligator as a dangerous animal, opinions about the value of the species, and opinions about management options. The categories provided for response to the danger question were: rarely or never dangerous, occasionally dangerous, usually dangerous, dangerous when provoked, and dangerous when swimming nearby. The 5 management options provided were: complete protection, relocation by wildlife officers, destruction by wildlife officers, regulated commercial harvest, and sport hunting.

Questions were presented in a manner which would measure opinion concerning these 3 questions in regard to small alligators (1.3 m and under) in urban and wild situations, and large alligators (over 1.3 m) in urban and wild situations. The respondent's sex, age, background, education, organization membership, and other important social and cultural parameters were recorded.

Independently selected samples were employed from the general public and from persons who purchased Florida hunting licenses in 1976. The general public sample was stratified by the administrative regions of the Game and Fresh Water Fish Commission: (1) South Florida; (2) Northeast Florida; (3) Northwest Florida; (4) Everglades; and (5) Central Florida.

A target sample size of 4,000 was allocated to the 5 strata in proportion to the population size in each region taken from 1974 projections. The addresses used for mailings were selected from telephone directories for the various strata. Of the approximately 4,000 questionnaires mailed, approximately 25 percent were returned. The completed and returned questionnaires allocate themselves across the 5 strata in nearly the same proportions as those mailed out. The returned questionnaires seem to be reasonably well distributed across sex, age, education, and employment categories.

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For the survey of hunters, approximately 1,390 questionnaires were returned out of 3,000 mailed. The 3,000 hunters were also stratified according to the 5 administrative regions.

There is overlap in the populations sampled (82% of the general public sample were sympathetic toward hunting), but the survey of the general public should represent the true public's opinion. Of course, when the 2 samples are mixed, the results may well be biased toward the views of the hunters. However, in many cases the hunter sample answered similarly to the general public. When this was the case, data from both groups were combined.

Chi square tests were run on both the hunter-only sample and the general public sample to detect differences in opinions concerning alligator management, fear of alligators, and perception of the value of alligators between various social and economic groups delineated by the survey.

RESULTS

Danger to Persons

Data from the combined surveys indicated that 34 percent of those responding felt that large wild alligators were dangerous only when provoked. Fourteen percent felt they were usually dangerous without provocation. Twenty-seven percent felt that they were rarely or never dangerous, and 6 percent felt that they were dangerous while persons were swimming nearby (Fig. 1).

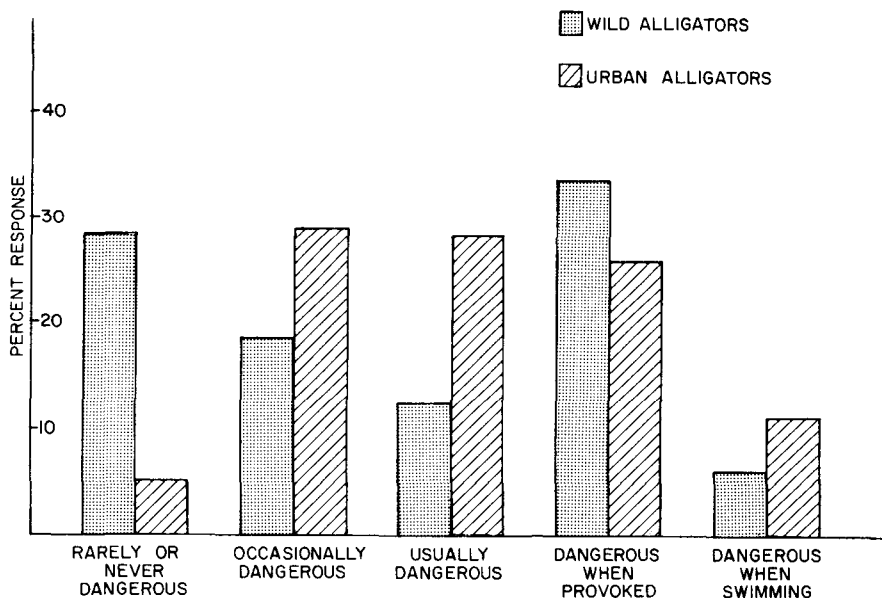


Fig. 1. Opinions concerning danger large alligators pose to humans.

When asked about small gators, most people indicated that they felt small gators were less of a threat; however, 26 percent said that small alligators in urban situations were either occasionally or usually dangerous. When asked about small gators in wild areas, 14 percent felt that they were either occasionally or usually dangerous.

Men in the general public sample were 8 times more likely than women to regard large alligators in urban areas as only rarely dangerous ($P < .01$). Similar results were noted in regard to large alligators in wild areas; 30 percent of the men felt large gators were only rarely dangerous, while 19 percent of the women perceived them as only rarely dangerous.

There is little factual evidence that alligators 1.3 m and under are a threat to humans. However, based on this survey, it was evident that some people regard alligators of this size as dangerous.

We hypothesized that people who grew up in urban settings would be more likely to regard small alligators as dangerous than would people with rural backgrounds. The data supports this hypothesis. Eighteen percent of those with urban backgrounds regarded small wild gators as either occasionally dangerous or usually dangerous while only 10 percent of those with rural backgrounds responded similarly ($P < .05$). Of people with rural background, 67 percent considered small alligators as only rarely dangerous while 55 percent of those with urban backgrounds perceived them as only rarely dangerous.

Value of Alligators

Of the people responding, 92 percent felt that alligators were of value, citing ecological, aesthetic, and economic reasons. However, when a Chi square test was applied to the data, it indicated variation in perception of value between certain groups. Persons older than 45 years more often than any other age group indicated that alligators were of no value ($P < .008$). In comparing the opinions of various employment groups, a similar trend was noted among retired persons where 11 percent felt that alligators were of no value compared to 6 percent of those employed. In comparing opinions of persons with different levels of education, adults with less than an eighth grade education were more likely to consider alligators of no value and those with 14 to 16 years of education were less likely to consider them of no value ($P < .0001$). Even among the least educated, 80 percent indicated that alligators were of some value.

Management Choices

One of the more important questions in the survey concerned public opinion toward various management choices. These management options were provided for both wild and urban alligators.

Urban alligators. Urban alligators are potential problem animals and the manner in which they are handled will be an important part of Florida's alligator management plan. Consequently, opinions concerning management of both small and large alligators in urban situations were surveyed.

Only 6 percent of the respondents favored complete protection of large alligators in urban settings, while 16 percent felt that small alligators (less than 1.3 m) should be offered complete protection. (Fig. 2).

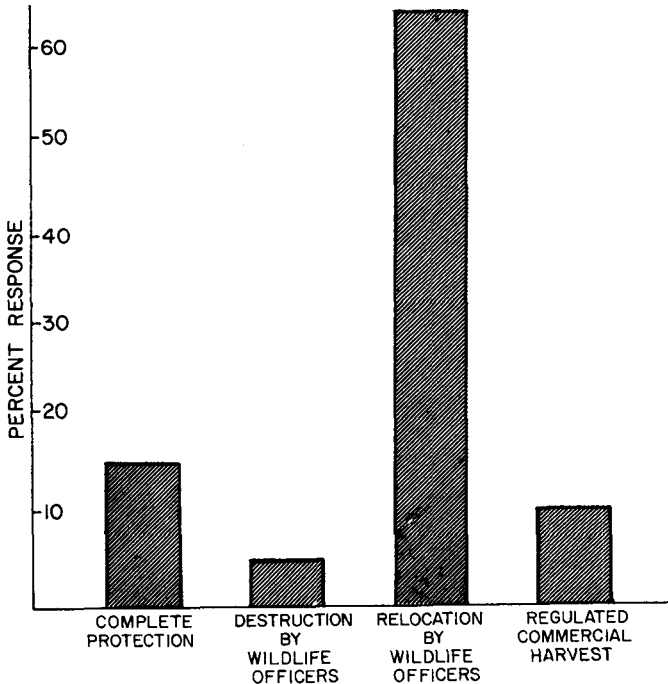


Fig. 2. Public response concerning management of small alligators in urban areas.

Fifty-two percent of the respondents felt that large animals in urban areas should be removed by wildlife officers and 11 percent felt that they should be destroyed by wildlife officers. Twenty-three percent favored a regulated commercial harvest of large alligators in urban areas and 11 percent felt regulated commercial harvest of small urban alligators was appropriate (Figs. 2 and 3).

It appears that most people recognize the need to move alligators out of conflicting situations in urban areas. Wildlife officers have moved complaint alligators for many

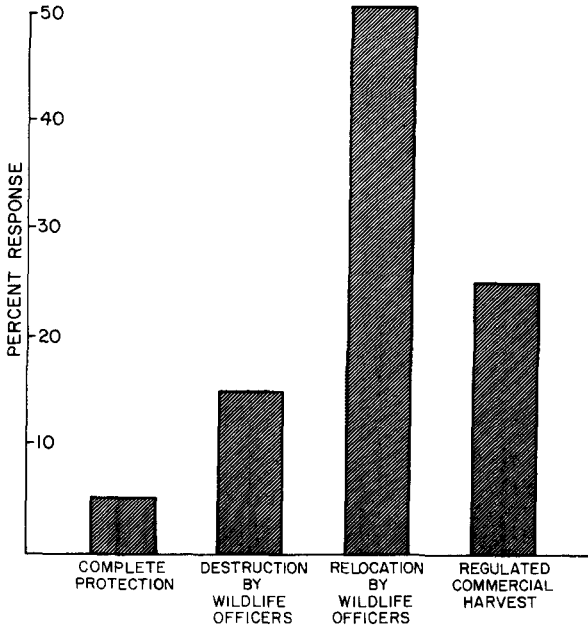


Fig. 3. Public response concerning management choices for large alligators in urban areas.

years, and most people apparently still view that as an appropriate method of handling the problem.

There were differences between urban, rural, and small town residents in their views toward regulated commercial harvest of large alligators in urban areas. Of the people responding in the general public sample, 32 percent of those living in small towns favored commercial harvest in urban areas. This was a significantly larger percentage than either the urban or suburban residents ($P < .01$). Similarly, in the hunters-only sample, those persons living in rural areas were more inclined toward commercial harvest of large gators in urban areas.

Wild alligators. Large alligators in wild areas appeared to be more logical choices for either commercial or sport harvest in most people's opinion. Approximately 33 percent of the persons surveyed favored a regulated commercial harvest of large alligators in the wild and from 25 to 32 percent favored a sport harvest. Approximately 26 percent felt that large animals in wild areas should be afforded complete protection (Fig. 4).

Approximately 64 percent of the total sample felt that small alligators should receive complete protection in wild areas compared to 16 percent in urban areas, and only 13 percent felt that commercial harvest of smaller wild alligators was appropriate.

Since only 17.5 percent of the general public indicated opposition to hunting, it is not surprising that the hunter-only sample and the general public sample yielded similar results. However, important areas where differences were apparent concerned sport hunting and protection. The hunters-only favored sport hunting more, and complete protection less, than the general public (Fig. 4).

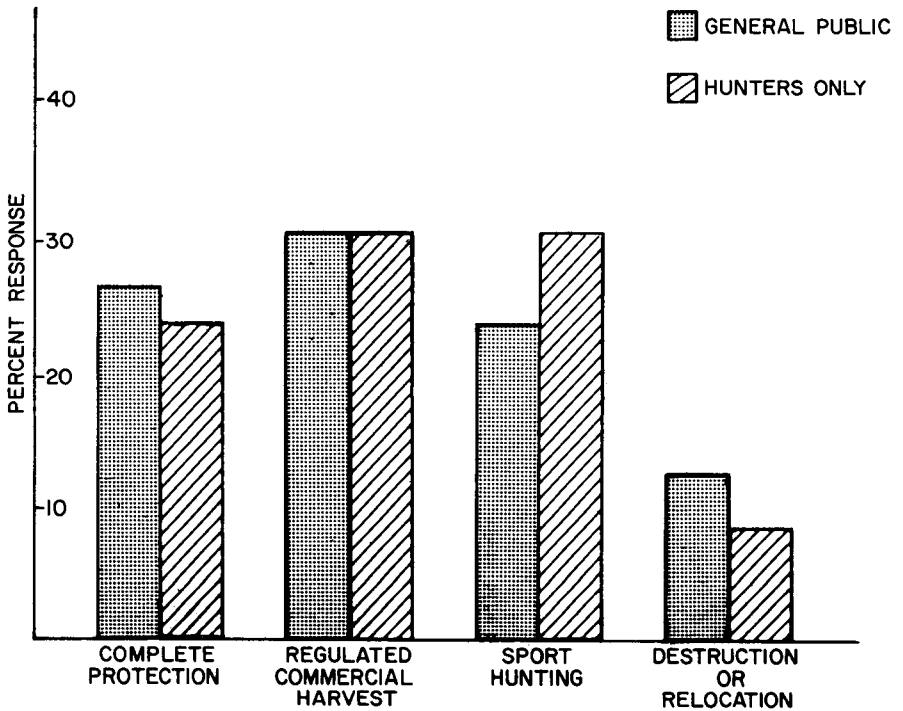


Fig. 4. Public response concerning management of large alligators in wild areas.

Significant differences in views toward harvest were apparent. People in the hunter-only sample who were 45 years or older were less inclined toward a sport harvest than any other age group ($P < .0001$). Respondents in the general public sample in the 17-24 age group were less in favor of either a regulated commercial harvest or sport hunting of large alligators in wild areas than any other age group ($P < .0005$).

The respondents in the hunter-only groups who never saw alligators in the wild were more likely to favor complete protection than those who saw them seldom or frequently ($P < .0001$). Similarly, persons in the general public sample were more likely to favor harvest if they frequently observed alligators than if they never saw them.

Various conservation organizations hold different views concerning management options. The degree to which the individual adheres to the public positions of his or her organization may be open to some question. This survey did not indicate any significant differences in management philosophy between members of various organizations within the general public sample. However, the hunter-only sample did indicate that hunters who belonged to the Audubon Society were significantly more inclined toward complete protection than other hunters ($P < .008$).

Education could be hypothesized as having considerable influence upon attitudes toward wildlife and wildlife management. Using the general public data, comparisons of opinions toward different management options were made between adults with eighth grade or less education, high school (12 years), 14 to 17 years and over 17 years education. A Chi square test applied to education data indicated no significant differences ($P > .05$) in management options chosen between the four education groups. However, a comparison between those people with 14 to 17 years of education versus those with more than 17 years indicated a significant difference ($P < .05$) with 30 percent of the 14 to 17 year group favoring the commercial harvest of large gators in the wild and 40 percent of those with over 17 years of education favoring commercial harvest.

DISCUSSION AND SUMMARY

The results of this survey suggest the following conclusions:

The residents of Florida, regardless of socioeconomic status, age, education, or any other major social or cultural parameters, regard the alligator as an important part of the Florida scene. Ninety-two percent of those responding indicated that the species was of value.

Most respondents perceived large alligators as dangerous under some situations. No more than 27 percent said that large alligators are rarely or never dangerous, but the largest group (32%) felt they were dangerous only when provoked.

It appears that people with more contact with alligators are less likely to perceive them as dangerous. Women are more likely than men to regard alligators as dangerous and people with urban backgrounds were more likely than those with rural backgrounds to feel that they were dangerous.

Response in regard to management options was diverse. There is little support (6%) for protection of large alligators in urban areas, but 25 percent of the people feel that complete protection of large alligators is appropriate in wild areas. The number of people who favored a regulated commercial harvest in urban situations was approximately 25 percent with 52 percent favoring relocation alive of large animals by wildlife officers. In wild situations, in excess of 50 percent of the respondents favored some type of harvest.

Those persons who live in rural areas were more likely to favor commercial harvest than their urban counterparts and those in the present college age group were more likely to oppose commercial harvest than any other age group. The group who favored commercial harvest the most were the group with greater than 17 years of education.

It is apparent that opinions concerning management of alligators is highly variable and no great groundswells of support are evident for any single system of management. Commercial harvest under a rigid set of controls probably offers the most acceptable management possibility within the framework of classical wildlife management. There is considerable support for this for alligators in wild areas, but some resistance is evident.

In this survey, active hunters responded to commercial hunting exactly the same as the general public, but more were in favor of sport hunting and less in favor of complete protection than the general public (Fig. 4). This probably indicates some resistance to commercial hunting even from those who actively embrace a hunting ethic.

Up through the late 1800's and early 1900's, uncontrolled exploitation of wildlife for monetary gain was one of the primary values of wildlife. In the early part of the century, a new type of wildlife value gained prominence. The recreational value of wildlife became the most important aspect and sport hunting became a national pastime (Shaw 1974). This philosophy which emphasizes the ethics of sport hunting at the expense of commercial hunting is still prominent.

In view of this diverse public opinion and the probability of fairly strong prejudices against commercial hunting, it is evident that a management program involving commercial harvest will have a fair chance of wide acceptance only if a well-planned program of public information and education is provided before such a management scheme is implemented.

LITERATURE CITED

- Shaw, William W. 1974. Meanings of wildlife for Americans: contemporary attitudes and social trends. Trans. N. Amer. Wildl. and Nat. Res. Conf. 39:151-155.