





TABLE OF CONTENTS

Table of contents	2
Introduction	3
1. Bring The Elephant Home	5
Mission	5
Goals: sustainable positive change	5
2023 in numbers	6
2. Projecten	7
The Tom Yum project	
Bee the Change	8
Research Thailand	9
Research options for rewilding Asian elephant	10
Research South Africa (including adoption program)	11
3. Education	13
Conservation Events	13
Academic Cooperation	13
4. Communication	14
5. Organisation	15
6. Finance	16

INTRODUCTION

Bring The Elephant Home is proud to present our 2023 annual report, a year marked by growth, development, and significant progress in our research and projects for the conservation of elephants and their habitats. With a dedicated team of staff members, freelancers, students, volunteers, interns, and board members, we have expanded our scope of work, spanning two areas in Thailand and one in South Africa. In 2023, we published our strategic plan for 2023-2027, offering detailed insight into our ambitions for the years to come.

To support our growing organization, in 2023, we invested in improving our systems. In the Netherlands, we enhanced our board with two experts in international foundations and finance. Our Dutch board now consists of five skilled and active members, with two independent experts in our audit committee. In Thailand, we partnered with Mazars to outsource our payroll and social security administration. After being registered in Chiang Mai for many years, we officially registered in Hua Hin in Prachuap Khiri Khan province at the beginning of 2023, following multiple visits from the immigration service to our main office in Hua Hin and our branch in Ruam Thai. Subsequently, our office in the remote village of Ruam Thai was officially registered as a branch, simplifying the



process of obtaining work permits, visas, and other official documents. In 2023, we also decided to switch to a professional online accounting system for the Thai Foundation's bookkeeping, supported by a skilled accounting team that oversees our finances and assists in generating reports. From 2024, this will enable us to manage budgets more effectively for the Thai projects. The growth of BTEH was also evident at our small, cozy office in Ruam Thai: we literally outgrew it. We were able to rent a new space in the village, with on-site accommodation for two staff members. but this required a substantial renovation. Our new office space is now bustling with life, and we continue to enhance our office to create a comfortable and inspiring work environment for our team.

In terms of projects, BTEH made a lot of progress in 2023. The majority of our projects took place in Thailand, with the Tom Yum Project being the largest. We studied the dynamics between elephants and crops in areas adjacent to protected areas. Using camera traps in fields of crops that elephants like to eat (mainly pineapple) and crops they do not like to eat (e.g., lemongrass, chilli, galangal), we gathered valuable data for the development of sustainable agricultural practices that can promote human-elephant coexistence. To promote the Tom Yum Project among farmers, we supported the establishment of the Kuiburi Fairtrade Community Enterprise, which launched a microcredit program and organized a series of workshops to enhance the skills and knowledge of farmers. The acquisition of an essential oil extraction machine further contributed to the economic sustainability of the project. Despite challenges, such as the worst drought in twenty years, our efforts demonstrate that a gradual transition to alternative crops can enhance economic resilience and improve the quality of life for farmers. Thanks to a partnership with Trunks

In terms of conservation events, we achieved our highest outcome ever. BTEH facilitated eleven educational conservation events for schools and volunteer organizations in Thailand, bringing nearly six hundred students to Ruam Thai to actively contribute to our projects. These events are crucial for financially supporting local communities and raising awareness about elephant conservation and community-based ecotourism. Another highlight was our participation in the International Elephant Conservation & Research Symposium in Chiang Mai with seven BTEH team members, four of whom were speakers and one winning an award as one of the best speakers.

In South Africa, we organized two successful field expeditions in Kariega Game Reserve, involving sixteen research participants. This reserve is actively engaged in habitat expansion by removing fences between different reserves to enlarge the living space for elephants. By collecting movement data via GPS collars, combined with extensive behavioral observations and dung sample analysis, we are able to investigate the effects of this habitat expansion on elephant wellbeing. This approach provides us with valuable insights into how changes in living space affect the behavior and health of elephants.

Academically, we realized two scientific publications about our work in 2023: a study in the Dinokeng Game Reserve on the relationship between the reserve and the local community was



published in the journal Diversity, and a study on the consequences for elephant well-being of using LoRa GPS collars was published in the journal Pachyderm. Several team members completed their Master's or PhD in 2023.

We are extremely proud of what we have achieved in 2023 and look forward to what we can accomplish together in 2024. We thank everyone - volunteers, donors, partners, universities, and all others we work with - for their valuable contributions and partnerships!

On a personal note, I am proud to report that in May 2023, I obtained my PhD from the University of KwaZulu-Natal, a significant milestone in my life. My research focused on aligning elephant conservation with societal aspirations, putting me in a better position to do more for the protection of elephants. I look forward to another inspiring year, the 20th year of Bring The Elephant Home's existence!

Antoinette van de Water Director of Bring The Elephant Home South Africa, April 2024



1. BRING THE ELEPHANT HOME

BTEH is dedicated to the well-being and survival of African and Asian elephants, fostering socio-ecological resilience in communities seeking human-elephant coexistence, and striving for a world where both elephants and people can thrive.

BTEH initiates and supports projects that synergistically align with, and ideally enrich, the three pillars of our focus: elephants, people, and the environment. Through a 'One Well-Being' approach, we foster interactions and positive feedback loops between these three pillars, promoting a harmonious co-existence.

Mission

To increase the chances of survival for elephants in the wild and strive towards a harmonious world where both humans and

elephants can thrive, mutually benefiting from coexistence.

Goals: sustainable positive change

- Conserving elephants and restoring, expanding, and protecting their habitat in collaboration with local stakeholders;
- Designing, implementing, testing, and promoting sustainable solutions for humanelephant coexistence that provide socioecological and economic benefits;
- Encouraging local participation in nature conservation and empowering local communities;
- Raising awareness about the importance of elephant conservation and nature in general;
- Contributing to the growing body of scientific knowledge that points towards equitable and sustainable nature conservation.

Organizational goals impact goals well-being by implementing sustainable solutions for habitat protection and human-elephant Internal **External OUR PROCEDURES OUR COMMUNITY** an-elephant coexistence Strengthen local leadership build capacity for com human resources systems to development, consider people's strengthen our organizationa To increase the chances of survival for possibilities and willingness to change, ensure project alignment with the local context. capabilities and operational People **Environment** us world where both hւ Reduce the cos and elephants can thrive, mutually and increase the and protect elephan benefiting from coexistence nefits of living with habitat and promote OUR TEAM **OUR SUPPORT** lephant-friendly Nurture a culture of collaboration. land use for ecological Foster strong, long-term an empowering team spirit and accountability, collaborations with organizations 'living in harmony where team and board members funders and academic institutions approach. Promot elephant survival share our vision, and are motivated our vision and goals that share our values and vision; to actively contribute to our goals. diversify the range of through educational and funding sources. advocational initiative scientific publicatio and political lobby

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4

OUR 2023 IMPACT IN NUMBERS



CONSERVATION **EDUCATION EVENTS**

Ruam Thai

Students hosted in Ruam Thai

Diverse groups of visitors

Average number of local people who benefit per event



BEE THE CHANGE

Ruam Thai

50 Community beekeepers

3 Beehive study fences deployed

3 Bee pheromone fences deployed



TOM YUM PROJECT

Ruam Thai

Raw crop yield **B22.788** purchased from local farmers

16 Retail partners

11 Elephant-friendly products



ELEPHANT RESEARCH

Kuiburi National Park

71 Elephants identified

481 Elephant photos databased

49 Behavior data collection days

131 Elephant behavior observations

ORGANIZATION MILESTONES

- · Established alt-crops community enterprise group
- Bee the Change project launch
- First pioneer farmers planting alt-crops
- Expanded our field station in Ruam Thai
- Alt-crops microloan program launched
- 2-years of USFWS alt-crop research completed 2-years of Kuiburi wild elephant study completed
- Added ten new team members!
- Internal fence removal in Kariega Game Reserve
- Elephant home ranges established in S. Africa
- Completed population analysis in N. Thailand



ALTERNATIVE CROPS

Ruam Thai

Farmers growing elephant-friendly crops

Camera traps deployed on farms

113 Elephant observations in crops



ELEPHANT RESEARCH

Mae Ping-Omkoi Forest Complex

1484 Dung piles counted

321 KM Walked for line transects

20 Camera traps deployed

251 Elephant observations



ELEPHANT RESEARCH

South Africa

336 Elephant focal samples

Elephants identified

Months of movement data

Research program participants



REACH & COMMUNICATIONS

- Four presentations at IEF 2023
- Pachyderm (Vol. 24), 2023
- African Elephant Specialist, 2023
- Five community and participatory workshops



2. PROJECTS

In this chapter, we describe the status of the Tom Yum Project, the Bee The Change project, Research Thailand, Research on Rewilding Asian elephants and Research South Africa. We explain how these projects contributed to the achievement of our goals.

The Tom Yum Project

The Tom Yum project supports Thai farmers in the regenerative cultivation of crops that elephants dislike, such as chili, citronella, lemongrass, galangal, lime, kaffir lime, and other aromatic plants. To investigate the presence and activity of elephants in agricultural areas near Kuiburi National Park, BTEH conducted several camera trap trials. In 2023, our PhD researcher Tyler Nuckols deployed 36 camera across 18 farms, half growing traditional crops like pineapple and the other half elephant-friendly types such as lemongrass and citronella. The results gave insight into elephant behavior in human dominated landscapes, and showed a preference for pineapple fields. We also collect data on location, crop type, weather, moon phase, and elephant activity during each observation.

To develop a sustainable alternative crop chain,



BTEH initiated a Fairtrade certification process. After a field visit to Fairtrade demonstration farms in Sisaket and an inspection visit from Fairtrade Thailand to Ruam Thai, the Kuiburi Fairtrade Community Enterprise was established and a bank account was opened, highlighting the transition to financial autonomy and sustainability of the project. In the summer of 2023, ecological data collection began, focused on assessing the diversity and abundance of invertebrate species in pineapple fields and fields with alternative crops. In September 2023, we supported the community enterprise with seed funding to launch a microcredit program to facilitate the transition for local farmers to alternative, sustainable crops. Farmers can apply for microcredit from the community enterprise, which is repaid when their alternative crops are sold. Through Fairtrade sales, the community enterprise earns a premium, which can be invested in community development. In 2023, the first twelve farmers switched to lemongrass and galangal, with which we aim to develop a Proof of Concept.

Throughout the project, BTEH organized various workshops and training sessions to build knowledge and skills among farmers. A highlight was the Theory of Change workshop, part of Tyler Nuckols's PhD. The workshop showed stable high











satisfaction levels regarding the project's status. Participants' motivation for continuing with the alternative crop planting project slightly increased, indicating a positive workshop impact. Confidence in transitioning to alternative crops and the perception of how participants' opinions were heard, improved during the workshop.

Elephant-friendly products derived from alternative crops are sold internationally via the Elephant & Co webshop, and in Thailand by sixteen retail partners (e.g. vegetarian restaurants, organic stores, and refill stations). In November 2023, we were able to purchase and install an essential oil extraction machine thanks to the support of USFWS, enabling community members to increase production and profitability by creating value-added products in the village.

The first phases of the project faced two major challenges. The first was that Ruam Thai experienced the worst drought in twenty years, which made a transition to alternative crops extremely challenging. The second is the risk associated with changes in livelihoods, especially when farmers primarily rely on monoculture. During community enterprise meetings, farmers made it clear that they prefer a gradual approach to reduce potential economic and social risks. Therefore, in the first phase, only farmers willing to be early adopters were included, to first demonstrate the ecological and economic viability of alternative new crops, ensuring sufficient financial returns. The goal is to focus on scaling the alternative crop approach in Ruam Thai in the second phase, starting in 2024, and expanding to Yan Sue, a neighboring village that has expressed interest in participating in the program.

Bee the Change

In 2023, a new Bee the Change fence model and study was developed in Ruam Thai. A new collaboration with Dr. Mark Wright of The University of Hawai⊠i at Mānoa led to an innovative experimental design to test the effectiveness of two native pollinators,



the Asian Honey Bee (Apis cerana) and Stingless Bee (Tetragonula pagdeni), as well as a bee alarm pheromone blend, in deterring Asian elephants. Adding the bee alarm pheromone blend to the toolkit can aid farmers in continued elephant deterrence during periods when native bee species abscond, typically during each wet season (July-October). A Participatory Mapping Exercise was organized to involve local farmers, rangers from Kuiburi National Park, and members of the Ruam Thai Beekeeping Group. Utilizing detailed maps of the area surrounding Kuiburi National Park, these stakeholders identified areas that frequently experience visits from wild elephants. This initial mapping provided a crucial layer of local knowledge that is often absent in more conventional site selection processes. Furthermore, beekeepers from the Ruam Thai Beekeeping Group contributed their extensive knowledge of wild bee colony locations. They pinpointed areas where wild bee colonies were





observed with regularity, ensuring that our study sites overlapped with zones of high bee activity. This was essential for assessing the potential of using native bees as a natural deterrent to elephants, a key aspect of our research.

In December 2023, together with Dr. Orawan Duangphakdee from the Native Honeybee and Pollinator Research Centre at King Mongkut's University of Technology Thonburi and the Ruam Thai Beekeeping Group, we designed a prototype fence model and conducted the first test. As Asian honeybee and stingless bees are less active and aggressive than African or European bees, we have developed an innovative spring-mounted beehive fence model to activate bees during nightly elephant visits. The spring under the hives encourages hive movement when elephants push the connecting ropes. This model is also valuable in the Thai context, where large-scale fencing surrounding farms is not present, providing a mount for hives. We aim to test this design to provide additional insights on the best way to encourage Asian honeybee swarming while reducing absconding behaviour. Camera traps will be placed around the six fences to measure the elephants' reaction. The study officially starts in 2024.

Research Thailand

Through our research on elephants in Kuiburi National Park in Thailand, as part of Ave Owen's

study, we have so far identified 71 elephants, and classified 481 photos of these elephants in our elephant identification database. The study of wild elephant behavior, conducted by PhD researcher Brooke Friswold, provides valuable insights into how elephants respond to the presence of tourists and how the impacts of park closures and refugia areas impact elephants. During 49 research days, she collected elephant behavioral data from 187 14-minute observations and 109 5-minute observations. Preliminary results show a decrease in elephant detections immediately following the re-opening of the National Park and then a gradual return of elephants to viewable areas and also highlight how male elephants are showing an increased tolerance to tourism over females and calves. The results from this study may provide valuable information that could serve to create regulations that promote the well-being of elephants which could be applied to other national parks in Thailand and elephant range countries where tourists have opportunities to encounter wild elephants.

Research options for rewilding Asian elephants

With the support of World Animal Protection, we initiated a research project in Thailand to identify areas with low wild elephant numbers. We are investigating the potential of increasing genetic diversity and safeguarding dwindling populations by 'rewilding' Asian elephants, which means reintroducing elephants from captivity to their natural habitat. Our analysis identified a region in northern Thailand as the most suitable location. This region consists of five protected areas spanning over 300,000 hectares, characterized by minimal agricultural activities or other human developments nearby, low levels of human-elephant conflicts, and local communities that hold positive attitudes towards elephants. Before we could submit a proposal for rewilding elephants, we conducted two crucial studies: a population count of the existing wild elephant population and an assessment of the habitat's suitability to accommodate more







elephants. For the population count, we installed twenty camera traps and assessed elephant dung density. The habitat suitability study included comparisons between forests with none, few, and many wild elephants. Given the role of elephants as keystone species, we aim to demonstrate that an increase in their numbers is beneficial for biodiversity. At the same time, we want to show that the loss of elephants can have negative consequences to the natural environment. We also assessed which captive elephants are potential candidates for reintroduction into the wild, examining their behavior and group dynamics. Initial observations in traditional elephant villages and elephant tourism camps showed that the elephants we observed in traditional villages, often located in forests with limited human interaction, exhibited behavior that more closely resembled that of wild elephants, but more research is needed to validate these results.

Research South Africa (including adoption program)

In 2023, our research in the Kariega Game Reserve in South Africa continued, in collaboration with the reserve's management, ecologists, the Kariega Foundation, and the Elephant Reintegration Trust. Together with PhD student Brooke Friswold, we are studying the impact of habitat expansion on elephant well-being. We previously fitted elephants with LoRa GPS collars to monitor their

movements. However, the research process with elephants faced challenges; all male elephants experienced problems with collar twisting within five months, causing irritation. We thoroughly investigated this issue, published an article, and removed the collars from the males to ensure the elephants' welfare. By sharing our findings with other researchers and collar manufacturers, we aim to prevent such issues in the future. We also observe elephant behavior, which is not invasive, using the Zoomonitor app. We developed an ethogram for elephant behavior to analyze behavioral patterns. Additionally, we collect elephant feces for laboratory analysis of glucocorticoids (cortisol levels) to gain insight into the stress levels of elephants. With these three methods, we compare the social behavior, wellbeing, and movements of the elephants before and after the fences are removed. We developed a report that was shared with the cooperating reserve where the research is conducted, showcasing the research outcomes thus far.

This research is funded through field expeditions that we organize twice a year for small groups of research assistants and our adoption program for African elephants. In 2023, 16 volunteers assisted us in South Africa, and 49 Bring The Elephant Home donors joined the African elephant adoption program.





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3. EDUCATION

Conservation Events

In 2023, Bring The Elephant Home organized eleven inspiring conservation events, with nearly 600 students participating over a total of 57 days. These events aim to educate participants about elephant conservation, the complexity of human-elephant conflicts, and the importance of community-based conservation and ecotourism. Key activities included Human-Elephant Coexistence walks, workshops for making paper from elephant dung, tie-dye shirts, making Tom Yum products, Tom Yum cooking classes, and, of course, a safari to see wild elephants in their natural habitat. These events have contributed to the financial support of more than 50 members of the local community, underscoring our commitment to sustainable development and promoting ecological and economic resilience within the community. Through education, participation, and direct involvement, our conservation events raise awareness and have a tangible impact on both participants and the local community, with conservation, sustainability, and coexistence at the core. In December, we

hosted a special group of 75 volunteers from 15 countries who joined us in Ruam Thai. In 10 days, they contributed to elephant behaviour research and built a natural build community-owned hub for elephant education and to showcase local products, such as elephant-friendly Tom Yum products.

Academic Cooperation

BTEH aims to expand our academic cooperation in Thailand to various faculties and universities, as well as other stakeholders, to build a strong network that is well-informed about our mission and projects. In 2023, we extended our collaboration with King Mongkut's University of Technology Thonburi by co-advising two of their students and engaging in discussions with other Thai universities. Through scientific presentations at conferences, we have made many connections, contributing to the reputation of Bring The Elephant Home. Antoinette presented at the SAWMA (Southern African Wildlife Management Association) conference, Antoinette and our volunteer Marieke at the EUROPARC Conference



PARTICIPANT TESTIMONIALS

"This experience was enlightening to see the experiences of local people."

"Our favorite activity is making lip balms because we got to understand the farmers and also get a souvenir."

"We really enjoyed all the activities, especially the stingless bees (we learned lots) and safari. Very engaging."

"It was a very interesting and inspiring activity, and it was a nice break from the busy streets of Bangkok."

"We enjoyed observing wild animals as this was a special experience that we cannot experience in the city."

"We learned about many different ways farmers use to make their farming succesful and some alternatives they use when it gets damaged by elephants."

2023, and seven BTEH team members attended the International Elephant Conservation & Research Symposium in Chiang Mai. Out of these, four delivered presentations, and one (Ave Owen) won an award for being one of the best speakers.

In 2023, we supported two PhD students in facilitating their field research. Brooke Friswold from King Mongkut's University of Technology Thonburi studies the well-being of elephants in Thailand and South Africa and the influence of tourism and management interventions. Tyler Nuckols from the University of Colorado Boulder is studying the importance of environmental justice and social equity in promoting human-elephant coexistence.

In South Africa, in collaboration with the University of KwaZulu-Natal, we conducted research on the value of elephants, which was used in developing strategies to align elephant conservation with human well-being and societal aspirations. This study was funded by the South African National Department of Forestry, Fisheries, and the

Environment as part of the National Elephant
Research Strategy. In May 2023, BTEH's founder
and director Antoinette received her PhD from the
University of KwaZulu-Natal, and her thesis
"Aligning Elephant Conservation with Societal
Aspirations" was published. Furthermore,
BTEH published two scientific articles in 2023:
"Resolving Conservation Conflicts through Shared
Vision, Collective Benefits and Relevant Values" in
Diversity, and "Twisting Collars on Male Elephants
in shrub terrain: Animal Welfare Considerations
for Researchers, Managers and Manufacturers"
in Pachyderm of the African Elephant Specialist

Group.





4. COMMUNICATION

The communication of Bring The Elephant Home aims to engage audiences and volunteers worldwide with our mission and collaborate with relevant organizations. We identify the following target groups:

- A broad base of interested public;
- Organizations dedicated to nature and elephants;
- Universities, students, and schools;
- Local communities;
- (Potential) donors and volunteers;
- Funders and grant providers.

With the broader base, donors, and volunteers, we communicate through the website (9 updates posted on the Dutch-language site in 2023), the email newsletter (1,056 Dutch subscribers and 393 English subscribers, 4 newsletters sent in 2023), and frequent social media posts (via Facebook page to 6,959 followers, Facebook group 4,400 members, and Instagram to 16,300 followers). Within the projects, various workshops and information meetings took place in South Africa and Thailand, in close collaboration with local communities, universities, schools, and other organizations.

Bring The Elephant Home has developed a new strategic plan 2023-2027.

5. ORGANISATION

Bring The Elephant Home is a Dutch foundation established on November 12, 2004, based in Vlaardingen, and a Thai foundation (CM211) that was established in October 2007 in Chiang Mai, Thailand.

Director and Founder of Bring The Elephant Home:

• Dr. Antoinette van de Water

Board BTEH Netherlands

The composition of the board during the reporting year 2023:

- Berrie Jurg, chairman
- Jeroen Bol, board member
- Liesbeth Sluiter, board member
- Saskia Cornelissen, treasurer
- Dr. Suzan Doornwaard, board member

Board BTEH Thailand

The composition of the board during the reporting year 2023:

- Dr. Antoinette van de Water, chairperson
- Siriporn Sriaram, board member
- Oravee Jitlekha, board member

Country Director Thailand

Ave Owen



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6. FINANCE

The BTEH Netherlands financial report is available in Dutch, while the BTEH Thailand financial report is published in Thai. Both reports undergo auditing by the respective authoritative bodies. Therefore, the financial details are not included in this annual report.

