

# Fish and Wildlife Reference Service Newsletter

Number 138  
Fall 2003



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## Measuring Public Opinion on Fish and Wildlife Management Issues Using Survey Research

*"It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts." – Sir Arthur Conan Doyle's Sherlock Holmes*

Biological research is the foundation of successful fish and wildlife management programs. Human dimensions research is the foundation of successful fish and wildlife programs, communications, products, services, and positive and supportive constituent relationships. Successful fish and wildlife agencies develop policies that reflect both biological research as well as human dimensions research.

While most fish and wildlife agencies and organizations have increasingly utilized human dimensions research when developing policies, communications and public relations programs and strategies, a few organizations still place little importance on the value of human dimensions research, instead relying on nonscientific information about public and constituent opinions and attitudes. For example, too often public opinion obtained from a few telephone calls made to agencies, public meetings, chat rooms, or poorly designed Web surveys are used to make projections onto a certain constituent group or the general population as a whole. These sources of public opinion and attitudes, however, often represent polar and skewed positions and certainly not reflective of reality. Persons who choose to call an agency to express their opinion or attend public meetings are generally not representative of the general population. These persons tend to possess polarized opinions and be highly opinionated or simply have access to an outlet to express their opinion. If only the opinions of these persons are considered, the reality of public opinion such as support or opposition to proposed regulations or programs are highly skewed and are in no way reflective of the population or group as a whole.

Survey research is a science, and a well-conducted survey will reflect reality. A quantitative survey is a systematic collection of data from a sample population using a standardized questionnaire. The objective of a public opinion or attitude survey is to quantify opinions and attitudes in a scientific manner. There are several methods of collecting high quality and reliable human dimensions data, including literature reviews, focus groups, and quantitative mail, web, or phone surveys. To collect primary data on public opinions and attitudes, telephone surveys continue to be the most reliable, produce the highest response rates, and are most representative of the groups surveyed. However, mail and web based surveys can be effective when used in the proper context and carefully administered. Unfortunately today, Web-based surveys are probably the most abused of all survey methodologies, often being administered poorly, producing results that are not reflective of the population under study. In fact, one survey that was being administered via the Web came across our desks was soliciting respondents by e-mail stating: "Please forward this email to any one you believe is appropriate to help us maximize our response." Such a survey being forwarded here and there and everywhere with no pre-defined sample will be highly inaccurate and will certainly not produce valid results: it is biased because a sample has not been pre-selected. It has broken one of the most important rules of good solid survey research.

Just as in biological research, human dimensions research needs to be conducted following established rules. There are several fundamental elements in a well-designed survey project: 1) The goals and objectives of the study must be clearly defined. 2) Everyone in the population under study must have an equal likelihood

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of being surveyed. 3) A survey should be written in such a way as to not influence or lead respondents. 4) All interviews must be administered systematically in the same way. 5) The sample size must be large enough to minimize sampling error. 6) The response rate must be high enough to minimize any nonresponse bias. Response rates are inextricably linked to the level of error for and the meaning of every finding in a study. Good response rates are often evidence of good survey design and implementation. This is the reason that some organizations put great efforts into “redefining” what a “response rate” means. Obfuscation of true response rates gives an inaccurate accounting of actual survey performance. One survey actually pre-screens respondents and asks if they will respond at a later date. Then when the survey is administered at a later date, a high “response rate” is achieved because the organization reports the second response rate – essentially a response rate of those who have already agreed to do the survey!

**- Comments solicited from Mark Damian Duda and Joy Yoder  
Responsive Management**

During the past fifteen years, Responsive Management has conducted more than 700 surveys on fish, wildlife and natural resource issues. *For more information contact: [Mark@responsivemanagement.com](mailto:Mark@responsivemanagement.com)*

## NEW REPORTS

### MAMMALS



**1. Habitat Use, Home Ranges, and Survival of Swift Foxes in a Fragmented Landscape: Conservation Implications.**

Kalmer, J.F., et al. *J. of Mammal.* 2003. pp. 989-995 (7 pp.). Vol. 84, No. 3. /1 mf/. MIN 420320182

**2. Daily and Seasonal Movements and Habitat Use by Female Rocky Mountain Elk and Mule Deer.** Ager, A.A., et al. *J. of Mammal.* 2003. pp. 1076-1088 (13 pp.). Vol. 84, No. 3. /1 mf/.

MIN 360320183

**3. Fire Impact to Small Mammals in Piedmont Oak-Shelterwoods.** Keyser, P.D., et al. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 375-381 (7 pp.). Vol. 55. /1 mf/. MIN 450320184

**4. Initial Gray Squirrel Population Responses to Nest Boxes in Two Forest Types in Southern Alabama.** Nupp, T.E.; Holler, N.R. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 396-407 (12 pp.). Vol. 55. /1 mf/. MIN 010320185

**5. Bobcat Home Range Size Relative to Habitat Quality.** Conner, L.M., et al. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 418-426 (9 pp.). Vol. 55. /1 mf/. MIN 230320186

**6. An Expandable Radiocollar for Black Bear Cubs.** Vashon, J.H., et al. *Wildl. Soc. Bull.* 2003. pp. 380-386 (7 pp.). Vol. 31, No. 2. /1 mf/. MIN 450320187

**7. Evaluation of Aerial Line Transect for Estimating Pronghorn Antelope Abundance in Low-density Populations.** Whittaker, D.G., et al. *Wildl. Soc. Bull.* 2003. pp. 443-453 (11 pp.). Vol. 31, No. 2. /1 mf/. MIN 360320188

**8. Demographics, Temporal and Spatial Dynamics, and Resource Conflict Evaluation of Elk Wintering Near San Antonio Mountain in Northcentral New Mexico.** Smallidge, S.T., et al. *NM Dept. of Game & Fish. Final Report.* 2003. 164 pp. /2 mf/. MIN 300330028

**9. Effects of Precommercial Thinning on Snowshoe Hares, Small Mammals, and Forest Structure in Northern Maine.**

Homyack, J.A. M.S. Thesis. U. of ME. 2003. 224 pp. /2 mf/. MIN 180330029

**10. Desert Bighorn Sheep Management and Restoration.** Goldstein, E. *NM Dept. Game & Fish. Final Perf. Report.* 2002. 406 pp. /5 mf/. MIN 300380312

### BIRDS



**11. True Metabolizable Energy for Wood Ducks from Acorns Compared to Other Waterfowl Foods.** Kaminski, R.M., et al. *J. of Wildl. Manage.* 2003. pp. 542-550 (9 pp.). Vol. 67, no. 3. /1 mf/. MIN 230320166

**12. Potential Gas Development Impacts on Sage Grouse Nest Initiation and Movement.** Lyon, A.G.; Anderson, S.H. *Wildl. Soc. Bull.* 2003. pp. 486-491 (6 pp.). Vol. 31, No. 2. /1 mf/. MIN 490320167

**13. Nesting Success of Ruffed Grouse in West Virginia.** Dobony, C.A., et al. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 456-465 (10 pp.). Vol. 55. /1 mf/. MIN 470320168

**14. Comparison of Reclaimed and Unmined Woodcock Summer Diurnal Habitat in West Virginia.** Gregg, I.D., et al. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 488-497 (10 pp.). Vol. 55. /1 mf/. MIN 470320169

**15. Forest Clearings Management: Insects and Vegetation for Wild Turkey Broods.** Lafon, N.W., et al. *Proc. Annu. Conf. SEAFWA.* 2001. pp. 547-559 (13 pp.). Vol. 55. /1 mf/. MIN 450320170

**16. Effects of Jet Aircraft Overflights on Parental Care of Peregrine Falcons.** Palmer, A.G., et al. *Wildl. Soc. Bull.* 2003. pp. 499-509 (11 pp.). Vol. 31, No. 2. /1 mf/. MIN 500320171

**17. Effects of Recruitment, Oak Mast, and Fall-Season Format on Wild Turkey Harvest Rates in Virginia.** Norman, G.W.; Steffen, D.E. *Wildl. Soc. Bull.* 2003. pp. 553-559 (7 pp.). Vol. 31, No. 2. /1 mf/. MIN 450320172

18. **Comparison of Detection Probability Associated with Burrowing Owl Survey Methods.** Conway, C.J.; Simon, J.C. *J. of Wildl. Manage.* 2003. pp. 501-511 (11 pp.). Vol. 67, No. 3. /1 mf/. MIN 020320173

19. **Estimation on Reproductive Rates of Burrowing Owls.** Gorman, L.R., et al. *J. of Wildl. Manage.* 2003. pp. 493-500 (8 pp.). Vol. 67, No. 3. /1 mf/. MIN 040320174

20. **Factors Affecting Gadwall Brood and Duckling Survival in Prairie Pothole Landscapes.** Pietz, P.J., et al. *J. of Wildl. Manage.* 2003. pp. 564-575 (12 pp.). Vol. 67, No. 3. /1 mf/. MIN 330320175

21. **Food Chain Aspects of Chlordane Poisoning in Birds and Bats.** Stansley, W., et al. *Arch. Environ. Contam. Toxicol.* 2001. pp. 285-291 (7 pp.). Vol. 40. /1 mf/. MIN 290320176

22. **Human Harassment and Double-crested Cormorant, *Phalacrocorax auritus*, Nesting at Three Colonies in Eastern Lake Ontario, New York, USA: Observations from a Management Program.** Farquhar, J.F., et al. *VOGELWELT.* 2003. pp. 319-324 (6 pp.). Vol. 124, Suppl. /1 mf/. MIN 310320177

23. **Final Environmental Impact Statement: Double-crested Cormorant Management in the United States.** USFWS. 2003. 208 pp. /3 mf/. MIN 800380309

## FISHES

24. **Anadromous and Inland Fisheries Operational Management Investigations. Aquatic Resource Assessments. Fish Population Assessments: Wild Brook Trout Population Assessments in Southwestern New Hampshire.** Gries, G. NH Fish & Game Dept. Final Report. 2002. 32 pp. /1 mf/. MIN 280340168

25. **Anadromous and Inland Fisheries Operational Management Investigations. Fish Population Assessments: A Summary of Bass Tournament Data for Selected New Hampshire Lakes, 1996-2000.** Perry, S.G. NH Fish & Game Dept. 2002. 20 pp. /1 mf/. MIN 280340169

26. **Factors Influencing Fish Populations in Oklahoma Waters: Evaluation of the Flathead Catfish Population and Fishery on Lake Carl Blackwell, OK, With Emphasis on the Effects of Noodling.** Winkelman, D.L. OK Dept. of Wildl. Conserv. Final Report. 2002. 40 pp. /1 mf/. MIN 350340170

27. **Factors Influencing Fish Populations in Oklahoma Waters: Development of a Stream Fisheries Management Information System for Oklahoma.** Tejan, E.C. OK Dept. of Wildl. Conserv. Final Report. 2001. 40 pp. /1 mf/. MIN 350340171

28. **Ichthyoplankton Community Composition in Tidal Waters of the District of Columbia, 1997 - 1999.** Page, S. USFWS. 2002. 54 pp. /1 mf/. MIN 080340172

29. **Research of Susceptibility of Rainbow Trout Resistant to Whirling Disease.** Bartholomew, J.L., et al. USFWS. Final Report. 2002. 30 pp. /1 mf/. MIN 800340173

30. **Comparative Performance of Two Genetic Groups of Stocked Brook Trout in Maine Lakes.** Bonney, F.R. ME Dept. of

Inland Fish. and Wildl. Final Report No. 02-02. 2002. 70 pp. /1 mf/. MIN 180340174

31. **Southeast Florida Reef Fish Abundance and Biology.** Barbieri, L.R.; Colvocoresses, J.A. FL Fish & Wildl. Conserv. Comm. Perf. Report. 2003. 120 pp. /2 mf/. MIN 090340175

32. **Trophy Largemouth Bass Abundance and Harvest in a Central Virginia Impoundment: Implications for Restrictive Slot Limits.** DiCenzo, V.J.; Garren, D.A. Proc. Annu. Conf. SEAFWA. 2001. pp. 194-207 (14 pp.). Vol. 55. /1 mf/. MIN 450310086

33. **Age and Growth of the Blue Shark (*Prionace glauca*) in the North Atlantic Ocean.** Skomal, G.B.; Natanson, L.J. *Fishery Bull.* 2003. pp. 627-639 (13 pp.). Vol. 101, No. 3. /1 mf/. MIN 800310087

34. **Roanoke Logperch (*Percina rex*) Population Structure and Habitat Use.** Rosenberg, A.E.; Angermeier, P.L. VA Dept. of Game & Inland Fisher. Final Report. 2002. 110 pp. /2 mf/. MIN 450350019

35. **Influences of Fluctuating Releases on Stream Fishes and Habitat in the Smith River, Below Philpott Dam.** Orth, D.J., et al. VA Dept. of Game & Inland Fisher. Ann. Report. 2002. 96 pp. /1 mf/. MIN 450350020

36. **Exploring Mechanisms Regulating Crappie Populations in Ohio Reservoirs.** Bunnell, D.B.; Stein, R.A. OH DNR. Final Report. 2003. /1 mf/. MIN 340350021

## RECOVERY PLANS

37. **Lake Erie Watersnake (*Nerodia sipedon insularum*) Recovery Plan.** Seymour, M.M.; King, R.B. USFWS. 2003. 110 pp. /2 mf/. MIN 800380326

38. **Recovery Plan for Kneeland Prairie Penny-cress (*Thlaspi californicum*).** Imper, D.; Hamlin, R. USFWS. 2003. 54 pp. /1 mf/. MIN 800280124

39. **Recovery Plan for *Fritillaria gentneri* (Gentner's fritillary).** Pendergrass, K.L.; Robinson, A. USFWS. 2003. 102 pp. /2 mf/. MIN 800280142

40. **Recovery Plan for the Great Lakes Piping Plover (*Charadrius melodus*).** USFWS. 2003. 152 pp. /2 mf/. MIN 800280108

41. **Recovery Plan for the Quino Checkerspot Butterfly (*Euphydryas editha quino*).** Allen, E., et al. USFWS. 2003. 198 pp. /3 mf/. MIN 800180029

42. **Tumbling Creek Cavesnail (*Antrobia culveri*) Recovery Plan.** McKenzie, P.M. USFWS. 2003. 110 pp. /2 mf/. MIN 800380295

43. **Recovery Plan for the Rough Popcornflower (*Plagiobothrys hirtus*).** Friedman, S. USFWS. 2003. 70 pp. /1 mf/. MIN 800380032

44. **Recovery Plan for the Northern Idaho Ground Squirrel (*Spermophilus brunneus brunneus*).** Haak, B., et al. USFWS. 2003. 82 pp. /1 mf/. MIN 800280106

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## **AFTER NOVEMBER 30, 2003 THE REFERENCE SERVICE WILL BE CLOSED.**

At its annual meeting in September 2003, the **International Association of Fish and Wildlife Agencies (IAFWA)** did not approve a one-year **Multistate Conservation Grant** to operate the Reference Service. As of the mailing date of this newsletter, no information has been received regarding any future operations of the Reference Service.

**- THIS WILL BE YOUR LAST NEWSLETTER -**

**You may still, however, order reports from this newsletter, but orders must be received by November 21st.**

### ***To our users:***

***We would like to thank all of our patrons for their support over the years. We hope that through our dedication and commitment to provide for your information needs, we have been a useful resource in meeting your professional goals, objectives and tasks.***

***It has been our honor and pleasure to serve you.***

**If you have questions/concerns regarding the Multistate Conservation Grant Program or the Reference Service, contact: Jennifer Mock, Multistate Grants Coordinator, IAFWA, 444 North Capitol Street, NW, Suite 544, Washington, DC 20001; (202) 624-3688; FAX: (202) 624-7891; E-mail: [jenmock@sso.org](mailto:jenmock@sso.org).**

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## **HUMAN DIMENSIONS**



45. **Southern Oscillation Index as an Indicator of Encounters Between Humans and Black Bears in New Mexico.** Zack, C.S., et al. Wildl. Soc. Bull. 2003. pp. 517-520 (4 pp.). Vol. 31, No. 2. /1 mf/. MIN 300320178

46. **Stakeholder Attitudes toward Ecosystem Management in Southern Michigan.** Holsman, R.H.; Peyton, R.B. Wildl. Soc. Bull. 2003. pp. 349-361 (13 pp.). Vol. 31, No. 2. /1 mf/. MIN 210320179

47. **Enhancing Sport-Hunting Opportunities for Urbanites.** Schulz, J.H., et al. Wildl. Soc. Bull. 2003. pp. 565-573 (9 pp.). Vol. 31, No. 2. /1 mf/. MIN 800320180

48. **Deer Hunting in a Residential Community: The Community's Perspective.** Kilpatrick, H.J.; LaBonte, A.M. Wildl. Soc. Bull. 2003. pp. 340-348 (9 pp.). Vol. 31, No. 2. /1 mf/. MIN 060320181

49. **Birding in the United States: A Demographic and Economic Analysis. Addendum to the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.** LaRouche, G.P. USFWS. Report 2001-1. 2003. 22 pp. /1 mf/. MIN 800380310

50. **2001 National and State Economic Impacts of Wildlife Watching: Addendum to the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.** Caudill, J. USFWS. Report 2001-2. 2003. 18 pp. /1 mf/. MIN 800380311

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