Hunting Matters! "Hats On" Mentoring Campaign



Prepared by:

Walter "Deet" James Jr.

Hunting Heritage Biologist
North Carolina Wildlife Resources Commission
Division of Wildlife Management
Raleigh, NC. 27699-1722
Phone: 919-707-0059

walter.james@ncwildlife.org http://www.ncwildlife.org

Dain Palmer

Human Dimensions Biologist North Carolina Wildlife Resources Commission Division of Wildlife Management

EXECUTIVE SUMMARY

Introduction

The Hunting Heritage Program of the North Carolina Wildlife Resources Commission (NCWRC) is based on the premise that "it takes a hunter to make a hunter," and that the recruitment and retention of hunters is critical to long-term conservation and management of North Carolina's wildlife resources. It is vital, therefore, that mentoring be recognized as an essential component toward recruitment and retention efforts. We created the Hunting Matters! "Hats On" Mentoring Campaign (Hats On) to bring awareness to the importance of hunter mentoring in maintaining our hunting heritage and as a mechanism for better understanding barriers to hunter recruitment and retention in North Carolina.

Hats On Initiation/Registration

Hats On began on March 5th 2010 at the 30th Annual Dixie Deer Classic (DDC) at the State Fairgrounds in Raleigh. Participants in the Hats On campaign pledged "to make a good faith effort" to introduce someone new to hunting (youth or adult) during the 2010 hunting season. Persons who had a valid North Carolina hunting license or had a valid North Carolina mailing address were eligible to participate. We gave eligible participants custom designed "Hats On" hats and bumper stickers to promote mentoring awareness and as an incentive to participate in Hats On. Participants could register using paper forms available at the DDC or on-line via the NCWRC website. A total of 3,543 eligible registrants signed up for the campaign, with 2,857 registering online and 686 completing paper registration forms. Hats On registration ended November 1, 2010.

Evaluation Methods

Beginning in January 2011 we contacted all eligible Hats On participants and asked them to complete a survey about their mentoring experiences and barriers to mentoring. Participants for whom we had a valid email address were sent up to three requests via email to complete the survey online. We then mailed a paper version of the survey to anyone who had not completed the survey online. Participants who did not provide a valid email address were mailed two requests to complete the survey online, and then received up to two mailings of the paper version of the survey. All Hats On survey respondents were entered in a drawing for a State Comprehensive Lifetime Hunting License valued at \$250 sponsored by the Conservation Leaders for Tomorrow Program.

Selected Results

A total of 2,429 Hats On participants completed the post-campaign survey with 1,948 completing on-line and 481 completing paper surveys. The overall Hats On adjusted response rate (calculated by omitting incorrect addresses and persons ineligible to respond) was 69%.

When asked on the post-campaign survey, 67% of participants indicated they had taken one or more new hunters on his or her first hunting trip in 2009 and 78% had done so in 2010, representing an 11% reported increase in participants that mentored someone in 2010 vs. 2009.

We also examined barriers to mentoring new hunters. The following percentages of Hats On participants who, according to the post-campaign survey, did not personally take one or more new hunters on his or her first hunting trip in 2010 indicated the following as being barriers to mentoring someone new in 2010:

- The person(s) I intended to mentor and I could not coordinate our schedules to hunt (54%).
- The person(s) I intended to mentor could not find time to go hunting (52%).
- I did not know anyone whom I could mentor (46%).
- The person(s) I intended to mentor could not find the time to schedule a hunter education course (41%).
- The cost of leasing land for hunting was too expensive (41%).
- I did not have enough time to mentor (33%).
- I did not have access to land for hunting (30%).
- The person(s) I intended to mentor changed their mind and decided not to go hunting (23%).
- The property I used to hunt on was no longer open to hunting (20%).
- I needed information about permitted youth/disabled hunts in my area (19%).
- Game populations were too low (19%).
- My health or age limited my hunting (19%).
- My income changed and I could not afford to go hunting any longer (17%).
- The person(s) I intended to mentor had no hunting equipment and I was unable to provide any for them to use (17%).
- I needed more information about how to mentor (13%).
- Hunting regulations were too confusing (11%).

We also were interested in participant's opinions as to whether or not the Hats On campaign contributed to their decision to mentor. Most (64%) participants indicated Hats On was very or somewhat important in their decision to mentor a new hunter in 2010.

In an effort to investigate informational barriers to hunting, we asked Hats On participants to indicate their interest in obtaining hunting information via the NCWRC. The following percentages of participants indicated interest in the following sources of hunting-related information:

- Hunting information via the NCWRC website (69%)
- Hunting information updates by email (60%)
- Skills-based hunting workshops about game species, equipment and hunting methods (57%)
- Interacting with other hunters and NCWRC staff using on-line social networking sites such as Facebook (36%)

RECOMMENDATIONS

Respondents reported an 11% increase in mentoring post-campaign vs. pre-campaign with 64% indicating Hats On was very or somewhat important to their decision to mentor a new hunter in 2010. Respondents who did not take a new hunter on his/her first hunting trip identified a number of barriers to their efforts.

The majority of respondents indicated an interest in getting hunting-related information through the NCWRC website, by email and in skills-based hunting workshops. Fewer (36%) Hats On participants indicated an interest in getting hunting information using social media.

Recent research has indicated that most hunters (55%) are unaware of programs designed to recruit and retain hunters with only 11% of active hunters and 2% of inactive hunters participating in these programs. If we are to successfully maintain and or increase our hunter population in North Carolina, efforts directed at increasing awareness to the importance of hunter mentoring including the value of understanding and addressing barriers to hunter recruitment and retention is paramount.

Based on current research and Hats On evaluation results, we make the following recommendations:

- Reinstate Hats On as early as 2012 with continued program evaluation.
- Continue to develop, promote and provide partner-facilitated skills-based hunting workshops.
- Promote, enhance and provide web-based hunting information, social networking opportunities and seek out additional opportunities to improve outreach efforts.
- Develop initiatives to address barriers to recruiting new hunters within the NCWRC's control beginning with the reported top five barriers indicated by respondents that did not personally take one or more new hunters on his or her first hunting trip in 2010. These may include:
 - Address concerns relative to time constraints (i.e., lack of time and or other obligations) by creating website and printed information encouraging hunters to spend more time afield to: interact with and learn about nature, interact with family and friends outdoors, enjoy opportunities for fresh air and exercise and health aspects of acquiring and eating free-range protein, relieve stress and enjoy the personal value of maintaining the tradition of hunting for current and future generations. Essentially this would be an effort to get people that are interested in hunting but feel they have time constraints to potentially re-prioritize some of their activities in favor of hunting.
 - o Address communication barriers between potential mentors and new hunters (i.e., lack of knowledge concerning someone to mentor).
 - O Address potential new hunter timing constraints (i.e., could not find the time to schedule a hunter education course) through implementation of a Hunting Heritage License. This would temporarily "put-on-hold" the hunter education certification requirement in an attempt to prevent the loss of a spur-of-the-moment hunter recruitment opportunity and contribute a needed source of funding for future Hunting Heritage Program initiatives.
 - Alleviate concerns relative to cost of leasing land for hunting by promoting public lands opportunities.
 - Specific promotion of permit hunting opportunities on Game Lands based on the minimal use (13% or less) by post-campaign respondents when mentoring someone new to hunting in 2010.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
INTRODUCTION	1
CAMPAIGN REGISTRATION	1
CAMPAIGN EVALUATION METHODS	2
Survey Design	2
Survey Implementation	2
Data Weighting	2
Data Analysis	2
RESULTS	3
Campaign Registration, Post-Campaign Survey Response Rates	3
Participant Demographics	3
General Hunting Experience	3
Campaign Awareness	4
Mentoring Experience	4
Barriers to Mentoring	5
Preferences for Receiving Hunting Information	5
RECOMMENDATIONS	6
LITERATURE CITED	7
APPENDIX A: REGISTRATION FORM/POST CAMPAIGN SURVEY INSTRUMENT/FREQUENCIES	8
APPENDIX B: TABLES	18

INTRODUCTION

During any given year roughly 5% of U.S. citizens (approximately14-18 million) hunt (Responsive Management 2008). The value of the contributions hunters make towards wildlife management and conservation cannot be overlooked. Hunting revenue funds wildlife management and conservation programs throughout the country and wildlife managers believe that budgets could not be increased enough to make up for the loss of hunting and trapping as management tools (International Association of Fish and Wildlife Agencies, 2005). Nationwide, hunting-related spending supports wildlife agencies through license sales and the excise taxes on hunting equipment. In fact, for over 70 years, hunters and anglers have provided on average about 70% of the funding for most state fish and wildlife agencies (TWS Wildlife Professional, Spring 2009). In 2006, 304,204 hunters (resident and non-resident age 16 and older) provided over \$1.7 billion to North Carolina's economy with \$511,546,347 spent on hunting-related expenditures, \$856,474,221 in sales, \$251,130,696 in net income and 8,851 in hunting industry-related jobs (Southwick Associates, Inc. 2008).

Unfortunately, as the population increases nationwide, hunters represent a lower percentage of the population overall. In fact, hunter numbers declined 10% from 1996 through 2006. In 1996 there were roughly 370,000 hunters (age 16 and older) in North Carolina, but by 2006 the number was down to 304,000 hunters (U.S. Fish and Wildlife Service, 2006). Research has indicated three primary reasons for hunter number declines including poor health and age, lack of time and or other obligations and lack of access or places to hunt. Another factor contributing somewhat indirectly to hunter losses is lack of hunter awareness to programs designed to recruit and retain hunters. Nationwide, the majority of hunters (55%) are unaware of hunter recruitment and retention programs with 11% of active hunters and only 2% of inactive hunters participating in these programs (Responsive Management 2008). Unless attempts are made to reverse the decline in hunter numbers, the trend will likely continue and wildlife conservation and management as we currently know it could suffer, including the loss of our valued hunting tradition.

The Hunting Heritage Program of the North Carolina Wildlife Resources Commission (NCWRC) is based on the premise that "it takes a hunter to make a hunter," and that the recruitment and retention of hunters is critical to long-term conservation and management of North Carolina's wildlife resources. Research has indicated that the majority of hunters began hunting because someone took the time to introduce them to the activity (Responsive Management, 2008). The NCWRC can serve as a leader and a catalyst to effect positive change for hunting and work to provide additional opportunities to facilitate hunting, but, ultimately the future of hunting depends on the individual hunter (Hunting Heritage Program Strategic Plan, 2007). It is vital, therefore, that hunter mentoring be recognized as an essential component toward recruitment and retention efforts in North Carolina and the reason that Hats On was created and implemented.

CAMPAIGN REGISTRATION

Hats On began on March 5, 2010 at the 30th Annual Dixie Deer Classic (DDC) at the State Fairgrounds in Raleigh. Participants in the Hats On campaign pledged "to make a good faith effort" to introduce someone new to hunting (youth or adult) during the 2010 hunting season. Persons who had a valid North Carolina hunting license or had a valid North Carolina mailing address were eligible to participate. We gave eligible participants custom designed "Hats On" hats and bumper stickers to promote mentoring awareness and as an incentive to participate in Hats On. Participants could register using paper forms available at the DDC or on-line via the NCWRC website. Paper registration forms were also provided upon request by the NCWRC and distributed

during several Hunting Heritage Program outreach efforts. The one page registration form (Appendix A) included nine questions about past hunting participation and mentoring experience. Hats On registration ended November 1, 2010.

CAMPAIGN EVALUATION METHODS

In order to help evaluate the campaign, we surveyed Hats On participants after the campaign.

Survey Design

The 32 question Hats On post-campaign survey instrument (Appendix B) was designed to compare pre and post-campaign mentoring. The survey instrument included questions concerning barriers to hunter mentoring, interest in getting hunting-related information from the NCWRC and participant demographic information.

Survey Implementation

Beginning in January 2011 we contacted all eligible Hats On participants and asked them to complete the survey instrument (Dillman et. al 2009). Participants for whom we had a valid email address were designated Web Primary whereas anyone not providing an email address were designated Mail Primary. Any Web Primary participants whose emails were unsuccessfully delivered were moved to the Mail Primary group.

Web Primary participants were sent up to three email requests to complete the survey online between January 24 and February 15, 2011. Web Primary participant non-respondents then were mailed a paper version of the survey (with an option to respond online) on March 07.

Beginning January 31, 2011, all Mail Primary participants received a letter with the survey URL asking them to complete the survey online and notifying those without internet access that a paper survey would arrive in a few weeks. All Mail Primary participants received a postcard reminder to complete the survey online and all non-respondents were mailed a paper version of the survey on March 7. A final paper survey was mailed to non-respondents on April 4. The survey closed on May 2. All Hats On post-campaign survey respondents were entered in a lottery drawing for a State Comprehensive Lifetime Hunting License valued at \$250.

Data Weighting

We compared persons who responded to the post-campaign survey with campaign registrants who did not respond to the post-campaign survey for the following variables: mentoring activity before the campaign, total years hunted, days hunted in a typical year, state of residence and age. For all variables except total years hunted and age there were minor differences. There was evidence of an association between total years hunted and age and response to the survey. Therefore, we weighted all statewide frequency data based on total years hunted and age (Table 1). For open-ended numeric variables we trimmed outliers in the top 1% of the distributions (Vaske 2008). Following the recommendation of Winship and Radbill (1994), we did not use weighted data for statistical tests which depend on standard errors. Except where noted the percentages and means reported in the text are all based on weighted data.

Data Analysis

We analyzed data using IBM SPSS Statistics 19.0 (SPSS Inc. 2010). We calculated frequency distributions and percentages of respondents in each category or means for every survey question (Appendix A). For bivariate

comparisons, we used cross-tabulations, chi-square tests (χ 2) and t tests to test null hypotheses that there were not differences between variables. We used a probability value (P) \leq 0.05 to indicate statistically significant relationships. We omitted or combined categories in cross-tabulations when > 20% of cells had expected values < 5 or when any cells had expected values < 1. Due to rounding, percentages may not total 100% or may appear off when individual categories are combined.

RESULTS

Campaign Registration, Post-Campaign Survey Response Rates

There were 5,301 registration forms completed during the campaign; of those, 3,543 individuals were eligible (North Carolina resident or had valid North Carolina hunting license) to participate in Hats On. Of those eligible, 2,857 registered on-line and 686 completed paper registration forms.

A total of 2,429 eligible participants completed the post-campaign survey with 1,948 completing on-line and 481 completing paper surveys. Overall Hats On adjusted response rate calculated by omitting incorrect addresses and persons ineligible to respond was 69%.

Participant Demographics

Most (95%) post-campaign respondents were male and 97% were white (Question 30). Of North Carolina hunters overall, 92% were male and 87% were white (U.S. Fish and Wildlife Service, 2006). Most (94%) post-campaign respondents (Question 29) and 72% of North Carolina hunters overall reported being at least high school graduates. Forty-eight percent of North Carolina hunters are age 35 to 54 whereas somewhat larger proportions (54%) of post campaign respondents were in the same age group (Question 5R). Seventeen percent of post-campaign respondents and 13% of North Carolina hunters overall were aged 25 to 34, and 16% of Hats On post-campaign respondents and 29% of North Carolina hunters overall were age 55 and over. Fifty-six percent of post-campaign respondents and North Carolina hunters overall had annual household incomes of \$40,000 to \$99,999, and 17% of Hats On participants and 13% of hunters overall had annual household incomes over \$100,000 (Question 32).

General Hunting Experience

Almost all (99%) of Hats On participants completing the post-campaign survey had previously hunted (Question 2) and most (94%) possessed a current North Carolina hunting license (Question 28). Most participants (72%) had hunted at least 16 years (Question 1R) and 74% reported typically hunting 21days or more per year (Question 2R). Concerning hunting avidity, 98% of hunters reported hunting during the previous 12 months, with 52% hunting more than 30 days and 48% hunting 30 days or fewer (Question 4).

Of those who hunted, 93% indicated that hunting was either one of the most important or most important recreational activities they participated in (Question 3). The majority of participants (93%) hunted for deer; 73% hunted for small game, 63% for turkey, 31% for waterfowl, 17% hunted for bear and 20% indicating hunting for other species (Question 3R). Relative to hunting equipment use, 92% of participants primarily hunted with rifles, followed by shotguns (89%), archery equipment (62%), muzzle loaders (58%) and 19% of participants hunted with handguns (Question 4R). Although participant hunting occurred throughout North Carolina, 11% indicated hunting in Halifax, Johnston, Wake or Wilkes counties (Question 5).

Campaign Awareness

Concerning Hats On awareness, 62% indicated they had primarily heard about Hats On by visiting the NCWRC website, 16% indicated friends or family members, 12% indicated hearing about Hats On via the N.C. Inland Fishing, Hunting and Trapping Regulations Digest, 1% reported other website/newspaper article and 14% indicated other sources (Question 1). Of those who indicated hearing about Hats On through other sources, 52% wrote in Dixie Deer Classic (Table 2).

Mentoring Experience

We examined mentoring activity before and after Hats On. The percentage of Hats On participants that reported mentoring someone who had never hunted in the past year increased from 71% pre campaign to 84% post campaign (Table 3). Most (67% post-campaign respondents indicated taking one or more new hunters on his or her first hunting trip in 2009 with 78% having done so in 2010 for an 11% mentoring increase between 2009 and 2010 (Table 4).

There was not a difference (t = -1.8, P = .070) in the reported mean number of people mentored by those who reported mentoring someone who had never hunted pre-campaign (Question 7R, mean = 1.8^1) and post-campaign (Question 8, mean = 1.8^1), although there was a slight increase (t = -8.1, P < .001) in the mean when respondents to the post-campaign survey were asked how many new hunters they personally took on their first hunting trip in 2009 (Question 10, mean = 1.0^1) and 2010 (Question 12, mean = 1.2^1).

We asked about demographics for each hunter who respondents personally took on his or her first hunting trip in 2010 (Question 13). Most new hunters (74%) were male and the average age on their first hunting trip was 15.4 years. Most new hunters (67%) were not a household member and 52% were a family member of their mentor. About a third (34%) of new hunters completed hunter education in 2010 and 38% purchased a license in 2010.

The species most often hunted for while mentoring a new hunter in 2010 (Question 14) was deer (66%), followed by small game (18%), waterfowl (6%), turkey (5%), other (4%) and bear (1%).

When mentoring a new hunter in 2010, the majority of post-campaign respondents (73%) indicated having mentored on private land only, 6% public land only and 22% indicated mentoring on both private and public land (Question 15).

Only 8% of post-campaign respondents reported participating in permitted youth hunts when mentoring a new hunter in 2010 (Question 16), 13% took advantage of the statewide youth turkey hunt day when mentoring (Question 17) and only 1% participated in permitted disabled sportsman hunts when mentoring (Question 18).

The majority (81%) of post-campaign respondents reported they were very or somewhat likely to hunt with one or more of the hunter(s) they mentored in 2010 during the next 12 months (Question 19) and most (64%) indicated Hats On was very or somewhat important in their decision to mentor someone in 2010 (Question 20).

_

¹ Percentage based on unweighted data.

Barriers to Mentoring

The following percentages¹ of Hats On participants who, according to the post-campaign survey, did not personally take one or more new hunters on his or her first hunting trip in 2010 indicated the following as being barriers to mentoring someone new in 2010 (Question 21):

- The person(s) I intended to mentor and I could not coordinate our schedules to hunt (54%).
- The person(s) I intended to mentor could not find time to go hunting (52%).
- I did not know anyone whom I could mentor (46%).
- The person(s) I intended to mentor could not find the time to schedule a hunter education course (41%).
- The cost of leasing land for hunting was too expensive (41%).
- I did not have enough time to mentor (33%).
- I did not have access to land for hunting (30%).
- The person(s) I intended to mentor changed their mind and decided not to go hunting (23%).
- The property I used to hunt on was no longer open to hunting (20%).
- I needed information about permitted youth/disabled hunts in my area (19%).
- Game populations were too low (19%).
- My health or age limited my hunting (19%).
- My income changed and I could not afford to go hunting any longer (17%).
- The person(s) I intended to mentor had no hunting equipment and I was unable to provide any for them to use (17%).
- I needed more information about how to mentor (13%).
- Hunting regulations were too confusing (11%).

The following percentages of post-campaign respondents who did personally take one or more new hunters on his or her first hunting trip in 2010 indicated the following as being the top three minor or major barriers to recruiting new hunters in 2010:

- The cost of leasing land was too expensive (35%).
- The person(s) I intended to mentor could not find time to go hunting (29%).
- The person(s) I intended to mentor and I could not coordinate our schedules to hunt (26%).

Two hundred thirty-six post campaign respondents wrote in other barriers to recruiting new hunters in 2010 (Table 5).

When asked about future mentoring potential, 70% of post-campaign survey respondents reported they were somewhat or very likely to mentor a new hunter who has never previously hunted in the next 12 months (Question 22).

Preferences for Receiving Hunting Information

When asked about interest in getting various forms of hunting information from the NCWRC (Question 23), the following percentages of survey respondents indicated interest in: NCWRC website (69%), email (60%), skills-based hunting workshops (57%) and social networking sites such as Facebook (36%).

¹ Percentages based on unweighted data.

The percentages of post-campaign survey respondents indicating interest in the following skills-based hunting workshop topics (Question 24) were: deer (78%), turkey (66%), small game (47%), waterfowl (37%), bear (33%) and other (8%) (Table 6). Most (86%) post-campaign survey respondents indicated willingness to travel at least 30 miles to attend skills-based hunting workshops (Question 25). Preferred workshop months in order of preference were: January-February (24%), July-August (19%), March-April (16%), May-June (13%) and September-October (6%). Less than 1% indicated November and December and 22% selected unsure/no preference (Question 26). Concerning days and times for workshops, Saturdays between 9 a.m. and 5 p.m. were most commonly favored (47%), followed by Monday through Tuesday after 6 p.m. (21%). Only 7% preferred Weekdays between 9 a.m. and 5 p.m. and 25% indicated unsure/no preference (Question 27).

RECOMMENDATIONS

Hats On respondents reported an 11% increase in mentoring post-campaign vs. pre-campaign with 64% indicating Hats On was very or somewhat important to their decision to mentor a new hunter in 2010. Respondents who did not take a new hunter on his/her first hunting trip identified a number of barriers to their efforts.

The majority of respondents indicated an interest in getting hunting-related information through the NCWRC website, by email and in skills-based hunting workshops. Fewer (36%) Hats On participants indicated an interest in getting hunting information using social media.

Recent research has indicated that most hunters (55%) are unaware of programs designed to recruit and retain hunters with only 11% of active hunters and 2% of inactive hunters participating in these programs. If we are to successfully maintain and or increase our hunter population in North Carolina, efforts directed at increasing awareness to the importance of hunter mentoring including the value of understanding and addressing barriers to hunter recruitment and retention is paramount.

Based on current research and Hats On evaluation results, we make the following recommendations:

- Reinstate Hats On as early as 2012 with continued program evaluation.
- Continue to develop, promote and provide partner-facilitated skills-based hunting workshops.
- Promote, enhance and provide web-based hunting information, social networking opportunities and seek out additional opportunities to improve outreach efforts.
- Develop initiatives to address barriers to recruiting new hunters within the NCWRC's control beginning with the reported top five barriers indicated by respondents that did not personally take one or more new hunters on his or her first hunting trip in 2010. Efforts include:
 - O Address concerns relative to time constraints (i.e., lack of time and or other obligations) by creating website and printed information encouraging hunters to spend more time afield to: interact with and learn about nature, interact with family and friends outdoors, enjoy opportunities for fresh air and exercise and health aspects of acquiring and eating free-range protein, relieve stress and enjoy the personal value of maintaining the tradition of hunting for current and future generations.
 - Address communication barriers between potential mentors and new hunters (i.e., lack of knowledge concerning someone to mentor) using social media.
 - O Address potential new hunter timing constraints (i.e., could not find the time to schedule a hunter education course) through implementation of a Hunting Heritage License. This would temporarily "put-on-hold" the hunter education certification requirement in an attempt to prevent

- the loss of a spur-of-the-moment hunter recruitment opportunity and contribute a needed source of funding for future Hunting Heritage Program initiatives.
- Alleviate concerns relative to cost of leasing land for hunting by promoting, enhancing and increasing Game Lands Program opportunities.
- Increased promotion of youth and disabled permitted hunting opportunities on Game Lands based on the minimal use (13% or less) by post-campaign respondents when mentoring someone new to hunting in 2010.

LITERATURE CITED

Dillman, Don A., Jolene D. Smyth, and Leah M. Christian. 2009. Internet, mail, and mixed-mode surveys: the tailored design method. John Wiley & Sons, Inc., Hoboken, New Jersey.

Hunting Heritage Program Strategic Plan. 2007. A Report to the North Carolina Wildlife Resources Commission. Submitted by the Division of Wildlife Management.

International Association of Fish and Wildlife Agencies. 2005. Potential Costs of Losing Hunting and Trapping as Wildlife Management Methods. Washington, DC, USA.

LaRoe, L.M., Unger, K., Abhat, D. (2009). Conservation at a Crossroad. TWS Wildlife Professional. Spring 2009 3(1): 26-31.

Responsive Management/National Shooting Sports Foundation. 2008. The Future of Hunting and the Shooting Sports: Research-Based Recruitment and Retention Strategies. Produced for the U.S. Fish and Wildlife Service under Grant Agreement CT-M-6-0, Harrisonburg, VA.

Southwick Associates Inc. 2008. The 2006 Economic Benefits of Hunting, Fishing and Wildlife Watching in North Carolina. Southwick Associates Inc., Fernandina Beach, Florida, USA.

U.S. Department of the Interior, Fish and Wildlife Service, and U.S Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, hunting, and Wildlife-Associated Recreation.

Vaske, J. J. 2008. Survey research and analysis: applications in parks, recreation, and human dimensions. Venture Publishing, Inc., State College, Pennsylvania.

Winship, C. and L. Radbill. 1994. Sampling weights and regression analysis. Sociological Methods and Research 23(2):230-257.

APPENDIX A: REGISTRATION FORM/POST CAMPAIGN SURVEY INSTRUMENT/FREQUENCIES





"I hereby pledge to make a "good faith effort" to introduce someone new to hunting (youth or adult) during the coming hunting season as my contribution to preserving our hunting heritage"

Name (please print): First:	:	M	I:Last:	
Address/P.O. Box:			Phone #:	
City:	State:	Zip Co	de:Co	unty:
WRC Customer # (hunting address:):	Email	
1) For how many years total have you hunted? (check one) 8% 3 years or fewer 6% 4 to 6 years 7% 7 to 10 years 8% 11 to 15 years 13% 16 to 20 years 21% 21 to 30 years 38% 31 years or more 2) In a typical year, how many days do you hunt? (check one) 4% 5 days or fewer 7% 6 to 10 days 15% 11 to 20 days 23% 21 to 30 days 17% 31 to 40 days	3) For which of following spect typically hunt's (check all that 73% Small Gar 63% Turkey 94% Deer 17% Bear 31% Waterfow 20% Other 4) What type of equipment do (check all that 62% Archery 58% Muzzle Los 89% Shotgun 92% Rifle 19% Handgun	ies do you ? apply) me f hunting you use? apply)	5) In what age category are you? (check one) 3% Under 16 10% 16 to 24 17% 25 to 34 31% 35 to 44 23% 45 to 54 16% 55 and over 6) In the past year did you mentor someone who had never hunted 69% Yes 31% No (Stop here and sign the form at the bottom.) 7) In the past year how many different people have you mentored?	you mentored (check one) 28% Only family members 15% Only people outside of your family 57% Both people inside and outside of your family 9) In the past year, which of the following settings have you hunted with someone you
35% 41 days or more	17/0 Hanugun		1.7 (mean)Number of peopl	7% Permit Hunts

Signature: ______ Date:_____

You can register <u>one</u> of two ways: 1) On-line at <u>www.ncwildlife.org/huntingmatters</u> or 2) <u>Fax</u> this <u>completed</u> form to 919-707-0067 C/o Hats On Mentoring Campaign.

^{**}Mentors completing our post-campaign survey (early 2011) will be entered in a drawing for a <u>FREE State Comprehensive Lifetime Hunting License</u> donated by The Conservation Leaders for Tomorrow Program**

Note: Please allow a minimum of 4-8 weeks for delivery of hats and bumper stickers



2011 Hunting Matters! "Hats On" Mentoring Campaign Survey



This survey is an opportunity for you to let us know about your experiences while participating in the Hunting Matters! "Hats On" Mentoring Campaign. We need to hear from you even if you did not mentor a new hunter.

- 1. How did you hear about the Hunting Matters! "Hats On" Mentoring Campaign? (check all that apply)
 - 1% Newspaper article
 - 62% N.C. Wildlife Resources Commission website
 - 1% Other website
 - 12% Insert in the North Carolina Inland Fishing, Hunting and Trapping Regulations Digest
 - 16% Friend or family member
 - 14% Other (please specify): _____
- **2.** Have you ever hunted?
 - 99% Yes
 - 1% No (skip to question 0 on page 6)
- **3.** How unimportant or important is hunting to you? (check one)
 - 1% It's one of my least important recreational activities
 - 1% It's less important than my other recreational activities
 - 5% It's no more important than my other recreational activities
 - 50% It's one of my most important recreational activities
 - 43% It's my most important recreational activity
- **4.** About how many days did you go hunting in the past 12 months? (**check one**)
 - 2% 0 days (**skip to question 6**)
 - 5% 1 to 5 days
 - 8% 6 to 10 days
 - 16% 11 to 20 days
 - 18% 21 to 30 days
 - 52% More than 30 days

	County
	1% Did not hunt in North Carolina during the past 12 months
<u> Mento</u>	oring Experience
6.	Before 2010 had you ever mentored a new hunter? 75% Yes 25% No
7.	In the past year did you mentor someone who had never hunted? 84% Yes 16% No (skip to question 9)
8.	In the past year how many different people have you mentored?
	1.9 (mean) people
9.	Did you <i>personally</i> take one or more new hunters on his or her first hunting trip <i>in 2009</i> ? 65% Yes 35% No (<u>skip to question 11</u>)
10	How many new hunters did you <i>personally</i> take on his or her first hunting trip <i>in 2009</i> ? 1.0 (mean) hunters
11.	Did you <i>personally</i> take one or more new hunters on his or her first hunting trip <i>in 2010</i> ? 77% Yes 23% No (<u>skip to question 20 on page 4</u>)
12.	How many new hunters did you <i>personally</i> take on his or her first hunting trip <i>in 2010</i> ? 1.2 (mean) hunters

13. Please complete the following for each new hunter you *personally* took on his or her first hunting trip *in 2010*. (<u>circle or enter a response for each box</u>)

	Male/	Female	Age on first hunting trip	yo	ber of our hold?		ber of amily?	hur educa	oleted nter tion in 10?		ased a license 010?
First person mentored	M	F		Y	N	Y	N	Y	N	Y	N
Second person mentored	M	F		Y	N	Y	N	Y	N	Y	N
Third person mentored	M	F		Y	N	Y	N	Y	N	Y	N
Fourth person mentored	M	F		Y	N	Y	N	Y	N	Y	N
Fifth person mentored	M	F		Y	N	Y	N	Y	N	Y	N
Sixth person mentored	M	F		Y	N	Y	N	Y	N	Y	N
All persons mentored	M= 74%	F= 26%	15.4 (mean)	Y= 33%	N= 67%	Y= 52%	N= 48%	Y= 34%	N= 66%	Y= 38%	N= 62%

14.	Which of	of the	following	species	did yo	u <i>most</i>	often	hunt for	while	mentori	ng a new	hunter(s) in
	2010? (check	one)										

1	On/	C a1	1 ~~~~
1	7 %	Smar	l game

66% Deer

1% Bear

6% Waterfowl

4% Other (please specify):

^{5%} Turkey

15. When mentoring a new hunter(s) in 2010, did you hunt on private land, public land, or both private and public land? (**check one**)

73% Only hunted on private land

6% Only hunted on public land

12% Most often hunted on private land, but also hunted on public land

5% Most often hunted on public land, but also hunted on private land

4% Hunted on private and public land about the same amount of time

16. Did you participate in any N.C. Wildlife Resources Commission permitted youth hunts when mentoring a new hunter(s) in 2010?

8% Yes

92% No

17. Did you participate in the North Carolina statewide youth turkey hunt day (April 3, 2010) when mentoring a new hunter(s) in 2010?

13% Yes

87% No

18. Did you participate in any N.C. Wildlife Resources Commission permitted disabled sportsman hunts when mentoring a new hunter(s) in 2010?

1% Yes

99% No

19. How unlikely or likely is it that in the next 12 months you will hunt with one or more of the hunter(s) you mentored in 2010? (**check one**)

12% Very unlikely

3% Somewhat unlikely

1% Neither unlikely nor likely

13% Somewhat likely

69% Very likely

2% Unsure

20. In your opinion, how unimportant or important was the Hunting Matters! "Hats On" Mentoring Campaign in your decision to mentor a new hunter in 2010? (**check one**)

15% Very unimportant

7% Somewhat unimportant

13% Neither unimportant nor important

22% Somewhat important

42% Very important

2% Unsure

21. Some things may or may not have affected your ability to mentor someone in 2010. Please indicate which of the following were not barriers, minor barriers, or major barriers to your mentoring of new hunters in 2010. (check one for each possible barrier)

	Not a	Minor	Major
	Barrier	Barrier	Barrier
I did not know anyone whom I could mentor.	79%	17%	4%
The person(s) I intended to mentor could not find	65%	27%	9%
time to go hunting.			
The person(s) I intended to mentor could not find	71%	20%	10%
the time to schedule a hunter education course.			
The person(s) I intended to mentor and I could	67%	26%	8%
not coordinate our schedules to hunt.			
The person(s) I intended to mentor had no	85%	13%	2%
hunting equipment and I was unable to provide			
any for them to use.			
The person(s) I intended to mentor changed their	88%	9%	3%
mind and decided not to go hunting.			
I did not have enough time to mentor.	80%	16%	4%
I needed more information about how to mentor.	90%	9%	1%
I needed information about permitted	79%	16%	6%
youth/disabled hunts in my area.			
I did not have access to land for hunting.	76%	17%	7%
The cost of leasing land for hunting was too	63%	16%	21%
expensive.			
The property I used to hunt on was no longer	85%	10%	5%
open to hunting.			
Game populations were too low.	78%	17%	5%
Hunting regulations were too confusing.	88%	9%	3%
My health or age limited my hunting.	90%	8%	2%
My income changed and I could not afford to go	87%	12%	1%
hunting any longer.			
Other (please specify):			

- **22.** How unlikely or likely is it that you will mentor a new hunter, who has never previously hunted, in the next 12 months? (**check one**)
 - 7% Very unlikely
 - 9% Somewhat unlikely
 - 9% Neither unlikely nor likely
 - 36% Somewhat likely
 - 34% Very likely
 - 6% Unsure

Hunting Information and Networking

23. How uninterested or interested would you be in the following? (check one for each)

	Very Uninter	ested		Ir	Very Interested		
	1	2	3	4	5		
Getting hunting information on the N.C. Wildlife Resources Commission website.	11%	4%	13%	14%	55%	2%	
Getting hunting information updates by email.	16%	7%	15%	14%	46%	3%	
Interacting with other hunters and N.C. Wildlife Resources Commission staff using online social networking sites such as Facebook.	27%	15%	16%	11%	25%	6%	
Skills-based hunting workshops about game species, hunting equipment and hunting methods.	13%	10%	17%	18%	40%	3%	

24. Which of the following would interest you as topics for skills-based hunting workshops? (**check all that apply**)

78%	Deer	hunting

- 33% Bear hunting
- 66% Turkey hunting
- 47% Small game hunting
- 37% Waterfowl hunting
- 8% Other (please specify): _____

10% Not interested in skills-based hunting workshops (skip to question 28)

- **25.** What is the longest distance you would consider traveling to attend a skills-based hunting workshop? (**check one**)
 - 17% 50 miles or more
 - 30% Up to 50 miles
 - 38% Up to 30 miles
 - 11% Up to 10 miles
 - 3% 5 miles or less
- **26.** Which of the following times of the year would you prefer for attending skills-based hunting workshops? (**check one**)
 - 24% January-February
 - 16% March-April
 - 13% May-June
 - 19% July-August
 - 6% September-October
 - 0% November-December
 - 22% Unsure/no preference
- **27.** What time of day/week would you prefer for attending skills-based hunting workshops? (**check one**)
 - 7% Weekdays between 9 a.m. and 5 p.m.
 - 21% Monday through Thursday after 6 p.m.
 - 47% Saturday between 9 a.m. and 5 p.m.
 - 25% Unsure/no preference

Background Questions

For us to understand people's responses to the previous questions more fully, we need to know a few things about your background. Remember that your responses are confidential.

- **28.** Do you have a current North Carolina hunting license?
 - 94% Yes
 - 6% No
- **29.** Which of the following statements best describes the highest level of formal education you have completed? (**check one**)
 - 6% Less than a high school graduate
 - 20% High school graduate or GED
 - 29% Some college or trade school, no degree
 - 18% Associate or trade school degree
 - 20% Bachelor's or four-year degree
 - 8% Graduate or professional degree

- **30.** Are you male or female?
 - 95% Male
 - 5% Female
- **31.** What is your race or ethnicity? (check all that apply)
 - 0% Hispanic or Latino
 - 97% White
 - 1% Black or African American
 - 2% American Indian or Alaska Native
 - 0% Asian
 - 0% Native Hawaiian or other Pacific Islander
 - 1% Other (please specify):
- **32.** Which of these categories best describes your total household income before taxes last year? (**check one**)
 - 9% Under \$20,000
 - 19% \$20,000 to \$39,999
 - 23% \$40,000 to \$59,999
 - 19% \$60,000 to \$79,999
 - 15% \$80,000 to \$99,999
 - 7% \$100,000 to \$119,999
 - 10% \$120,000 or more

Thank you for your participation! If you would like us to notify you when the results of the survey are posted online, please give us your email address:

If you have any other comments you would like to share with us, please email them to walter.james@ncwildlife.org.

Please use the enclosed postage-paid envelope, or mail this survey to:

Hats On Survey N.C. Wildlife Resources Commission 1722 Mail Service Center Raleigh, NC 27699-1722 **APPENDIX B: TABLES**

Table 1. Data weighting.

		All Part	ticipants Respondents		ndents	
	Years		_	_		
Age	hunted	Count	%	Count	%	Weight ^a
<16	<4 yrs	42	1.2%	16	0.7%	1.8145
<16	4-6 yrs	31	0.9%	13	0.5%	1.6484
<16	7-10 yrs	16	0.5%	8	0.3%	1.3825
<16	11-15 yrs	5	0.1%	2	0.1%	1.7281
16-24	<4 yrs	61	1.7%	26	1.1%	1.6218
16-24	4-6 yrs	54	1.5%	26	1.1%	1.4357
16-24	7-10 yrs	88	2.5%	45	1.9%	1.3518
16-24	11-15 yrs	76	2.2%	34	1.4%	1.5452
16-24	16-20 yrs	77	2.2%	40	1.6%	1.3307
16-24	21-30 yrs	9	0.3%	4	0.2%	1.5553
25-34	<4 yrs	69	2.0%	25	1.0%	1.9079
25-34	4-6 yrs	55	1.6%	34	1.4%	1.1182
25-34	7-10 yrs	58	1.7%	33	1.4%	1.2149
25-34	11-15 yrs	118	3.4%	71	2.9%	1.1488
25-34	16-20 yrs	162	4.6%	116	4.8%	0.9654
25-34	21-30 yrs	130	3.7%	99	4.1%	0.9077
25-34	>30 yrs	3	0.1%	2	0.1%	1.0369
35-44	<4 yrs	69	2.0%	29	1.2%	1.6447
35-44	4-6 yrs	33	0.9%	18	0.7%	1.2673
35-44	7-10 yrs	57	1.6%	35	1.4%	1.1258
35-44	11-15 yrs	52	1.5%	28	1.2%	1.2838
35-44	16-20 yrs	151	4.3%	106	4.4%	0.9847
35-44	21-30 yrs	403	11.5%	304	12.5%	0.9164
35-44	>30 yrs	313	8.9%	244	10.1%	0.8867
45-54	<4 yrs	23	0.7%	14	0.6%	1.1356
45-54	4-6 yrs	22	0.6%	13	0.5%	1.1698
45-54	7-10 yrs	22	0.6%	17	0.7%	0.8946
45-54	11-15 yrs	25	0.7%	16	0.7%	1.0801
45-54	16-20 yrs	49	1.4%	34	1.4%	0.9962
45-54	21-30 yrs	153	4.4%	107	4.4%	0.9884
45-54	>30 yrs	530	15.1%	422	17.4%	0.8682
>54	<4 yrs	9	0.3%	8	0.3%	0.7777
>54	4-6 yrs	7	0.2%	4	0.2%	1.2097
>54	7-10 yrs	7	0.2%	4	0.2%	1.2097
>54	11-15 yrs	2	0.1%	1	0.0%	1.3825
>54	16-20 yrs	15	0.4%	8	0.3%	1.2961
>54	21-30 yrs	39	1.1%	25	1.0%	1.0784
>54	>30 yrs	476	13.6%	396	16.3%	0.8309
Total	J	3511		2427		

^a Weight calculation = All Participants %/Respondents %.
Table 2. Other sources for hearing about Hats On (Question 1 open-ended responses).

Other sources for hearing about Hats On	Count	%
Dixie Deer Classic	180	52%
WRC Employee	29	8%
State Employee Wellness Expo	27	8%
State Fair Function	18	5%
Boy Scout Event/Meeting	17	5%
Hunter Ed Workshop	16	5%
National Hunting/Fishing Day-Centennial	10	3%
Hats On Poster/Flyer	9	3%
Email	7	2%
WINC Magazine	7	2%
Word of Mouth	5	1%
NC State Wildlife and Fisheries Lab	4	1%
Youth Jamboree/State Fairgrounds	4	1%
Post-Campaign Survey	3	1%
WRC Website	2	1%
Facebook	1	0%
Hunters Blog	1	0%
Other Website	1	0%
Permits Hunt Booklet	1	0%
Regulations Digest	1	0%
State Capitol Legislators Event	1	0%

Table 3. In past year mentored someone who had never hunted (registration form) (Question S19) by in past year mentored someone who had never hunted (post-campaign survey) (Question 7).

		Q7. In the past year did you mentor someone who had never						
		hunted (post-c	ampaign survey	')? ^a				
				Total				
		No	Yes	(Count)	Total (%)			
S19. In the past year	No	183	521	704	29%			
did you mentor	Yes	189	1499	1688	71%			
someone who had	Total	372	2020	2392				
never hunted	(Count)							
(registration form)?	Total (%)	16%	84%		100%			

^a P < .001, based on McNemar test. The marginal totals are the relevant comparisons (i.e., the total percentage of "yeses" for each question).

Table 4. Took one or more new hunters on first hunting trip in 2009 (Question 9) by took one or more new hunters on first hunting trip in 2010 (Question 11).

		Q11. Did you personally take one or more new hunters on				
		his or her first hunting trip in 2010? ^a				
		Total				
		No	Yes	(Count)	Total (%)	
Q9. Did you	No	280	498	778	33%	
personally take one or	Yes	246	1319	1565	67%	
more new hunters on	Total	526	1817	2343		
his or her first hunting	(Count)					
trip in 2009?	Total (%)	22%	78%		100%	

^a P < .001, based on McNemar test. The marginal "totals" are the relevant comparisons (i.e., the total percentage of "yeses" for each question).

Table 5. Other barriers to mentoring of new hunters in 2010 (Question 21 open-ended responses).

Other barriers	Count	%
Other Obligations	41	17%
Access Issues	30	13%
Mentee Issues	27	11%
Health Issues	17	7%
Time Issues	17	7%
Hunter Ed	15	6%
Unrelated Issue	13	6%
Opportunity Issues	12	5%
Guardian Issues	10	4%
Low Game Populations	10	4%
Expense Issues	9	4%
Sunday Hunting	9	4%
Weather Issues	8	3%
Dog Issues	6	3%
Lack of Information	5	2%
Lack of Shooting Range	4	2%
Safety Issues	3	1%

Table 6. Other skills-based hunting workshops topics (Question 24 open-ended responses).

Other workshop topics	Count	%
Coyote	30	16%
Predator	20	11%
Feral Hogs	19	10%
Migratory Game	19	10%
Trapping	18	10%
Archery	11	6%
Varmints	11	6%
Upland Game	10	5%
Wild Boar	7	4%
Game Processing	5	3%
Raccoon	5	3%
All/Anything	4	2%
Habitat Management	4	2%
Fishing	3	2%
Hunter Ethics	3	2%
Dog Training/Hunting	2	1%
Muzzle Loaders	2	1%
Tracking	2	1%
Elk	1	1%
Equipment	1	1%
Game Calling	1	1%
Game/Trophy Scoring	1	1%
Range Time	1	1%
Tanning Skins	1	1%
Wilderness Survival	1	1%