

BEHAVE SAFELY IN THE RAINFOREST

or

Things you'd like to know about Manu before you leave



Marianne van Vlaardingen

pantiacollamanu@gmail.com, pantiacollacusco@hotmail.com www.pantiacolla.com

Cusco, February 2002/April 2025

Contents:

I. Introduction	pag	e 3
Danger & Occurence rating	pag	e 3
II. Problems, Diseases and Danger	's pag	e 4
1. Problems	pag	e 4
1.1 General Problems	pag	e 4
General discomforts	s pag	e 4
Being picked up fro	m the hotel pag	e 4
Water	pag	e 4
Be straightforward	pag	e 4
Animal sightings	pag	e 4
Mosquitoes	pag	e 5
1.2 Problems of Rivers & La	kes pag	e 5
Boat accidents	pag	e 5
Swimming	pag	e 6
Current	pag	e 6
Piranhas	Pag	e 6
Caiman	pag	e 6
Giant otter	pag	e 7
Sting ray	pag	e 7
Orifice fish	pag	e 7
Electric eel	pag	e 8
Water related infect	ions and diseases pag	e 8
1.3 Problems in the Forest	pag	e 8
Plants	pag	e 8
Insects	pag	e 8
Frogs	pag	e 9
Botfly	pag	e 9
Vampire bats	pag	e 10
2. Diseases	pag	e 10
Malaria	pag	e 10
Yellow fever	pag	e 10
Leishmaniasis	pag	e 11
Diarrhoea	pag	e 11
2. Dangers	pag	e 11
Falling trees	pag	e 11
Large carnivores	pag	e 11
Snakes	pag	e 11
III. Rules and Recommendations.	pag	e 12
IV. Contact information for peopl	e at home pag	e 13

I. INTRODUCTION

Please, take your time to read this before you leave for Manu. We at Pantiacolla are pleased with the trust you have placed in us in booking our tour into the Manu Biosphere Reserve. You must be looking forward to the trip ahead of you, but you may also have some feelings of anxiety about its possible dangers and discomforts. In reality, Manu is not a dangerous place, especially when compared to some large cities. Nevertheless, there are some problems and dangers you ought to know about.

To make sure you will travel well prepared and without doubts, we have organized all possible problems and dangers found in Manu, with a rating of how dangerous these are and how likely they are to be encountered. Please disregard other things you may have read or seen in movies that are not mentioned here. They may relate to other rainforests or be pure exaggeration.

For those among you who do not like reading, there is a summary at the beginning of each section. Reading only the cursive and bolt parts of the pamphlet will actually provide you with sufficient information to get you through Manu safely.

Danger rating:

- 1 means not dangerous at all to your physical health
- 2 means it may inflict wounds, pain or fever, but is not lethal
- 3 means a possibly lethal danger

Occurrence rating:

- 1 means it hardly ever happens, do not bother to think about it
- 2 means it happens, but only sometimes, or some times per year
- 3 means it occurs frequently, and you can possibly encounter this problem or danger

II. PROBLEMS, DISEASES AND DANGERS

1. PROBLEMS

1.1 General Problems

GENERAL DISCOMFORTS

Experiencing an undisturbed rainforest means you cannot expect home comforts. Manu is an incredibly beautiful tropical rainforest, where human beings have had no, or in some parts, only marginal influence. Because of this, at Pantiacolla we believe it is important to minimize *your* impact as much as possible. Hence, this is not a luxury tour you are about to begin and home comforts are few and far between. You will encounter only basic washing and toilet facilities plus physical hardships, such as the heat, humidity and biting insects. These may make you doubt your decision to come, however, if you do come, the reward is an unforgettable experience!

BEING PICKED UP FROM YOUR HOTEL

Do not walk on the streets early in the morning by yourself. Cusco, your starting point for the trip, looks safe, but actually has a high crime rate especially during the peak tourist season. Thieves from all over the country come here to practice their skills. You shouldn't, therefore, walk alone with all your belongings through Cusco's streets early in the morning. Please wait inside your hotel until somebody, identifying him/herself as being from Pantiacolla, picks you up and takes you to the bus on foot or by taxi.

WATER

Only bring drinking water for the first day. Bring sufficient water for your own needs on the first day. We carry big bottles of mineral water, but it is really hard for us to re-fill your bottles in a moving bus. So after arriving at the first lodge, you can refill at any time except when traveling again by bus or by boat.

BE STRAIGHTFORWARD

Always let the guide know what is on your mind. Our guides are there to inform you about the rainforest and help you in any other way they can. However, they are not telepathic! Please, always let them know what is on your mind, so they can do their jobs effectively.

ANIMAL SIGHTINGS

There aren't as many animals as anticipated. Because the rainforest plants protect themselves from being eaten, there isn't much edible vegetable matter available. As a consequence there aren't many herbivorous nor carnivorous animals. If you were to compare the rainforest in terms of bio-mass to the savannahs in Africa, you would find 5 to 7 times more animals on the savannahs than in the forest. You would also find that the forest has about 1 million times more vegetable matter than the African savannahs. So there are fewer animals in the rainforest and they are better hidden behind an enormous amount of vegetation. It is important to understand this before starting your expedition in order to avoid being disappointed once there.

Having said that, we should also mention that you do see birds and insects constantly and troops of monkeys on a regular basis, say 2-4 times per day both in the Cultural

and Reserved Zones. On the lakes of the Reserved Zone, especially Lake Salvador, you have a very good chance of spotting giant otters and you always see caiman in the Reserved Zone. However, all other animals, particularly the bigger mammals, are much more difficult to spot. On every trip you will encounter some of them, but it is impossible to tell beforehand which one and when and where you will see them.

MOSQUITOES Danger: 1/Occurrence: 3

Biting insects are always present. Cover yourself as much as possible and use an insect repellent on exposed parts. At night, make sure your mosquito net is well tucked under your mattress. Biting insects are active 24 hours per day. Mosquitoes like dark and humid places so in the forest you'll find them both day and night. During the day on the river, there are no mosquitoes, but, you will find the so-called 'no see-ums' - tiny sand-flies and black-flies. These may follow you in clouds on the beaches. Their bites are not felt at the moment they bite, but afterwards the itch is as bad as the itch of any mosquito. We advise you to cover as much as you can of your body with clothes. Use a long-sleeved shirt over a short-sleeved t-shirt and long trousers. All should be loose around your body and limbs so the mosquitos cannot get to your skin if they bite through the material. Make sure you use an effective insect repellent on your hands, face, neck and other exposed parts.

An effective insect repellent contains at least 35% of the chemical di-ethyl methyl toluamide, 'deet' for short. Deet 'confuses' the insects, they 'forget' what they came to do and simply fly away. However, deet has two disadvantages. Firstly, it permeates the skin of the person who uses it, enters the bloodstream and collects in the liver. We therefore advise you to use as little as possible and it should not be used by pregnant women. The other disadvantage is that it melts plastics and rubbers, so if you touch anything made of those materials it will stick to your fingers! Therefore, avoid using it on the inside of the hands. Put one or two oily drops on the back of your hands, rub the two backs together, and then pass them over your face (excluding your eyes) and neck. If you have a plastic watch or plastic rims on your glasses, take them off, or avoid exposing them to the repellent. It usually says in the instructions on the bottle with repellent, that protection lasts up to eight or ten hours. However, because of the heat and humidity in Manu, you are also sweating all the time, and the repellent wears off in about 30 minutes. So, use a little bit at a time, but repeat the application frequently.

To sleep well at night, it is important to make sure there are no mosquitos in your room, or at least as few as possible. Keep the door of your room closed at all times. The mosquito net of your bed should be well tucked under your mattress all around your bed, to make sure there is no opening where mosquitos can get in. Of course, for you to get into your bed, you need to open the mosquito net on one side, but you can easily tuck it back under from the inside.

1.2 Problems of Rivers & Lakes

BOAT ACCIDENTS Danger: 2/Occurrence: 1

Boat accidents are very rare. Do not move unexpectedly. The boats we use are long canoes, about 17 metres long and 2 metres wide in the middle. This is the most

stable and fastest type of boat to use on the rivers we navigate. If you board by stepping on its side, the boat will tilt under your weight, however, there is no danger to capsize. Still, it is better to wait for the crew to help you boarding. Usually they can install a plank as a walkway directly to your seat. Once you all sit down, the boatman will balance your weight with the equipment and supplies on board. Then, the boat is actually very stable, especially when going forwards. Still, there should be no unexpected shifts in weight. Therefore, we ask you to remain seated as long as the boat is moving. You should have everything you might need during the boat trip with you in a day pack (e.g. binoculars, camera, water, rain poncho, hat, sun screen, guide book etc.). If you have to move anyway, tell the guide, who will then get the boatman to stop somewhere or to slow down. In the event you see an animal on the bank, you should not all stand up at the same time and move to one side!

SWIMMING

It is not allowed to swim in the lakes as the lakes are home to the giant otters who can be extremely aggressive towards human beings. There is also a higher concentration of piranha and caiman in the lakes than in the rivers.

Swimming in the rivers is refreshing. The waters of the Alto Madre de Dios River are clear and cool. The waters of the Manu River are much muddier and warmer. However, if you do go swimming, never swim alone or make sure you are being observed by someone on the shore. This is important, as you might get cramp or get hit by a floating log, or experience one of the following:

Possible problems:

CURRENT Danger: 2/Occurrence: 1

The currents in the rivers are very strong, especially of the Alto Madre de Dios River. Before you go swimming, ask your guide where it is safe to swim.

PIRANHAS Danger: 2/Occurrence: 1

Piranhas in the Manu rivers have never attacked tourists. To become in the attack mode, piranhas have to be very hungry over an extended period of time. Only then can a school of piranha be induced to attack. It is on rare occasions that piranhas have taken a bite of a human in Manu, and in all cases this happened while people were swimming in a lake (not allowed!) which had a low water lever. On one occasion, piranhas were actually eating the fungus on a toe, rather than the toe itself!

The river also harbours lots of tiny fish, locally called 'sardinas'. These sardinas like to eat the minerals (salts) from your skin. They have no teeth, so their bites are harmless, but one may confuse these with the beginning of a massive piranha attack! People swimming in the river have never been bitten by piranhas.

CAIMAN Danger: 3/Occurrence: 1

The black caiman can be a man killer under certain circumstances. Of the three caiman species in Manu, the black caiman is the biggest. It can grow to over 7 metres. The black caiman has been described as a "man killer" in certain parts of the Amazon rainforest, however not in Manu. For sure, these massive caimans are, usually, surprisingly timid. "Man killing" is something a black caiman only resorts to when

other forms of prey are exhausted or man is squeezing its habitat. The smaller white and smooth-fronted caimans are definitely not man killers.

However, due to their size caimans should always be respected. It is not permitted at any time to swim in any lake and one should neither swim in the rivers at night since that is the time the caiman actively hunts and may mistake you for an overgrown spider monkey. Again, if you do go swimming in the river, never swim all alone or make sure you are being observed.

GIANT OTTER Danger: 3/Occurrence: 1

Giant otters with offspring can be aggressive. The giant otter is unique among otters, because it is the only species that lives in groups. This otter is almost 2 metres long and attacking as a group, together they can defeat even the biggest caiman. When there are young in the group, the adult animals may aggressively attack anyone who encroaches on their territory. The giant otters are the main reason why it is prohibited to swim in the lakes of Manu.

STING RAY Danger: 2/Occurrence: 1

The sting ray has a poisonous stinger and you have to be aware of its habits to avoid being stung. The sting ray is one of the most ancient creatures found in the Amazon basin, having existed there when it still formed part of the Atlantic Ocean. When the Andes Mountains rose, these cartilaginous fish species gradually adapted to the fresh water in which it now thrives.

Sting rays are not aggressive but they do have a stinger on their tail with a toxic poison. The poison isn't lethal, but may cause fever and infection. They normally only use this stinger when hunting their prey, but won't hesitate to use it in self-defence should you step on them. Sting rays often look for shallow spots of the river to lie and warm up in the sun and may cover themselves with sand so you cannot see them. To avoid sting rays, you should announce that you are going into the water. You can stamp your feet on the shore, throw something into the water, or use a stick or your hand to stir the water when walking in. The fish will readily depart if it realises you are coming.

ORIFICE FISH Danger: 2/Occurrence: 1

This fish's horror story has not been proven to be true in Manu. This fish generates most fear in people, but in the over 30 years that tourists have been visiting the park, there hasn't been a single orifice fish incident.

The orifice fish is a small catfish about 1 to 1.5 cm long, that swims up the gills of bigger fish. It sucks blood from the gills and then swims away. The problem for humans is that the orifice fish can only swim in one direction, due to bristles at the end of its body. In a large fish, it swims up the gills and out of the mouth, but, in humans, only one-way orifices exist, meaning the fish is unable to exit. The result would be extreme discomfort, infection and the fish would have to be removed surgically.

Fortunately, the orifice fish is extremely rare, but to be on the safe side, always swim with a bathing suit, shorts, or anything which sits really close to the body.

ELECTRIC EEL Danger: 2/Occurrence: 1

The electric eel can generate five times more electricity than a wall socket. Avoid stumbling into it by accident by not going into its habitat. Normally the electric eels use small amounts of electricity to stun their prey before swallowing it in one piece. The high amounts are only used when defending themselves from predator attacks. The electric eel can grow up to 2-2,5 meters (6-8 feet) long and weigh 20 kg. Humans have suffered shocks from electric eels, but rarely has that resulted in death. The electric eel usually lives on muddy bottoms of calm and stagnant waters. So again, do not try to swim in Manu's lakes!

WATER RELATED INFECTIONS & DISEASES Danger: 2/Occurrence: 1

Lots of water and few inhabitants make infections and diseases rare in Manu. Because of the very low human population in Manu and the high volumes of water, most of it running, contamination of the water is low and humans can use it as drinking water without purification. On our tours, we provide you with mineral water anyways, but only because of the waters' sandy appearance.

1.3 Problems in the Forest

PLANTS Danger: 1/Occurrence: 3

Always walk in the forest with your eyes open and never touch anything without looking at it first. The forest floor is extremely poor in minerals. This means that it is hard on plants to find the right minerals to grow. And it is even harder to find the minerals for parts that have been eaten, as there will be even less minerals present once the plant has used the few minerals that were present for its growth. At times it may even be impossible and the part or the quantity being eaten may be crucial to the plant's survival. Plants and trees have therefore evolved defences to avoid being eaten. The oldest forms of defence, hairs or hooks and spikes, are mostly found on the oldest forms of vegetation, such as palms and standing ferns. Because of this, it is important to never touch anything in the forest without first looking at it, and in case you slip, it is much better to let yourself fall and get dirty than try to grab hold of a tree trunk that may be covered with 15 cm-long spikes!

Do not eat the plants of the forest. Most of the modern plants and trees have another type of protection; they make complicated chemicals that are toxic once smelled or ingested by animals. Garlic is a good example of this: the garlic smell repels insects, both in the garlic we use to eat and the barks of several rainforest trees. The marihuana plant is another example: it causes a state of confusion in anyone who consumes it. Other trees, such as the rubber tree, produce a sap (rubber) which binds the jaws of predators, like caterpillars, together making it impossible to continue eating. This type of protection is not a problem to human visitors of the rainforest, as long as we do not eat the vegetation.

INSECTS Danger: 1/Occurrence: 3

Almost all insects carry poison in their bodies, avoid contact. The chemicals in plants mean that most of the vegetation is inedible for a normal digestion. As a consequence, compared to the amount of vegetation, there are relatively few animals

in the rainforest. But as nature is always ingenious, many animals have found solutions to the toxicity problem. Some avoid the problem by changing the composition of the toxin, making it non-toxic, or they have ways to excrete the toxin before digesting it. As almost all insects depend on vegetable matter for food in one point of their lives, this also means that almost all insects have become toxic themselves. Caterpillars for example, render the toxins harmless by excreting them from their digestive system into hairs that then become toxic to the touch! Another example of a toxic insect is the Izula ant. It is a big ant, of about 2 cm long, which has a big stinger at the end of its body. The stinger has a poison, very similar in function to the poison of a cobra. Compared to the cobra, the Izula ant is very small and only produces small amounts of the poison, however, it is enough for some people to experience extreme pain and others to get a fever or faint.

FROGS Danger: 2/Occurrence: 2

Frogs may be very beautiful, but also very poisonous. Frogs eat insects and as most of the insects have toxins, frogs become poisonous as well. The frog, to not intoxicate itself, excretes these poisons through its skin. Therefore, all frogs are poisonous to the touch. Usually, the effect on humans is negligible, but some frogs, such as the infamous poison arrow frogs, excrete extremely high concentrations of toxins. These frogs are brightly coloured, to advertise their toxicity. Some species have enough poison for one individual to kill 1000 human beings! However, the poison has to get into the human bloodstream to have an effect. Just picking up a poison arrow frog will not kill you, as long as you don't stick your fingers into your mouth afterwards.

BOTFLY Danger: 1/Occurrence: 2

The botfly has an interesting life cycle, but is not really harmful. The botfly is a big and noisy fly. Its larvae grow in the skins of birds and mammals. Because of the fly's size and loudness, the female can never get near its target, as she is always seen or heard before. To resolve this, she catches a little bloodsucking fly and glues her eggs to it. When this fly lands on the skin of an animal, the heat of the skin will make the eggs of the botfly fall off. They quickly develop into larvae that dig under the skin. Usually there is only one, but sometimes, up to 5 different larvae are deposited at one time.

In the beginning, their presence is not been felt, or maybe it feels like a vague itch. However, after about 8 or 9 days, the itch becomes a pain. It is a sharp pain that only lasts for about 10 to 15 minutes, 3 to 4 times per day. This is very characteristic of botfly larvae; the pain is not constant. The larva grows by eating blood and cleverly produces antibiotics to prevent any infection of its food. But because the larva also needs to breathe, and the skin closes rapidly due to the antibiotics, the host feels the pain as the larva is biting through its skin, to make an opening to take breath.

It is very rare, but it can happen that the larvae end up in a human skin. If this would happen to you, you should know that the larvae do not carry any viral nor bacterial diseases that could do you harm. Neither can the larva crawl under your skin from one place to the other. However, there is a little complication to get it out of your skin. The larva has bristles at the end of its body that actively keep it in place as long as it is alive. In order to remove it, you have to kill the larva first. To kill it, you can use a drop

of at least 70% deet insect repellent on its head. Otherwise, you can cut off its oxygen supply by covering up its breathing hole with masking tape, vaseline or anything similar. It takes about 7 to 8 hours for the larva to suffocate and usually then the larva comes off with the tape. If not, squeeze it out, or just leave it there, as it is filled with antibiotics, so it will just disintegrate without causing an infection.

VAMPIRE BATS Danger: 1/Occurrence: 2

These flying mammals come out of their roosts at night to search for blood from mammals and birds. Make sure you always sleep under a well tucked under mosquito net, to avoid them using your blood. Vampire bats only eat blood and often feed on horses and cattle. Due to their very sharp teeth, the bite isn't painful, and the amount of blood taken is not enough to make a human being sick. However, the site could get infected and a small number of vampire bats carry rabies. If bitten, one should always get the anti-rabies shots to be on the safe side. Avoid this problem by always sleeping with your mosquito net down and well tucked under your mattress.

2. DISEASES

MALARIA Danger: 3/Occurrence: 1

It is very unlikely to get Malaria in Manu. Malaria is caused by a parasite, *Plasmodia*, that is transmitted from one human being to another by the *Anopheles*-mosquito. There is no occurrence of the *Plasmodia*-parasite in the Reserved Zone of the Manu Biosphere Reserve and therefore the chance of contracting malaria on a Pantiacolla tour is very small. The cases of Malaria in the Cultural Zone of Manu have all been traced back to the adjacent gold-miners zone of the Colorado River. There is the very small possibility that someone, who comes from the gold-mining zone, where he got infected with Malaria, then travels to Manu's Cultural Zone, and is bitten there by an uninfected *Anopheles*-mosquito. This *Anopheles*-mosquito, then gets infected with malaria and may bite you! This has happened only once in the last 25 years.

There are several different prophylaxis available these days, however, none of them are good for your health. Pantiacolla's guides report some people falling ill at the beginning of the trip, only because of the side-effects of the malaria medication. Therefore, it is important you choose the one that is least damaging to your health, or decide to not use it at all. For this decision, you also have to bear in mind that the gold-miners use no prophylaxis at all, so the *Plasmodia*-parasite has not built up any resistance to any existing medication. So, on the off-chance you will be the second tourist to be infected with malaria, it would not be difficult to cure you.

YELLOW FEVER Danger: 3/Occurrence: 1

Yellow fever has not occurred in Manu for the past 12 years, and since a couple of years the vaccination is no longer required for tourists traveling into Peru nor to the Cultural and Reserved Zones of Manu. Yellow fever is caused by a virus, which is transmitted by certain species of mosquito. As far as we know, yellow fever has not existed in Manu. Nevertheless, in the past the yellow fever vaccination was required to make sure no one would bring the disease into the area, as Manu still has peoples with little contact with the outside world. Today, only visitors of the Biological Station Cocha Cashu have the obligation to vaccinate themselves.

LEISHMANIASIS Danger: 3/Occurrence: 2

This is a nasty disease: Leishmaniasis causes deep, chronic skin ulcers. Infection is caused by a protozoa parasite and transmitted by a certain species of sand-fly, *Phlebotomus*. This disease does occur in Manu, and therefore it is imperative you keep your skin well covered with clothing, where possible, and with insect repellent on the rest of your skin. The *Phlebotomus* sand-fly is most active at dawn and dusk. Also be aware that the incubation period can be long (from months to up to a year).

DIARRHOEA Danger: 2/Occurrence: 2

Infections that result in diarrhoea are uncommon in the rainforest. However, you may get infected through your fellow-travellers. Since very few people live in Manu there are few sources of infection that result in diarrhoea. Water is abundant and mostly fast flowing, therefore, possible sources of infection are flushed away rapidly. If diarrhoea does occur on your trip into Manu, you most likely received it from one of the members of your group. They may have been infected elsewhere, where conditions were less hygienic. Therefore, it is important to always wash your hands well before eating and to not exchange plates, cups and cutlery without washing them first.

3. DANGERS

Real dangers are not abundant in the Manu rainforest, but they do exist:

FALLING TREES Danger: 3/Occurrence: 2

Trees and branches can easily fall. Be aware of the sound of snapping wood. Trees in the rainforest have very shallow roots, making them apt to fall over. Be alert when there is a strong wind or it is raining hard. On our trips, we stay overnight either in lodges or camping huts. The areas they are at are constantly checked by our guides for potentially dangerous trees.

LARGE CARNIVORES Danger: 3/Occurrence: 1

None of the big cats, caimans or giant otters specialize on humans for food. They could easily kill a person if they put their mind to it, but this is almost unheard of. It seems these big animals only attack humans if they have no other option, i.e. if they cannot run away because they are trapped or because you threaten their young. Moreover, one usually sees caimans and giant otters when they are in the lake or, as also for jaguars, lying on the beach, shore, or on a log. The chance of meeting them face to face on the same trail that you are at is less than 1%.

SNAKES Danger: 3/Occurrence: 2

Poisonous snakes can be a real danger in Manu. However, one does not see snakes very frequently. Usually, one encounters only one snake per 9-day trip and the guide, who goes first, is usually the only one who gets a good view before it disappears.

Just a small percentage of Manu's snakes have a lethal poison. The bush-master and the fer-de-lance are two of these. Both are terrestrial, nocturnal snakes that curl-up during the day in between the buttresses of big trees amongst dead leaves. In order to not be disturbed when asleep, they are well camouflaged with a light and dark brown

skin colour and light and dark stripes. Therefore, any snake that looks like dead leaves has to be considered a possible danger.

Another snake with a lethal poison, is the beautifully coloured coral snake. It has white, black, red, yellow and orange bands around its body. It is a terrestrial snake and even though it is poisonous, it is little feared by the Indians of Manu. The coral is a very timid snake and one really has to threaten it to death to make it bite.

The fourth snake with a lethal poison is the *'loro machako'*. This is a beautiful green tree snake that is feared by local people. Another snake, the emerald tree boa, that has no poison at all, has made use of the *loro machako's* bad reputation by becoming an exact copy of it. These two snakes are very hard to tell apart, even by the Indians of Manu. So do what they do, whatever green snake you encounter, assume that it can be the poisonous one!

Nobody has ever been bitten on one of our tours, however, the snakes are there and you have to know how to react in case of a bite. We carry no anti-venom as that has several disadvantages. To start with, the anti-venom is very snake specific, and it is not always easy to determine what species the snake was that bit. Then it has to be refrigerated at all times, which is impossible on our tours, and it is also possible for people to go into hyper-allergenic shock in response to the anti-venom. So there is a chance of someone dying because of the anti-venom instead of the snake poison! What we do instead, is immediately immobilize the victim and get her/him to a hospital before the venom starts to take effect. In the case of the most poisonous snake in Manu, the bush-master, this takes about 6 hours. Six hours is normally enough time to get you back to Cusco. There are communication radios in all our lodges and a helicopter or plane is dispatched as soon as possible from Cusco. The helicopter can land on any beach of Manu and the flight time is about 1 hour and 40 minutes one way. The plane can only land on the landings strip of Boca Manu and flies in about 50 minutes one way. Unfortunately, the helicopters and planes cannot take off nor land in Cusco at night.

III. RULES AND RECOMMENDATIONS

The following are rules and recommendations for people who join our group tours, made by Pantiacolla's field personnel. They are for your safety, to increase the chances of seeing animals and to foster good group dynamics.

- The guide is the leader of the group, both as far as the tourists are concerned and the rest of the Pantiacolla staff.
- Please try to be punctual at all times, to avoid long waiting times for others.
- Tourists are asked to express wishes, complaints or any type of worry, immediately to the guide. The guide will attend to the issue straight away.
- Because of climatic, road, river or any other circumstances, changes in the program may be necessary. The guide will explain the circumstances immediately and propose alternatives.
- During the hikes in nature, the tourists should walk behind the guide to maximise the number of sightings.
- During the hikes, tourists should follow the instructions of the guides, such as "stop", "hurry" and "silence" among others, in case of encounters with animals.

- Tourists and guide should speak in a low voice and only about necessary issues, to increase the probability of seeing animals.
- Every night after dinner, the guide and tourists together will review flora and fauna seen during that day with the help of the available guidebooks.
- Every night the guide will explain next day's activities. During every meal the guide will repeat the explanation of the activities until the next meal.
- When a tourist wishes to hike on her/his own, she/he has to understand that Pantiacolla cannot be held responsible for anything happening to the tourist during that time. The tourist is advised to always walk with a flashlight and a compass, and also advise the guide which trail she/he will follow and for how long.
- As a consensus of opinion of all Pantiacolla staff, it is agreed that they should not accept more than one alcoholic drink per stop while on duty.
- The tourists are asked to be careful with the Pantiacolla equipment and other belongings and report any material fault to the guide immediately.

Some rules to protect the environment:

- 'Take nothing but pictures, leave nothing but footprints!' However, when at the hide of the macaw lick, you are not allowed to use a flashlight when taking pictures, since this may scare the birds away.
- Don't throw anything away, not even vegetable- or fruit-waste. It's true that these decay rapidly in the jungle, but it's not nice for the people of the next group if they see banana-skins everywhere.
- Both for your safety and the longevity of our belongings, it is not permitted to smoke inside the rooms or communal areas of our lodges.
- You can smoke outside in areas where you will not hinder others, but please don't throw your cigarette ends in the forest! These actually take a long time to decay and are toxic.
- Use as little soap or shampoo as possible, as it will end up in the forest floor and eventually in the rivers.

And one more thing....

• Our groups consist of different nationalities, but sometimes one nationality outnumbers the others. If your nationality is in the majority, please try to be polite and don't speak your own language all the time. The most common language, which everybody understands, is English.

IV.CONTACT FOR PEOPLE AT HOME

If something happens back home, you can always be reached through our Cusco office. The office is in daily contact with your group. Give your family our telephone/Whatsapp number (+ 51 989 713 713) or our e-mail address: pantiacollamanu@gmail.com, and we can pass the message on to you.