

Vulture Conservation Breeding Centre, Pinjore, Haryana

Annual Report for the period

1stApril 2022 - 31stMarch 2023



"Jeevan", the Slender-billed vulture named by the Union Minister of Environment, Forest and Climate Change, Honourable Mr. Bhupendra Yadav during his visit at the centre on 20th February 2023



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Slender-billed vulture nestling

1. Report of the Officer-in-charge

It was a memorable day for the centre when Honourable Union Minister of Environment, Forest and Climate Change, Government of India, Mr. Bhupendra Yadav, visited the centre



along with Dr. S. P. Yadav, IFS, ADGF (Project Tiger) and Member Secretary NTCA, Mr. Sanjay Shukla, IFS, Member Secretary, Central Zoo Authority on 20th February 2023. The Honorable Minister was given a tour of the centre. He also named a Slender-billed Chick “Jeevan” during the visit.

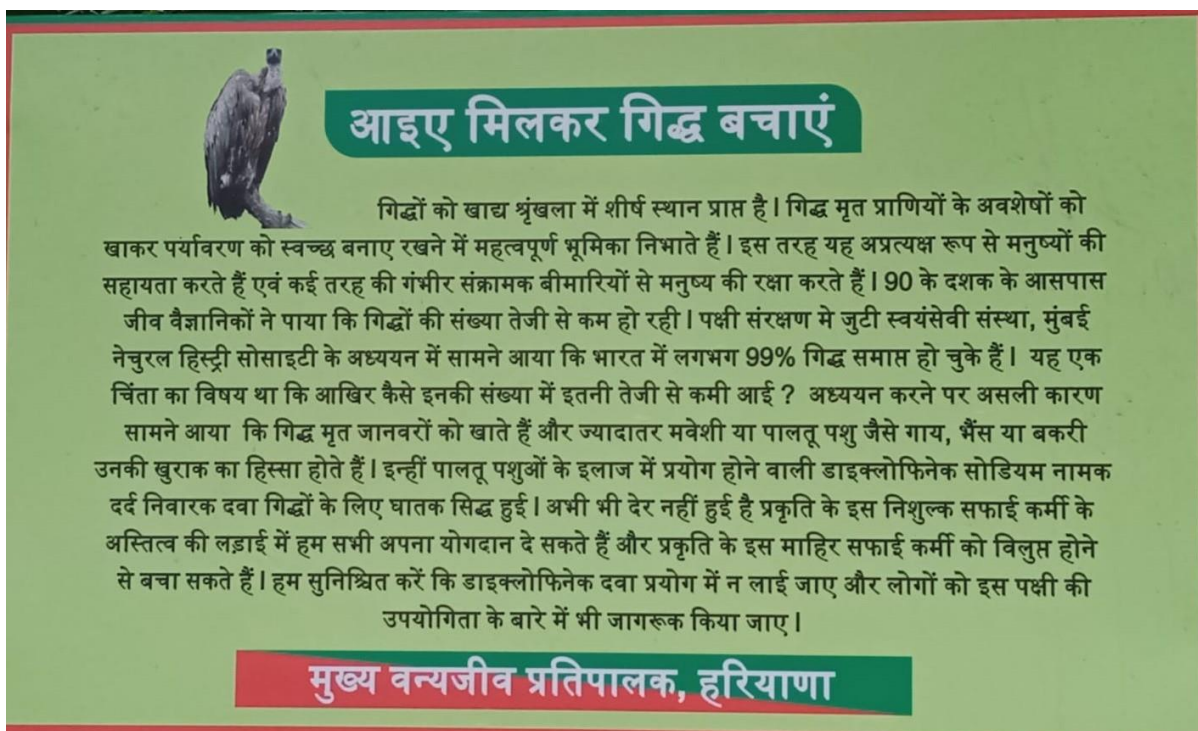
All the three critically endangered Gyps species of vultures, White-rumped (WRV), Long-billed (LBV) and Slender-billed (SBV) nested in the centre. The emphasis was laid on breeding of SBV which are the most critically endangered and the centre housed only 52 of them. The artificial incubation and chick swapping was carried out for all the three species specially on the eggs which were rescued due to parental abandonment. A total of 7 WBV, 4 SBV and 11 LBV clutch nestlings hatched successfully, both on nest and through artificial incubation by March 2023.

The centre faced fund crunch and only Rs. 250 Lakhs out of the Rs. 501 Lakhs were received by the centre. Despite economical spending, there was a deficit of Rs. 76 Lakh at the end of financial year.

The Jatayu Conservation Breeding Centre, Pinjore, located at Jodhpur village on the edge of the Bir Shikargaha Wildlife Sanctuary is a collaborative project of the Forest and Wildlife Department, Haryana and Bombay Natural History Society. The centre was established to save the three Critically Endangered Gyps species of vultures viz. White-rumped vulture, *Gyps bengalensis*, Long-billed vulture, *Gyps indicus* and Slender-billed vulture, *Gyps tenuirostris*, from looming extinction. The main objective of the centre is to house and breed

25 pairs of each of the three species and release 100 pairs of each of the species, within ten years from the beginning of the release programme. The release programme was initiated during 2015-16.

The centre has a Governing Council which is chaired by the Addl. Chief Secretary, Department of Forests and Wildlife, Government of Haryana. The PCCF and Chief Wildlife Warden, Haryana is the Member Secretary.



आइए मिलकर गिद्ध बचाएं

गिद्धों को खाद्य श्रृंखला में शीर्ष स्थान प्राप्त है। गिद्ध मृत प्राणियों के अवशेषों को खाकर पर्यावरण को स्वच्छ बनाए रखने में महत्वपूर्ण भूमिका निभाते हैं। इस तरह यह अप्रत्यक्ष रूप से मनुष्यों की सहायता करते हैं एवं कई तरह की गंभीर संक्रामक बीमारियों से मनुष्य की रक्षा करते हैं। 90 के दशक के आसपास जीव वैज्ञानिकों ने पाया कि गिद्धों की संख्या तेजी से कम हो रही। पक्षी संरक्षण में जुटी स्वयंसेवी संस्था, मुंबई नेचुरल हिस्ट्री सोसाइटी के अध्ययन में सामने आया कि भारत में लगभग 99% गिद्ध समाप्त हो चुके हैं। यह एक चिंता का विषय था कि आखिर कैसे इनकी संख्या में इतनी तेजी से कमी आई? अध्ययन करने पर असली कारण सामने आया कि गिद्ध मृत जानवरों को खाते हैं और ज्यादातर मवेशी या पालतू पशु जैसे गाय, भैंस या बकरी उनकी खुराक का हिस्सा होते हैं। इन्हीं पालतू पशुओं के इलाज में प्रयोग होने वाली डाइक्लोफिनेक सोडियम नामक दर्द निवारक दवा गिद्धों के लिए घातक सिद्ध हुई। अभी भी देर नहीं हुई है प्रकृति के इस निशुल्क सफाई कर्मी के अस्तित्व की लड़ाई में हम सभी अपना योगदान दे सकते हैं और प्रकृति के इस माहिर सफाई कर्मी को विलुप्त होने से बचा सकते हैं। हम सुनिश्चित करें कि डाइक्लोफिनेक दवा प्रयोग में न लाई जाए और लोगों को इस पक्षी की उपयोगिता के बारे में भी जागरूक किया जाए।

मुख्य वन्यजीव प्रतिपालक, हरियाणा

a. Vultures at the centre

The highest number of vultures anywhere in the world were housed at the Jatayu Conservation Breeding Centre. There were 421 vultures at the centre. During the breeding season of 2023, 22 nestlings hatched and successfully fledged.

There were 145 White-rumped vultures, 220 Long-billed vultures and 56 Slender-billed vultures housed at the centre.



White-rumped vultures at the centre

b. Breeding at the centre



Slender-billed vulture nestling

Successful breeding at VCBC Pinjore was first noted in 2008 and intensive efforts for breeding vultures by artificial incubation was taken up since 2010, double clutching since 2011 and chick swapping since 2014 as a result of which VCBC Pinjore hatched and fledged a whopping 300 plus vulture nestlings between 2010 to 2023.

The breeding season of vultures commenced from the month of September, just as it would in the wild. The established pairs in the colony aviaries were observed defending their nest ledges and remain perched together most of the time.

During the year 2022-23, all the three species attempted breeding at the centre. There were 26 pairs of White-rumped vultures, 31 pairs of Long-billed vultures and 5 pairs of Slender-billed vultures which laid only first clutch eggs and hatched and fledged nestlings on nests.

In the year 2022-23, emphasis was laid on breeding of Slender-billed vultures which are critically endangered and the centre housed only 52 Slender-billeds. A few eggs were also rescued due to parental abandonment hence a total of 7 WBV, 4 SBV and 11 LBV nestlings hatched successfully, both on nest and through artificial incubation by March 2023.

c. Financials

An APO of Rs. 5.71 crore was submitted to MoEF&CC through Haryana Forest Department. A total of Rs. 5.07 crores were sanctioned by MoEF&CC, Government of India from its Centrally Sponsored Scheme for Recovery Plan for endangered species. However, only a total of Rs. 2.50 crores were received by the Vulture Centre. The total expenditure was Rs. 326 Lakhs. So, there was a deficit of Rs. 76 Lakhs. It was also decided that the Govt of Haryana will provide funds at the earliest so that the Centre can plan its activities in a better way.

d. The team

The Chief Wildlife Warden, Haryana was the Project Leader of the Programme. Dr. Vibhu Prakash retired on 31st October 2022 after a 40 years tenure in BNHS and carrying out 22



years of Vulture Conservation in India. Ms. Nikita Prakash, Scientist 'C' was appointed the Centre Manager by BNHS in March 2023. Dr. Debasish Saikia Veterinarian till 31st December 2023, Ms. Taruna Patidar, Research Biologist till 31st January 2023, Mr. Lalit Sharma, Technical Assistant, Mr. Niranjana Dalei, Administrative Officer, Mr. Balakram Sharma, Administrative Assistant, Ms. Palak Thakur, Accounts Assistant till 31st March 2023 and Mr. Jaikishan Sharma, Supervisor. There were seven vulture keepers and one driver cum vulture keeper to assist in the smooth functioning of the centre.

This report covers the period from 1st April 2022 to 31st March 2023.

**Nikita Prakash,
Centre Manager
VCBC Pinjore**

2. History of the Rescue Centre

The Jatayu Conservation Breeding Centre is a joint project of the Bombay Natural History Society (BNHS) and the Haryana Forest Department. It is a collaborative initiative of a government agency and a Non-Governmental Organisation, to save the three species of vultures, the White-rumped, Long-billed and Slender-billed, from looming extinction.

The VCBC, earlier known as Vulture Care Centre, was established in September 2001 with the UK Government grant of the Darwin Initiative for the Survival of Species, to investigate the dramatic declines in India's *Gyps* species of vultures. The centre was inaugurated in the year 2003 by the British Minister for Nature, Mr. Elliot Morley.

Subsequent to the release of the South Asia Vulture Recovery Plan in February 2004, the centre was renamed Vulture Conservation Breeding Centre (VCBC) as conservation breeding became the main objective of the centre.

The centre was recognised as a rescue centre for vultures in the year 2007 by the Central Zoo Authority.

The centre is situated at the base of the Shivalik ranges of Himalayan foothills. It lies on the outskirts of the Bir Shikargaha Wildlife Sanctuary, 8 km from Pinjore, off the Chandigarh-Shimla highway. It spreads over 5 acres of Haryana Forest Department's land in village Jodhpur. The centre is ideally located away from human habitations, and yet is easily accessible from the main city so the day-to-day requirements of the centre can be easily organised.



3. Vision

To become a living example of saving critically endangered bird species from extinction with ex-situ conservation programme.



Mission

To release 100 pairs each, of the three species of vultures, in the next fifteen years, to establish and secure viable wild populations of resident *Gyps*, in an environment free of diclofenac and other poisons.

5. Objectives

To establish a founder population of 25 pairs of each of the three endangered vulture species viz. White-rumped vulture, Long-billed vulture and Slender-billed vulture.



To produce a population of at least 200 birds of each of the three species, to be reintroduced in the wild.

To rescue injured wild resident *Gyps* vultures and include them in the ongoing conservation breeding programme after recovery.

6. About us

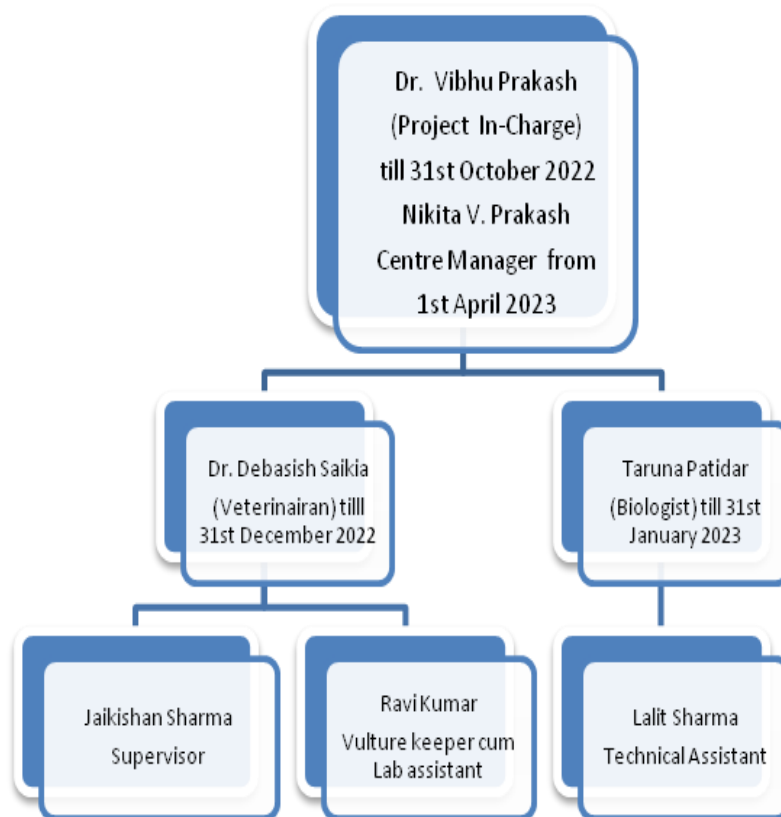
S.No.	Particulars	Information
Basic Information about the Rescue Centre		
1	Name of the Rescue Centre	Vulture Conservation Breeding Centre
2	Year of Establishment	2007
3	Address of the Rescue Centre	B-3, Forest Complex, Pinjore 134102, Haryana
4	State	Haryana
5	Telephone Number	+91 9896927001
6	Fax Number	NA
7	E-mail address	n.mathur@bnhs.org
8	Website	www.bnhs.org
9	Distance from nearest	Airport: approx. 30km from Chandigarh International Airport Railway Station: 15km from Kalka Railway Station

S.No.	Particulars	Information
		Bus Stand: 10km from Pinjore Bus Stand
10	Recognition Valid up to (Date)	5th May 2019
11	Area (in Hectares)	2.0234282
Management Personnel of the Rescue Centre		
12	Name with designation of the Officer in-charge	Vibhu Prakash, Ph. D. Principal Scientist/Deputy Director (till 31st October 2022) thereafter Ms. Nikita V. Prakash from 1st April 2023 onwards
	Name of the Veterinary Officer	Dr. Debasish Saikia, B. V. Sc. till 31st December 2022.
	Name of the Curator	Nikita V. Prakash
	Name of the Biologist	Taruna Patidar till 31st January 2023
	Name of the Compounder/ Lab Assistant	Ravi Kumar
Owner / Operator of the Rescue Centre		
13	*Name of the Operator	Chief Wildlife Warden, Haryana
14	Address of the Operator	Haryana Forest Department, C-18, Van Bhavan, Sector 6, Panchkula 134109, Haryana
15	Contact details/Phone number of Operator	0172-2561224
16	E-mail address of Operator	pccfwlhry@gmail.com



Vulture Conservation Breeding centre, Pinjore

7. Organizational Chart of the Rescue Centre



Slender-billed nestlings, most critically endangered vulture being reared in the nursery aviary at the centre

8. Human Resources deployment for management of Rescue Centre (Officer in-charge to Animal Keeper - Sanctioned posts, in-position and vacant posts) Human Resources of the Rescue Centre*

Sl.No.	Designation	No. of sanctioned Posts	Names of the incumbent
1.	Officer in-charge	1	Vibhu Prakash till 31st October 2023, thereafter Nikita V. Prakash from 1st April 2023 onwards
2.	Veterinarian	1	Debasish Saikia till 31st December 2022
3.	Curator	1	Nikita V. Prakash
4.	Biologist	1	Taruna Patidar till 31st January 2023
5.	Technical Assistant	1	Lalit Kumar
6.	Accounts Assistants	2	Balak Ram Sharma, Palak Thakur
7.	Administrative Assistant	1	Niranjan Dalei
8.	Supervisor	1	Jaikishan Sharma
9.	Vulture Attendants	6	Tek Singh, Ravi Kumar, Devidutt Sharma, Manohar Lal, Sukhdev, Ved Prakash,
10.	Driver cum vulture attendant	1	Rajnish
11.	Night watchman	1	Prakash Chand

*Please give above mentioned information in respect of all Rescue Centre personnel, from the Officer in-charge up to the Animal Keeper.

9. Capacity Building of Rescue Centre personnel

Sl.No.	Name and designation of the Rescue Centre personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
1	Ravi Kumar	Regional capacity enhancement workshop for Zoo Keepers of the Northern Region	3 days	National Zoological Park, New Delhi
2.	Ved Prakash	--Ditto--	--Ditto--	--Ditto--

10. Rescue Centre Advisory Committee

a. Date of constitution: 2nd May 2006

Members: The following are the members of the Governing Council

- I. Addl. Chief Secretary, Forest and Wildlife, Government of Haryana (Chairman)
- II. Principal Chief Conservator of Forests, HoFF, Haryana
- II. Principal Chief Conservator of Forests (WI) and Chief Wildlife Warden (Member Secretary), Van Bhawan, Plot no. C-18, Sector 6, Panchkula
- III. Addl. Director General (Wildlife), Govt. of India, Ministry of Environment, Forests & Climate Change, New Delhi.
- IV. The Member Secretary, MoEF&CC, Central Zoo Authority, B-1 Wing, 6th Floor, Pt. Deendayal Antyodaya Bhawan, CGO Complex, Lodhi Road, New Delhi-110003.
- V. The Director, Wildlife Institute of India, Chandrabani, Dehradun.
- VIII. Director, Bombay Natural History Society, Hornbill House, Shaheed Bhagat Singh Road, Mumbai.
- XII. Vice Chancellor, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, Haryana.
- XIII. Dr. Vibhu Prakash, Principal Scientist & Dy. Director, BNHS, Vulture Conservation Breeding Centre, B-3, Forest Complex, Pinjore, Haryana.

b. Dates on which Meetings held during the year: 14th Governing Council meeting was held on 11st April 2023.

11. Health Advisory Committee of the Rescue Centre

a. Date of constitution: Not formally constituted but since inception, 2004, the following committee supervises the health of birds

b. Members: Centre in-charge, Centre Veterinarian, Chief Veterinary Officer of Zoological Society of London (ZSL)

c. Dates on which Meetings held during the year: Annual health check 22-25th October 2022

12. Statement of income and expenditure of the Rescue Centre

A budget of Rs. 571.09.27 Lakhs for the Vulture Conservation Breeding and Reintroduction was submitted to MoEF&CC but only Rs. 250 Lakhs were received by the Vulture Centre, though the total amount sanctioned by the MoEF&CC was Rs. 507.97 Lakhs.

The centre could not carry out any advocacy or awareness work in the release zone as well as reintroduction zone of 100 km radius from the centre because of lack of funds. No cattle carcass sampling could be carried out to evaluate the habitat in the radius of 100 km from the centre.

13. Daily food Schedule of animals

Sl. No.	Species	Feed item	Quantity/vulture		Day of fasting
			Winter	Summer	
1.	White-rumped vulture	Goat meat	4kg/week	4kg/week	Fed twice a week on Monday and Friday
2.	Long-billed vulture	Goat meat	4kg/week	4kg/week	Fed Twice a week on Monday and Friday
3.	Slender-billed vulture	Goat meat	4kg/week	4kg/week	Fed twice a week on Monday and Friday



14. Vaccination Schedule of animals

Sl.No.	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity	Remarks
	-	-	-	-	No vaccination has been done till now although the centre would like to vaccinate its birds against avian influenza but permission to import the vaccines could not be obtained.

15. De-worming Schedule of animals

Sl.No.	Species	Drug used	Month
1.	White-rumped vulture	No de-worming is done but endoparasite load is monitored by routine faecal sample analysis. This is because the birds have to be reintroduced in the wild.	NA
2.	Long-billed vulture	Do	NA
3.	Slender-billed vulture	Do	NA

16. Disinfection Schedule

Sl.No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1.	White-rumped vulture	Incubator and brooder room, Nursery, holding, colony aviaries	Lime and F10	Once in 15 days
2.	Long-billed vulture	Incubator and brooder room, Nursery, holding, colony aviaries	Lime and F10	Once in 15 days
3	Slender-billed vulture	Incubator and brooder room, Nursery, holding, colony aviaries	Lime and F10	Once in 15 days



Scrubbing and disinfecting walls with lime



F10, a strong and safe disinfectant



Potable municipal water supply for



All perches are wound with coconut ropes

17. Health Check-up of employees for zoonotic diseases

Sl.No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1.	Mr. Jaikishan Sharma	Supervisor	No health check could be conducted due to lack of funding	NA
2.	Tek Singh	Vulture Attendant	--ditto-----	ditto
3.	Ravi Kumar	Vulture Attendant	--ditto-----	ditto
4.	Devidutt Sharma	Vulture Attendant	--ditto-----	ditto
5.	Manohar LaL	Vulture Attendant	--ditto-----	ditto
6.	Sukhdev	Vulture Attendant	--ditto-----	ditto
7.	Prakash Chand	Vulture Attendant	--ditto-----	ditto

18. Development works carried out in the Rescue Centre during the year

No new development work could be carried out during the financial year 2022-23

19. Important events and happenings at the Rescue Centre

a. Report on the visit of the Union Minister of Environment, Forest and Climate Change Honourable Mr. Bhupendra Yadav at the centre on 20th February 2023

Honourable Union Minister of Environment, Forest and Climate Change, Government of



India, Mr. Bhupendra Yadav, visited the centre along with Dr. S. P. Yadav, IFS, ADGF (Project Tiger) and Member Secretary NTCA, Mr. Sanjay Shukla, IFS, Member Secretary, Central Zoo Authority.

They were all welcomed at the centre by Mr. Jagdish Chandra, IFS, PCCF & HoFF (Haryana) with a bouquet. Mr. Jagdish Chandra then introduced the Honourable

Minister and the guests to Mr. Pankaj Goel, IFS, CWLW, Haryana, other senior officers of Haryana Forest Department, Dr. Vibhu Prakash, Former Dy. Director of BNHS and Ms. Nikita Prakash, Centre Manager, VCBC, Pinjore.

He was ushered to the CCTV room and was given a detailed presentation on Vulture Programme. The Honourable Minister was very impressed and excited when he saw behaviour footages of vultures.

He then came to the incubator and brooder room and participated in feeding the chicks and took great interest in the entire process of incubation.



He gave the name “Jeevan” to the chick of a Slender-billed Vulture hatched and being raised at the Vulture Conservation Breeding Centre, Pinjore. Jeevan is a very apt name for the chick, as this programme has given life to this critically endangered species which is threatened with possible extinction. The Minister despite his extremely busy schedule spent time understanding the entire breeding programme and helped the

scientists in feeding the chicks.



He was then given a guided tour of the centre and explained the functioning of various aviaries. (Fig.1)



Fig.1



Fig. 2

He was briefed about the Vulture Reintroduction Programme and was showed the free ranging vultures and the reintroduced vultures perched on banyan trees outside the centre. (Fig. 2)

The birds kept in the green aviary, meant for shifting to other centres, were also shown to the Minister. He very much liked the aviary and said that we should have more such aviaries for awareness generation.

He was made aware of the funding crunch faced by the centre and he said that he would look into it.



While departing from the centre, he was given a token of gratitude for his visit in the form of a jute bag with vulture literature. He was also presented with a vulture badge which he very proudly wore. He wished the best for the vulture programme and said he would come back at the time of

releasing vultures in the wild.

b. A report on Celebration of Azadi Ka Amrit Mahotsav at VCBC, Pinjore 1st to 7th August 2022

Introduction

On the advice of the Member Secretary, Central Zoo Authority, the Vulture Conservation Breeding Centre celebrated the Azadi Ka Amrit Mahotsav week from 1st to 7th August 2022 as a part of Central Zoo Authority, Ministry of Environment, Forest and Climate Change initiative to celebrate and commemorate 75 years of independence and the glorious history of its people, culture and achievements.

As part of this initiative, the Central Zoo Authority took up conservation awareness activities to highlight in-situ and ex-situ conservation stories of Indian fauna. It proposed a massive outreach campaign titled 'Conservation to co-existence: The people connect' to generate conservation awareness for 75 wild animal species through continued public engagement across 75 weeks in 75 zoos, starting from 12th March 2021 and concluding on August 15, 2022.

The Vulture Conservation Breeding Centre, Pinjore, Haryana, was identified as a Zoo in focus with Gyps Vulture spp, as the Species in focus, for the 73rd week of the celebrations from 1st to 7th August 2022.

The centre saw a great opportunity in celebrating the Azadi Ka Amrit Mahotsav by keeping the vultures and Vulture Centre in focus to raise awareness and profile of the Gyps vultures. The centre has initiated its release programme of vultures and it would require support from the villagers and all members of public to make the programme a success. So, with the aim of reaching out to people and sensitising them towards conservation and making them partners in the release programme, the centre thought of targeting the stakeholders like the local elected Government functionaries who can influence locals within their constituencies, village folks including the women who tend to cattle, the young people including teenagers who are very aware and sensitive towards their environment as part of the celebrations. These were the audience who would understand the importance of vulture conservation and would be willing to participate in the release programme of vultures by making sure vulture toxic drugs are not used in veterinary treatment and also would prevent any harm being done to released vultures if they happen to come in their areas.

Celebration of the 73rd Week of Azadi Ka Amrit Mahotsav at Vulture Conservation Breeding Centre, Pinjore from 1 to 7 August 2022

The Vulture Conservation Breeding Centre celebrated the week by raising awareness about the vultures and the Conservation Breeding Centre, Pinjore among the neighbouring schools, local elected bodies, villagers, cattle owners and frontline staff of Forest Department.

1st August 2022: Awareness programme on Vultures in schools surrounding the Vulture Centre 8:00 to 2:00pm

The Vulture awareness programmes were organised in three Government Senior Secondary



Schools near the centre. The schools were supportive and helped us facilitate the events. Over 50 students of class-11 were addressed in each school. They were explained about the vultures, their conservation and about the Vulture Conservation Breeding Centre with a power point presentation with a number of video clips. The hour and a half long programme in each school was well received. The students got very interested in vulture conservation and were very excited to see the videos of vulture behaviour. They appeared very concerned about the crash in vulture population and were eager to help us in any activity. The school teachers and Principals also sat through the presentation. The students had lots of queries which were addressed after the presentation.

They were informed of the drawing and quiz competitions on vulture conservation the next day. Awareness material like pamphlets, brochures on vultures, their role in environment, cause of mortality and the Vulture Centre were distributed to all. Overall, the programme created lot of interest in the students. Unfortunately, students of other classes could not attend the presentation as they were sitting for their first term exams.

2nd August 2022, Drawing Competition on Vultures

8:00 to 2:00pm

A drawing competition on the theme Vultures and Vulture conservation was held in the



three Government Senior Secondary Schools where the Vulture Awareness programmes were held. A total of 30 students each from all 3 schools participated in the drawing competition held the next day i.e. 2nd August in their school itself. All stationery like colour sketch pens, drawing sheets etc were provided by the Vulture Centre. Students were given an hour to complete the drawings. Five best drawings from each school, selected by the school authorities themselves were sent to vulture centre for final selection by the Chief Guest on 6th August for prize distribution. The students, though from rural and humble background were talented and good at drawing. They had understood the presentation of vultures given the previous day in the school and also the awareness material distributed. They could draw vultures showing different behaviours and doing different activities. Some of the drawings depicted how the vultures get exposed to diclofenac. The judges had a very tough time judging the best three and two for consolation prizes!!!

3rd August 2022, Quiz Competition on Vultures

10:30 to 12:30pm

A quiz competition was held on 3rd August 2022 in the Interpretation room of the Vulture Conservation Breeding Centre. Two students each were invited for the competition from the three



schools. The students were accompanied by at least one teacher from their schools. The three teams were named after the 3 critically endangered Gyps species of vultures i.e. The White-rumped vulture team was of school from village Chikan, the Long-billed vulture team was of the students were from school from village Dhatogra and the Slender-billed vulture team was from school from village Mallah.

There were four rounds. The first round was a rapid fire round, second was a multiple choice round, third was of one word answer round and the fourth was of detailed answer round. The quiz master was Mrs. Palak Thakur of the Vulture centre. The competition was highly engaging as the students came well prepared. The teams gave a tough competition to each other. The competition was so intense that there was a difference of just one mark between the winners of each position. This mirrored the effectiveness of our power-point presentation and the impact of the awareness campaign. The competition was followed by tea and snacks and tour of the centre on the request from the students and teachers.

Afternoon Session: Webinar: Know Your Species, Know Your Zoo by Vibhu Prakash, BNHS.

Hosted by CZA from 4 to 5 pm

A webinar on "Know your species, Know your Zoo" was organised by the CZA where Vibhu Prakash delivered a 40 minutes presentation on Vulture Conservation in India. He gave an overview of Vulture Conservation in India and explained the functioning of the Vulture Conservation Breeding Centre, Pinjore. It was received well and attracted some 200 viewers.

Thursday 4th August 2022, Awareness programme with local government functionaries around the centre on Vultures 11:00 to 1:00pm

An awareness programme was conducted for the local government functionaries of elected bodies at the Interpretation centre of Vulture Conservation Breeding Centre. A total of 11 Sarpanchs and 2 panchs representing 30 villages, surrounding the centre attended the event. To initiate them into the background of vulture conservation, a hindi version of the documentary titled 'vanishing vultures' was played followed by a film on husbandry and care of vultures at our centre. During an interactive session over tea and snacks, a lot of their questions were answered by Dr. Vibhu Prakash which satisfied their curiosity. They were very happy to see the centre and assured us of their support in creating awareness among the villagers. They were specifically requested to not to allow untrained people to treat their cattle and prevent the use of vulture toxic drugs in treating cattle. They were told

to be vigilant when the cattle are treated and not let the person treating the cattle give more than necessary dosage of drug to the cattle. Awareness material was distributed to the participants and were also given a guided tour of the centre.

5th August 2022, Awareness programme with the Cattle Owners and Farmers from neighbouring villages 10:30 to 12:30pm

The farmers and the cattle owners are the most important stake holders in vulture conservation. Their dead livestock provides food to vultures. It is important that they follow good husbandry practices in tending their cattle.



15-20 villagers, including men and women, from the neighbouring villages were invited to the centre for an awareness programme. The event was anchored by the local staff of the centre as they spoke the same dialect. This helped the villagers understand the vulture crises better and steps needed to be taken by them to prevent mortality in vultures. Towards the end of the meeting, they assured us of using safe alternatives for the treatment of their cattle.

They were taken on guided tour of the centre by the local staff of the centre after they were shown the film and given a power-point presentation. There was a good discussion while having tea and snacks on impact of loss of vultures to farming community.

**6th August 2022, Welcome of the Chief Guest and Prize distribution and closing ceremony
10:30 to 1:00pm**

The centre and the participants in the week-long celebration of Azadi Ka Amrit Mahotsav welcomed the Chief Guest Mr. M L Rajvanshi, IFS, Additional Principal Chief Conservator of



Forests and Mr. Shyam Sunder, Deputy Chief Wildlife Warden and Mr. Surjit Yadav, Wildlife Inspector, Haryana Forest and Wildlife Department. Their gracious presence highlighted the importance the Haryana Forest Department gives to conservation of vultures and also elevated the celebration of the Mahotsav. The centre was grateful to have their

full support on all days of the week. Mr. Rajvanshi, in spite of his busy schedule found time to attend the function and helped create awareness on importance of vultures in our nature. He went through the 15 selected paintings and selected the best five paintings for giving away the prizes. It was indeed a difficult decision to select the best of 5 as all the paintings were equally good.

Mr. Rajvanshi in his address spoke about the importance of celebrating the 75 years of our independence and lauded the efforts of CZA in creating awareness about the 75 years of independence through celebrations in various zoos. He praised the efforts of Vulture Conservation Breeding Centre in conservation of vultures throughout the country and also for creating awareness about conservation in the surrounding areas of the centre. He congratulated the schools and students who have won the prizes and all who participated in various competitions. Mr. Shyam Sunder expressed his great happiness about the celebration of Azadi Ka Amrit Mahotsav in Vulture Centre. He said that the Vulture Centre has brought Haryana on the world conservation map. Mr. Sandeep, Principal, Government Sr. Secondary School, Mallah said that he was very pleased to visit the centre and appreciated the efforts of the centre in celebrating the occasion. Prizes consisting of bird books, ceramic mugs with vulture messages, stationery boxes, pens were distributed. The event was declared closed thereafter.

Awareness materials like roll-up standees announcing the event, the Drawing and Quiz competitions, banners advertising the events, pamphlets and brochures educating vulture conservation were all designed and printed and installed and distributed at the venue of event. The event was a huge success and has encouraged us to organise more such awareness campaigns from time to time at different levels of audience.

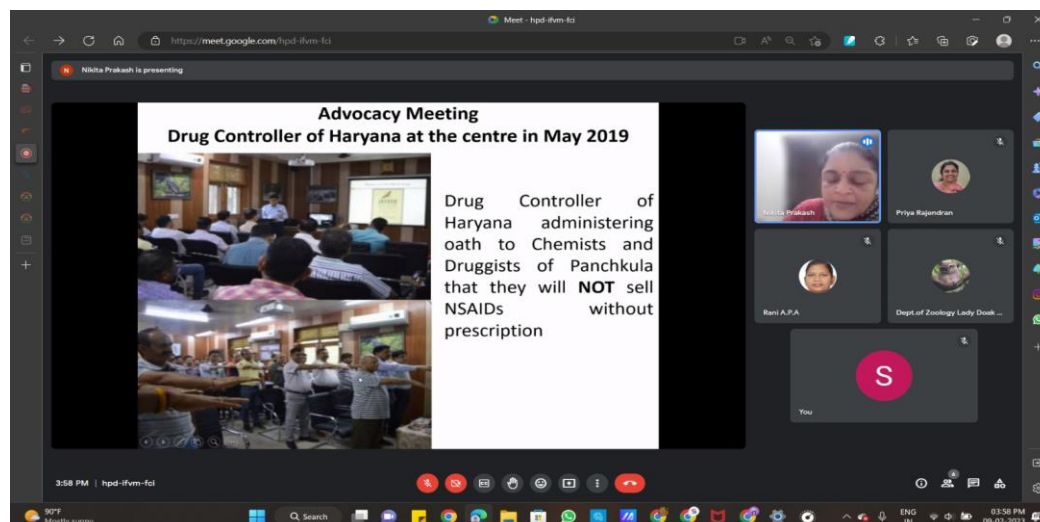
c. Awareness programmes for vulture conservation

Forest Department is the custodian of wildlife and is responsible for the implementation of Wildlife Protection Act 1972. The centre gave extensive information on vulture conservation to various sources like MOEF&CC, National Zoological Park, New Delhi, Forest Departments of Gujarat, Uttarakhand, Wildlife Institute of India, Odisha, Haryana The trainee officers were from various states and it was possible to create awareness among large number of officers.

The awareness programmes conducted during 2022-23 are summarized below:

Visitor's details between April 2022 to March 2023				
Sl. No.	Date	Mode	Organiser	Delivered by
29	16-12-2022	Physical, 7 persons	Animal keeping staff of National Zoological Park -New Delhi.	Nikita Prakash
30	22-12-2022	Physical, 46persons	College of forestry Navsari Agriculture University Gujarat	Nikita Prakash
31	26-12-2022	Physical, 55 persons	Forest training Academy, Haldwani Uttarakhand.	Lalit
32	29-12-2022	Physical, 68 persons	Forest training Academy, Haldwani Uttarakhand.	Nikita Prakash
33	27-01-2023	Physical, 6 persons	Wildlife Institute of India, Dehradun	Nikita Prakash
34	03-02-2023	Physical, 14 persons	Haryana forest guards from Gurgaon	Nikita Prakash
35	08-02-2023	Physical, 69 persons	Forest ranger's college, Odisha	Nikita Prakash

The Eco Club OIKOS Club, Department of Zoology & Research Centre, Lady Doak College, Madurai organised a guest lecture on 9th February 2023 on Vulture Conservation in India where Ms. Nikita Prakash gave a power-point presentation.



Similarly, an educational visit was organised by SMT. Aruna Asaf Ali Government Post Graduate College, Kalka on 21st March 2023, for academic and co-curricular development of students where 31 students of B.Sc. Medical students visited the centre and were sensitised on vulture conservation in India.

20. Seasonal special arrangements for upkeep of animals

I. Once again high quality shade cloth was laid on top of all aviaries to provide additional shade. This cloth brings down the temperature by 5°C.



II. Instead of only 2 water troughs filled in winter months, all 4 water troughs are filled during peak summer months of May, June, July and August to keep the birds cool and hydrated.

III. New nest cots, perches, stumps, sand are provided in all aviaries before the onset of breeding season for successful breeding.

21. Research work carried out and publications

Monitoring of released critically endangered White-rumped vultures in the wild

Mr. Kanwar Pal Singh Gujjar, Honourable Minister of Forests and Wildlife, Haryana released



six captive bred and two wild caught White-rumped Vultures in the Wild from the Jatayu Conservation Breeding Centre, Pinjore, on 8th October 2020 launching the Asia First 'Critically Endangered Gyps Vulture Reintroduction programme'. The Minister remotely

lifted the front netting of the release aviary and gave the captive WRV the option of going out and joining the free ranging WRV as part of soft release.

Six of the vultures have hatched in captivity and were 6-7 years and two were over ten years



old wild caught adults. These birds were deployed with Satellite Transmitters (Platform Transmitter Terminal) as back packs for tracking their movements and also had leg bands, and orange wing tags on both the wings for identification. The tags weighed just over 22 gm and would transmit locations of

vultures till at least three years. The satellite tags have solar cells with the solar panels on the top. The data is retrieved through Argos satellite and mobile phone towers and is received by the centre through internet.

a. Survival of Reintroduced Vultures in the Wild

The WRV are resident birds and monitoring survival of the released individuals was most important, so the satellite transmitters were deployed to get their locations and determine their welfare. Five of the birds are still alive and are within 50-100 km radius from the centre. None of the birds died of drug related causes.

One Vulture with wing tag no. L4 died of electric current near 'Mandana junction', Morni hills, Haryana, on 8th December 2020. The carcass was completely burnt and hence the transmitter was damaged. One of the Vultures with wing tag no. 170 was recovered weak at Rohru in Himachal Pradesh by the Himachal Forest Department but it died on 5 May 2021 due to weakness. The carcass and damaged transmitter were recovered.

Four vultures regularly come to the centre on the feeding days i.e., Monday and Friday since March 2021 including wing tag nos. L6, 180, 220 and L7 with the wild vultures as the food is provisioned to them. They go back with wild vultures.

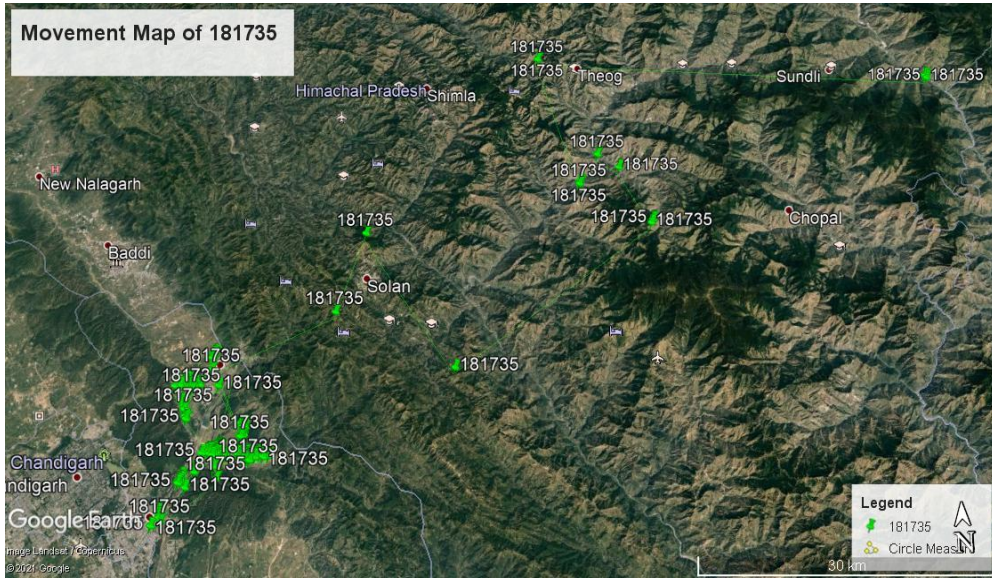
The vultures No. L6 and No. 180 paired and nested close to the centre between November 2021 and January 2022 on a Banyan Tree but their nest was disturbed by monkeys.

The Vulture No. 220 formed a pair with a free ranging vulture during winter of 2021-22 and made a nest but did not lay an egg.

One Vulture with wing tag no. L5 also is within 100 km but largely remains around Masumpur and Govind area beyond Raipur Rani in Haryana and close to Himachal Border. It sometimes goes toward Nahan.

b. Movement patterns of the Released Captive bred birds in wild

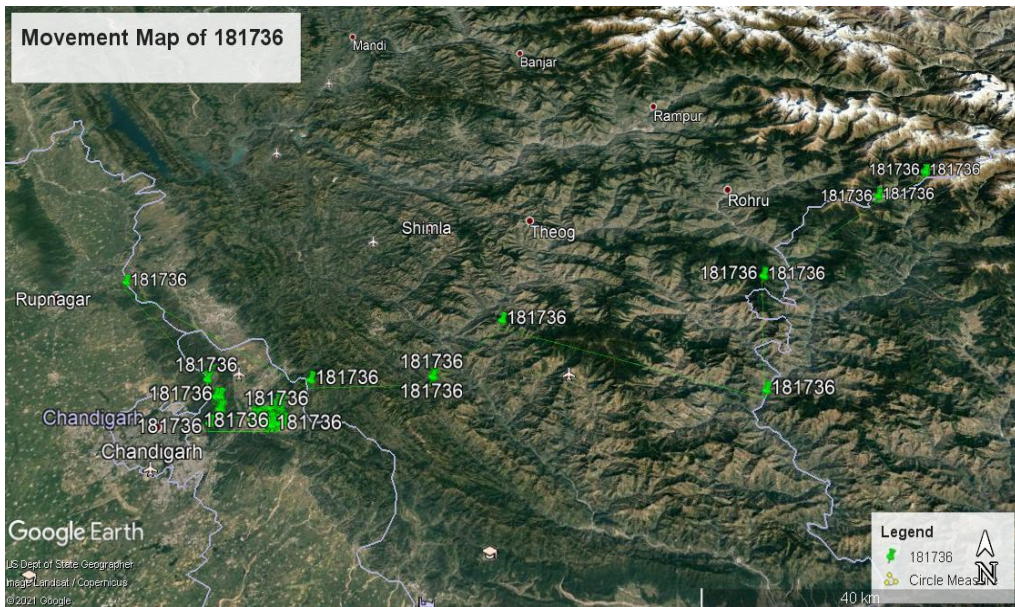
Most of the birds went within 50-100 km from the centre's soon after their release except



for two birds with Tag. No. 190 with a Satellite Transmitter 181735 and another bird with tag. No. 181736. The tag. No 181735 initially would fly short

distances and was within 10 km of the centre. It was also seen with a flock of Himalayans near carcass dumps. The movement increased in April 2021 and it flew over 90 km at a stretch and went above 12,840 ft above msl probably with the Himalayans. The last location was near HP-Uttarakhand border on dhundmund hill.

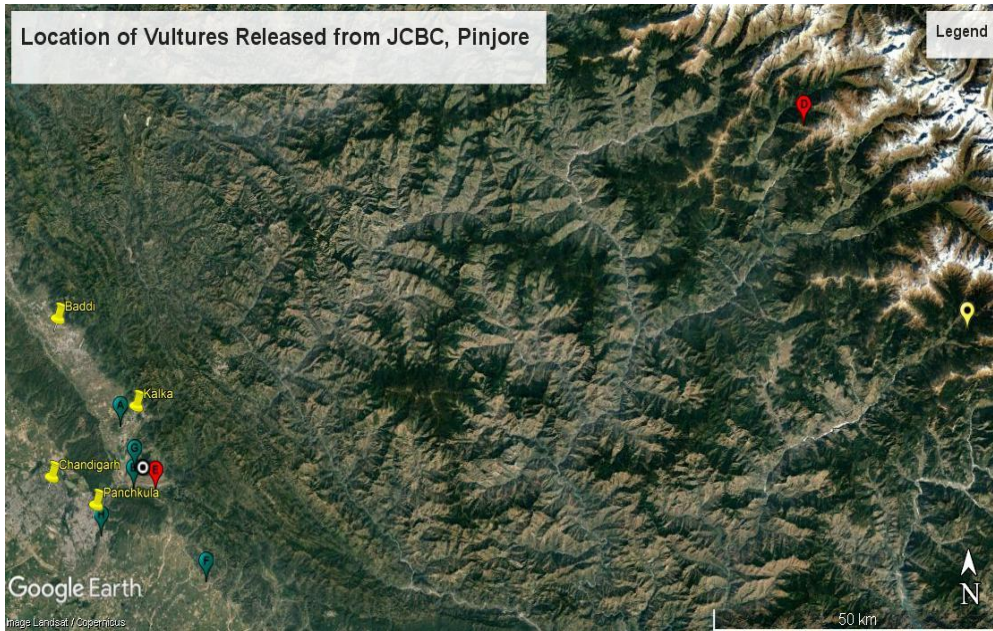
Similarly, the bird with tag no. 181736 would initially fly short



was within 10 km of the centre. It was also seen with a flock of Himalayans near carcass dumps. The movement increased in April 2021 and it flew over 60 km at a stretch on 26th June

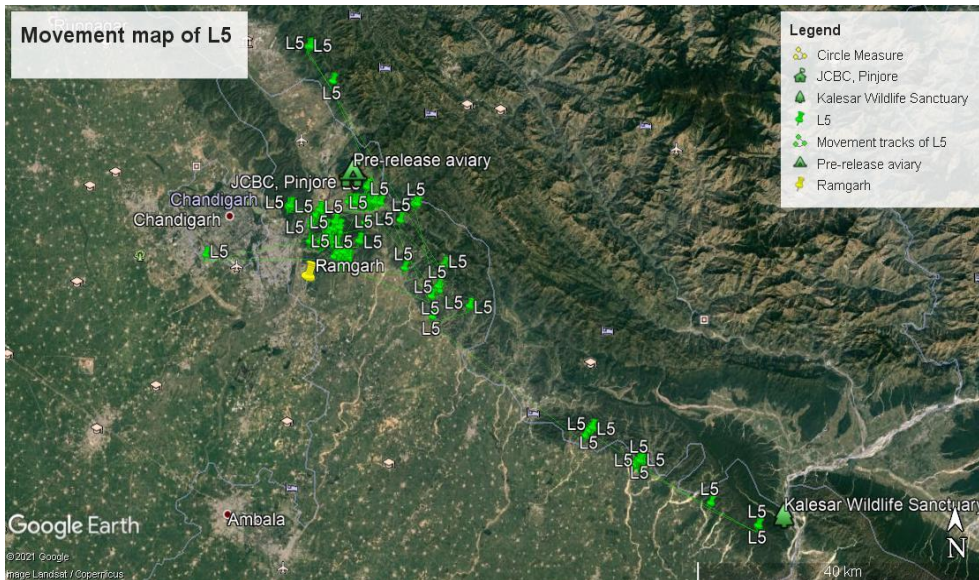
and went above 9540 ft above msl probably with the Himalayans. It was recovered in very weak condition and died subsequently.

Present Locations of released vultures.

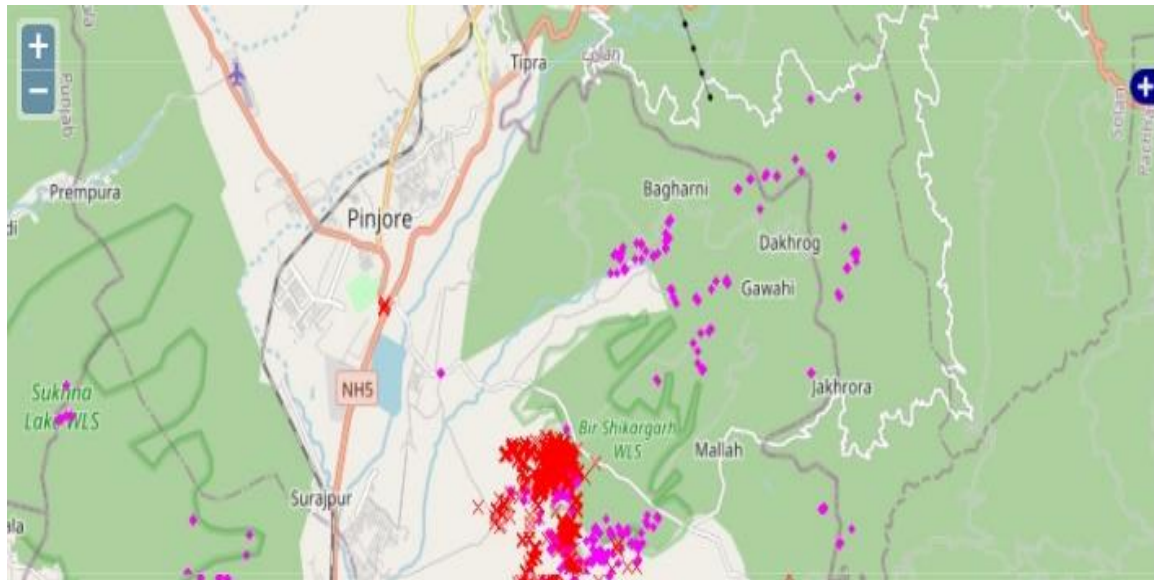


Presently four birds come regularly to the centre specially on the feeding days of Monday and Friday but remain in vicinity of 50-100 km from the Cent

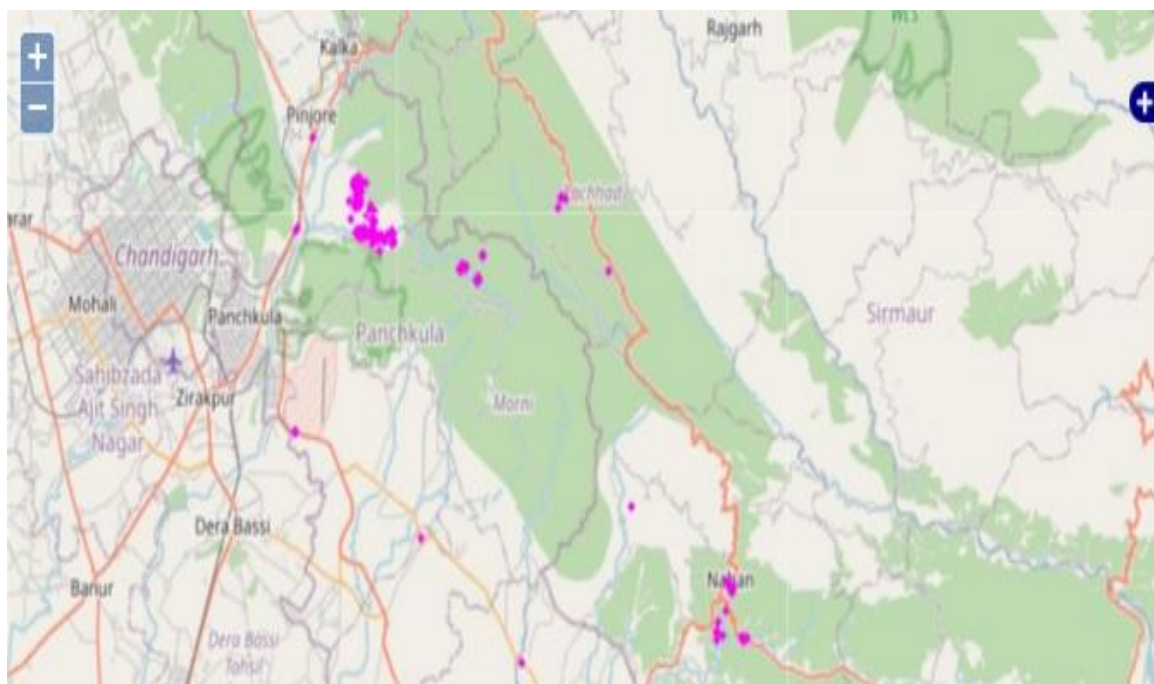
Movement pattern of L5



Movement patterns of 7188



Movement patterns of 7265



c. Nesting of a pair of Reintroduced Captive Bred Birds in Wild

One of the pairs of the released birds have started nesting and one released bird has paired with a wild bird.



The nestlings, when they fledge will be truly wild and will also signal the successful

reintroduction programme of the critically endangered Gyps species of vultures in the country. The pair are of Tag. No. 6 (Orange) and Tag. No. 180 which is 7188 (yellow). The pair attempted nesting last year also but was not successful. This year the pair is nesting and the nestling is about a month old.

Observations and Conclusions

The reintroduction of the critically endangered WRV was successful. Five out of eight birds have survived for two-year (over 67% survival). None of the mortalities have happened because of the veterinary NSAIDs. Environment appears to be safe and more birds could be released in the area.



White-rumped vulture nestling

22. Rescue and Rehabilitation of wild animals.

Sl. No.	Date of Rescue None	Species with number of animals rescued with their sex (M: F: U: T)	Received from	Date of Submission of Report to the CWLW / CZA	Action taken None	
	None	None	None	None	None	None

23. Annual Inventory of animals

Form – II

[See Rule 11(1)]

Part – A

Inventory Report for the Year: 1st April 2022-31st March 2023

Endangered Species*

S. No.	Animal Name	Scientific name	Opening Stock as on				Births			Acquisition			Disposal			Death			Closing Stock as on						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T			
1.	Long-billed vultures	Gyps indicus	21	23	162	206	0	0	3+11*	0	0	0	0	0	0	0	0	0	0	0	0	31	31	158	220
2.	White-rumped vultures	Gyps bengalensis	9	10	115	134	0	0	4+7*	0	0	0	0	0	0	0	0	0	0	0	0	26	26	93	145
3.	Slender-billed vultures	Gyps tenuirostris	7	7	38	52	0	0	0+4*	0	0	0	0	0	0	0	0	0	0	0	0	8	8	4	56
	Total		37	40	315	392	0	0	7+22*	0	0	0	0	0	0	0	0	0	0	0	65	65	291	421	

*Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

Where 3+11* 3 nestlings of April 2022 +11 nestlings of March 2023

4+7* 4 nestling of April 2022 + 7 nestlings of March 2023

0+4* 0 nestling of April 2022 + 4 nestlings of March 2023

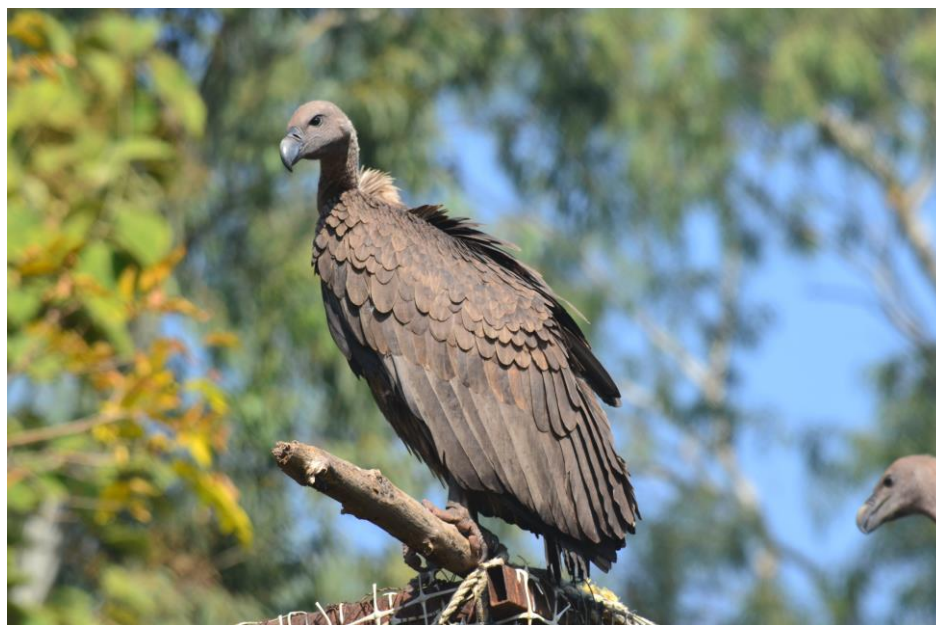
Total 29 7 nestlings of April 2022 + 22 nestlings of March 2023

24. Mortality of animals

Sl.No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post-mortem findings
1.	No mortality				

25. Compliance with conditions stipulated by the Central Zoo Authority

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions
1.	10.5(2)	Water sample to be tested	One month		The vultures are given potable municipal water supply for drinking.
2.	10.5(5)	Perches and shelves should be cleaned and disinfected regularly	Regular basis	Not pending as they are cleaned once every 15 days.	Done
3.	10.9(3)	Acquisition of rescued birds	Immediately as and when rescued	Not pending	No bird was rescued during the year
4.	10.5(3)	Shifting of birds from one centre to other	At the earliest	Not pending	No bird was shifted from one centre to other.



An adult White-rumped vulture in the wild