

# MACAW TAILS

TAMBOPATA MACAW PROJECT  
NEWSLETTER



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## The breeding season has begun

SHANNAN COURTENAY

This breeding season was kicked off by the nesting couple in Mandy-Lu, a wooden nest box that was unoccupied last breeding season. Mandy-Lu hatched on 15 of November and by Christmas, there were 47 eggs and 26 chicks in 16 nests! Between Christmas and New Years another 2 chicks hatched bringing the total to 28. With 3 more months of the breeding season to come, we all knew it was going to be a busy one.

Five days after Mandy-Lu I hatched, a second chick followed. According to our previous research, because it was so much younger it had a very high risk of dying from starvation. The parents will feed the first chick more food, more often, preening and caring for it, while the second chick slowly dies of starvation. That's where our translocation program comes in.

On 21 November 2017, we took Mandy-Lu I, or Perucho as he was now known, from the nest and brought him back to the research centre so that

his younger sibling would be cared for by its parents, giving it a much better chance of survival.

Our veterinarian spent the next 8 days and nights feeding Perucho, keeping his brooder at a specific temperature by using a car battery and limited electricity, monitoring his weight and changing his bedding. It was only the beginning of many sleepless nights. *(continued page 3...)*



*Perucho, the first chick of 2018 breeding season at TRC.*

# The Tambopata Macaw Project

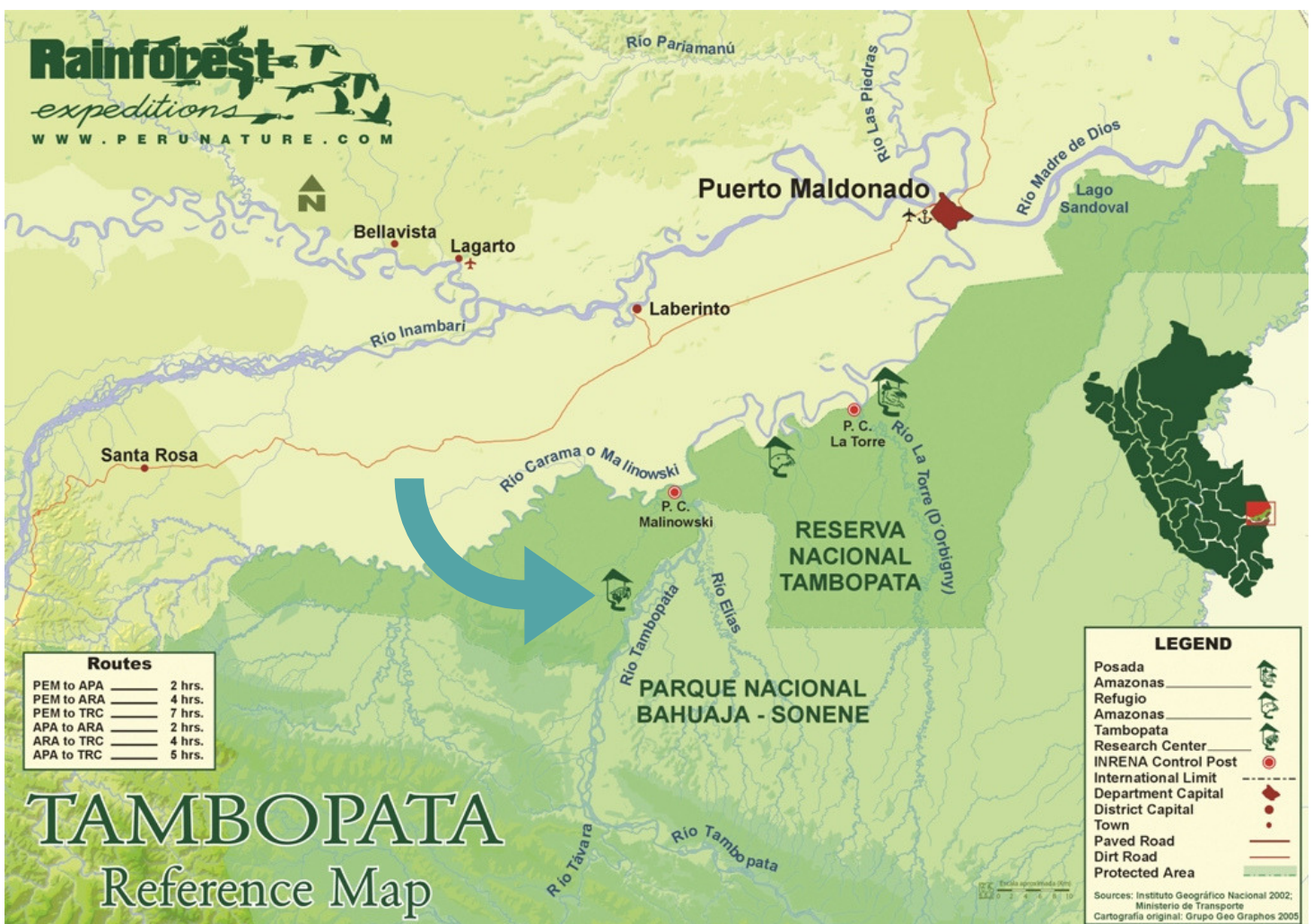
Since 1999, the Tambopata Macaw Project has monitored a total of 132 wild Scarlet Macaw nests in the forest around the Tambopata Research Centre, in the lowlands of South Eastern Peru. Under the direction of Donald Brightsmith, the project has been instrumental in determining the life history traits, behavior and chick development in Scarlet Macaws.

Before this project began in 1989 the world knew very little about the behavior and development of large macaws. With almost 20 years of hard work we have been able to discover so much about how these species live, what they eat and how they interact. We have been able to contribute to their conservation and help other projects develop techniques to do the same.

## What we do

Currently, we are focused on developing techniques to save baby Scarlet macaw chicks. Our research shows that almost half of chicks die before fledging and that starvation is the main cause. Scarlet macaws usually lay between 2-4 eggs, but only 1 or 2 chicks survive to fledging age. Our trial studies suggest that if 3 chicks hatch in one nest, the 3rd chick has a much higher chance of survival if it is moved into a nest with no chicks, or only 1 chick. The new parents will adopt and care for the new chick, allowing it to reach maturity and fledge from the nest.

## Where we are



Map of the Tambopata National Reserve in Madre De Dios, Peru. The blue arrow shows where the Tambopata Research Centre is located.

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Over the next week, climbing teams were sent to the Mandy-Lu nest every day to climb to the nest, take out the second chick and send it safely down to the veterinarian on the ground. Once there, the chick was weighed, measured, checked for parasites and signs of starvation.

In the beginning, all seemed well and the second chick was putting on weight as expected. However, after a week, its soft pink body was riddled with botflies and it wasn't gaining weight. The veterinarian was concerned so it was decided that the two chicks would be switched; Perucho would return to his nest and the second chick would be taken back to the research centre until it had grown stronger.

So, on 29 November we checked the weather, prepared the climbing equipment, the buckets, cameras, volunteers and headed back to the nest Mandy-Lu. We all said our goodbyes to Perucho and wished him luck as he was safely transferred into his nest. As the second chick was lowered down the two macaw parents flew into the nest and started to preen and feed Perucho. They accepted him back without a second thought!

Aroha, the second chick from Mandy-Lu, was cared for by our dedicated team in the research centre for almost two weeks before she was healthy and strong enough to return to her nest with Perucho.



*The field leader, Liz Villanueva, syringe feeding Aroha, the second chick from nest Mandy-Lu.*

However, before she did, she was joined in the research centre by two other newly hatched chicks from Franz. This nest has had the same Scarlet Macaw couple nesting for seven years in a row now and they fight hard every year to keep it. We suspect they are a mature pair with lots of breeding experience, which is why they can hold their own against other adult macaws and often successfully fledge one or two chicks in a season.

We knew that the first chick from Franz was due to

hatch on 28 of November and so it did. From this date on, we climbed Franz every day to check whether the second and third chick had hatched. On 3 December the second chick from Franz hatched, followed by a third chick three days later.



*Chick 3 from the nest Franz was named 'Walker' and only weighed 19 grams when he hatched.*

To give all three chicks the best chance of survival we decided to take the first and third chicks back to the research center. We took Franz I, (named Pancho), as soon as Franz II hatched. He was 5 days old and very healthy. However, Franz III (Walker) was taken as soon as he hatched. He was underweight and needed urgent attention. We all thought he was going to die. However, after a couple of weeks and a lot of extra care from our macaw chick breeding expert, Mark Moore, Walker managed to become healthy.

Pancho was returned to his nest after a couple of weeks in the centre and was accepted by his parents with no problems at all. Walker, on the other hand, needed a new home. We couldn't put him back into Franz because he was so much younger than his brothers and would likely be ignored by his parents. He would be our first translocation to another nest - but first, we had to find a suitable nest!

## *Did you know...?*

As the breeding season approaches, Scarlet Macaw couples will fight over the most desirable nests. Sometimes a couple will hold a nest for months only to be booted out by a stronger couple just before they start laying their eggs!

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A similar story happened in the nearby nest "Hugo". The second chick hatched after just two days and three days after a third chick hatched. The first and second chicks were left in the nest but the third chick was taken back to the research centre the day it hatched. We named it "Cerveza". With four chicks in the centre, we had managed to survive weeks of sleepless nights and days of hot, hard work. A total of 16 chicks had hatched. Everyone needed a beer (or cerveza) at this stage of the season!

Throughout December we brought four more chicks back to the research centre that were at risk of starvation, Mario (Molinero I), Luigi (Ceiba I), T-Rex (Tapir i) and Gas (Gavilan II). During this time Hugo II died leaving just one chick in the nest. Although this was very unfortunate, it was a natural event and gave us the opportunity to give Walker a new home.

Walker was accepted into the nest Hugo nicely and the macaw parents were preening him after just a few short hours. It took an extra push for him to learn how to be fed by his new parents, but after a few days he was doing well. To make sure that he kept gaining weight and growing normally, we climbed the nest twice a day and gave him supplemental feedings once per day.



Researchers hand-fed "Walker" once per day in the field during his first 10 days in his new nest.

We also had a video camera installed in the nest and our volunteers were out in the jungle for hours watching and recording every movement the parents and chicks made.

The last translocation we did in December was Molinero I, or Mario. He spent two weeks in the research centre while his younger sibling put on weight in the nest. Molinero nest sits in a *Spondias mombin* tree only a few meters away from TRC.

When Mario was returned successfully to this nest, we hooked the video recorder up to the television in the lodge so we could monitor how he was doing each day. We could see that his begging response was good and he's been growing steadily since then.



Our video camera installed in nest Molinero has been hooked up to the TV in the lodge so we can monitor parental acceptance.

So we ended the year with five successful translocations and four chicks still being hand-fed in the research center. A total of 25 chicks are alive in their nests and there are still another 10 more eggs to hatch!. It will be a busy January for sure!!!

**Table 1: Showing a breakdown of the breeding season as of December 31st 2017 and how many chicks we are monitoring in their nests around the Tambopata Research Centre.**

Macaw Species	Nest Name	# Chicks Hatched	# Chicks Died	Nest Type	Tree Species	# chicks translocated	New Nest for translocated chicks
 Scarlet Macaw	Amor	2	1	 PVC	<i>Apuleia leiocarpa</i>	0	
	Gavilan	3	1		<i>Dipteryx micrantha</i>	1	At research center
	Pukakuro	2	0		<i>Dipteryx micrantha</i>	0	
	Invisible	1	1		<i>Dipteryx micrantha</i>	0	
	Tigres	1	0		<i>Hymenaea courbar</i>	0	
	Ceiba	2	0	 Wooden	<i>Ceiba pentandra</i>	1	At research center
	Tapir	2	0		<i>Ceiba pentandra</i>	1	At research center
	Mandy Lu	2	0		<i>Dipteryx micrantha</i>	2	Back to Mandy Lu
	Franz	3	0		<i>Dipteryx micrantha</i>	2	Franz & Hugo
Hugo	3	1		<i>Dipteryx micrantha</i>	1	At research center	
Molinero	2	0		<i>Spondias mombin</i>	1	Back to Molinero	
 Red & green Macaw	Bill	1	1	 Natural	<i>Apuleia leiocarpa</i>	0	
	Silver	2	1		<i>Dipteryx micrantha</i>	0	
	Stanford	2	1		<i>Dipteryx micrantha</i>	0	
	Intocable	3	1		<i>Dipteryx micrantha</i>	0	
	Vaginito	2	0		<i>Hymenaea courbar</i>	0	
<b>Summary of chicks up to 31 December 2017</b>		<b>33</b> Chicks Hatched	<b>8</b> Chicks died	<b>Breeding Season 2018</b>			

# Introducing ... the translocated chicks

By the 31st of December, nine chicks had spent time away from their nests being cared for in the research centre. Because of the number of days between their hatching date and the hatching date of their siblings, if we didn't do this, either they or their siblings had a very high chance of dying from starvation. Thanks to all the people involved in this project, as well as our generous supporters, these chicks are now alive and healthy. We'd like you to meet them.



PERUCHO

HATCHED: 15 NOV 17  
NEST: MANDY-LU  
CHICK 1



AROHA

HATCHED: 21 NOV 17  
NEST: MANDY-LU  
CHICK 2



PANCHO

HATCHED: 28 NOV 17  
NEST: FRANZ  
CHICK 1



WALKER

HATCHED: 6 DEC 17  
NEST: FRANZ  
CHICK 3



MARIO

HATCHED: 8 DEC 17  
NEST: MOLINERO  
CHICK 1



LUIGI

HATCHED: 11 DEC 17  
NEST: CEIBA  
CHICK 1



CERVEZA

HATCHED: 11 DEC 17  
NEST: HUGO  
CHICK 3



T-REX

HATCHED: 26 DEC 17  
NEST: TAPIR  
CHICK 2



GAS

HATCHED: 20 DEC 17  
NEST: GAVILAN  
CHICK 2

# Nesting in the Amazon

Our research team monitors a total of 40 macaw nests in 32 trees throughout the jungle around the Tambopata Research Centre.

These trees are giants of the jungle, emergents which rise above the canopy, providing shelter and food for hundreds of plants, animals and insects. Some of them are hundreds, perhaps even thousands of years old.

Scarlet macaws in the region are only found nesting in tree hollows in five tree species, with a preference for the Ironwood (*Dipteryx micrantha*) and Ceiba tree (*Ceiba pentandra*). This means the nesting population of Scarlet macaws is not only dependant on how many large, old trees there are, but also how many have suitable tree hollows. Research has shown that even in a pristine rainforest, on average there is one suitable tree hollow per 15 hectares!



*One of the nesting Scarlet macaw adults eyes our climber as she approaches a PVC nest, suspended 30m up an old Ironwood tree (*Dipteryx micrantha*).*

Since 1989, we have designed, built, redesigned maintained and replaced artificial nests and hung them in these large trees to help increase the wild population of nesting macaws in the area. To date, we have 9 wooden nest boxes, 13 PVC nest boxes and 16 natural nests.

So far this breeding season there are chicks in seven of the natural nests, eight wooden nests and six PVC nests.

## *Did you know...?*

Although Red-and-green macaws are usually only found nesting in naturally formed tree hollows, Scarlet macaws will happily nest in wooden nest boxes as well as those made from PVC.



*An Amazon giant, the *Ceiba pentandra* tree, is home to thousands of species - including a nesting macaw couple and their chicks who have made a home in one of our wooden nest boxes. Known by local tribes as the 'mother of the forest', the *Ceiba p.* tree has strong cultural and spiritual significance for many people.*

# Meet our climbing expert:

## *Carlos Huamani*

Carlos Huamani C. grew up in Puerto Maldonado, which is located about 7 hours by boat from the Tambopata Macaw Research Centre. He has been working with the Macaw Project for more than 6 years, starting as a volunteer and then being hired as an assistant, eventually becoming the field leader. He has always been a talented climber and is now the expert climbing teacher at the Project, responsible for training the new volunteers that come on board. He is also responsible for the construction of artificial nests and placing them in the trees.

He describes himself as a tourist guide, professional climber and huge nature lover!

"I love working with macaws because I think they are the most colorful, interesting and intelligent birds in the world. I love Tambopata because it is one of the best conserved and most biodiverse places in Peru. In my free time, I like to birdwatch, travelling across Peru and learning more about the species I encounter" - Carlos Huamani



*Carlos Huamani C. builds and places our artificial nests. As well as working throughout the breeding season teaching volunteers to climb, he returns to Tambopata in July to maintain the nests and help prepare them for the coming breeding season.*

# A lucky encounter

ROSHAN TAILOR

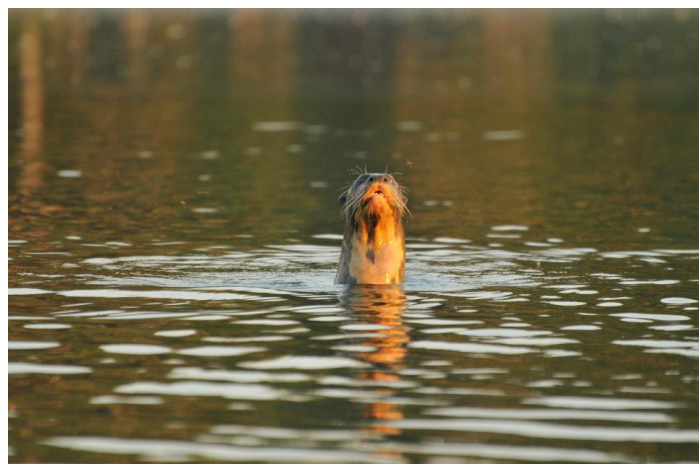
Part of our job is to monitor the nests we are translocating chicks into so we can be sure the chicks are accepted by their new parents. We install video recorders into these nests which are connected to a car battery at the bottom of the nest.

These nest observations involve sitting on a chair underneath a tarp for 6 hours watching the nest video on a little tv screen and recording every move the parents and chicks make. From feeding to begging to preening - it's all recorded via video and also in written form. This is an account from one of our volunteers, Roshan, of a nest video observation that involved a few surprising guests...

So who says sitting watching a nest for 6 hours is boring? I was doing a video observation of nest Mandy-Lu, and with about 20 minutes to go, I heard this screeching sound coming from the creek behind the nest, I thought what is that?

So I went down to the creek and heard this big

splash. I initially thought it was a tapir, but then a Giant River Otter swam past, followed by 4 more! I honestly could not believe what I was seeing...a family of otters playing around, probably looking for fish. They continued swimming and calling, then another made a splash. As they swam past me, I ran as fast as I could to get my phone, but when I returned they had gone. It was absolutely awesome, especially when the chances of seeing them at TRC is so incredibly rare! It was the best nest observation ever I think!



*An endangered Giant River Otter (Pteronura brasiliensis) periscoping from the river.*

# Insights from our volunteers

LOIC DE LEEUW

I've been fascinated by nature ever since I lived in Africa when I was young. Nine years in the tropics and then back to Holland. Since then I never really went back to the tropics, so I was really excited to go to the Peruvian jungle. By now I've been at Tambopata Research Center for about 3 and a half months and sadly I will be leaving in 2 weeks to go back to normal life in Holland. Four months really flies by in the jungle.

The thing I love the most is that every day is different. Going out into the jungle, you never know what you are going to meet, so each day brings its own surprises. It can be anything from a grasshopper bigger than your hand to a frog smaller than your fingernail, to the flash of a jaguar. Or, you almost step on a huge caiman sunbathing on the path to Ayahuasca nest. Everything is possible. And even though the forest is never quiet, the monkeys howl, the macaws' screech and the insects' buzz, it is still very peaceful. Just walking through the forest or sitting down on the third bench, there is a loud quietness to the jungle that you're not likely to find anywhere in the "civilized world".

Plus, the forest changes so quickly, especially with rain. The river can rise in a couple of hours to be un-navigable and if it continues to rain you get to witness something like the 'Great Flood of Christmas Day'. The river rose so much that it reached the center and you could see supplies floating by! A lot of the trails were completely flooded and Pukakuro, an artificial nest 30 meters from the center, could not be reached.

At the base of this tree, you would be chin deep in the water. So climbing was postponed until the next day, when the water was actually mostly gone,



*One of our dedicated volunteers gives a friend a piggy-back through the rising water as the river begins to breach the banks.*



*A Scarlet Macaw, with its 1m wingspan, outstretched, flying over the Peruvian Amazon rainforest in Tambopata National Reserve.*

leaving a thick layer of mud everywhere. A lot like snow, just not white. It made for an interesting change of all my familiar haunts. The Bowl was waist deep underwater, probably teeming with caiman swimming past my camera trap. Sadly, after wading through water that was up to my hips and pulling the camera from its perch below the surface of the water, it had not registered the flood. But luckily it still worked, so it's out in the jungle again capturing any unsuspecting animal (or researcher) passing by.

But, I guess I am supposed to talk a bit about the project and the big birds (macaws). Even though they basically are a means to an end and all the data I collect is "collateral damage" of me wandering through the woods. To quote my good friend Foxy Springer, it's all "monkey picture time" and occasionally you stop at a nest for 10 minutes to check if the big birds use it, or you note the number of parrots flying over at a census point. Still, I love the work and the climbing is really cool, giving you a bird's eye view of the forest. You really get up close and personal with the birds, sometimes a bit too close, but rest assured, I still have all my fingers (just barely).

But now I'm off to polish my bones so I can send some to my old roommate Captain America, with whom I used to roam the forest and do as many home invasions (nest climbs to check for eggs) and alien abductions (lowering of chicks to the veterinarians downstairs) as possible, in order to save the world of macaws and ensure that they will be able to fly off into eternity.

Greetings,

The Green Lantern (also know as: The Bone Collector, Lucho, or Loïc de Leeuw)



Thank you,  
from the whole team at TRC



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