



NATURE PROJECTS 2022 ANNUAL REPORT

Bioparc, located in Doué-la-Fontaine in western France, works with communities around the world to protect wildlife by supporting different Nature Conservation Projects. Led by local actors, these projects meet the needs of ecosystems and people to foster positive and sustainable cohabitation.

While financial aid is provided by entrance fees to Bioparc, from donations to the Bioparc Conservation Fund and through sponsorships, these projects can also benefit from the expertise, assistance and experience of Bioparc. In certain cases this support may even be direct, such as when animals born at Bioparc are introduced back into the wild.

Together, our work at protecting natural habitats and their wildlife also benefits the local communities.



THE NATURE PROJECTS [DEFINITION]

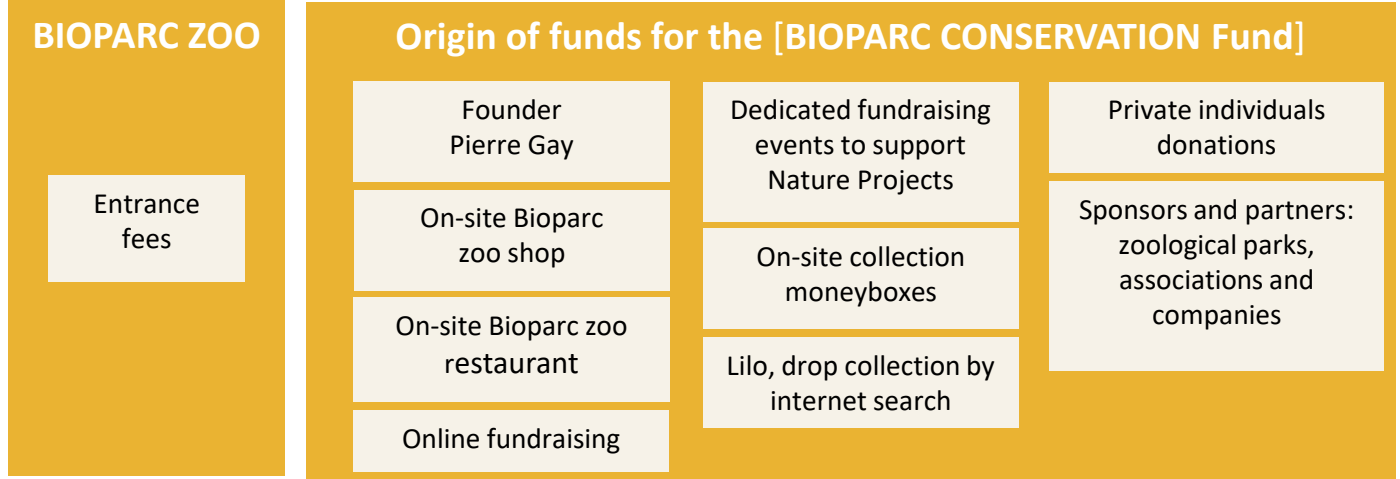
The Nature Projects respond to the needs of ecosystems and people, to encourage positive and sustainable coexistence. Supported by local actors that we are financing and supporting, they take the form of multiple complementary actions and involve the local human populations, which is a guarantee of sustainability and a condition for their success.

- **PROTECT WILDLIFE:** care center, reintroduction, anti-poaching
- **SUSTAINABLE HABITAT MANAGEMENT:** reforestation, creation of protected areas, community management
- **RAISE AWARENESS:** debates, environmental festival, radio programs, nature outings, school workshops
- **PROVIDE ECONOMIC SOLUTIONS:** training, micro-credit, ecotourism
- **IMPROVE SOCIAL CONDITIONS OF POPULATIONS:** water access and healthcare

OUR COMMITMENTS

FUNDS MOBILIZED FOR CONSERVATION

We raise funds for the Nature Projects thanks to the income generated by the Bioparc’s entrance fees and the donations made to our Bioparc Conservation Fund. All funds are donated to the associations supporting the Nature Projects.



NATURE PROJECTS SUSTAINABLY FINANCED

The funds mobilized are donated to the associations running the Nature Projects to cover their operating costs.



ASSOCIATIONS SUPPORTED ON A DAILY BASIS

We share our expertise and offer associations on daily basis. From the Bioparc and in the field, we favour multicultural approach based on listening and continuous exchanges.



REINTRODUCED ANIMALS FROM BIOPARC

Bioparc contributes to reintroduction programmes in place in the field and entrusts them with animals born at Bioparc in order to increase the local wild animal population.

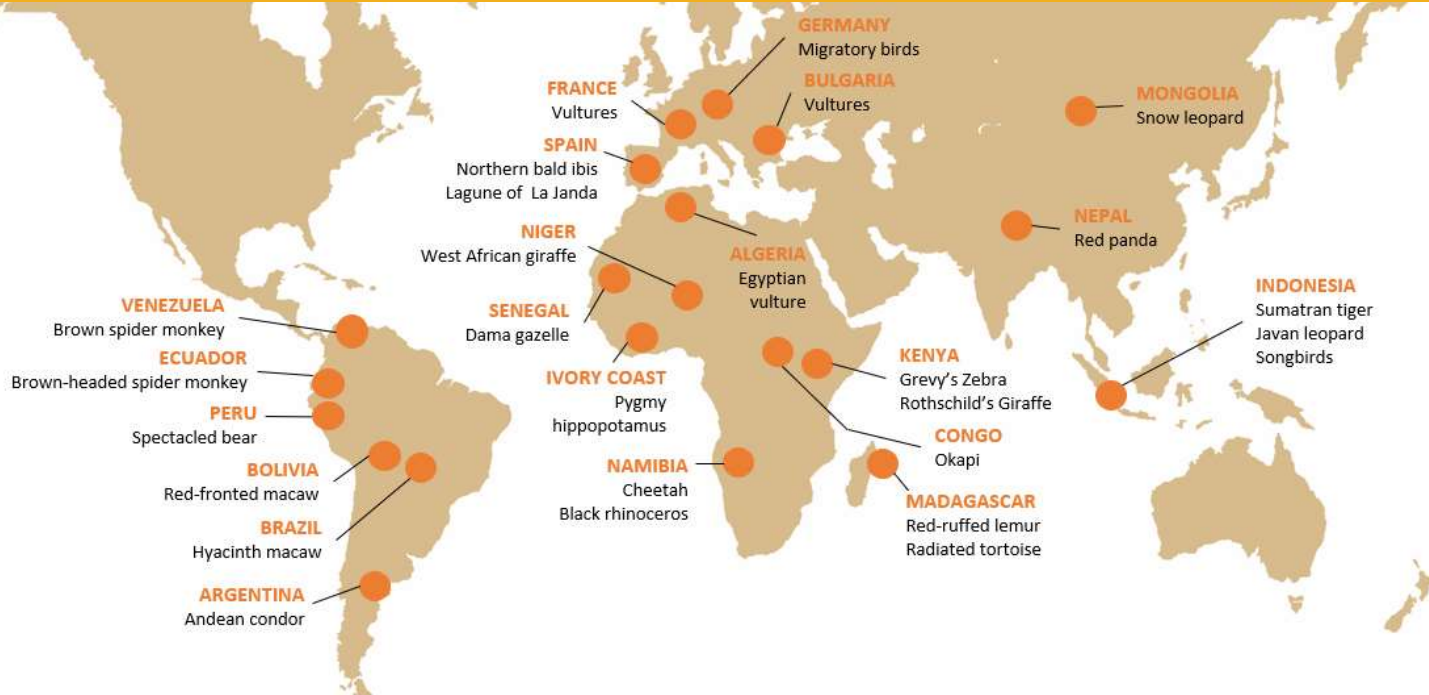


RAISING AWARENESS

Enriched by our experience, we at Bioparc highlight the missions and actions of the Nature Conservation Projects we endorse, both with our visitors and within our networks, to raise awareness about the importance of protecting biodiversity.



NATURE PROJECTS SUPPORTED IN 2022



NATURE PROJECTS AFRICA

- ▶ Conservation of the last herd of giraffe in West Africa *with the Association to Save the Giraffes of Niger*
- ▶ Sustainable conservation of a primary forest in Madagascar *with Antongil Conservation*
- ▶ Protection and monitoring of the red ruffed lemur in Madagascar *with the GERP*
- ▶ Reintroduction of radiated tortoise in Madagascar *with the SOPTOM*
- ▶ Protection of okapi in the Congo *with Okapi Conservation Project*
- ▶ Protection of cheetah in Namibia *with Cheetah Conservation Fund*
- ▶ Conservation of dama gazelle in Senegal *with the Special Wildlife Reserve of Gueumbeul*
- ▶ Conservation of Grevy's zebra in Kenya *with Grevy's Zebra Trust*
- ▶ Protection of black rhinoceros in Namibia *with Save The Rhino*
- ▶ Conservation of Egyptian vultures in Algeria *with Tlemcen Model Forest Association*
- ▶ Conservation of pygmy hippopotamus in Ivory Coast *with the Swiss Center of Scientific Research*
- ▶ Reintroduction of radiated tortoise in Madagascar *with the SOPTOM*

NATURE PROJECTS SOUTH AMERICA

- ▶ Restoration of the dry forest ecosystem of the Chaparri Ecological Reserve in Peru *with Tu Tierra*
- ▶ Conservation of Andean condor in Argentina *with BioAndina*
- ▶ Conservation of hyacinth macaw in Brazil *with Instituto Arara Azul*
- ▶ Protection of brown-headed spider monkeys in Ecuador *with Washu*
- ▶ Protection of brown spider monkey in Venezuela *with Proyecto Mono Araña (Spider Monkey)*
- ▶ Preservation of red-fronted macaw in Bolivia *with Armonia*

NATURE PROJECTS EUROPE

- ▶ Preservation of vulture populations in France *with Hegalaldia, wildlife care centre and Fund for Wild Flora and Fauna (FWFF)*
- ▶ Conservation of Egyptian vulture in France *with Nature in Occitania (National Action Plan) and with the PACA region Conservatory of Natural Areas (CEN PACA)*
- ▶ Action against illegal poaching of migratory birds *with Committee Against Bird Slaughter (CABS)*
- ▶ Reintroduction of Northern bald ibis in Spain *with Proyecto Eremita*
- ▶ Restoration of the La Janda lagoon in Spain *with the Amigos del Pericon*

NATURE PROJECTS ASIA

- ▶ Population study of the Javan leopard in Indonesia *with OFORA Foundation*
- ▶ Conservation of Sumatran tiger in Indonesia *with PKHS*
- ▶ Conservation of snow leopard in Mongolia *with Snow Leopard Trust*
- ▶ Conservation of red panda in Nepal *with Red Panda Network*
- ▶ Songbird conservation in Indonesia *with Prigen Conservation Breeding Ark (PCBA)*

NATURE PROJECTS WORLD

- ▶ Projects to preserve endangered species *through annual support to the French Association of Zoological Parks (AFdPZ)*
[17 projects, not presented on the map]

FIGURES FOR 2022

516,465.48 € COLLECTED FOR **500,003.36 €** DONATED

RESIDUALS 2021 - OWN FUNDS BIOPARK CONSERVATION **32,163 €**

RESSOURCES		COLLECTED	DONATED
Bioparc de Doué-la-Fontaine	Visitors' entrance	147,993 €	147,993 €
Bioparc Conservation Fund		336,309.48 €	352,010.36 €
	Founder Pierre Gay	25,000 €	
	Collection moneyboxes at the Bioparc	11,730.56 €	
	Bioparc shop	5,000 €	
	Bioparc Design Office	3,000 €	
	The rounds number up of the Bioparc shop	2,517.63 €	
	Bioparc Race	2,200 €	
	Other fundraising events : sculptures, concert, stand and Animal Embassies	6,161.13 €	
	Companies and partners	224,344.47 €	
	Private individuals	56,355.69 €	
REVIEW		516,465.48 €	500,003.36 €

€3,630,000 DONATED SINCE 2001

N°1
OF DONATING ZOOS
COMPARED TO ITS RESOURCES



OUR IMPACT IN 2022



Why do we measure our impact?

- Demonstrate the positive impact of our actions for our beneficiaries
- Evaluate our actions and improve them if necessary
- Communicate on the projects and promote the support received and provided for the projects



Distribution of the funds donated

70 % Bioparc Conservation + 30 % Bioparc - Zoo de Doué-la-Fontaine

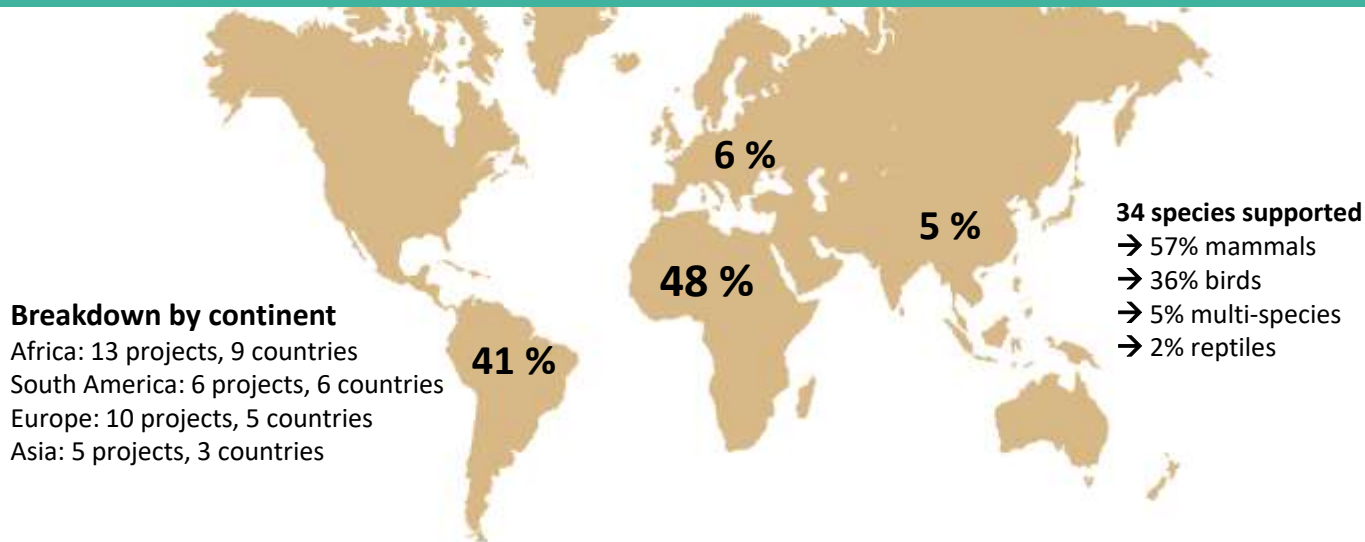


Distribution of support received

- **26 zoological partners**
 - Of which 22 French partners represent 88% of the funds
 - And 4 European partners, representing 12% of the funds
- **53 corporate sponsors**
 - Of which 36 local partners, representing 57% of the funds
 - And 17 national partners, representing 43% of the funds

OUR IMPACT IN 2022

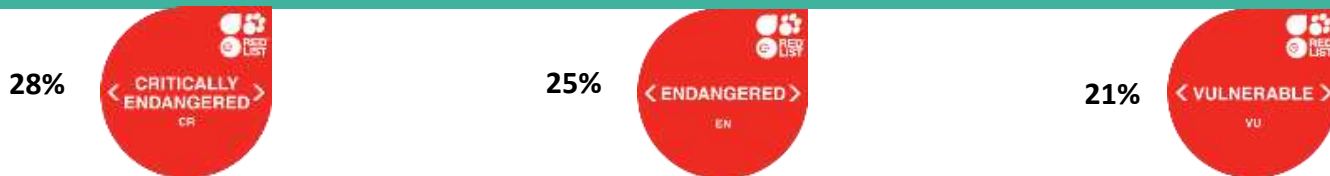
Distribution of funds by continent



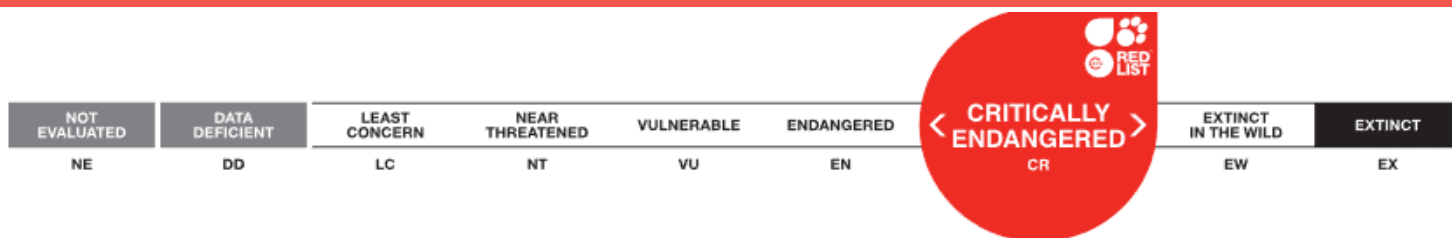
35 projects supported

26 of which are local NGO projects, receiving 94% of the funds received
 3 projects supported for +10 years
 8 projects supported for +15 years
 => 31% of projects supported for 10 years or more

Among the species supported



IUCN Red List categories and criteria:



NE – Not Evaluated: species not studied to establish an extinction risk

DD – Data Deficient: not enough information to assess an extinction risk

LC – Least Concern: when the species is considered common, with no apparent population decline or threat or conservation action underway

NT – Near Threatened: when a species is close to the criteria for Vulnerable or may approach it in the future.

VU – Vulnerable: when the range is limited, the population is declining, the abundance of the species has decreased, or there are threats to the species despite conservation measures in place.

EN – Endangered: limited range, limited and fragmented population, very high threats to the species which is highly threatened with extinction in the wild.

CR – Critically Endangered: when an endangered species is facing imminent disappearance or extinction due to population size and decline, range and a risk of extinction of at least 50% within the next 3 generations or 10 years

EW – Extinct in the Wild: species only found in captivity or outside their historical range.

EX – Extinct: species considered extinct, with no living representatives in the wild or in captivity.

THE NATURE PROJECTS AFRICA (1/2)

Country	Species and /or habitat concerned	Structure supported	Mission/action	Funds provided in 2022
NIGER	Giraffe in West Africa	ASGN - Association to Save the Giraffes of Niger	Saving the last giraffes in West Africa is achieved by helping the villagers who live near them. By restoring a positive cohabitation, the number of giraffes increases and the local people improve their daily lives.	<i>Bioparc Pilot Nature Project</i> €106,785
MADAGASCAR	Tropical rainforest Lemur (Red ruffed lemur)	Antongil Conservation & GERP: Study and Research Group on the Primates of Madagascar & IMPACT MADAGASCAR	Protected by the NGO and its local community, the Farankaraina forest is home to a remarkable biodiversity. Its sustainable management, coordinated with villagers' needs, protects 1,660 ha of tropical rainforest and its collection of endemic species. With GERP's and Impact Madagascar's expertise, Antongil Conservation conducts a reintroduction program for the red ruffed lemur.	<i>Bioparc Pilot Nature Project</i> €50,575
KENYA	Rothschild's Giraffe	MOYO	Moyo wants to help preserve the wildlife and biodiversity at the Kigio Conservancy in Gilgil.	€49,451
CONGO	Okapi	Okapi Conservation Project	Okapi Conservation Project protects the largest population of okapi in the heart of the Ituri forest. More than a hundred rangers fight poaching on a daily basis and local people are supported in improving their living conditions.	€5,100
SOMALILAND	Cheetah	Cheetah Conservation Fund	CCF is dedicated to saving the cheetahs in the wild and preserving its ecosystem.	€3,673
SENEGAL	Dama gazelle	Special Wildlife Reserve of Gueumbeul (RSFG)	RSFG is a 720-ha protected area where the members act in particular to save the last wild herds of Dama gazelles.	€7,800
KENYA	Grevy's zebra	Grevy's Zebra Trust	GZT intervenes in El Barta plain to protect the Grevy's zebra and the natural resources of this area.	€4,000
NAMIBIA	Rhinoceros	Save The Rhino	The NGO monitors and protects a unique population of black rhinos in the Kunene region.	€5,250

And a big THANK YOU to the partners who supported the following projects in 2022:

ASGN: ADECC – LE CÈDRE, BNI Loire Saumur Business, CERZA Conservation, Château de Fosse-Sèche, CHP Formation, Distillerie Combiar, Fauna, Fondation Le Pal Nature, Girafon Bleu, Fabrique des Bières d'Anjou, Le Projet Imagine, Maison Perrotte, Parc Animalier de la Barben, Parc Animalier et Botanique de Branféré, Payote, Réserve Africaine de Sigean, SECAS, Touroparc Zoo, Zoo de Champrépus, Zoo de Maubeuge, Zoo du Bassin d'Arcachon.

Antongil Conservation: Association des Amis du Zoo de Lyon, Association Gaïa Conservation, Association pour le Développement Scientifique et Pédagogique du Parc de l'Auxois, Festyland, Loisirs Diffusion, NP COMM – SAS JACMIN, Pairi Daiza Foundation, Parc Animalier de la Barben & Écofaune, Parc Animalier d'Auvergne & Play for Nature, Zoo de Champrépus, Zoo de la Palmyre, Zoo d'Upie.

Moyo: Art Graphique et Patrimoine, YEO, GT2I, JACQUET, AEGIS Groupe, ETS Morlet.

THE NATURE PROJECTS AFRICA (2/2)

Country	Species and /or habitat concerned	Structure supported	Mission/action	Funds provided in 2022
ALGERIA	Egyptian vulture	Tlemcen Model Forest Association (AFMT)	The Egyptian vulture being very rare in the west of Algeria, the AFMT follows the pair historically installed in the National Park of Tlemcen.	€3,642.3
NEW IN 2022				
IVORY COAST	Pygmy hippopotamus	Swiss Center of Scientific Research (CSRS)	The pygmy hippopotamus is a rare species. It is a shy forest animal that lives only in an area of 5,000 km ² . The awareness day for local people is an important tool for its conservation.	€1,500
SUPPORT IN 2021 – ACTION IN 2022				
MADAGASCAR	Radiated tortoise	Station for the Observation and Protection of Turtles and their Environment (SOPTOM)	In Madagascar, the SOPTOM aims to save an emblematic species of the island: the radiated tortoise.	
FIRE EMERGENCY				
MOROCCO	Barbary macaques	Barbary Macaque Awareness & Conservation (BMAC)	At the end of July 2022, a violent fire struck the Bouhachem region where BMAC operates. Our support made it possible to help humans and macaques in need.	€1,000
OCCASIONAL SUPPORT				
MADAGASCAR	Greater bamboo lemur	HELPSIMUS	Helpsimus' mission is to save the great hapalemur by implementing scientific monitoring of the species, protecting its habitat, supporting the development of local villages and financing the education of children.	€1,000

And a big THANK YOU to the partners who supported the following projects in 2022:
Special Wildlife Reserve of Gueumbeul (RSFG): Safari de Peaugres, Rotterdam Zoo, Saint-Laurent.
Tlemcen Model Forest Association (AFMT): Puy du Fou France.



NATURE PROJECT GIRAFFES OF NIGER

COUNTRY: **Niger**

SUPPORTED ASSOCIATION: **Association to Save the Giraffes of Niger - ASGN** (8 people)



The last of West Africa's giraffes and the only representatives of the subspecies *Giraffa camelopardalis peralta*, these giraffes were once spread by thousands from Senegal to Niger. Decimated by the expansion of cultivated areas, hunting and the progression of desertification, they became isolated in the 1980s in the south-east of Niger in a populated area, marked by the livestock and millet cultivation. In 1996, they were only 49 of them left.

Since then, their population has continued to grow (they would be about 700 today), thanks to the actions of **ASGN**: a Nigerian association created in 2001 which supports human populations living in the giraffe's range, to support their involvement in the preservation of this endangered species to ensure a sustainable coexistence.

ASGN monitors the giraffes and their habitat, raises awareness and supports the villagers through the development of income-generating activities, and carries out actions to improve agricultural production and the installation of collective infrastructures. These activities make the Association to Save the Giraffes of Niger a recognized local actor in the resolution of human-animal conflicts and the conservation of giraffes.

Project supported since 2001

FUNDS DONATED IN 2022:

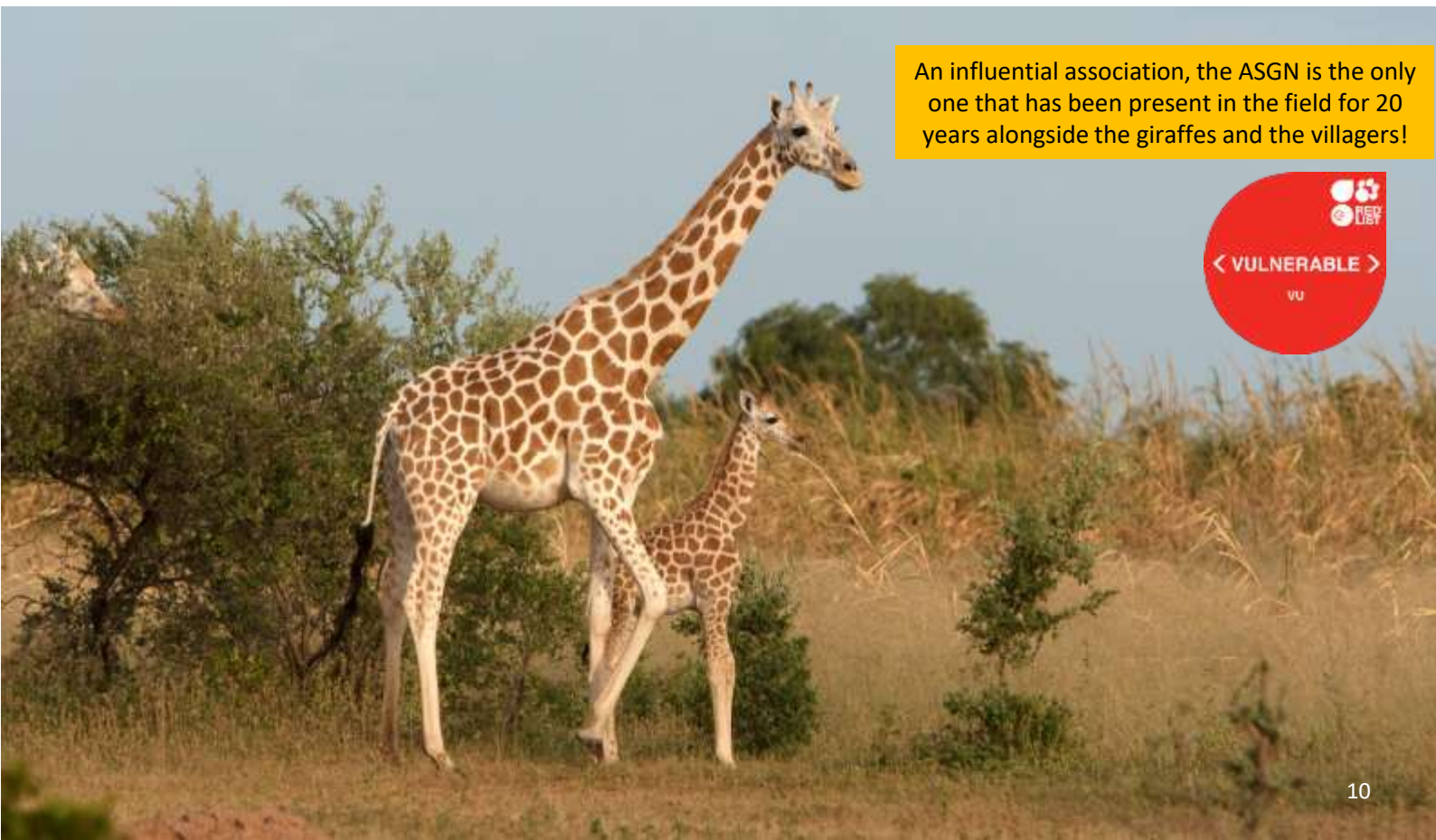
- BY THE BIOPARC: €35,000
- BY BIOPARC CONSERVATION: €71,785€

DAILY SUPPORT OF THE BIOPARC

Actions in 2022

- Pursuit of information and awareness-raising gatherings in a hundred or so villages in the "giraffe range", reaching more than 20,000 people, 4 times more than in 2021!
- Rehabilitation of 30 ha of degraded land in 30 days of missions thanks to the mobilisation of more than 2,200 people, including 1,900 women, for the creation of half-moons and the planting of seeds of species appreciated by giraffes.
- Three wells for growing vegetables were put into operation in Ouddé Seybou and Goumday, in the commune of Kiota, in order to allow the proper development of market gardens and to optimise the water supply for the population.
- Distribution of €100,000 in micro-credits for income-generating activities over the year. 3 communes are no longer accessible to our teams for security reasons. Two new villages and therefore women's groups will be integrated into the system in 2023.
- Continued ecological monitoring of the giraffe, including monitoring of its diet and monitoring of the movements and spatio-temporal distribution of herds.

An influential association, the ASGN is the only one that has been present in the field for 20 years alongside the giraffes and the villagers!



NATURE PROJECT RED RUFFED LEMUR

COUNTRY: **MADAGASCAR**

SUPPORTED ASSOCIATION: **ANTONGIL CONSERVATION** (13 people), **GERP** & **Impact Madagascar**



Antongil Conservation, with its experience, has been entrusted by the government with the protection of 1,660 hectares of forest.



Antongil Conservation, a Malagasy NGO created in 1999 with the help of the Bioparc, works to protect the biodiversity of Antongil Bay in the north-east of Madagascar. The bay is home to some of the last large areas of primary tropical rainforest on the island. A few patches remain between these large areas, such as the coastal forest of Farankaraina, 1,660 hectares of forest protected and managed by Antongil Conservation. Home to a remarkable and threatened biodiversity, these areas and the future of the local inhabitants are threatened by the exploitation of natural resources, slash-and-burn farming, wood cutting, pillage of precious woods and hunting pressure on lemurs. The Malagasy team, with the sustainable support of the Bioparc, is working to raise awareness of the importance of protecting these resources and to implement actions that will improve the living conditions of the communities.

The Farankaraina forest is thus managed in collaboration with the 10 bordering villages so that its protection is sustainable and beneficial to all.

Project supported since 1999

FUNDS DONATED IN 2022

- BY THE BIOPARC: €20,000
- BY BIOPARC CONSERVATION: €30,575

CO-CREATOR OF THE NGO
DAILY SUPPORT OF THE BIOPARC



Actions in 2022

- In collaboration with GERP and Impact Madagascar, a biologist came to monitor the remaining red varis to be translocated in the Farankaraina forest. The translocation should take place during 2023!
- 2022 will also have seen the construction of a house near the Anjahana Care Centre II. The aim is to encourage the installation of a doctor in the long term for the local communities.
- At the beginning of the year, the NGO also bought and distributed school supplies to the parents of students in the villages bordering the Farankaraina forest.
- Twice a week, the Antongil team welcomes groups of schoolchildren from Maroantsetra to the frog-tomato village and raises their awareness of this species.



NATURE PROJECT ROTHSCHILD'S GIRAFFE

COUNTRY: **KENYA**

SUPPORTED ASSOCIATION: **MOYO**



Moyo Association was created in 2021 to preserve the wildlife and biodiversity of the Kigio Conservancy in Gilgil, Kenya, in partnership with local communities, on more than 1,400 ha. For several years, the living conditions of the various species present have been deteriorating. In addition to giraffes, the species present include zebras, impalas, Thomson's gazelles, warthogs, buffaloes and monkeys. Moyo's mission is to reverse this trend in order to bring the ecosystem back into balance.

Rothschild's giraffe (*Giraffa camelopardalis rothschildi*) is considered near-threatened as of 2016, with less than 1,500 mature individuals remaining in the population. There are 18 giraffe populations in Uganda and 14 in Kenya.

Project supported since 2021

FUNDS DONATED IN 2022: €49,451

In addition to natural predation by hyenas, lions, crocodiles and leopards, Rothschild's giraffes are threatened by poaching, traditional hunting and habitat degradation.

Focus on the actions carried out since the creation of Moyo

In 2021, after signing a 5-year Memorandum of Understanding with the 400 owners of the reserve, the following actions were carried out: identification and marking of 9 large areas invaded mainly by the Sodom apple tree (*Calotropis procera*) and a scientific study on the possibilities of water supply for the wildlife.

This invasive species, the Sodom apple tree, covers more than half of the reserve's grassy areas, i.e. 400 ha. It is nevertheless difficult to eliminate because of its deep and extensive root network. A test area of 16 ha was delimited to see what worked best between manual or mechanical removal.

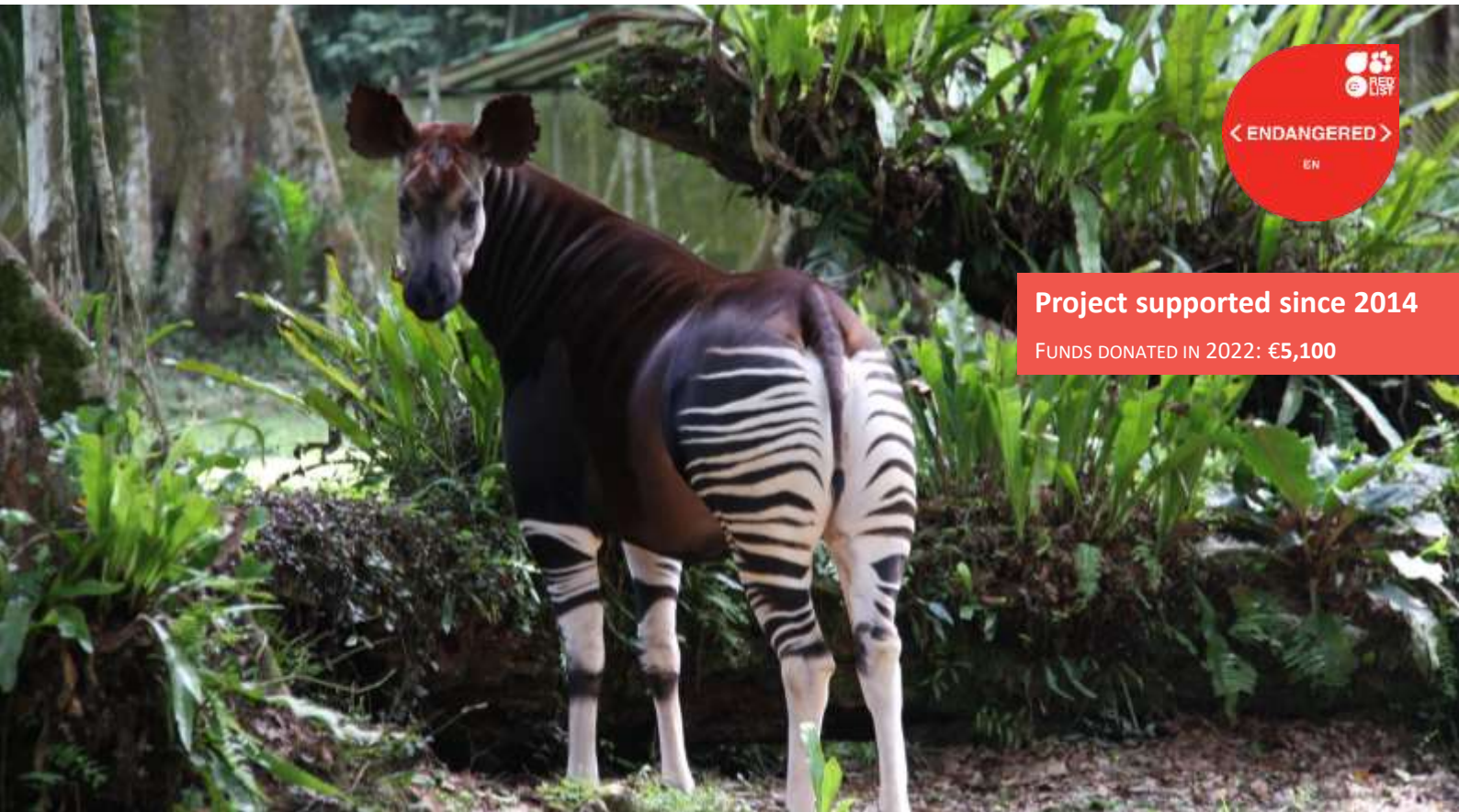
In 2022, six major actions were launched in March: removal of invasive plants, repair of the reserve's seven watering troughs and the associated water supply system, repair of fences (180 posts have already been changed), provision of uniforms for the rangers, purchase of alfalfa for the buffaloes that have fallen victim to a prolonged dry season, and observation of giraffes as part of behavioral monitoring.



NATURE PROJECT OKAPI

COUNTRY: CONGO

SUPPORTED ASSOCIATION: OKAPI CONSERVATION PROJECT



Endangered with less than 10,000 individuals, the okapi is thought to survive in only a few forests in the Democratic Republic of Congo, which has made the species its emblem. The natural and cultural heritage of the forest is under threat from a number of factors: habitat fragmentation, mineral and gemstone extraction, ethnic and political conflicts, poaching for ivory and hunting for bushmeat. As a collateral or direct victim, the okapi population is rapidly declining.

The Okapi Conservation Project (OCP) was created in 1992 as a result of cooperation between the Congolese government and an American conservation center. With a surface area of 13,700 km², it is located in the heart of the species' main refuge: the Ituri forest. Classified as a World Heritage Site by UNESCO, the reserve is inhabited by 30,000 people and the Okapi population is estimated at 4,000 individuals.

With a team of armed guards, OCP defends this reserve, its biodiversity and inhabitants, from poaching and conflict, and supports the villagers in development actions, including the promotion of sustainable agricultural practices. The team also monitors the evolution of biodiversity using automatic video traps.

Protecting the forest to improve food security

In 2021, 70,000 trees for planting were distributed to the local population. These trees have been distributed to 5 programme sites: Epulu, Mambasa, Niania, Biakato and Wamba. These trees will help maintain and support wildlife corridors!

In November 2021, on the occasion of Tree Day, more than 200 primary school children planted 494 trees and were made aware of the importance of the forest.

Finally, 370 vegetable gardens were created in the 5 villages mentioned above to help over 400 families. These families also received rice, peanut and bean seeds produced by the community nursery set up by OCP!



NATURE PROJECT CHEETAH

COUNTRY: **SOMALILAND**

SUPPORTED ASSOCIATION: **CHEETAH CONSERVATION FUND**



Founded in Namibia in 1990, the **Cheetah Conservation Fund (CCF)** is an NGO dedicated to the conservation of cheetahs in their natural environment. It studies the country's cheetah population (the largest in the world) and carries out actions for the preservation of this threatened species. Its research and training facility is located about 40 km east of the farming town of Otjiwarongo.

Through collaborative partnerships with international NGOs, the CCF works towards better human-animal cohabitation within a sustainable system that is environmentally friendly, socially responsible and economically viable.

For example, the association works with the Somaliland customs authorities who control goods. When cheetahs (often juveniles) are seized, they are turned over to the association, which raises them and releases them as adults when possible.

Raising awareness among the population is then essential to avoid the emergence of conflicts.

Project supported on an ad hoc basis since 2001

FUNDS DONATED IN 2022: €3,763

Focus on the livestock guard dog program

By providing a conservation management strategy that benefits both local communities and cheetahs, CCF ensures the long-term survival of the species on Namibian farms and helps to raise public awareness. The program, which began in 1994, continues to be one of the most effective conservation tools. It helps farmers in conflict with cheetahs throughout Namibia. Prior to receiving a puppy, the farmer, his family and his team are trained in its education, notably by the CCF, which will return to carry out control visits during the first year (3 times) and every year to ensure the good health of the dog and the protection it has provided.

Some key figures from the program since its inception:

- 677 dogs placed: 348 males and 329 females
- A total of 94 litters were born thanks to the CCF, i.e. 763 puppies
- The presence of a dog on a farm makes it possible to reduce livestock losses almost completely (between 80% and 100%)



NATURE PROJECT DAMA GAZELLE

COUNTRY: **SENEGAL**

SUPPORTED ASSOCIATION: **Special Wildlife Reserve of Gueumbeul (RSFG)**



The **Gueumbeul Special Wildlife Reserve (RSFG)** is a 720 ha protected area located in the extreme northwest of Senegal. This reserve, with its rich biodiversity, consists of a 340 ha saltwater lagoon surrounded by two strips of shrubby savannah covering 380 ha.

Project supported since 2009

FUNDS DONATED IN 2022: **€7,800**

Its main vocation is to be a center for the adaptation and reproduction of Sahelo-Saharan species reintroduced in Senegal, including the Dama gazelle. However, the site faces several problems that could compromise this mission: insufficient or outdated breeding enclosures, the presence of certain zoonotic diseases or the reduction of grazing areas due to an invasive cactus (*Opuntia tuna*).

This last element is currently a major concern, with 12% of the terrestrial part of the reserve being invaded by the cactus. The aim now is to restore degraded habitats, renew the reserve's tourist appeal and significantly involve local people in the management of the site.

Focus on cactus removal campaigns

Two campaigns of stump removal have been conducted in :

- October - November 2021
- June - July 2022

During each operation, more than 20 people came together to clean up more than 6 hectares. A tractor, 20 pairs of gloves and boots, 10 forks and 4 carts were needed. The cleared plant material was recovered and then buried in pits dug for this purpose.

Despite the effectiveness of the method, it will be necessary to develop maintenance actions in the areas where the cactus has been removed to avoid regrowth.

Today, 40 ha remain to be cleaned, i.e. 10% of the land area of the reserve.



NATURE PROJECT GREVY'S ZEBRA

COUNTRY: **KENYA**

SUPPORTED ASSOCIATION: **GREVY'S ZEBRA TRUST**



The **Grevy's Zebra Trust (GZT)** has been working since 2008 in northern Kenya, on the El Barta plain, to protect Grevy's zebra and the natural resources of this area.

An endangered species, the Grevy's zebra has a population of around 3,000 individuals in the wild (mainly in Kenya), where less than 1% of their range is officially protected. The survival of the species depends to a large extent on the success of human-animal cohabitation: GZT works with local communities and in partnership with multiple stakeholders in the field.

Thanks to these collective efforts, the number of zebras in the area concerned is stabilizing.

The association also has to deal with severe droughts in the country, such as in 2021 and 2022.

Forage has been provided for the zebras and vigilance has been increased on the few water points in the region.

Project supported since 2021
FUNDS DONATED IN 2022: **€4,000**

2022, the worst drought on record

This is already the second rainy season to fail for this country and its people. With the permission of the Kenyan Biodiversity Services (KWS), Grevy's Zebra Trust was able to drop off fodder for the zebras in the driest areas.

In total, more than 600 zebras converged on these feeding points. What reassured the teams was to see so many young zebras demonstrating that the good rainy years in 2019 and 2020 provided good breeding and rearing conditions. It was therefore even more important to be able to get food resources to the females and their young to survive this crisis & allow the zebra population to grow.

The long-term threats to this species are the same as those faced by pastoral communities. The GZT is therefore working to improve the future of zebras and these communities. They are working with communities to use techniques to restore severely degraded land and to develop land and livestock management plans that can cope with sedentarization.



NATURE PROJECT BLACK RHINOCEROS

COUNTRY: **NAMIBIA**

SUPPORTED ASSOCIATION: **SAVE THE RHINO**



Project supported since 2021

FUNDS DONATED IN 2022: €5,250



40% des rhinocéros noirs sont protégés sur des terres privées ou gérées par des communautés assumant de très importants coûts liés à la sécurité.



At the beginning of the 20th century, there were 500,000 rhinos. By 1970, there were only 70,000, due to hunting, habitat loss (expansion of crops and demarcation of territories) and poaching (very high demand for horns in Asia and the Middle East).

Save the Rhino was founded in 1982 to protect and monitor a unique population of black rhino (*Diceros bicornis*) in the vast and remote Kunene wilderness in northwestern Namibia (25,000 sq. km).

This population has tripled in a few decades thanks to the conservation efforts of this NGO: Surveillance by vehicle and on foot, Support of anti-poaching patrols, Assistance to the investigation team (Namibian Police and Ministry of Environment, Forestry and Tourism) with evidence collection and DNA sampling for court cases, Involve local communities through educational programs to raise awareness of the species' protection,

Monitoring and biological management of rhinos

Between January and June 2022, more than 20 poaching incidents occurred in Namibia. 18 people were arrested, some with firearms, vehicles and rhino horns.

In March 2022, particularly in light of these events, a strategy was validated by the Namibian ministry in charge.

They believe that the best way to protect as many rhinos as possible will be to fit them with GPS tags, remove their horns and relocate them to less risky areas.

The GPS tracking is intended to help Save The Rhino determine the long-term impact of drought and tourism-induced disturbance on rhino movements.

These translocations will help establish new populations, strengthen others, and stimulate rhino population growth.



NATURE PROJECT EGYPTIAN VULTURE

COUNTRY: **ALGERIA**

SUPPORTED ASSOCIATION: **TLEMCCEN MODEL FOREST ASSOCIATION**



The **Tlemcen Model Forest Association** has developed a conservation programme for the Egyptian vulture in the Tlemcen National Park in northwestern Algeria. The first phase of the project focused on awareness raising and outreach for this species. The second phase allows the development of a monitoring of the couple and of the individuals present and identified by direct and indirect observations (installation of photo traps) and by the creation of a feeding plot.

The Egyptian vulture is one of the six species of vulture threatened with extinction in Africa. Research on the presence of raptors in the region shows that the Egyptian vulture is very rare, with the existence of a single breeding pair in the Tlemcen National Park and the probability of the presence of several other individuals.

Focus on monitoring since 2017

A pair of Egyptian vultures has been present and breeding in the Tlemcen National Park since 2014. Since 2017, an ecological monitoring is in place. That year, the breeding failed for undetermined reasons.

In 2018, 3 feeding plots were created, with the aim of seeing which one(s) would be used: only 1 was finally kept, above the cliff where the pair's nest was located. For the first time, 2 chicks are found in the nest since the discovery of the pair.

In 2019, the pair succeeded in breeding again and fledged 2 young. 2 other pairs were spotted in the Biosphere Reserve of the Monts de Tlemcen. In 2020, the pair changed nests but still fledged 2 young. In 2021 and 2022, the pair returned to the original nest but reproduction failed. The COVID-19 pandemic has made it difficult to survey and monitor this pair.

Project supported since 2017

FUNDS DONATED IN 2022: **€3,642.3**

By Bioparc Conservation for the monitoring of Egyptian vultures.



NATURE PROJECT PYGMY HIPPOPOTAMUS

COUNTRY: **IVORY COAST**

SUPPORTED ASSOCIATION: **SWISS CENTER OF SCIENTIFIC RESEARCH (CSRS) IN IVORY COAST**

CSRS
Centre Suisse de Recherches
Scientifiques en Côte d'Ivoire



Project supported since 2022
FUNDS DONATED IN 2022: €1,500
By the Biopark for the organisation of the 2022 awareness day.

Less than 3,000 individuals were recorded in 1994. Their numbers today are likely to be much lower due to threats such as logging and agriculture which increase the risk of conflict and hunting.

The CSRS is a research institution established in Côte d'Ivoire since 1951. Its mission is to participate in the reinforcement of individual and collective capacities through research, services at the request of communities and partners. The activities are carried out and linked to the Sustainable Development Goals according to areas of activity. The pygmy hippopotamus conservation programme is thus part of the "Conservation and Development of Natural Resources" group.

In 2021, a study was started in the Taï National Park (TNP) to determine the effectiveness of three tools for assessing the abundance and monitoring the populations and threats of the pygmy hippopotamus population. It will allow scientists to determine the abundance of pygmy hippo populations, map threats, particularly aquatic threats, and identify human activities that pose risks to the species' survival.

Focus on the awareness day on 24 May 2022

Through awareness-raising activities with schools, the aim is to get the local communities on board, especially the children who are made aware but also their parents of the importance of the forest, the animals that live there and the vital role they play for the future of the local community, with a particular focus on the pygmy hippopotamus.

More than 300 children were present on the day, chanting during the parade "Hippo! We must protect them! The day was filled with activities such as a "Genius in the making" competition, a dance competition, a men's football match, a women's handball match and a drawing competition.

The children were dedicated, outdid themselves and above all had a lot of fun while learning about the species, its way of life, the dangers that threaten it and the need to protect it. The pygmy hippo has won ambassadors and advocates!



NATURE PROJECT RADIATED TORTOISE

COUNTRY: **MADAGASCAR**

SUPPORT IN 2021 – ACTION IN 2022

SUPPORTED ASSOCIATION: **Station for the Observation and Protection of Turtles and their Environment (SOPTOM)**



In Madagascar, its objective is to safeguard an emblematic species of the island whose population has been in sharp decline since the 1980s: the radiated tortoise or tortoise radiata (*Astrochelys radiata*). Today, poaching is the main threat to this species: despite the protection it enjoys, the radiated tortoise is a victim of wild collection and export. Individuals illegally taken from the wild are mainly destined for the pet trade.

In response to this threat, SOPTOM and its local partners, in particular the Malagasy association ASE, collect individuals confiscated by the Malagasy authorities who are fighting against trafficking and act according to a previously defined action plan:

1. Reception and care of seized turtles
2. Selection and preparation of individuals before release
3. Choice of the translocation site
4. Implementation and modality of release
5. Monitoring of individuals and evaluation of the success of the operation
6. Involvement of local populations

Project supported in 2021

FUNDS DONATED IN 2021: €5,000

In this scheme, cooperation through human, material and financial means is a key element.

Mission from November 2021 to October 2022

To maximize the survival and sedentarisation of the turtles, it was decided to proceed with a gradual rehabilitation, thanks in particular to the construction of an enclosure of approximately 3.5 ha in November 2021. In April 2022, 498 turtles joined this space. The health status of these turtles was checked one week before their departure. At the time of this check, they were also identified with a microchip, and measured for post-translocation monitoring (biometry and body condition).

A 15-tonne truck was used for this operation. 20 transport crates were also made to carry them. They were kept in darkness, monitored and cared for during and after transport. Until October, they were monitored and fed daily by the villagers.



THE NATURE PROJECTS SOUTH AMERICA

Country	Species and /or habitat concerned	Structure supported	Mission/action	Funds provided in 2022
PERU	Dry forest Spectacled bears	Tu Tierra	The Chaparri Ecological Reserve is the first community-initiated reserve in Peru. A refuge for spectacled bears, it protects more than 34,000 hectares of dry forest.	<i>Bioparc Pilot Nature Project</i> €120,531.47
ARGENTINA	Andean condor	Bioandina	Bioandina strengthens wild condor populations through the reintroduction of captive-born and rescued birds in collaboration with local communities.	€15,000
BRAZIL	Hyacinth macaw	Instituto Arara Azul	The main objective of the Arara Azul project is to maintain a viable population of wild hyacinth macaws in their habitat in the middle to long term, especially since the recent fires in the Pantanal region.	€3,200
ECUADOR	Brown-headed Spider Monkey	Washu	Washu protects the brown-headed spider monkey, one of the 25 most endangered primates in the world: studying its distribution, ecology and genetics, protecting its habitat, raising awareness and supporting farmers are all part of the conservation strategy for the species.	€46,650
VENEZUELA	Brown Spider Monkey	Proyecto Mono Araña (Spider Monkey)	This project concerns the protection of the Caparo Reserve, 7,000 hectares of dry forest that is home to groups of brown spider monkey, and which is subject to numerous threats despite the protected status of the forest. The project includes monitoring the forest, involving local villagers and monitoring the brown spider monkeys.	€17,015
BOLIVIA	Red-fronted Macaw	Armonia	Armonia aims to preserve Bolivia's birds and their natural habitat while seeking a better cohabitation of these animals with the local human population.	€5,780

And a big THANK YOU to the partners who supported the following projects in 2022:

Tu Tierra: CERZA Conservation, Fondazione ARCA, Dierenpark Amersfoort Wildlife Fund, Play For Nature, EcoZonia, Zoo de Maubeuge.

Proyecto Mono Araña: La Vallée des Singes et Le Conservatoire pour la Protection des Primates, Boissière-Mervent Conservation, le Parc animalier et botanique de Branféré.

Proyecto Washu: Parc Zoologique et Botanique de Mulhouse, Saint-Laurent.

NATURE PROJECT SPECTACLED BEARS

COUNTRY: **Peru**

SUPPORTED ASSOCIATION: **Association Tu Tierra and ACOTURCH**



Attached to its sacred mountain Chaparri, the Muchik rural community of Santa Catalina de Chongoyape spontaneously chose to preserve 34,412 ha of its dry forest lands. Together with the family of naturalist photographer Heinz Plenge, they created the **Chaparri Ecological Reserve**, which they manage through the associations **Tu Tierra and Acoturich**.

Chaparri is the first conservation area of popular initiative in Peru and the largest dry forest conservation area in Northern Peru.

Located in the heart of the dry forest ecosystem, this mountain and the forest it overlooks are home to a remarkable biodiversity with a high rate of endemism: the extraordinary wealth of birds and the presence of the spectacled bear, the only bear species from South America, make this environment unique.

Original mode of socio-economic development and environmental protection, Chaparri protects the forest by fighting poverty, offering ecotourism that respects nature and local culture, and preserving wildlife, especially the spectacled bear in the wild and in the bear rescue centre. Recognised throughout South America, Chaparri is a model for many other communities concerned with preserving their ancestral and natural lands.

Melipona bees to help spectacled bears, the forest and the local rural community

- While regenerating the dry forest ecosystem, the breeding of melipona bees (without stingers) is developing a new income-generating activity for the local community. It allows the spectacled bears to re-invest in forest areas and even recreate a corridor with the top of the Andes.
- Since 2021, 14 beehives called "meliponarios" have been built at different points in the reserve.
- 8 species have been selected.
- 2 workshops have been held to train neighboring communities in this breeding.



Project supported since 2001

FUNDS DONATED IN 2022

- BY THE BIOPARC: **€38,000**
- BY BIOPARC CONSERVATION: **€82,531.47€**

DAILY SUPPORT OF THE BIOPARC

Chilean Flamingo Census

The 1st regional census of the population of Piura was carried out in 2022! Thanks to consulting scientists, the rural community of San Martin de Sechura, and Tu Tierra, this population of *Phoenicapterus chilensis* was monitored throughout the year.

Thanks to aerial flights over the colony and an analysis of the images collected, 12,341 adult and young-of-the-year flamingos were counted!



The Chaparri Ecological Reserve is the 1st private initiative reserve in Peru.

NATURE PROJECTS ANDEAN CONDOR

COUNTRY: **Argentina**

SUPPORTED ASSOCIATION: **BioAndina**



Bioandina, an Argentinian association, is strengthening wild condor populations through the reintroduction of captive-born and rescued birds in collaboration with local communities.

Its main objective is to ensure the preservation of this species and its ecosystem, all along the Andes.

In the twenty years of its existence, the association has been able to successfully reintroduce more than 200 Andean condors into their natural environment through its rescue and release program.

The new threat, mega wind farms

The government of Río Negro is about to cede 650,000 ha in the protected natural area (ZNP) of the Meseta de Somuncurá for 75 years to a foreign company that intends to produce "green" hydrogen. The product will be exported to other countries. The management plan for this ZNP prevents the establishment of industries, and the government is lobbying for its reform and the adoption of new legal rules to allow access.

The Fortescue Future Industries mega-project plans to build wind farms in the middle of the Andean condors' flight zone. Collisions with the blades of the wind turbines will threaten the survival of this endangered species.

The implications that this project could have on the natural and cultural heritage of this emblematic natural protected area are enormous and the extinction of the condor on the Atlantic coast of Patagonia would be inexorable.

Project supported since 2008

FUNDS DONATED IN 2022: €15,000



NATURE PROJECT HYACINTH MACAW

COUNTRY: **Brazil**

SUPPORTED ASSOCIATION: **Instituto Arara Azul**



In the Brazilian Pantanal, the largest swamp in the world, lives one of the emblematic parrots of the Bioparc Great South American Aviary: the hyacinth macaw (*Anodorhynchus hyacinthinus*). The Instituto Arara Azul has been working there for over thirty years to save this emblematic bird.

The general mission of the association is to promote the conservation of biodiversity, the rational use of natural resources and the improvement of the quality of life of the local population.

The association also installs artificial nests so that the macaw can nest and reproduce in deforested areas. Monitoring and protecting the nests ensures the reproduction of the species and limits its decline. It fights against the main threats to the species: capture for illegal national and international trade, destruction of its habitat and the collection of feathers for souvenirs.



Project supported since 2020

FUNDS DONATED IN 2022: **€3,200**

Focus on the "Adopt a Nest" campaign

Since 2021, we have been supporting this campaign by "adopting" 2 nests for Hyacinth Macaws.

In 2021, each nest was occupied by a couple. 1 youngster was born in each one and could be followed by the Instituto Arara Azul teams until they fledged!

In 2022, 3 young females were born, their follow-up is finished, they will soon fly away!

In total, more than 20 species use these nests during the rest of the year!

NATURE PROJECT BROW-HEADED SPIDER MONKEY

COUNTRY: ECUADOR

SUPPORTED ASSOCIATION: PROYECTO WASHU



Specialist in the study of primates, **Proyecto Washu** is interested in monitoring brown-headed spider monkey populations and the state of their natural habitat: the Ecuadorian forest. Indeed, the local population of brown-headed spider monkey is the first to be affected by deforestation. In order to protect the forest, the NGO works with indigenous communities to offer them better economic opportunities through sustainable trade: the inhabitants thus become the first protectors of the forest. In this context, the Washu association works with small chocolate producers to develop organic agroforestry and protect forest land.

At the same time, Washu collects and rehabilitates spider monkeys that are victims of wildlife trafficking. It ensures the well-being and health of the individuals entrusted to its care center, and does everything possible to reintroduce the spider monkeys who can be reintroduced. The search for release sites is crucial: the territory available for the spider monkeys has been considerably reduced over the last decades, replacing forested areas by crops or balsa plantations. On the crests of the lower mountains, forestry is more difficult, so there are still wooded areas available. Washu is now trying to become the owner of these areas in order to protect them and to release spider monkeys there.

Protection of spider monkeys in the province of Manabí

A population of brown-headed spider monkey was rediscovered in 2016 thanks to the study by Cervera and Griffith in the province of Manabí. This is one of the most deforested provinces in Ecuador, so much so that the atel was considered locally extinct. As of 2019, the presence of the species is confirmed in 9 fragments of the cantons of Flavio Alfaro and El Carmen at a rate of 7.49 to 44.9 individuals/km². This population is estimated at 300 individuals, which doubles the number of atelas present in the wild. In 2021, 200 ha of the 3,000 ha targeted have been purchased, protecting the species' habitat. In 2022, nearly 30 ha have been purchased for the extension of the area.

Project supported since 2015

FUNDS DONATED IN 2022:

- BY THE BIOPARC: €11,650
- BY BIOPARC CONSERVATION: €35,000



NATURE PROJECT BROWN SPIDER MONKEY

COUNTRY: VENEZUELA

SUPPORTED ASSOCIATION: PROYECTO MONO ARANA (SPIDER MONKEY CONSERVATION PROJECT)



Project supported since 2019

FUNDS DONATED IN 2021: €17,015

- BY THE BIOPARC: €3,000
- BY BIOPARC CONSERVATION: €14,015

Among the world's most endangered primates, the brown spider monkey (*Ateles hybridus*) depends on the protection of its forest habitat in Colombia and Venezuela. Its most critical distribution area is in the Venezuelan western plains, in the heart of the Caparo Forest Reserve. When it was created in 1961, Caparo covered 184,100 hectares of tropical dry forest. But in 30 years, more than 90% of the reserve has disappeared under the combined pressure of small farmers, large farmers and logging companies.

Today, Caparo consists of 7,000 hectares of continuous forest and small isolated fragments of up to 150 hectares, subject to numerous natural fires. Despite being protected by the government and the University of the Andes, intrusions continue and many illegal farms are clearing and setting up to grow corn, rice, plantain, chilli or manioc. The critical state of the forest and the lack of knowledge about the species motivated the creation of the project by the native primatologist Diana Liz Duque Sandoval: to study the species, measure the threats and protect the forest with the authorities, train young researchers, raise awareness among the locals about the challenges of protecting nature, and involve small farmers to develop sustainable practices.

In 2019, the Bioparc responded to the alert launched by the biologist to urgently secure Caparo by hiring four ranger guards to set up surveillance and ensure that pressure is controlled and reduced (as well as 3 other parks). In 2020, the Bioparc reaffirmed its support with the donation of €6,000 and continued to do so in 2021 and 2022.



Patrols to better protect the forest and its biodiversity

The 4 forest guards patrol the edge of the forest every day to prevent invasions, hunting, fire prevention and early detection of any damage to the forest. These patrols have been in place since 2018 following a massive illegal occupation by people that affected the state of the forest, due to a political and social crisis in the country.

They also take advantage of these patrols to destroy illegal installations, identify and monitor the different water points, and biodiversity or signs of presence left, to collect seeds or seedlings needed for the creation of the nursery for the restoration conducted by Caparo.



NATURE PROJECT RED-FRONTED MACAW

COUNTRY: **BOLIVIA**

SUPPORTED ASSOCIATION: **ARMONIA**



The Red-fronted macaw (*Ara rubrogenys*) is a critically endangered species, mainly threatened by the destruction of dry forests, human-animal conflicts (destruction of maize crops by macaws), poaching and illegal trade to supply the pet market.

Armonia's mission is to preserve Bolivia's birds and their natural habitat, while seeking a better cohabitation of these animals with the local human population.

The problem of habitat loss has been partially resolved by the creation of the Paraba Frente Roja Reserve. Located among and administered by the communities of San Carlos, Perereta and Amaya, with the support of Armonia. The reserve covers 50 hectares (124 acres). The spectacular sheer cliff that dominates this landscape is the main breeding site for the species.

Environmental education, the best tool for protection

The majority of the Lafresnaye macaw population is located in the municipalities of Omereque and Saipina. The development of the environmental education model implemented since 2006 in the communities of the Reserve has been successful. It therefore seemed interesting to duplicate it in these two towns to increase awareness and the chances of survival of the species.

Through awareness-raising workshops, educational materials, festivals and competitions, Armonia hopes to stop the poaching of this bird, which is still perceived as a "pest" by farmers.

In Omereque, an environmental poetry festival was launched in 2022! The festival brought together 1,500 pupils from primary to secondary school and 112 teachers from 28 different organizations.

Project supported on an ad hoc basis since 2009

FUNDS DONATED IN 2022: €5,780



THE NATURE PROJECTS EUROPE

Country	Species and /or habitat concerned	Structure supported	Mission/action	Funds provided in 2022
FRANCE	Vultures	Hegaldia	Hegaldia manages the only wildlife care center in the Pyrénées-Atlantiques and welcomes many vultures. It is a major actor in raising awareness for the protection of birds of prey and reintroduces the birds treated in France and Bulgaria.	€3,000
FRANCE	Egyptian vulture	Nature in Occitania National Action Plan (PNA)	Within the framework of a PNA, the association acts in particular for the conservation of Egyptian vulture populations with a tagging and telemetric monitoring program.	€3,000
FRANCE	Egyptian vulture	Provence Alpes-Côte-d'Azur (PACA) region Conservatory of Natural Areas (CEN)	The CEN PACA, whose mission is to preserve the natural heritage of the Provence-Alpes-Côte-d'Azur area, is working to strengthen the Egyptian vulture population by encouraging their presence through the maintenance of feeding sites.	€1,600
BULGARIA	Vultures	Fund for Wild Fauna and Flora (FWFF)	FWFF seeks to conserve and enhance vulture populations in the Balkans. In the long term, this also means restoring food resources for vultures, supporting local farmers and combating carcass poisoning.	€10,000
SPAIN	Northern bald ibis	Proyecto Eremita With Jerez Zoo	By rehabilitating ibis from zoos, Proyecto Eremita has succeeded in creating and establishing a new colony of northern bald ibis in Andalusia.	€1,305.87
GERMANY AND MEDITERRANEAN AREA	Migratory birds	Committee Against Bird Slaughter (CABS)	CABS fights against the illegal poaching of European migratory birds.	€4,000
SPAIN	La Janda lagoon	Amigos del Pericon (AdP)	AdP brings together 5 organisations seeking to restore part of the former wetland and protect its fauna, flora and various natural habitats.	3 400 €
FRANCE	17 conservation projects	French Association of Zoological Parks (AfdPZ)	Through its conservation fund, the AfdPZ wishes to contribute to the ecological balance and the conservation of biodiversity.	€1,250
OCCASIONAL SUPPORT				
BELGIUM	Vultures	Wildlife Rescue Centre Ostend	In a very rare event, the centre received a griffon vulture in need of care. This individual will be released in Bulgaria.	€1,000
OCCASIONAL SUPPORT				
FRANCE	Otter	IUCN SSC / Otter Specialist Group	Support for the organization of the 15th International Congress in France.	€500

And a big THANK YOU to the partners who supported the following projects in 2022:
Proyecto Eremita: Spaycific'Zoo, Zoo de Jerez.
Committee Against Bird Slaughter: Domaine de la Bourbansais, Zoo des Sables d'Olonne.

NATURE PROJECTS VULTURES

COUNTRIES: **FRANCE AND BULGARIA**

SUPPORTED ASSOCIATIONS: **FRANCE: Nature in Occitania, Hegalaldia wildlife care center, CEN PACA**
BULGARIA: Fund for Wild Flora and Fauna (FWFF)



Egyptian vulture



Cinereous vulture



Griffon vulture



Bioparc supports a **network of associations in Europe** that works for the sustainable return and preservation of vultures, griffon vultures, cinereous vultures, Egyptian vultures and bearded vultures. The actions are numerous: awareness raising and monitoring of the species, reintroduction and protection of habitats, rescue and care, restoration of traditional breeding giving life back to the mountains and guaranteeing food for the vultures. All the associations seek to restore the vultures to their place as nature's scavengers, inseparable from the pastoral landscape.

Reintroductions began in 1981 in the Grandes Causses and have led to the presence of a stable and significant population of griffon vultures in France. At that time, the Bioparc approached the pilot of this unprecedented project, the Fonds d'Intervention pour les Rapaces (now Mission Rapaces LPO), to give them our first griffon vulture born in the zoo in 1983 and to propose the acquisition of wounded birds unable to recover their ability to fly. Since then, the vultures welcomed at the Bioparc have reproduced and given birth to young birds which are reintroduced in France for the cinereous vulture and in Bulgaria for the griffon vulture.

The Bioparc is the first zoo involved in the reintroduction of vultures: since 1983, it has released into the wild (in France and Bulgaria) some 60 individuals born in captivity.

A monitoring programme to better adapt conservation measures

- Despite a good breeding season in 2021, there is growing concern about the loss of several territorial pairs of Egyptian vultures. In the Pyrénées Atlantiques department, for example, there were 45 pairs of Egyptian vultures in 2013. In 2021, there will be only 33...
- It is therefore necessary to continue monitoring this core population, to analyse and understand the geographical diversity, the problems of breeding failure, to set up a monitoring of the species' habitat, the associated ecological contexts, the uses of the environments, the potential threats and to adapt the conservation actions in the sectors and sites with failure or abandonment rates higher than 50%.

Projects supported since 1983

FUNDS DONATED IN 2022: €17,600

By the Bioparc and Bioparc Conservation.

Vultures born at the Bioparc are given to field associations and released into the wild.

NGO supported in 2022

- **Hegalaldia**, whose main activity is to take in wild animals in distress and treat them so that they can then be released back into the wild
- **CEN PACA**, which operates in one of the French regions where there are major challenges for biodiversity
- **Nature in Occitania**, an association that worked in 2021 to implement a ringing and telemetric monitoring program for the Egyptian vulture
- **FWFF**, a Bulgarian NGO that has been working for over 20 years to conserve nature by helping farmers.



NATURE PROJECT NORTHERN BALD IBIS

COUNTRY: SPAIN

SUPPORTED ASSOCIATION: PROYECTO EREMITA (IN COLLABORATION WITH JEREZ ZOO)



The Northern Bald Ibis (*Geronticus eremita*) disappeared from Europe about 3 centuries ago and is now Critically Endangered globally (IUCN) with an estimated population of less than 300 individuals in the wild.

There are many reasons for the decline of this species, such as the conversion of extensive pastures into cereal or vegetable crops, the urbanization of nesting sites and poaching.

In addition to this, there has been a positive aspect in recent years: more than a thousand individuals living in animal parks are doing well and making it possible to implement a key aspect of the protection of threatened species: reintroduction into the wild. Thus, in the early 2000s, the Jerez Zoobotanico in Andalusia launched the "Proyecto Eremita", which has since been joined by the Bioparc.

Project supported since 2008

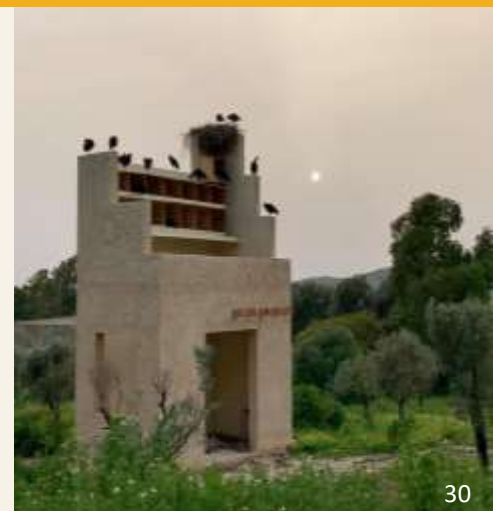
FUNDS DONATED IN 2021: €1,305.87

Monitoring of the population 20 years after the start of the project

As every year, the Proyecto Eremita team is carrying out a census of the Northern Bald Ibis present in Spain. The current population occupies the same range as in previous years.

The majority of the birds have moved to areas near the main breeding colony in Barca de Vejer. Two feeding points are mainly used. The first one is located 25 km from the main colony and includes meadows, cattle farms and golf courses. The second is 35 km from the breeding colony and is also a golf course.

Breeding continues to be successful and in 2021 32 young fledged. As the population is not yet self-sustaining, the transfer of birds born in zoos must continue in order to have a minimum of 35 breeding pairs in the colony.



NATURE PROJECT OISEAUX MIGRATEURS

COUNTRY: **GERMANY AND MEDITERRANEAN AREA**

SUPPORTED ASSOCIATION: **COMMITTEE AGAINST BIRD SLAUGHTER (CABS)**



Founded in 1975, CABS is an association based in Germany whose aim is to combat the poaching of migratory birds around the Mediterranean.

It works against the illegal hunting of wild birds, both with guns and with various traps and nets. CABS members intervene where hunters, trappers or dealers violate nature conservation laws.

All actions are carried out in close cooperation with environmental authorities, law enforcement agencies, regulatory agencies and customs offices. The aim is to preserve endangered animal species and to combat cruelty to animals.

Hunting and trapping are of course not the only threats to migratory birds: intensive agriculture, habitat degradation, climate change and environmental poisoning are also important causes of decline for some species. However, CABS has specialised and is a recognised expert in the fight against poaching.

The 'bird protection camps' are central to their work: in collaboration with local partner NGOs in each area, its members and volunteers carry out field surveys to search for illegal traps and hunting equipment.

They also monitor migratory bottlenecks and staging areas where migratory birds are targeted by poachers. They also seek to collect evidence to facilitate the arrest of poachers by the police.

Project supported since 2019

FUNDS DONATED IN 2021: **€4,000**

2022, a year of mobilisation

The birds are expected by poachers along their route...

Poachers that CABS members are watching and trying to prevent from acting.

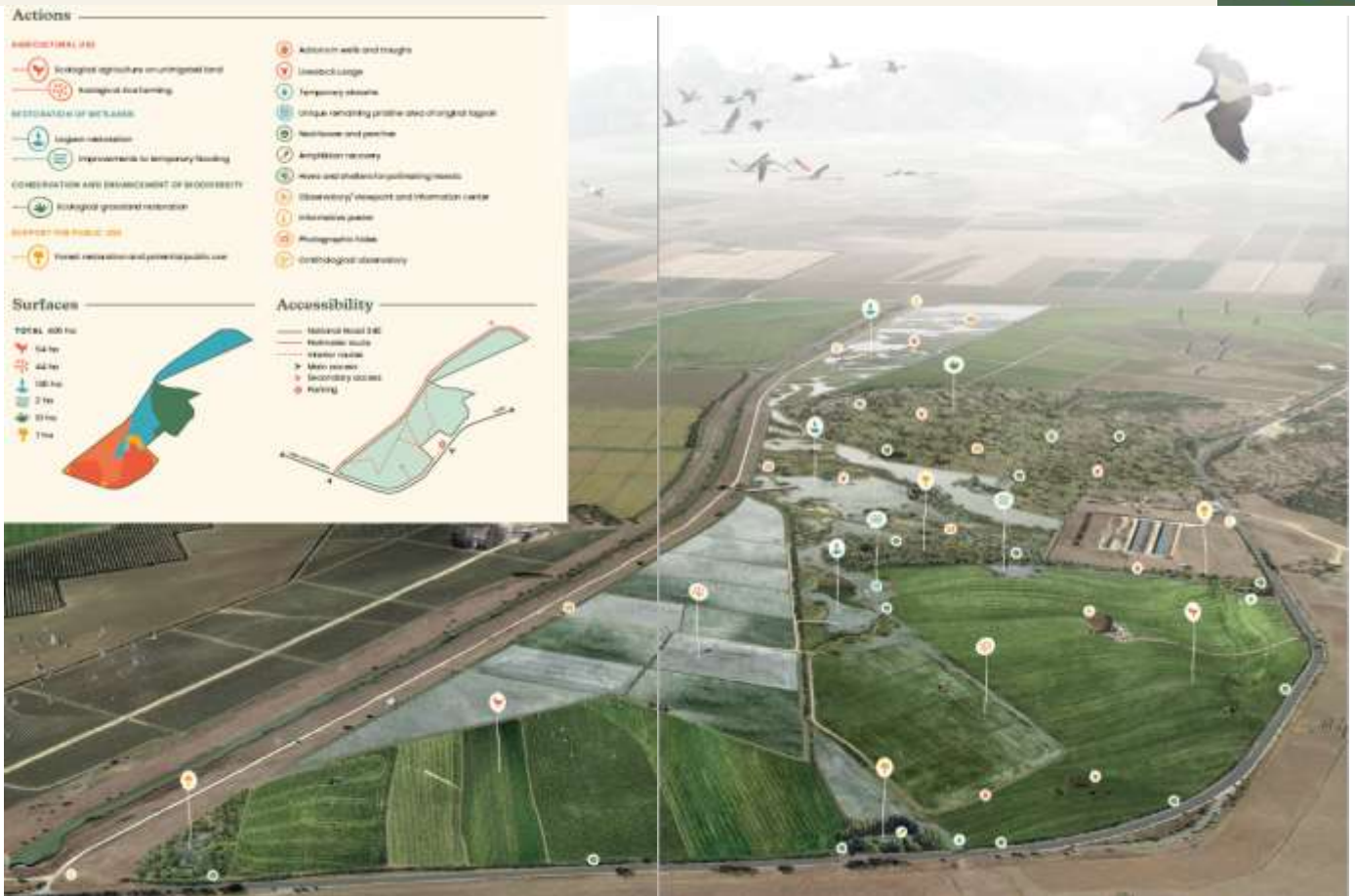
This year, we have mobilized French and European zoological partners (AFdPZ and EAZA) to support the actions carried out and to be developed in Lebanon. We would like to thank the colleagues who responded to our call.



NATURE PROJECT LA JANDA LAGOON

COUNTRY: **SPAIN**

SUPPORTED ASSOCIATION: **AMIGOS DEL PERICON**



The lagoon of La Janda has been the most extensive wetland in Spain, with up to 7,000 ha flooded. It is a shallow, freshwater wetland with dense vegetation, located in a strategic area for birdlife!

Successive attempts at drainage and cultivation stopped in the 1960s. Enormous losses are assumed for both its ecological functions and its biodiversity. Thanks to this location, the presence of relict wetlands and the extensive rice fields, the Janda is still home to an exceptionally rich birdlife.

Project supported since 2021

FUNDS DONATED IN 2022: **3 400€**

Proposal for an agroecological reserve around the Janda Lagoon

The Amigos del Pericon alliance proposes the creation of this reserve with the following objectives:

- To partially restore the lagoon by recovering natural and semi-natural wetlands
- To partially restore the lagoon, through the recovery of natural and semi-natural wetlands
- To promote the conservation of wild species and biodiversity
- To develop a project demonstrating the usefulness of ecological agriculture
- Establish a management model that improves the quality of life of local communities, the economy & biodiversity
- Demonstrate the value of the natural and cultural heritage of the ancient lake

The alliance has also signed a land loan agreement with the Barbate municipality. The area involved would be 406.37 ha, of which 249.89 ha are occupied by agricultural land or pasture, the rest being private irrigated land for sale. The construction of various facilities has begun: a walking circuit, a restaurant for visitors, and an observatory. New cultivation practices that are more respectful of the environment have also been implemented since this year!



THE NATURE PROJECTS ASIA

Country	Species and /or habitat concerned	Structure supported	Mission/action	Funds provided in 2022
INDONESIA	Javan leopard	OFORA Foundation	Conservation of the Javan leopard in Ujung Kulon National Park is one of the missions of OFORA, including the collection of data on the species.	€2,400
INDONESIA	Sumatran tiger	Program Konservasi Harimau Sumatera	The team actively fights for the conservation of the tiger by resolving conflicts caused by the animal's presence, strengthening habitat protection, monitoring population trends, and helping villagers benefit from environmental conservation.	€11,374.72
MONGOLIA	Snow leopard	Snow Leopard Trust	Snow Leopard Trust supports Mongolian herders by providing economic development, such as handicrafts, in exchange for respect for one of the world's most endangered felines.	€5,000
NEPAL	Red panda	Red Panda Network	The "forest guardians", villagers trained by Red Panda Network to monitor red pandas, ensure the protection of red pandas and the sustainable management of their habitat.	€2,220
NEW IN 2022				
INDONESIA	Songbirds	Prigen Conservation Breeding Ark (PCBA)	PCBA is an ex-situ conservation organisation for the breeding of endangered species. Songbirds are the first species to be hosted and bred here.	€2,000

And a big THANK YOU to the partners who supported the following projects in 2022:

PKHS : Zoo de Maubeuge, Association Racing Club Douessin Athlétisme.

And a big THANK YOU to the following partners who have supported our Nature 2022 Projects in their globality:

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THANK YOU also to all the individual donors for their valuable support!

NATURE PROJECT JAVAN LEOPARD

COUNTRY: **INDONESIA**

SUPPORTED ASSOCIATION: **OFORA FOUNDATION**



The Javan leopard (*Panthera pardus melas*) is endemic to the island of Java in Indonesia and is in danger of extinction. Estimated at less than 320 individuals, the wild population of the Javanese leopard suffers mainly from the disappearance of forests.

The Javan Leopard occupies the tropical forests, mountains and dry deciduous and scrub forests in the east of the island.

Human-animal conflicts are also considered a major threat to the species, especially due to population growth and agricultural expansion.

In 1992, a decree from the Minister of Forestry designated Ujung Kulon as a National Park (UKNP), covering an area of 78,619 ha of land and 44,337 ha of sea. OFORA is active in the conservation of wildlife, including the Javan Leopard. Among the many other species represented are the Javan rhinoceros, the Indian muntjac, the wild boar, the crocodile, the large-flying fox and various species of primates.

For the Javan leopard, the NGO's goal is to collect data on the species in order to better determine its population size, to mitigate human-animal conflicts and to keep its habitat as comfortable as possible.

A first meeting for the conservation of the Javan leopard

At the initiative of the Bioparc, from 2 to 4 June this workshop shared knowledge about the potential of the Javan leopard in the representative agencies of the Ministry of Environment and Forestry.

The meeting initiated the standardisation of survey methods and data analysis of the Javan leopard and made recommendations on the management of the Javan leopard, especially in the Ujung Kulon National Park area.

Project supported since 2021

FUNDS DONATED IN 2022: €2,400

By *Bioparc Conservation*.



NATURE PROJECT SUMATRAN TIGER

COUNTRY: **INDONESIA**

SUPPORTED ASSOCIATION: **PROGRAM KONSERVASI HARIMAU SUMATERA (PKHS)**



Since 2005, the Bioparc has been committed in Indonesia with the Program Konservasi Harimau Sumatera (PKHS) to the preservation of the Sumatran tiger (*Panthera tigris sumatrae*), the smallest subspecies of tiger in the world.

PKHS activities are carried out jointly in 2 conservation areas:

- Bukit Tiga Puluh National Park (central island)
- Way Kambas National Park (south of the island)

In both areas, the focus is on patrolling and monitoring tiger populations, prey and habitats. In Bukit Tiga Puluh, the focus is also on educating children about the preservation of the species, while in Way Kambas, the team is also working to ensure the provision of drinking water for the wildlife in the dry season.

The Bioparc's financial support is specifically used to support education and development within the Talang Mamak community living in the heart of Bukit Tigapuluh National Park.

Forest conservation & individual census

PKHS aims to protect the forests to ensure that the tiger has a large territory rich in prey, by accompanying the national park authorities.

PKHS teams and national park rangers have been on patrol for more than 50 days and have covered 200 km. They take advantage of these patrols to monitor biodiversity by collecting all possible information: signs of presence, photographic traps or even snares, traps for tigers.

The photo traps make it possible to estimate the number of tigers and other species occupying this habitat. In 2021, the cameras confirmed the presence of tapirs, Malay bears, elephants, muntjacs, gibbons, macaques, clouded leopards, hornbills...

Project supported since 2005

FUNDS DONATED IN 2021: **€11,374.72**



NATURE PROJECT SNOW LEOPARD

COUNTRY: **MONGOLIA**

SUPPORTED ASSOCIATION: **SNOW LEOPARD TRUST**



The **Snow Leopard Trust** studies the snow leopard and protects its habitat. It supports the herders in their breeding work and helps them to develop the wool economy, in exchange for respecting one of the most endangered felines in the world.

In order to study the snow leopard population and estimate its evolution, about twenty individuals are tracked by GPS.

In the most vulnerable territories for the preservation of this majestic feline, community rangers act and intervene on the front line. They often work in difficult conditions, sometimes putting their own lives at risk, to fight illegal hunting.

Travelling up to several thousand kilometers a month on their motorbikes, they patrol the Tost Nature Reserve in southern Mongolia to prevent poaching, but also to record traces of snow leopard passage and to record the presence of rare plants for example.

Project supported since 2001

FUNDS DONATED IN 2022: **€5,000**

By Bioparc Conservation.

L'artisanat et les femmes pour la conservation

Snow Leopard Entreprises (SLE) forment les femmes bergères aux techniques traditionnelles de feutrage en utilisant la laine du bétail. Elles peuvent fabriquer et vendre des produits de haute qualité au Snow Leopard Trust qui les vend dans plus de 100 endroits à l'international ! Les familles partagent l'habitat avec la panthère des neiges et dépendent presque entièrement de leur bétail pour leur survie. La perte d'un animal à cause de la prédation de cette espèce les met en grande difficulté. SLE est un programme important pour augmenter les moyens de subsistance et encourager la coexistence avec les panthères des neiges.



NATURE PROJECT RED PANDA

COUNTRY: **NEPAL**

SUPPORTED ASSOCIATION: **RED PANDA NETWORK**



Red Panda Network (RPN) is a non-profit organization created in 2005 in the United States, whose main mission is to combat the decline of the red panda in its natural habitat in Nepal. By working with forest users, it finds solutions that benefit the conservation of the species, its habitat and the needs of humans. It has created a team of "forest guardians", male and female villagers, trained and salaried, to monitor the red panda population.

The support provided by the Bioparc makes it possible to finance the annual salary of a forest guardian: Surat Kumar Rai! In addition to participating in the protection of the red panda, this funding also supports the independence of women in Nepal, who are increasingly joining this program.

RPN also conducts studies in collaboration with the local government and carries out awareness-raising activities in schools in particular.

Deforestation, a synonym for the degradation and fragmentation of the red panda's habitat, is the primary cause of the species' decline: it is estimated that the number of red pandas remaining in the wild has dropped by 50% in 20 years: there are now less than 2,500 individuals living in the wild globally!

Education and awareness as tools for conservation

More than half of the people living in the red panda's range have benefited from the programme set up by RPN to raise awareness of the urgent need to protect and conserve the species. These isolated communities are unfortunately often marginalised and do not have the same educational opportunities as elsewhere in Nepal. In parallel, RPN has therefore developed a manual on the conservation of the red panda. RPN is working with schools in the Panchthar-Ilam-Taplejung (PIT) corridor to integrate the topic of red panda conservation into the yearly curriculum by providing training on the topic to the teachers involved.

Project supported since 2013

FUNDS DONATED IN 2022: **€2,220**

By the Bioparc for the salary of a forest guardian.



Our forest guardian



NATURE PROJECT SONGBIRDS

COUNTRY: INDONESIA

SUPPORTED ASSOCIATION: PRIGEN CONSERVATION BREEDING ARK (PCBA)



Prigen Conservation Breeding Ark (PCBA) is a breeding centre for endangered Indonesian species. It was created in 2017 thanks to the cooperation between several institutions, and following the EAZA campaign called Silent Forest, denouncing poaching and illegal trafficking of songbirds in Southeast Asia in particular.

The main mission of the PCBA is to ensure a future for these species through breeding and rearing for eventual release into the wild.

Project supported since 2022

FUNDS DONATED IN 2022: €2,000

The centre's facilities

By 2021, 5 breeding complexes have been completed for songbirds, freshwater fish, small mammals, parrots and gallinacea, and 1 complex is still under construction.

For songbirds, this structure provides a home for the critically endangered Javan pied starling (*Gracupica jalla*, pictured above) which lives in colonies. There are less than 50 individuals left in the natural environment. The PCBA is home to 7 species of freshwater fish, 4 of which are critically endangered! The complex for small mammals allows for non-carnivorous species such as the loris (*Nycticebus sp.*), the Sunda pangolin (*Manis javanica*), or the cuscus (*Spilocuscus sp.*, photo opposite) to be accommodated thanks to the 19 enclosures available!

Several births have been recorded since 2021: 5 small-toothed palm civets (*Arctogalidia trivirgata*), 1 sula hanging-parrot (*Loriculus sclateri*), 3 tenggara hill mynas (*Gracula venerata*), 1 nias hill myna (*Gracula robusta*), 10 Javan pied starlings, 4 maratua shama (*Kittacincla barbouri*), 1 rufous-fronted laughingthrush (*Garrulax r. rufifrons*) in particular.



Support Bioparc Conservation

Our Bioparc Conservation Fund allows any person or organization wishing to do so to support our Nature Projects financially. Created in 2010, it is chaired by Pierre Gay. Donations are tax deductible (check with your national legislation) and are entirely donated to the Nature Projects.

By helping us, you become an actor of conservation and you reinforce our mission to protect biodiversity! Thank you for your help and thank you to all past, present and future donors of Bioparc Conservation (private donors, partner zoos, associations, companies) for their generosity and faithfulness!

FOR INDIVIDUALS

Make a donation and work with us to protect nature

By supporting one of our 20 Nature Projects, you are helping to protect the species concerned in their natural environment.

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