NEW GUINEA BINATANG RESEARCH CENTER

INFORMATION FOR VISITORS





New Guinea Binatang Research Center PO Box 604, Madang, Papua New Guinea, Ph +675 7939 9892, E-mail info.ngbinatang@gmail.com Web site www.ngbinatang.com

BRC version 01-2022

Twenty five rules for researchers and students visiting BRC and its field facilities

- 1. The following rules apply to all personnel using BRC facilities and field sites and working with BRC staff anywhere in Papua New Guinea (hereafter "visitors") and, where applicable, also to everybody working on samples, specimens and data from PNG research conducted via BRC.
- 2. All visitors coming for research must comply with the relevant Papua New Guinea (PNG) laws and regulations. When coming for research they must enter the country on **Research Visa** and conduct only research as specified in the approved Research Project for which the visa are issued. BRC can assist with obtaining the visa.
- 3. All visitors needing to export biological specimens or other research material are responsible for obtaining appropriate **Export Permits** from the PNG Government. BRC can assist with them. The permit cannot be obtained in advance as it includes an itemized list of the exported specimens. The visitor's academic institution is responsible for the housing of the exported specimens all specimens must remain available to PNG scientists at their overseas locations and their whereabouts known to PNG authorities. The export cannot include any CITES listed species or live plant and animals.
- 4. All visitors must have **travel insurance** covering the cost of their medical treatment, including evacuation to an overseas (Australian) hospital (in case you plan on living) and repatriation costs in case of death. The insurance policy must cover all activities they will pursue in PNG; note that activities considered dangerous (by some), such as high-altitude trekking, scuba diving, sports, tree climbing etc. often require special additional policies. Please note that health authorities will NOT treat you unless you or your insurer pays for the expense. All visitors are required to lodge their insurance details, instructions for emergency procedures, and contacts to the health insurer and the nearest of kin with the BRC office.
- 5. All visitors are using BRC facilities, field sites and vehicles **at their own risk**. BRC and its partner overseas organizations (Czech Academy of Sciences, University of South Bohemia, University of Minnesota, Smithsonian Institution, Sussex University and others) are not responsible for any personnel who are not their employees or students. Please note that your visit will inevitably include numerous risks beyond the control of BRC staff, including car, plane and boat traffic accidents, attacks by criminals, mishaps in difficult terrain, attacks by dangerous animals (snakes) and various tropical illnesses (including high risk of *falciparum* malaria). Although BRC staff tries to minimize these risks, they cannot be eliminated entirely, considering the remote location of many field sites and limited medical care and police assistance available in many parts of the country. All visitors at BRC acknowledge explicitly these risks and recognize that BRC is not liable for them.

- 6. Only BRC staff, not visitors themselves, can drive BRC **vehicles**. The visitors must always follow the instructions of the driver. They are required to wear seat belts. No drinking alcohol or chewing betelnut in BRC vehicles. All vehicle journeys must be logged with BRC office and approved. Driving in the night is approved only exceptionally. At least two BRC personnel must travel in each vehicle at any time (a driver with an assistant). Each vehicle is be equipped with emergency gear (a mobile phone, a bush knife, a torch, a shovel, a rope, a spare tire and a first aid kit) and has a satellite tracking of location. Satellite phone is necessary for remote locations. It is forbidden to leave the vehicle without supervision (even if locked) anywhere in town or in the field, except in explicitly approved locations. The driver is responsible for the vehicle and its passengers. In case of an accident, the driver with the assistance of the passengers is responsible for first aid, emergency communication and other actions necessary to secure the personnel and the vehicle. Traffic accidents are often followed by violent retaliation from the accident participants or their relatives. All passengers must follow instructions of BRC drivers and staff in case of an accident, even if these appear unusual such as decision to drive away without providing first aid.
- 7. The visitors working on the BRC **canopy crane** must complete on-line training and test for the work at heights, be instructed on safety by BRC staff and sign safety forms. Only approved BRC staff is authorized to drive the canopy crane. Visitors can work on the crane only when a BRC staff is present. They must follow the safety rules, wear safety harness, attached to the crane at all times, and hard hat, and only work from the crane gondola (climbing the crane is not allowed).
- 8. All visitors staying at **BRC campus** must follow instructions of BRC staff and campus rules. No unapproved visitors are allowed. No equipment, supplies or books can be brought outside the campus without permission of BRC staff. All visitors are asked to conserve electricity, water and maintain the equipment and the facility in good order.
- 9. All visitors must follow **security rules** on the campus: learn the security rules, lock the doors and report any strangers or other potential security issues to BRC staff. BRC has an all-night security guards. If you see or suspect any attack on the campus or other serious security problem lock yourself in your room and wait for the instructions. BRC is not responsible for personal property of visitors. Your passports and valuables can be stored at the BRC office.
- 10. All visitors must observe **fire safety rules**, particularly when operating gas cookers, plant driers, ovens, or outside the buildings open fire. Smoking is not allowed in any of the BRC buildings.
- 11. All visitors can use the BRC internet at no additional charge; note that the internet speeds can be low. The use of **laboratory equipment** must be approved by BRC staff. Ask BRC staff for instructions how to operate unfamiliar equipment. Scan any external hard drives and other media for viruses before using with BRC computers. No bit torrent or other illegal activity permitted using BRC internet connection. No large downloads of personal files or videos unless approved. It is possible to have Zoom and other video meetings from BRC.
- 12. Field work is possible only at approved **field sites** or after approval from the local landowners which must be negotiated by the BRC staff. Visitors are forbidden to negotiate access, financial compensation and other issues with landowners on their own. All visitors have to strictly follow the guidance of BRC staff when working in the field or staying in the villages or field stations outside of the main campus. Only BRC staff can hire, instruct and

- pay local assistants. Any complaints, requests from or disputes with local villagers or assistants have to be referred to BRC staff. Visitors have to report to BRC staff any financial obligations, perceived or real, they have towards the local landowners. No romantic relationships in the village communities when with BRC.
- 13. All visitors **working in the field** must be accompanied by either BRC staff or an approved local assistant. Getting lost is a significant hazard at some study sites. The visitors must observe caution when moving in difficult terrain. The PNG staff and assistants often overestimate physical abilities of the visitors in the rainforest do not hesitate to correct their assumptions verbally, rather than by having an accident. All visitors are forbidden from rock or tree climbing, touching snakes and other potentially harmful animals, and other risky behavior, unless it is a part of their research in which case the activity must be approved by BRC management and the visitor must possess sufficient expertise and have appropriate assistance for such activity.
- 14. When leaving BRC campus or field camp, visitors must notify BRC staff about their plans and **emergency contacts** and, if at the BRC campus, sign on the whiteboard with details of their trip and phone contact number. The BRC emergency, continuously monitored phone number is (+675) 7939 9892.
- 15. All visitors are responsible for bringing their own personal **field gear**, such as torches, appropriate clothing, personal medication, etc. Ask BRC staff is you need advice on some of your needs in the field or local purchase of your supplies. Local shopping is good for solar power kits, mosquito nets, sleeping bags and antimalarial drugs, but lacks high quality field gear.
- 16. BRC campus, field station and field expeditions have first aid kits, **emergency procedures** and communication equipment. All guests are responsible for familiarizing themselves with procedures and equipment. In case of emergency, BRC staff will lead rescue efforts and all visitors are required to follow their instructions. All visitors are required to learn emergency procedures themselves, know how to operate the communication equipment, and be prepared to administer first aid, in case it is BRC staff needing help.
- 17. The **language of communication** is English and Tok Pisin. All visitors must be fluent in one of these languages to deal with emergencies as well as day to day communication. All visitors are asked to maintain general communication at BRC in public and shared spaces (laboratory, dining hall, field patrols etc.) in one of these two languages only, NOT their local language which should be limited to the privacy of their rooms.
- 18. **Drugs** (including marihuana) are illegal in PNG and banned from all BRC sites. Drinking is allowed outside working hours and working spaces at BRC campus for visitors (but not BRC staff). It is not allowed at BRC field stations except when approved as a company event. Drinking is strictly forbidden in BRC vehicles. Smoking and betelnut chewing are forbidden in vehicle and rooms. There is a dedicated area for these activities at BRC campus.
- 19. All visitors are required to report immediately to BRC staff any **security**, **medical or legal problems** real or potential. This includes cases of theft, verbal or physical attacks, sexual or other harassment, trespassing of the law, any requests from outside personnel to assist with illegal activities as well as any encounters with the Police.
- 20. All visitors should behave in a culturally sensitive manner, bearing in mind that there

are people with a variety of customs, beliefs and backgrounds working together at BRC and in the field. Note that religion and some traditional beliefs including sorcery are taken seriously.

- 21. Interaction with BRC staff and students is highly appreciated. We require each researcher and PhD student to give a **seminar at BRC** on their research (topic of his/her choice); one of these lectures should explain the research project carried out at BRC. We also request each visitor (or a project team) to lead one student journal club discussion on a paper of their choice (preferably the visitor's own).
- 22. Postgraduate (MSc or PhD) **student training** is a key element in building research capacity in PNG. We expect that larger projects hosted by BRC for one year or longer will recruit a local MSc student (or, where suitable and feasible, a PhD student), enrolled with a local PNG university, to take part in the research and earn a degree in the process. BRC has the Center for Postgraduate Biology that can assist with finding a suitable candidate and all formalities of such studies. This may be also the most efficient format for the long-term project assistance by BRC, particularly if your project requires attention for longer periods of them when you are not present.
- 23. Almost all research based at BRC benefits from professional support by BRC staff and qualified field assistants that goes beyond mere logistical support. We believe that this assistance should be recognized by including the BRC staff member(s) that assisted the research on resulting **research papers as co-author(s)**. The details of such arrangement can be discussed from case to case, but in general BRC expects its professional staff to be included on publications of the research they assisted.
- 24. We strongly expect that at least some of the **newly described species** by the visitors or their collaborating taxonomists will have some meaningful relationship with PNG. This could be local names, names of particularly helpful PNGneans, names of host plants in local languages, or reference to traditional lore relevant to the species or their habitats. Such names help to promote and appreciate local biodiversity, whilst "quadrimaculatus" and similar names do nothing useful for anybody.
- 25. All **research results** published from the projects supported by BRC has to be made available on-line to all PNG researchers free of charge. This can be achieved by publishing in open-access journals, making your paper open-access, or at least displaying full pdf on Research Gate and/or BRC website (we do not care whether that breaks copyright rules or not). The same applies to book chapters.

I understand the above rules and will follow them during my stay with BRC.

Name:	Place	Date	2020
Signature:			



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BRC FACILITIES AND SERVICES

BRC is a research center built primarily to support its own in-house projects, but it is open to using its free capacity to host **research projects** with potential for collaboration, staff or student training, and other synergies with the in-house projects. We can host research teams, facilitate their access to field sites, provide research assistance, access to research infrastructure (including a 50ha ForestGEO plot, a canopy crane and two elevational gradients from 200 to 4500 m asl) and execute their research projects in the field, using our research technicians and/or PNG postgraduate students. BRC management decided which projects to host.

BRC serves also as a training facility and can organize **field courses for students and biological professionals**. We have experience with PNG and international university student courses for tropical ecology, as well as training for PNG National Agricultural Research Institute, PNG Forest Authority, and all major PNG universities.

BRC is also active in **environmental impact assessment and biodiversity surveys** for clients from private sector, NGOs and PNG government. Our clients include Exxon Mobil, Total, Misima Mines, FAO, UNDP, Coffey, PNG Forest Authority or the Conservation and Environment Protection Authority (CEPA).

BRC has broad **expertise in ecology and taxonomy** of PNG plants, vertebrates (birds, mammals, and frogs) and insects (a broad range of taxa), as well as advanced capacity for data analysis. We are also active in rainforest conservation and **anthropological research**. See BRC web site for publications and research project details. BRC is the most scientifically productive institution in PNG in the field of ecological and biodiversity research (https://tinyurl.com/7x0q2q).

BRC facilities:

- BRC main campus in Nagada. The station is 20 min drive from Madang and provides accommodation (shared rooms, with shared bathrooms), lab space (air conditioned), and basic equipment microscopes, plant and insect driers, plant and insect reference collections, a freeze drier, macrophotography, internet access, electricity. A conference room for 30 people is available. Catering is provided to guests staying at the station. Transport provided by six Toyota Landcruiser vehicles (capacity 10 persons per vehicle).
- 50-ha forest dynamics plot in Wanang. Member of the ForestGEO network, monitoring ~288,000 plant stems (DBH>1 cm in 50 ha) from >550 species in a lowland rainforest (100-200 m asl, 3,600 mm rainfall annually). The plot-based research includes plant studies (2012 and 2017 botanical surveys of the plot, 200 fruit traps operated for 3 years, 800 seedling 1m² plots), as well as the surveys of soils, bird communities, and regular monitoring of butterflies, fruit flies, ants, termites, and frugivorous insects (ForestGEO Arthropod Initiative). The plot is serviced from the adjacent Swire Research Station. Requests for 50-ha plant data can be made via the ForestGEO web site.
- Swire Research Station: four buildings (accommodation and lab space) with solar power, autonomous water system, a freezer and VF radio communication (no internet or mobile phone signal). Accessible by 4WD vehicle (5 hours from Madang) plus 6-9 hours of walking (depending on road condition). The travel time from Madang to the station is thus one or two days. The station

is in the forest with undisturbed vegetation and relatively intact vertebrate fauna.

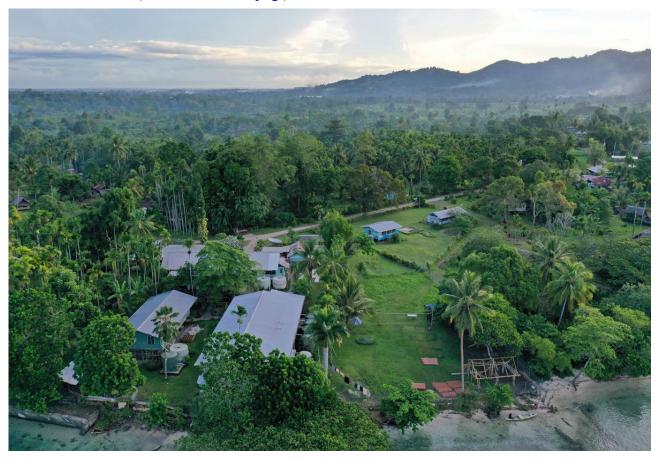
- Altitudinal transect at Mt Wilhelm: a series of 8 field sites from 200 to 3700 m asl (forming a complete rainforest altitudinal gradient) with local communities supportive of research and basic field camps for accommodation. The lower part of the transect can be reached by 5-hour drive from Madang. The transect is accessible to vehicles up to 700 m asl from Madang, and at 3,000 m from Kundiawa. The remaining part of the transect is accessible on foot, using carriers. Mobile signal available throughout the transect.
- Altitudinal transect at Saruwaged Mts.: a series a series of 8 field sites from 200 to 3700 m asl (forming a complete rainforest altitudinal gradient) with local communities supportive of research and basic field camps for accommodation. The transect is a part of the YUS Conservation Area. It is accessible by a small plane to the Sapmanga airstrip (at 1500 m asl), followed by walking. The lowland part as accessible using a boat from Madang. The Saruwaged Mts transect is 150 km apart from the Mt Wilhelm transect, but in a separate, and much younger, montane range.
- Canopy crane in the Kau Wildlife Area, Baitabag Village. A 45-m tall crane with 50m jib, providing access to 0.8ha of primary lowland rainforest. Located 20 min drive from the BRC campus, accessible by car, available for work on daily basis. Vegetation survey (plants with DBH>5cm) available for 1ha vegetation around the crane.
- Village based reserves in Ohu, Baitabag and Baiteta (200-300 ha each) surrounded by secondary forest and food gardens, with local assistants for field work. The sites are each within 1-2 hours drive from BRC and thus available for day visits for field work from BRC.

BRC services:

- <u>Accommodation</u>: Simple, dormitory-style shared rooms (2-4 people per room), with bunk beds, fans (no air conditioning) and insect-screened windows, shared bathrooms (cold water only, but remember it is 28°C outside) and toilets. The accommodation is safe, with night security. We provide safe storage for your luggage for the duration of your field work and other travel. Hotel-style accommodation is available (at US\$100-150 per night) in the Madang town hotels please note that when staying there and working at BRC you will have to pay for daily pick-ups and drop-off by BRC vehicles (30 min drive).
- -<u>Food:</u> We provide cooked dinners and cold lunches daily, and self-service breakfasts. Cooking facilities and a fridge are available to visitors. Tap water at BRC is drinkable. Coffee and tea are provided ad libitum.
- -<u>Transport:</u> We provide transport in 4WD Toyota Landcruiser vehicles (capacity: 10 people), for individuals or groups up to 40 personnel. Our drivers are skilled in serious off-road driving and we can access even difficult locations. Only BRC drivers can drive our cars see the visitor rules for further regulations. Note that due to high maintenance costs transport by cars is expensive in PNG (our vehicle rates are comparable to those by the local rental companies, such as Avis).
- <u>Field assistance</u>: BRC has research expertise in ecology and taxonomy of plants, insects and vertebrates, particularly in tropical forests. Our staff includes insect experts specializing on ants, beetles, moths, butterflies, and fruit flies, vertebrate experts specializing on birds, frogs and mammals, as well as botanists with excellent knowledge of PNG flora. The staff includes researchers, research technicians, and resident MSc students (45-50 personnel in total), based either at BRC campus or one of the field sites. This staff is available for assistance with research projects. It is probably the largest concentration of biodiversity expertise in PNG (and we say "probably" only out of false modesty).
- Access to local communities and land: In PNG, local landowners maintain full control of their lands. Any access to land must be negotiated with the landowners government-issued permits are completely useless in this regard. Please note that successful negotiation of land access is beyond

the ability of most foreign visitors – in particular, they often negotiate with wrong persons (there are usually no written documents on the land ownership). That is why entry fees to access land and agreements with landowners are necessary components of any research assistance by BRC. We can also help with negotiation to enter new study sites, as needed by individual research projects. However, note that not all locations in PNG are safe, and entering sites with no previous history of research is always somewhat risky, although this risk is decidedly smaller with BRC assistance than without it.

Visit BRC web site (www.entu.cas.cz/png/) for details on staff and facilities.



BRC campus (on the left).



BRC staff, macrophotography, herbarium, the Swire station and the Kakoba canopy crane.



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TRAVEL ADVICE FOR BRC VISITS AND PNG IN GENERAL

PNG has one international airport – Port Moresby, served by Air Niugini from Australia (Cairns, Brisbane), Singapore, Manila, Hong Kong, and Tokyo, plus flights by Qantas (Cairns, Brisbane, Sydney), Virgin Blue (Brisbane) and Philippine Airlines (Manila). Note that except for Australia, Air Niugini does not fly daily. Check the itinerary at www.airniugini.com.pg. Air Niugini is a good quality and safe airline, but rather expensive. The cheapest and most convenient travel from USA and Europe is usually via Brisbane or Singapore, where you can fly from Los Angeles (Qantas - American Airlines or Virgin - Delta) or from European cities via Dubai/Doha (Emirates, Qantas, Qatar Airlines and others). Flights with Air Niugini are often cheaper when purchased on their web site than via a travel agent. Note that most passengers need a transit visa for Australia if their connection means waiting longer than 8 hours.

When flying to Port Moresby, many airlines will check in your luggage from USA or Europe only to Brisbane/Singapore, but not on the Air Niugini flight to Port Moresby. Do not worry about this, you can organize the luggage transfer to Air Niugini flight at the Singapore/Brisbane transfer desk, without physically collecting and re-checking your luggage.

Note that Port Moresby does not have road connection with ANY other town or city in PNG, so you must continue by air. Domestic destinations are served by Air Niugini (including Madang) or PNG Airlines, rarely by both (eg Lae). Domestic terminal is 5 minutes walk from the international terminal in Port Moresby. Note that in case your domestic flight is cancelled, you will be given free accommodation in a (good) hotel in Port Moresby, including transport. Purchasing your domestic tickets on the Air Niugini/PNG Airlines website is a good idea (most travel agents will not be able to get these tickets for you).

If you want/must visit Port Moresby on your way, use taxis from the airport (unless you are staying in a hotel in which case there will be a hotel bus waiting for you). Negotiate the price before you enter the car (taxis are usually not metered), anything above K50 is over-charging. The taxis are safe (in the sense of not being mugged in them) but often in poor technical condition, which should not alarm you. The taxi drivers generally speak good English but often have no idea what is where in Port Moresby (although they all will initially tell you that they do know your destination perfectly so that they do not lose a customer). It is thus generally recommended that you know where you are going. There are also public buses providing a cheap (K1.00) alternative to taxis. They are OK but confusing to a newcomer – there are no driver's announcements or travel schedules so ask the driver's assistant or fellow passengers for information.

Port Moresby has a terrible reputation for safety which is partly – but only partly – unjust. You will be relatively safe during the daytime in central parts of the city. Beware of pickpockets and observe common sense precautions (do not flaunt your wealth). Night time is more tricky; do not walk on the streets anywhere, take a taxi. Some peripheral settlements are unsafe any time of the day or night, but there is little reason to go there anyway. In case your taxi driver refuses to go somewhere because of safety concerns, it is a good hint that you should not go there either. In case you do get mugged or your taxi hijacked, remain calm and follow the instructions of the raskols (= criminals), including requests to hand over your valet (keep your passport safe in the hotel, you will not need it on the street); the raskols will be typically armed, and ready to use their equipment if – and only if deemed necessary.

Port Moresby has very little night life and generally a few pleasures to offer, so do not plan to spend there more time than necessary. The National Museum (next to the Parliament) is excellent and recommended for a visit – take taxi all the way to the museum doors and ask the driver to wait for you (for a K20 fee). The Nature Park is a very good zoological garden and probably your only chance to see the famous PNG marsupials alive (they are in very few overseas zoos and, unlike birds of paradise, almost impossible to find and see in the wild). The best book shop in the country by far (because the only proper bookshop in PNG) is at the University of PNG campus – ask the staff to see their PNG collection that is good for biology, anthropology and social sciences. You can get some art at the PNG Fine Arts Gallery (close to the Gateway Hotel) or low budget street sales in front of the Holiday Inn. Hotels are expensive in Port Moresby – expect to pay US\$ 200-250 for a common international standard hotel. If you are from Switzerland, you might feel at home in Moresby hotels, price-wise. You can find such hotels at booking.com (Shady Rest and Holiday Inn Express are our lower/intermediate cost choices).

At the Madang airport, look for your hotel bus if you stay in a Madang hotel, or the BRC Landcruiser if you stay with BRC. Let our staff know about your arrival and if possible call about any flight delays or schedule changes – we will have to pick you up at the Madang airport which does not have any public transport. BRC is approximately 20 min drive from the airport. Do not be alarmed if you do not see BRC staff waiting for you – at least not for the first 20 minutes or so as the car may be arriving late.

Lonely Planet guide provides information on travel for the rest of the country.

COVID info: PNG is issuing Research Visa, but not tourist visa on arrival. The entry has to be approved in advance (before the flight) by the Controller, see the Air Niugini web site for the current advice and forms. As of January 2022, PNG requires a negative PCR test (needed for the flight anyway), there is no quarantine. The PCR testing for the departure is organized in the morning at the Jackson's Airport, be there at 9.00am. The country had a very low number of serious covid cases and deaths, probably due to a young population (90% are below 50 years of age). The domestic flights, hotels, shops are open (January 2022), indoor spaces require a mask. **Important**: BRC requires all visitors to be vaccinated against covid, with at least 2 doses.



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PNG MEDICAL ADVICE AND INSURANCE

BRC only hosts researchers with full medical insurance, including insurance cover for emergency medical evacuation to the nearest point of medical assistance, which would be Australia for many more serious cases (note that some policies do NOT include the evacuation cover by default). In case of emergency, medical evacuation may be the most expensive part of your treatment and may include helicopter flights. The hospital of choice for emergency treatment is the Pacific International Hospital (http://www.pih.com.pg, emergency mobile number +675 7111 4000) but serious accidents might require evacuation to Australia.

Medical emergency evacuation within the country and internationally is provided by Tropicair (contact Mr. Ali Daveona, Ph. +675 311 2673 ext.105, +675 7310 4770, +675 7687 5047, fax +675 311 2701, ops@tropicair.com.pg, www.tropicair.com.pg). The charter has a doctor on board and the plane is ready on one-hour notice. A Madang – Port Moresby evacuation costs around US\$ 20,000. Evacuation from remote field can be done by helicopters (Heli Niugini in Madang, Pacific Helicopters in Goroka and Lae, Hevilift in Mt Hagen). Please note that there are no helicopter flights in the night so if unlucky, you may be waiting for your emergency medical aid up to 12 hours and no insurance or power short of supernatural can do anything about that. Generally, it is advised that you do your best to stay healthy and accident-free in PNG.

Each visitor hosted by BRC has to provide (i) medical insurance details, (ii) copies of the passport photo and PNG visa pages, and (iii) emergency contact details (next of kin) to the BRC office.

Malaria

Short-term visitors are advised to take anti-malarial prophylaxis. PNG lowlands are heavily malarial (*P. vivax* and *falciparum*), including BRC main campus and our Wanang field station. The recommended prophylaxis is Malarone (1 pill a day) in combination with Chloroquine (= Delagil, 2 pills a week). Malarone alone offers poor protection against *P. vivax* in PNG. Alternatives include Doxycycline (a tetracycline-type broad spectrum antibiotic; may induce photosensitivity in some people; 100mg pill a day); Lariam is no longer recommended (causes violent dreams, and could make some people go genuinely crazy; one pill a week, if you must).

Malaria treatment (for all *Plasmodium* species) is by a combination of artemether and lumefantrime (Coartem, Maladuo, or some other trade names; reliable available locally in PNG and at BRC). Take Coartem with you for all your field work in PNG – in case of suspicion of malaria, treat it quickly. Malaria tests are often falsely negative (positive results are usually reliable). Malaria can have variable symptoms, often flu-like, with fevers and sometimes also vomiting and/or diarrhea. Incubation period is 2 weeks or longer. When in doubt just take the treatment (and always finish the entire dose) – it is much better to treat flu/covid mistakenly as malaria than ignoring a real malarial infection. *P. falciparum* in particular can escalate rapidly when untreated, sometimes making the patient unable to walk (and think clearly; one symptom of heavy malaria may be that you think you are fine and do not have malaria) within a single day. Late treatment also increases the likelihood of complications (kidney failure etc.). Take one Coartem/Maladuo treatment also with you for a possible bout of malaria back home – you can see a doctor, but he will be most likely quite ignorant of the disease, and Coartem/Maladuo is not always available in other countries.

After return from PNG, and particularly if you were sick with P. vivax (or an undiagnosed malaria

species) take a course of Primaquine, to clear dormant stages of *P. vivax* from the liver. This has to be done after consultation with a doctor since Primaquine is dangerous for people with G6PD deficiency (to be tested by blood test). This makes sense only if you do not plan on returning to PNG soon.

Doxycycline, Chloroquine and Coartem/Maladuo are available in PNG, but bring your own Malarone. No prophylaxis is 100% effective even if taken religiously – but it does reduce the probability of an infection. However, if you stay more than three months is it healthier to take prophylaxis only when particularly exposed, otherwise just watch out for and rapidly treat your malaria infections.

Vaccinations

Covid vaccine is required by BRC (not a condition of entry to PNG at the moment). No other vaccines are obligatory for PNG, but we highly recommend Hepatitis A and B. Other vaccinations to consider – but not absolutely necessary - include typhoid (occasionally present in PNG, but you usually do not die from it), Japanese encephalitis (probably present but rare in PNG), meningococcus, and rabies (only if you want to work with bats, while dogs are apparently rabies free). There is no yellow fever in PNG. These are only suggestions; you can also follow the advice of your doctor.

Other medical issues

Take precautions usual for tropical countries. Water purification (UV-light, tablets, or filters) may be useful, although most rainforest streams in remote areas remain safe to drink. Typical annoyances in PNG forests include poisonous snakes (some of them deadly), mosquitoes (malaria, less often filariasis), leaches (unpleasant but not transmitting anything bad), and chiggers (invisible blood-sucking mites causing itching). On a positive side, bathing in rivers and lakes is safe (no schistosomiasis and crocodiles only rarely) and there is no ebola virus too. Falling or getting lost are much bigger forest dangers than charismatic tropical diseases or parasites.

You will be a long way from medical help when working in the field. Many places are only accessible by helicopter for emergency evacuation and since no helicopters can fly in the dark in PNG, you may be up to 12 hours from the earliest professional first aid if you are unlucky. Field work in PNG is therefore highly unsuitable to those who are likely to need urgent professional medical care because they already have a medical condition or are statistically significantly accident prone.

Your medical insurance has to cover all dangerous activities – including tree climbing, diving, or high-altitude trips – that you are likely to undertake in PNG. Note that BRC cannot take responsibility for your medical expenses unless they are covered by your insurance. Local hospitals and emergency services will NOT treat patients unable to pay or prove they are insured, and your rescue could be very expensive – medical charter from Madang to Moresby is \$20,000 for instance.



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BRC RESEARCH VISA ADVICE

Anybody coming to PNG for research must enter the country on Research Visa. BRC cannot support any researchers on tourist of other visa. The only exception may be a reconnaissance visit to scope or pilot planned research that is acceptable on tourist visa. Citizens of the US, most EU countries (including the Czech Republic), Australia, Japan etc. can obtain tourist visa on arrival in Port Moresby or process them on-line (recommended). Note that tourist visa are presently not issued due to covid. Once you enter PNG on tourist visa you cannot change it to research visa. The research visa are valid for multiple entries for 3 years, and can be easily extended for additional 3 year (using a simple and faster procedure than applying for a new visa). However, you must be in PNG to obtain Research Visa extension. Having Research Visa is also the necessary but not sufficient condition for exports of any biological specimens for research.

BRC can assists with research visa (for a fee as it is administratively demanding process), however BRC is not responsible for any delays in issuing visa and associated costs (such as re-booking air tickets). Please allow ideally 4 months, (3 months minimum) in advance of the planned arrival. The contact person for BRC assistance with visa is Ms. Aiyola Gubag (Email aiigeeroland@gmail.com).

The "Maintenance guarantee bond for a non-citizen" form must be signed by BRC in support of your visa, making it the BRC's liability to cover any your fees for accommodation, medical or dental assistance, repatriation to country of origin, and court related expenses. The BRC will reluctantly sign this form in order to make your research visa possible, but it is VERY IMPORTANT that you are not misled by this form into actually believing that these expenses will be covered by BRC. You are entirely responsible for your medical insurance policies (including evacuation from the field and repatriation) as well as other expenses including legal ones. The BRC's guiding principle regarding this form is the recognition that a dead or jailed customer is usually cheaper than an alive one on bail.

The visa procedure:

- 1. Required documents are submitted to the National Research Institute [NRI]. Contact person at the NRI is Ms. Georgia Kaipu).
- 2. Research Project is sent by NRI to the PNG Secretariat for Science and Technology for approval.
- 3. NRI submits the visa application to the Immigration; after approval, the appropriate PNG Embassy is notified (in Europe either London or Brussels) about this.
- 4. The applicant submits additional paperwork to the PNG Embassy according to their instructions (these may slightly vary from one country to another) and is granted the visa.

Paperwork needed in PNG for a research visa application:

- 1. Visa application form
- 2. Scan of passport photo page
- 3. Medical questionnaire
- 4. Invitation letter from a PNG partner (such as BRC, university or a research institute)
- 5. Research project description (1-2 pages, outlining the project itself and any highlighting any benefits for PNG new knowledge of conservation, agriculture, forestry or medical importance, training of local students or technicians, collaboration with PNG partners, employment for local assistants etc.)

- 6. Two reference letters from academic colleagues (official letter head) endorsing the researcher and research program.
- 7. Cover letter requesting 3-years research visa and noting the planned arrival date as well as the embassy where you want to collect the visa (important!).
- 8. Your CV
- 9. Maintenance guarantee bond for a non-citizen signed by BRC
- 10. Visa fees (payable to the PNG National Research Institute):

US \$120 for a researcher who spends less than two months in the country;

US \$180 for a researcher who spends more than two months in the country;

US \$450 for a research team to carry out any period of research

11. Note that there is another visa processing payment that must be done at the https://ica.gov.pg/ done before picking up the visa.

All these documents can be scanned and sent as pdf files (please be mindful of slow internet speed in PNG and minimize the file size; do not sent email with >2MB attachments to NRI address) to BRC or NRI.

Research visa are administered by:

Ms. Georgia Kaipu

Executive Assistant, Business and Consultancy Project Office

National Research Institute

PO Box 5854

BOROKO, Port Moresby 111

Papua New Guinea

Ph: (675) 3260300, ext. 327, Fax: (675) 3260213

Email: gkaipu@nri.org.pg, gkaipu2575@gmail.com [use both addresses at the same time]



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BRC BIOLOGICAL SPECIMENS EXPORT ADVICE

All researchers associated with BRC must follow the PNG laws regulating exports of specimens for research. All biological specimens – and this applies to whole organisms, as well as to their parts, such as blood samples, tissue samples for DNA analysis, feathers, shells, etc. – must be permitted. No permits are required foe exporting soil samles. BRC can organize export permits – for an administrative fee (see the list of fees).

The specimens can be exported on the following conditions:

- They remain traceable, i.e. the exporter knows where to find them in the future.
- They will remain accessible (free of charge) to PNG researchers.
- The paratype(s) of new species will be deposited in PNG.
- The duplicates of all fertile plant collections will be deposited in PNG.
- The information obtained by the analysis of specimens will be made available to the PNG Government (Conservation and Environment Protection Agency, CEPA), in the form of publication reprints, access to on-line databases and reports.
- The exporter will provide a report to BRC (to be shared with CEPA) on the work done and information obtained from the exported specimens, within 1 year of the export
- There are no CITES listed specimens (or their parts) in the exported material.
- The specimens were obrained within the research project approved by PNG authorities (as a part of the Research Visa application).

Following the above rules remains a responsibility of the exporter. The failure to comply will negatively affect any future collaboration with BRC and complicate future research in PNG.

Procedure for plant specimens export:

- 1. The export application must include the list of all specimens with identifications as far as possible typically a combination of species-, genus- and family-level identification for plants.
- 2. The application is permitted by the PNG Forestry Research Institute (FRI) in Lae. There is a strict condition of depositing one set of duplicates (pressed and with labels) for all fertile collections to be exported. This must be done BEFORE the plant export leaves PNG. In case you want to export large numbers of sterile material (such as from plant plots) it must be confirmed in advance with FRI that they do not like to receive sterile duplicates.
- 3. Note that all orchids and some other plant species are CITES listed and as such cannot be exported under this procedure.

Procedure for animal specimens export:

1. The export application must include the list of specimens with identifications as far as possible – typically species identification for birds and most other vertebrates, and lower level identification (at least genus or family) for insects and other invertebrates. The list must include numbers of

specimens.

- 2. The application is submitted via BRC to the Conservation and Environment Protection Agency (CEPA) in Port Moresby that will need approximately 1-2 weeks for approval.
- 3. The specimens must be inspected by a CEPA officer either using photographs where appropriate, of personally at CEPA office in Port Moresby. For larger exports, it is also possible to bring CEPA officer to BRC for inspection (at the expense of the exporter).
- 4. The approved specimens can be, with the permit, hand carried or mailed from the country. When shipping, make sure to attach a copy of the permit for customs officer, and provide one copy to BRC. Keep the original permit. We recommend DHL as a safe (although expensive) courier for mailing valuable specimens.
- 5. There may be fees charged by CEPA for exports, which are the responsibility of the exporter.

It is not possible to apply for export permit before you actually sample, count and identify your specimens. In most cases this means shipping specimens out of the country after your departure. BRC can assist with this. Please note that DHL is the safest – but also the most expensive – shipping method. The EMS is cheaper alternative but tracking your shipment less reliable than with DHL. BRC will follow your instructions regarding the specimens (f.y.i., we ship our specimens with DHL, but the cost is prohibitive). Note that you have to provide street address (no PO Box) and phone number for your shipping. Further, you cannot use any large volumes of ethanol or other flammables in your shipment for safety reasons.



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BRC RATES 2022

Payment can be made in USD or any other major currency by telegraphic transfer to the BRC account in PNG, or (particularly in case of smaller amounts) in cash, in any major currency or PGK, at the BRC office. BRC can provide invoices acceptable to overseas universities, grant agencies etc. The rates are revised annually. We use https://www.xe.com/ for conversion between currencies.

Research visa: Researchers must have research visa (except for preliminary scoping visits). BRC can assist in obtaining the visa, for a management fee \$200.00 per person or \$280.00 per group (>1 person on the same project) plus research fees charged by the PNG National Research Institute (US \$120 for a researcher who spends less than two months in the country; US \$180 for a researcher who spends more than two months in the country; US \$450 for a research team to carry out any period of research).

Export of biological specimens: Any exports of biological specimens have to be permitted by the PNG authorities. BRC can organize export permits for non-CITES plants and animals: \$450.00 per export permit

Vehicle use: \$160 per day + \$1.00 per km + \$105.00 per day driver + \$105.00 per day driver's assistant This rate includes fuel, maintenance, insurance and any other costs. BRC cars have to be driven only by BRC staff; (the driver always must have an assistant with him), not by visitors. We only rent cars for half day or whole day, not for shorter periods of time, except for airport/town pick-ups and drop-offs.

Airport pick-up or drop-off: \$50.00 per trip – individuals or groups up to 8 people (includes vehicle use, mileage, driver and driver's assistant).

Research technician assistance \$115.00 per day. Includes salary and fringe benefits (taxes, medical, and living costs in Nagada) but not field expenses. Hire is by full days, not hours.

Postgraduate (Hons. or MSc) student assistance \$115.00 per day. Only available when related to the student's dissertation. Includes stipend and fringe benefits (taxes, medical, and living costs) but not field expenses.

Field assistant \$40.00 per day. Includes salary but not field expenses or accommodation (where needed). The hire is by full days, not hours.

Nagada accommodation: \$78.00 per day. Includes a shared bedroom, with a shared bathroom.

Nagada conference room: \$735.00 per day (\$370.00 half day). Includes seating for up to 40 people indoors, similar space on the adjacent verandah, a data projector, a laptop connected to a large TV screen, bathroom facilities and a kitchen facilities for tea & coffee. El power supply is backed by a generator.

Nagada food: \$40.00 per day. Breakfast, lunch and dinner – no deals for single meals, only whole days.

Nagada lab use: K 100.00 per day per person. Includes a bench space for 1 person, use of the equipment – stereomicroscopes, driers, freezers, storage and internet access.

Wanang 1 camp accommodation: K35.00 per person and day for bed, \$28.00 per person and day for food.

Wanang 3 station accommodation: \$70.00 per person and day for bed, \$35.00 per person and day for food.

Mt. Wilhelm camps accommodation: \$35.00 per person and day for bed, \$35.00 per person and day for food.

Yawan Ubii camp accommodation: \$35.00 per person and day for bed, \$35.00 per person and day for food.

Wanang, Ohu, Baitabag, Baiteta, and Yawan forest conservation entry fees:

Expats/PNG citizens: single person up to 1 week: \$100/\$15; single person more than 1 week: \$200/\$30,

group (3 persons or more) up to 1 week: \$255/\$40; group more than 1 week: \$510/\$140. These funds will be given to the village communities.

Mt. Wilhelm forest conservation entry fees: payment applies to every elevation where research work is done (200, 700, 1200, 1700, 2200, 2700 and 3200 m asl; no payment at 3700 m asl):

Expats/PNG citizens: single person up to 1 week: \$100/\$15; single person more than 1 week: \$200/\$30, group (3 persons or more) up to 1 week: \$255/\$40; group more than 1 week: \$510/\$140.

Baitabag Canopy Crane: The use of canopy crane costs \$150.00 flat fee per day (includes drop-off and pick-up at the crane site, and the mobilization of the crane), plus \$130.00 per hour or \$800 per day (maximum operation length 10 hours). This fee does not include \$105.00 per day rate for the crane driver and any other personnel employed for assistance.

BRC administration fee: \$255.00 covering time required for basic organization of a visit, plus any additional management (purchase of supplies, negotiation with landowners for study sites etc.) are charged by its time requirements, at the rate of \$105.00 per person-day.

MSc/MPhil by Research student (2-years study): Annual costs: \$12,900.00 total. Includes stipend (\$5,300.00), living costs on campus (\$1,400.00), research facilities use (\$1,400.00), equipment (\$1,400.00), BRC administration (\$300.00), travel costs (\$850.00) and tuition fees (\$2,250.00). The student (enrolled at the PNG University of Technology or the University of PNG) can work on dissertation research as agreed with the sponsor, supporting the sponsor's research project. Partial sponsorship for one year, or full for 2 years, is possible. Student supervision at BRC free of charge. Note that if you need an assistance to your project by a BRC students and for more than 224 days (charged at \$115.00 per day), it becomes cheaper to sponsor a student degree and have that student available to you for the entire 2 years for research (serving also as the student's Thesis).

Discount policy: Some rates can be discounted to 75% of the original rate (i.e., multiply each rate by 0.75) for projects lead by PNG researchers or students.

Last updated on 1 January 2022