



MACACA NIGRA PROJECT



ANNUAL REPORT 2024

TANGKOKO NATURE RESERVE



UNIVERSITÄT
LEIPZIG



MAX PLANCK INSTITUTE
FOR EVOLUTIONARY ANTHROPOLOGY

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MNP and TCE staff at the MNP field station

DEAR FRIENDS AND SUPPORTERS

Eighteen years of existence and counting, the project lived through major events in 2024, between field visits, new collaborations, or major scientific outputs. Financial durability is still quite a way to go but stability is half secured thanks to the most needed, substantial and **long-term support of the Zoological Society for the Conservation of Endangered Species and Populations (ZGAP) and affiliated zoological parks. A big thank you!**

The local team and managers, **Rismayanti, Meldi, Meydi, Billy, Ivan, Ferdi, Ibu Sin, Stephan, Nona, Eunike, Putri, Deity**, are as essential as ever for the running of the project! Nothing would be possible without them and we recognise their involvement and commitment to the project and the protection of the area and the monkeys. Not only are they out in the field every day collecting long-term behavioural, ecological and demographic data to monitor population dynamics of crested macaques and their environment, but they are also **organising and participating in outreach and education activities, environmental awareness events (beach cleaning, festival), and are pillars of the community** in the adjacent village Batu Putih and beyond in the region. Fantastic work again this year, thank you! We are so grateful that the project is deeply connected with our local partners and the community of Batu Putih.

We also would like to take the opportunity to thank the students, technicians, volunteers and research assistants, **Berlin, Gita, Adam P., Adam Z., Indra, Nora, Rija, Lydia, Teresa, Payton, Stefanie, Amélie, Marvin**, as well as the co-directors and academic staff, **Jan, Anja, Jérôme, Julie, Christof, Pak Agil, Ibu Wita, Ibu Uceu, Mathilde**, abroad and in the field, working for/with MNP-TCE for their energy and dedication!

HIGHLIGHTS

The region suffered at least **two natural disasters** that impacted the MNP staff and the monkeys. First, **heavy rainfall spurred flooding and landslides** along the main and only road between the village Batu Putih and the region, meaning Batu Putih and its inhabitants were effectively cut from the rest of the world for a few weeks. This made it very difficult to get food, gasoline and other supplies. Second, **Gunung Ruang, a volcano in the Sangihe Islands arc in North Sulawesi erupted again and sent clouds of ashes in the sky**. People had to be evacuated from nearby islands and we at the station stayed very vigilant. Ashes fell on the forest and the region for several days, visibility was quite low, to the point that the monkeys all looked grey and reportedly went to bed early.



Flooding on the road to Batu Putih



The macaques were covered in ash after the eruption of Gunung Ruang



The eruption of Gunung Ruang (photo by Welman Boba)



Sebastien Ballesta and Charlotte Canteloup with the MNP team

In July, the station brimmed with people! **Cécile Garcia (CNRS-MNHN-University Paris Cité, Paris, France)**, **Sébastien Ballesta (University of Strasbourg – SILABE, Strasbourg, France)** are co-supervisors of Adam Provin's PhD (together with co-director Julie Duboscq, see description of project below). They came to **discover the field site and the project** while Adam was there for his PhD data collection. **Charlotte Canteloup (CNRS-University of Strasbourg-SILABE, Strasbourg, France)**, a colleague from Sébastien and Julie, also came to discover the field site and the project and to **explore the possibility to start her own field site** - in collaboration with Julie and MNP - to study the Tonkean macaques further down Central Sulawesi.

From left to right, Pak Agil, Antje Engelhardt, Ibu Wita and the dean of the Pak Berri Juliandi (Dean of the Faculty of Mathematics and Natural Sciences at IPB University)



Also in July, an important step for the scientific cooperation between our institutions was taken, as **Antoine Petit, the director of the CNRS (French Scientific Research Center)** came to sign an **MoU with IPB University** and a meeting at the French Embassy was held with **Pak Agil and Ibu Wita**, our historic Indonesian partners!

Project funders and co-directors **Antje Engelhardt and Jan-Boje Pfeifer (Pina e.V. Göttingen)** also visited the project. They had many meetings with different important partners to strengthen our existing collaborations e.g. **IPB University, BSKDA**. At the end of their trip, everybody had a nice time with a team trip to the nearby island Bunaken, a hotspot of marine biodiversity in the middle of a protected marine national park!

Ibu Wita, Antoine Petit (Director of the CNRS) and Pak Agil



In November, **Rismayanti**, our head field manager, participated in the **9th Asian Primates Symposium “Living in Harmony with Primates” in Medan, Indonesia**, and presented a talk about the Macaca Nigra Project in general as well as a poster about her own research on **“Intergroup competition for sleeping sites and their role for home-range group defense”**. Well done!



Risma presenting her work in Medan

Our collaboration partner **Selamatkan Yaki** have a new field manager, **Sue Wiper**. The MNP team in Indonesia met with Sue to discuss the ongoing and future work of both organisations. **We wish Sue a warm welcome and look forward to working together.**



Risma, Stefan and Sue Wiper, the new field manager for Selamatkan Yaki

STAFF CORNER

Life is full of ups and downs. On the down side, we had to say good-bye to Ivan's mother who passed away in August. On the up side, Fikram Bawinbang joined us as a new field assistant in September to help Adam, a new PhD student, in his field work.

2024 marks the 10 year anniversary of the passing of our friend and colleague Ugiek Gyiarto. In February 2014, Ugiek, who started working for MNP as a research assistant before coming back as manager, tragically died. Your morning songs and contagious smiles are still dearly missed.



Fikram Bawinbang, the newest addition to the team of field assistant

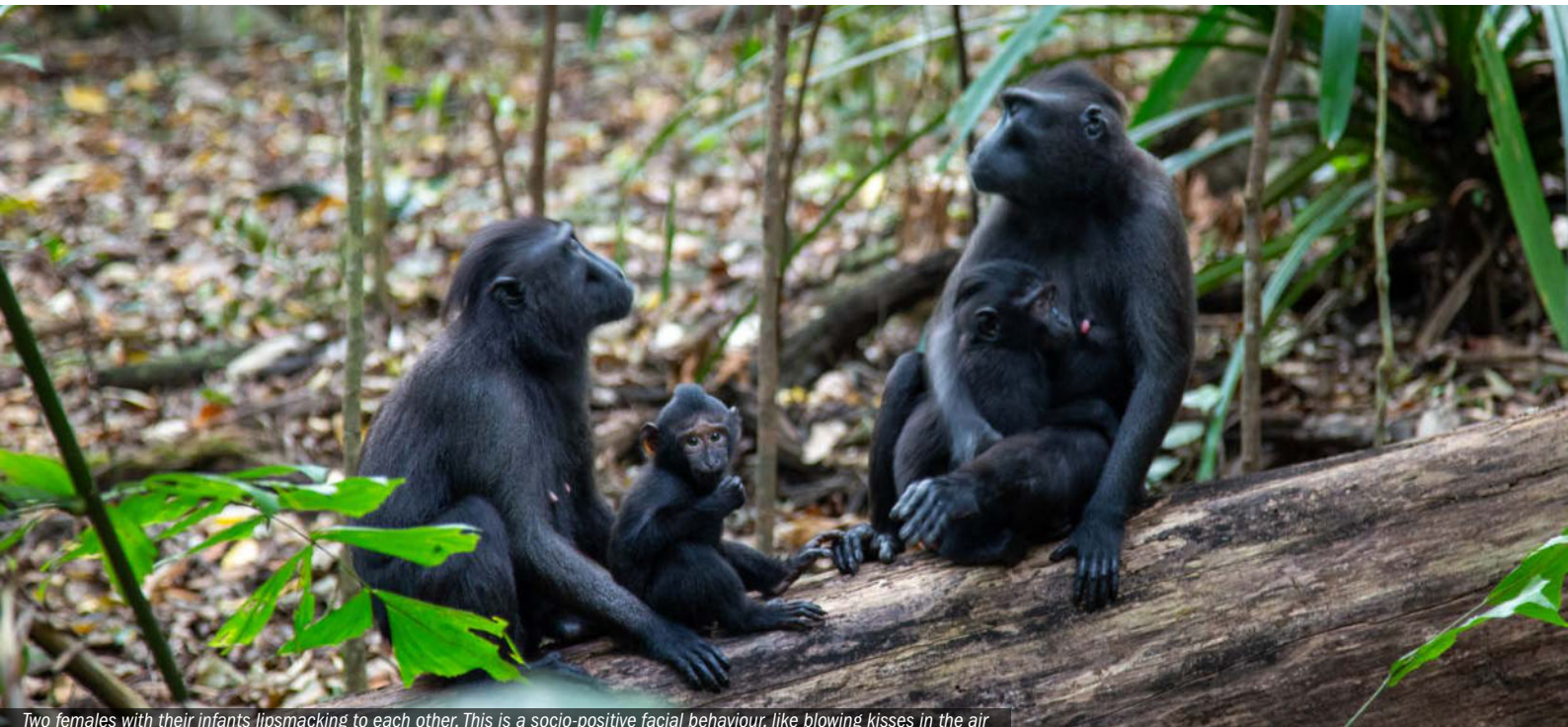


Ugiek Gyiarto, former MNP field assistant and manager

MONKEYS' LIFE

This year, we had **21 births and 1 disappearance** across two groups and quite some movements of males coming and going, in total **12 immigration and 10 emigration** events.

The monkeys' life is full of dramas, joys, twists and turns, we had the pleasure to observe them playing in pools of water or by the sea, the stress to observe them fighting between groups, or the sadness to discover that an individual died or disappeared.



Two females with their infants lipsmacking to each other. This is a socio-positive facial behaviour, like blowing kisses in the air



A juvenile resting between the roots of a fig tree



An adult female with her baby

RESEARCH CONDUCTED

Social awareness in Sulawesi macaques

Adam Provin, a PhD student with the Museum of Natural History in Paris, France, with Julie Duboscq, started field work for his PhD in June and will be in Tangkoko until May 2025. His field work is supported by a new local field assistant, Fikram Bawinbang.

Adam studies social awareness in Sulawesi macaques, or **what monkeys understand of their social relationships and those of others, and how they potentially make use of this knowledge in their interactions with others**, either high-stake events like aggressions, predation encounters, or inter-group conflicts, or more mundane ones such as grooming or cuddling with a partner's infant. To this end, he is collecting data on social interactions, focusing on close proximity approaches, a socially meaningful behaviour indicating willingness to interact. He is writing down who approaches whom, to do what, and in what sequence. Ultimately, this can help unravel **how monkeys take social decisions in cooperation and competition, what mechanisms are at play behind those decisions, and how these decisions feedback on structuring social networks**. Stay tuned for more!

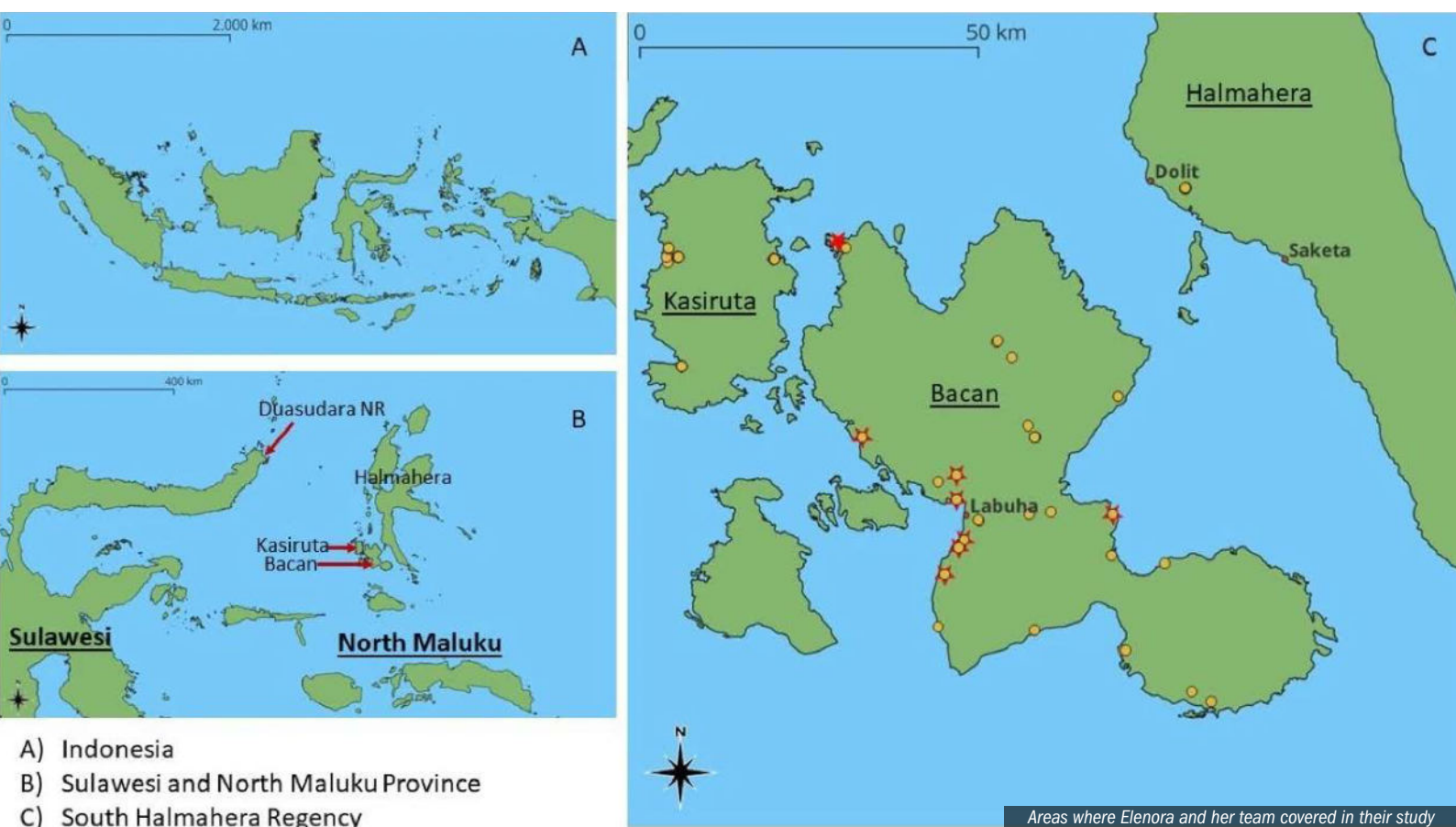
PhD candidate Adam Provin with PhD supervisor Julie Duboscq



Genetic assessment of *Macaca nigra* populations

Elenora Neugebauer, PhD student at the University of Leipzig (Germany), supervised by two MNP co-directors Profs. Anja Widdig (Leipzig University) and Dyah Perwitasari-Farajallah (IPB University, Indonesia), focuses on assessing the genetic diversity of remaining populations of crested macaques, threatened with extinction due to habitat loss and hunting. She continues her relentless pursuit of genetic data and history of the crested macaques in North Sulawesi and the Moluccas and published her first findings!

Over the past 20 years, the majority of research on crested macaques has been conducted at the Tangkoko Nature Reserve in North Sulawesi. However, **critical knowledge gaps persist with regard to their distribution outside this protected area**, on Sulawesi and beyond. Previous studies report that crested macaques were introduced by humans to North Maluku ~200 hundred years ago. We conducted an expedition and **visited Bacan, Kasiruta, and southern Halmahera Island, carrying out interviews, surveys, and direct observations of macaques to determine their presence or absence on these islands**. We found crested macaques or their feces at 23 locations across these islands and pet macaques in 6 locations on Bacan. Therefore, we can confirm crested macaques on Bacan, but first report them at Kasiruta and in the south of Halmahera, with results of our interviews suggesting that macaques might be present in North Maluku for ~500 years. In contrast, we found no evidence of their presence on Mandioli. Overall, our results **extend the known distribution range of crested macaques by the islands of Kasiruta and Halmahera**, which opens the potential for these populations to contribute to the survival of the species.



The impact of human disturbance on crested macaque social behaviour

Rija Andriamifidy, PhD student at Leipzig University, supervised by MNP co-director Prof. Anja Widdig, uses existing long-term data to study the **effect of human disturbance on the social behaviour of adult individuals but also on macaque development across ages** (from baby to adult), including effects of human disturbance on individual fitness. Our study groups vary from ranging close to far away from human activities (e.g. roads, villages, gardens). After cleaning and analysing GPS data in collaboration with **Dr. Marine Joly, University of Portsmouth**, we have merged GPS data with behavioural data to **test whether different types of social interactions differ based on the degree of environmental anthropisation**. Cleaning of behavioural and demographic data is led by MNP co-director **Dr. Christof Neumann (German Primate Center)** in close association with other MNP co-directors. Currently, we run the first statistical analysis on the impact of the degree of anthropisation on infant social development with results being presented at the IPS conference in Madagascar in the summer 2025.





Ivan observing the macaques and collecting data



Ferdi uses a slingshot to scare the macaques from areas where they could cause trouble with the villagers



Ferdi removing snare traps in the forest

CONSERVATION

Human-wildlife conflict mitigation actions

Like every year since 2011, our conservation officer, Ferdi Dalentang, has patrolled the reserve border with the Batu Putih village **179 days out of 365, monitored the area more broadly 226 days out of 365, and recorded at least 873 instances of monkeys ranging outside the reserve, for instance**, in the village or gardens (4.8 encounters per day; compared to 3.6 (760 encounters in 211 days of patrol) in 2023). Since 2023, we partnered with another NGO Selamatkan Yaki to share the workload. The villagers find the implementation of a conservation officer in addition to the rangers of BKSDA (the office responsible for the protection and conservation of protected areas) very useful and are attached to having somebody to call directly and immediately in case of problems with the monkeys.

Direct protection

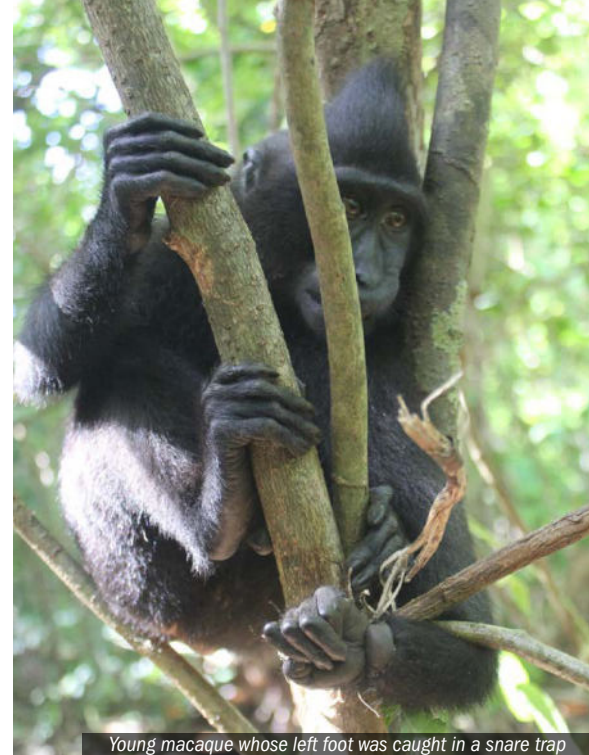
An important part of MNP is the direct protection of the macaques and the environment on site. MNP staff follows the macaques, two to three groups, each day, **destroying wildlife traps and reporting illegal activities** as they go. Our staff directly participate in patrolling the reserve and collecting SMART data (Spatial Monitoring and Reporting Tool, <https://smartconservationtools.org/>) for BKSDA too. This year again, our conservation officer, field assistants and managers **found and destroyed 83 traps and rescued 3 monkeys from traps** (16 traps and 1 rescue in 2023).

Although we had observed a sharp decrease in anthropogenic pressures linked to traps in 2022 and 2023, after a peak in 2020 and 2021, **the number of traps found inside the reserve has increased again this year**. We still regularly find monkeys with rope used for traps around their limbs and had to intervene 3 times this year again to release them from it, with the support of the veterinarian of our regional partner Tasikoki Wildlife Rescue Centre. **Nothing speaks louder in favour of a continuous presence of staff in the forest following the monkeys.**

Information sharing and expertise

All partners have opened discussions again about the **Macaca Nigra Action Plan**, first released in 2019. Meetings have taken place to assess the progress and difficulties of each stakeholder's tasks and responsibilities and to elaborate the **next five-year plan**. One of the meetings specifically focused on the mitigation of human-wildlife interactions, as this is a pressing issue. The genetic survey notably carried out by Elenora Neugebauer (see above, in research part) is also part of the Action Plan.

Inside the reserve, **a plant seedling area is set up to regrow trees** and with the ultimate goal to regenerate the forest where it is needed. This area is protected by an electric fence. However, the monkeys regularly climb this fence and go forage within this area. **At least two monkeys got electrocuted** this year and last year. So, we engaged discussion with BKSDA and the electricity company to find a collective and appropriate solution. This took the form of building an extra sturdy fence around the problematic electric posts. We will closely monitor the situation to assess the effectiveness of this action.



Young macaque whose left foot was caught in a snare trap



The snare was removed and the wound cleaned



Meeting with stakeholders about the action plan

EDUCATION

School activities

Between January and June 2024, then between August and December 2024, TCE implemented its education interventions for its **13th and 14th school terms. We delivered 7 school interventions and field trips in the Tangkoko forest for 9 primary and secondary schools from the Bitung area, for a total of 159 students aged 9 to 15 years old from 13 schools.** A list of the schools involved can be found on this online [map](#).

These interventions were:

- **Lesson 1:** Basics and human changes over the environment.
- **Lesson 2:** Biodiversity of tropical rainforest.
- **Lesson 3:** Indonesian, Sulawesi and North Sulawesi flora and fauna.
- **Lesson 4:** Primates, the crested macaques (*Macaca nigra*) and the Macaca Nigra Project.
- **Lesson 5:** Observation of the crested macaques (part of a field trip to the Tangkoko Nature Reserve).
- **Lesson 6:** Characteristics of a nature reserve, status of and threats on protected and endangered Indonesian wildlife, and conservation actions.
- **Lesson 7:** Marine wildlife.

Our **environmental lessons** are presented in a booklet, combined with illustrations by a professional scientific illustrator. We delivered our interventions together with the help of several volunteers, as well the Macaca Nigra Project (MNP) for lesson about the macaques.

The **field trips** to Tangkoko Nature Reserve are implemented together with researchers from the Macaca Nigra Project. During the field trips, students **observe the crested macaques** in their natural habitat, **learn about their behaviour**, but also take part in activities such as **sensory games** and **vegetation survey** to learn more about local flora and fauna. The children are also encouraged to participate in **beach and forest cleaning day**, which helps them to realise the impact humans have on the environment.

Classroom activities with TCE booklet



Arts and craft with refused plastics



To evaluate our programme, we provide **pre- and post-programme evaluation questionnaires** to TCE's pupils, parents and teachers regarding their knowledge, behaviour, and attitudes towards their local environment. Last year, **we published the first results of these evaluations** ([Chanvin et al. 2023](#))! Several schools have already adopted our lesson programme as part of their official curriculum and we work with the authorities to get environmental education implemented into the curriculum of all schools in North Sulawesi.

The Independence Curriculum

In 2022, the Indonesian Ministry of Education, Culture, Research, and Technology launched the “Merdeka Curriculum” (Independence Curriculum), that emphasises **interactive projects and field trips** rather than lessons in the classroom. The Education Department of Bitung has encouraged the TCE team to implement this new project- based curriculum, which nicely fits our hands-on learning approach. Therefore, we aim to enrich our lessons with interactive projects that are adapted to the students’ biology curricula. Since 2022, we have delivered specific **interactive activities for schools, a “Mini Science Camp” for secondary school students, and various events**. In February 2024, we organised a training to provide teachers and volunteers with the skills and knowledge needed to teach our Independence Curriculum (lesson plans, knowledge about their local environment). The training included various **workshops, focus group discussions and a trip to the Tangkoko forest**.

We are proud to be part of this programme, which will empower teachers to deliver engaging conservation lessons in their classrooms.

Science Camp

Since 2020, we expanded our education activities for a new target audience: students who are about to finish secondary school and enter further studies/ professional life. In October 2020, we have successfully implemented a pilot project called Science Camp programme, aiming at supporting local young people to gain more theoretical and practical experience in research and wildlife conservation, and pursue possible studies/career in research, conservation, and education. Since then, Science Camp has become a regular programme enjoyed by young people every year.



Science Camp: Training in observational methods



Science Camp: Preparing foraging enrichment for the macaques



In October 2024, we have welcomed 7 students aged 16-17 for the fifth edition of our Science Camp: **a week of immersive research and conservation training**. This year, and for the first time, the students received training by **MNP and Tasikoki Wildlife Rescue and Education Centre**. This year's focus was on wildlife trade and its impact on crested macaques, along with conservation strategies to address this critical issue in North Sulawesi. Participants gained practical skills in qualitative research, especially in analysing the social dimensions of wildlife trafficking. Beforehand, TCE staff conducted meetings with students and their parents, and delivered lessons about ecology and conservation. At Tasikoki, they conducted **fieldwork, interviews of keepers and vets, and used observational techniques** to explore the effects of illegal trade on local wildlife. They also received presentations and advice from conservation organisations such as Sulut Semanga and Selamatkan Yaki. Their findings were compiled into presentation for a **Symposium held end of November 2024 in Manado in the office of the Department of Education of North Sulawesi**. This effort is important in order to train the future generations of potential conservation officers.

Participants from our first Science Camp in 2020 are still involved with TCE through various activities, such as volunteering in awareness campaigns or in our school activities. One member, Oklisia, is now the manager assistant of TCE. This group of young people have also created their own informal group called "Friends of Tangkoko", to raise awareness about protecting their local forest through activities of local communities (beach clean, tree planting etc.) and they also participate in the environmental patrols organised within the Tangkoko Nature Reserve by the local office for nature conservation (BKSDA).

Participants in the 2024 Science Camp





The MNP and TCE team at the Festival of Conservation in Manado

Awareness campaigns

In August 2024, TCE and Macaca Nigra Project team had the privilege of participating in the **Festival of Conservation in Manado, North Sulawesi**. We hosted an interactive booth where we showcased our conservation efforts and engaged with the community. A special highlight was the performance by talented students from Pinangunian Junior High School (SMP), who captivated the audience with their powerful **poetry and theater pieces** about the endangered crested macaques.

Caroline Fitte, a long-term volunteer and friend of TCE, is a biology teacher at Saint Victor Middle School, situated in Valence, South of France. Together with her students, she has started a **pen pal correspondance with students from SMP Pinangunian**, part of TCE programme. They regularly exchange letters about their life, culture and local environment.

In the meantime, **Valérie Provin**, a preschool teacher based in Wimereux, North of France, is also **fostering connections between pupils in France and Winenet**, with a focus on environmental stewardship. Valerie visited Tangkoko in the summer of 2024, worked with the TCE and MNP teams, and met with many enthusiastic students and teachers!

We are so happy to see these connections forming between schools from distant parts of the world. We hope they will inspire pupils to explore different cultures and take meaningful action to protect nature.

PUBLICATIONS

International Journal of Primatology
<https://doi.org/10.1007/s10764-024-00473-z>

Distribution and Human-Mediated Establishment of Crested Macaque (*Macaca nigra*) Populations in the North Moluccas, Indonesia



Elenora Neugebauer^{1,2,3}  · Sagita Dini Lestari³ · Indra Ravel Kaletuang³ · Dyah Perwitasari-Farajallah^{3,4,5} · Anja Widdig^{1,2,3,6}

Over the past 20 years, the majority of research on crested macaques has been conducted at the Tangkoko Nature Reserve in North Sulawesi. However, critical knowledge gaps persist with regard to their distribution outside this protected area, on Sulawesi and beyond. Previous studies report that crested macaques were introduced by humans to North Maluku ~200 hundred years ago. We conducted an expedition and visited Bacan, Kasiruta, and southern Halmahera Island, carrying out interviews, surveys, and direct observations of macaques to determine their presence or absence on these islands. We found crested macaques or their feces at 23 locations across these islands and pet macaques in 6 locations on Bacan. Therefore, we can confirm crested macaques on Bacan, but first report them at Kasiruta and in the south of Halmahera, with results of our interviews suggesting that macaques might be present in North Maluku for ~500 years. In contrast, we found no evidence of their presence on Mandioli. Overall, our results extend the known distribution range of crested macaques by the islands of Kasiruta and Halmahera, which opens the potential for these populations to contribute to the survival of the species.

Access the full text here: <https://doi.org/10.1007/s10764-024-00473-z>

Relationship between dominance hierarchy steepness and rank-relatedness of benefits in primates

Pengzhen Huang^{1,2,*}, Malgorzata E. Arlet³, Krishna N. Balasubramaniam⁴, Brianne A. Beisner⁵, Eliza Bliss-Moreau^{6,7}, Lauren J. N. Brent⁸, Julie Duboscq^{9,10}, Iván García-Nisa¹¹, Stefano S. K. Kaburu¹², Rachel Kendal¹¹, Martina Konečná¹³, Pascal R. Marty¹⁴, Brenda McCowan^{7,15}, Jérôme Micheletta¹⁶, Julia Ostner^{10,17,18}, Oliver Schülke^{10,17,18}, Gabriele Schino^{19,†}, Bonaventura Majolo^{1,†}

In this article, for which MNP provided data, Pengzhen and colleagues studied the extent to which consistency in winning agonistic interactions and individuals' ability to monopolize resources are correlated within groups. They tested the hypothesis that hierarchy steepness, which is generally used to represent power differentials between group members, predicts the variation in the distribution of fitness-related benefits (i.e. fecundity, infant survival, mating success, and feeding success) in relation to individual dominance ranks, using comparative phylogenetic meta-analytical techniques. They collected and included in their analysis a total of 153 data points, representing 27 species and calculated 4 common methods to measure individual dominance ranks and hierarchy steepness. They found that hierarchy steepness had no effect on the strength of the relationship between dominance rank and access to fitness-related benefits, which suggests that hierarchy steepness does not reflect between-group variation in the extent to which individual dominance affects the acquisition of fitness-related benefits in primates. They speculate that other behavioural strategies adopted by individuals may play crucial roles in resource acquisition in animal competitive regimes.

Access the full text here: <https://doi.org/10.1093/beheco/arae066>

*Comments/Reflections***Successful adoption of non-orphaned infant by a parous, nursing female in yaki (Sulawesi crested macaque)**

**Kirsty E. Graham^{a,b,c,*}, Eve Holden^{a,b}, Antje Engelhardt^d,
Dyah Perwitasari-Farajallah^e and Katie E. Slocombe^b**

Successful adoption has been documented in a number of nonhuman primate species, and in this article, MNP researchers documented a rare case of adoption among the macaques. An infant aged approximately 2-weeks old was adopted by a female who was already caring for her own infant. The adoptive mother went on to carry, nurse and care for both infants until they both became independent. This event provides new insights into the social dynamics and maternal behaviors of the crested macaques, suggesting a level of social flexibility previously undocumented. Such instances of adoption, especially involving non-orphaned infants, are uncommon and raise further questions about the motivations and benefits of such behaviour within macaques. Understanding these dynamics can be important for conservation efforts and offers a better understanding of primate social structures.

Access the full text here: <https://doi.org/10.1163/1568539X-bja10285>

MNP FINANCIAL STATEMENT

Revenues come from three principal sources. Individual researchers and students pay a fee to stay at the station and use the facilities. It is currently of 500€ per person per month. For the Indonesian staff and students, the fees are paid either by MNP directly or by their international counterparts. The second source comes from grants obtained by the head and co-heads of the project and by the Universities or international partners. The third source comes from donations from individuals or organisations.

| Items | Description | Costs (€) |
|---------------------------|--|---------------|
| 7 to 9 employees | research organization, data collection and analysis, reports, outreach, conservation education, liaison with villagers and authorities, staff management, health insurance | 37 884 |
| Camp maintenance and food | repairs, food, gasoline generator, communication, etc. | 6 532 |
| Transportation | car rental, gasoline motorbike, bus etc. | 1 804 |
| Research | consumables, technique, cooperations | 3 008 |
| Administration | permits, postbox and other administrative expenses | 955 |
| TOTAL | | 50 184 |

The project permanently employs between 7 and 9 people: a research manager organising research, a liaison manager responsible for liaising with different authorities, linking research, outreach, education and conservation, as well as managing human resources issues (salaries, health insurance, permits). We are also very proud that our research assistants not only collect biological and behavioural data on the 3 groups of monkeys that are habituated for research, but are also heavily involved in outreach, education, conservation, and eco-tourism. One of them is specifically dedicated to patrolling the forest, linking with the rangers and mitigating issues between people living around the nature reserve and the monkeys. They make the very essential link to the local community. In addition, a cook and a janitor take care of the camp daily maintenance. They are also members of nearby villages and keep the team together through good food and good moods.

Health and risk insurance is required by Indonesian laws for all people working in Indonesia. We provide it for free to our employees as an essential benefit for a rural community.

Permits are required for carrying out research and any professional activities (to the national government) as well as for accessing the nature reserve (to the national and local government).

TCE FINANCIAL STATEMENT

| Items | Description | Costs (€) |
|--------------------------------------|---|---------------|
| Coordinators' salaries and insurance | Local coordinators' and assistants salaries and casual staff (school activities, Science Camp); Coordinators' insurance and medicine fees | 12 449 |
| Transportation & Food expenses | Car rental, motorbike rental and gasoline for general coordinators' and volunteers' transportation (meetings, education interventions in schools, events and trainings); Service and maintenance (for the project's motorbikes); Bus rental for pupils' transportation to Tangkoko reserve; Food for the local coordinators (when outside the headquarters) | 4 169 |
| School activities | Stationeries: books, games, pens, paper, notebooks, ink, photocopies, etc; Creation, edition and printing of our environmental lessons (7 lessons) | 5 489 |
| Science Camp & Symposium | Science Camp casual staff salaries, participants' food and accommodation, equipment, transport, communication and promotion materials | 2 377 |
| Independence curriculum | Independence curriculum casual staff salaries, participants' food and accommodation, equipment, transport, communication and promotion materials | 647 |
| Awareness campaigns | Earth Day, material (banners, posters, T-shirts), food/transport of participants. | 73 |
| Communication | Post, Internet and phone expenses | 427 |
| Office & Equipment maintenance | Office rental, electricity, furniture and small equipment | 806 |
| Other | "Solidarity" expenses (wedding, funerals, etc) | 29 |
| TOTAL | | 26 466 |

ACKNOWLEDGEMENTS

MNP and TCE received the financial, logistic and moral support from Amiens Zoo, Chester Zoo, Mulhouse Zoo, Vallée des Singes/Conservatoire des Primates, the French Association of Zoos (AFdPZ), the Zoologischen Gesellschaft für Arten und Populationsschutz e.V. (ZGAP), Manfred-Hermesen-Foundation, UNIVET Nature, Emerald Park, the French National Centre for Scientific Research (CNRS), the French National Museum for Natural History (MNHN), the University of Portsmouth, as well as private donations from individuals. We sincerely thank these organisations and donators for their invaluable support during this year.



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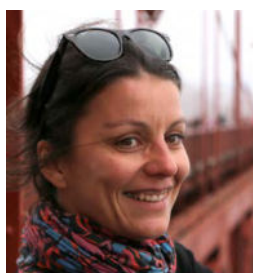
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