 <p align="center">SCIENTIFIC RESEARCH AND COLLECTING PERMIT</p> <p align="center">Grants permission in accordance with the attached general and special conditions</p> <p align="center">United States Department of the Interior National Park Service Great Smoky Mountains</p>	<p>Study#: GRSM-02007</p> <p>Permit#: GRSM-2017-SCI-2007</p> <p>Start Date: Apr 28, 2017</p> <p>Expiration Date: Dec 31, 2017</p> <p>Coop Agreement#:</p> <p>Optional Park Code:</p>
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Name of principal investigator:	Name: Dr Roland Kays	Phone: 919-707-8250	Email: rwkays@ncsu.edu
Name of institution represented:	North Carolina Museum of Natural Sciences		
Co-Investigators:	Name: Arielle Parsons	Phone: 919-707-8088	Email: arielle.parsons@naturalsciences.org
	Name: Alexandra Mash	Phone: 919-707-8088	Email: anmash@ncsu.edu
Study Title:	North Carolina's Candid Critters: A Statewide Camera Trap Survey.		
Purpose of study:	<p>Objectives:</p> <ol style="list-style-type: none"> 1. Engage North Carolina citizens of all ages with the wildlife of their state through camera trapping. 2. Collect wildlife data useful for management and conservation questions, especially: <ol style="list-style-type: none"> a. Estimate deer recruitment through fawn/doe ratios. b. Quantify the distribution and occupancy rates for coyotes. c. Map the distribution and occupancy of numerous wild species including: bear, elk, weasels, fox squirrels, red squirrels, armadillos, woodrats, feral pigs, chipmunks and striped skunks. 		
Subject/Discipline:	Mammals		
Locations authorized:	<p>Camera deployment is limited to the following locations:</p> <ul style="list-style-type: none"> --Must be >50 m from any road or park-maintained trail. --Must not be aimed at roads, dwellings, developed areas, campsites, or park-maintained trails. --May only be in the following park areas in North Carolina: Cataloochee Valley, Oconalufee/Smokemont, US 441 corridor, Balsam Mountain/Heintooga Roads, Purchase Knob, Noland Creek Trail below campsite 62, and Lakeshore Drive corridor. 		
Transportation method to research site(s):	Citizen science volunteers will drive where permitted, then walk to camera site.		
Collection of the following specimens or materials, quantities, and any limitations on collecting:	<p>All images must be screened for images of people or vehicles before they can be posted on-line. ALL IMAGES OF HUMANS MUST BE DELETED AND MAY NOT BE POSTED ON-LINE.</p> <p>Cameras may be deployed for no more than 4 weeks at a single site. At the end of each year the PI must report back to the park coordinates and deployment dates for all camera deployments. Please record coordinates for all collections and observations made within the park and report these at the end of your study or sooner. The park prefers the UTM coordinate system (datum WGS84 or NAD83) but can accept lat/long. A list of all identified species detected from each location should also be supplied (ideally with dates of detection).</p> <p>Cameras may not be deployed with screws, nails, or bolts, or in any other way that would harm the tree they are attached to. The cameras and all related equipment are completely and only the responsibility of the PI; the NPS and its agents cannot be held responsible for any loss, damage, or theft of this equipment.</p> <p>All camera housings must also be marked with your study number and/or contact information and be as unobtrusive as possible. All research equipment/temporary markers must be removed upon completion of your research project.</p> <p>No collection of any specimens is authorized under this permit.</p>		

You are NOT AUTHORIZED TO BAIT the area in view of your camera with any lure or food item.

Name of repository for specimens or sample materials if applicable:

Specific conditions or restrictions (also see attached conditions):

READ AND ABIDE BY NPS GENERAL CONDITIONS #1-18, A-I (enclosed).

ALL RESEARCH MUST BE CONDUCTED WITH MINIMAL IMPACT TO THE PARK'S RESOURCES. In no case should the continued survival of a population of any native species be jeopardized by your activities.

Park researchers working for other organizations will be required as part of their permit to file travel plans with their HOME work units to facilitate their location and rescue should they not return after work. This applies especially to backcountry travel, defined as travel to park lands that are essentially undeveloped or natural in character and are at least 250 feet from established roadways and developed areas. A general trip plan should also be filed for your stay in the park.

THE PRINCIPAL INVESTIGATOR AND ALL CO-INVESTIGATORS MUST CARRY A COPY OF THE SIGNED RESEARCH PERMIT WITH THEM AT ALL TIMES WHILE WORKING IN THE PARK AND PRESENT IT TO ANY PARK EMPLOYEE WHO ASKS TO SEE IT. If you need to add any co-investigators who will work apart from the PI, MAKE COPIES FOR EACH "SATELLITE" GROUP and inform Resource Coordinator of additional names (paul_super@nps.gov; 828-926-6251). A copy of the permit should be displayed visibly in your parked vehicle when within the park.

LOCATIONS OF RARE SPECIES MUST BE KEPT CONFIDENTIAL BETWEEN YOURSELF AND PARK STAFF. Rare species include federally listed (must have USFWS permit as well), federal special concern, state listed and state special concern, and taxa determined by park biologists to be rare park-wide and/or at risk of decline due to human activity. Contact the Inventory and Monitoring Office to report locality information and/or if you are unsure of the status of a species. Be aware that endangered species can occur anywhere in the park, but are more likely at high elevations (above 4000 feet or 1200 m) and in the west end of the Tennessee side of the park. Please inform park staff of inadvertent collection or disturbance of rare species. DO NOT PUBLISH SPECIFIC LOCATIONS, PUT ON WEBSITES, OR USE IN PRESENTATIONS! WE ARE SERIOUS ABOUT THIS! IF SPECIES ARE FOUND IN UNUSUAL HABITATS OR IN OTHERWISE UNIQUE SITUATIONS, PLEASE CONTACT THE PARK BEFORE RELEASING ANY LOCALITY INFORMATION.

Confidentiality Agreement: I agree to keep confidential any protected information that I may develop or otherwise acquire as part of my work with the National Park Service. I understand that with regard to protected information, I am an agent of the National Park Service and must not release that information. I also understand that by law I may not share protected information with anyone through any means except as specifically authorized by the National Park Service. I understand that protected information concerns the nature and specific location of endangered, threatened, rare, commercially valuable, mineral, paleontological, or cultural patrimony resources such as threatened or endangered species, rare features, archeological sites, museum collections, caves, fossil sites, gemstones, and sacred ceremonial sites. Lastly, I understand that protected information must not be inadvertently disclosed through any means including websites, maps, scientific articles, presentations and speeches.

AT ELEVATIONS ABOVE 5,800 feet, IN FRASER-FIR AREAS, DISTURBANCE TO SPRUCE-FIR MOSS SPIDER HABITAT (moss mats on rock outcrops or moss-covered logs adjacent to outcrops) IS NOT ALLOWED.

PROTECT THE PARK'S CULTURAL RESOURCES BY NOT DISTURBING OLD HOMESITES, CEMETERIES, STRUCTURES, AND OTHER CULTURAL FEATURES. Locate studies well away from these areas.

COLLECT AWAY FROM PARK ROADS, TRAILS, AND OTHER HEAVILY USED AREAS WHENEVER POSSIBLE. THIS PERMIT DOES NOT AUTHORIZE YOU TO PARK OUTSIDE OF DESIGNATED PARKING AREAS... PLEASE PLAN YOUR FIELD SCHEDULE TO ARRIVE AT POPULAR DESTINATIONS EARLY IN THE MORNING TO INSURE ACCESS TO A DESIGNATED PARKING PLACE. Please be respectful of park visitors, employees, and neighbors; a permit to conduct research within the park does not convey or imply permission to conduct research on private land surrounding the park.

CAMPING IN THE BACKCOUNTRY requires a separate backcountry permit and is allowed only in designated sites without specific advance approval. All shelters and many campsites require advance reservations to stay there (call 865-436-1231 to make reservations). Reservations can be made up to one month in advance. All public rules and regulations regarding camping, hiking, and horse use in the park apply to all permitted researchers.

PROVIDE THE RESEARCH COORDINATOR WITH THE DATES OF YOUR WORK IN THE PARK AS SOON AS YOU KNOW THEM (it is acceptable to provide a range of dates if you are working both inside and outside the park over a period of time).

This permit is made upon the express condition that the United States, its agents and employees shall be free from all liabilities and claims for damages and/or suits for or by reason of any injury, injuries, or death to any person or persons or property of any kind whatsoever, whether to the person or property of the Permittee, its agents or employees, or third parties, from any cause or causes

whatsoever while in or upon said premises or any part thereof during the term of this permit or occasioned by any occupancy or use of said premises or any activity carried on by the Permittee in connection herewith, and the Permittee hereby covenants and agrees to indemnify, defend, save and hold harmless the United States, its agents, and employees from all liabilities, charges, expenses and costs on account of or by reason of any such injuries, deaths, liabilities, claims, suits or losses however occurring or damages growing out of the same. Permittee promises to cooperate with the NPS in the investigation and defense of any claims that may be filed with the NPS arising out of the activities of the cooperator, its agents, and employees.

Your data is extremely valuable to us! We are charged by Congress to inform our management decisions with the best scientific data available. Datasets come in a wide variety of formats, but often with minor modifications your data can easily interface with existing NPS databases. Please contact park Data Manager, Kendra Straub (kendra_straub@nps.gov, 865-436-1703), as early as possible in your study to discuss mutual access to datasets and compatibility.

YOU ARE REQUIRED TO SUBMIT AN ONLINE REPORT OF YOUR RESEARCH ACTIVITIES EACH YEAR, and you must mail two copies of your final research report to our office upon completion of your project. Even if you did no work in the park during a calendar year, you must go online and say so. The report can be submitted at the end of your year's work at any time with your research account password that you used to submit your permit. A reminder to submit your Investigator's Annual Report will be distributed electronically to permit holders at the end of the calendar year by Washington. We also request two copies (or one electronic copy) for our library of any publications, dissertations, etc. that use data collected in Great Smoky Mountains National Park.

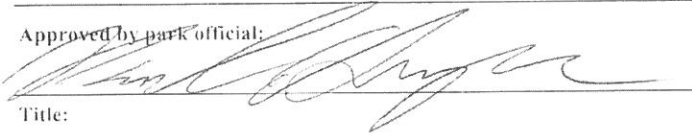
Breach of any of the terms of this permit or for violation of park regulations will be grounds for revocation of this permit and denial of future permits.

Recommended by park staff(name and title):

Reviewed by Collections Manager:

Yes ___ No ___ *NA*

Approved by park official:

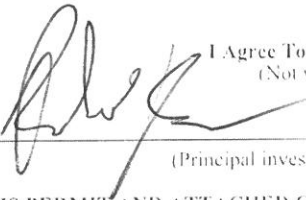


Title:

Biologist / Research Coordinator

Date Approved:

27 April, 2017



I Agree To All Conditions And Restrictions Of this Permit As Specified
(Not valid unless signed and dated by the principal investigator)

(Principal investigator's signature)

28 April 2017
(Date)

THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)