



# Tangkoko Conservation Education

Education programme of the Macaca Nigra Project

## Newsletter 2014-2015 school year



Biodiversity survey in Tangkoko forest with Ipong, volunteer from Airmadidi



Practical display about waste (Lesson 1)



Caroline from Selamatkan Yaki presenting the NGO's activities



Stephan explaining the lesson about macaques



Visiting the Tasikoki centre

### August 2014: Training course for local teachers

For the first time, the TCE team organised a training course for teachers ahead of the school activities. Through this course, we are aiming at improving our teaching methodology and benefit from new ideas from experienced teachers. This will enable us to consider how lessons can be made an integral part of the new curriculum put in place in Indonesia in 2013. The training took place in three different venues in the Bitung region from 28 to 30 August 2014.

We were supported by the Department of Education of Bitung City and the Ministry of Forestry's conservation agency (BKSDA). We were also supported by our partners Selamatkan Yaki, Tasikoki, Macaca Nigra Project, as well as « Tunas Hijau » and « Nature and Education » nature clubs who provided with volunteers and logistical support.

The 28th August was the first day at SMP2, a secondary School in Bitung. It was dedicated to theory training, including a presentation of the new curriculum, (K13) by Ibu Kenny L. Mamahit of Bitung local authority. The new curriculum has a new teaching system, including concrete activities to involve the pupils (field-work, vis-its, practical exercises and work-

shops) and will be integrated gradually into Indonesian schools.

During this session, we also introduced our environmental lessons and presented some ideas for practical work in class. Our partner, Selamatkan Yaki gave an outline of its activities and the lesson about the flora and fauna of Indonesia and Sulawesi was presented by a local guide.

On day 2, the 29th August in Tasikoki Rescue Centre, the teachers were given information about the aims of the Tasikoki Centre (rescue, rehabilitation and release of animals back into the wild). In the afternoon, they were able to visit the centre itself. We explained the lesson about the issues for protected animals under threat in Indonesia, North Sulawesi and especially Bitung, as this region constitutes an important base for illegal trafficking of wild animals.

On day 3, August 30th in Tangkoko, Stephan from the Macaca Nigra Project presented the aims of the research station and the lesson about primates and crested macaques. Afterwards, the teachers ventured into the forest to observe the macaques. Stephan

introduced special activities such as listening to the sounds of nature, or making a survey of local biodiversity.

Training of teachers plays now an important part in our programme. We hope, thanks to these activities, that the teachers will be able to integrate our lessons into their classes on a daily basis and also to bring their own contributions to our materials and adapt them fully to the curriculum.

All the teachers were pleased to be able to take part in these three training days. Ibu Syane H. Kombaitan is a teacher in the primary school of Duasudara, a village near Tangkoko. She said "The TCE programme can be integrated into the K13 curriculum. It enables pupils to go into the forest to get a better knowledge of the wildlife and local biodiversity".

We are grateful for the participation and support of all our partners involved in these three days!



Observing the macaques in Tangkoko



Our participants and partners

# The 2014-2015 year in pictures



Lesson 6 about the endangered animals in Indonesia, with Ibu Tini from BKSDA at the SD 48 primary school in Manado



Lesson 4 with Stephan of the Macaca Nigra project, together with the pupils of Airmadidi



Trip to Tangkoko and observation of macaques with Yandhi of the Macaca Nigra project with pupils from Kasawari and Pinangunian



Lesson 6 with Billy from Tasikoki in Batu Putih



Assessment questionnaire completed by Pak Adri Anggoronggang, head teacher of SD GMIM School in Pinangunian

This year, Tangkoko Education Conservation delivered interventions for 18 schools, involving 417 children from 9 to 15 years old around Bitung (situated next to the Tangkoko Reserve), North Minahasa, (next to Mount Klabat) and Manado (next to Mont Tumpa). The new school involved this year were the primary schools situated in Danowudu, Kasawari, Airmadidi, and Tuminting.

We are developing our activities around Mont Klabat and Tumpa, as these protected forest also shelter animals such as crested macaques, hornbills, tarsiers and cuscus.

As we do every year, we aimed to provide environmental education that will enable the younger generation to better protect their local environment.

For the first time this year, our 6 environmental lessons were gathered in a booklet, combined with illustrations from Elodie Philippe. The pupils much appreciated this tool and they were able to bring these booklets home to show it to their families.

We delivered our interventions from September 2014 to April 2015, together with the help of several volunteers, as well as our partners: the Macaca Nigra Project (for the lesson 4 about macaques), BKSDA and Tasikoki (for the lesson 6 about protected species). Additionally, we provided trips to Tangkoko in February-March 2015 with the Macaca Nigra Project and the guides.

Aiming to assess the programme's effectiveness for the participants, we distributed an evaluation questionnaire to the pupils, parents and teachers before and after the programme. We are currently analysing the data and will provide the results soon. Mrs Victorina Pinontoa, head teacher of the primary school of Danowudu, told us: "After taking part in the TCE programme this year, we found that children have a better attitude and are prepared to pay closer attention to their environment around the school." We would like to thank all schools participating and our partners for their help!



Lesson 3: Flora and fauna of Indonesia, Sulawesi and our forests, with Deyti at SMP Negeri 7 Secondary School in Bitung.



Lesson 2, Ecosystem and Biodiversity by Kasa Kaunang, volunteer at the Nature Lover Club « Tunas Hijau Airmadidi » at SD I School in Airmadidi



Lesson 4 (Primates, crested macaques and the Macaca Nigra Project) in SD N 48 school in Manado



Biodiversity survey in Tangkoko with Stephan of the Macaca Nigra Project and pupils from Batu Putih



Observation of the environment around the school in Airmadidi with Mitha of Nature and Education club.



Lesson about the crested macaques

## Other activities with schools

### Bag-making workshop

In November 2014, TCE received a visit from Ronald, a volunteer of the Mapala Alaska Nature Club for a recycling workshop at Sagerat primary school.

Ronald taught the pupils how to make bags from recycled materials. The materials used come from the sacks that are normally used to transport coconuts. The pupils cut out,

painted and sewed their bags.

The head teacher of the school asked to extend these activities to another class in the school.

These activities enabled children to get a concrete, real feel for the idea of recycling and at the same time developing their creative skills!



Ronald demonstrating how to cut the sacks



A pupil drawing a macaque and a hornbill on a bag.



### Tree-planting session inside the grounds of Sagerat School



Pupils at Sagerat, planting trees in the school yard

Teachers from the class 5 at Sagerat primary school are deeply committed to environmental protection and we are delighted to see how they are bringing awareness to their pupils.

With the help of the TCE team, the teachers and pupils have cleared an area in the school yard to grow medicinal plants, at the same time are learning about the plants' positive benefits for humans.

This practical exercise has been integrated into the new school curriculum. Our hope is that thanks to this action, the pupils will start to pass on their knowledge to people around them, in their home and village, and change the behaviour of those people who, at the moment, are careless of the environment.

We send our hearty congratulations to the school staff at Sagerat School for this wonderful initiative.

### Coral day 2015: Pupils from Manado explore the mangrove of Bangka Island

On 9th May 2015, the pupils in Manado, accompanied by the TCE programme, took part in the Coral Day on the Bangka Island in North Sulawesi. This was organised locally by Suara Pulau (<http://www.suarapulau.org/>), a NGO dedicated to Bangka's conservation, in collaboration with several organisations including TCE.

The pupils took part in games to get to know the mangrove. It was interesting for them to concretely discover this ecosystem, as it is part of lesson 2 of the TCE's programme: Ecosystems and biodiversity.



## An Article from Mongabay Indonesia (Mongabay.com) on the end of term event of Tangkoko Conservation Education

« A hundred children, teachers, and parents gathered at the animal rescue centre of Tasikoki (PPST) on Friday 22nd May 2015. Each spring, the children who have been following the Tangkoko Education Conservation programme held an end of year event. For this event, the children were divided into several groups and received a worksheet with problems and puzzles for them to solve. During this day, they have to answer questions in different parts of Tasikoki Centre.

For example, to answer questions on the Malayan sunbear, the pupils have to go to its enclosure and read the information posted about that animal. The pupils also pay a visit to the plant nursery and the mangroves nearby. The aim is to involve children in conserving flora and fauna by going directly to the locations mentioned in the worksheet. Other activities have been set up for all the participants: A great game of snakes and ladders about the environment, an exhibition about animals of Sulawesi, a concert, and many more activities. A lot of fun things to do after hard learning!

Thanks to the activities presented on the day, Chyntia, from SD 48 primary school in Manado has learned a lot about animals and plants: "I saw a Malayan sunbear, yellow-crest cockatoos, and I was able to go into the mangrove". Tangkoko Conservation Education enabled her to pay closer attention and take better care of the environment. Chyntia is now ready to get involved in conservation work. "It's sad to think that animals are being hunted when they are in danger of becoming extinct. I want to explain to my friends not to buy protected animals from the wild". Elizabeth Mamonto, a teacher from SDN 48 primary school in Manado, who accompanied the children that day; is a great supporter of TCE: When she observed her pupils during the day out, Elizabeth became aware that her pupils began to realise the importance of protecting the environment. She hopes that TCE will be able to continue delivering outreach activities about the environment into her school next year.

Deity Mekel, the local assistant of TCE, is delighted that most of the schools involved are taking an active part in this final event. 18 educational establishments including primary, secondary schools and high schools are involved, making a total of 471 pupils. (...) Stephan Lentey of the Macaca Nigra Project explains, "There are schools like those near Airmadidi, close to Mount Klabat, there are schools around Manado near Mount Tumpa. Year after year we have an interesting process as we need to adapt to each school, to different people". The battle, however, goes on. Stephan added, "Every year the MNP discover traps set in the Tangkoko forest near Batu Putih. We still see illegal forestry-works and poaching of wild animals. I believe the only solution to these issues is environmental education".



Pupils in the plant nursery



Game in the mangrove



Announcement poster of this end of year event

ARTICLE FROM  
THEMMY DOALI



Group picture

## The first TCE's international volunteers!

### « Sulawesi: What a lovely place! »

In August 2014 and for the first time, TCE received help from two international volunteers, Claire Drury and Claire Gayraud. To keep things simple the TCE team nicknamed them "D" for Drury and "G" for Gayraud. "G" is a French environmental engineer from Sita Sud-Ouest, in Bordeaux. Her job is to concentrate on developing waste treatment sites. "D" is a student at Bristol University in England, where she is studying wildlife conservation. "D" has dual nationality, French and British.

G and D stayed in Sulawesi for 2 weeks to assist in TCE activities, especially with our teacher training. Our grateful thanks go to them for their extremely valuable help! Here is what they said:

**Claire D:** « I volunteered for the Tangkoko Conservation Education Programme for just under three weeks in August and September. It was a great experience and would not change a minute of it! The coordinators of the project and everyone that helps them are the most motivated, hardworking and kind people I have ever met. Everyone made me feel very welcome and at home from the beginning. Although I did not participate in the education sessions (as I was there during the preparation for the new school year)

I gained a lot from the experience and it was interesting seeing the planning side of things and be involved in the teacher training days. North Sulawesi is a beautiful place which just made my time there even better. I was lucky enough to see black crested macaques whilst I was there and it is great that local organisations including TCE are working together to protect them and their habitat. All in all it was great and I would encourage anyone to get involved in the project. Keep up the good work team PKT!! »

**Claire G:** « "I was lucky to be able to get a helping-holiday in order to take part in the Tangkoko Conservation education programme. I was able to join in the preparation and logistics for the teacher training course over 3 days, which gave me an excellent chance to understand the issues and activities of the TCE project and to contribute to it.

During the first theory day we were able to put together a display of practical exercises to do with children on waste recycling. The following two days in the field, in Tangkoko forest and Tasikoki rescue centre were invaluable for me from the point of view of biodiversity. I was able to take part in setting up the workshops delivered in the forest for teachers, about identifying local biodiversity.

For me this was as enriching on biodiversity as on the people level. I hope to be able to continue to help the project, especially on waste management, which is my job."



Macaques and rubbishes in Tangkoko  
Photo: Claire G



Claire Drury and Claire Gayraud



Claire « D »'s favourite picture: « Working and having fun! » left to right: Claire G, Nona, Claire D, Mathilde, Deity and Stephan



Display on waste treatment for the teacher training



Lin, A local volunteer from Tunas Hijau in Airmadidi helping for an event organised by Suara Pulau association

Apart from the international volunteers, TCE receives great support from local volunteers. They are actively involved in TCE activities, either personally or within an organisation: Tunas Hijau Nature Club at Airmadidi, Nature and Education group, Solidaritas Pecinta Alam Minahasa group, Utara, KPA Katswonus of Bitung - Hesty, KPA Tisan of Bitung - Richard, Mapala Bumi, KPAB Mata Angin in Manado, Mapala Equil - Ririn, LBH in Manado - Arya, Inovasi Unsrat Pekopeko Club - Citra, the Suara Pulau Foundation, Mapala Alaska - Ronald, Rocky Kaunang, Saldi Adjiji, Sriwati olii, Lisa, etc. The TCE team send their grateful thanks for their help in 2014-2015!

## Research groups at the Macaca Nigra Project

The Macaca Nigra Project research station has welcomed many researchers this year. Here is a glimpse of the various research groups:

Niki, Uni Liya, Mary, Kayla and Rachel's group are studying stress hormones in macaques, by collecting urine samples and saliva: "When macaques become stressed they become aggressive, which has a negative effect on their development."

Lisa, Julian and Andre's group are studying the interaction between males and females in reproduction periods inside a group of macaques. They observe behaviour

and take samples of urine to get a clearer knowledge of the success factors in macaques' reproduction.

Céline, Putra, Meldy and Anto's group also collect urine samples to help assess the number of parasites infecting the macaques and their effect on stress levels, behaviour and social relationships.

Yandhi, research manager, and Caitlin, are studying how macaques spread seeds. They explained, "In this study we want to find out to what extent the macaques have a role in regenerating the forest. » They record the fruits that are eaten, the distance over which the seeds are distributed in droppings or spit

out of cheek pouches. The dispersal points are recorded and follow-up reveals whether the seeds produce plants.

Finally, a long-term research project is being done since 2008 by the MNP on the development of the macaques right from birth.

Iwan collects the data from 18 macaques born in 2008 and 2009. The aim of the project is to obtain a precise picture of the factors involved in macaques' development up to adulthood.

Ferdy's task is to make sure the macaques do not get too close to



Top, left to right: Caitlin (USA), Lisa (USA), Niki (USA), Uno (Indonesia), Yandhi (Head of research, Indonesia), Mary (USA), Kayla (USA), Lia (Indonesia), Céline (France).

Bottom right to left: Meldy (Indonesia), Ferdy (Indonesia), Andre (Indonesia), Anto (Indonesia), Putra (Indonesia), Julian (Indonesia), and Stephan (Camp manager, Indonesia)

the village of Batu Putih and to move them away if they come too close to the houses and gardens.

Stephan, the camp manager is in charge of logistics and administration inside the camp. He sorts out all kinds of problems, from research permit applications to motor-cycle repairs!

## Illegal activities in the Tangkoko Forest: September 2014 – May 2015

Between September 2014 and May 2015, the Macaca Nigra Project discovered and removed 99 traps in the area of 3 groups of macaques, Rambo 1 (R1), Rambo 2 (R2), and Pantai Batu 1 (PB1). 76 traps were set up for birds and 23 for wild pigs. In April 2015, a female from R1 group was snared in a pig trap and was rescued by MNP researchers.

Macaques are social creatures and they like to play, but also occasionally, to fight. This can cause slight, or sometimes, more serious injuries. Slight injuries were found on 14 macaques in groups R1, 2 in R2 and 5 in PB1 group.

During this period there were 13 births in R1, 5 in R2, and 6 in PB1. At the same time there were macaque deaths, and one especially worthy of note: In January 2015, R2 group lost an

important member, the dominant female Uhura. She was the most prolific mother and she liked to harass the babies of other females in order to underline her superiority. The cause of death is not known and her baby has disappeared. It is likely that it did not survive without its mother.

In the Tangkoko forest, MNP researchers also witnessed illegal logging, especially concerning the wood Bugis Hutan, used for cooking and house building. Woka leaves have also been chopped off, probably for to be used as roofing material.



Woka illegally logged



Uhura, dominant female of Rambo2, now deceased



Macaque ensnared



Illegal logging

## Around the World:

### TCE's programme evaluation included in research projects

Since 2011, the TCE programme has issued assessment questionnaires to pupils, their parents and their teachers.

The questionnaires are delivered before and after the programme, aiming to assess the development of awareness, attitudes and habits relative to their local environment.

In 2014, Claire Drury, studying wildlife conservation at Bristol University in the UK, integrated the data from the 2013/14 questionnaires in to her 3rd year thesis. Her aim was to measure to what extent first time participants in the programme had improved their knowledge, attitudes and habits. The analysis showed

that the participants' knowledge and habits had considerably improved when recorded after the programme!

**Mathilde Chanvin** (TCE project manager) has also been integrating the programme questionnaires into her Research Master's work (MRes) at the University of Portsmouth's Department of Psychology.

The aim of the Master's is to evaluate the impact of the programme through questionnaires distributed to pupils, teachers and parents between 2012 and 2015. Different studies are under way: TCE's methodologies, the programme's impact on pupils leaving the project after several months. A study

will be undertaken to find out as well whether the illegal activities in Tangkoko forest have diminished since TCE's arrival, thanks to MNP's data.

We hope and expect that these studies will enable TCE to be even more effective and to demonstrate to the community that it is making a positive contribution to protecting the environment.

#### April 2015: Participation in the Primate Society of Great Britain

Mathilde presented a poster showing the initial results of her research concerning pupils' parents. The data was presented at the Conference of the Primate Society of Great

Britain at the University of Roehampton in London.

The preliminary results indicate that parents living in rural areas have a greater knowledge about their environment and the animal life than those living in town. The results also showed that parents had an improved level of knowledge after the programme.

This event was a great opportunity to be able to meet other workers in primate conservation and to become aware of alternative educational methods.



Claire and Mathilde, in Bristol

#### May 2015: TCE receives a prize from the Primate Education Network (PEN)

Mathilde represented Tangkoko Conservation Education in a contest about primate conservation education, organised by the Primate Education Network (PEN) ([primateducationnetwork.org](http://primateducationnetwork.org)), and TCE's was one of the winner!



PEN is a body that links primate conservation education organisations across the world through resource-sharing, articles, advice, trainings, etc. PEN also organises numerous seminars on the subject of primates and their conservation through education. The competition task was to write an article about "Lessons Learned" in conservation education programmes. This covers experiences, challenges, obstacles, solutions etc., to share and benefit from the experience of other organisations on what works well and what needs improvement. In TCE's case, Mathilde described the project beginnings and the benefits of the research done to evaluate and improve TCE's impact (see article above).

PEN rewarded 3 projects, one each from Africa, South America and Asia. Each winner received \$250. The African and South American winners are Wildlife Clubs of Uganda (WCU) and Neotropical Primate Conservation (NPC) For more information go to: <http://www.primateducationnetwork.org/lessons-learned-contest-winners> With this cash prize we were able to run the end of the academic year event (see page 5). We are very grateful to PEN for its support!

## March 2015: David (USA) gets help from the entire world for his science fair!



David with his poster

Regular Newsletter readers may recall David Harris (see previous Newsletter). David is 13 and lives in Bancroft, USA. After watching the BBC documentary last year, he became passionate about the crested macaques. During the Science Fair last year, David highlighted the threats to that species.

This year, David has decided to send a questionnaire to children in countries around the world, including Indonesia. His aim was to find out what these children know about wildlife, what are their feelings about them, what their opinion of conservation is and if different countries have different levels of knowledge and different attitudes.

With the help of TCE, David sent his questionnaire to children in USA, France, UK, Denmark and Indonesia. Questions included: "Do you think there are some animals in the world in danger of extinction?"; "Do you approach wildlife if you see them in the wild?"; "Is it OK to have a wild animal as a pet?"

From the questionnaire results, David noted that children in almost every one of the countries have a good knowledge about conservation of wild animals, and understand the threats posed by environmental threats such as climate change. The results were less encouraging in USA. David concludes that US children need to receive environmental education programmes to improve their knowledge and gain a more respectful attitude towards the environment.

David would like to thank all the children who took part in the programme! David is hoping to visit Sulawesi one day and especially visit Tangkoko and see the macaques in Tangkoko forest!



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