**AUBURN UNIVERSITY HUMAN RESEARCH PROTECTION PROGRAM (HRPP)**

**EXEMPT REVIEW APPLICATION**

For assistance, contact: **The Office of Research Compliance (ORC)**

Phone: **334-844-5966** E-Mail: [**IRBAdmin@auburn.edu**](mailto:IRBAdmin@auburn.edu) Web Address: [**http://www.auburn.edu/research/vpr/ohs**](http://www.auburn.edu/research/vpr/ohs)

**Submit completed form and supporting materials as one PDF to** [**IRBsubmit@auburn.edu**](mailto:IRBsubmit@auburn.edu) **1. Project Identification Today’s Date: April 24, 2023**

**Anticipated start date of the project: August 1, 2023 Anticipated duration of project: 1 Year**

1. **Project Title: Survey of Alabama Wildlife Biologists’ Knowledge, Attitudes, & Practices on Wildlife Health & Zoonoses**
2. **Principal Investigator (PI): Stephen Ditchkoff** Degree(s): PhDRank/Title: Professor Department/School: School of Forestry and Wildlife Sciences

Role/responsibilities in this project:**Project director, recruitment, consent, administration of procedures, data analysis, data protection**

Preferred Phone Number: **334-844-9240**  AU Email: ditchss@auburn.edu   
**Faculty Advisor Principal Investigator (if applicable):** Click or tap here to enter text.Rank/Title:Choose Rank/Title Department/School:Choose Department/SchoolRole/responsibilities in this project:Click or tap here to enter text.

Preferred Phone Number:Click or tap here to enter text. AU Email: Click or tap here to enter text. **Department Head: Janaki Alavalapati** Department/School:School of Forestry and Wildlife SciencesPreferred Phone Number: **334-844-1004** AU Email: ajanaki@auburn.edu

Role/responsibilities in this project: Click or tap here to enter text.

1. **Project Key Personnel –** Identify all key personnel who will be involved with the conduct of the research and describe their role in the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. ([To determine key personnel, see decision tree](https://grants.nih.gov/policy/clinical-trials/ct-decision-tree.pdf)**).** *Exempt determinations are made by individual institutions; reliance on other institutions for exempt determination is not feasible. Non-AU personnel conducting exempt research activities must obtain approval from the IRB at their home institution.*

Key personnel are required to maintain human subjects training through [CITI](https://cws.auburn.edu/OVPR/pm/compliance/irb/training). Only for EXEMPT level research is documentation of completed CITI training NO LONGER REQUIRED to be included in the submission packet. NOTE however, **the IRB will perform random audits of CITI training records to confirm** reported training courses and expiration dates. Course title and expiration dates are shown on training certificates.

**Name: Stephen Ditchkoff** Degree(s): **PhD**Rank/Title:Professor Department/School: School of Forestry and Wildlife SciencesRole/responsibilities in this project: **Project director, recruitment, consent, administration of procedures, data analysis, data protection and reporting**AU Affiliated?YesNo If no, name of home institution:Click or tap here to enter text.Plan for IRB approval for non-AU affiliated personnel?Click or tap here to enter text.Completed required CITI training?  Yes  No If NO, complete the appropriate [CITI basic course](https://cws.auburn.edu/OVPR/pm/compliance/irb/training) and revise the Exempt Application form.   
  
  
If YES, choose course(s) the researcher has completed: Human Sciences Basic Course Expiration Date  
 Choose a course Expiration Date  
  
**Name: Charles E. Rupprecht** Degree(s): **VMD, PhD**Rank/Title:Professor Department/School: School of Forestry and Wildlife SciencesRole/responsibilities in this project: Project design and assistance in recruitment, consent process, data collection, data analysis, and reportingAU Affiliated?YesNo If no, name of home institution:Click or tap here to enter text.Plan for IRB approval for non-AU affiliated personnel?Click or tap here to enter text.Completed required CITI training?  Yes  No If NO, complete the appropriate CITI basic course and update the revised EXEMPT application form.  
If YES, choose course(s) the researcher has completed: Human Sciences Basic Course 10/7/2025  
 Choose a course Expiration Date  
 **Name:** Click or tap here to enter text.Degree(s):Click or tap here to enter text.Rank/Title:Choose Rank/Title Department/School: Role/responsibilities in this project:Click or tap here to enter text.AU Affiliated?YesNo If no, name of home institution:Click or tap here to enter text.Plan for IRB approval for non-AU affiliated personnel?Click or tap here to enter text.

1. **Funding Source –** Is this project funded by the investigator(s)? Yes  No   
   Is this project funded by AU? Yes  No  If YES, identify source Click or tap here to enter text.  
   Is this project funded by an external sponsor? Yes  No  If YES, provide name of sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for the award.  
   Name: **ADCNR** Type: **Governmental** Grant #:**FWS-SA2022000923**
2. List other AU IRB-approved research projects and/or IRB approvals from other institutions that are associated with this project. Describe the association between this project and the listed project(s):   
   Click or tap here to enter text.

**2. Project Summary**

**a. Does the study *TARGET* any special populations?** Answer YES or NO to all.

Minors (under 18 years of age) Yes  No

Pregnant women, fetuses, or any products of conception Yes  No

Prisoners or wards (unless incidental, not allowed for Exempt research) Yes  No

Temporarily or permanently impaired Yes  No

**b. Does the research pose more than minimal risk to participants?**  Yes  No   
 *If YES, to question 2.b, then the research activity is NOT eligible for EXEMPT review.*

*Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the   
 research is not greater in and of themselves than those ordinarily encountered in daily life or during   
 the performance of routine physical or psychological examinations or test. 42 CFR 46.102(i)*

**c. Does the study involve any of the following?** *If YES to any of the questions in item 2.c, then the*

*research activity is NOT eligible for EXEMPT review.*

Procedures subject to FDA regulations (drugs, devices, etc.) Yes  No

Use of school records of identifiable students or information from  
 instructors about specific students. Yes  No

Protected health or medical information when there is a direct or indirect   
 link which could identify the participant. Yes  No

Collection of sensitive aspects of the participant’s own behavior,

such as illegal conduct, drug use, sexual behavior or alcohol use. Yes  No

**d**. **Does the study include deception? Requires limited review by the IRB\*** Yes  No

**3.** **MARK the category or categories below that describe the proposed research. Note the IRB Reviewer**

**will make the final determination of the eligible category or categories.**

**1.** Research conducted in established or commonly accepted educational settings, involving normal   
 educational practices. The research is not likely to adversely impact students’ opportunity to learn   
 or assessment of educators providing instruction. 104(d)(1)  
  
  **2.** Research only includes interactions involving educational tests, surveys, interviews, public   
 observation if at least ONE of the following criteria. (The research includes data collection only;   
 may include visual or auditory recording; may NOT include intervention and only includes   
 interactions). **Mark the applicable sub-category below (I, ii, or iii). 104(d)(2)  
  
  (i)** Recorded information cannot readily identify the participant (directly or indirectly/ linked);  
 **OR  
 -** surveys and interviews: no children;  
 **-** educational tests or observation of public behavior: can only include children when investigators  
 do not participate in activities being observed.  
  
  **(ii)** Any disclosures of responses outside would not reasonably place participant at risk; **OR**  
  
  **(iii)** Information is recorded with identifiers or code linked to identifiers and IRB conducts limited   
 review; no children. **Requires limited review by the IRB.\*  
  
  3.** Research involving Benign Behavioral Interventions (BBI)\*\* through verbal, written responses   
 including data entry or audiovisual recording from adult subjects who prospectively agree and   
 ONE of the following criteria is met. (This research does not include children and does not   
 include medical interventions. Research cannot have deception unless the participant   
 prospectively agrees that they will be unaware of or misled regarding the nature and purpose of   
 the research) **Mark the applicable sub-category below (A, B, or C).** 104(d)(3)(i)  
 **(A)** Recorded information cannot readily identify the subject (directly or indirectly/ linked); **OR  
  
  (B)** Any disclosure of responses outside of the research would not reasonably place subject at risk;   
 **OR  
   
  (C)** Information is recorded with identifies and cannot have deception unless participants  
 prospectively agrees. **Requires limited review by the IRB.\*  
  
  4.** Secondary research for which consent is not required: use of identifiable information or  
 identifiable bio-specimen that have been or will be collected for some other ‘primary’ or ‘initial’   
 activity, if one of the following criteria is met. Allows retrospective and prospective secondary   
 use. **Mark the applicable sub-category below (i, ii, iii, or iv).** 104 (d)(4) **(i)** Bio-specimens or information are publicly available;  
 **(ii)** Information recorded so subject cannot readily be identified, directly or indirectly/linked;  
 investigator does not contact subjects and will not re-identify the subjects; **OR**

**(iii)** Collection and analysis involving investigators use of identifiable health information when use   
 is regulated by HIPAA “health care operations” or “research” or “public health activities and   
 purposes” (does not include bio-specimens (only PHI and requires federal guidance on how to   
 apply); **OR  
  
  (iv)** Research information collected by or on behalf of federal government using government   
 generated or collected information obtained for non-research activities.  
 **5.** Research and demonstration projects which are supported by a federal agency/department AND   
 designed to study and which are designed to study, evaluate, or otherwise examine: (i)public   
 benefit or service programs; (ii) procedures for obtaining benefits or services under those  
 programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv)   
 possible changes in methods or levels of payment for benefits or service under those programs.   
 (must be posted on a federal web site). 104.5(d)(5) (must be posted on a federal web site)  
  
 **6.** Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods   
 without additives and consumed or (ii) if a food is consumed that contains a food ingredient at or   
 below the level and for a use found to be safe, or agricultural chemical or environmental   
 contaminant at or below the level found to be safe, by the Food and Drug Administration or   
 approved by the Environmental Protection Agency or the Food Safety and Inspection Service of   
 the U.S. Department of Agriculture. The research does not involve prisoners as participants.   
 104(d)(6)  
   
***\*****Limited IRB review – the IRB Chair or designated IRB reviewer reviews the protocol to ensure adequate provisions are in place to protect privacy and confidentiality.*

*\*\*Category 3 – Benign Behavioral Interventions (BBI) must be brief in duration, painless/harmless, not physically invasive, not likely to have a significant adverse lasting impact on participants, and it is unlikely participants will find the interventions offensive or embarrassing.*

*\*\*\* Exemption categories 7 and 8 require broad consent. The AU IRB has determined the regulatory requirements for legally effective broad consent are not feasible within the current institutional infrastructure. EXEMPT categories 7 and 8 will not be implemented at this time.*

**4. Describe the proposed research including who does what, when, where, how, and for how long, etc.**

**a**. Purpose

The purpose of the proposed research is to understand the knowledge, attitudes, and practices of wildlife biologists in Alabama as they relate to wildlife health and zoonoses. We will administer a survey designed by the key personnel to address the knowledge, attitudes, and practices of Alabama wildlife biologists regarding wildlife health and zoonoses. Surveys will be administered by S. Ditchkoff remotely through email over a 1 year period.

**b**. Participant population, including the number of participants and the rationale for determining the

number of participants to recruit and enroll.

Participants will be wildlife biologists in Alabama who are over the age of 19. The targeted number of responses is 150 participants. Previous studies have elicited similar response levels.

**c.** Recruitment process. Address whether recruitment includes communications/interactions between

study staff and potential participants either in person or online. *Submit a copy of all recruitment materials.*

Respondents will be provided with an information letter and asked for consent to participate (Appendix A). The online survey will be obtained using a combination of ADCNR contact lists, listservs from community partners, and both the ADCNR and Auburn University College of Forestry, Environment, and Wildlife social media accounts. Community groups such as the Alabama Chapter of the Wildlife Society may be asked to share the survey on their social media site as well. The online survey will be administered over the internet through Qualtrics.

**d.** Consent process including how information is presented to participants, etc.  
 Using contacts via ADCNR, AUCFWE, and community partners, we will invite participants to answer our questions via email (APPENDIX B). After 4 weeks if we have not heard back, we send a second reminder email.

**e**. Research procedures and methodology  
 Our research team will compare the knowledge, attitudes, and practices of wildlife biologists in Alabama as they relate to wildlife health and zoonoses. Sample survey questions are in APPENDIX C. These questions will be finalized as the project progresses. Participants will be wildlife biologists who are age 19 or older. Identifying information is not needed as it is not relevant to the research question. This makes the collection of de- identified information in anonymous surveys the chosen method for this study. A letter of information will be administered to participants that will explain the background and purpose of the study, why they were selected, their total time commitment, any risks involved with the research (none), and how their information will be kept anonymous. All surveys will be self-administered remotely through email by each individual. Data analysis will be in the form of statistical analysis. Data will be protected through Auburn Box, which requires password protection and dual-authentication log-in to access the data. No personal identification information will be recorded during this project.

1. Anticipated time per study exercise/activity and total time if participants complete all study activities.  
    Anticipated time to complete the survey is 15-20 minutes.
2. Location of the research activities.  
   Surveys will be distributed in Alabama remotely through email. Individuals will take the survey at their own pace via use of a personal electronic device. Surveys will be administered on Qualtrics via phones, iPads, or other devices.
3. Costs to and compensation for participants? If participants will be compensated describe the amount, type, and process to distribute.   
    Participants will NOT be compensated. Rather, an incentive to participate in the study is present. An incentive to complete the online survey will be a drawing for one $25 Amazon Gift Card (if the participant wishes to be enrolled they would send an email to the PI to that effect, unlinked to the survey). Participants will incur no costs to participate.
4. Non-AU locations, site, institutions. *Submit a copy of agreements/IRB approvals.*

Click or tap here to enter text.

1. Additional relevant information.

This research is funded by the Alabama Department of Conservation and Natural Resources—grant number FWS-SA2022000923.

**5. Waivers  
Check applicable waivers and describe how the project meets the criteria for the waiver.**

Waiver of Consent (Including existing de-identified data)

Waiver of Documentation of Consent (Use of Information Letter, rather than consent  
 form requiring signatures)

Waiver of Parental Permission (in Alabama, 18 years-olds may be considered adults

for research purposes)

1. Provide the rationale for the waiver request.  
   The surveys will be anonymous, and responses are not attached to names, identifiers, or places of employment. Responses are collected digitally through Qualtrics. No identifying information will be attached to respondent responses. The questions ask wildlife biologists’ their knowledge, attitudes, and practices towards wildlife health and zoonoses, hence answers are not likely to place the respondent in any risk.

**6. Describe the process to select participants/data/specimens. If applicable, include gender, race, and   
 ethnicity of the participant population.**

Any Alabama wildlife biologist that has access to the internet will be targeted to complete the survey. Participants must be 19 or older to complete the survey. The Information Letter and Survey will be provided to each participant.

**7. Describe why none of the research** **procedures would cause a participant either physical or   
 psychological discomfort or be perceived as discomfort above and beyond what the person would   
 experience in daily life (minimal risk).** All questions asked are describing the participants’ knowledge, attitudes, and practices towards wildlife health and zoonoses. No questions ask participants to reveal identifying information. Procedures are not expected to cause a participant either physical or psychological discomfort or to be perceived as discomfort above and beyond what the person would experience in daily life (i.e., minimal risk).

**8. Describe the provisions to maintain confidentiality of data, including collection, transmission, and   
 storage. Identify platforms used to collect and store study data.**  *For EXEMPT research, the AU IRB*

*recommends AU BOX or using an AU issued and encrypted device. If a data collection form will be used, submit a*

*copy.*

No identifying information will be collected, and all responses will be anonymous.

1. If applicable, submit a copy of the data management plan or data use agreement.

**9. Describe the provisions included in the research to project the privacy interests of participants   
 (e.g., others will not overhear conversations with potential participants, individuals will not be**

**publicly identified or embarrassed).** All surveys will be conducted by the participants themselves through email. Privacy of participants will not be violated. Anonymity is guaranteed.

**10. Additional Information and/or attachments.**

*In the space below, provide any additional information you believe may help the IRB review of the   
 proposed research. If attachments are included, list the attachments below.*

*Attachments may include recruitment materials, consent documents, site permissions, IRB approvals from other   
 institutions, data use agreements, data collection form, CITI training documentation, etc.* APPENDIX A: Information letter. APPENDIX B: Email template for recruitment. APPENDIX C: Sample Survey Questions.

**Required Signatures** *(If a student PI is identified in item 1.a, the EXEMPT application must be re-signed and updated at every revision by the student PI and faculty advisor. The signature of the department head is required only on the initial submission of the EXEMPT application, regardless of PI. Staff and faculty PI submissions require the PI signature on all version, the department head signature on the original submission)* **Signature of Principal Investigator:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
Signature of Faculty Advisor (If applicable):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
Signature of Dept. Head: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Version Date: 8/26/2023**

**APPENDIX A**

**GENERAL INFORMATION LETTER**

**for a Research Study entitled:**

**“Survey of Alabama Wildlife Biologists’ Knowledge, Attitudes, and Practices on Wildlife Health and Zoonoses”**

**SPONSOR**: The Alabama Department of Conservation and Natural Resources

You are being invited to participate in a research study to understand the knowledge, attitudes, and practices of wildlife biologists in Alabama regarding wildlife health and zoonoses (i.e., diseases transmissible from animals to humans). This study is being conducted by Dr. Stephen Ditchkoff at the Auburn University College of Forestry, Wildlife, and Environment.

You were selected as a possible participant because you are a wildlife biologist in Alabama and are age 19 or older. If you decide to participate in this research study, you will be asked a series of questions regarding demographics, your knowledge, attitudes, and practices concerning wildlife health and zoonoses, and future decisions you might make based on the interactions with wildlife. You will record your answers to these questions on the Qualtrics survey website at your convenience. There are no risks to participants anticipated. Your total time commitment will be approximately 15-20 minutes.

Your name and any identifying information will not be captured by Qualtrics, thus anonymity is guaranteed. Participants will not directly benefit from the research activities. Participants will incur no costs as a result of participating in this survey. If desired, by completing this survey you, will be entered to win a $25 Amazon gift card. If you would not like to be entered into this drawing, simply do not enter your email address at the end of the survey. Your email address will not be linked to your responses.

Responses will be used to author scientific studies. Although you will not benefit directly from this research activity, generalizable information to be gained from this study includes how wildlife biologists perceive wildlife health and zoonotic disease issues. Using these data, decision-makers in Alabama can use this information to help make management decisions. If at any time you would like to withdraw from the study, you can close the web browser you are taking the survey on. All incomplete surveys will be destroyed and will not be used for analysis.

If you have any questions about this study, please contact Dr. Stephen Ditchkoff via email at ditchss@auburn.edu. If you have any questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or email at IRBadmin@auburn.edu or IRBchair@auburn.edu. Having read the information provided, you must decide if you want to

participate in this research project. If you do decide to participate, the data you provide will serve as your agreement to do so. This letter is yours to keep. We thank you for your time and attention.

Sincerely,

Stephen S. Ditchkoff

William R. and Fay Ireland Distinguished Professor

College of Forestry, Wildlife and Environment

2339 Forestry and Wildlife Building

Auburn University, AL 36849-5418

Phone:  334-844-9240

Website: <https://wp.auburn.edu/deerlab/>

**Appendix B: RECRUITMENT MATERIAL.**

*Email template for both original recruitment and any follow-up recruitment.*

Subject: Research on wildlife health and zoonoses in Alabama: Invite to be surveyed

Dear (NAME),

You are invited to participate in a research study to see how wildlife biologists in Alabama perceive wildlife health and zoonoses (i.e., diseases transmissible from animals to humans). The study is being conducted by Dr. Stephen Ditchkoff at the Auburn University College of Forestry, Wildlife, and Environment.

You were selected as a possible participant because you are a wildlife biologist in Alabama and are age 19 or older. If you decide to participate in this research study, you will be asked to answer questions on your perceptions of wildlife health and zoonoses, and how you perceive interactions with wildlife in relation to disease occurrence, prevention, and control. Additional information is provided in the Information Letter.

The survey will be sent to your email and you will take the survey on your own time. Your total time commitment will be approximately 15-20 minutes. Your name and identifying information will not be captured by Qualtrics. Thus, your survey responses will be kept anonymous. Participants will not directly benefit from research activities. Participants will incur no costs as a result of participating in this survey. Results will be used to author multiple scientific papers and the data may be generalizable for the field. Participation is voluntary and can end at any time. By completing this survey, you can be entered to win a $25 Amazon gift card, if desired. If you would not like to be entered into this drawing, simply do not enter your email address at the end of the survey.

Survey questions will assess your knowledge, attitudes, and practices related to wildlife health and zoonoses. Generalizable information to be gained from this study is how wildlife biologists perceive wildlife health in regard to zoonoses. Using this information, decision-makers in Alabama may use this information to help make management decisions. Thank you for your time, and I am happy to answer any questions you may have over email.

Sincerely,

Stephen Ditchkoff, PhD

**APPENDIX C**

**Sample Survey**

|  |  |  |
| --- | --- | --- |
| DESIRED INFORMATION | LEADING QUESTIONS | LEVEL OF MEASUREMENT |
| Knowledge of wildlife disease basics | We will determine baseline information using questions on etiology, transmission, epidemiology, etc. of specific wildlife zoonoses.  A short 3-5 question knowledge test will be constructed in the survey. For example, using rabies as a significant zoonosis, the survey may ask: “How is rabies transmitted?” A. Blood B. Urine C. D. Saliva E. Feces. Correct answer D. Follow up questions can delve further into this knowledge base by providing a series of statements like “Avoiding direct contact with bats will minimize the opportunity for rabies virus exposure” and they can choose A. Agree B. Disagree or C. Do not know. Other options for the knowledge test can list a series of animal behaviors and ask respondents to identify whether these indicate if the animal is a rabies suspect. An example of this sort of question is “Please select all behaviors that indicate that a raccoon may be rabid: A. pica B. altered gait C. unusual vocalizations D. paralysis E. aggression F. salivation G. apparently normal H. all of the above. Correct answer H. | The proportion of correct responses can be calculated across all respondents. The median correct answer score can be taken, with those below the score described as *Less Knowledgeable* and those above the score described as *More Knowledgeable*. |
| Knowledge on disease management | We will determine baseline information using specific questions on management of specific wildlife zoonoses.  A short 2-3 question knowledge test will be constructed in the survey. For example, the survey may ask: “How is leptospirosis usually prevented?” A. Use of mosquito repellent B. Adequate cooking of wild game C. Proper disposal of carcasses D. Switching to steel shot for waterfowl hunting E. Avoiding contaminated water sources. Correct answer E. Follow up questions can delve further into attitude base by providing a series of statements like “Routine vaccination of domestic animals can reduce the opportunity for exposure to leptospirosis from wildlife” and they can choose A. Agree B. Disagree or C. Do not know. Correct answer A. Other options for the knowledge test can list a series of species, and ask respondents to identify whether these taxa are important for focused control. An example of this sort of question is “Please select all animals that are primary reservoirs for focused control of leptospirosis: A. amphibians B. reptiles C. fish D. mosquitoes E. rodents F. deer G. waterfowl H. all of the above. Correct answer E. | The proportion of correct responses can be calculated across all respondents. The median correct answer score can be taken, with those below the score described as *Less Knowledgeable* and those above the score described as *More Knowledgeable*. |
| Knowledge and attitudes on who to contact and what actions to take if suspect disease exposure occurs | We will determine baseline information using questions on prevention in humans of specific wildlife zoonoses.  A short 2-3 question knowledge test will be constructed in the survey. For example, the survey may ask: “How is human rabies prevented after exposure?” A. Antivirals B. Antibiotics C. Cauterization D. Application of madstones E. Prophylaxis including antibodies and vaccine. Correct answer E. Follow up questions can delve further into the attitude base by providing a series of statements like “Promotion of wildlife well- being is a primary responsibility of national, state and local officials in a One Health capacity” and they can choose A. Agree B. Disagree or C. Do not know. Similarly, a survey question may include a query on responsibility related to wildlife illness. For example, ‘If I find a dead or ill fox, I should call: A. The police B. the state agriculture department C. ADCNR, D. the Alabama Department of Public Health, E. the CDC | The proportion of correct responses can be calculated across all respondents. The median correct answer score can be taken, with those below the score described as *Less Knowledgeable* and those above the score described as *More Knowledgeable*. Attitudinal responses may be gauged in correlation to experience and demographics. |
| Practice on how frequently the respondent encounters wildlife directly | In my position, I come into direct physical contact with wildlife: A. Daily B. Weekly C. Monthly D. Infrequently E. Never | Ordinal, Nominal |
| Attitudes on the importance of climate change and wildlife health | I believe that the impact of climate change on wildlife health is important: A. strongly agree B. Agree C. Neutral D. Disagree E. Strongly Disagree, and write in why they think what they do. | Ordinal, with some respondents classified as less concerned about climate change impact on wildlife health and some categorized as more concerned. |
| Attitudes on the utility of incorporation of an undergraduate wildlife health course for the profession | I believe that having an undergraduate course on wildlife health is important: A. strongly agree B. Agree C. Neutral D. Disagree E. Strongly Disagree, and write in why they think what they do. | Ordinal, with some respondents classified as less concerned about the need for undergraduate inclusion of a course on wildlife health and some categorized as more supportive. |
| Attitudes on the likely participation at a free, on-line Auburn sponsored course on wildlife health and zoonoses | I believe that I would participate in a free, on-line, continuing education course on wildlife health: A. strongly agree B. Agree C. Neutral D. Disagree E. Strongly Disagree, and write in why they think what they do. | Ordinal, with some respondents classified as less likely in participation in a course on wildlife health and some categorized as more likely. |
| Attitudes on the probable attendance at a free, one day Auburn symposium on wildlife health and zoonoses | I believe that I would participate in a free, in-person, all day symposium on wildlife health: A. strongly agree B. Agree C. Neutral D. Disagree E. Strongly Disagree, and write in why they think what they do. | Ordinal, with some respondents classified as less likely in participation in a symposium on wildlife health and some categorized as more likely. |
| Experience levels | Rate your level of experience as a wildlife biologist: A. 1 year or less B. 1-5 years C. 5-10 years D. 10-20 years E. >20 years | Ordinal, which can be turned into a comparative variable for less experienced vs. more experienced biologists related to KAP |
| Demographics | Zip Code, education, level of income, ethnicity, gender | Variable relationship to KAP |

STUDY INSTRUMENT

Demographics

* What year were you born?
  + Open-ended numeric response
  + *If greater than 2005, the survey ends as the participant is not eligible to participate*
* Do you live and/or work in Alabama?
  + Yes
  + No
* Please indicate your race:
  + American Indian or Alaskan Native
  + Asian
  + Black or African American
  + White
  + Other (fill in)
  + I prefer not to answer
* Do you identify with Latino, Hispanic, or Spanish origin?
  + Yes
  + No
  + I prefer not to answer
* Please indicate your gender:
  + Male
  + Female
  + Other
  + I prefer not to answer
* What is your zip code in your current residence? (5 digit zip code)
  + Open-ended numeric response
* What was your approximate household income in 2019?
  + $0-20,000
  + $20,001-30,000
  + $30,001-40,000
  + $40,001-50,000
  + $50,001-60,000
  + $60,001-70,000
  + $70,001-80,000
  + $80,001-90,000
  + $90,001-100,000
  + $100,001+
* What is your highest level of education?
  + Did not graduate high school/no GED
  + High school graduate/GED
  + Technical/Vocational School
  + Some College/AA or AS (2 year degree)
  + College Graduate/BA or BS (4 year degree)
  + Graduate or Professional School
* Have you had a formal course on wildlife health?
  + Yes
  + No
* What is your level of experience as a wildlife biologist?
  + < 1 year
  + 1-5 years
  + 5-10 years
  + 10-20 years
  + >20 years

Activity & Wildlife

* How frequently do you come into direct physical contact with wildlife in Alabama?
  + Never
  + Daily
  + Weekly
  + Monthly
  + Rarely
* Did you have a hunting/trapping license for the **2022-2023** Alabama season?
  + Yes
  + No
* How many animals and types do you typically harvest per season in Alabama?
  + Open-ended type in answer (numeric)
* Which counties do you hunt/trap in Alabama? Select all that apply.
  + A dropdown list of AL counties
* What type of land do you hunt/trap on in Alabama? Select all that apply.
  + Personal Lease
  + Lease With Others
  + Public Land
  + Private Property (Personal/Family-Owned/Friends)
* How important is each hunting/trapping motivation to you? [Likert scale 1-5; 1 least important, 5 most important]
  + Experience Nature/View Wildlife
  + Challenge
  + Solitude
  + Trophy
  + Food/Fur
  + Manage Populations
  + Social Interactions/Experiences
  + Other (list)
* How many animals/types do you intend to harvest in the **2023-2024** season?
  + Fill in (numeric)
* Have you previously participated in **voluntary** CWD testing with your deer harvests in Alabama?
  + Yes
  + No
* Do you attend public informational meetings in Alabama regarding wildlife health?
  + Yes
  + No
* Are you vaccinated against rabies?
  + Yes
  + No

Health Knowledge

Based on your current knowledge, please answer the following statements:

* Feral swine may serve as a source of infectious disease transmission to both humans and domestic animals in Alabama.
  + True
  + False
  + Not Sure
* Avian influenza has been found in wild and domestic birds in Alabama.
  + True
  + False
  + Not Sure
* Rabies testing in Alabama is available at no cost to the individual through the Alabama Department of Public Health.
  + True
  + False
  + Not Sure
* Rabies has been found in **all** states that border Alabama.
  + True
  + False
  + Not sure
* How is rabies transmitted?
  + Bites
  + Blood
  + Arthropods
  + Urine
  + Feces
  + Not Sure
* SarsCoV2 can infect deer.
  + True
  + False
  + Not sure
* How should you dispose of a fresh wild turkey carcass that was found in Alabama?
  + Incinerate
  + Bury
  + Field harvest and consumption
  + Place in a dumpster
  + Ignore
  + Not Sure
* Is the information you need regarding wildlife health in Alabama easily accessible to you?
  + Yes
  + No
* What is your preferred source to obtain information regarding wildlife health in Alabama?
  + Friends/Family
  + State Wildlife Agency
  + Academic Publications
  + Social Media
  + News Sources
  + Conferences
  + I have not looked for health information before
  + Other (fill in)
* Would you be interested in learning more about wildlife health in Alabama?
  + Yes
  + No
  + Unsure
* If there was a free course on wildlife health in Alabama, how would you like to participate?
  + One day, in-person conference
  + One day, virtual conference
  + Year-long, once a month, virtual conference
  + Other (fill in)
* What topics would you like to obtain more information, regarding wildlife health in Alabama?
  + Rabies
  + Influenza
  + Leptospirosis
  + Raccoon roundworm
  + Vector borne diseases
  + CWD
  + SarsCoV2
  + One Health
  + Other (fill in)

Wildlife Disease Attitudes

Do you agree or disagree with the following statements?

* SARS CoV2 from wildlife can infect humans.
  + Agree
  + Disagree
  + I don’t know
* CWD has always been in Alabama.
  + Agree
  + Disagree
  + I don’t know
* Bats are significant carriers of many infectious diseases in Alabama.
  + Agree
  + Disagree
  + I don’t know
* Leptospirosis is an uncommon disease in the US, so it isn't a threat to humans from wildlife.
  + Agree
  + Disagree
  + I don’t know
* Epizootic Hemorrhagic Disease (EHD) is a major threat to human health.
  + Agree
  + Disagree
  + I don’t know
* Avian influenza does not kill wildlife.
  + Agree
  + Disagree
  + I don’t know
* The only way to deal with zoonotic diseases in wildlife (such as rabies) is to let nature take its course.
  + Agree
  + Disagree
  + I don’t know

Beliefs:

*[Likert Scale; Strongly Disagree-Strongly Agree. 5 pt; each statement gets this scale]*

* I believe that reducing the population of certain wild species in affected areas will **reduce** the current prevalence of infectious diseases in Alabama.
* I believe that reducing the population of certain wild species in affected areas will **eliminate** infectious diseases in Alabama.
* I believe that infectious diseases of wildlife will impact the success of my future hunting/trapping.
* I believe that current plans to manage wildlife populations in Alabama will be effective in controlling infectious diseases.
* I believe that the vaccination of wildlife, such as for rabies, should be considered for other diseases.

Comfort Level:

*[Likert Scale; Strongly Disagree-Strongly Agree. 5 pt; each statement gets this scale]*

* I am comfortable hunting/trapping in regions where rabies and other zoonotic diseases have been reported.
* I am comfortable field dressing wild game without the need for PPE.
* I am comfortable consuming cooked meat myself from an ill wild animal.
* I am comfortable with my family (spouse, children, friends) consuming cooked meat from an ill wild animal.
* I am comfortable feeding raw meat from wild animals to my pet domestic animals.

Concerns

*[Likert Scale; Strongly Disagree-Strongly Agree. 5 pt, each statement gets this scale]*

* I am concerned about the current prevalence of wildlife diseases in Alabama.
* I am concerned about the future spread of infectious diseases from wildlife across Alabama.
* I am concerned that infectious diseases will affect Alabama’s wildlife health.
* I am concerned that wildlife diseases in my region will affect my health or my family’s health today.
* I am concerned that climate change will impact wildlife health in Alabama.

Future Education of Wildlife Biologists

*[Likert Scale; Strongly Disagree-Strongly Agree. 5 pt, each statement gets this scale]*

* A course on wildlife health should be a prerequisite for a major in wildlife biology.
* Any undergraduate courses on wildlife health should only be offered as an elective in the major.
* All information on wildlife health can be acquired via continuing education, rather than in the major.
* Courses on wildlife health are unnecessary in the major for a career as a wildlife biologist.
* An undergraduate degree in wildlife biology is unnecessary today and all critical elements (including aspects of wildlife health) can be acquired via on-the-job training via a mentor.