# HORNBILL NEST **ADOPTION PROGRAM**

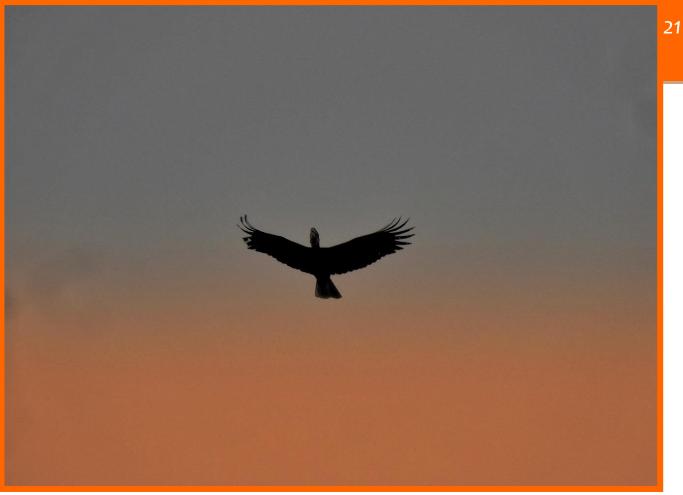


Photo: Saniya Chaplod

## Saving hornbill homes with communities



Photo: Sagar Kino

The Hornbill Nest Adoption Program (HNAP) completes **10 years** of dedicated community-based hornbill conservation in the forests outside the Pakke Tiger Reserve in Arunachal Pradesh.

Officially launched in 2012, the Hornbill Nest Adoption Program started as a three-way partnership between the Forest Department and 'Ghora-Aabhe Society', and Nature Conservation Foundation. The idea was to create a synergy between the management, scientific community and local partners to protect hornbills and their habitat in this landscape.





The "Nest Protectors" who are members of the *Nyishi* community have been the backbone of this 10-year long program. The various training and skills developed by the Nest Protectors over the years have helped in obtaining crucial information on hornbill nesting from the forests outside Pakke TR, even during the pandemic, when most field work was halted.

In this 2021 annual report, we share the news from the Hornbill Nest Adoption Program of the year's activities and findings. We have also included updates from our other program work which includes rainforest restoration, the nature education program and the expansion of hornbill research and conservation in Assam and north Bengal.





Photo: Sagar Kino

## A decade of protecting hornbills

The Pakke Tiger Reserve and the adjoining Reserve Forests of Khellong Forest Division harbour 4 species of hornbills (Great, Wreathed, Oriental Pied and Rufousnecked hornbill) which are listed in Schedule 1 of the Wildlife Protection Act (1972).

Following a research and conservation program of the Eastern Himalaya Program of the Nature Conservation Foundation (NCF) since 2003, it was observed that the adjoining low-elevation forests outside Pakke were being affected by degradation and loss of forest habitat.





Photo: Saniya Chaplod

Hornbills being large, mobile birds require large tracts of suitable habitats to sustain their population and use both the park and the adjoining forests. Therefore, protection and conservation of habitat for hornbills needs to be done over larger areas, and for doing so, it was important to work with local communities and other stakeholders.

With this intent, NCF along with a local NGO - the Ghora-Aabhe Society and the Forest Department initiated the "Hornbill Nest Adoption Program" (HNAP) in 2011. The program officially launched at the onset of the 2012 hornbill breeding season. In 2017, the Pakke Paga Hornbill Festival Committee was also included as a fourth partner.





Prem and Nikje observe some activities at an active hornbill nest Photo: Sagar Kino

A decade after the program was initiated, 11 local *Nyishi* members continue to roam the forests looking out for hornbills, guarding over their nest trees and spreading the message of conservation in their villages.

The Hornbill Nest Adoption Program (HNAP) is a long-running community-based conservation program, possibly among few such models in the country. This model that is based on the concept of "shared parenting" has brought together multiple key stakeholder groups for protecting threatened species and their habitat and provided a source of livelihood to over 21 nest protectors till date.

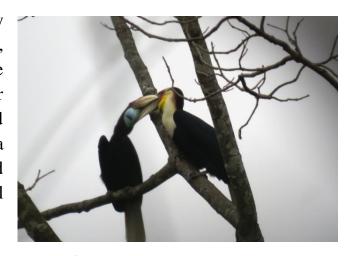
The biggest achievement of this decade long program has been the successful recorded fledging of 173 hornbill chicks of three hornbill species – Great hornbill, Wreathed hornbill and Oriental Pied hornbill.





## Nest monitoring in Papum Reserved Forest

The hornbill breeding season is a very exciting period for us. For the hornbills, though, it is a vulnerable period as the female imprisons herself inside a cavity for 3-4 months until the chick is healthy and ready to fledge. The male hornbill plays a critical role bringing food for the female and the chick(s) to meet their nutritional requirement, while also feeding himself.



A pair of Wreathed hornbills engaged in courtship at the onset of the breeding season Photo: Vijay Tachang



The breeding period also engages the hornbill nest protectors who take up the role of local guardians and help in protecting occupied hornbill nests from any human-induced disturbances. They make critical observations at each nest and contribute to a long-term understanding of hornbill breeding and changes in nesting patterns in this area.

This year, the nest protectors monitored 29 hornbill nests in the breeding season. Out of them, 20 nests were occupied by breeding hornbills and were reported to be "active".

The 20 nests were visited periodically by the nest protectors. At the end of the breeding cycle, the team confirmed successful fledging in 18 of the 20 nests. Two nests were abandoned mid-season for unknown reasons.

The nesting success for this year was 90%, which is remarkable given that this part of the landscape falls outside the formally protected areas.



Budhiram Tai, one of the oldest nest protectors of the HNAP, stands in front of the nest tree he monitors every year.

Photo: Karishma Pradhan



Table 1a: Nesting summary of hornbill nests in the Papum Reserved Forest, Arunachal Pradesh

Hornbill species	Active nests	Successful	Unsuccessful
Great hornbill	6	5	1
Oriental Pied hornbill	11	10	1
Wreathed hornbill	3	3	0
Total	20	18	2

Table 1b: Summary of the active nests in the Papum Reserved Forest, Arunachal Pradesh

	Nest ID	Length of nesting cycle							Success	Nest pertentage	
	A	Location	Маг	Арг	May	June	luţ	Aug	Sept	Success	Nest protectors
GRE	AT HORNBILLS										
1	GHL1	Lanka top	24 -Mar		110 days		12 -Jul			Yes	Sako Waru
2	GHA/M1	Pakke Jungle camp	13 -Mar		123 days		14 - Jul			Yes	Vijay Tachang, Nikje Tayem
3	GHG1	Goloso	6-Mar	27 -Apr						No	Vijay Tachang, Nikje Tayem
4	GHJ3	Birap	<b>16</b> -Mar		127 days		21-Jul			Yes	Kaja Keyang
5	GHJ4	Lanka 7 km		8-Apr	122 days			8-Aug		Yes	Naga Kino, Tajek Wage
6	GHM1	Yartepobe			Entry and ex	dt dates no	ot known			Yes	Tajik Tachang
WR	EATHED HORNB	ILLS									
1	WHA/M9	Taraso	21-Mar		110 days		9-Jul			Yes	Prem Tok
2	GH/WHB1	Bali nala		11-Apr	126 days			15-Aug		Yes	Taring Tachang
3	GH/WHD1	Monai	20-Mar		123 days		21-Jul			Yes	Budhiram Tai
ORI	ENTAL PIED HOI	RNBILLS						As .			1
1	ОРНЈ6	Jolly-palling	23-Mar		112 days		13-Jul			Yes	Naga Kino, Tajek Wage
2	OPHUS1	Suka naala - Upper Seijiusa		4-Apr	99 days		12-Jul	8		Yes	Rikum Gyadi
3	OPHUS2	Suka naala - Upper Seijiusa		3-Apr	96 days		8-Jul			Yes	Rikum Gyadi
4	ОРНА/МЗ	A3		1-Apr	90 days	30-Jun				Yes	Vijay Tachang, Nikje Tayem
5	OPHA/M6	Taraso		13-Арг						No	Prem Tok
6	OPHA/M7	Para Hapa/Doimukh		2-Apr	90 days		1-Jul			Yes	Prem Tok
7	OPHA/M2	A3/Jungle camp	30-Маг		92 days	30-Jun				Yes	Vijay Tachang, Nikje Tayem
8	OPHA/M4	Eco- camp/Tanki nala		8-Apr	91 days		lut-8			Yes	Prem Tok
9	OPHA/M10	Para Hapa/Doimukh		1-Apr	91 days		1-Jul			Yes	Prem Tok
10	OPH/WHJ8	Tamoso nala		3-Apr	106 days		18-Jul			Yes	Kaja Keyang
11	OPH Ma1	Margasso		Entry and exit dates not known					Yes	Tajik Tachang	



## Long-term monitoring of hornbill roost sites

The nest protectors also monitored 19 hornbill roosting sites near villages along the Pakke river on the southern boundary of the Pakke Tiger Reserve from October 2020 to September 2021.

Out of a total of 318 observation days at 11 sites, Wreathed hornbills were seen on 290 days (91%) from Oct 2020 to Sept 2021. Out of these 11 sites that were monitored, hornbills were observed in eight sites. The number of Wreathed hornbills visiting these eight roost sites varied from 1-59 individuals.

Out of 361 observation days at 17 sites, Oriental Pied hornbills were seen on 237 days (65%) from Oct 2020 to Sept 2021. Twelve out of these 17 sites are being used for roosting by the Oriental Pied hornbill (OPH). The number of OPH observed at these sites ranged from 1-20 individuals.



Wreathed hornbills headed to their roosting site Photo: Rohit Naniwadekar



Oriental Pied hornbills at a roost site Photo: Prem Tok



## All heroes don't wear capes

In the middle of the hornbill breeding season this year, we started receiving frantic calls from Prem Tok, the youngest and an extremely motivated nest protector who has been associated with the Hornbill Nest Adoption Program since 2016.

When he was on a monitoring visit, he noticed a few men who had come to cut trees near two active hornbill nest trees. After approaching and informing them of the nest trees, the men eventually left the area.

But Prem was not convinced. He left for Tajik's house. Tajik is the local co-ordinator of the HNAP. The following day, Tajik went to the village adjoining the forest where the incident had occurred.

He had a dialogue with the local members and explained the

Prem Tok, the nest protector that saved two hornbill nest trees from being cut in the middle of the breeding season in 2021.

Photo: Sagar Kino

importance of these nesting trees and the overall habitat for hornbills. We were later informed that the men had left the area.

We are happy to share that both the nests had successful chick fledging, because of the timely intervention of the nest protector and the local coordinator.







Photo: Sagar Kino

Taring Tachang, the nest protector who was monitoring this nest shared that determining the occupants of this nest this year was very puzzling for him. In his observations, he had recorded that the nest was first occupied by a Great hornbill pair on 28th March, but was abandoned subsequently on 31st March.

He continued visiting the nest, and found the nest again active on 11th April 2021, but to his utter confusion, both Great and Wreathed hornbills were visiting the cavity. Because of the sealing, he was unable to determine the hornbill inside the cavity.

Tajik, the local co-ordinator started accompanying Taring on his nest monitoring visits and finally on 22nd April confirmed that the nest was being used by Wreathed hornbills, but was visited by a Great hornbill female occasionally. The Great hornbill female that was seen visiting the nest continued to disturb the female Wreathed hornbill throughout the breeding season. The blue throat pouch of the female Wreathed hornbill inside the cavity is visible if you look closely.



## Pakke Tiger Reserve

NCF has been conducting one of the longest hornbill nest monitoring programs in India for over 21 years in Pakke Tiger Reserve. Additionally, nests are also monitored in Nameri Tiger Reserve in Assam, which is contiguous to Pakke.

Nest monitoring inside Pakke Tiger Reserve started a bit late this year from mid-April, after our research permit was renewed. In Nameri TR, we had to stall our nest monitoring activities from May, owing to restrictions by the Forest Department amidst the rising Covid cases.

In Nameri, there were 8 nests active this season, two of which were new nests located by the team this year. We could not determine the nesting duration or success for the nests in Nameri this year.

In Pakke Tiger Reserve, while we could not record the female entry dates this year, the team recorded 22 active nests when the team started monitoring from April. Two new Wreathed hornbill nests were also located by the team in Pakke TR this year.

The nesting success in Pakke Tiger Reserve was 92.9%.



A Great hornbill pair took over a Wreathed hornbill nest in Pakke this year

Photo: Khem Thapa

Table 2: Nesting summary of hornbill nests inside Pakke and Nameri Tiger Reserves, Arunachal Pradesh, 2021

Hornbill species	<b>Active nests</b>	Successful	Unsuccessful	Outcome unknown
Great hornbill	14	6	1	7
Oriental Pied hornbill	5	1	1	3
Wreathed hornbill	11	6	0	5
Total	30	13	2	15



## Other work updates in the Eastern Himalaya

## Restoration project

The restoration project was initiated in 2014, to restore some of the degraded patches in the Pakke Tiger Reserve landscape and surrounding areas of Assam, which are an important habitat for a variety of wildlife species. We have been carrying out forest restoration in this landscape since 2014. We have grown around 37,000 saplings of 75 native tree species at our nursery and planted in an area of ~13ha so far.

The year-round nursery activities to raise good quality planting stock are carried out by our trained local staff.



Field staff filling up pots for growing seedlings at NCF's rainforest nursery Photo: Noopur Borawake



We carry out maintenance activities like weeding around the planted saplings to maximize survival and monitor them to improve our future restoration efforts. Survival varies from 31 to 69% at different sites after 2-3 years of planting.



Noopur monitoring height growth of a planted sapling Photo: Khem Thapa

In 2021, we raised 7905 seedlings and saplings at our nursery. In March, we surveyed some degraded sites for restoration. Upon selection, the site preparation activities - clearing weeds and digging pits began at the end of April. After the onset of monsoon, we carried out planting from 21<sup>st</sup> to 25<sup>th</sup> May.

We planted 3368 saplings of 74 species at 3 different sites inside Pakke Tiger Reserve and covered an area of 1.2ha, with the help of our local staff, labourers and volunteers. We monitored the survival and growth of the planted saplings towards the end of June.



A total of 700 saplings were provided to a tea estate in Assam, to plant in some fallow areas of land. The planting was done by them in June and the saplings were fenced to safeguard them from livestock grazing.



Saplings planted and fenced at Mahalaxmi Tea estate, Assam

We have provided a total of 996 saplings to the local villagers for planting on their farm lands/ home gardens and government organizations for various planting events.



Plantation drive by local groups and forest department on the occasion of Vanamahotsava Week, Arunachal Pradesh.

As a part of the post-planting maintenance activities, we cleared weeds at the end of August around the saplings planted in May. We would be monitoring the survival and growth of these saplings in October.



#### Tropical forest restoration workshop

NCF in collaboration with Green Hub, conducted a three-day workshop on 'Tropical forest restoration in Eastern Himalaya – Concepts and Practice' in Tezpur, Assam, for 21 participants from the north-eastern region.

During the workshop, participants were introduced to designing a systematic approach for science-based forest restoration, with clear emphasis on selecting appropriate species. The sessions covered basic concepts of restoration with key learnings from NCF's 20+ years of restoration efforts in the Western Ghats and 7 years of restoration work in the Pakke landscape of Arunachal. Site-specific case studies were also discussed, followed by a field visit to Pakke Tiger Reserve.



Indoor sessions to cover the basic concepts of tropical forest restoration





Field visit to NCF's nursery and Pakke Tiger Reserve to gain practical understanding on restoration activities



## Nature Education Program (NEP)

As a part of our Nature Education Program with local schools outside Pakke Tiger Reserve, we conduct year-round nature activities and annual Nature Camps inside Pakke Tiger Reserve every year.

Due to the pandemic we could not conduct the annual camps in November 2020. But to continue our engagement with the students we carried out the following activities:

#### Online activities

Twenty-three students from Class 5-9 participated in playing different Bingo games online from November 2020 to December 2020 from one of the registered schools. These games are designed to encourage students to go out and observe nature in their own backyards/locality and connect with it in the process.



Nature Bingo sheet during online nature games session

Photo: Saniya Chaplod



#### **Visit to NCF Rainforest Nursery**

A group of 10 students from Class 6 and Class 7 from Darlong Govt. Secondary School visited our Rainforest Nursery in January 2021 to learn about the importance of the rainforest nursery, basics of seed dispersal and forest restoration.



Students learning about basic nursery maintenance during their visit to NCF's Rainforest Nursery.

Photo: Saniya Chaplod

#### Bird walks

We organized two bird walks with students from two schools in January 2021; one of them inside Pakke Tiger Reserve and the other inside the school campus. Twenty students participated in the event. Through these bird walks, we plan to create a Pakke Birding Club in future with students specifically interested in the activity.





Students during bird walk inside Pakke Tiger Reserve and VKV Nivedita Vihar school campus Photo: NCF



#### **Resource material**

We developed a colouring book and nature journal on wildlife of Pakke to be distributed during the camps to encourage students to connect to nature through arts. We have also reproduced copies of Birds of Pakke brochure that had been initially developed for the Arunachal Pradesh Forest Department during the Pakke Paga Hornbill Festival 2019. This brochure contains 138 familiar birds of Pakke region.



Colouring book and Nature Journal on Wildlife of Pakke Photo: NCF



# Expansion of hornbill research and conservation in other sites

## Buxa Tiger Reserve, West Bengal

Since 2017, NCF in collaboration with Nature Mates Nature Club has been studying hornbills in north Bengal, particularly in Buxa Tiger Reserve.

One of the major focus areas of this research was to collect baseline information on hornbill population from this region. From November 2020 to March 2021, the team repeated transects conducted in the previous year across the entire area of Buxa Tiger Reserve. With this effort, we collected information on hornbill detections for two non-breeding seasons. The total effort in this period was 119 km of transect walk across 80 trails in 27 grids.

Densities of all four hornbill species were estimated from the study that was conducted in the two non-breeding seasons in Buxa Tiger Reserve. The densities are as follows: Great hornbill - 0.21 birds/ km² (0.06-0.79), Wreathed hornbill - 0.49 birds/ km² (0.17-1.45), Rufous-necked hornbill - 0.04 birds/ km² (0.01-0.02) and Oriental Pied hornbill - 10.58 birds/ km² (6.4-17.48).

Along with hornbill densities, the team also collected vegetation data to understand the vegetation structure and composition in Buxa TR. The tree density (GBH  $\geq$  25 cm) in Buxa ranged from 6 trees per ha to 425 trees per ha with an average density of 92 trees per ha (SE $\pm$ 7.49).



Wreathed hornbill seen on transect in BTR Photo: Sitaram Mahato



The team also initiated a tree phenology study in Buxa Tiger Reserve from January this year. An optimum number of individuals of 62 tree species were identified and marked. The fruiting, flowering and leafing patterns of these 700+ individuals are recorded between the 21<sup>st</sup> and 25<sup>th</sup> of every month.

The study of the hornbill breeding biology continued for the 4th consecutive year in Buxa Tiger Reserve. The team monitored 25 known hornbill nests from February onwards. Out of these, 16 nests occupied by breeding pairs - 6 Great hornbill, 1 Wreathed hornbill, 7 Oriental Pied hornbill and 2 Rufous-necked hornbill nests. The overall nesting success this year was 90%.



A healthy Great hornbill chick just after taking its first flight off the nest

Photo: Sitaram Mahato



One of the two Rufous-necked hornbill chicks that emerged together from the nest

Photo: Kezajacho Dukpa



## **Upper Assam**

We assessed habitats in the fragmented forests in some of the reserved forests of Upper Assam landscape in 2021. From February to April 2021, we conducted vegetation sampling in Upper-Dihing West Block RF, Upper Dihing East Block RF, Burhi-Dihing RF and Torani RF. Our aim was to assess forest structure and habitat quality.



Last remaining pristine habitat of Lekhapani RF Photo: Bhaskar Bora



A portion of the Tinkopani RF habitat Photo: Bhaskar Bora

In April 2021, Covid cases surged and we halted work in mid-April until travel restrictions were lifted in August 2021. In September, we assessed the habitat of Makumpani RF, Tirap RF, Tinkopani RF and Lekhapani RF in 348 circular plots of 10 m radius along 38 transects.

In a freshly logged site, we confirmed presence of 2 Brown Hornbills including a fledging from this year at Lekhapani RF. We encountered 10 Wreathed Hornbills in illegally coal-mined site of Tinkopani RF and 2 Great Hornbills in illegally logged forest of Tirap RF. The persistence of these endangered hornbill species in such fragmented and degraded forests calls for immediate action to protect these habitats from further loss and degradation.





Wreathed hornbill at Tinkopani RF Photo: Bhaskar Bora

Lack of conservation awareness and knowledge of the importance of such habitats is a concern. Stakeholder participation with strong protection measures will help any conservation initiatives in the last remaining rainforest habitats of Upper Assam. Restoration initiatives are warranted and would also benefit unemployed village youths and students, if they are engaged in such activities.

### Covid-19 relief work

Covid's second wave ravaged Indian cities and crippled the medical infrastructure even in metropolitan cities. During this period, many rural parts of North-east India were reporting high number of Covid cases, away from media attention. To access proper health services, most community members would need to travel long distances over swollen rivers, rope bridges, and unreliable landslide-prone roads.

To assist medical centres in handling ongoing Covid cases and to prepare for future surges, NCF started a Covid Relief Campaign to equip 54 local medical centers – the Primary Health-care Centres (PHCs), Community Health-care Centres (CHCs) and Sub-centres (SCs) within reach of many remote villages, across Arunachal Pradesh, Assam and Nagaland.

In the initial weeks of the campaign, we worked closely with the medical staff at these health centers to compile a list of medical supplies that they needed to deal



with rising Covid cases. To meet their requirements, we started an online fundraiser and contacted many other donors and institutions for supporting the campaign.

We provided 20 oxygen concentrators donated by Swasth Digital Health Foundation to 10 sites in Assam, Arunachal Pradesh and Nagaland. Covid protective gear (3000 N95 masks, 16000 three-ply masks, 8000 gloves, 900 PPE kits, 1200 face-shields, 400 thermal scanners and 1000 pulse oximeters) were provided to 54 sites across Arunachal Pradesh, Assam and Nagaland. These items were donated by Kantar India, and facilitated by Bhumi, Rotary e-connect, and Geetanjali Dhar.

With approximately 6 lakhs raised through the fund raiser, we provided essential medical supplies required for Covid treatment to 7 sites in Arunachal Pradesh and ration supplies to 40 families in Buxa Tiger Reserve, West Bengal.

We plan to cover more areas in Dibang Valley and some sites in Nagaland with supplies of medical and other essential items.



Covid relief medical supplies handed over at the Seijosa Community Health Centre



Covid relief medical supplies handed over to the Bhalukpong Community Health Centre



#### **Publications**

- 1. Naniwadekar, R., Rathore, A., Shukla, U., and Datta, A. 2021. Roost site use by Great (*Bucerosbicornis*) and Wreathed (*Rhyticerosundulatus*) Hornbill and its implications for seed dispersal. *Biotropica* <a href="https://doi.org/10.1111/btp.13039">https://doi.org/10.1111/btp.13039</a>
- 2. Naniwadekar, R., Mishra, C., Isvaran, K., and Datta, A. 2021. Gardeners of the forest: hornbills govern the spatial distribution of large seeds. *Journal of Avian Biology* <a href="https://doi.org/10.1111/jav.02748">https://doi.org/10.1111/jav.02748</a>
- 3. Borawake, N., Datta, A. & Naniwadekar, R. (2021). Tropical forest restoration in the Eastern Himalaya: Evaluating early survival and growth of native tree species. *Ecological Restoration*, 39 (3), 52-63. <a href="https://doi:10.3368/er.39.3.194">https://doi:10.3368/er.39.3.194</a>

## Expenditure

The HNAP model has been designed on the lines of "shared parenting" where three sets of parents protect hornbill nests in the wild. The first set of parents are the biological hornbill parents themselves, the local nest protectors who visit the nests throughout the breeding season and monitor them are the second set of parents and the donors from across the world who adopt these nests are the third set of hornbill parents. The donations and support received from our hornbill parents have helped sustain this program successfully since its inception. Since 2013-14, we have also been receiving donations from zoos abroad.

The funds that we raise go towards paying salaries of the nest protectors, local field coordinator, and project co-ordinator, purchase of field equipment, medical emergencies and running costs such as fuel. A proportion of the fund is used annually for the welfare of the local community based on the availability of funds. In 2020 and 2021, we focused on assisting the administration and the local community health centre in dealing with the Covid pandemic.



The table below lists our donations and expenses from October 2020 to September 2021.

October 2020-September 2021				
Opening Balance	991,655			
Donations Received	1,698,651			
Total Receipts	2,690,306			
Expenses				
Salaries (Nest Protectors)	1,402,200			
Project coordinator salary	175,000			
Vehicle maintenance	1,560			
Fuel expenses	12,871			
Medical expenses	10,728			
Bank charges	10,691			
Consumables - Field Supplies	41,388			
Food and accommodation	1,000			
Printing & stationery	15,965			
Local Field transport	10,200			
Postage, courier & freight	6,289			
Total expenses	1,687,892			
Available balance	1,002,414			

## Acknowledgements

We are extremely grateful to all the hornbill parents, zoos, Arunachal Pradesh Forest Department and the Serenity Trust for making it possible for us to implement all the conservation activities. We thank Nature inFocus (NiF), Radha Rangarajan and Arati Kumar-Rao for helping us raise funds for the nest adoption program through their network .

We thank the Vivekananda Kendra Vidyalaya Alumni Association Pakke Kessang District Unit (VKVAAPKD), Jorjo Tana, Basang Wage, Vikram Tayam, for support and help. We also thank Nandita Hazarika and Goutam Narayan for their continued support to the program.



We thank the Forest Department and staff of Papum Reserved Forest, Pakke Tiger Reserve, Buxa Tiger Reserve and Dihing- Patkai landscape for their support towards the hornbill research and conservation efforts in these landscapes. We also thank our collaborating partners in each of these landscapes.

We thank NCF's admin and accounts team —Smita Prabhakar, Vinay Hegde, M. Shivakumar for their efficiency in the admin and accounts handling. We thank Veena Rai for her critical assistance and support in the Eastern Himalaya program and for the HNAP till March 2021. We are grateful to Dr. Divya Mudappa for her help in fund-raising for the HNAP.

We are also grateful to our colleagues in NCF's Eastern Himalaya program: Rohit Naniwadekar, Saniya Chaplod, Noopur Borawake, Bibidishananda Basu, Late Kumar Thapa, Khem Thapa, Tali Nabum, Sagar Kino, Arjun Rai, Sital Dako, Narayan Mogar, Yaha Chiri, Bhaskar Bora, Dhruba Sonowal, Nayan Khakhlari, Dollar Ganguly, Sitaram Mahato and Kezajacho Dukpa for their help and support in many ways.

The HNAP is possible due to the dedication and effort of our team of nest protectors. We express our gratitude to all the past nest protectors for building a strong foundation and the current team which consist of Tajik Tachang, local co-ordinator, and nest protectors - Budhiram Tai, Kaja Keyang, Naga Kino, Nikje Tayem, Prem Tok, Rikum Gyadi, Sako Waru, Tajek Wage, Taring Tachang and Vijay Tachang—for supporting hornbill conservation in this landscape.

## Hornbill parents

Listed below are all donors who have adopted hornbill nests from October 2020 - September 2021. We thank you for your support towards protecting hornbills. If you wish to adopt a hornbill nest again, you can do so online using this link <a href="http://ncf-india.org/pages/donate">http://ncf-india.org/pages/donate</a>. Donations by Indian donors are eligible for tax exemption under Sec. 80(G) (50% exemption) or Sec. 35 (150% exemption) of the Income Tax Act. Foreign nationals can write to <a href="maintainmaintenants">karishma@ncf-india.org</a> or <a href="maintainmaintenants">smita@ncf-india.org</a> for details to donate under the FCRA.



Please do send us an email at <a href="mailto:karishma@ncf-india.org">karishma@ncf-india.org</a> to let us know after you have donated so that we can contact you and keep you updated on our work.

- 1. Aditi Puri
- 2. Aishwarya Mandya
- 3. Akshaa Vatwani
- 4. Akshay Panday
- 5. Amruth Anand
- 6. Anjali Powar Haridass
- 7. Anushri Karve
- 8. Aparajita Datta
- 9. Arindam Ray
- 10. Arjan Roy
- 11. Arun Shekhar
- 12. Arvind Datar
- 13. Ashwani Sharma
- 14. Ashwin Baindur
- 15. Ashwini Kumar Bhat
- 16. Astha Gautam
- 17. Charudutt Mishra
- 18. Dhruvin Acharya
- 19. Diana Philip
- 20. Eashwar Raghuraman
- 21. Geetha Subramanian
- 22. Hema Maira
- 23. Jagadeeshwaran Ganapathy
- 24. Janhvi Vyas
- 25. Jessu Anand
- 26. Jyotsana Nirula
- 27. Kalyan Varma
- 28. Kaushani Das
- 29. Kulsum Rashid
- 30. M. Gopa Kumar
- 31. Madhushree Baliga
- 32. Maitreya Sukumar
- 33. Margaret Kinnaird and Tim O'Brien
- 34. Marisha Karwa
- 35. Medha Darshani
- 36. Narayan Kumar Dhar
- 37. Novita Singh
- 38. Peeyush Sekhsaria



- 39. Priyanka Pradhan
- 40. Radha Rangarajan
- 41. Rajeshwari Ramachandran
- 42. Ram Gopalakrishnan
- 43. RashmithaTulabandula Juvvadi
- 44. Rathika Ramasamy
- 45. Rishabh Lohia
- 46. Rohan Randery
- 47. S. Subramanya
- 48. SahanaBalkal
- 49. Shalini Singh
- 50. Siddharth Prasad
- 51. Sudip Datta
- 52. SwethaPonnekanti
- 53. Tanveen Randhawa
- 54. Udain Singh Tomar
- 55. Uday Kumar
- 56. Ulhas Anand
- 57. Usha Baliga
- 58. V Mythili Sharan
- 59. Vamsi Rao
- 60. Vinay Nandakumar
- 61. Vineet Dravid

Zoos that donated towards the Hornbill Nest Adoption Program from October 2020-September 2021

- 1. Rotterdam Zoo
- 2. Amiens Zoo (Tresorerie Du Grand)
- 3. American Association of Zookeepers (Nashville Zoo)
- 4. St. Augustine Alligator Farm Zoological Park

We express our heartfelt gratitude to all the individual and institutional donors who have supported this program and helped sustain it for over 10 years now.





## Hornbill Nest Adoption Program

Annual report 2021









