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| **Solo Fieldwork & Travel Risk Assessment** | | | | | | | | | | |
| **Date of Fieldwork:**  xxxx | | | | **Location:**  Bugoma Forest, Uganda | | **Name and Mobile Number:**  xxxx | | | | |
| **General Description of Fieldwork/Visit:**  The aim of my study is to habituate the chimpanzee and mangabey communities in the Bugoma Forest Reserve, Uganda, and to describe their behaviour and ecology. A colleague and I established the Bugoma Primate Conservation Project (BPCP) in 2016 as a conservation project. We would now like to be able to start research there, and to establish it as a site suitable for both my research and that of St Andrews and other University students.  We work in collaboration with the National Forestry Authority, and have cut basic trails through the forest reserve. Work following the primates includes moving on and off trails, but the team carry a GPS at all times, and any international visitor would be accompanied by at least one, usually two, local field assistants who have a minimum of 1-year of chimpanzee field experience. All data collection is be observational only and combines both focal individual sampling, in which all of the behaviour produced by a focal group will be recorded. Chimpanzees and mangabeys will be followed between 6am and 6pm, with a minimum duration of 1hr for focal individual samples. All behaviour produced will be recorded on a hand held unit (or paper sheets), and on a Garmin GPS.  Accommodation is provided in the project house located within the Forest Reserve in a clearing next to the major road approximately 20min drive from the nearest village. The house has a full-time security guard who is present all night, a house-keeper who is present throughout the day, and there are at least 2 local field assistants sleeping in the house at any one time, in addition to any visiting researchers. The house has two bedrooms (one for researchers, one for field staff) and a central eating room and kitchen. The house is approximately 1.5hr drive from a major town with emergency facilities. The house has relatively reliable phone and 3G internet connection, and has solar power and a rainwater tank. | | | | | | **Location and Accommodation Address and Telephone:**  (List all – i.e. hotel, stopovers and field accommodation)  Kampala (Red Chili Hostel; 13-23 Bukasa Hill View Road Butabika Kampala, 12-23, Kampala, Uganda; Phone: +256 31 2202903)  BCFS research station (Budongo BCFS, PO Box 362, Masindi)  Bugoma Chimpanzee Conservation Project - BPCP project house; Bugoma Forest Reserve, Hoima. | | | | |
| **Local Hospital**   * Address:   The Surgery Kampala +256 (0)772 756003; (emergency +256 (0)752 756003);  International Hospital Kampala: 4686 Barnabas Rd, Kampala, Uganda; Phone:[+256 31 2200400](javascript:void(0))  Hoima Hospital, Hoima town.   * Notes on accessibility & facilities:   The surgery; three hour drive from camp; testing and scanning facilities, GP, nursing, and specialist consultants. Will provide advice by phone for treatment at BPCP. International Hospital includes full hospital facilities. Hoima hospital (1hr drive) is the main teaching hospital in the local area so is typically well stocked and has experienced staff. | | | | | | **Contingency Plans**  Evacuation and Repatriation Procedures:  BPCP is a 90min drive from the Kinyara Sugar Factory, which is registered as an evacuation site with the British High Commission. As is the Red Chilli hostel in Kampala.  **Local Contact**   * details: BPCP head field assistant xxxx * Budongo Conservation Field Station director (1.5hr drive, established field site) xxxx * frequency of contact: Amon = daily when at BPCP; Geoffrey = weekly   **Home Contact**   * details: xxxx * xxxx * frequency of contact: by email as needed, at least weekly   **Personal emergency contacts**  xxxx  mobile: xxxx  in country: Geoffrey Muhuanguzi (long-term collaborator based 1-2hrs away at BCFS) mobile: xxxx  British Consulate address and telephone number (if overseas):  British High Commission Kampala; Plot 4 / P. O. Box 7070, Kampala, Uganda Phone:[+256 31 2312000](javascript:void(0))  AIG emergency assistance in country or while travelling: +44 (0)1273 401950  Covers emergency medical assistance, message relay, lost ticket and baggage, emergency cash, airport assistance and legal referral | | | | |
| **Transport Information**  Transport Arrangements: Private hire taxi with known driver (xxxx). Maximum Driving Time in Hours : researchers are not permitted to drive; travel from Entebbe to Kampala is 1hr; travel from Kampala to BPCP is 4-5hrs.  In-country meet & greet arrangements:  Davis or Paul (known taxi drivers) will meet at airport and deliver to Kampala and then to the project house. BPCP field staff will meet at the project house. | | | | | |
| **Risk Assessment (Please refer to the Preliminary Planning Checklist you should have completed with the proposal for outline permission from your School/Unit)** | | | | | | | | | | |
| **Hazard Identified** | **How might some-one be harmed?** | **Rating**  **(see matrix)** | **What has been done already?** | | | | | **Residual risk rating**  **(see matrix)** | **What further action is required? (Include timescale & mechanism for implementation)** | **Action by:** |
| **Accidents in the forest** | Broken limbs, concussion, other physical injury | 24 (S6;L4) | Researcher will only enter the forest when accompanied by an experienced local field assistant and will follow his advice on safe working practices.  While in the forest, it might be possible that bits of wood or fruit will fall to the forest floor while being located in thick bush wood. This danger will be avoided by being observant to possible risks (e.g. checking canopy before choosing an observation position) and following all advice of the field assistant.  The danger of falling branches etc. from the canopy is highest during heavy wind and rain. The researcher will not enter the forest when there is heavy wind and rain, if already in the forest the researcher will find a safe place to shelter following the field assistants advice at all times.  Falling branches may also occur due to chimpanzees, or other large animals (e.g. BW colobus monkeys), moving through the canopy above. Researcher will not stand directly under chimpanzee groups to observe them, and will remain aware of their travel direction in the canopy to minimize the risk of branches falling from above.  Are these measures adequate? Yes | | | | | Level 5-6 injury  RR=6  (S6;L1)  Level 3-4 injury  RR=12  (S4;L3) | None |  |
| **Lost in the forest** | Exposure, dehydration | S5:L2 | BPCP has established a basic trail system in the forest based on old hunters trails that have been enlarged. BPCP does not want to cut a more extensive system as they will be used by illegal loggers and poachers. As a result navigation in the forest takes a little skill and experience.  Researcher will only enter the forest when accompanied by an experienced local field assistant and will follow his advice on safe working practices. Researcher will carry a GPS with the location of the village and trails marked at all times. Researcher will carry a compass and is aware that the main road bisects the forest to the south of the working area, so on walking south she will eventually contact it if all else fails. This is unlikely to take more than 4hrs even at the most extreme edge of the working area.  Are these measures adequate? Yes | | | | | S5:L1 | None |  |
| **Chimpanzees** | Disease transmission or physical attack | 15 (S5;L3) | Researcher will keep to an appropriate distance from all individuals, especially infants and never approach individuals closer than 7m.  If approached by a chimpanzee the researcher will ignore the animal, if there is a concern that the animal is unaware of the researcher, the researcher will make a small noise e.g. by talking quietly. The researcher will not at any time respond directly to the chimpanzees’ behaviour, but may if needed reposition herself by, for example, moving over to join the field assistant as though their intention was to point something out to them. CH has worked with wild chimpanzees for >10years. All BPCP field assistants have minimum 1yr field experience with wild chimpanzees, and in most cases 2-3yrs.  Please note that as these chimpanzees are not habituated their typical response to any human presence is to run or climb away. We are unlikely to achieve a minimum observation distance of anything less than 30meters before 2019.  From 2019, all field staff and researchers wear facemasks when within 50m of chimpanzees to prevent respiratory disease transmission. No spitting or sneezing in the forest. Hand washing before and after entry to forest. Pack in pack out all food and rubbish items.  Are these measures adequate? Yes | | | | | 5 (S5;L1) | None |  |
| **Data loss** | Loss of data, or potentially sensitive information | 9 (S3:L3) | Loss of data through theft of equipment, in particular laptop and phone that may contain sensitive data, but including passport and money/bank cards. Site house is locked via padlock but theft remains a risk here and from the car while travelling, particularly in traffic-jams.  Researcher will store valuable personal items in a locked box inside a locked house while working in the field. The house is never empty, there is a security guard at night, a house-keeper throughout the day, and at least 2 of the field-staff sleep there each evening. Researcher will ensure that the taxi driver keeps the doors and boot locked at all times.  Non-sensitive research data (for example chimpanzee behavioural data) will be regularly backed-up onto external hard drives, and meta-data (coding files, GPS track logs) backed up online. Hard-drives will not be stored in the same location as the laptop. Passport and at least one bank-card will be carried while working in the forest. Laptop and email-enabled phone will be password protected and encrypted.  Are these measures adequate? Yes | | | | | 6  (S3:L2) | None |  |
| **Diseases (e.g. Malaria, parasites and infectious diseases).** | Severe fever, organ failure etc. | 25 (S5;L5) | Researcher will ensure careful preparation of food and drinking water, vaccinations as recommended by the GP (but including: Hep A; Hep B; polio; typhoid; yellow fever; MMR; diphtheria; pertussis and tetanus). Research has previously had chickenpox.  Suitable malaria prophylaxes taken prior to, during, after field-work as required. Researcher will check the NHS fit for travel site, and will take the advice of their GP re: which medication will be used.  No Malaria prophylaxes are 100% effective, so additional precautions will be taken including: long sleeve and leg clothing in morning and evening, use of DEET based spray, and permethrin treated sleeping nets. A thermometer, a treatment such as Co-Artem and a finger-prick malaria testing kit will be carried in the first aid kits.  Side-effects of malaria prophylaxes are relatively common, in particular sleep disruption and sensitivity to sunshine, but can include (e.g. in the case of Larium) disturbing/vivid dreams and hallucinations. Sometimes it can be difficult to distinguish these symptoms from the effects of being in a novel, vivid, remote, and physically demanding environment. Researcher will ensure that she is aware of the possible side-effects of the particular medication she is taking, and will discuss any possible symptoms she is experiencing as soon as possible. If they decide that an alternative is necessary then these will be obtained from a known reputable clinic in Kampala.  Researcher is vaccinated against Yellow Fever and has up to date certificates to present on arrival at airport.  Rabies vaccinations are recommended to all researchers. Rabies is not present in the wild animal population in Uganda; however, it is present in domestic animals in towns. Rabies injections (post possibly infected bite) are available at the Hoima hospital approximately 1-hour drive from camp. If they area out of stock, the well-stocked international clinic in Kampala is a 4-hour drive from camp.  Ebola and other hemorrhagic fevers. Risk of the transmission of Ebola is extremely low. Transmission of Ebola requires direct contact with the bodily fluids of a symptomatic individual. During the previous regular localized outbreaks of Ebola, standard procedure is to ban travel of any researcher or staff member to the infected districts. During a Ugandan outbreak, public transport (for example from Kampala to Masindi) is also avoided.  Phone and basic internet connections from the site house are straightforward with the use of an internet dongle or smart phone. Researcher will monitor reliable channels of information daily.  Are these measures adequate? Yes | | | | | 10 (S5;L2) | None |  |
| **Drinking water** | Disease transmission | 20 (S4;L5) | All drinking water is taken from rainwater or a bore-hole and filtered or irradiated (UV) at the project house. Showers and washing of clothes uses bore water, brought up from the village to the house, care will be taken to avoid swallowing this when showering.  Are these measures adequate? Yes | | | | | 4 (S4;L1) | None |  |
| **Electrical storms** | Electrocution | 6 (S3;L2) | Researcher will take care to unplug all electrical equipment during rainstorms. There is only very limited solar power available, and the house is not in an exposed position.  Are these measures adequate? Yes | | | | | 3 (S3:L1) | None |  |
| **Heavy rain in the forest** | Exposure (wet and cold); injury from falling branches | 15 (S5;L3) | Researcher will carry appropriate clothing (including waterproofs and suitable footwear). Researcher will follow field assistant’s advice on where to stand during heavy rain to avoid the risks of falling branches. If needed, and safe to do so, researcher will return to the site house during heavy rain.  Are these measures adequate? Yes | | | | | 4 (S4;L1) | None |  |
| **Insect bites** | Infection | 15 (S3;L5) | Frequent use of deet-based insect repellent, cover arms and legs with clothes, mosquito nets over beds, at doors and if necessary over face of researcher and field assistant. On arrival at site house treat net with Permethrin and check for holes. Treat the mattress and any soft furnishings with Doom (or similar) for other biting insects (e.g. fleas). Treat bites with antiseptic ointment and cover before entering the forest.  **For assessment of disease transmission risks, such as malaria, please see separate section above.**  Are these measures adequate? Yes | | | | | 4 (S2;L2) | None |  |
| **Language barriers** | Inability to communicate | 2 (S1;L2) | Basic language training prior to and during fieldwork. Most Ugandans and all BPCP staff members are fluent in English.  Are these measures adequate? Yes | | | | | 1 (S1;L1) | None |  |
| **Lone working** | Getting lost or injured while alone | 20  (S5;L4) | Chimpanzee and mangabey follows will be carried out in groups (with at least one, but typically two field assistants). Researcher will not enter the forest alone. Researcher will carry mobile phone at all times (reception is typically available in the forest). Will take compass, torch, first aid kit. Will ensure one person at site house is informed of whereabouts at all times. Will sign back into the site house book immediately on return to the village.  Are these measures adequate? Yes | | | | | 5 (S5;L1) | None |  |
| **Plants/pollen** | Allergic reaction | 4 (S2;L2) | Researcher will carry non-drowsy anti-histamines as part of a first-aid kit.  Are these measures adequate? Yes | | | | | 2 (S2;L1) | None |  |
| **Political unrest** | Injury, arrest. | 15 (S5;L3) | The political situation in Uganda is largely stable, with current unrest limited to the extreme south-western border (Rwenzori area). No travel is required through or near to this area. Researcher will monitor this closely through the FCO website and local and international media. Researcher will contact embassy and follow their advice.  There have been occasional protests regarding the president’s attempt to amend the constitution. These are typically limited to Kampala and other large cities. Travel in and out of the country would normally pass through Kampala, but alternative travel routes that bypass the city are available and will be taken if needed. The researcher will monitor both national and international media and take action as needed. Researcher will also take advice of a reliable taxi driver for routes and travel time on trips to/from Entebbe airport. Travel through Kampala is not necessary to reach the main international airport.  Researcher has consistent mobile internet access via phone and laptop dongle so can check news sites etc. each evening if required. Researcher carries sim cards for at least two different mobile phone networks, and others are easily and cheaply available locally in case of interrupted signal.  Are these measures adequate? Yes | | | | | 4 (S4;L1) | None |  |
| **Pollution or waste** | Harm to protected areas and species | 6 (S2;L3) | Researcher will leave no trace when working in the forest, and will return all used batteries to the UK for safe disposal.  Are these measures adequate? Yes | | | | | 2 (S2;L1) | None |  |
| **Problems with local communities** | Potential to cause offence | 9 (S3;L3) | The field site has been established for several years and the field team (site directors and field assistants) have worked to develop a strong connection with the local community. The majority of field staff are from the villages near to where the project house is based.  Researchers will introduce themselves to everyone working there, as well as to the local community leader, the local head of the forestry authority, and the local police chief and will behave respectably towards everyone at all times, including cultural dress norms (no short skirts, shorts). No photography of police, political or military personnel.  Are these measures adequate? Yes | | | | | 3 (S3;L1) | None |  |
| **Problems with people engaging in illegal activity within the reserve** | violent incidents with local people; getting shot through uncontrolled use of firearms | S6:L2 | The Bugoma Forest Reserve was the last forest reserve in Uganda to have an active conservation or research site present. As a result it has been the site of prolific illegal activity for many years, which is well established. BPCP sees it’s current role to observe and collect data on the primates and their habitat but not to directly address illegal activity. BPCP hopes that through the establishment of a research and training (and in the long-term possible eco-tourism) site. The presence of alternative forms of income generation will allow BPCP to address illegal activity in the future. Current activities are 1) hunting and 2) logging.   1. Hunting. Hunting is typically done through snaring small animals (antelope, pigs) using wire or grass snares. Hunters are usually subsistence hunters, moving alone to trap meat for their family. They do not see BPCP presence as a major threat, and are most likely to flee before we are aware of their presence. At the moment BPCP has a no contact rule whereby staff do not approach or formally report illegal activity. Field assistants do remove wire snares when there are no hunters present. 2. Illegal logging. Illegal loggers are relatively organised inside Bugoma and the extraction of hardwood wood represents a highly profitable activity. As a result there have been clashes in the past between the loggers and the NFA (National Forestry Authority guards) and police or military when these organisations enter to clear the camps. BPCP staff again have a no-contact rule whereby staff do not approach or engage with any one logging in the forest. These camps are typically noisy and easily avoided, as are the sounds of chainsaw use on individual trees. As BPCP has worked on developing a strong relationship with the local community and BPCP staff are not perceived as a threat, there have been no incidents between BPCP staff and loggers over the past 2-years of working. When the NFA or police are conducting clearances in the forest BPCP staff do not accompany them and do not enter the forest on those days (or leave the forest immediately if this is found to be happening without notice).   Are these measures adequate? Yes | | | | | 6 (S6:L1) | None |  |
| **River** | Disease transmission | 20 (S4;L5) | Researcher is aware that there is a risk of Schistosomiasis in river and lake water. No immersion (swimming or wading) in either.  Are these measures adequate? Yes | | | | | 4 (S4;L1) | None |  |
| **Sun burn** | Skin burn | 18 (S3;L6) | When working in the forest risk of sun exposure is low, risk is higher when outside of the forest. Researcher will wear sun cream, will cover arms and legs, avoiding midday heat.  Are these measures adequate? Yes | | | | | 3 (S3;L1) | None |  |
| **Traffic/Travel to site** | Vehicle accidents; thefts; arrest | 24 (S6;L4) | Researcher will obtain visa in advance of travel to the country (online application form) and will ensure that research permits are up to date. Research at the site is currently permitted under a 5-year MoU established in 2019 with the National Forestry Authority.  Researcher will travel only with project vehicles or with a known taxi driver and will keep taxi doors locked. Will avoid all unnecessary travel. No travel at night, outside of between the airport and accommodation. Researcher will not drive.  There are two points of access to the forest area from the project house, one is walk-able and is used for daily forest activities; the other requires a short (30min) motorbike ride along a minor dirt road, but is not currently used regularly (<once a month). Two of the project field assistants and the project security guard are reliable drivers, and provide transport as needed, and drive at the speed requested (slow and steady!). Researcher will not drive, and will wear a motorbike helmet when travelling by motorbike.  Are these measures adequate? Yes | | | | | 6 (S6;L1) | None |  |
| **Venomous or dangerous animals** | Bite or other injury | 5 (S5;L2) | Researcher has 12-years experience in area of Uganda and is aware of how to avoid potentially harmful animals, how to recognize them and how to deal when in contact with them. Explicit rules such as no handling of snakes, wearing protective boots.  The majority of animals flee on our approach.  Sick and injured animals are not approached; including animals whose behaviour appears abnormal, e.g. a monkey remaining on the ground when approached. The location and species of any sick or injured animals are noted and immediately reported to the wildlife vet team located in the nearby Budongo Forest Reserve who will track and monitor them.  Are these measures adequate? Yes | | | | | 5 (S5;L1) | None |  |
| Describe significant hazards and residual risks:  Accidents in the forest (RR6/8): broken limbs from a bad fall, or injury from falling branches are risks in forest fieldwork. Following the expert advice of local assistants is typically the most effective way to avoid these – no researcher has sustained a level 5 or 6 injury as a result of fieldwork in the nearby forest of Budongo where research has been ongoing for 27yrs, so likelihood is very low; however, it’s impossible to entirely remove this risk (RR6). Level 4 injuries such as a bad sprain are more likely and have a higher RR of 12.  Diseases (RR10): while prophylaxes, vaccinations, and other preventative care significantly decreases the risk and can reduce the severity (if caught) of most tropical diseases it is near impossible to entirely remove this. No prophylaxes are 100% effective, and malaria can be lethal. However the risk exposure of the researcher on these trips is similar to, or less than (because of the level of education and care taken to avoid exposure), that of a tourist on holiday to Uganda.  Travel to site (RR6): serious road traffic accidents are common in Uganda, and thefts from cars are common in the capital – particularly during traffic jams. While we are able to significantly decrease the likelihood of these risks by travel with a known safe taxi driver, and by keeping all doors and windows locked while in urban areas it is impossible to entirely remove them. Travel by motorbike to the forest entry point is potentially dangerous but is made as safe as possible by the use of appropriate safety helmets, and the use of reliable drivers. As it is a minor dirt road there is little motorised traffic.  **Problems with people engaging in illegal activity within the reserve (RR6):** BPCP staff have a no contact rule and as a result there have been no incidents between BPCP staff and illegal loggers over the past 3-years. The researcher has >10years experience of working in Ugandan forest areas, and encountering some level of illegal activity. Her experience of it is that people engaged in illegal activity flee, particularly on site of non-Ugandans. In Bugoma as the illegal logging is by chainsaw it is typically noisy and easy to avoid. Where incidents have occurred between illegal loggers and NFA or other organisations, the researcher and BPCP staff will immediately leave the forest, and will not re-enter until the experienced field assistants judge that it is appropriate to do so (typically at least 1-2days is taken, sometimes up to a week or more where necessary). | | | | | | | | | | |
| Name: | | Title: | | | Date: | | Signature: | | | |
| Approved by Supervisor  Name: | | Signature: | | | Date: | | Comments: | | | |
| Approved by Head of School/Department (Signature) : | | | | | Date: | | Does this fieldwork require further approval at institutional level? **YES/NO** | | | |

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| **Potential Severity \*** | | | | | | | | | **X** | | | | | | **Likelihood** |
| **1** | | | | | |  | | Superficial injury or illness requiring no treatment | **1** | | | | |  | Zero to very low |
| **2** | | | |  | | | | First aid injury or illness | **2** | | | |  | | Very unlikely |
| **3** | | |  | | | |  | Minor injury or illness | **3** | | |  | |  | Unlikely |
| **4** |  | | | |  | | | ‘Seven Day’ injury or illness | **4** |  | | |  | | Likely |
| **5** |  | | | |  | | | Major injury (e.g. broken bones) or critical illness | **5** |  | | |  | | Very likely |
| **6** | |  | | | | | | Fatality or permanently disabling injury. | **6** | |  | | | | Almost certain |

**\*** The categories for ‘Severity’ are adapted from the Health and Safety Executive’s guidance on the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995, as amended.

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| **Severity**  **Likelihood** | **1** | **2** | **3** | **4** | **5** | **6** |
| **1** | 1 | 2 | 3 | 4 | 5 | 6 |
| **2** | 2 | 4 | 6 | 8 | 10 | 12 |
| **3** | 3 | 6 | 9 | 12 | 15 | 18 |
| **4** | 4 | 8 | 12 | 16 | 20 | 24 |
| **5** | 5 | 10 | 15 | 20 | 25 | 30 |
| **6** | 6 | 12 | 18 | 24 | 30 | 36 |

When the residual risk – after control measures have been implemented – is calculated, the following action should be taken.

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| Score 1-5 | The control measures for this work are suitable and sufficient. The risk assessment can be approved by the Head. |
| Score 6-15 | If reasonably practicable, further control measures should be put in place. The Head may approve this risk assessment. |
| Score 16-36 | PO approval must be sought if the Head wishes the fieldwork to continue. Please forward to [EHSS@st-andrews.ac.uk](mailto:EHSS@st-andrews.ac.uk) |