Volunteer Manual

Esperanza Verde

March 2016

Contents

3.1 Introduction

First of all, welcome to Esperanza Verde! Thanks a lot for volunteering. Without volunteers Esperanza Verde can't exist, so don't underestimate the value of the work you do. We hope you will enjoy your time here. Also, when the work is hard, don´t forget to look around sometimes and enjoy the beautiful jungle, the animals, and the company of the fellow volunteers.

In this manual you will find the most important information that you need to know for your stay here, please make sure you read it carefully. Some background information about the animals, the family, and the area is also included. It´s possible that there is some information missing as well as a lack of information about the individual animals or how to treat these because this will change over time. If you have any questions or you are uncertain about something, please ask Douwe or Olivia.

3.2 General information

2.1 Background Douwe and Olivia

Douwe and Olivia were born and grew up in the Netherlands. They both studied wildlife management, where they met. In 1998 they graduated as animal engineers, specialized in wildlife. After doing different kinds of short term jobs they travelled in 2001 to Ecuador, where they ended up working in amaZOOnico, an animal rescue centre in Ecuador. Initially starting as volunteers they worked their way up and joined the management team. During their stay at amaZOOnico their first child, Kayla was born in 2004. After almost 9 years they decided to leave amaZOOnico in 2009 and find a place to start their own project. They first travelled to Peru, then Suriname and then worked at Merazonia, in Ecuador, for half a year. This is a animal rescue centre where Douwe and Olivia helped organize the centre to prepare for receiving animals. Marlon was born here in 2009.

With their experience and knowledge Douwe and Olivia decided that it was now time to realize their dream: building their own rescue centre. From a friend and now official veterinarian of Esperanza Verde, Dylan Lobaton, they heard that there was a lot of illegal trade in the Ucayali area, and there was no rescue centre there yet. So the family travelled from Ecuador to Pucallpa in February 2010. After some time they found the right area and could buy a piece of land named Selva Dormida (sleeping jungle), at that time officially 58 ha. On this land they would construct the rescue centre as part of a conservation project, including as well reforestation among others. In May 2010 Douwe moved there, and started building the volunteer house, while Olivia, Kayla and Marlon stayed in Pucallpa, visiting sometimes on the weekends and school holidays. In September Olivia and the children moved in to Esperanza Verde, and so their life in the Peruvian jungle began. The first volunteers arrived in October. The family and volunteers shared the volunteer house till March 2015, when the house for the family was ready.
Esperanza Verde now owns an area of 180 ha (March 2016).

1.1 Esperanza Verde

Esperanza Verde is partly named after a squirrel monkey from amaZOOnico, Esperanza (Spanish for hope). Being taken away from her mother at a very young age, she did not have a high chance of survival. She made it and during her time at amaZOOnico she gave birth to two young. For Douwe and Olivia this was one of the first baby monkeys they successfully raised. Esperanza died a year after Olivia and Douwe left Ecuador. To complete the second meaning they added Verde (Spanish for green), since the aim of the project is to give hope not only for animals but also for the protection of the forest. Esperanza Verde´s primary goals are to conserve the rainforest and its wildlife.

From off 2010 Douwe got additional help from Machico with all construction work. He was born in the jungle and has been living for years in Bello Horizonte. He has a wife and 1 daughter and 4 sons. He used to work for the timber industry and a hunter. He has a huge knowlegde of trees, plants and forest in general. He will always find his way in the jungle. In 2011 Elena, the cook, joined Esperanza Verde. She has been living for years in Bello Horizonte, has a husband and 3 sons. As the amount of animals was growing, the workload

got bigger, and more work was needed in constructions (e.g. enclosures), taking care of the plantations (bananas and papayas) and general maintenance. In 2014 Esperanza Verde Geiler came to work here. Geiler has a wife, a son and a daughter and has been living in Bello Horizonte since 2013. Apart from this often an extra help is hired, always from the local village helping out at constructions or plantation work.

During its first years Esperanza Verde was not officially a rescue centre, but soon the first animals were received from the villagers, who would normally keep them as pets. The very first animal was a brown capuchin monkey, Mica. She was still a baby when she came here but got released and now lives freely around the rescue centre. Towards the beginning of the project, seedlings of rare or locally extinct wood (e.g. Mahogany and Cedar) and fruits trees were also planted. At this moment in time (2016), about 3000 seedlings have been planted in the jungle area owned by Esperanza Verde.
After the first project, the volunteer house, more and more has been built, like the kitchen, the bodega, and of course several enclosures. The aviary was the first big enclosure built with metal tubes (instead of wooden posts) and concrete with the hope of rescuing birds for many years to come.
The advancement of many projects is influenced by the climate. For instance there is no sand available during the rainy season, areas get flooded and the path to Esperanza Verde can become inaccessible.

After a lot of organization, Esperanza Verde became an official rescue centre in 2014. Since then a lot more animals have arrived, which were confiscated by the government. Esperanza Verde is now growing into a bigger and more professional rescue centre!

2.3 The area and the people

Esperanza Verde is located near the village of Bello Horizonte, consisting of approximately 300 families. Bello Horizonte is located in the district of Curimaná, province Padre Abad, department Ucayali. The big river, named Aguaytía joins smaller rivers and streams into the Ucayali river downstream.

Most of the people in this area are quite poor, living off agriculture. Often parts of the forest get burned down to create farmland. Besides agriculture, people work in the timber (wood) industry, sell wildlife (generally for meat), or farm Coca. As the land in the rainforest is much cheaper than in the mountains, many farmers moved from the mountains to the forest, which caused an increase in the population in the region as well as a rise in the land prices. Most people speak Spanish; there are local dialects as well.
In Ucayali the Shipibo´s is the largest group of indigenous people.

In the beginning not many people understood why a ‘gringo’ family would go live in the jungle and work hard and spend money for saving animals and forest. Many people here are used to eat wildlife, or take them in as pets (often after having eaten the mother).
Douwe and Olivia always talked (and still do) a lot with the villagers, explaining what they are doing here and why. There will always be persons who do not understand, but in general the local people see Esperanza Verde in a positive way. As the children are going to the local school, they have a positive influence on the other children. They have been growing up with animals and can explain a lot about them and about what we do here. Kayla could rescue several birds which were taken out of their nests by children, often shot down with a catapult.

Marlon already saved some lizards and spiders from being poked to death. Most children here don't know the basics about animals, e.g. that they have feelings. Now often children turn to Kayla when they find an animal in trouble.
Esperanza Verde invites local schools to visit. The children from the school in Bello Horizonte came over and Douwe or Olivia gave them a tour at the centre, explaining a lot about the animals and the forest.
More people come to Douwe or Olivia now with their 'pet' animal and hand them over voluntarily. It seems even that less wildlife has been taken as a pet in the village. It still happens, and often, Douwe and Olivia can convince the owner to hand the animal over in their care.
But also a lot of influence is given on forest protection, mainly by talking and explaining and showing what we are doing, e.g. reforestation, garbage separation-recycling, not using chemicals for the plantations etc.
The local staff also helps in the positive influence on the attitude of the villagers towards Esperanza Verde. During the time they have been here, they have seen the positive results of the hard work here. They see a lot of volunteers working hard to raise and take care of the animals, as well as taking care of the forest.
If there are problems or necessities in the village Douwe and Olivia often offer help, financially or with material.

2.4 Wildlife around Esperanza Verde

If all wildlife species living around here were to be mentioned, the manual would be very long, since the diversity of wildlife is huge here. Peru is known for its large area of forest. After Brazil and Republic of Congo it has the biggest area of tropical rainforest in the world. The rainforest in Peru is one of the richest in the world for its diversity of flora and fauna and for its natural resources like timber, oil and mineral resources.

The following species are mentioned to give an impression of the animals living here in the forest, but is by far not complete.
There are different types of monkeys like tamarins, brown capuchins, squirrel monkeys, saki monkeys, night monkeys, other mammals like, kinkajous, tapirs, deer, armadillos, ant eaters, peccaries, various types of opossums, tayras, acouchies, pacas, agoutis, otters, squirrels, capybaras, giant anteaters, giant armadillos, ocelots, jaguarondis and even the endangered jaguar lives in this area. The more endangered species, like tapir and jaguar are only found deeper in the forest. There are reptiles like tortoises, iguanas, lizards, turtles, snakes, caimans.
There are a lot of different bird species like parakeets, amazons, toucans, macaws, humming birds, king vulture and many more.
Then there are various kinds of amphibians, like frogs and toads, which you will hear at night, calling for a partner. And of course there are many different kinds of insects, including some beautiful butterflies. In appendix 9 you will find an overview of species seen or heard in this area, but even this is not complete.
If you are interested in more information about the species at Esperanza Verde, or the wildlife here you can ask Douwe and Olivia.

1.1 The need for a rescue centre and reforestation

Illegal harvest and trade of wild animals undermine natural resource management, threaten biodiversity, permit spread of infectious diseases and invasive species, and result in considerable animal suffering and mortality. Controlling illegal wildlife and deforestation are a big problem in the region Ucayali.

Species populations get smaller, because of hunting and deforestation, which results in less potential for future survival. Captured animals get killed for their meat or are sold as pets. Unfortunately illegal markets are still a big business, e.g. it is estimated that 80,000 to 90,000 wild parrots are sold illegally in the domestic market annually in Peru (data from 2010). If they are confiscated by the authorities, they need a place to recover and live, cared for by professionals. It is possible for some of these animals to be released, but this is a complex process, see the section about reintroducing animals in the wild (§2.7).

Another problem is the deforestation going on in Peru. On paper it may look like it is all done legally, but corruption and a lack of control means the flora and fauna are facing many human-related problems.

To mention some numbers:
Large areas of deforested and degraded land exist in the humid tropics. In the decade of the 1990s approximately 0.38% per year of the world's forests were converted to other land uses. Some land reverts to forest, but the net annual loss of forest approaches 0.22%. The annual rate is much higher in many developing countries, where some 200 million ha of forest are estimated to have been lost in the period 1980–1995. About 350 million ha of previous forest are unlikely to regenerate spontaneously, including 155 million ha in the Americas.

As there is still a lot of poverty in this area and not many ways to earn money for local people, forests get cut down for the wood, or burned to create agriculture areas. A few tree species have already become locally extinct. With continuing road and housing developments fragmenting the area has meant that some animal species have not got enough space for living any more.

Douwe and Olivia bought this land because it has still had sufficient habitat left for creating a natural living space for animals which stay permanently under the centres care, as well as for releasing some animals. The area is suitable for reforestation projects and there is still a lot of flora and fauna to protect. Another reason why this land was chosen is the availability of water resources, which is a basic requirement for the rescue centre (think of water for cleaning cages and material, but as well water for the people looking after them).

Esperanza Verde has as main goals to conserve the tropical rainforest and its wildlife while enhancing the general human living conditions in the area.
Douwe and Olivia hope to reduce the deforestation and illegal trade by giving the local people an alternative way of income through providing jobs in construction or others. Through education, talking to locals, giving presentations at local schools and inviting people (e.g. children from the local schools and their parents) to the project Douwe and Olivia hope raise more awareness for the animals and protection of the forest.

1.2 Where do the animals come from?

All animals in Esperanza Verde have a different story. Some animals are confiscated by the authorities, for instance from an illegal market or during transportation. Normally those animals arrive in bad conditions as they have been in very small cages with little to no water and food from the time they were captured.
Some animals also come from the village, Bello Horizonte, for example when neighbours see that they are in a bad condition or when they find injured or ill animals in the wild. Baby animals are also received. They require vital maternal care, usually missing the mother, which may have been killed for meat. Quite often it happens that people buy a baby animal as a pet but find out they can't take care for it. Either it becomes sick because it does not receive adequate care or when it gets older, bigger and wilder, it becomes uncontrollable.

Esperanza Verde never pays money for an animal. Even though some animals are in bad conditions or cheap, it is a principal to not buy them because you will stimulate the market and the illegal traders will ask for more animals from the poachers. Even if you mean well to safe this animal by buying it, you stimulate the market and therefore cause more animals to be captured and most likely getting killed. For the pet industry many mother-animals are killed to be able to capture the young. The young is then sold and often does not make it through the first weeks of life in captivity.
If there is knowledge of a local having a wild animal as a pet, Douwe and Olivia try talking to them to convince them they are better off, as well as the animal, if they hand it over to Esperanza Verde.

1.3 Reintroducing animals in the wild

You may think that reintroducing animals in the wild is easy, you open a cage and the animal is free. But it is not that easy. There are many things to think about when you release an animal. Most off the animals that are taken in at the centre will never be able to be released.

Things to take in consideration when you release an animal are:

- The influence of the released animal(s) on the already existing wild populations. Some species defend their territory, so if you introduce new animals of the same species in their territory, it can give the wild population as well as the released animal a lot of stress, and in the worst case they will try and kill each other. The wild population and the released animal(s) need to share the food that is available, which can result in less food for the wild population. If the released animal(s) has/have any diseases or parasites it can be transferred to the wild population. There is also the possibility that the released species transfer their inadequate behaviour to wild populations.
- Dangers for the released animal, like humans. There are species here, for instance the tapir, which are not released because it would get killed by humans for their meat.
- The amount of habitat and food resources available for the released animal.
- The ability for the animal to survive in the wild. Often animals lose their natural behaviour because of human influence. If an animal has had too much contact with humans or lives in a too small cage it will lose some of its natural behaviour. If animals grow up in captivity they do not learn the skills to survive in the wild, for instance hunting or foraging for food, or knowledge about predators. It is also possible that an animal is injured in a way that it will not be able to survive in the

wild, for instance birds which have broken wings and will never be able to fly. Also if animals have been in contact a lot with humans they will be less scared of them in the wild. This makes it easy for poachers to catch them.

- The effect on the local population of people. Released animals should not have a negative influence on the local communities, for instance by eating their fruits, chickens or even by scaring people. People will turn negative on the project and will most likely kill these animals.

If all the points above have been carefully considered, then Esperanza Verde will offer them a chance to be released and survive in the wild. However, the reality is that most animals will stay in safe enclosures or in semi captivity at Esperanza Verde.

1.4 Where does the money come from and where does it go?

Providing care and food for all the animals, building adequate enclosures and safe surroundings, sum up the main costs for the rescue centre. Running a rescue centre like this, is only possible when volunteers are able to pay for their own food and accommodation, and because there are people and organisations donating money. There is no financial support from the government.

The money volunteers pay goes mainly to the food items for breakfast, lunch and dinner and cleaning material. But also it covers long lasting products like mattresses, beds, sheets, new pots, pans and cutlery. The salary of the cook, Elena is also paid by the volunteer's contribution. If there is money left from the volunteers, this will help to finance the general costs of the centre. On average 5 soles a day is left for the project from each volunteer (from the 30 soles you pay for each day). Of course this changes. If there are less volunteers, there will be less money left.

Many projects were and are financed by donations from private persons, either by donating directly or through the Swiss association, German association or Dutch foundation.
These are run mainly by old-volunteers, who work hard in finding financing for the general costs or special projects (e.g. enclosures, volunteer house). As well they promote the project for volunteering, and set up a network of people who help Esperanza Verde professionally (e.g. veterinarians, specialist in wildlife etc.). Money that is donated to the different associations always goes to Esperanza Verde directly, either for a special project, or it helps financing the general costs, e.g. food and care-taking of the animals, reforestation etc.
To give some examples of financed projects:
Aviary: financed by the Dutch foundation 'Esperanza Verde' (donations collected from private persons).
Reptile enclosure: financed by the German foundation for Reptiles 'DGHT: Deutsche Gesellschaft für Herpetologie und Terrarienkunde'.
Clinic: financed by the Swiss animal protection foundation 'Susy Utzinger Stiftung', with special thanks to the efforts of the people of the Swiss association.
Sapa-cage: financed by the collected donations of the German association.

If you want to help Esperanza Verde in more ways than volunteering, please tell your family and friends about the project, and ask them to make a donation, every little bit will help.
You can also join as a member of the German (www.esperanzaverdeperu.de) or Swiss association (www.esperanzaverde.ch).

3.3 Living and working at Esperanza Verde

3.1 Working activities at Esperanza Verde

Working at Esperanza Verde includes many different tasks. There is feeding the animals, preparing food, cleaning cages, doing construction work (for instance building new cages), planting new trees, raking paths, preparing meals, cleaning the house/ kitchen etc. You can always mention your preference as some people love to do the feeding, while others prefer the construction work. In the kitchen there is a work schedule which says what jobs need to be done and who is responsible. Although every working day will be different, this is what a working day could look like:

6.30-7.30 am: Waking up and having breakfast.

7.30-10 am: First feeding round. This includes: preparing food for the animals, feeding the animals, and cleaning the cages. There are different feeding tours (a certain feeding route) which involve different animals. After going on a tour with an experienced volunteer you can begin to do one by yourself.

10-12 am: Carrying out different tasks. For instance construction work, raking paths, cleaning jobs (e.g. kitchen, volunteer house, bodega, bathrooms), helping the local cook Elena, catching grasshoppers, giving special care to the animals who need it (like feeding baby animals), making enrichment tools for the cages, building up cages, assisting in medical care etc. There is always a lot of work that can be done. See also appendix 1 ´Esperanza Verde´s inspiration for jobs guide.´

12-13.00 pm: Lunch break.

13.00-14.00 pm: Doing different tasks. This could be the same as you were doing before lunch or it could be a new task entirely.

14.00-16.00 pm: Second feeding round. You will do the same tour as you did during the morning. Some tours are slightly different from the first feeding round in the morning.

In between 16.00 pm and 17:00 (when all animals are fed and taken care for): Your work will be finished and you can have a well-deserved shower or go to the waterfall! If you need to make dinner, try to get it finished between 6 and 7 P.M. (so start at 17:00 with big groups) as most of the volunteers will be hungry by then.

Sometimes it is necessary to work after 17.00 pm as well, doing some small tasks. This is the case with animals that need special care (for instance giving milk, hot water bottles or medicine). Sometimes we need to adjust our schedule to the needs of an animal. Working at a rescue centre in the jungle comes with these tasks, please respect those flexible working hours.

Sometimes you are not responsible for feeding animals on a working day, in which case you will do other tasks the whole day, mostly the ones that take a longer time such as construction, planting trees, going to the banana plantations, etc. If you are more interested in this work, mention this to the management, and they will try to arrange it in the schedule (only of course when the animals have enough people to look after them).

On the weekends there is no construction work, but there will be feeding rounds and smaller tasks like raking paths, cleaning the house, the kitchen, and the bodega.

3.4 Esperanza Verde´s view on how to handle the animals at the centre

In Esperanza Verde different volunteers do the work every day. Every volunteer has his/her own ideas of how to best handle the animals. Some believe that we should strive for as much happiness in each animal at any given time; others believe that we should try to give the animals a life as close as to what it would be like in the wild, while others believe differently as well.
When each volunteer acts according to their own beliefs it can cause some confusion for the animals of the centre.

The rescue centre aims to release as many animals into the forest as possible and to give those that can't be released a good life in semi-captivity or in an enclosure. The ones who won't be able to survive on their own in the wild, and are not dangerous to us (e.g. agression), we release into the direct surroundings of the centre where we can keep an eye on them and give them special care (e.g. milk in case of young animals). If they are unable to survive in the wild or live in semi-captivity and/or if they would be dangerous for us, they will live in one of the different enclosures.

To achieve part of this goal Esperanza Verde a hands off policy (especially for the animals living in semi-captivity).
It is very important that we all do not touch the animals when there is no need for it. Wanting to have contact with the animals is a normal feeling that everybody has (even the people running the centre).
Giving the animals confusion signals (e.g. one is touching, the other is not, or is and then pushing it away again), can make them unpredictable and dangerous for us, especially when they are still growing and developing their canines.
Many animals here are group animals, and have a social hierarchy. When they start seeing us, humans, as part of their group, they will try to dominate us or try forcing us in a certain position. Especially this can then happen with new volunteers arriving.
Some animals seem so tame (e.g. Willow, male woolly monkey) and you might think he is a lost cause anyway and will never change his behaviour. But he can with your help!
Douwe and Olivia have seen these kind of animals often enough during their years of working with them, and have experienced that, when we all put our head and efforts together, also these animals will have a chance to live freely outside (not in an enclosure because they become too dangerous) for the rest of their lives. You can make a big difference in their future in helping us with this!

Most animals will receive a name upon arrival, or sometimes they come with one. This makes it easier to talk about them and of course makes it more personal. After a short time already you will notice you start to see all different animals as individuals. Also for young animals still receiving milk and in need of special care it helps to get them closer to receive milk or treatment (as many learn to know their name quickly). Of course it makes it a bit harder to avoid contact, as the urge is often to use these names when you see the animal, also when it is not necessary anymore (when the animals is already grown). We ask you however to avoid calling out their names (exceptions are the baby-animals in intensive care or special situations

like medical treatment). They will see this as a form of you trying to contact them, which still would make them believe you are part of the group. The best way is to ignore them, which sometimes means you have to almost walk over them to let them know that you are not part of their group, and they should move away. It is not always that easy as many never had experience with these kind of animals. Please ask Douwe or Olivia for help or advice, as this is one of the most important things to handle well in the centre.

There are 3 reasons to minimize the contact between people and animals (especially the ones living freely at the centre, mainly monkeys):

1. There may still be a chance for a complete release into the forest. The more contact an animal has with humans, the smaller this chance will become.

2. Animals that live freely around the centre: They can become dangerous to us when they grow older, partly because of their canine teeth development. As most of them are social animals they might want to try and dominate us if they see us as part of their group. They then might jump as at will, pull our hair, try to bite when we don't do what they want etc. If we do something wrong to one, others might come and help and then we have more than one to deal with. We can avoid this behaviour when we don't stimulate them by unnecessary contact with us, especially when they are still young. The more we teach them to keep a distance between humans and themselves, the more likely these animals (mostly monkeys) will be able to live for the rest of their lives freely at the centre. The only other option would be to enclose them as reintroduction into the wild would be impossible. Therefore we will raise baby animals at first according to the way they are raised in the wild, having a lot of close contact with the mother (in this a surrogate mother-volunteer). In the wild there is a time when the young will get more independent, and as well here we will then start the process of 'detaching' the animal from the surrogate mother, by leaving it more on its own, or with the other animals living already freely in the centre. The sooner it is possible the better for everyone involved.

3. For their own health. A healthy monkey (but also some other mammals and some birds) stay up in the trees where it is safe from predators like jaguars and ocelots. If humans have too much contact with these animals (especially the monkeys), the human behaviour will be copied and these animals will live on the ground like humans. Also, there they will find insects (in case of insect eaters like tamarins, squirrel monkeys, capuchin monkeys, and woolly monkeys) that are eating from animal faeces and spreading deadly parasites. A healthy animal roams around in the tree looking for food, an activity that provides much needed exercise. For the monkeys living in the centre this aspect is really important, as their roaming area is not so big as their wild conspecifics. Because of this the parasite pressure is higher in the centre, and thus fore, it is more likely for them to get problems, when they roam for insects on the floor instead of being in the trees.

When feeding animals outside individually it is important not to give the food directly to the animals (except for milk) as we then teach them to beg for food. Make sure there are no other animals around that shouldn't get that food, and put the food in front of the animal.

Even if it is your last day and you want to say goodbye to a particular animal, or if it is an animal that you know will never be released, you must not touch it. It will confuse the animal

and other animals watching will try and seek more contact afterwards. If you have difficulties acting according to this policy, then keep the future of the animal in mind. Your behaviour can make a difference for the animals, so please give the animals the best life they can have and act according to the hands off policy.

If you have any doubts or questions ask the managers.

Exceptions
There are exceptions to this rule, mostly young animals or sick and/or injured animals, which need special care or need social contact. This will then be explained by the managers, and you can always ask them for more information.
Some of the animals that will live in enclosure for the rest of their life are allowed to be touched (e.g Rabito, Rincay, the birds in the aviary, Quintisha (never go into her cage though, only from off the frontcage!). Always think about the safety of yourself and the animals first. If you have any doubts, ask one of the managers of the centre before making any contact with the particular animal.

3.5 Important things to know about feeding the animals

When you learn the feeding tours, most of this information will be told to you, but it is still useful to read through it carefully, since it is very important that the feeding and animal care is done in the right way. Always check the white-boards in the bodega and the feeding-schedules for any changes. In appendix 2 you there is a map of all the enclosures and buildings at Esperanza Verde.

Don't use insect repellent when you are feeding or handling animals. It is very toxic and can kill them (especially in case of very young animals). Some animals might lick you (like Rincay, the tapir or Rabito, the deer) or it can get into their food while preparing.

While preparing food for the animals try to give different fruits and vegetables (there are lists in bodega where you can find which animal eats what). In appendix 3 you can read the bodega protocol.
So we don't waste anything, always use first the fruits and vegetables that are going bad quickly, nearly rotten or that are partly rotten already. If you are unsure about giving it to the animals, smell it first. If it is only bruised you can still feed it to the animals. When it smells fermented through it away. Rotten parts can be cut away to use the rest.
When you cut fruits think about the beak- or hand- or feet- size of the animal. But also think of social behavior, and groupsize. Smaller pieces of a fruit not given in huge amounts, so more animals can enjoy the same fruit, and also so they can take it in their beak or hands and fly or jump away with it. A big piece will be more likely to be dropped.
Smaller animals in general get smaller pieces. There are some exceptions, for instance Rincay, the tapir. In nature he normally eats mainly leaves, and very ripe fruit. We cut his food in small pieces to make it easier to swallow, as otherwise he might suffocate from a big piece.
Try to use different species of bananas, when available. Mostly there are 2-3 different kinds available in the bodega with each a different taste. Always go through the bananas, taking the ripest out and use them first or store them for the next feeding. Always take rotten bananas from the banana-trunks to avoid attracting stinging insects.

When giving the food and cleaning the cages: always be sure that the doors are properly closed and locked (with the clip and wire in some cases). If we forget to do this some monkeys living outside can open the cages and let animals escape. Take your time when feeding. Observing the animals makes it more enjoyable for you and it is important to see if something is wrong. Ask yourself questions like does the animal look healthy, is there weird behaviour, does it eat normally, etc. If you see anything out of the ordinary (like an injured animal, or strange behaviour) tell Douwe or Olivia as soon as possible. Don't wait till animal five (in the evening) to mention it. Often these animals start showing signs for us to notice, when it has been going on already some time. The sooner we know the better the chance of helping the animal.

If anything goes wrong, get Douwe or Olivia immediately. Errors happen, most important is to act quickly and try and correct it. For example, if Rincay escapes stay with him, shout out for help so someone can get Douwe and Olivia. Try and stay with the animal, calmly (not pushing it or making it run), till help arrives.

If you have been in a parrot-species cage you can´t go in a parrot cage of a different tour. The feeding tours are organised in such a way to minimize the risk of disease spreading between the parrots of different tours (in case of a disease breaking out in one of the cages). If work needs to be carried out in a cage you are not allowed to go in to, please get another volunteer to do it for you.

Observing the animals eating is very important on any feeding tour as it gives us time to observe how they act. Animals that don't eat or are acting out of character can be ill or hurt and may need our help. Always go to Douwe and Olivia if you have any doubts or questions concerning the animals. Better be safe than sorry.

3.6 Yara

Yara, the dog of Esperanza Verde, was once a street dog in Pucallpa. Douwe and Olivia took her with them, and so Yara became a jungle dog. You can pet her as much as you want, and she loves to go on a walk. Every week one volunteer will be responsible for her, the instructions are written down on the paper in the kitchen. Yara may start barking, sometimes also during the night. She is a good watch dog, and this is also her job. She should warn us for any strangers arriving or passing by. She can also bark because of some animals making noises in the night.
It could be that farmers pass by, since they need to cross this land to get to their plantations. She never barks for no reason, but she does go on for a long time, unless she is calmed down. She is a good and important watch dog. The more consequent you go to her when she is barking to see what is going on and assure her the more likely she will learn not to go on barking longer than necessary.
One of the volunteers is responsible for her during the week. This involves feeding (after dinner), changing the t-shirt in her sleeping-box (once a week), and give her some extra attention (take her on a walk, check when she is barking etc.). Yara can almost eat anything, she is allowed to eat chickenbones, fishbones (she handles them well and loves them), left-over from dinner (except for raw onion or raw vegetables like salad). There is a special care-sheet with information about how to care for Yara, see appendix 4.

3.7 Facilities

In general

If anything breaks, or you find it broken (e.g. brooms or rakes etc.), or missing (brushes, buckets, etc.) let Olivia or Douwe know. If you can fix it even better. New sticks for brooms we can ask Machico to get. Tools you can ask Douwe.
Never leave anything outside unattended (hammers, nails, other tools), as the monkeys (especially Mica, the capuchin) might just take it and throw it in the bushes or something. After use return tools to Douwe or bring them back where they are stored.

Electricity

Thanks to some solar panels there is light in the kitchen and in the living room in the house. It works on a small battery so always make sure you turn of the lights when not needed. In the bedrooms there are candles. Make sure your candle is out when you leave your room, or before falling asleep.
In the volunteer house there is possibility to charge electronic equipment, between 9 am and 4 pm, but not when it is cloudy or raining. Also here electricity is sparse, so please don't leave you device in while already charged, it will still drain the battery. Don't charge more devices than plugins available (the machine will get overloaded break). If there is a problem ask Douwe.

Water

There is filtered drinking water in the house and the kitchen available, recognisable by the red and blue handle. There is a shower with cold water, please clean the floor after use (e.g. take hairs from the drainage). If you use the toilet, make sure to throw the paper in the bin.
Water comes from a well in the forest collected from rainwater slowly filtered through the forest floor. It is collected together in several tanks, which provide water to the volunteer house, volunteer kitchen, bodega and all cages. In dry season the well can become fairly dry, so please safe water as much as you can. If somewhere no water is coming out of a tap or is leaking, make sure you leave the tap closed and warn Douwe, so he can have a look what the problem is. Sometimes we use more than the tanks can get filled up during the night, sometimes a hosepipe sprung, or there is another leak, or an animal opened a tap.
If there is a water problem on the way, start filling up the jars, or a bucket with drinking-water. For showering we can go to the waterfall, and if necessary do laundry at the stream in front of the house.

Cleaning

The showers and the toilets get cleaned every second or third day by a volunteer, who is appointed for this on the weekly schedule (see appendix 5). Living with many people sharing a toilet, takes a strain on hygiene, and when one person gets sick, it often spreads rapidly. To avoid this, when you have any bowel problems, clean the toilet after use and always wash hands well with soap.
The cleaning of the house, the kitchen and the bodega are on the weekend, the volunteers responsible for these jobs are also written on the weekly schedule (see appendix 3, 6, and 7).
As cleanliness differs from person to person, there are some guidelines written down. But of course feel free to clean more than is written down. The cleaner the better, so cockroaches and ants don't feel that welcome, and disease can't spread easily.
As you are living with several people in the same house and kitchen, please clean after yourself. Don't leave used cups, plates etc. Clean the counter, sink after use.
When the dish rack is filled up, please empty it before putting wet dishes in there.

The hanging dish rack is not for dripping dishes, it is storage of the plates and cups when dry enough.

Clothes

If you want to wash your clothes you can use the concrete sink, specially made for washing, in the bathroom. There is washing powder (detergent) and a brush available. This is the local and best way to get your clothes clean: first rinse them with water and a brush, then let them soak for about half an hour in water with detergent (mix this first in the water before putting the clothes in otherwise you get stains in the clothes) in one of the plastic buckets. After being soaked, put the plug in the washing basin, put your clothes with the detergent in there and wash them well with a brush. Drain the water and rinse the clothes with clean water. Never let clothes stand in water with detergent overnight, they will stink the next day and you might have to wash them twice to get the smell out.

Please hang your clothes always outside to drip. Make sure you take them in for the night or when it rains. If you need place, hang the clothes that already are outside, but are dripped out, inside. If you have to hang your wet clothes upstairs, ensure that you put a bucket underneath, because water will seep through the floor and rooms (and mattresses) downstairs will get wet. Because of the high level of humidity here, it normally takes around 4 days to get your clothes dry in rain season. Make sure you wash it before running out of clean clothes. Because of the humidity your clothes will always have a typical jungle smell, you will get used to.

As we won't have enough spare sheets to be able to change sheets at any time, please wash them on a sunny day, they will be dry in the evening for use again.

Old Clothes and boots

In the attic of the volunteer house you can find old clothes (t-shirts, pants) left behind by former volunteers. You can use them freely. Also here you can find rubber boots of various sizes available for your use, as well as some sandals or crocs.

You are not allowed to walk in with boots or other shoes from outside inside the house, the kitchen or the office. This is to avoid bringing dirt and parasites inside. Generally we walk bare-footed in the house, but of course you can also use a pair of house-sandals or something. Just make sure you that you don't walk out with them. There are parasites that exists in the earth that can enter your feet and cause problems in your intestines (not deadly! but still annoying). For this reason we advise you not to walk bare-footed outside.

Garbage

In the kitchen (under the sink) and the house (under the stairs) there are garbage bins (big containers) for general garbage (everything except for batteries, hard plastic (e.g. bottles), glass and tins.

In the kitchen you can put the compost in the compost buckets. Under the stairs in the kitchen there are bags, one for glass, one for metal and one for plastic bottles and other hard plastic. Metal and plastic bottles (incl. other hard plastic materials) are collected and taken to a woman in Curimana for recycling. Glass is collected and once in a while will be buried under a concrete floor of a construction at Esperanza Verde.

Other garbage all goes in the garbage bin under the sink in the kitchen or in the bin in the volunteer house.

Please take your empty batteries home with you. There is no recycling in Peru for these.

The general garbage is burnt once-twice weekly in the special garbage-burning oven, by the volunteer assigned to this task. The bins to take are the following: bin in kitchen, bin in volunteer house, and garbage in office/clinic, bags from the toilet bins (kitchen and volunteer

house). New bags for the toilet bins you can find generally hanging on the wall at the kitchen-living room.

3.8 Food

The weekly big shopping gets usually done on Mondays, which mostly will need to last until the next week. Some smaller shopping can be done at the end of the week in Bello Horizonte (where only some vegetables will be available), or when a volunteer goes to Curimana he or she can some extra stuff back from Curimana, This means the kitchen has a big variety in the beginning of the week in comparison to the end of the week. So if you use a lot of everything in the first days after shopping it means less variation in food for the rest of the week.

Some items, like lettuce, broccoli, paprika, peas, spinach will need to be used in the first days, as they go bad quickly, so please add them to your recipe. There is not always that much variation available (in Curimana), so it would be a pity to have to throw these items away by the end of the week because they were not used.
Easiest is to go to the kitchen before dinner, see what items need to be used and then figure out the menu. This way everything gets used at the right time and we don't waste anything.

There have been many creative and great dishes prepared at Esperanza Verde. Some are written down in the volunteer-menu notebook, in the kitchen.
You can also add items from the bodega (of course leaving enough for the animals for the week), e.g. manioc (yuca), green or ripe bananas, and papayas. Manioc is a great replacement for potatoes.

Everyone makes their own breakfast, and should clean everything he or she used. Please take care of this, as it makes it hard for everybody to live in a dirty kitchen. Diseases in this climate can spread quickly when hygiene is low. Think of wiping the table, the sink and stove.

During the week days lunch is prepared by Elena, often a volunteer will help preparing, a good way to practice some Spanish. This person makes sure the kitchen is clean and dishes are taken out of the dish-dripping rack before 10am. After lunch Elena takes care of cleaning the pots and pans, sink and stove.
On the weekends the volunteers that are working make lunch. We normally eat lunch at 12 pm.

Always clean your own plate, cutlery and cup after lunch as well as after dinner.
For dinner there are one or two volunteers cooking, we normally eat between 6 and 7 pm. The two volunteers who make the dinner wash the pots and other things they used for preparing the meal, as well as the stove-oven, counter and the sink. Again this is very important for the general hygiene. Don't leave any leftovers in open containers, and make sure it is thrown away, if it is not used within 12 hours (food can go bad quickly in this climate). You can save food for the next morning, except for salad, or use left-over rice or pasta (plain without sauce) for the animals the next morning. Later than this it should go to the compost.

When you use the kitchen or living-room always clean up after yourself, leave the kitchen counter clean and don't leave any cups or plates.

3.9 Free days and things to do in the area

You have two free days each week, normally one during the week and one during the weekend, but it always depends on the amount of volunteers and work to be done. The schedule will be made on Thursday for the next week, so make sure you mention to the head-volunteer or Olivia if you have any preference for days off.

There are several things you can do during a free day, go to Curimana, go on a forest walk, go to the small waterfall ('el pongo'), or a day to the big waterfall ('Regalia') can be organised.

- **Curimana and internet:** If you want to use the internet you can go to Curimana. To get to the internet place in Curimana, walk up from the river and go to the right you will find the internet cafe after approximately 5 minutes on your right hand side (the name of the owner is Moreno and the computers are in the shop). If you walk straight on from Moreno´s place for two more minutes you will find the local market on your left hand side. There are two other internet cafes, one a bit further from Moreno also on the right hand, with a metal door. The last one is at the main square at the Mayors-office (el municipio). For 1 sol you can get there with a motor-taxi, or you can walk (following the main road out of town, towards Pucallpa, till the square). At the square you go to the right, and the internet-cafe is in the middle of that block on your right hand.
- **Restaurants**: There are many places where you can get lunch, in the local market or in one of the restaurants around. Items on the menu we advise you not to eat would be wildlife, so you don't stimulate the illegal market. By saying no to these items you are already helping to bring the market down. These are the main species that are sold for meat: venada=deer, majas=paka, saijno=peccary, sacha vaca=tapir, carachupe=armadillo, motelo=tortoise. Always ask if you are not sure what meat it is. The typical meat is beef (res or biftec), and pork (chancho).
- **Other things to do on a free day:** Reading, there are books available in different languages here. You can do your laundry, go for a walk in the forest (always tell people where you are going), take pictures, go to the pongo, the small waterfall, play card games, visit the village, Bello Horizonte, or make cookies or a cake (you will make the other volunteers very happy too).
- **Regalia (the big waterfall):** If you want to go to Regalia it can be organised with some days in advance. To go to the Regalia you need at least 7 people who are willing to go. You go by boat, 1 hour upstream, deeper into the jungle. From the river it is more or less a 25 minute walk (longer during dry season) to the waterfall. It is a beautiful place; the waterfall is about 20 meters wide and 4 meters high. In front of the waterfall you can swim. The cost for this trip is 25 soles per person, including a lunch (if there are less than 7 persons it will cost a bit more as the boat has a fixed price of 140 soles, lunch is 5 sol per person). The money goes to a local villager, who will bring you to the waterfall. As mostly all volunteers want to go everybody should help with the morning feeding (also the persons who have their day off, if necessary). Feeding should then start at 7 am, so that everyone can be at the port at 9 am to be picked up. You will be back around 2 or 3 pm to do the second feeding. The in between feedings or special cares will be done by the volunteers who are not going.
- **Forest walk:** The walk through the forest is with either Machico or Geiler. You will leave at 7:30 am and come back before lunch. You will go to a nice viewing point and if you are lucky you will see some wild animals, like snakes and birds. Machico or

Geiler can tell you different things about the forest, its trees and animals. Take a bottle of water with you, put on some repellent and don't forget your camera.

- **Night walk:** The night walk is in the evening, starts at 8 pm and ends around 10 pm and is guided by Douwe. If you are interested ask Douwe some days before, and remind him again in the afternoon on the day itself.

If you want to do any of these activities (regalia, forest walk or night walk), ask the other volunteers to see if there are more people interested. If so, ask Douwe or Olivia so it can be organized.

3.10 Most important rules for living-working at Esperanza Verde

Above you have read quite a lot of information to remember so here is a summary of the most important rules which we ask you to follow during your time at Esperanza Verde:

- Listen carefully to instructions.
- Be punctual.
- Don't wear any insect repellent when working with animals, or preparing the food; it is highly poisonous to them, especially baby animals.
- No animal plates or buckets in the kitchen.
- Do not throw cigarette butts outside, or around the campfire. They are poisonous to animals.
- Do not listen to music (earphones) while working and/or being with animals.
- Keep communal living areas clean and tidy.
- Always clean up after yourself in the kitchen and the house (the dirty cups, plates, ash tray, socks etc.).
- Whoever cooks dinner cleans up the pots, including oven, counter and sink.
- Always use the food that gets bad quickly first.
- No smoking in the kitchen, during lunch, or when people are eating. No smoking when the children are inside.
- Toilet paper goes in the bin, not in the toilet.
- No shoes in the house or kitchen or office.
- Boots are to be kept off the veranda at the entrance to the house.
- No drinking of alcohol during working hours.
- Bring empty beer-bottles back to the shop the next day.
- Do not do anything to put the welfare of any person or animal at risk.
- Do not do anything to damage the reputation of Esperanza Verde.

- Do not make any agreements or project decisions without consulting Douwe or Olivia.
- Always inform the managers where you are going, e.g. when you go on a forest walk or go to Curimana.
- Working hours vary and you are expected to be available as when necessary for the project.
- Do not buy items from local people on credit. Always pay upfront.
- Do not encourage the capture of animals or removal of any flora by others.
- Do not remove any flora and fauna unless directed to do so by the managers.
- Do not enter into any sexual relations with members of the local community.
- Have fun and enjoy your time at Esperanza Verde.

3.11 How to overcome ´jungle problems´

This chapter is not meant for scaring you as a new volunteer; it is just to make sure you will act in the right way if something bad happens or if you see a dangerous animal. The chances of getting a deadly animal bite are probably smaller than the chances of dying in the centre of Lima from a traffic incident. However the chances of seeing a poisonous animal are quite high. Below you will find a few described species and how to deal with the situation if you see one. Also read carefully through ´Rules to prevent ´jungle problems´.

3.12 Rules to prevent ´jungle problems´:

If you use any medicine, please tell Douwe or Olivia. Also if you feel ill of have any other health problems please inform Douwe and Olivia first. They have a lot of experience and probably know what will be the best thing to do. There are several ways to prevent severe illnesses or infections if you catch it in time. Many of them are known by Douwe and Olivia.

- You do not need to take any malaria pills during your stay here.
- Always look towards the path in front of you when you are walking (e.g. spotting snakes).
- Never touch branches before knowing what is on there (ants, spines etc).
- If you get bitten by an animal, try to see what it looks like. Warn Olivia or Douwe as soon as possible.
- If you are ill, always tell Olivia or Douwe and don't be embarrassed of anything (they have seen and heard a lot during their life in the jungle).
- If you have a flue don´t come close to animals, especially baby animals, it can even kill them.
- Shake your boots empty before putting them on, spiders or frogs can hide in them.
- Walk in boots in cages or if you go off the paths.
- Rake the paths if there are leaves on them; this is a perfect hiding spot for snakes, the cleaner the paths, the better we can spot them to avoid a bite.
- Never walk outside bare footed, as there are parasites which can enter your body through the skin.
- Always wash your hands before and after working with animals. There should be soap and nailbrushes at different sinks.
- Keep your nails short, to avoid having dirt stuck behind them. If your nails are dirty wash them with a brush.
- Keep cuts clean, and disinfect them with alcohol, usually available in the house or kitchen on top of the bar. After use, put them back. If the alcohol bottle is empty, take it to Olivia for refilling.

- Wash (with water) the vegetables and fruits before using them, also in the bodega.
- Never bring animal plates or buckets inside the kitchen.

3.13 Animals to watch out for

Bullet ants (*Paraponera clavata*, local name Izula)

The name of these ants comes from the pain you feel if you get bitten by one of them, it hurts like a bullet (if you know how that feels!), Well it hurts so badly it might make you cry, but don't worry it will pass with a painkiller and if possible putting the area where you have been bitten in very hot (as hot as possible) water. The bite area might still feel sensitive after 24 hours, but then it should pass. You can recognise them because they are quite big (3 cm) and black. Always be careful at the doors of cages and locks.

Fer-de-lance (***Bothrops atrox***, local name Jerdon)

This snake is known as one of the most dangerous one of Central and South America. The chance of seeing one is more likely in the rain season. You can recognise it by its brown colour, and diagonal stripes, the eyes are quite big. There is a photo on the wall at the bar in the volunteer house. The fer-de-lance has a length up to 2.2 meter, but generally they are smaller. It is a territorial animal and in general aggressive. The fer-de-lance normally eats small rodents and small mammals. It is a nocturnal animal, but you can also find it during daytime. Even though it has no better night vision than humans it can hunt perfectly well during the night. It has heat sensitive organs behind the nose, which give it kind of ´infrared vision´.

If you get bitten find Douwe and Olivia as soon as possible, or send someone to get them. You need to go to the hospital in Pucallpa to get treatment. They will do some tests to see if venom entered your body. It is also possible that the fer-de-lance has given you a dry bite so you don't need the anti-venom (as this is a venom as well). You have ± 12 hours to get the anti-venom, generally more than enough time to get help.

Coral snake (*micrurus sp,* local name Naca Naca)

The coral snake is easy to recognise by its red, yellow/white and black coloured banding. If the colour sequence includes yellow-black-yellow you are dealing with a real coral snake (as there are also many false coral snake species).
Some subspecies live in the water; their tail is flattened at the end, which makes it easier to swim. The coral snake´s diet consists of smaller snakes, lizards, frogs, nestling birds, rodents etc.
A bite can be deadly but coral snakes are not aggressive so the chance that you get bitten is very small. Because of this there are hardly any casualties, which is one of the reasons why there is no anti venom yet.
When bitten you need to go to the hospital in Pucallpa as soon as possible.

Tarantula (*Theraphosidae*)

Never kill them; they are harmless if left in peace. Tarantulas are usually active during the night, although you can also see them during daytime. In total there are around 900 different kinds of tarantulas, mostly living in (sub) tropical areas (tarantula´s also live in deserts, but there they dig holes in the ground to create a humid area). Tarantulas are solitary living animals, for mating a male makes a tapping, rumbling sound with his legs to get the attention of a female in the same area. Tarantulas mostly eat insects, reptiles and mice, their prey is

always smaller than their own size. They inject poison and stomach acid inside their prey. They wait until the prey is paralysed and dissolved and then suck it empty. For humans however, a bite is not deadly and tarantulas are not aggressive animals. They defend themselves with small hairs, which are released in a cloud if they rub their legs over the abdomen, if you get those hairs on your skin it will itch and irritate a lot. Be especially careful not to get those hairs in your eyes or your mouth. If you find a tarantula, do not kill it, but put it outside, or ask the managers for help. They are very useful for eating cockroaches.

Sand flies (*Lutzomyia shannoni Dyar*)

Sand flies are not dangerous, but their bites will itch. You recognise the bite because there will be a small red spot of blood in the middle. They are usually around water. If you go to Curimana, it can be handy to take insect repellent with you, although it is not very effective against sand flies. It helps to wear long trousers. Your body takes time to getting used to the bites, and after a while it will be less itchy and the bites will disappear faster. Some people get a strong reaction to the bites, in some cases swelling. Try to keep bites clean and disinfect them with alcohol. Generally after some weeks you get used to them.

Sand fleas (*Orchestia agilis*)

Sand fleas live in the sand, often left by dogs passing by. If you get any bites from sand fleas, they will generally be at your feet, at the toes or toenails. When a female bites she will burrow herself into the skin and stay there until their eggs hatch. Watch for swollen areas with black spots in the middle and white next to it. It will be most painful during the night. It is easy to take sand fleas out with a needle and a squeezer. If you believe that you have got a sand flea bite, warn Douwe or Olivia. Douwe is pretty handy in taking them out.

Larvae of a Botfly (*Oestridae* (the botfly family))

The larva of a botfly is a parasite for mammals, growing in the flesh or in a cut of the host. From all botfly sub specie the *Dermatobia hominis* is the only one which uses humans as host. The botfly itself is quite large and densely haired. It is more likely that they will lay eggs in the softer parts of the skin. In the beginning the bite will look like a normal mosquito bite, but it will still be there after one week. A little spot stays open and after one week you can even see some movement. There are different ways to get the larvae out. You can put some medicine for deworming on it to kill it and then press it out. It is important that the whole larvae gets out, the end of the larvae has little black dots. If part stays in it can cause an infection. Another way, how the locals do it, is to use the nicotine of a cigarette to kill it. If you think you have a bite, please warn Douwe or Olivia, so they can have a look. When you go back home and think you have one somewhere, warn the doctor that it could be a larvae, too make sure they take it out completely. When a doctor would just give you medicine, it would kill the larvae, but as it is still in there it can cause a bad infection, as your body still tries to get rid of it.

Cockroaches

In the forest there are always cockroaches, and as we live in the middle of it, they will often visit and stay in the buildings. They are mainly active during night, when they come out of their hiding spot in search of food. They like to hide in a bundle of ponchos, wooden or carton boxes and other dark spots.

They can be carrier of a parasite that can cause death in monkeys, as they are eaten by them. But can be carrier of other diseases as well. To avoid them staying in the house, kitchen, best advice is to keep it as clean as possible.

Things to do to avoid having many of cockroaches around:

- Don't leave any food lying around in the open (especially at night); put your sweets in Tupperware, well closed, or use zip-lock bags (but they can bite through them).
- Don't form bundles of clothes hanging together, especially when they were wet, like rain coats, As soon as your poncho is dry, hang it up separately or store it folded.
- Keep kitchen and volunteer-house clean. Wipe the floor, keep stuff organized, books nicely stacked, old-volunteer clothes in neat folded stacks etc.
- Keep the garbage bins always closed, especially overnight.
- Keep buckets, Tupperware with food always well closed.
- When you clean the kitchen or volunteer-house, think of cleaning the small corners, behind the trays with vegetables, under the stairs etc...
- The more you regularly move-reorganize-clean stuff, the less they will feel comfortable to hang around.

When you see them, kill them (e.g. take a book or something else to smash them). Collect the dead ones, either flush them through the toilet or put them in the garbage bin. If you throw them in the garbage it needs to be burnt on that day or the following, otherwise it will become very smelly).
Don't throw them outside, as the monkeys might still eat them.

3.14 General zoonoses

Zoonoses are diseases that transit from animals to humans and from humans to animals. As you are working with animals it is possible that you get involved with zoonoses, and therefore it is good to know what you can do and how to prevent it. As mentioned earlier hygiene is very important. Mammals have diseases that can infect us as humans, but also the other way around, for instance the flue. When you have the flue it is important to not come close to animals, especially young ones.
If you want to collect some feathers of parrots, put them in disinfectant-water for 15 minutes and then let them dry. Parrots can be carriers of bacteria and can be transmitted through feather dust, faeces and blood.
We can also get some of the same kind of parasites that monkeys have, and the other way around, so always wash your hands (including your nails) regularly, before and after lunch, feeding, before and after touching animals, after going to the bathroom etc.
If you want to know more about zoonoses, please ask Douwe or Olivia.

3.15 How to handle the mould (fungus)

Due to the warm and humid climate mould is something you will have to deal with. It will grow on leather, backpacks, or other bags, jackets, shoes, books etc. To keep your belongings in good condition, check it at least once a week and brush the mould away with a dry brush. Upstairs, the mould will grow at a slower rate and it is more airy, so it is recommended to hang your backpacks on one of the nails there. Do not leave stuff on the floor, as then the mould will build up faster, as well it will give a nice hiding place for cockroaches and others.

If you have plastic zip lock bags, use them to store your passport and money, since they can also get mouldy.
Put cameras in zip-lock bags, or buy Tupperware in Curimana to store any electronical device. If you have bags with silica-salt (gel), put them in the bags or Tupperware with the device.
Mould will grow generally on spots where it was dirty, like dirty clothes, or back of the backpacks where they grow on old sweat, etc.

For this reason, dry items, like tea, but also herbs and spices, should be kept in well closed jars, plastic bottles or Tupperware. Keep your sweets also well packed in or in a Tupperware.

3.16 Species at Esperanza Verde

In this chapter you will find information about the species living at Esperanza Verde. Of course, new species will arrive at some point, so it can happen that those are missing in this manual. Some subspecies are also described under one common name, for instance the macaws. In appendix 8 you can find some information on the individual animals at Esperanza Verde.

1.1 Monkeys

Black faced black Spider Monkey (Ateles chamek)

Head & body length	40-60 cm (tail: 80-88cm)
Weight	6-10kg
Lifespan	20-25 years

General
They have a very strong prehensile tail, which they can use to support themselves whilst feeding. They are very agile and have a long slim body with well-developed limbs. They have no thumb on their hands. A theory for the reason of this is that the thumb would make it harder to swing from branch to branch.

Habitat and predators
They are restricted to arboreal habitats, mainly in the top of the tree canopy. The range size varies from 150-230 ha. Their mean day range is generally longer than other New World monkeys (average of 1925 m), because of their reliance on fruit. Groups defend their territories. Males will mark their territory with secretions from chest glands. Anyone stumbling into spider monkey territory receives an unpleasant 'welcome' of screams, barks, and rattling branches and thrown branches or faeces. The interactions will often begin with males, often along with one or two females, calling, which will bring other group members into the area. The outcome of the conflict is site dependent. One group will displace another in the more central regions of their range. Range overlap between different groups of the same species will vary with population density and home range size.

Social structure and life history
Spider monkey society is normally multi-male and multi-female, although some smaller groups may only have a single male. The group size usually varies between 10 and 40 monkeys. Females generally outnumber males two to one, and there are fewer young than adults (about 30% of total group), due to a low reproductive rate.
Social grouping is fluid and said to resemble that of chimpanzees, a primate group that also favours ripe fruit.
Though they are the most solitary of primates during daily food foraging, at night they are highly social and are said to "bed down in heaps"
The average gestation period is 225 days (about 7.5 months) and the female gives birth to only one infant. Once born the mother transports the baby on her back or on her belly. The young move independent from their mothers when they are 3 – 4 months old, but will drink up to 18 months milk from the mother.
The females reproduce every 3 years.

Females emigrate from their natal group.

Diet

The exact composition of their diet varies with the species and the location. They generally specialize in ripe fruit and seeds, which makes up over 80% of their diet. This is supplemented with flowers and young leaves. They can also make use nuts, insects (e.g. caterpillars, termites), and eggs. Spider monkeys adopt a strategy of seasonal movement within their large range to exploit seasonally fruiting trees.

Senses and communication

They possess specialized scent glands in the mid chest area, which the males use to mark their territory. They use facial as well as vocal communication to communicate.
The female has an enlarged clitoris, which is used for scent marking and facilitates that the urine passes away from the body.

Common Woolly Monkey (Lagothrix lagotricha)

Head & body length	46-52 cm (females smaller than males), tail: 60-70cm
Weight	female 3.5 – 6.5 kg / male 3.6 – 10 kg
Life span	20-25 years

General

Because of their dense fur they are called woolly monkeys. They are diurnal and arboreal animals. With their prehensile tail, which acts as a powerful fifth limb, they can hang their whole body weight to leave their hands and feet free. At the end of the tail, there is no hair, and it is really sensitive. The tip is like a fingerprint.

Habitat and predators

Woolly monkeys are arboreal, spending most of their time high in the canopy of the trees and rarely venturing to the forest floor. They prefer wild mature undisturbed rainforest. Woolly monkeys are the most susceptible to human hunters for their meat and their sale as pets. The adult male with his big fangs (canine teeth) can become dangerous for humans too.
The most serious natural predator is the harpy eagle, a large raptor, because these monkeys live high in the tree tops.

Social structure and life history

Woolly monkeys live in mixed groups of 5 to 43 individuals. Males have a dominant hierarchy determined by age. The size of a group depends on the local environment, particularly on the availability and quality of food in the area. Their home range varies between 400 and 1100 ha. and can overlap with neighbouring groups, although different groups will rarely come in contact with each other. Sometimes a female will leave a group and join another one. This way woolly monkeys can keep genetically healthy groups. Females mate with more than one male. The male does not know which young are his, and can be seen carrying the young infants. He protects the female with new infants from the rest of the group.
The average gestation period is 223 days (about 7.4 months) and the female gives birth to only one infant. The birth is a social occasion. The more experienced females in attendance will help to clean up after the birth, and younger females will come to watch and learn. Males will also attend particularly if they are closely related to the mother.

The mother will never consciously give food to her baby. Instead, young woolly monkeys just learn for themselves what is good to eat. They travel independently most of the day and start eating solid food when they are about 24 weeks old. The babies stay with the mother for about two years, which is when the next one is born. They drink milk up to 20 months. They never lose their close relationship with their mother. They generally have one young every 2 years.

Diet

Diet of the woolly monkey consists mainly of fruits, supplemented by young leaves, seeds, and some insects. Consumption of leafy material accounts for probably less than 20% of their diet. A large part of their feeding time is spent eating ripe fruit. Seeds are most important early in the rainy season when ripe fruit is not readily available. They also feed on animal prey, like insects. Their diet consists of 67 % fruits, 14 % leaves, as well as seeds, gums, flowers and animal prey.

Communication and senses

Sounds are very important because woolly monkeys are not able to see each other in the dense tree tops. That's why they have a rich vocalized language and can warn each other of dangers, tell each other that they have found some nice food or locate family and friends. Most noises are high pitched, as high sounds carry further in the rainforest. But not all noises are meant for long distances, some are quiet and gentle for when monkeys are making friends or to reassure a youngster.

The most frequent noise heard is 'eeolk', a sweet soft enchanting sound, which means 'I'm alright, how are you?'.

Not all communication is through sound. They also use posture, gesture and facial expressions. A unique example of this is 'snuffling', a gesture of friendship or appeasement, as two or more monkeys cover their nose and mouth to make themselves as non-aggressive as possible and make quiet sobbing sounds.

Their forward-facing eyes give them stereoscopic vision for judging depth and distance, which is very important when leaping high in the tree tops. They are especially sensitive to the colour green, enabling them to distinguish between many different shades in the green world of leaves and trees.

Tufted or Brown Capuchin (Cebus apella)

Head & body length	35 – 49 cm, tail: 37-48 cm
Weight	female 1.4 – 3.4 kg / male 1.3 – 4.8 kg
Life span	40 years

General

They are diurnal and arboreal, and they are one of the most intelligent and adaptable of all South American primates. They have a prehensile tail, but it is mainly used for balance. It is not as strong as the tail of a woolly monkey and is fully furred.

Because of their intelligence people have used them to train them to perform household tasks for people with disabilities.

Habitat and predators

Because of their high adaptability and flexibility, they can live anywhere from the cloud forest to the sea level forest up to 2700 meters above. They are mostly seen in the middle layers of the forest. The range varies from 25 to 40 ha, with a day range of 2000 m.
Capuchins often share their habitat with other monkeys like squirrel monkeys. Travelling together with other species of monkeys gives them an advantage because there are more eyes to see predators. Squirrel monkeys will also profit because capuchins can open big and hard fruits using a stone as a tool, and the squirrel monkeys can eat what the capuchins drop.
The main predator is the harpy eagle. Other potential predators include jaguars, pumas, jaguarondis, coyotes, tayras, snakes and crocodiles.

Social Structure and life history
They live in mixed groups of 10 to 30 individuals. They form multimale-multifemale groups, with equal numbers of males and females. One male is dominant to all the others, and young males may form a socially separate sub-group.
Juvenile males leave the group at sexual maturity and seek out new groups in which to mate. The females typically spend their entire lives in the same group, which is led by a dominant male. The females generally only copulate with the dominant male. Parenting is left to the females. Allo-mothering is a common practice.
The average gestation period is 149.158 days (about 5 months) and the female gives birth to only one infant. Generally every 2 years, but if the young dies early the female can give birth directly the following year. Young drink milk up to 12 months.

Diet
They are omnivorous animals, eating 66 % fruits; 25 % seeds; nectar; animal prey including insects, birds, eggs, reptiles, and mammals. This allows them to exploit many habitats, in contrast to the highly specialized woolly monkeys which are more vulnerable to environmental change.

Communication and senses
Brown capuchins have a huge variety of facial expressions used in communication, more than other primates of South America. Typical are eyebrow raising, nervous grinning and expressions made with the mouth. They show submission by genital display and raised eye-brows.
Social grooming is an important form of contact. They have a wide repertoire of sounds as well. The ´ooh-ooh-ooh´ sound used by young capuchins expresses despair while the ´uhm´ sound is made when satisfied, for instance during feeding. ´Um-um sounds are made when the capuchins asking to groom each other. High pitched ´Eh-Eh´ is made when capuchins to tell others to not come close. They also have alarm calls for predators.
These monkeys mark themselves with scent by washing their hands in their own urine and rubbing their hands on their fur. Females may monitor male smell to detect sexual maturity. When females are in their oestrus, they will try to get the attention of males by following him and making calls.

Bolivian Squirrel Monkey (saimiri sciureus boliviensis)

Head & body length	31 cm, tail: 36 cm
Weight	female 700 – 900 g / male 960 – 1100 g
Life span	15 – 20 years

General

Squirrel monkeys are diurnal and arboreal animals. Their tails are longer than their bodies; they are prehensile in the first weeks after birth, to be able to hold on better to their mothers back. Afterwards they lose this ability and the tail is just for balance.
During the breeding season, the male exhibits an increase in body weight, particularly in the arms, shoulders and the trunk of the body, called the 'fatted male' syndrome.

Habitat and predators
They are found in the middle level of the forest canopy and will rarely venture towards the top where they will be in danger of being caught by birds of prey. They will generally not go down to the ground for fear of other predators like ocelots. The home range is about 20 ha.
Because they live in such large groups, the loss of habitat is a big problem. They are hunted a lot to be sold as pets.

Social structure and life history
Squirrel monkeys are highly social animals that live in big mixed groups of up to 100, with subgroups. The size of the group depends on food availability.
They form multi-male/multi-female groups. Males establish a hierarchy during the breeding season. Outside the breeding season, males do not relate to females, and females are dominant to males. Males emigrate but do not move from their natal troop unless they are forced out by the more dominant males.
The average gestation period is 155-170 days (about 5.5 months). Shortly after giving birth to one young, the female will chase away the males, who play no part in raising the single infant. The infant will be almost completely independent by the time it is 10-11 months old, when they also stop drinking milk.

Diet
Their diet consists of 82 % of animal prey, particularly insects. They eat fruit and seeds, but do not eat leaves.

Communication and senses
They have incredibly good eyesight and colour vision, which means that they are able to spot fruits among the dense vegetation with ease.
They are known to spread urine on their hands and feet so that they can leave a scent trail whilst moving about in the trees.

Saddleback Tamarin (Saguinus fuscicollis)

Head & body length	female 22 cm / male 21 cm, tail: 32 cm
Weight	female 403 g / male 387 g
Life span	15 years

General
They are diurnal and arboreal. Like all tamarins, they have a long, but not prehensile, tail. They have clawed digits (except for the hallux) and no opposable thumb.
The general behavior of the saddleback tamarin can be summarized by this daily time budget: 16-17% feeding on plant material, 16% foraging for insects, 44% resting, and 20-21% travelling.

Habitat and predators

They prefer secondary forests and edge habitats, but they are also found in primary forests. Their home range, sized between 25 and 100 ha, often includes many types of habitat. S. fuscicollis has a day range length of approximately 1,500 m.
They move through trees with rather quick & jerky movements. They favour the mid and lower canopy of tropical forests.

Social structure and life history
They live in multi-male-1 female and multi-male-multifemale groups of 4-10 monkeys, including infants. The reproductive system is the most interesting aspect of tamarin biology. Saddle-backed tamarins come into sexual maturity at the age of 23 months. Their gestation period is 140 to 150 days and the interbirth interval is about 12 months, although captive tamarins are capable of reproducing twice each year. All this is unextraordinary. The amazing part is the size and number of offspring. The majority of births are twins whose total weight is almost one-quarter that of the mother's. It is thought that this fact is a major contributing factor to the tamarin's polyandrous social organization. Or it is possible that polyandrous care-taking of infants led to the evolution of twin births and exceptionally high birth weights. The young drinks milk with the mother for 3 months.
The dominant male of the group may suppress the subordinate males sexual behaviour and stop the subordinate females from ovulating. The dominant female suppresses the ovulation of subordinate females. The twin offspring need the care of more than the breeding pair to survive; if subordinates bred, there would be competition for caregivers.

Diet
Saddle-backed tamarins are omnivores, mostly eating insects, fruit, nectar, and exudates (tree sap and gum). Tamarins may eat exudate for its high calcium content, which compensates for the low calcium content of fruits and insects. They spend most of their foraging time searching for large (2 to 5 cm long) insects hidden in trees. In the wet season they eat up to 96 % fruits. In the dry season they eat 75% nectar, 16% fruits, as well as sap and animal prey.

Senses and communication
They possess specialised scent glands in the mid chest and genital area. Secretions from these glands, together with urine, are rubbed in various places to mark territories and convey information.
The most notable vocalizations are the soft trill contact call and a long distance loud whistle.

1.2 Other mammals

Lowland or Brazilian Tapir (Tapirus terrestris)

Head & body length	1.7 – 2 m
Weight	181 – 226 kg
Life span	30 – 35 years

General
The family *Tapiridae* is represented by four species, three from Central and South America, and one from Southeast Asia. The tapir is a living fossil because it hasn't changed in the last 20 million years.
They are most closely related to horses and rhinos. The nose and upper lip are combined into a flexible snout like an elephant´s trunk.

Tapirs like to spend a lot of time in the water, eating aquatic plants, cooling off, washing away skin parasites or using it to defecate. They can stay under the water for several minutes. When frightened, tapirs can take to the water and breathe with their snout poked above the surface like a snorkel.
Tapir behaviour can be very unpredictable and caution should always be exercised when entering an enclosure.

Habitat and predators

For tapirs habitat destruction is a big threat. They have a huge territory and always need water to swim, defecate and hide themselves.
Caiman as well as jaguars are natural predators for this tapir species. Humans hunt tapirs for their meat and skin.

Social structure and life history

Most literature states that tapirs are primarily solitary and nocturnal but recent field observations have shown tapirs to be more active in daylight and more tolerant of co-species than previously believed. Scientists have discovered that tapirs often graze in pairs or in small groups.
After 13 months of gestation they usually give birth to a single calf, although twinning does occur. Labour is short and healthy calves should be standing within a few hours of birth.
All new born tapirs have a natal, brownish coat of white stripes and spots with a completely white belly, chest and throat. This serves as camouflage. This coloration is gone by six months of age. The tapir calf reaches full size in about 18 months.

Diet

Tapirs are generalist herbivores that select from various plants including leaves and fruits. They consume multiple small meals, a behaviour that is, in part, a function of their limited stomach capacity when compared to the ruminant stomach. As a hindgut fermenter, the tapir gastrointestinal tract is very similar to that of the horse.
A tapir is both a browser and a grazer. Using its incredible nose, it can pluck leaves from tree branches or root around in the soft underbrush.
Eating such a variety of plants gives them an important role in the ecology of their forest home: seeds passing through their digestive tract help reseed a new generation of plants.
They are very healthy animals as within their diet exist a variation of medicinal plants, against bacteria, parasites etc.

Communication and senses

A high-pitched whistle is one of the most common vocalizations. It is used to for long distance contact between individuals. A snort with foot stamping usually means the tapir is preparing to defend itself. Urine marking is another important signal.

Collared Peccary (Pecari Tajacu)

Head & body length	95 cm long, 30 – 50 cm high
Weight	17 – 30 kg (males are taller and bigger)
Life span	8-10 years in nature, 24 years in captivity

General

There are two species existing in Peru; the white-lipped peccary; and collard peccary. These peccaries are named collared peccaries because of their white line along their neck.

They are most active during the early hours of the day but can also be active at night. It depends on where they live because they prefer to be active during the cooler hours.
They often take mud baths to refresh themselves.
When peccaries become aggressive, they get jumpy, raise their hairs, show their canines and snap their teeth.

Habitat and predators
They live in a great variety of habitats, from the humid forest to deserts up to 3000 meters over sea level. They have territories from 30 to 280 ha.
The puma and panther are the major predators of wild peccaries. Large scale hunts for peccaries by humans are characterized by absence of selection concerning age and sex. These practices often eliminate large numbers of the peccary group, interrupt social organization and affect herd survival, occasionally contributing to local extinction of the species.
People use peccary fangs for necklaces and their skin for tambourines. Their meat is much appreciated, and therefore, they are often hunted. That`s why it is difficult to release peccaries after they get used to humans because they would get too close to civilization and probably get shot.
Their big canine teeth help them defend themselves against predators and can be very dangerous for humans.

Social structure and life history
They are a highly social species usually forming groups from 6-12 individuals, although groups of up to 50 have been observed.
There seems to be a linear hierarchical dominance involving both sexes. The dominant male has breeding priority.
Fights between peccaries due to the hierarchy can be deadly.
After four or five months of gestation they give birth to one to four young.

Diet
They are omnivores, but mainly dig into the ground for roots.
The stomach of peccaries and swine differ. Peccaries have a stomach with four compartments, whereas swine are monogastric. The peccary stomach, similar to the ruminant stomach, allows for the more efficient digestion of fibre.

Communication and senses
They have good ears and a good olfactory sense, but their eyesight is quite bad. They have a gland on their back to mark their territory and other members of the group by rubbing their neck on them. One group becomes a mixed of all the individual members and this smell is rubbed on tree to mark their terrirtory.

Two Toed Sloth (Choloepus hoffmanni)

Head & body length	54 – 72 cm (females are larger)
Weight	2.1 – 9 kg
Life span	40 years

General
They are solitary. The sloth is a heavily built animal with shaggy fur and slow, deliberate movements, although they can be a lot faster when excited. Because of their inactivity algae can grow in their fur and makes them almost invisible in the forest. Each forefoot has only

two toes, which end in long, curved claws, although there are three clawed toes on each of the hind feet. The big and strong claws help to keep sloths attached to the branches of trees. The clinging behaviour is a reflex action, and sloths are found still hanging from trees after they die.
Their fur, unlike other mammals, flows from belly to top, allowing rainwater to slide off the fur while the animal is hanging upside down.
They come down from the trees only every once a week to defecate. At this time they are especially vulnerable to predators.
Sloths are heterothermic: body temperature fluctuates with the ambient temperature. Mothers and babies both have sparser belly hair, allowing the heat from the mother`s body to transfer to the infant.
There has been some debate in the past over the time of day in which sloths are most active. They are characterized as either crepuscular or nocturnal but also have been seen feeding during the day.

Habitat and predators
They are found in two separate regions of South America. One population is found in the region from Nicaragua to western Ecuador, and the other in east Peru, Brazil and Bolivia. The sloth inhabits tropical forests from sea level to 3300 meters. They prefer to live on trees with a lot of lianas. They have a typical home range of about two to four hectares and may spend most of their lives travelling between just 25 or so trees.
They have many predators like jaguars, ocelots, harpy eagles, margays and anacondas.
If threatened, sloths can defend themselves by slashing out at the predator with their huge claws or biting with their sharp teeth. However, a sloth`s main defence is to avoid being attacked in the first place.

Social structure and life history
In the wild there are about eleven times more females than male sloths.
Gestation lasts about one year and results in the birth of a single young. The infant will already possess long claws to cling to the mother`s underside. They take solid food at 15 to 27 days. Baby sloths spend the first 6 to 9 months of life clinging to their mothers` bellies. They can start eating up site down from off 6 months of ages. The young ones will stay near the mother for two years, but drink milk up to 2,5 months.

Diet
Most of their diet consists of tree leaves, but they also eat fruits and flowers. Although they are not true ruminants, sloths have a large three-chambered stomach.
It may take a sloth up to a month to completely digest a meal and up to two thirds of a sloth´s weight may be due to the leaves in its digestive system.
Their slow movements are actually an adaption for surviving on a low-energy diet of leaves. These sloths have half the metabolic rate of a typical mammal of the same size. They can eat in any position, even hanging upside down. Young leaves are much easier to digest because cellulose is not yet well establish in the leaf structure.

Communication and senses
They have poor eyesight and hearing, relying almost entirely on their sense of touch and smell to find food.

1.3 Birds

Macaw (Ara sp.)

Head & body length	Around 80 cm, subspecies have different sizes
Weight	Around 1 kilo, subspecies have different weights
Life Span	35-50 years, in captivity scarlet macaws up to 75 years.

General
They are usually characterised by their beautiful colours and large powerful beaks. They form mating pairs for life and often fly about 25 kilometres a day in search of food. They live in family groups or pairs, sometimes family groups or pairs join each other for a while. There are 17 species of macaws existing in the world and most of them are endangered. At Esperanza Verde there are blue and yellow macaws, red and green macaw and scarlet macaws.

Habitat and predators
Macaws occur in South America, in the tropical rainforests. There are populations in Panama as well. The biggest threats for macaws are being caught for pets and habitat fragmentation and deforestation. It is categorised by CITES as an endangered species.

Social structure and life history
Macaws are social animals, to strengthen their social bonds they groom one another. When kept in captivity in small cages parrots often pick out their own feathers due to loneliness. Macaws are monogamous, a pair generally stays together for life.
They mostly nest in dry season and lay 2-3 eggs at a time. Young macaws stay in the nest for 3-4 months and live with their parents for one year. They start breeding at the age of 3 to 4 years.

Diet
They eat fruits, seeds and nuts. In the wild macaws nibble at pieces of clay, which detoxify them, and gives them the possibility to eat unripe fruits, which would otherwise be harmful for them.

Communication and senses
Birds do not have voice boxes; they make their sound with an organ at the bottom of the windpipe, called syrinx. The sound is produced by vibrations in the syrinx or the windpipe. This organ makes it possible for macaws to reproduce words. Because macaws are social animals, they ´talk´ a lot and are used to imitate each other. If they constantly hear a specific word, they will imitate this.

Orange- winged Amazon parrot (Amazona amazonica)

Head & body length	31-33 cm
Weight	310- 350 gram
Life span	about 60

General
There are different types of Amazon parrots, the orange-winged Amazon parrot is the only one with orange feathers in their wings, so therefore its name. The other feathers are mainly

green, the forehead is blue and there are some yellow feathers on the crown, the cheeks and the tail tips. Males and females look alike.

Habitat and predators
The orange-winged Amazon parrot is endemic in the tropical areas from South-America. It is categorised by CITES as an endangered species. They are popular as pets and therefore there is still a lot of illegal hunting for them. Natural predators are monkeys and hawk.

Social structure and life history
Orange-winged amazons live in flogs. Three to five eggs are laid in a nest which is made in tree cavity. After an incubation time of 25 to 27 days the young hatch. They will leave the nest after two months.

Diet
The diet consists mainly out of fruits, seeds and nuts.

Communication and senses
Orange-winged amazons make loud, high pitched screams. They are also able to imitate human words.

Mealy parrot (Amazona farinosa)

Head & body length	38-40 cm
Weight	540-570 gram
Life span	about 60 years

General
The mealy parrot is one of the largest Amazon parrots and mainly green. They live in pairs or small flocks, up to 20 birds. In breeding season the flocks become bigger, up to 100 birds. They also interact with other parrot species.

Habitat and predators
They live in Central and South America, from Mexico to northern Bolivia in the tropical rainforests. Predators are monkeys and hawks. They also get caught by humans to be sold as pets.

Social structure and life history
Mealy parrots choose a partner for life. On average three eggs are laid. The incubation period is about 28 days. The male will assist the female in raising the young. After about eight weeks the offspring will leave the nest.

Diet
The diet consists mainly out of fruits, seeds, nuts and flowers.

Communication and senses
They have a variety of calls. Because of their relatively deep sound they can be heard over distance. They are also able to imitate human words.

White eyed parakeet (aratinga leucophthalmus)

Head & body length	30-34 cm
Weight	100-220 gram
Life span	28 years in captivity

General
White eyed parakeets are mainly green, with a white circle around the eye.

Habitat and predators
They are native to northern South America, and live in forests, woodlands, savannas and mangroves.

Social structure and life history
They live in flogs of 10 to 20 birds, although much larger groups have been observed as well. During the breeding season they live in pairs or family groups. Three to six eggs are laid, normally twice a year.

Diet
The diet consists mainly out of fruits, seeds, flowers, vegetables, nuts and sometimes insect larvae.

Communication and senses
Their call sounds sharp and metallic.

White winged parakeet (Brotogeris versicolurus)

Head & body length	20-24 cm
Weight	50-70 gram
Life span	Up to 15 years

General
The white winged parakeet is mostly green. When they fly white feathers can be seen.

Habitat and predators
White eyed parakeets live in the Amazon area of South America. Nowadays they also live in cities like Lima, because they have been released as pets.

Social structure and life history
These social animals live in flocks. They find a hole in a tree to nest in. Three to five eggs are incubated in about 26 days.

Diet
The diet consists mainly of fruits and seeds.

Communication and senses
White winged parakeets are noisy birds. There call is loud and shrill.

Toucan (Ramphastidae)

Head & body length	Depending on sub specie, 50-61 cm for white throated toucan
Weight	Depending on sub specie, female 580 gram / male 640 gram for the white throated toucan
Life span	Up to 20 years

General
There are 35 different species of toucan, in this area the white throated toucan is quite common. Typically the toucan has an huge and colourful light weighted beak. The advantage of this big beak is to reach fruits on branches that cannot support his weight. The big size of the beak is useful to scare predators as well. The tongue is long, narrow and soft. The legs are quite short are strong and the toes are in pairs, the first and fourth toe are turned backwards. Male and female toucans are similar in colours. Indigenous people see the toucan as conduits between life on earth and the spirits.

Habitat and predators
Toucans live in the tropical parts of America.

Social structure and life history
Usually Toucans live in pairs or small flocks. Toucans nest in high tree holes. Females lay two to four glossy white eggs. After an incubation period of 16 days the young will hatch. It takes about 3 weeks before their eyes open. Both male and female take care for the young. After about 45 days the nestlings begin life on their own.

Diet
Toucans mostly eat fruits and can manipulate small berries at the tip of the bill with great dexterity. They eat insects as well and occasionally small birds and lizards. Toucans manipulate big pieces of fruit with their beak to smaller pieces, so they can swallow it in one go.

Communication and senses
Toucans make different kinds of sounds to keep in contact with each other in the dense tropical forests.

Shiny Cowbird (Molothrus bonariensis)

Head & body length	18-22 cm
Weight	35-60 gram
Life span	up to 5 years

General
There are seven subspecies of the shiny cowbird. They have blue-black feathers, the female has a more dark brown colour.

Habitat and predators
The shiny cowbird is quite common in South America, living in different habitats, except for the mountains and desserts. There are also populations in Central America and Florida.

Social structure and life history

Like most other cowbirds, the shiny cowbird is a brood parasite, which means that it lays its eggs in the nest of other birds. The incubation period is 10-12 days, which is normally a shorter period than for the eggs of the host bird.

Diet
The diet consists mainly out of insects, and some seeds.

Communication and senses
The male song is a purr and whistle, which sounds like purr purr, purrtle-tseeee and the call is a sharp whistled tsee tsee. The female makes a harsh rattle.

1.4 Reptiles

Yellow footed tortoise (Chelonoidis denticulata)

Head & body length	40 cm
Weight	7-19 kilo
Lifespan	50-60 years

General
Their Latin name means `land tortoise with teeth`, but they don't have actual teeth, instead they have only a horned hock. The name is due to the appearance of the shell of juveniles, which have markings shaped like teeth on the borders. The upper part of the shell is made of amino acids like our hairs and nails. The spine of the tortoise is connected to the shell, which means that the tortoise will feel pain when people make a hole in the shell to tie them up. They are easily recognizable by the yellow spots on their feet.

Habitat and predators
The biggest threat for tortoises are humans as in some parts of South America people eat them.

Social structure and life history
They are solitary animals. They breed year round and lay four to eight eggs on the floor in the forest, which incubate in 100 to 200 days.

Diet
Tortoises are herbivorous, completing their diet sometimes with insects, snails or other invertebrates which are easy to catch.

Communication and senses
Tortoises identify each other by using body languages. Typical are head movements, made by males, the female does not make this movements. A male will always react on head movements of another male. In this way they can identify each other's gender.

Yellow-spotted river turtle (Podocnemis unifilis)

Head & body length	up to 45 cm
Weight	up to 8 kilo
Lifespan	60-70 years

General

This species can be recognized by its black or brown oval carapace (upper shell) with distinctive low keels on the second and third scutes. Yellow spots on the side of its head give this species its common name. These spots are most prominent in juveniles and fade with age. Females can be up to twice the size of males.
This species is a type of side-necked turtles, so called because they do not pull their heads directly into their shells, but bend their necks sideways to tuck their heads under the rim of their shells.

Habitat and predators
They are found small ponds, lagoons, streams and tributaries of large rivers. During flood season, they may venture into flooded forests or floodplain lakes. These turtles are rarely encountered in the forest and unfortunately fetch a good price on the black market due to their rarity.

Social structure and life history
They are solitary animals. The females lay two clutches of eggs each year, with an average of 35 eggs in it. They make their nests in sandy areas on the banks of rivers, where the eggs will hatch in 66 to 159 days after they are laid. The eggs are laid at the peak of dry season so the nest will not be washed away with the floods of the rainy season.

Diet
They feed on fruits, weeds, fish and small invertebrates. Hatchlings will feed on various invertebrates, fish, fish pellets and plenty of aquatic vegetation. Adults are herbivorous and will take in pellets and protein when offered.

Mata Mata (Chelus fimbriatus)

Head & body length	up to 45 cm
Weight	up to 15 kilo
Lifespan	60-70 years

General
They are believed to be a mostly nocturnal animal and rarely leave the water. They are characterised by their pointed triangular snout that they use to extend above the water to breathe without exposing their head. They are also recognised for their special shell structure that has numerous angular humps or protrusions.

Habitat and predators
These turtles are rarely encountered in the forest and unfortunately fetch a good price on the black market due to their rarity.

Social structure and life history
Mata mata turtles are solitary animals.

Diet
Their diet consists pretty much exclusively of small fish and crustaceans. Occasionally they may be found eating some plant life. The mata mata thrusts out its head and opens its large mouth as wide as possible; creating a low-pressure vacuum that sucks the prey into its mouth, known as suction feeding. The mata mata snaps its mouth shut, the water is slowly expelled,

and the fish is swallowed whole; the mata mata cannot chew due to the way its mouth is constructed.

Communication and senses

It is believed they have spots on their skin that attract small animals to aid their feeding.

Appendix 1. Esperanza Verde´s inspiration for jobs guide

This guide is made to help you find a job to do, when Douwe and Olivia are not around and you don´t know what to do. There are always things that can be done. From all the jobs described, try to do the one of which you think is the most important. If you doubt, you can also ask one of the long-term volunteers. You can also do parts of a job, all bits are helpful.

There are many more jobs than mentioned in this guide. Look around what people are doing and ask if you can participate. For most jobs you don't need any expertise, just willingness to learn.
If you have a special interest in anything let Douwe and Olivia know, so they can make sure you can participate.
If you have any ideas for a job that might be necessary, just talk with Douwe or Olivia about it. They are always happy with initiatives and new ideas about everything; we can always improve the ways of working at Esperanza Verde.

Raking paths

If there are leaves on the path it is always good to rake them, even if you are not appointed for this on the weekly schedule. This is very important because snakes like to hide under leaves. If there are leaves on the paths it is harder to see a snake. As well it maintains the paths, as with the rain paths become muddier and lack drainages with a lot of leaves laying on them.
If you rake, make sure you remove the leaves and throw them in the bushes, not directly next to the path but a bit further. If they lay next to the path it is still a good hiding spot for snakes.
Where to rake:
From the clinic to the office, from the office to the volunteer kitchen, from the office to the veterinary clinic, from the volunteer kitchen to all different cages (Araña, Luca, Pepe, La Sapa, Pichu (Aviary), and further to the bodega, reptiles, Rincay, bridge before the house Olivia and Douwe, from the volunteer kitchen to the volunteer house, Casa-cage, to the stream, and all the way to the port.
While raking you can also take small plants out which are growing on the paths.
It can be a relaxing job, but also sweaty! Whenever you have e.g. an half hour spare time in between jobs, raking is a very good job to do.

Maintaining paths

Especially during rainy season the paths get really muddy, so it is an ongoing job here to maintain them and fill them up with stones, gravel and sand. Ask Douwe where to find the materials, so you can start this job at any time with some other volunteers. You can also do it on your own, but carrying stones and sand is a heavy job and more hands make it more fun and easier.

Cleaning

Living with a lot of people in the jungle will make things messy and dirty soon. For our personal hygiene and for the animals it is important to keep things clean, and prevent people and animals from getting ill.

In the bodega:
Take a look at the cutting boards, plates and buckets. If there is black slimy layers on it scrub it hard with a hard brush, at least the slimy layer can get removed. Sort out the food items, and put items that need using soon in the front. Throw rotten fruit-vegetables in the compost.

In the house:
Sweep the floor, tidy up the bar and bookshelves.

In the attic: Sweep the floor, take dry laundry down and fold it and put it aside, tidy up old volunteer clothes and monkey clothes.

Brush the wire mess with a soft broom, not with a hard brush. Try it from different corners; it is really possible to make it much nicer than it normally is, more light and air will come through.

In the kitchen:
Sweep the floor if dirty, clean up dirty cups, give the compost buckets a good brush, sort out the cupboard and put fruit-vegetables in the front that need using first, brush window wire mess (see ´In the house´), clean counter, sink.
Sort out the bookshelves.

The work shed and fireplace
Stack all things organized. Wood under the fireplace, crates in the work shed, fold bags laying around and put them together in one. Make sure tools are brought inside the volunteer kitchen in the attic (cupboard with tools).
Check if there are no cigarette butts left in the fire place, take them out and put them in the garbage.

Enrichment for animals

Enrichment is like a ´toy´ for the animals, mainly for the animals in a cage. It gives them something to do and in some cases challenge them to solve a problem.

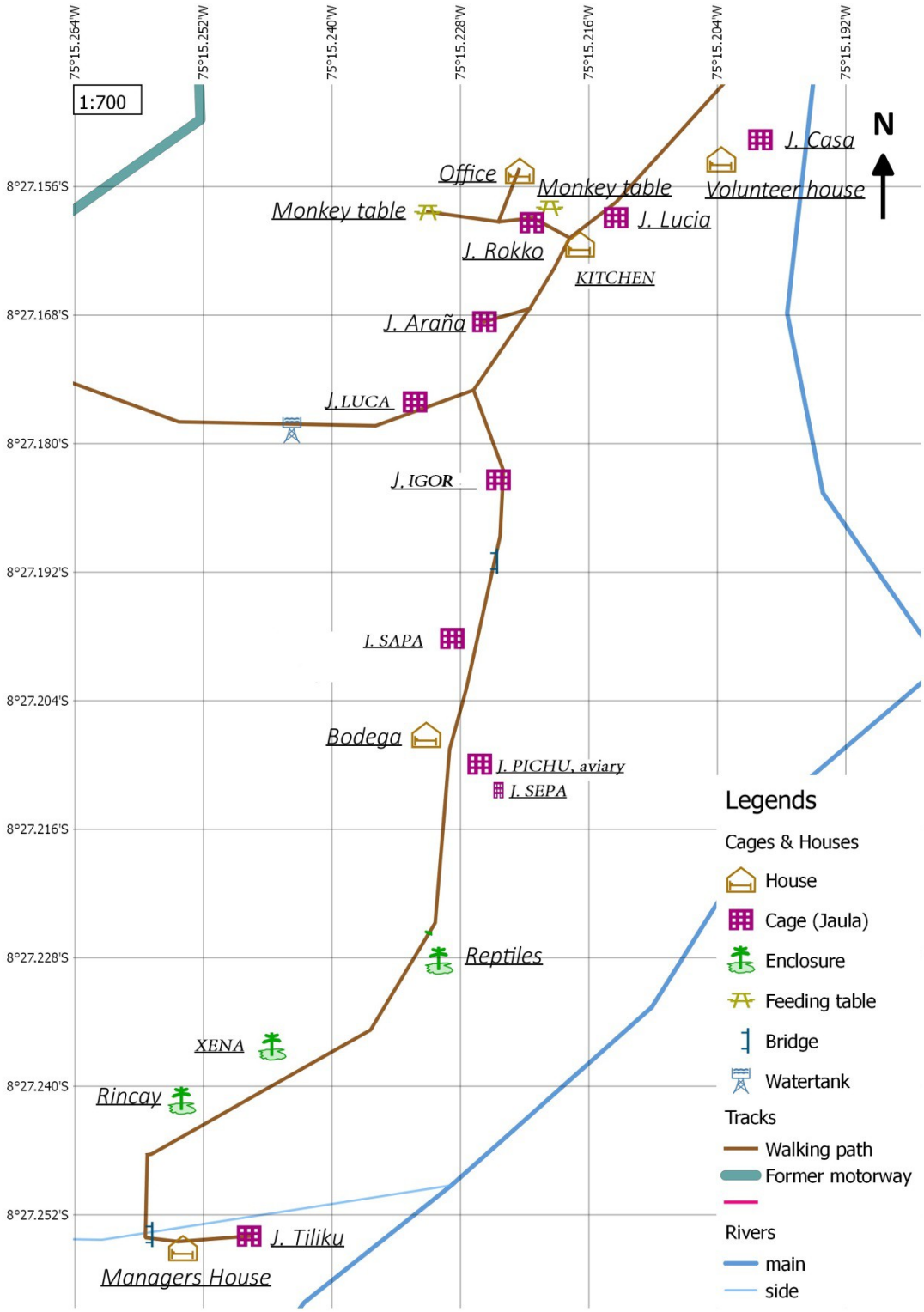
Jungle balls
You can make jungle balls for the spider monkeys and the monkey table, although the last one is less important, since they do not live in a cage.
How:
Collect some big leaves and fines and bring them to the bodega. Find some food items which the (spider) monkeys like, for instance boiled eggs, oat balls or banana, maybe some peanuts (in the parrotmix bucket under the sink).
Put some of the food you collected on some leaves, and fold the leaves over the food, so you cannot see the food anymore. Take the fines and tie them around the leaves, so it looks like a green ball. You can tie it strong, or take more fines; it should not be too easy to open them. Make at least one jungle ball for each (spider) monkey.

Food in a branch
You can make food in a branch for the spider monkeys and the monkey table, although the last one is less important, since they do not live in a cage.

How:
Find a branch; it should not be too thin, because you need to make holes in it. Make holes in the branch either by hand or drill (ask Douwe for advice), big enough to fit food (for instance peanuts) in there.
Put food which the (spider) monkeys like, for instance, peanuts, banana, egg pieces or oat ball pieces in the holes. To make it even more complicated for the (spider) monkeys, you can tie the sticks on the food table with fines. Another option is to make a hole all the way through the stick. Take a rope and put it through this hole in the branch. Tie both ends somewhere in the front cage.

Fruit on a rope
This tool can be made for birds. Take a piece of rope (ask Douwe for advice on which rope can be used safely, as you don't want animals to get stuck in it). Take pieces of fruit, that are not too soft (apple, banana, not too ripe papaya or pepino). Make small holes in the pieces of fruit, so you can put the rope through them. If finished hang the rope in one of the bird cages. Be sure you go only in cages where you are allowed to go (to avoid transmittance of diseases), or ask someone else who can go in this cage.

Appendix 2. Map



Appendix 3. Bodega protocol

1. Before you begin, look at all the available food and use the oldest, most ripe things first. If a part is rotten, cut it off, and use the good part.
2. Always wash your hands before and after every feeding.
3. Wash the fruit-vegetables with water before feeding.
4. Always check the daily special before beginning food preparation.
5. If we are running low on a particular food, lower the amount given per day so that it lasts for the week. Or save it for the animal that needs it most (e.g. green beans, save them all for Elmo only.
6. Never leave cut open papaya overnight. Feed it all in the afternoon (even if you then feed a bit too much).
7. When you come back from the feeding tour, wash all buckets (with brush) and plates outside first, then wash the feeding plates/bowls better inside.
8. If using soap to clean, rinse everything very well as any residue can harm animals, especially birds.
9. After every feeding, clean up the bodega, bananas from the floor should go on the table, the ripest up front for the next feeding. Stems without bananas can go to the compost. Look through the papayas, put the ripest or the ones with some fungus up front for first use.
10. If anything starts running out, e.g. rabbit food, vitamins, or vegetables-fruit, tell Olivia or Douwe. Best to warn some days before it runs out, because it is not always possible to replace an item directly.

WEEKEND CLEANING

after morning feeding:

- Clear out the whole cupboard for clening. Clean the shelves (mesh) with a brush and a bit of water. Let it dry before you put the items back in.
- Clean all cement shelves where papaya, potatoes, yuka, plates etc. are placed. At the end put some vinagre on a cloth and wipe the cement shelves (works as disinfectant and helps against ants)
- Clean the counter and the dry rack where the plates are placed, with soap and water.
- Give blackened cuttingboards, buckets or plates an extra cleaning. Put some vinegar on it for some minutes and it will make it easier. Scraping them with the back of a knife helps before brushing them off.
- Clean the stove area, including the stove. Make sure pots and pans are clean.
- Wipe the floor but don't clean it thoroughly yet!
- Wash both clothes at the volunteerhouse and bring them back.

After the afternoon feeding: Rinse, brush and wipe the floor well with water.

Appendix 4. How to care for Yara

How to feed:

Feed once a day, normally after dinner. Clean the bowl first (Yara's bowl has a own sponge (on the dogfood bucket). Use dog friendly leftovers (no milk, not too spicy) and add one hand of dog food. Mix it with a bit of water.
If there are no left-overs: Mix 2 hands of oats, 1 egg (raw, crushed incl. the shell), a ripe banana and some water.

She can have: chicken-bones, fish bones (she can handle them and loves them), bread, ripe banana, oats, eggs. Any leftover sauces, not too spice and not consisting of milk.
She can NOT have: raw onion, garlic, chocolate, or other raw vegetables.

Call Yara, say 'sit', 'espera' (wait) give here the bowl of food, and say 'come' (eat). She should stay seated till the bowl is down on the floor till the moment you say come.

How to calm her down when barking:
Go to her, touch her with your hand and tell her 'tranquila' or ´quieta´ (calm down) and 'esta bien' (it is okay) you can take her for a short walk if you have time and energy.
If people are passing by you can greet them in Spanish. It is normal people pass by, as it is for some the only way to their plantation. If people regularly pass by later than 9pm mention it to Douwe and Olivia. Especially if it is way later, like at 1am or 2am.

How to get her to come with you:
Tell her 'Yara ven' (come) and pat your legs hard. Be sure Yara is at the volunteer house when you go sleeping. Put a new monkey shirt in her box on Tuesday, and shake it out (sand) every day.

Of course she will listen to other languages as well, it is all in the tone of the voice!

<u>Any doubts or questions: ask Douwe or Olivia</u>

Appendix 5. How to clean the bathrooms

At the house:

- Take out the plastic floor mats and wash them with a brush and some disinfection in the sink for washing clothes, leave them there and put them back when you finished all the cleaning.
- Empty the toilet paper bin: take out the plastic bag, close it and through it in the garbage bin in the house.
- Put disinfection in the toilet and scrub it with the toilet brush (the one standing next to the toilet).
- Take the plastic container ('toilet') from the shelves, fill it with water and a bit of disinfection, clean the toilet outside with the brush from this container. Empty the water-disinfection mix in the toilet when finished.
- Take the container ('sink'), fill it with water and a bit of disinfection, clean the sink in the toilet, the sink in the washing area, the mirror, the door handles and the wood of the doors and behind the mirror.
- Take some fresh water and disinfectant in the sink-container and clean with this the floor of the shower, the toilet and the washing area, brush with the hard brush the dirty spots. After that dry it with the squishy by getting all the water to the drainages. Clean the drainages from any hairs and dirt.

At the kitchen:

Only clean the shower in the kitchen when people use it.

- Empty the toilet paper bin: take the plastic bag with toilet paper out, close it and throw it in the garbage bin in the kitchen.
- Put disinfection in the toilet and scrub it with the toilet brush (the one standing next to the toilet.
- Take the bowl ('toilet') and fill it with water and a bit of disinfection, clean with the brush the toilet. Empty the water-disinfection mix in the toilet when finished.
- Take the bowl ('sink') and fill it with water and a bit of disinfection, clean the sink in the toilet and the handles on the door.
- Throw a bit of water with disinfectant on the floor of the shower and the toilet; brush with the hard broom the dirty spots. After that dry it with the squishy by getting all the water to the drainages. Clean the drainages from any hair and dirt.

Appendix 6. How to clean the kitchen-livingroom

• Collect and wash dirty dishes/cups.

• Tidy up shelves for cups/plates including empty and clean the drip tray (white plastic tray under these shelves.

• Check if all the Tupperware in use is closed and clean the lids.

• Tidy up the inside of the food cupboard. Check for rotten or bad food and throw this away or bring it to the bodega. Bring items that need using quickly to the front.

• Check which items (herbs, tea, coffee, honey) needs to be refilled in the tupperwares and refill them if possible. You can find herbs, tea in the buckets in the attic, and coffee and honey in plastic bags hanging on a nail in the attic. If they run out tell Olivia, some items can only be bought in Pucallpa so it can take some time to restock.

• Clean the kitchen counter with disinfection (in the bathroom).

• Clean stove with disinfection, including and also inside of the oven.

• Clean compost buckets in the stream at the volunteerhouse with a brush.

• Sweep and wipe floor of the kitchen and living room area (bucket and mop are under the stairs/ sink or in the bathroom.

• Refill disinfection, use half disinfection (which can be found upstairs in the volunteer house) and half water.

• Tidy up book shelves and wipe if there is dust or mould.

• Tidy up area under the stairs. Any bags full of glass, metal or hard plastic, tie them up with a sting very well (against the monkeys!) and put them outside behind the living room. If any glass is broken, put them in a container and leave them under the stairs.
Empty clean big bags go in between the stairs and the wooden part of the wall. Plastic bags (whole and clean) go in the plastic bag hanging on a nail in the living room.

Appendix 7. How to clean the volunteer house

Downstairs:

- Sweep the floor of the living room, and the stairs.
- Clean the bar and small table(s).
- Tidy up bookshelf (because of humidity books should be standing or laying flat).
- Refill disinfection, use half disinfection (which can be found upstairs in the volunteer house or in the attic of the kitchen) and half water.

Upstairs:

- Store the boots on size and against the outside windows, so no clothes can dripp on them.
- Stack old-volunteers/monkey clothes neatly on the shelves.
- Get the dry clothes of the line, fold them and put them on the sofa downstairs and tell people to pick them from there. The leftovers should go on the stack of old-volunteers/monkey clothes.
- Sweep the floor of the communal part.

Appendix 8. List of animals at Esperanza Verde and their origin (March 2016)

(Animals who are mostly know by everone)

NAME	ARRIVAL (llegada)	BORN (nacido) (estimation)	ORIGIN

Brown capuchins

Jordi ♂	08/05/2012	December 2011	Local from Bello Horizonte, who killed the mother, and had Jordi for 3 days. (fed the mother to his dogs)
Khali ♂	12/02/2016	December 2015	Ministry, confiscated on a market in Pucallpa
Mica ♀	05/11/2010	08/10/2010	Woman from Bello, who bought her from a timber worker.
Nikita ♀	09/09/2014	December 2013	Ministry, conficated on the market in Pucallpa.
Nera ♀	12/02/2016	December 2014	From Parque Natural Pucallpa
Cinty ♂	27/01/2016	September 2016	Confiscated from private person en province San Martin

White-fronted capuchins

Chaira ♀	12/02/2016	December 2014	From Parque Natural Pucallpa
Xira ♀	12/02/2016	January 2015	From Parque Natural Pucallpa

Woolly monkeys

Willow ♂	07/05/2013	December 2012	Local in the village, killed and ate the mother, had Willow as a pet for a month.
Kamari ♂	20/06/2014	December 2012	From Parque Natural Pucallpa, originally confiscated from market?
Nakoya ♀	16/03/2014	November 2013	Local in village (Las Mercedes), who got her as a gift and had her for 15 days.

Chiquita ♀	27/01/2016	August 2014	Confiscate from private person, who had her as a pet, dressed up, including nailpolish, from province San Martin.

Howler monkeys

Sango ♂	28/02/2016	July 2016	Confiscated in province San Martin.

Spider monkeys

Yanay ♀	22/08/2014	2008	Ministry, confiscated. Living in a cage next to the road Neshuya-Pucallpa with Rimaq.
Rimaq ♂	22/08/2014	2008	Ministry, confiscated. Living in a cage next to the road Neshuya-Pucallpa with Yanay.
Lucio ♂	09/09/2014	Before 2000?	Ministry, confiscated from a Circus.

Squirrel monkeys

Camila ♀	17/01/2012	nov-december 2011	Woman in Bello Horizonte.
Leo ♂	25/04/2015	november 2014	Woman in Bello Horizonte.
Louie ♂	19/02/2015	november 2014	Ministery, confiscated in transport.

Night monkey

Sira ♀	28/02/2016	January 2016	Found abandoned, in province San Martin.

Coatis

Rucuy ♂	12/02/2016	adult	Parque Natural Pucallpa
Kimsa ♀	12/02/2016	adult	Mother of Mila, Parque Natural Pucallpa
Saya ♀	12/02/2016	adult	Parque Natural Pucallpa
Sultana ♀	12/02/2016	adult	Parque Natural Pucallpa
Mila ♀	12/02/2016	end 2015	young of Kimsa, Parque Natural Pucallpa

Kinkajous

Kiko ♂	06/10/2015	june-july 2015	Man from nearby village Las Mercedes

Peccaries

Quintisha ♀	08/10/2013	08/10/2012	Family from Bello Horizonte. A pet for almost a year.

Tapir

Rincay ♂	22/06/2010	January 2010	Man from Bello Horizonte, had him as a pet for a month.

Two-toed sloth

Elmo ♂	26/03/2012	18/03/2012	Man from Bello Horizonte. Found Elmo on his dead mother.

Red-brocket deer

Rabito ♂	07/03/2016	March 2015	Woman in Curimana, had him as a pet for more than 10 months.
Ringo ♂	07/03/2016	February 2016	Woman in Curimana (same as Rabito), a pet for a week.

Blue-and-yellow macaws

Rafiki	20/06/2014	?	Ministry, confiscated.
Asan	09/09/2014	?	Ministry, confiscated.
Ramara	09/09/2014	?	Ministry, confiscated.

Scarlet macaws

Ermina	09/09/2014	?	Ministry, confiscated.
Mebi	09/09/2014	?	Ministry, confiscated.

Red-and-Green macaws

Ruiz	20/06/2014	?	Ministry, confiscated.

Meally amazon parrot

Daenarys	31/07/2014	?	Ministry, confiscated.

Orange winged amazon parrots

Lina	20/06/2014	?	Ministry, confiscated.

Pumba	20/06/2014	?	Ministry, confiscated.
Asala	09/09/2014	?	Ministry, confiscated.
Logan	12/04/2015	?	Ministry, confiscated in transport.
Tamaya	12/04/2015	?	Ministry, confiscated in transport

White-eyed parakeets (aratingas)

5 in aviary	31/07/2014	?	Ministry, confiscated.
10 in Igor-cage (incl. Pichu)	20.11.2002 Pichu: 31/07/2014	?	Ministry, confiscated.

White-winged parakeets

Picor / Ocor	22/08/2014 15/07/2015	?	Ministry, confiscated.
111 in Igor cage	different arrival dates	?	Ministry, confiscated, mostly in transport.

Other bird-species

Pauki (oropendola)	22/07/2015	may-15	Girl in Bello Horizonte, found it in a nest, after people cut down the tree.
Churi (many-banded aracari)	28/02/2016	November 2015	Confiscated in the province San Martin.
Supay (shiny cowbird)	09/12/2014	November 2014	Boy from Bello Horizonte, found it on the floor, gave it to Kayla.

Yellow-footed tortoises

Pinoccio, Rambo, Momo, Pothos, Athos, Houdini, Pinku, Ricki, Marco Polo, Mentos, Nasca	different arrival dates	?	Most from Ministry, confiscated. Nasca and Houdini from locals in Bello Horizonte.
Pepito	21/12/2011	Before 2000	Local dentist in Curimana, had him as a pet for 12 years.

Yellow spotted riverturtle

6	different arrival dates	?	Ministry, confiscated.
around 14	19/11/2014	2014	Ministry, confiscated from a woman who was going to sell them (total of 3673)

Appendix 9. Names of species of the area

Latin	Deutsch	Español	English	Français	Local
Cebidae	**Affen**	**Monos**	**Monkeys**	**Singes**	**Monos**
aotus vociferans	Nachtaffe	mono nocturno	Night monkey	singe a nuit	musmuqui
callicebus moloch	Springaffe / Titi	mono titi	Dusky Titi monkey	titi	tocon
cebus albifrons	Weissstirnkapuziner	mono capuchino blanco	white-fronted capuchin monkey	sapajou blanc	mono blanco
cebus apella	Brauner/gehaupter Kapuziner	mono capuchino negro	brown or tufted capuchin monkey	sapajou brun	mono negro
lagotrix lagothricha	Wollaffe	mono lanudo comun	common woolly monkey	singe laineux	choro
saimiri sciureus	Totenkopfaffe	mono barizo/ frailecito	squirrel monkey	singe ecureuil/saimiri	wasa
ateles belzebuth	Goldstirnklammeraffe	mono araña de vientre amarillo	white-bellied spidermonkey	singe atele ou araingnée	maquisapa
saguinus fuscicollis	Braunrückentamarin	chichico de manto rojo	saddleback tamarin	tamarin à tête brune	pichico
alouatta seniculus	roter Brüllaffe	mono aullador	red howler monkey	singe hurleur	coto
pithecia monachus	Mönchsschweifaffe	parahuaco	monk saki	saki moine	wapo
Procyonidae	**Kleinbären**	**osos pequeños**	**racoons**	**procioneés**	
nasua nasua	Nasenbär	cuchucho	south-american coati	coati	achuni
potos flavus	Wickelbär	cusumbo	kinkajou	kinkajou	choshna
felidae	**Katzenartige**	**gatos**	**cats**	**chats**	
felis pardalis	Ozelot	tigrillo	ocelot	ocelot	tigrillo
Herpailurus yaguouarundi	Jaguarundi	yaguarundi, gato de monte	jaguarundi	jaguarundi	atco
Leopardus tigrinus	Oncilla	tigrillo chico	oncilla	oncilla	
Leopardus wiedii	Margay	margay	margay	margay	
puma concolor	Puma	puma	puma	puma	lluycho puma
panthera onca	Jaguar	jaguar	jaguar	jaguar	otorongo

Mustelidae					
Eira barbara	Tayra (Marder)	Cabeza de mate	tayra	tayra	manco
perissodactyla	**Unpaarhufer**				
tapirus terrestris	Flachlandtapir	danta / tapir	brazilian tapir	tapir terrestre	sachavaca
rodentia	**Nagetiere**	**roedores**	**rodents**	**rongeurs**	
hydrochaeris hydrochaeris	Wasserschwein	Capibara	Capybara	Capybara	ronsoco
dasyproctes fuliginosa	schwarzes Aguti	watusa (guatusa)	black agouti	agouti noir	añuja
agouti paca	Paka	wanta (guanta)	paca	paca	majas
myoprocta acouchi	Acuchi	Gatin (guatusa pequeña)	red acouchy	acouchi	punchana
Edentata	**Zahnlose**				
Choloepus hoffmanni	Zweifingerfaultier	perezoso	Southern two-toed sloth	Parresseux à duex doigts	pelejo
Priodontes maximus	grosses Gürteltier	armadillo gigante	giant armadillo	grand armadillier	yangunturo
Dasypus novemcinctus	neun Binden Gürteltier	armadillo de nueve bandas	nine-banded armadillo	armadillier	carachupa
tamandua tetradactyla	Ameisenbär	oso hormiguero	anteater		shiwi
Myrmecophaga tridactyla	grosser Ameisenbär	oso hormiguero gigante	giant anteater		waumiri
Tayassuidae	**Nabelschweinen**				
tayassu tajacu	Halsbandpecari	Sajino collar blanco	collared peccary	pecari à collier	sajino
tayassu pecari	Weisslippenpecari	Sajino labio blanco	white lipped pecari		wangana
Aves	**Vögel**	**pajaros / aves**	**birds**	**oiseaux**	
ara ararauna	Ararauna/Blau-Gelber Ara	guacamayo azul y amarillo	blue and yellow macaw	ara blue	guacamayo
ara macao	Hellroter Ara/Arakanga	gaucamayo escarlata	scarlet macaw	ara	guacamayo rojo
ara chloroptera	Grünflügelara	guacamayo rojo y verde	red and green macaw	ara	guacamayo
ara severa	Rotbugara	guacamayo frenticastaño	chestnut fronted macaw	ara	
amazona amazona	Venezuela Amazone	amazona alinaranja	orange-winged amazon		aurora
amazona farinosa	Müller Amazone	amazona harinosa	mealy parrot	perroquet poudre	uspa lora
amazona ochrocephala	Gelbscheitelamazone	amazona coroniamarillo	jellow crowned amazon	amazone à front jaune	
aratinga leucophthalmus	Keilschwanzsittich	perico ojiblanco	white-eyed parakeet	lora come mais	
brotogeris cyanoptera	Kobaltflügelsittich	perico alicobalto	cobalt-winged parakeet	toui à ailes bleues	pedro
brotogeris versicolurus	Weissflügelsittich	perico	white-winged parakeet	toui à ailes blanches	pedro
brotogeris sanctithomae	tui Sittich	perico	tui parakeet		pedro

pionites melanocephala	Schwarzkopfpapagei	loro coroninegro	black-headed parrot	perroquet à tête noir	chiricles
pionus menstruus	Blaukopfpapagei	loro cabeziazul	blue-headed parrot	perroquet à tête blue	urito
pyrrhura melanura	Rotschwanzsittich	perico colimarron	marron tailed parakeet	perruche	maracana
ramphastos tucanus	Weissbrust Tukan	tucan goliblanco	white-throated toucan	toucan de cuvier	pinsa
ramphastos vitellinus	Dottertukan	tucan piquiacanalado	channel-billed toucan	toucan	
Pteroglossus castanotis	Arazari	arasari orejicastaño	chestnut-eared araçari	araçari	
Pteroglossus erythropygius	Arazari	arasari piquipalido	pale-mandibled araçari	araçari	tawaquero
penelope jacquacu		pava de monte	Spix's guan	guan	
pshophia crepitans	Grauflügeltrompeter	trompetero aligris	grey-winged trumpeter	agoumi	trompetero
ortalis guttata		Chachalaca Jaspeada	Speckled Chachalaca		manacaraca
gallinula chloropus	Moorhuhn	gallareta comun	common moorhen		paujil
chloroceryle amazona	Eisvogel	martin pescador	amazon kingfisher		ratalan
Opisthocomus hoatzin	Hoatzin	hoatzin	hoatzin	hoatzin	shangsho
aratinga weddellii			dusky-headed parakeet		vacamuchacho
pyrrhura roseifrons			rose-fronted parakeet		
Reptilia	**Reptilien**	**reptilios**	**reptiles**		
boa constrictor	Abgottschlange	boa constrictor	red tailed boa constrictor	boa constrictor	boa
bothrops atrox	Lanzenotter	equis	fer de lance	fer de lance	jergon
caiman crocodilus	Brillenkaiman	caiman de anteojos	spectacled caiman	caiman à lunettes	lagarto
geochelone denticulata	Waldschildkröte	tortuga terrestre / motelo	tortoise	tortue terrestre	motelo
podecnemis expansa	Wasserschildkröte	tortuga de agua	turtle	tortue de l'eau	charapa