2022

ANNUAL REPORT

TURTLE FOUNDATION

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TURTLE FOUNDATION

Protecting Sea Turtles and their Habitats

© Paul Hilton for Earth Tree Images

OUR ACHIEVEMENTS 2022

48 NESTS
of leatherback turtles were protected in Indonesia in the nesting season 2021/22

5.8 TONNES OF WASTE
were collected in our projects on the beaches of Boa Vista as well as on the Indonesian island of Maratua

1,300 KILOGRAMS OF RICE
were eaten in our beach camps on Boa Vista during the nesting season

115 PRODUCTS
were sold via our webshop

30,646 FOLLOWERS
are now provided with regular information on Facebook and Instagram

4,718 NESTS
of loggerhead turtles were protected by us in Boa Vista

25 LOST TURTLES
were found by our teams on the beaches of Boa Vista and returned safely to the sea

1 NEW PROJECT
for the protection of the hawksbill turtle was initiated in Indonesia

10 YEARS OF FUNDAÇÃO TARTARUGA
were celebrated together with the 22nd anniversary of Turtle Foundation as well as the 4th anniversary of Yayasan Penyu Indonesia

716 PARTICIPANTS
were involved in a total of 24 marine environmental education events on the island of Maratua (Berau/Indonesia)

FOREWORD

Dear friends of Turtle Foundation,

The year 2022 actually began with a ray of hope. After the pandemic had held the world in a stranglehold for two years and also had a strong impact on our work, it was foreseeable that in the third year the path taken towards normality could be confidently continued. But nothing came of it. A new monster reared its head in the form of a vile war of aggression, theft and destruction in Europe. In addition to all the inconceivable suffering for many people, environmental protection, nature and animal welfare are of course also falling by the wayside, not only in the areas directly affected. We are all feeling the effects of inflation, material shortages and exploding commodity prices.

Despite all the difficulties and challenges, however, nature conservation is not possible without an optimistic view of the future, and so in 2022 we continued to do what we do best, namely to devote our energies to the sustainable protection of sea turtles and their habitats. And as we focus our gaze, we look back to a successful 2022 with great progress in existing projects and new ventures.

It is therefore a great honour for me to be able to present to you today, in our Annual Report 2022, the work of an organisation that for over 12 years now has offered me not only a fulfilling field of activity, but also friendship and closeness to wonderful people united by a common goal.

Previously working as a neurobiologist in university research and teaching, I sought new challenges in 2010 and accompanied documentary film projects in Indonesia, among other things. It was on the island of Siberut that I first met the Turtle Foundation through one of its founders, Eberhard Meyer, and the current director, Dr Hiltrud Cordes, both members of the film team at the time. I was invited to analyse nesting data of green sea turtles in the Indonesian project for the Turtle Foundation. This was a fantastic opportunity for me to work closer to the roots of my passion for biology: even as a child I had a great affinity for everything that crawls and flies, especially.... reptiles! Now I could not only deal with my favourites professionally, but also contribute to their much-needed protection. Soon, tasks were added that had more to do with organisation than with science. In the following years up to the present day, I have therefore had the special pleasure of accompanying and helping to shape the growth of a wonderful international nature conservation organisation, which is the result of the personal commitment of a handful of enthusiastic wildlife lovers who were deeply saddened by the exploitation and torture of sea turtles they had experienced themselves.

Turtle Foundation

23 years after its inception, Turtle Foundation now consists of seven national organisations that are non-profit and tax-exempt under the laws of their respective countries: Turtle Foundation (TF) Germany (since 2000), TF Switzerland (since 2006), TF USA (since 2006), TF Cabo Verde (since 2012; local name: Fundação Tartaruga), TF Liechtenstein (since 2014), TF Indonesia (since 2018; local name: Yayasan Penyu Indonesia) and TF UK (since 2019). In Germany, Turtle Foundation Friends is also registered as a non-profit association.

In its conservation projects in Indonesia and Cabo Verde, some of which have been running for many years, Turtle Foundation is fighting against the imminent extinction of sea turtles on the premise that sustainability can only be achieved in close and trusting cooperation with the local population.

Do good and talk about it

Protecting sea turtles in successful projects is one thing, but also equally important is spreading the word. So, we were particularly pleased that in 2022 two documentaries on German television reported on our work. We would like to thank the teams of "Länder, Menschen, Abenteuer" (ARD, HR) and "Galileo" (Pro7) very much for the great cooperation on location and the beautiful representation of our work! It is our task to report not only on the problems and challenges, but also on the successes of the tireless nature conservation work of committed people. In this spirit, I hope you enjoy reading our annual report!

Familiarisation of the Dog and Drone Team with a new night vision drone

Thank you!

I would like to express my sincere gratitude to all former and present comrades-in-arms in Turtle Foundation for their great cooperation in the fight for the survival of the sea turtles. My special thanks go to the boards of the national organisations and our executive director, who let me find a very special place in the Turtle Foundation for combining personal commitment and professional activity.

Dr Thomas Reischig
Scientific Director
Turtle Foundation Germany

Release of a tagged hawksbill turtle on Maratua, Berau, Indonesia

PROJECTS 2022
INDONESIA

© Manfred Muchenberger

BALI HEADQUARTERS

Since we established an Indonesian Turtle Foundation in 2018 under the name Yayasan Penyu Indonesia, the office in Sanur on the island of Bali has developed well. Four projects in four different provinces are now managed from Bali. While the two Sumatra projects in Aceh and West Sumatra focus on the protection of the rare leatherback turtle on its nesting beaches, our new project in Central Sulawesi pursues a different approach. Here our aim is to protect a population of hawksbill turtles in their feeding grounds in the sea. There is also good news from our oldest project area in the province of East Kalimantan (Borneo): after experiencing some difficulties there lately, we have recently succeeded in making a new start.

Unfortunately, Bali itself also has a turtle conservation issue: the meat of sea turtles is a popular traditional delicacy here. There are even some Hindu ceremonies in which sea turtles are sacrificed. Although all species of sea turtles are protected in Indonesia and the religious tradition of sacrificing wild animals has also become controversial, the illegal trade in sea turtles persists.

Furthermore, there are particularly many so-called "breeding stations" for sea turtles on Bali, which unfortunately do not contribute to species conservation, but only pursue commercial interests. There is much to do, even on the doorstep of our headquarters.

The leadership team of Yayasan Penyu Indonesia:
From left to right Muhamad Jayuli, Jatmiko Wiwoho, Gaura Rumbiak

SUMATRA

SIPORA – WEST-SUMATRA

Our two projects in western Sumatra are dedicated to the protection of a small, highly endangered nesting population of the leatherback turtle (*Dermochelys coriacea*). The two beaches we have been able to monitor so far on the islands of Sipora and Selaut Besar are located in the Indonesian section of this nesting area, which extends north of the state border into the Indian Andaman and Nicobar archipelago.

In the 2021/2022 nesting season, 29 leatherback turtle nests were counted on Buggeisiata beach on Sipora, as well as 7 green turtle (*Chelonia mydas*) and 4 olive ridley turtle (*Lepidochelys olivacea*) nests, all of which were moved to the hatchery to protect them from being poached.

Shortly before the editorial deadline of this report, on 21st January 2023, we received the sad news that the two metal tags of a leatherback turtle that we had tagged on the beach of Buggeisiata on 8th December 2022 had been found on the northern neighbouring island of Siberut. It was reported that the leatherback turtle washed up dead on the beach, but of course the suspicion is that it was poached while laying its eggs.

Thus, we have the sad certainty that we have lost one of the 19 leatherback turtles we have been able to tag since the beginning of the project.

Since the nesting beach we protect on Sipora belongs to the area of the village of Matuptuman, we have worked particularly closely with the villagers from the beginning. This included conducting a participatory village analysis in 2020, during which many expressed the wish to construct a building in the style of traditional architecture as a meeting place. This year, as a smaller model for such a building, we first built a shelter for the rangers near our hatchery on Buggeisiata beach.

In the Indonesian administrative system, it is possible for villages to pass their own ordinances that are specifically tailored to certain local circumstances and situations. At our suggestion, such a village ordinance was developed in the year under review in the village of Betumonga, to which Matuptuman belongs. The village ordinance is specifically aimed at protecting the local leatherback turtle nesting population and is the first in the whole of Indonesia whose main subject is the protection of sea turtles!

Shelter in the traditional architectural style

SELAUT BESAR – ACEH

On the uninhabited island of Selaut Besar, we continued our successful cooperation with the local conservation organisation Ecosystem Impact in the second project year.

During the leatherback turtle nesting season, a total of 19 nests were counted on Selaut Besar between December 2021 and February 2022. In 12 cases, the turtles were found nesting and could be measured, existing tags read or new tags applied. Four animals were previously unknown and were newly tagged. Three of these animals were found laying eggs again during the season, one of them once, another twice and a third even three times. But old acquaintances also turned up again: of the three marked in the 2020/2021 season, two nested again in the 2021/2022 season, i.e. after only one year. Normally, the animals nest every two to three years, but a return after only one year is not unusual either.

Unlike Sipora, where other species of sea turtles besides leatherback turtles nest only sporadically, Selaut Besar is also an important nesting site for green sea turtles, which lay their eggs here all year round. There are also isolated nests of olive ridley and hawksbill turtles (*Eretmochelys imbricata*). To protect the nests of the green turtles from poaching, we employ the rangers on Selaut Besar all year round.

Staff and food are brought from Simeulue to the uninhabited island (© Perdiansyah)

While we were able to count 610 green turtle nests in the first project year (2021), this number dropped by almost half to 321 nests in 2022. The observation period is still too short to draw conclusions from the drop in the number of nests. However, since we cannot completely exclude the possibility that there may have been irregularities in the data collection, we hired a local marine biologist at the end of the year to support the data collection for the Selaut Besar project.

Green sea turtles nest all year round on Selaut Besar (© Perdiansyah)

Leatherback turtle laying eggs (© Perdiansyah)

BANGGAI

The beautiful hawksbill turtle has a particularly hard time: the interestingly patterned, slightly transparent keratinous scutes on its dorsal carapace have for centuries been a raw material coveted worldwide for the production of handicraft items such as fans, combs and glasses frames. As a result, the hawksbill turtle is now one of the most endangered species of sea turtles.

Although international trade in turtleshell has been prohibited by the CITES agreement since 1977, and the hawksbill turtle is also protected in Indonesia, turtleshell products are still so widespread there that stopping production and trade is a mammoth task.

In 2019 and 2020, we conducted a nationwide media campaign to inform the public about the conservation status and cruel extraction of turtleshell. This is because it is little known that the turtles' scutes are often pulled off while the turtles are still alive, causing them to die in agony. At the same time, a parallel market analysis revealed that there are several areas in Indonesia where the supply of turtleshell is concentrated because fishermen specifically catch hawksbill turtles in the sea.

Therefore, we planned to focus our hawksbill turtle protection efforts on these hotspots and not only continue the media campaign but also contact fishermen. The objective is to tackle the trade in turtleshell products from both ends: on the one hand, to initiate behavioural change among potential buyers to reduce demand, and on the other hand, to curb supply through cooperation with local fishermen.

Bangles made of turtleshell and the also protected black coral at a stall in Banggai

One such area is the Banggai district in Central Sulawesi. Our colleagues from the conservation organisation AlTo (Alliance for Tompotika Conservation), which has dedicated itself to the protection of the critically endangered maleo bird (*Macrocephalon maleo*) in Sulawesi, had drawn our attention to the turtleshell problem in the region and pledged its support to our project.

Further research led us to the small village of Pulau Tembang, which is now the centre of our project activities. Typically, people in remote Indonesian coastal villages like Pulau Tembang rely on the resources of the sea for survival but not for wealth. Lack of access to markets and lack of educational facilities are among the difficulties faced by the fishermen of Pulau Tembang. Who can blame them for being happy to "take" a hawksbill turtle, whose scutes they can sell for about 55 euros, when they are out fishing?

Our approach is therefore not to criminalise the fishermen, but to work with them to find a solution that spares the turtles without further reducing their income. This was the concept that welcomed our team to Pulau Tembang. A first step was a participatory village analysis to determine the wishes, the potential and the possibilities of how we can support the village within the framework of our project. Good approaches exist with regard to the cultivation of seaweed which has a good market value and is already cultivated in the region, as well as in improving the marketing of the fish catch.

Furthermore, we also want to involve the fishermen in a survey on the abundance of hawksbill turtles in the waters around Pulau Tembang. The turtles nest only sporadically on the beaches of the region but can be found foraging in the coral reefs. To get an idea of the population size, the turtles will be captured, tagged and released. We conducted a pilot study using this method in 2014 in our project in Berau, East Kalimantan.

In addition to the work in Pulau Tembang, we will also be continuing our tried and tested campaign work in the region as part of this project, which is being funded by the Critical Ecosystem Partnership Fund (CEPF) for an initial period of 18 months. Further to initial school visits, we organised a "Turtle Week" in the district capital Luwuk in December, where of course our mascot Kimi was used again in a series of public events.

Advertising for the 'Turtle Week'

Pilot project 2014: release of a tagged hawksbill turtle

The project village Pulau Tembang

The women of Pulau Tembang draw a map of their island

BERAU

This time last year, we had to report that we were unexpectedly asked by the local government in Berau to immediately leave the nesting islands of Belambangan and Sambit, where we had been active since the beginning of 2019. To date, it has not been possible to clarify what prompted the administration to take this step, but at least the feared development plans for Belambangan Island have not been implemented for the time being.

World Turtle Day event on Maratua

Parallel to the negotiations for the protection of nesting islands, we have become active on Maratua, the largest island of the Derawan Archipelago, which is home to four villages and a small airport. We have started an environmental education programme there with school visits and rubbish collection campaigns, which is very popular. On special days like 16th June, World Turtle Day, we held public events to inform people about the protection of the oceans and sea turtles.

Green sea turtle hatchling

Mataha Island

In the second half of the year, the possibility of a renewed cooperation with a former local partner, the organisation BLB (Biota Laut Berau), became apparent. BLB runs a conservation programme on the two most important islands in the region: Bilang-Bilangan and Mataha which are home to about half of the nests in the entire nesting region. With estimated annual nesting numbers between 15,000 and 20,000, the Derawan Islands are the most important green sea turtle nesting area in Indonesia. While BLB does not have the financial and human resources to take on the responsibility for these two important islands alone, the loss of our project on Belambangan and Sambit had freed up resources for us. This situation gave rise to the approach for cooperation, which was contractually sealed at the turn of the year 2022/23. In the coming months, we will first carry out a general inventory for all project areas - from the methodology of data collection to the identification of training needs and investment backlogs.

Overall, however, we are very happy that the "island merry-go-round" in Berau continues to turn and that we have new perspectives for the work in the first and oldest project area of the Turtle Foundation.

OUTLOOK AND PLANNING

After we were able to start a new project in Indonesia in Banggai, Central Sulawesi, and restart an old project in Berau, East Kalimantan, in the year under review, we will concentrate in the coming year on consolidating the existing projects and strengthening our headquarters in Bali.

Matuptuman on Sipora also needs regular cleaning up (© Fatris M F)

In the two leatherback turtle conservation projects in Sumatra, management needs to be improved to ensure the quality of work on the nesting beaches. This means first and foremost more training for the rangers and better maintenance of technical equipment. In Berau, we are conducting a comprehensive inventory in the coming weeks to determine the need for repairs and new acquisitions, and for Pulau Tembang in Banggai we want to develop a concept for a longer-term commitment during the course of the year.

Leatherback turtle on Selaut Besar returning to the sea after laying eggs

There is a distance of more than 2,000 kilometres between our projects in Sumatra and Sulawesi, and most of our activities take place on remote islands that can only be reached from the nearest larger town by car or boat in several hours. These geographical conditions alone pose a great challenge for project management and the necessary regular visits on site. However, we also want to establish an exchange between the projects in order to build a common sense of identity among all staff members of our partner organisation Yayasan Penyu Indonesia. Further overarching tasks concerning all projects are to standardise the methods of data collection, to manage the collected data in a central database and to develop standards for the training of our rangers.

In order to enable the Bali headquarters to cope with these diverse tasks, we will expand the team by two to three new members in the course of the year.

Thus in Indonesia, we are often faced with the challenge that pressing issues and obvious problems are right in front of our eyes, but we are forced to exercise restraint so as not to exceed our capacities.

Green sea turtle (© Manfred Muchenberger)

PROJECTS 2022
BOA VISTA (CABO VERDE)

© Marcel Maierhofer

PROJECT OVERVIEW

The island republic of Cabo Verde off the coast of West Africa, with a total population of about half a million people spread over 10 islands, is home to what is officially still the third largest nesting population of loggerhead turtles (*Caretta caretta*) in the world. Most of the turtles nest on the beaches of Boa Vista, the easternmost island in Cabo Verde. Until a few years ago, hunting the nesting females for their meat was the main threat to the population, which is why the Turtle Foundation set up its first beach protection camp on Boa Vista in 2008 and started regular beach patrols.

Since then, the project, currently led by Ukie Resende, has grown considerably. Previously unprotected nesting beaches are now regularly patrolled by rangers and volunteers, supported by our Dog and Drone Team. At least as important as these direct conservation measures is the cooperation with the local population, without whose participation no conservation project can stand on a sustainable footing. Environmental education, community engagement programmes and the promotion of alternative income opportunities are therefore an integral part of our activities.

Besides Turtle Foundation, two other conservation organisations, Cabo Verde Natura 2000 and BIOS.CV, are active on Boa Vista, protecting important nesting beaches in the east of the island. Beaches near the capital Sal Rei, which have been visited more frequently by sea turtles for some time now, are now guarded by rangers from the local Ministry of Environment. Thanks to these joint measures, practically all protection gaps on Boa Vista's combined 70 km of nesting beaches have now been closed. With only 10 recorded poached turtles, the number of animals killed in 2022 might have been the lowest since human settlement on the island in the fifteenth century.

A loggerhead turtle (© Nele Ruhnau)

The challenge now is to consolidate these positive developments and make more room for addressing the many other threats that sea turtles continue to face, some of which are increasing, such as pollution, habitat destruction and intentional or unintentional killing in fishing practices.

Turtle tracks on the beach of Boa Esperança (© Natalie Ionisiu)

DIRECT PROTECTION MEASURES

When all five camps were operational again from the beginning of June, the excitement was high. The question "How many turtles will come this year?" was particularly topical after we had experienced two exceptional nesting seasons in a row in 2020 and 2021, in which the number of nesting turtles had increased many times over. As a precaution, we had made the maximum logistical and personnel capacities available from the very beginning.

Our beach camp in Lacacão

However, patience was needed first. By the end of June, most of the patrols had to return to the camps without having encountered even one turtle, and we had counted just 50 nests on 30 kilometres of beach. That was about 7 times less than in the same period during the previous year. Only in the course of July did a noticeable increase in nesting activity begin, which then peaked as usual in August and September and ended in October. At the end of the season, we counted a total of 4,718 loggerhead turtle nests on the beaches we patrolled and those of the community-based conservation project Bofareira.

The 739 nests and 10 beach kilometres of the second community-based project, which monitors Varandinha and Santa Monica beaches from Povoação Velha, are not included in our statistics this time. The reason is that this project, which we had supported financially, technically and logistically since 2011, has become independent in the meantime and was recently only co-financed by us to a small extent. The village group of Bofareira (Onze Estrelas Clube de Bofareira), on the other hand, will continue to be supported and supervised by us for the time being.

The number of nests in 2022 is of course a big difference compared to the two previous years (2020: 28,566 nests; 2021: 36,146 nests; Varandinha is still included here with shares around 12%). However, this sharp decline does not worry us at present. For one thing, the number of nests in 2022 is still above the average of the years before the sharp increase. For another, after the excessive increases in nesting activity in previous years, the decline is not surprising, as turtles do not nest every year and therefore natural fluctuations occur. However, since all new turtles recorded in recent years will eventually nest again, we should also observe strong increases again very soon.

We were very pleased to see that after the two Corona years, normality has largely returned to the camps, even though appropriate measures for personal infection control continued to be taken. In particular, we welcomed the return of the international volunteers, for whose efforts we extend our sincere thanks. In total, we received 51 volunteers in our camps in 2022, who were of indispensable help to us, especially in collecting data on the beaches of the Boa Esperança and Lacacão camps. And of course, we are looking forward to welcoming helping hands again for the 2023 nesting season!

Volunteer Sofia Romano with freshly hatched loggerhead turtles (© Natalia Ianina)

The Dog and Drone Team (© Marcel Maierhofer)

Also very pleasing was the particularly low level of poaching on the beaches of Boa Vista, which reached a new record low with a total of 10 detected cases. On the beaches patrolled by Turtle Foundation, there was even only one case, which occurred in August on the beach of Cruz do Morto.

An important role was played by the work of the Dog and Drone Team, a special team set up and trained by us for innovative beach protection techniques under the direction of the local Ministry of Environment.

Remains of a poached turtle (© Kate Yeoman)

This team is responsible not only for the beaches of Turtle Foundation, but for the protection of all of Boa Vista's nesting beaches. Since the first operations in 2018, poaching has once again dropped very significantly. Especially the most endangered beaches are regularly controlled during the nightly egg-laying with night-vision drones, often accompanied by the police. Conservation dogs are trained for various tasks, including tracking down turtle meat as well as poachers after the incident. The work of the Dog and Drone Team was profiled in a TV report by the German science show Galileo in October. In March 2023, we will present a 5-year review of the team and its operations to an international specialist audience at the 41st annual meeting of the International Sea Turtle Society (ISTS) in Cartagena, Colombia.

DATA COLLECTION AND RESEARCH

In order to monitor the success and needs of sea turtle conservation, continuous and professional data collection is essential. This task is the responsibility of the rangers and volunteers working on the beaches, who are guided by the field coordinators in the camps. Under the coordination of our field biologist, Airton Jesus, we were able to switch to fully digital data collection for the first time this season. This eliminates many sources of error from the old paper-based recording and digitising methods and now allows us to have a timely overview of the current nesting activity on the beaches.

A turtle returns to the sea after laying eggs at night (© Natalia Ianina)

The question of where the many turtles of the last few years suddenly came from remains exciting. Most of these animals are relatively young and have nested for the first time in their lives. Since turtles grow throughout their lives, one can determine their approximate age by the length and width of their dorsal carapace. So, there must have been a factor in the recent past that significantly increased the probability of survival, especially of newly hatched or juvenile turtles. The protective measures of the last few years are less likely to be a factor because of the long generation time of the turtles. One possibility could be the decimation of predatory fish that also feed on smaller turtles. This would then be a consequence of the ongoing exploitation of the oceans by industrial fishing, which we already pointed out in last year's report. But this hypothesis and its alternatives need further investigation.

Field coordinator Elida Semedo on morning patrol at the shipwreck of the 'Santa Maria' in Boa Esperança (© Natalia Ianina)

We are very pleased with the contributions of two staff members who conducted research in addition to their regular work. Stephanie Butera's work analysed interviews with former poachers together with geographical conditions in the hinterland of the nesting beaches to identify particularly endangered locations as well as the causes for this. A very important finding for us is that the interviews were the first to give first-hand accounts of the deterrent effect of our Dog and Drone Team. The work was published as a poster at the ISTS 40th Annual Conference in Perth.

Despite regular cleaning campaigns, the littering of the nesting beaches cannot be stopped. On the right of the picture you can see octopus traps, which are washed up in particularly large quantities

Kate Yeoman addressed the pressing issue of plastic pollution on the beaches of Boa Vista and its impact on the reproductive success of sea turtles. So-called geo-referenced image maps were created from high-resolution drone images of nesting beaches and

A sad sight: a turtle has to dig its nest amidst washed-up plastic waste (© Kate Yeoman)

Newly hatched turtles are weighed at random: weighing 19.01 grams, this hatchling is a 'middleweight' (© Natalia Ianina)

evaluated for litter occurrence, meticulously counting almost 20 kilometres of beach in a 100-metre-wide strip from the waterline inland. Over 110,000 litter particles down to about 10 cm in size, such as plastic bottles, were recorded and categorised by hand on the computer. This means that on average there are five larger pieces of plastic on every metre of beach, concentrated mainly at the high tide line. Furthermore, the nesting behaviour of the turtles, depending on the accumulation of rubbish, as well as the hatching success of the hatchlings, depending on small plastic particles accumulating in the sand, were investigated. In both cases, there was clear evidence of a negative influence on the reproductive success of the turtles. This adds to the long list of disastrous effects of plastic pollution on life in our oceans and underlines the urgency to finally do something about it. The work was assessed with distinction by Edinburgh Napier University. We warmly congratulate Kate on her great work!

COMMUNITY ENGAGEMENT

In 2016, we conducted a survey on Boa Vista to gather the views of the population on sea turtle conservation and the work of conservation organisations. Key questions included:

- Do you think it is good that sea turtles are now protected by law?
- Do you think it is right that eating turtle meat is prohibited nowadays?
- Do you think that the conservation organisations on Boa Vista are doing a good job?

We repeated this survey in 2022 to determine whether the public's attitude towards turtle conservation has changed in the last six years.

Already in the first survey, most respondents had agreed with the core questions, although the overall result was marred by isolated very negative opinions. In the result of the repeat survey, the overall picture has again improved slightly, but the negative attitude of a small minority also persists.

We see here that the vast majority of the population of Boa Vista agrees in principle with the protection of sea turtles and is willing to comply with the relevant regulations. However, the desire to eat turtle meat persists. The meat is described by many respondents as particularly tasty, and it was often pointed out that the turtle meat is an important element of the cultural tradition of Cabo Verde.

Sewing course in the 'Atelier Tarafes'

This shows that intensive cooperation with the population is the right way to go. But it will take more years before the consumption of turtle meat is finally a thing of the past.

We were able to continue our successful projects from previous years in 2022: the free swimming courses for children from all communities on the island under the direction of Ginevra Rossi took place from April to October with a total of 100 participants in three levels. 55 children have already been able to attend advanced courses and thus also participate in snorkelling excursions. Environmental education modules are also integrated into the swimming courses, through which the children are taught basic knowledge about the marine habitat.

Elder dos Santos has successfully completed the second stage of the swimming course. Swimming instructor Kenny Steeve is also proud

At the request of the eight women in the village of Cabeça dos Tarafes, who run the tailoring workshop "Atelier Tarafes" very successfully, we financed another course for the group by a professional ladies' tailor from the capital Praia. The women wanted to learn more complicated cuts in order to be able to accept orders for evening and wedding wear. The success of the "Atelier Tarafes" is largely based on the fact that it meets the local demand for school clothing and work uniforms - from altar boys' robes to restaurant aprons.

OUTLOOK AND PLANNING

Our most important goal is and remains to end the poaching of sea turtles on Boa Vista. For this, we continue to rely on the proven combination of beach camps, from which the beaches are monitored during the nesting season between the beginning of June and the end of October, and the Dog and Drone Team, which additionally keeps an eye on the particularly problematic beaches all over the island.

From 2023, a new task for our drone pilots will be to support the search for lost turtles. It happens time and again that individual animals do not find their way back to the sea after laying their eggs. Once they have lost their orientation and taken the path inland, this means their certain death by overheating and dehydration. At best, the rangers notice the tracks of the lost animals and can follow them. In this way, we were able to save 25 turtles in the reporting year.

To make this search even more efficient, from the coming nesting season onwards, the drone pilots will fly over the hinterland behind particularly endangered stretches of beach every morning to ensure that no turtle has been missed.

Ranger Eliana Tavares releases hatchlings of the loggerhead turtle from the hatchery

Furthermore, the drone pilots will also be used in a new project in which we will carry out an extensive survey of biodiversity in the two largest protected areas of Boa Vista. This project is funded by the international BIOPAMA programme, which aims to improve the management of protected areas.

We also want to further intensify our efforts to focus attention on the littering of nesting beaches. Unfortunately, we cannot solve this global problem on our own, but can only make a small contribution to improving the situation. We do this through continuous beach clean-up campaigns, collecting an average of 2,200 kilograms of litter per kilometre of beach in cooperation with local groups and associations. In this context, we also want to push ahead with our pilot project for recycling plastic and glass in cooperation with the Boa Vista Town Council.

Rubbish collection action at Lancha beach in the north of Boa Vista

FINANCIAL REPORT

We have redesigned our webshop and added new products, sustainable product packaging and appealing product images. 100 per cent of the profit goes to our conservation projects.

In 2022, the Turtle Foundation achieved the best financial result since its creation. The consolidated income of all seven Turtle Foundation organisations amounted to 1,184,095 Euros. Grants from foundations were our most important source of income with 847,018 Euros. 338 people took over a symbolic adoption of a sea turtle and financially supported our work with 35,379 Euros. 100% of the income from the adoptions went to the projects.

At the Ocean Run in June 2022, 5,125 euros were raised by the Lauf-weiter running community for our projects. From left to right: Maike Praviza, Annika Mika, Chris Quade Couto alias Kimi, and Janin Bartoschek

Turtle Foundation carried out projects with a total amount of 804,996 Euros this year. Project expenditure decreased by 90,760 Euros compared to the previous year, as no major investments or purchases were made. Almost 50% of our income was allocated to our projects on Boa Vista. 221,832 Euros (19%) went into the implementation of our four conservation projects in Indonesia.

For Turtle Foundation, the economical use of funds is a top priority. Expenditure on public relations, fundraising and donor support amounted to 133,611 Euros (11%). Our administrative costs last year amounted to 58,357 Euros (5%) and are thus at a similar level to the previous year. Overall, a net profit for the year of 187,131 Euros was achieved, whereby a large part of this income is already earmarked for project expenditure in 2023.

All board members in all seven Turtle Foundations worldwide are volunteers. The international office in Germany employs six staff members, three of whom are part-time. The headquarters is additionally supported by two consultants and two volunteers. A total of 84 people - year-round staff as well as seasonal rangers - worked on our projects. 55 of them on the Cabo Verdean island of Boa Vista and 29 in Indonesia. Our organisation was supported by 51 volunteers on Boa Vista and the members of the Turtle Foundation Friends support association.

Picture bottom left: Dr Françoise Rampelberg, founder of the alpha omega foundation, held a first aid course for the members of the Dog and Drone Team on Boa Vista

Picture right: Hilti AG supported our warehouse on Boa Vista with donations in kind

INCOME STATEMENT

EXPENSES 01.01. - 31.12.2022	EUR
Cabo Verde	
Coordination and overheads	121,006
Protection of nesting beaches	222,400
Community projects	49,591
Data collection and research	4,327
Expenditure for the local Ministry of Environment (special funding)	46,753
Expenditure on organisational development (special funding)	87,732
Project supervision	51,010
Direct expenditure Cabo Verde	**582,819**
Indonesia	
Bali headquarters	53,807
Programme Sipora	38,049
Programme Selaut Besar	48,679
Programme Banggai	27,020
Programme Berau	23,013
Project supervision	31,264
Direct expenditure Indonesia	**221,832**
Support for third-party projects	**345**
Cologne office	
Public relations, Fundraising, donor support	133,611
Structural costs	48,423
Web shop expenses	9,934
Cologne office total	**191,968**
Provision for project funding 2023	**187,131**
TOTAL EXPENDITURE	**1,184,095**

INCOME 01.01. - 31.12.2022	EUR
Restricted funding and income	
Funding Cabo Verde	567,566
Corporate donations and sponsoring Cabo Verde	1,345
Private donations and adoptions Cabo Verde	14,902
Volunteer contributions Cabo Verde	26,882
Funding Indonesia	155,940
Corporate donations and sponsoring Indonesia	33,246
Private donations and adoptions Indonesia	40,861
Restricted funding and income total	**840,742**
Unrestricted grants and income	
Foundations	252,878
Private donations	65,845
Corporate donations and sponsoring	13,443
Fines	8,537
Sales of miscellaneous items	2,650
Unrestricted donations and income total	**343,353**
TOTAL INCOME	**1,184,095**

SOURCE OF DONATIONS AND USE OF FUNDS

MEDIA AND PUBLICATIONS

PUBLICATIONS:

Butera, S. et al. (2022): Identification of risk areas of sea turtle poaching on the island of Boa Vista, Cape Verde. *40th Annual Symposium of the International Sea Turtle Society*, Perth, Australia.

March, D. et al. (2022): Current knowledge and gaps for developing marine protected areas in Western Africa. *1st Africa Protected Area Congress (APAC)*, Kigali, Rwanda.

Turtle Foundation (2022): Augen auf im Urlaub: Finger weg von diesen Souvenirs, in: *MitgliederMagazin Bund Deutscher Tierfreunde*, issue 01/2022, pp. 14–17.

Turtle Foundation (2022): Projekt zum Schutz Grüner Meeresschildkröten im Derawan-Archipel in Indonesien, in: *Marginata*, issue 70, 02/2022, pp. 34–39.

Turtle Foundation (2022): Urlaub, aber bitte ohne Schildpatt-Souvenir, in: *taucher revue*, issue 03/2022, pp. 68–76.

Turtle Foundation (2022): Groß, steinalt und vom Aussterben bedroht, in: *MitgliederMagazin Bund Deutscher Tierfreunde*, issue 03/2022, pp. 14–17.

Turtle Foundation (2022): Artenschutzhunde auf Patrouille: tierische Unterstützung im Meeresschildkrötenschutz, in: *MitgliederMagazin Bund Deutscher Tierfreunde*, issue 04/2022, pp. 22–25.

Yeoman, K. (2022): Assessing the potential effects of varying levels of marine plastic pollution in the nesting habitat of loggerhead turtles (*Caretta caretta*) in Boa Vista Island, Cabo Verde *[Unpublished Master's thesis]*. Edinburgh Napier University.

TV COVERAGE:

Gonser, M. (26th October 2022): Naturschützer gegen die Wilderei: Deutscher Kommissar wird Schildkröten-Hüter, in: *Galileo* [TV], ProSieben, Germany.

Heins, N. (20th March 2022): Kapverden erleben, in: *Länder, Menschen, Abenteuer* [TV], WDR/HR, Germany.

Lima, A. (21st December 2022): *Nos ambiente, nôs riqueza* [TV], TCSM, Cabo Verde.

SOCIAL MEDIA POSTS:

Total number of publications in 2022:
- Instagram: 85 posts
- Facebook: 95 posts
- LinkedIn: 23 posts

Filming for Galileo on Boa Vista with Marcel Maierhofer (left)

'Did you know' series: regular facts for followers

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In 2018, we had the opportunity to visit the MAVA Foundation in its office in Switzerland

From left to right: Hiltrud Cordes (TF), Simon Mériaux (MAVA), Ukie Resende (FT), Otto Jockel (TF), Thierry Renaud (MAVA)

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TURTLE FOUNDATION

TURTLE FOUNDATION GERMANY:
An der Eiche 7a, 50678 Cologne

TURTLE FOUNDATION SWITZERLAND:
Kerbelstrasse 18, 9470 Buchs

TURTLE FOUNDATION USA:
2615 Jefferson Street, Bellingham, WA 98225

FUNDAÇÃO TARTARUGA CABO VERDE:
Riba d'Olte, Caixa Postal No 172, Sal Rei, Boa Vista

TURTLE FOUNDATION LIECHTENSTEIN:
Landstrasse 63, 9490 Vaduz

YAYASAN PENYU INDONESIA:
Jl. Danau Tondano 45, Sanur, Kota Denpasar, Bali

TURTLE FOUNDATION UNITED KINGDOM:
48 Medway Road, London E3 5BY

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