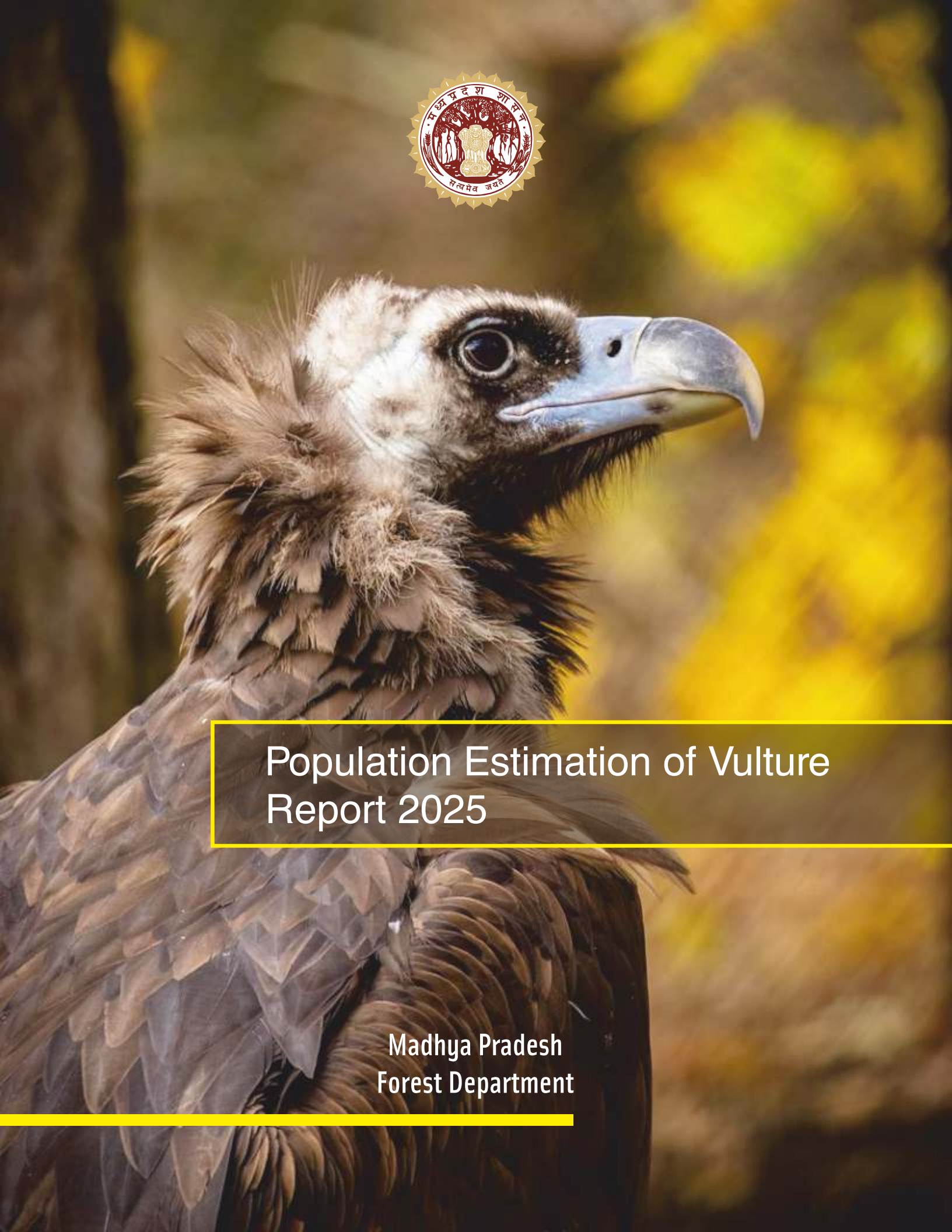


Population Estimation of Vulture Report 2025

Madhya Pradesh
Forest Department

Madhya Pradesh
Forest Department

Population Estimation of Vulture Report 2025

Van Vihar National Park & Zoo, Bhopal

MP TIGER FOUNDATION SOCIETY
रक्षति व्याघ्र: स: प्रकृतिं

Aseem shrivastava (I.F.S.)
Principal Chief Conservator of Forests (HoFF)
Madhya Pradesh Forest Department

Foreword

Vultures play a vital role in maintaining ecological balance by functioning as nature's most efficient scavengers. Their decline over the past decades has been a cause of serious concern across the country, including Madhya Pradesh. In light of this, the Forest Department has made sustained efforts to monitor and conserve these critical avian species.

Population Estimation of Vultures - 2025 is a result of our continued commitment to evidence-based conservation and long-term ecological monitoring. This report not only presents current population figures but also provides important insights into species trends, regional distributions, nesting records, and seasonal variations across Madhya Pradesh. The data highlights both the successes of our conservation strategies and areas that require renewed focus and action.

I commend all field officers, frontline staff, and collaborators who undertook this massive survey with dedication and scientific rigor. Their efforts have contributed to one of the most comprehensive vulture population assessments conducted in India.

This report will serve as a vital tool in planning targeted conservation interventions and guiding habitat restoration across vulnerable landscapes. I am confident that this initiative will further reinforce Madhya Pradesh's standing as a leader in wildlife conservation.

Aseem shrivastava (I.F.S.)
Principal Chief Conservator of Forests (HoFF)
Madhya Pradesh Forest Department

Subharanjan Sen (I.F.S.)
Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden
Madhya Pradesh Forest Department

Preface

The vulture is a keystone species whose presence signifies a healthy and functioning ecosystem. Madhya Pradesh, with its rich forest landscapes and diverse wildlife, has historically served as a stronghold for several vulture species. However, the drastic decline witnessed in recent decades underscored the need for focused conservation action.

This report, Population Estimation of Vultures - 2025, reflects our systematic approach to wildlife monitoring and our commitment to the recovery of endangered species. The comprehensive data gathered from all forest circles during both winter and summer seasons provides an accurate picture of the current vulture status in the state.

Encouragingly, the survey findings show a steady increase in vulture populations, especially of Long-billed, White-rumped, and Egyptian Vultures. The increase in nesting records also signals a possible recovery of breeding populations in key habitats. However, the near absence of vultures in some regions and the continued low numbers of critically endangered species like the Red-headed Vulture remind us that there is much work yet to be done.

I extend my sincere appreciation to the field staff, researchers, and officers who contributed to this important exercise. Their dedication ensures that management decisions are guided by robust science and field realities.

We hope this report becomes a reference document for future conservation efforts and policy-making aimed at securing the future of vultures in Madhya Pradesh and beyond.

Subharanjan Sen (I.F.S.)
Principal Chief Conservator of Forests (WL)
& Chief Wildlife Warden
Madhya Pradesh Forest Department

Vijay Kumar (I.F.S.)
Director Van Vihar National Park & Zoo

Acknowledgement

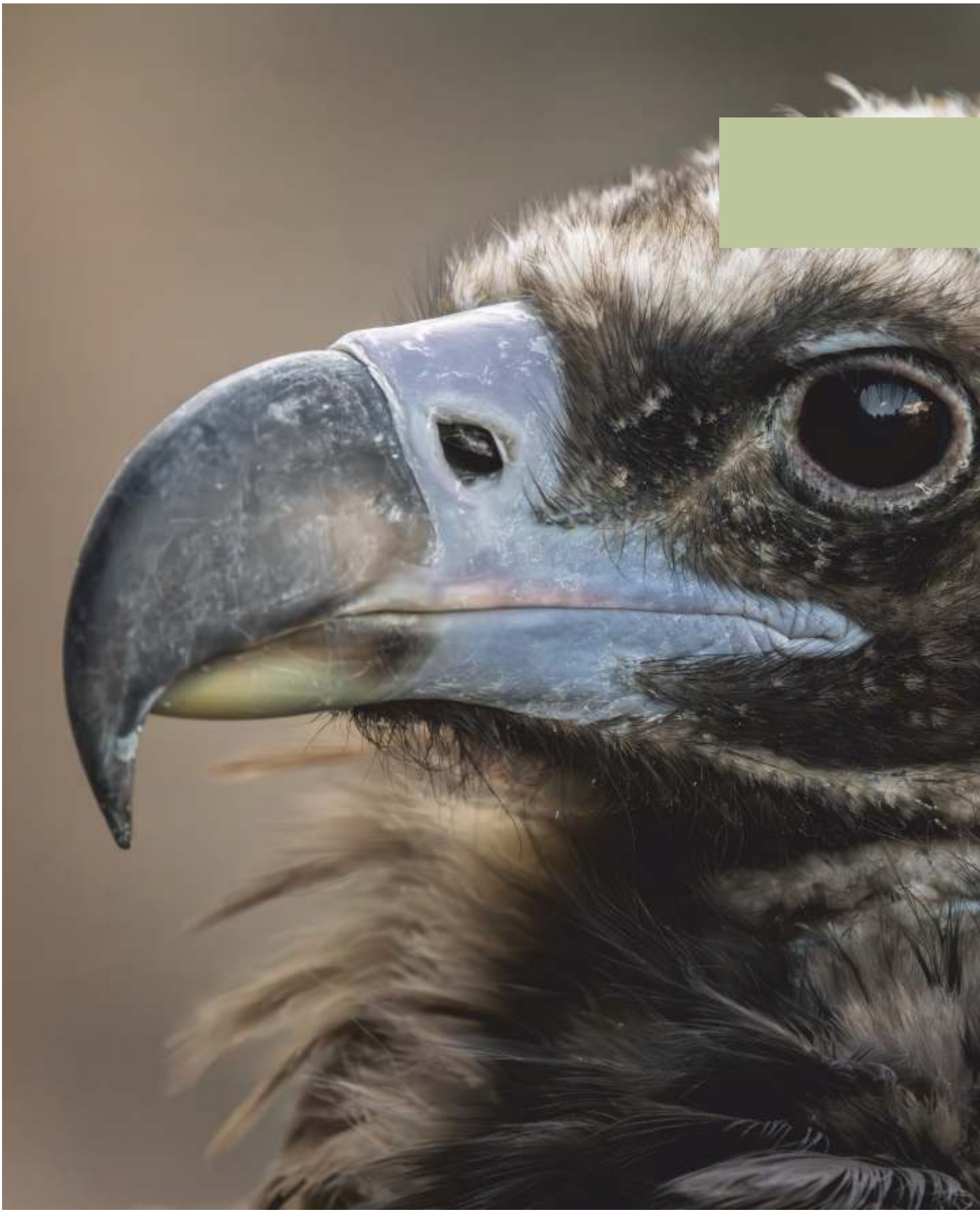
We express our sincere gratitude to all the forest staff across Madhya Pradesh whose tireless efforts made the Population Estimation of Vulture 2025 a comprehensive and successful exercise. Special thanks are due to the Nodal Officers of all forest circles, Divisional Forest Officers (DFOs), Sub-Divisional Officers (SDOs), Range Officers, and the dedicated frontline staff who played a crucial role in planning, coordination, data collection, and reporting during this state-wide exercise.

We are deeply thankful to the non-governmental organizations that have supported vulture conservation in Madhya Pradesh over the years.

We would also like to extend our heartfelt appreciation to the Master Trainers who conducted rigorous training sessions and provided field mentorship to survey teams across the state. Their commitment and expertise have been invaluable in ensuring the scientific integrity and standardized execution of the survey. We gratefully acknowledge the contributions of Ajinkya Deshmukh, Animesh Chavan, Dilsher Khan, DP Shrivastava, Mohandas Nagwani, Mohd. Khalique, Pramit Agarwal, Sangeeta Kewat, Sangeeta Rajgir, Tejas Karmarkar, Vijay B. Nandwanshi, Vikas Yadav.

Lastly, we acknowledge and thank all the volunteers who participated in the survey across various landscapes, often under challenging field conditions. Their dedication and enthusiasm reflect the collective commitment of society towards vulture conservation in India.

Vijay Kumar (I.F.S.)
Director Van Vihar National Park & Zoo



Content

Species of Vulture Recorded in Madhya Pradesh

Long-billed Vulture

White-rumped Vulture

Egyptian Vulture

Red-headed Vulture

Himalayan Griffon

Eurasian Griffon

Cinereous Vulture

Species of Vulture Recorded in Madhya Pradesh

S. No.	Local Name(s)	English Name(s)	Abbreviation	Scientific Name	Status
1	Desi Giddh, Bharatiya Giddh, Lambi Chonch Wala Giddh	Long-billed Vulture	LBV	Gyps indicus	Resident
2	Safed Peeth Giddh	White-rumped Vulture, White-backed Vulture	WRV	Gyps bengalensis	Resident
3	Safed Giddh, Egyptian Vulture, Misri Giddh	Egyptian Vulture	EV	Neophron percnopterus	Resident/ Migrant
4	Lal Sir Wala Giddh, Rajgiddh	Red-headed Vulture	RHV	Sacrogyps calvus	Resident
5	Himalayan Griffon	Himalayan Griffon	HG	Gyps himalyensis	Migrant
6	Eurasian Griffon	Eurasian Griffon	EG	Gyps fulvus	Migrant
7	Kalagiddh, Cinereous Vulture	Cinereous Vulture	CV	Aegypius monachus	Migrant

Abstract

Vulture estimation report 2025 presents the findings of the most recent statewide survey of vultures in Madhya Pradesh, conducted in both winter and summer seasons. It reveals encouraging trends in vulture population recovery while also identifying key challenges and conservation priorities.

A total of 12,710 vultures were recorded during the winter 2025 count, marking a significant increase from the 6,999 vultures recorded in 2016 a growth of over 82% in nine years. The summer 2025 count recorded 9,509 vultures, focusing on resident species only. These results highlight Madhya Pradesh as one of the most important vulture habitats in India, with several Protected Areas and forest divisions supporting substantial populations. Seven of the nine vulture species found in India were recorded during the survey, including Long-billed Vulture (LBV) the most abundant, with 6,904 individuals in winter 2025. Egyptian Vulture (EV) significant rise to 2,984 individuals. White-rumped Vulture (WRV) population grew to 2,236. Others include the Red-headed Vulture (RHV) 132 individuals, Himalayan Griffon (HG) 130 individuals, Eurasian Griffon (EG) 194 individuals, and Cinereous Vulture (CV) 76 individuals. Notably, the Long-billed Vulture also had the highest nesting count (1,521), indicating a stable and breeding population. However, Red-headed Vultures, with only 9 nests and 132 individuals, remain critically low and require focused conservation intervention. Among Protected Areas, Veerangana Durgavati Tiger reserve (817), Panna Tiger reserve (691), and Ratapani Tiger reserve (549) supported the largest vulture populations. Betul and Khandwa circles recorded no vultures, suggesting the need for targeted restoration and monitoring in these regions. The report also highlights the role of habitat types, with vultures being most frequently recorded near cliffs, nesting trees, water bodies, and feeding sites. The species distribution varied seasonally, reflecting migratory behaviors of certain vultures like the Himalayan and Eurasian Griffons. This report serves as a vital resource for understanding vulture population dynamics in Madhya Pradesh and reinforces the urgency of continued monitoring, habitat protection, community engagement, and regulation of veterinary drugs harmful to vultures. It underscores the progress made in vulture conservation, while also charting a clear path forward for addressing the challenges that remain.

Table 1. Vulture Population Winter and Summer 2025

Circle Name	Winter Count 2025	Summer Count 2025
Betul	0	0
Khandwa	0	0
Balaghat	16	0
Indore	31	20
Chhindwara	86	141
Narmadapuram	202	253
Shivpuri	353	197
Seoni	359	73
Gwalior	665	574
Jabalpur	700	711
Shahdol	973	673
Sagar	1338	1168
Ujjain	1624	927
Rewa	1927	1752
Chhatarpur	2025	1841
Bhopal	2411	1179
Total	**12710**	**9509**

Did you know?

- Vultures are obligate scavengers and do not ever kill for food. They only eat dead animals
- They soar in the sky over thermals throughout the day in search of food. They can cover up to 100 km in a single day. Their long and broad wings easily carry the heavy bodies along the wind drift.
- Once vultures spot food, they circle above the area to communicate with other vultures flying around, which then congregate to feed.
- A group of feeding vultures is called a "wake" and can finish off a large cattle carcass within a few hours.
- Vultures are large birds that can eat as much as 50% of their body weight per meal. That is as much as an average human weighing 60 kg eating 30 kg food for lunch!!!!
- Vultures store food in a skin pouch near their throat, called a crop, and can go without food for several days.
- Vultures are long-living birds and can live up to 50-60 years, but are also slow-breeding birds and can lay only one egg per year after an age of 5-6 years.

Chapter 1
Introduction

1.1 Importance of vultures and the background of vulture decline

Vultures play a critical ecological role as nature's most efficient scavengers. By feeding on the carcasses of large herbivores before decomposition sets in, they help prevent the spread of disease-causing pathogens in the environment. Their rapid and thorough consumption of carrion reduces the chances of contamination of water sources and limits the spread of infectious diseases, including those transmissible to humans and domestic animals.

Vultures are social birds and often thrive in close association with human settlements, especially in South Asia. In India, cultural and religious practices have historically supported healthy vulture populations.

The first signs of a major vulture population decline in India were observed during the 1990s. Dr Vibhu Prakash of the Bombay Natural History Society (BNHS), who had been monitoring vulture populations in Keoladeo National Park, reported a sharp decrease in numbers. As the decline intensified, it drew attention from the global scientific community, prompting urgent efforts to identify the cause.

The investigation faced several challenges. Vultures could not legally be euthanized for research in India, and the availability of fresh vulture carcasses was extremely limited. This difficulty was compounded by the country's high summer temperatures, which often exceed 40 degrees Celsius before the monsoon, accelerating the decomposition process and complicating post-mortem analysis.

Despite these constraints, researchers persevered. Professor Andrew Cunningham of the Zoological Society of London ruled out common causes of mortality such as pesticide poisoning, industrial pollutants, and infectious diseases. He suspected the involvement of a previously unidentified toxin, marking the beginning of a new chapter in understanding the catastrophic vulture decline in the Indian subcontinent.

After extensive investigation into possible viral and environmental causes, the primary factor behind the dramatic decline in vulture populations was identified in 2003 by Dr Lindsay Oaks and his team at the Peregrine Fund. Their research pinpointed diclofenac, a non-steroidal anti-inflammatory drug (NSAID) commonly administered to livestock, as the cause of vulture mortality.

Diclofenac was introduced for veterinary use in India during the early 1990s and became widely used for treating symptoms such as inflammation, fever, and pain in cattle and other livestock. However, the drug is extremely toxic to vultures. When vultures feed on the carcasses of animals that were treated with diclofenac within 72 hours before death, they are exposed to lethal doses of the drug, which leads to acute kidney failure and death.

A mathematical model published by Green et al. (2004) demonstrated that even if only one percent of cattle carcasses in the environment were contaminated with diclofenac, it would be sufficient to cause the steep population declines observed across India. Supporting thisfinding, a national-level study conducted by Schultz et al. (2006) found that approximately 10 percent of cattle carcasses collected across various regions contained detectable levels of diclofenac in liver tissue samples. These findings provided a scientific breakthrough and marked a critical turning point in understanding and addressing the vulture crisis in South Asia.

1.2 Conservation status of vultures

Three species of vultures Long-billed Vulture (LBV), White-rumped Vulture (WRV), and Red- headed Vulture (RHV) were critically endangered according to the International Union for Conservation of Nature and Natural Resources (IUCN) Red Data Book (IUCN, 2017). Egyptian Vulture (EV) was listed as endangered, while the Himalayan Griffon (HG) and Cinereous Vulture (CV) were listed as near-threatened species. The Eurasian Griffon (EG) was listed as a species of Least Concern. The LBV and WBV were also in the Schedule-I of Indian Wildlife Protection Act, 1972. This conservation status puts these species of vultures in the highest category of endangerment, like the Royal Bengal Tiger, Asiatic Elephant, and Indian One-horned Rhinoceros.

1.3 Vulture species in India

Nine species of vultures are found in India, seven of which have been recorded from Madhya Pradesh (M.P). These species include four Gyps species of vultures: White-rumped Vulture (WBV) Gyps bengalensis, Long-billed vulture (LBV) Gyps indicus, Himalayan Griffon (HG) Gyps himalayensis, and Eurasian Griffon (EG) Gyps fulvus. Of these, WBV and LBV are resident, while HG and EG are wintering Gyps species. The other species are monotypic, of which the Red-headed Vulture (RHV, Sarcogyps calvus) and Egyptian Vulture (EGV, Neophron percnopterus) are resident.

1.4 Estimation of Vulture Population in Madhya Pradesh though the years

The first systematic vulture population estimation in Madhya Pradesh was conducted in 2016 during both summer and winter seasons, through a collaborative effort between the Madhya Pradesh Forest Department and the Indian Institute of Forest Management (IIFM). The IIFM report recorded 6,999 vultures during the winter and 7,057 vultures in the summer season. The combined analysis estimated an average of 6,268 adult and 761 juvenile vultures across the state.

The second vulture count was conducted in 2019, covering 885 nesting sites across 65 forest divisions and 8 Protected Areas. The survey recorded a total of 8,397 vultures belonging to seven species. The 2019 results indicated a notable increase in the vulture population compared to 2016. In 2021, only the winter count was conducted, and 9,446 vultures were recorded on 7th February 2021.

For the 2024 count, the method was revised to include two seasonal counts (February and April). The winter 2024 count recorded 10,845 vultures. The 2025 survey followed the same methodology used in 2024, with a total of 12,710 vultures recorded across the state.

Chapter 2
Survey Area

The vulture count was conducted across the state of Madhya Pradesh, located in central India. The state, known for its rich biodiversity and extensive forest cover, provides a critical habitat for several species, including some of them are critically endangered.

The survey covered all 16-forest circle, covering 63 forest divisions and included 10 Protected Areas (PAs), ensuring comprehensive geographical representation. These protected areas include sanctuaries national parks and Tiger reserve known to support nesting and roosting sites of various vulture species

Madhya Pradesh has diverse topography ranging from hills and plateaus to riverine forests supports a variety of habitats suitable for different vulture species. This widespread coverage allowed the estimation to reflect actual population trends, distribution patterns, and habitat preferences of vultures at a landscape level.

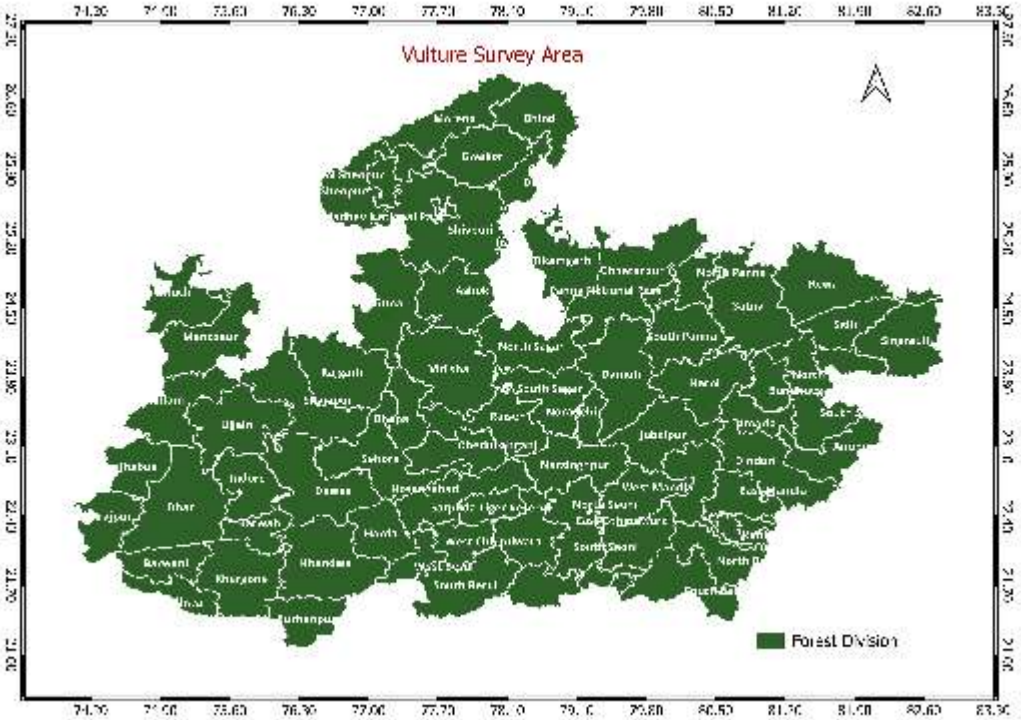


Fig. 1 Vulture Survey Area.

Chapter 3
Methodology

To estimate the vulture population in Madhya Pradesh, Point count method was employed at identified prospective vulture sites. This technique, previously utilized during the winter count in February as well as for summer count This approach is part of the comprehensive state-level survey for the period of 2025 in Madhya Pradesh, aimed at monitoring and evaluating the vulture population across the state.

Nesting Site

Roosting Site

3.1 Identification of Prospective Sites

The initial phase of this extensive survey involved the meticulous identification of potential vulture sites throughout Madhya Pradesh. This identification process involves previous studies and both empirical evidence and anecdotal reports collected from extensive

As a result, a significant number of potential sites were identified in the state. These sites fall under 16 forest circles, 63 forest divisions and 10 protected areas. This broad and systematic identification of sites ensures a inclusive coverage and assessment of the vulture population within the state, providing valuable insights for conservation efforts.

3.1 Capacity building

Following the identification of prospective sites for vulture population estimation, a crucial phase of capacity building was initiated for staff involved in the survey, encompassing Nodal Officers, Divisional Forest Officers (DFOs), Sub-Divisional Officers (SDOs), Range Officers, frontline staff and data entry operators across all 16 circles, 63 divisions and 10 protected areas. This stage was focused on locations known to host significant populations of vultures, emphasizing the importance of accurate data collection and species identification in these areas.

Training of Trainers

The capacity-building efforts included comprehensive training programs designed to enhance the skills of the participants in several key areas. These areas included the identification of different vulture species, a critical skill given the diversity of vulture species in the region and the importance of species-specific conservation strategies. Additionally, the training covered effective methods for data collection and documentation, ensuring that the information gathered during the survey would be both accurate and systematically recorded.

To support these training initiatives, a specialized vulture identification guidebook was prepared. This guidebook serves as an essential resource for field staff, offering detailed information on the characteristics and identification markers of various vulture species. The guidebook was distributed across all divisions, reaching ground- level staff throughout Madhya Pradesh. This distribution aimed to equip all personnel involved in the estimation work with the knowledge and tools necessary for conducting the survey accurately and efficiently, thereby enhancing the overall quality and reliability of the data collected on the vulture population.

3.3 Field Survey and Data Collection

The observations were first recorded in a field in a easy and well-designed data sheets (Praprat-I) and then entered into the Google Form. The hard copy was also filled and submitted by all divisions and protected areas separately, to the coordinating of the entire exercise. The collated data were downloaded and analyzed by the dedicated team of biologist and data entry operators under the guidance of Director, Van Vihar.

The total number of vultures was calculated according to the forest division or protected area. The numbers of vultures recorded were categorized as per their record site. such as forest land, revenue land, on monuments, cliffs, trees, feeding sites, Nesting sites, water bodies etc. Population of vultures were calculated from the available data. Following the compilation of survey data, GPS information was utilized to generate GIS-based maps, illustrating the spatial distribution of vulture species across different divisions as well as species-wise.

Chapter 4
Results

4.1 Species diversity

Total Seven species of vultures recorded from the Madhya Pradesh in this survey.

Species:

1. Long-billed Vulture
2. White-rumped Vulture
3. Egyptian Vulture
4. Red-headed Vulture
5. Himalayan Griffon
6. Eurasian Griffon
7. Cinereous Vulture

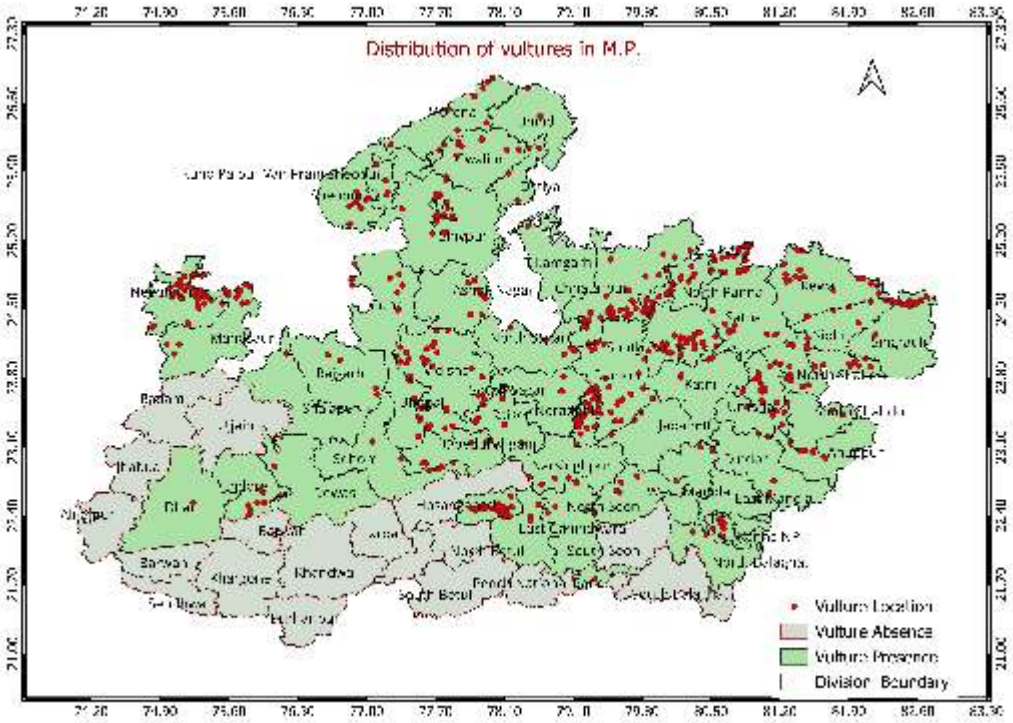
4.2 Status of vultures

Of the seven vulture species recorded during the survey, four species viz. Long-billed Vulture (LBV), White-rumped Vulture (WRV), and Red-headed Vulture (RHV)—were identified as resident species. The Egyptian Vulture (EV) exhibited both resident and wintering populations, both of which were documented in the survey. The Himalayan Griffon (HG), Eurasian Griffon (EG), and Cinereous Vulture (CV) were recorded as wintering species during the survey period.

4.3 Estimated vulture population in the state

A total of 12710 vultures were enumerated in the month of February, 2025.

Fig. 2 Distribution of Vulture in Madhya Pradesh



Long-billed Vulture
Gyps indicus

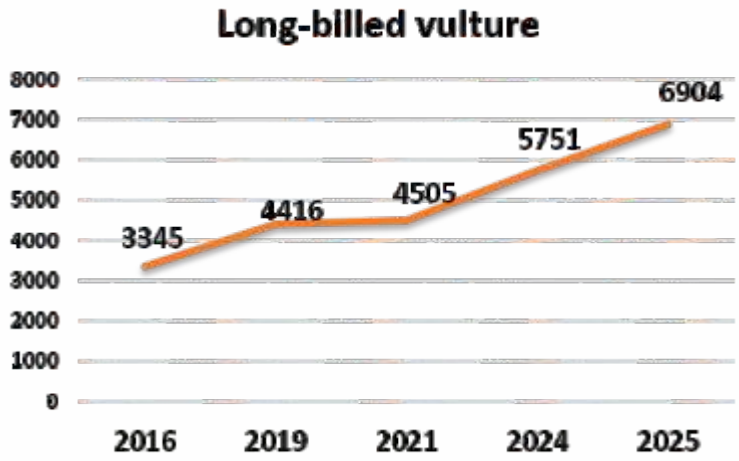
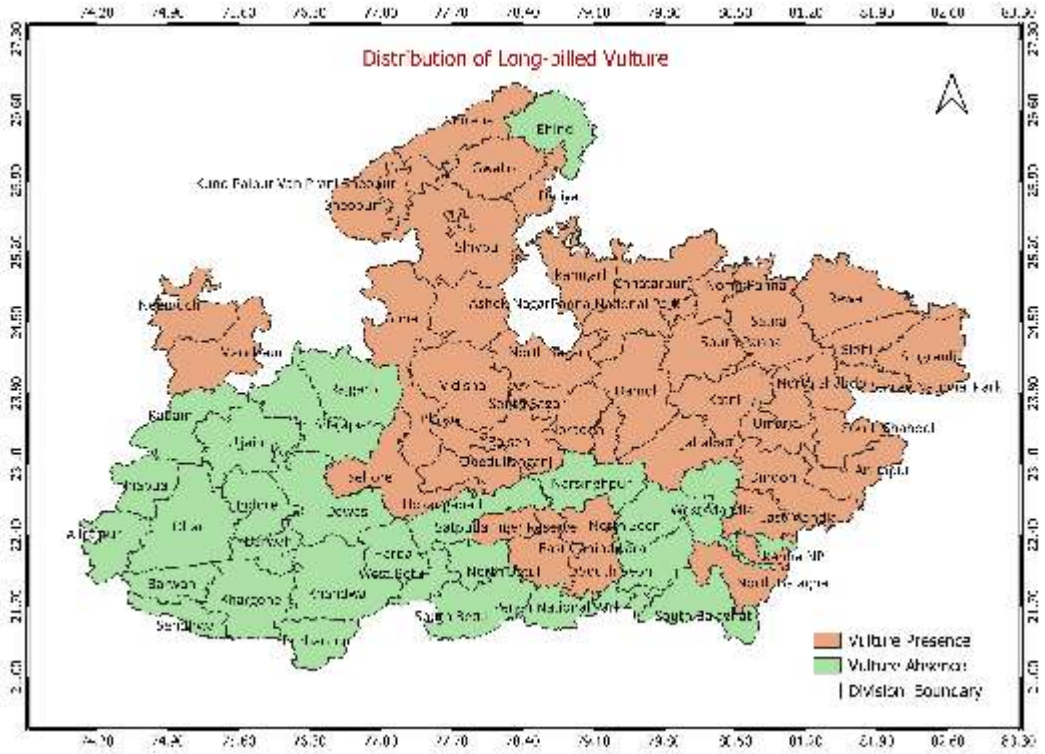


Fig. 3 Long-billed Vulture
Gyps indicus

Long-billed Vulture population has shown a consistent increase over 10 years, rising from 3,345 individuals in 2016 to 6,904 in 2025. This species remains the most abundant vulture across the surveyed areas, reflecting successful conservation and monitoring efforts.

Fig. 4 Distribution of Long-billed Vulture



White-rumped Vulture, White-backed Vulture
Gyps bengalensis

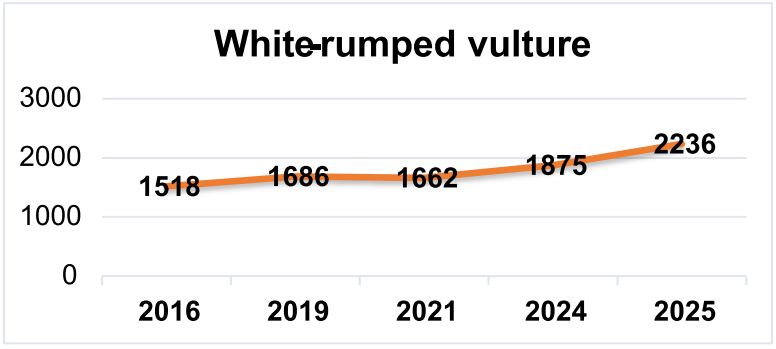
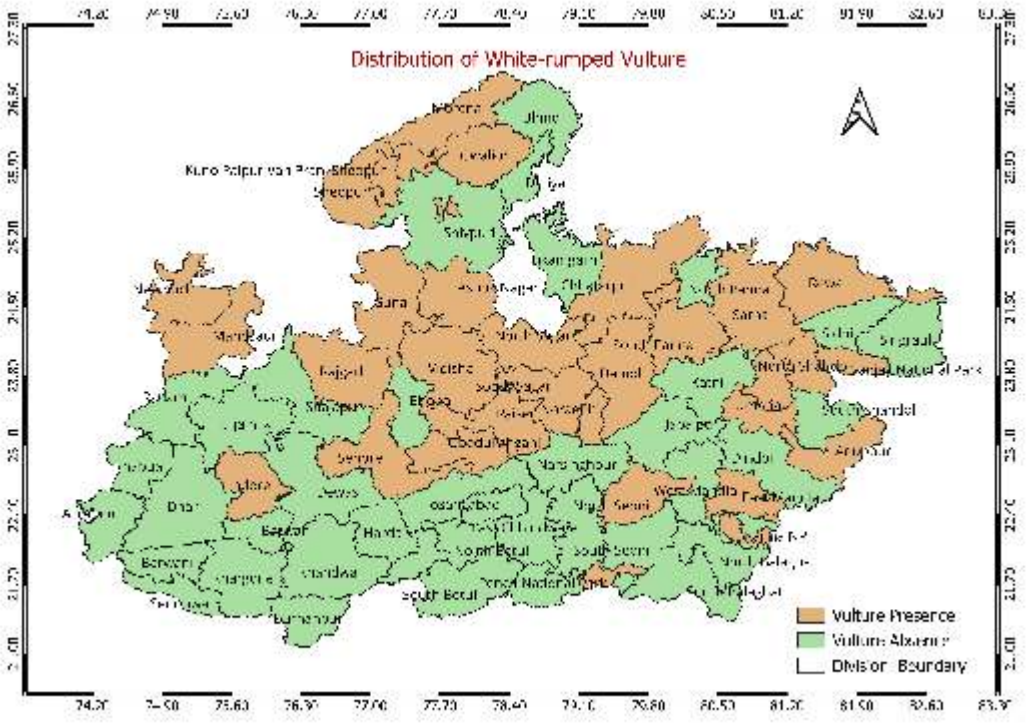


Fig. 5 White-rumped Vulture (*Gyps bengalensis*)

White-rumped Vulture population also demonstrated steady growth over the years, rising from 1,518 in 2016 to 2,236 in 2025.

Fig. 6 Distribution of White-rumped Vulture



Egyptian Vulture
Neophron percnopterus

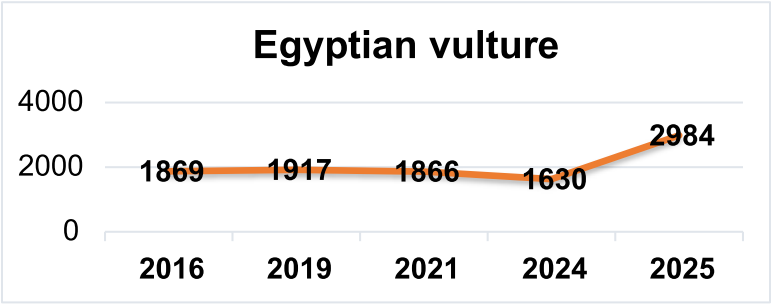
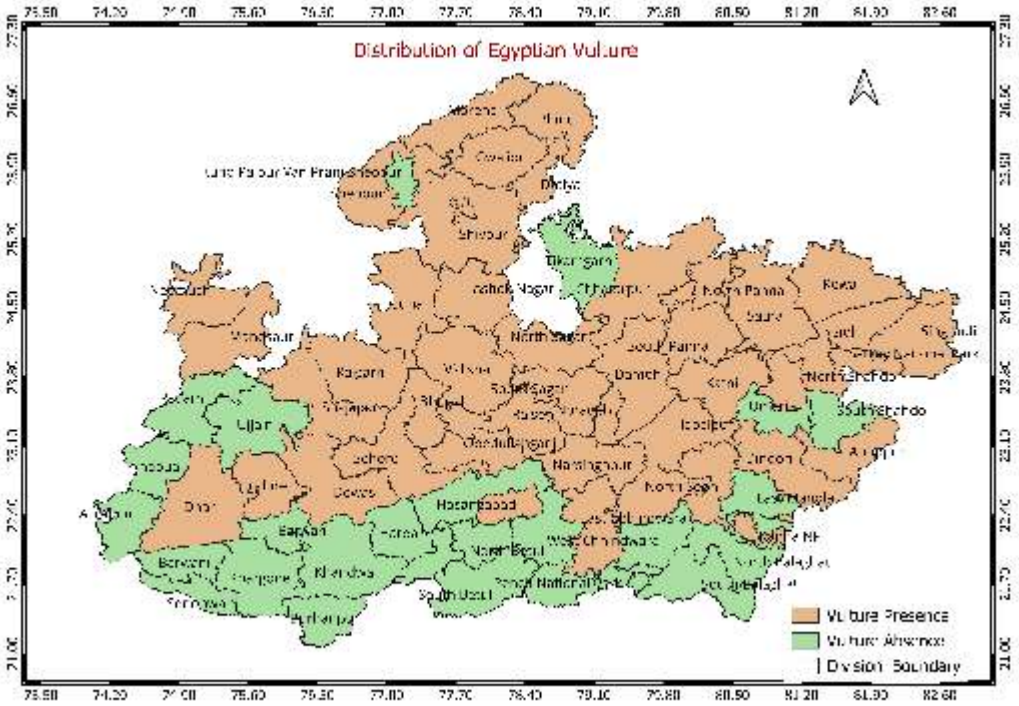


Fig. 7 Egyptian Vulture (*Neophron percnopterus*)

Egyptian Vulture population exhibited fluctuations during the decade, peaking at 1,917 in 2019 before declining to 1,630 in 2024. However, the 2025 survey recorded a sharp increase to 2,984 individuals. It might be because of very opportunistic behavior of this bird. It may shift from the locations for food and shelter. Migratory population may also play the role in this fluctuation.

Fig. 8 Distribution of Egyptian Vulture



Red-headed Vulture
Sacrogyps calvus

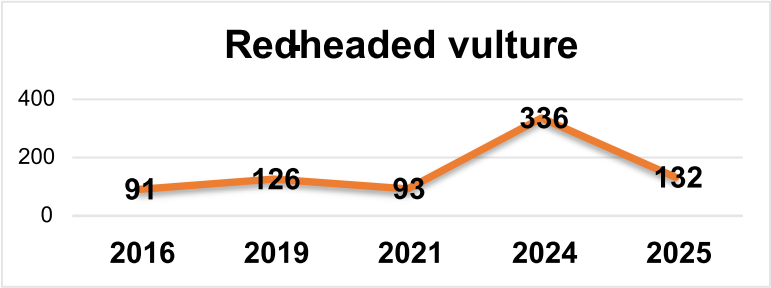
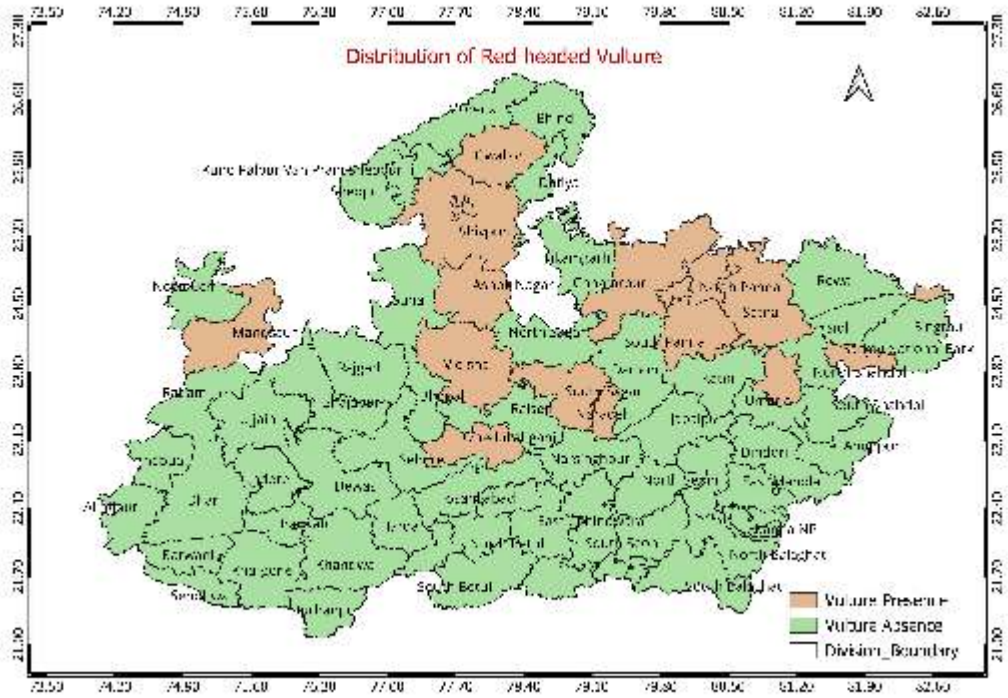


Fig. 9 Red-headed Vulture (*Sacrogyps calvus*)

Red-headed Vulture's population has remained low and inconsistent, rising from 91 in 2016 to a peak of 336 in 2024, before dropping again to 132 in 2025.

Fig. 10 Distribution of Red-headed Vulture



Himalayan Griffon
Gyps himalyensis

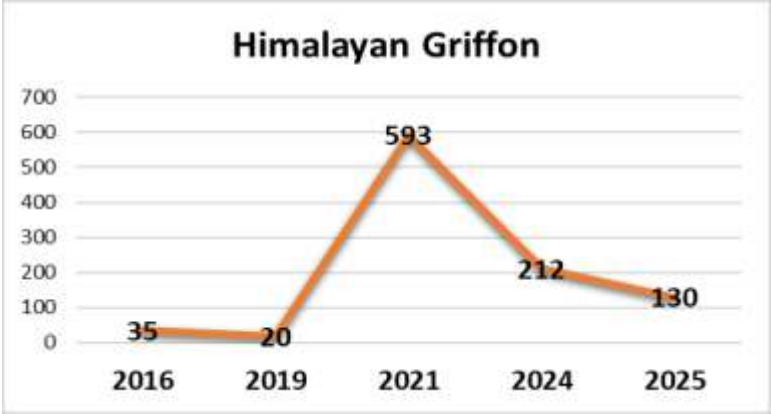
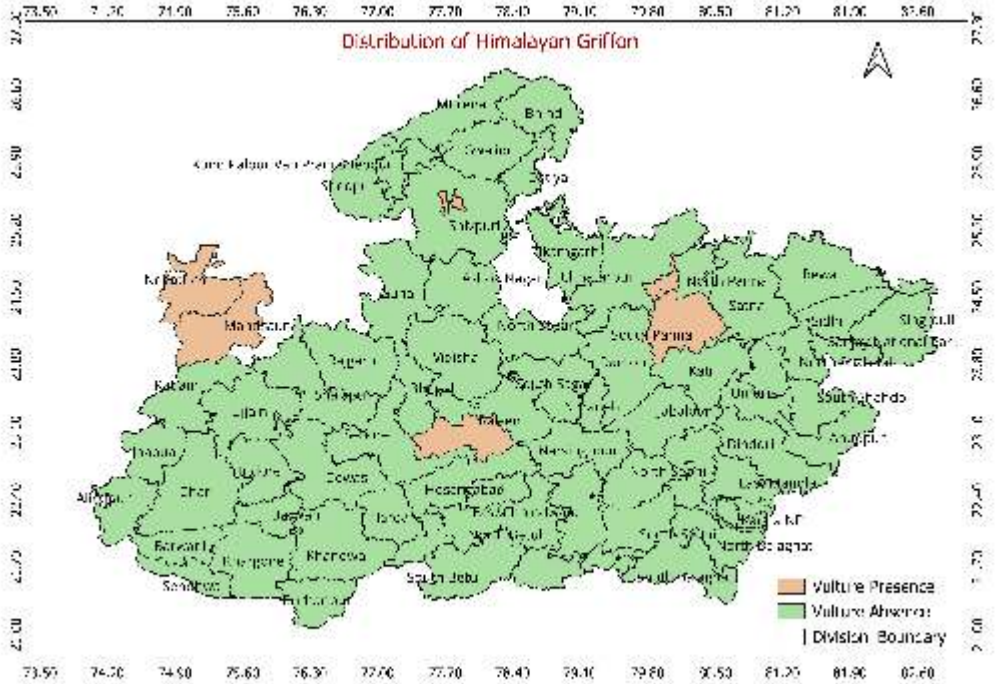


Fig. 11 Himalayan Griffon (*Gyps himalyensis*)

Himalayan Griffon has experienced high variability in population estimates. It was recorded at 35 in 2016, peaked sharply at 593 in 2021, and then declined to 130 in 2025. The 2021 figure may reflect a temporary migratory influx rather than a permanent population increase.

Fig. 12 Distribution of Himalayan Griffon



Eurasian Griffon
Gyps fulvus

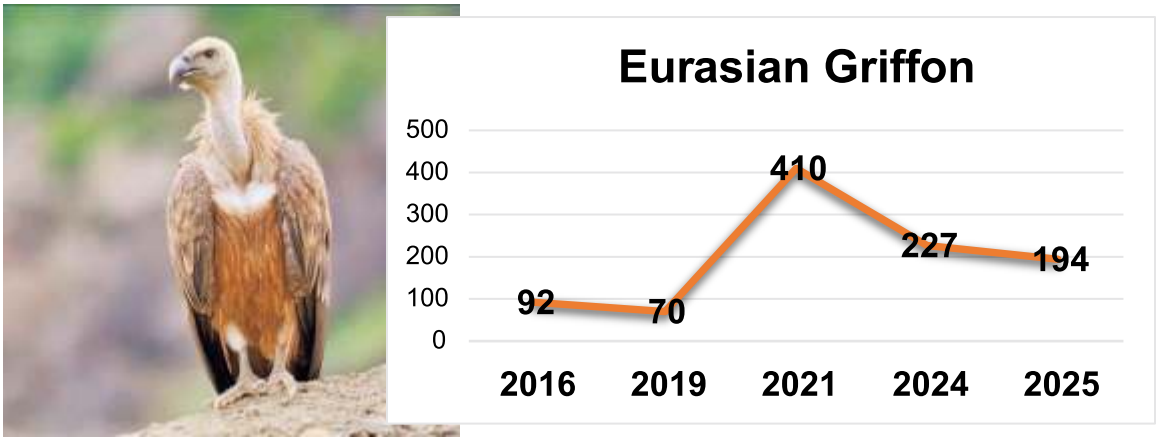
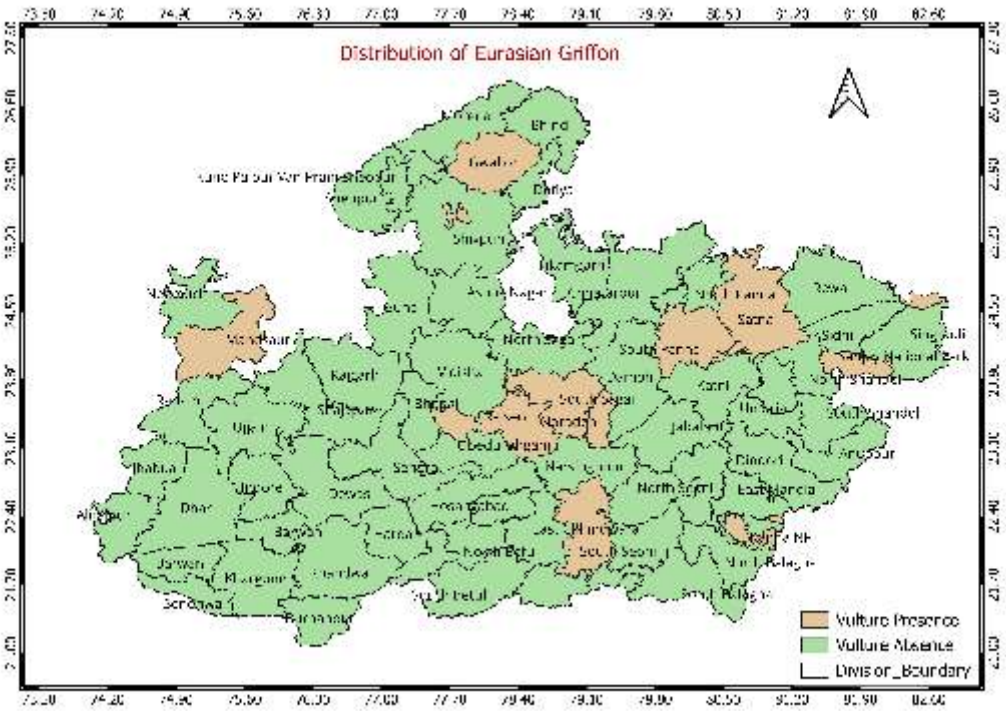


Fig. 13 Eurasian Griffon (*Gyps fulvus*)

Eurasian Griffon's population grew significantly from 92 in 2016 to 410 in 2021, before falling to 194 in 2025. Although lower than the 2021 peak, the 2025 count still represents more than double the population of 2016. This growth followed by a decline may be due to migratory behaviors.

Fig. 14 Distribution of Eurasian Griffon



Cinereous Vulture
Aegypius monachus

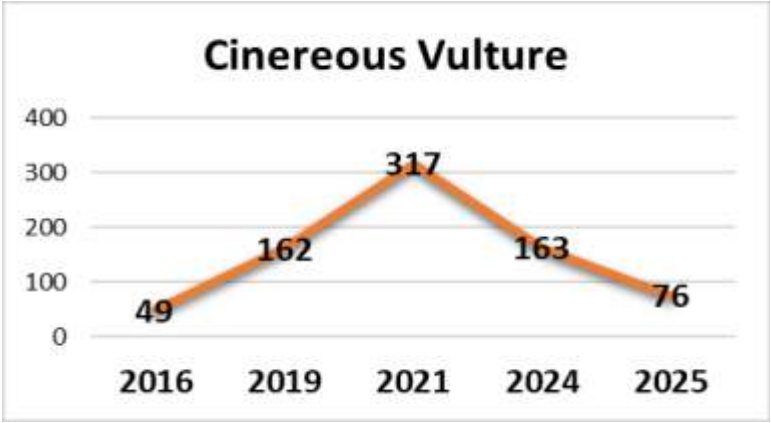
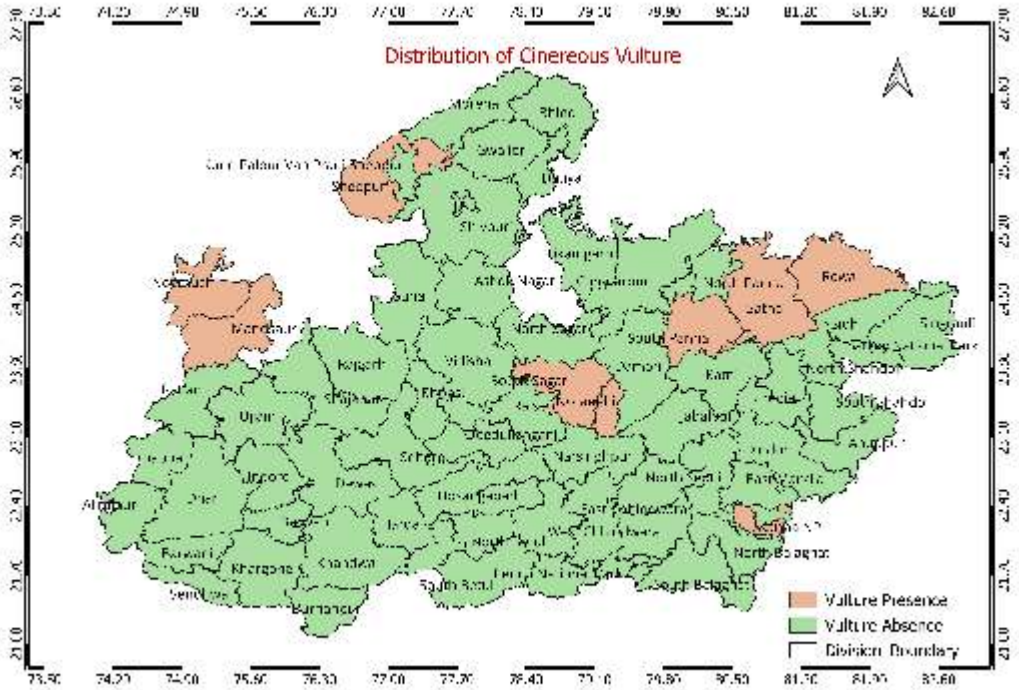


Fig. 15 Cinereous Vulture (*Aegypius monachus*)

Cinereous Vulture showed considerable growth from 49 in 2016 to a high of 317 in 2021, but has since declined sharply to just 76 in 2025. The figure may reflect a temporary migratory influx.

Fig. 16 Distribution of Cinereous Vulture



Species Wise Population of Vulture

Fig.17 Species Wise Population of vulture 2025

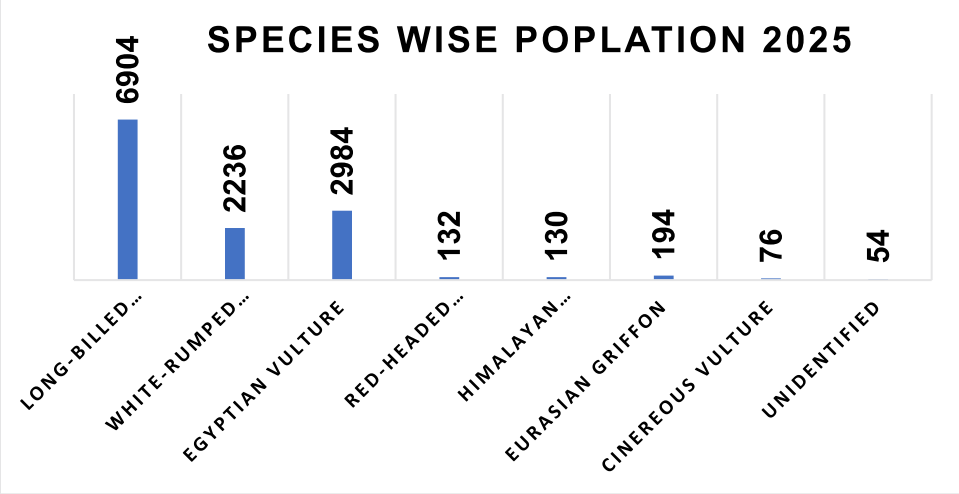


Table 1. Species wise population of vulture in M.P.

Species	2016	2019	2021	2024	2025
Long-billed Vulture	3345	4416	4505	5751	6904
White-rumped Vulture	1518	1686	1662	1875	2236
Egyptian Vulture	1869	1917	1866	1630	2984
Red-headed Vulture	91	126	93	336	132
Himalayan Griffon	35	20	593	212	130
Eurasian Griffon	92	70	410	227	194
Cinereous Vulture	49	162	317	163	76
Unidentified	-	-	-	651	54
Total	6999	8397	9446	10845	12710

From 2016 to 2025, the total vulture population has shown a steady and impressive increase from 6,999 to 12,710 individuals. This represents an overall growth of approximately 82% over the 9-year period. The growth was consistent, the annual increase seen between 2024 and 2025 (17%).

Species such as the Long-billed Vulture and Egyptian Vulture have demonstrated strong recovery and form a significant portion of the total population. The White-backed Vulture has also shown steady improvement.

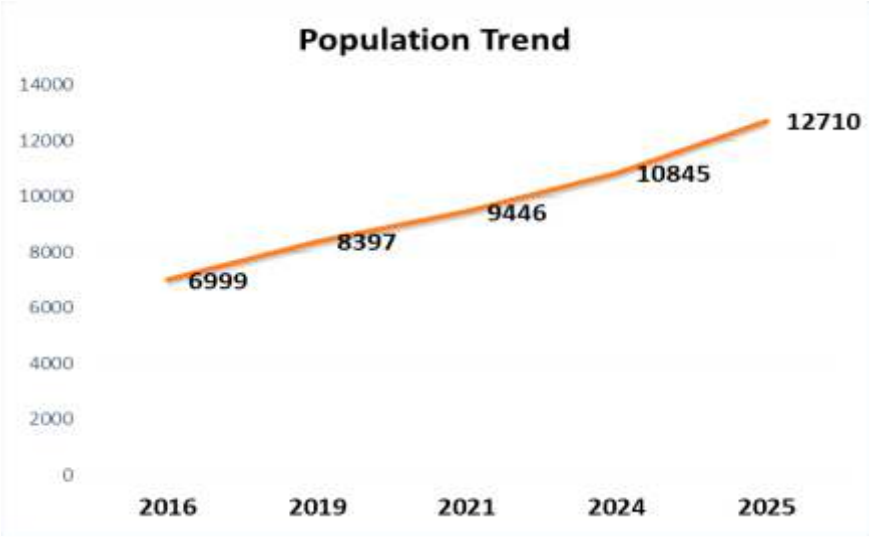
However, species like the Red-headed, Himalayan, and Cinereous Vultures exhibited fluctuating or declining trends, indicating instability. The presence of Unidentified vultures in 2024 and 2025 suggests occasional limitations in species-level identification during field surveys.

4.4 Vulture population trend in Madhya Pradesh

The total number of vultures recorded in the state was 6999 in 2016, 8397 in 2019, 9446 in 2021 and 10845 in 2024. Thus, the population of vultures increased by 16.66%

between 2016 and 2019, by 12.49% between 2019 and 2021, by 14.83% between 2021 and 2024. In current survey the population of vulture is positively increasing by 17% between 2024 to 2025.

Fig. 18 Population Trend



4.5 Vulture population in various PAs

The vulture population survey conducted in 2025 across state major protected areas in Madhya Pradesh has revealed significant insights into the regional distribution of vultures. The total count across these protected areas is indicative of thriving populations in certain locations, while others reflect comparatively lower numbers, suggesting the need for more targeted conservation efforts.

VDTR (Veerangana Durgavati Tiger Reserve) recorded the highest vulture population with 817 individuals, making it the most crucial vulture habitat among the PAs.

Panna Tiger Reserve followed closely with 691 vultures, reaffirming its status as a critical vulture conservation site. These two reserves together account for more than 55% of the total vultures recorded across the ten PAs, highlighting their ecological importance.

Ratapani TR also reported a strong number of 549 vultures, placing it third in terms of population size. This suggests that the landscape and food availability in this region are well-suited for vulture habitation and possibly breeding.

Bandhavgarh TR, Kanha TR, and Sanjay TR also contributed significantly with populations of 305, 259, and 212 vultures respectively.

In contrast, Satpura TR (202), Kuno NP (106), and Madhav TR (53) reported smaller populations.

Pench TR recorded the lowest number with only 13 vultures, highlighting a potential concern regarding habitat suitability or threats in the area.

The 2025 survey underscores the importance of protected areas like VDTR, Panna TR, and Ratapani TR as strongholds for vulture conservation in Madhya Pradesh. Simultaneously, areas with lower vulture numbers such as Pench TR and Madhav TR may benefit from enhanced monitoring, protection measures, and ecological restoration. Continued efforts across all reserves are essential to ensure the survival and growth of vulture populations in the region.

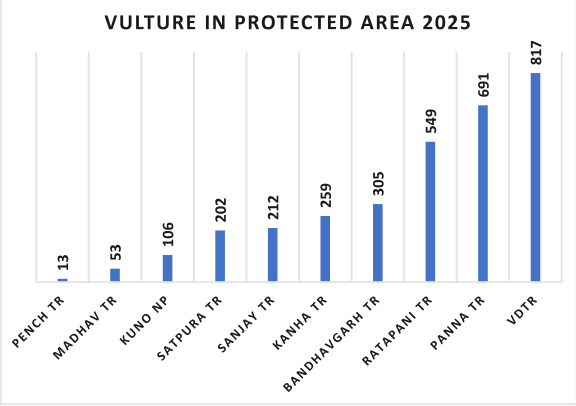


Table 2 Population of Vulture in PAs

S. No.	Protected Area Name	Total
1	Pench TR	13
2	Madhav TR	53
3	Kuno NP	106
4	Satpura TR	202
5	Sanjay TR	212
6	Kanha TR	259
7	Bandhavgarh TR	305
8	Ratapani TR	549
9	Panna TR	691
10	VDTR	817

4.6 Vulture Population Overview for Madhya Pradesh Circles

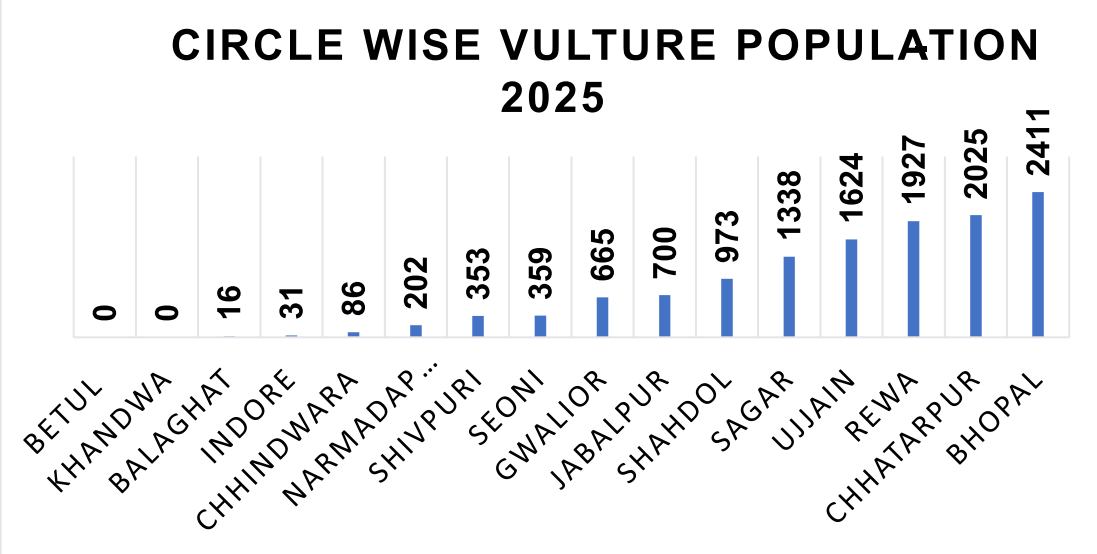
In 2025, the vulture population across Madhya Pradesh exhibits notable variations. Bhopal has the highest vulture population with 2,411 vultures, followed by Chhatarpur with 2,025 vultures, and Rewa with 1,927 vultures. Ujjain also has a strong population of 1,624 vultures, reflecting stable and thriving habitats in these areas.

Other circles such as Shahdol (973 vultures), Jabalpur (700 vultures), and Gwalior (665 vultures) report moderate vulture numbers, indicating that these regions have relatively healthy populations, though continued monitoring and conservation efforts are still necessary.

On the other hand, some regions like Betul and Khandwa report no vultures at all, which points to possible ecological pressures or habitat loss. Additionally, Balaghat with 16 vultures and Indore with 31 vultures show low numbers, suggesting that these areas may face challenges with food sources or habitat availability.

The data reveals that while regions like Bhopal and Chhatarpur have strong and stable vulture populations, areas like Betul and Khandwa require urgent attention. To ensure the continued survival and growth of vulture populations.

Fig. 20 Circle wise Vulture population



4.7 Species-wise Nesting of Vultures Observed During the Survey

Long-billed Vulture

LBV has the highest nesting count at 1521, indicating it is the most populous vulture species in the regions surveyed. The large number suggests a relatively stable population or successful breeding.

Egyptian Vulture

EV species has a nesting count of 391, which is significant but not as high as the LBV. This may indicate that while there are many breeding pairs, there may be certain environmental or ecological factors limiting their numbers.

White-rumped Vulture

With a nesting count of 318, the WRV has a moderate presence across the surveyed regions. This species shows a healthy distribution in the survey areas.

Red-headed Vulture

RHV has the lowest nesting count of only 9, which is a critical concern. Special attention should be paid to the factors affecting its population.

Fig. 21 Vulture Nesting Site in Madhya Pradesh

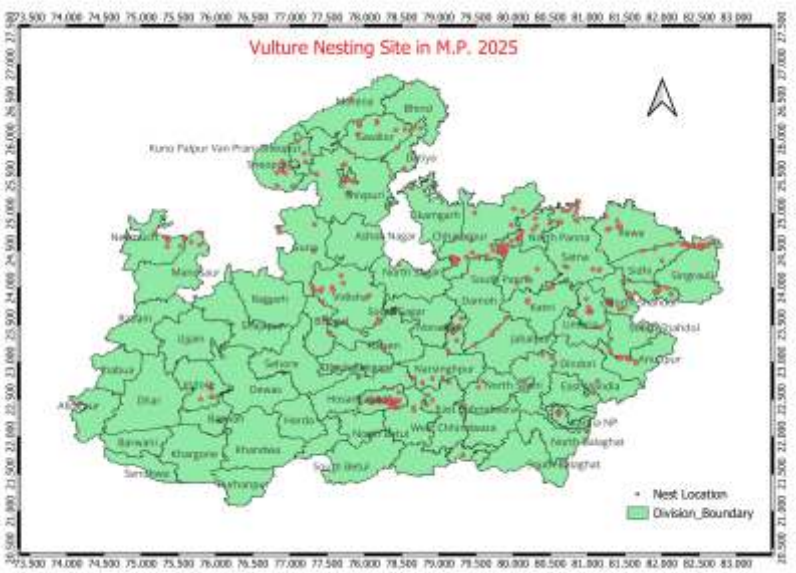


Fig. 22 Species wise nesting of vulture

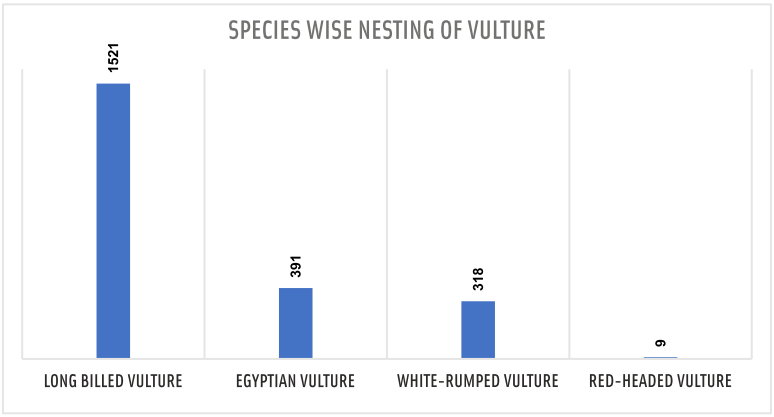
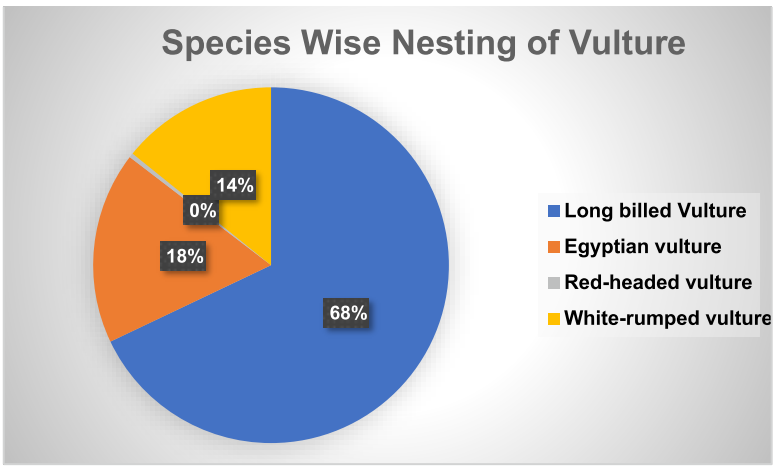


Fig. 23 Species wise nesting of vulture



Chapter 5
Summer Count 2025

The survey exclusively focused on the resident vulture species found in the state, specifically the Long-billed Vulture, White-rumped Vulture, Egyptian Vulture and Red-Headed Vulture. The objective of this survey was to estimate the populations of these resident species in Madhya Pradesh and analyze their geographical distribution in order to guide future conservation efforts.

Key Findings

The regions with the highest vulture populations were Chhatarpur, Rewa, and Sagar, with Chhatarpur reporting the highest number at 1,841 vultures. These areas should be prioritized for conservation activities, as they support significant vulture populations. Rewa and Sagar also reported high concentrations of vultures, with 1,752 and 1,168 individuals, respectively.

On the other hand, circles like Balaghat, Betul, and Khandwa reported no vultures during the survey. Circles with moderate vulture populations, such as Indore, Seoni, Shivpuri, and Narmadapuram, showed moderate vulture numbers ranging from 20 to 253. Vulture Population Survey (Summer count 2025) in Madhya Pradesh has provided valuable insights into the distribution of vulture species across the state. With a total population of 9,509 vultures, the survey highlights both areas of high vulture concentration and regions where vultures are absent or scarce.

Table 3 Circle wise Population of vulture in summer

S. No.	Circle	Summer 2025
1	Betul	0
2	Khandwa	0
3	Balaghat	0
4	Indore	20
5	Chhindwara	141
6	Narmadapuram	253
7	Shivpuri	197
8	Seoni	73
9	Gwalior	574
10	Jabalpur	711
11	Shahdol	673
12	Sagar	1168
13	Ujjain	927
14	Rewa	1752
15	Chhatarpur	1841
16	Bhopal	1179
	Total	9509

5.1 Species wise population of vulture in summer count 2025

Long-billed Vulture remains the most populous species in Madhya Pradesh, with a total of 5,835 individuals recorded during the summer of 2025.

White-rumped Vulture

With 1,607 individuals, the White-rumped Vulture has a significant population in the region.

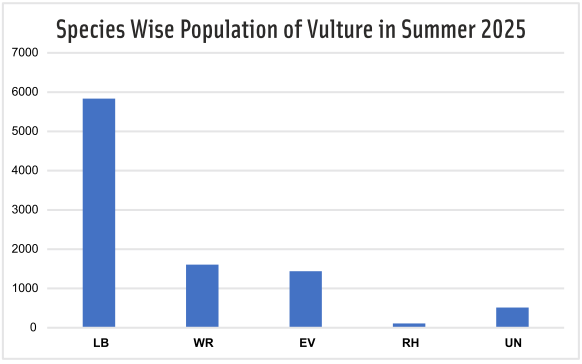
Egyptian Vulture population stands at 1,440 individuals. This species is known for its wide-ranging habitat preferences and scavenging behavior.

Red-Headed Vulture has the smallest recorded population, with only 111 individuals. Immediate conservation actions are needed to protect this species from further decline.

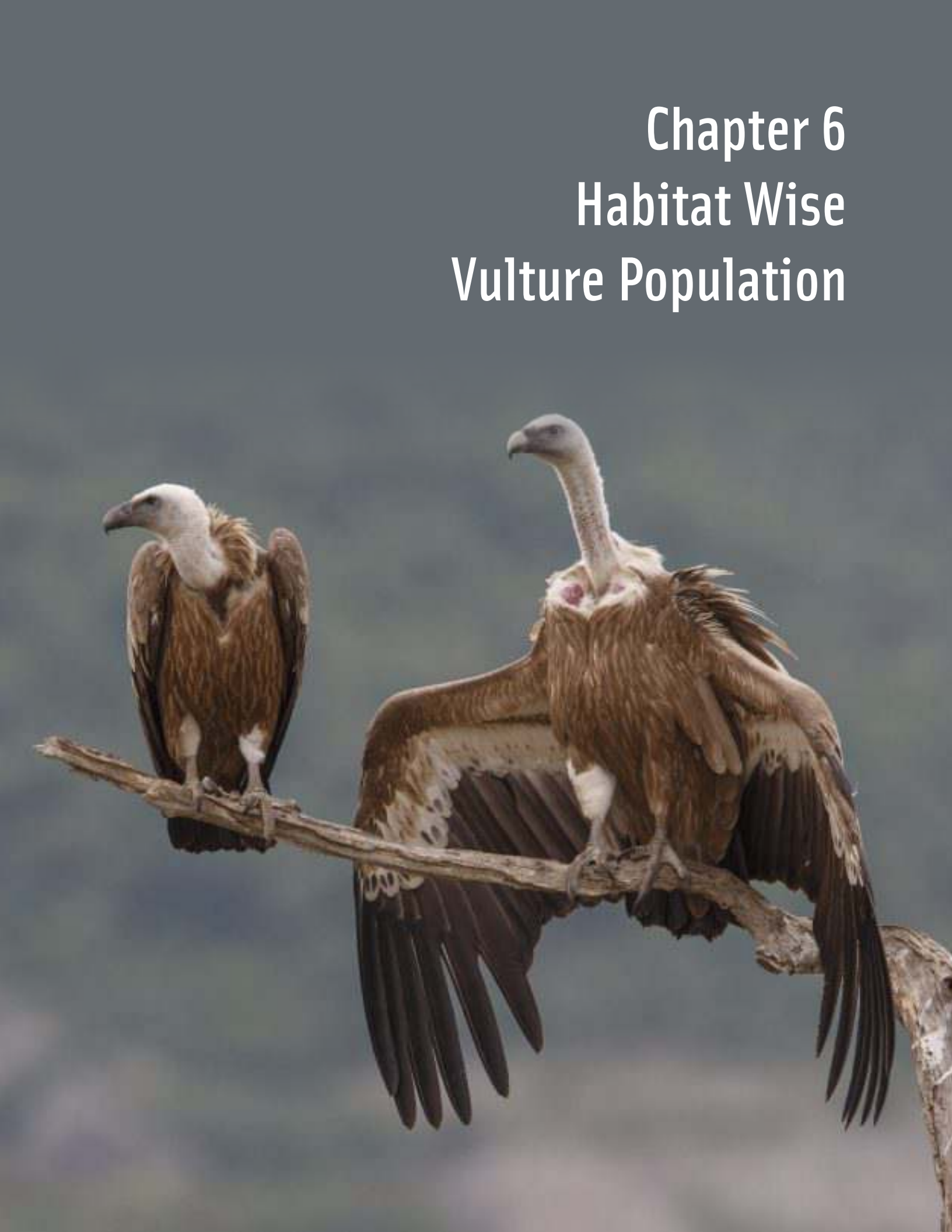
Unknown Species/Unidentified

There were 516 vultures recorded as unknown Species.

Fig.24 Species wise population of vulture in summer



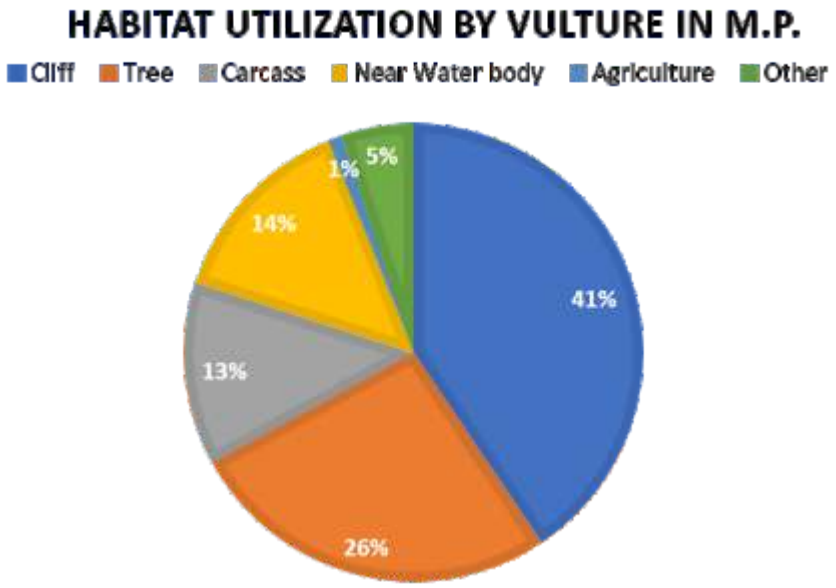
Chapter 6
Habitat Wise Vulture Population

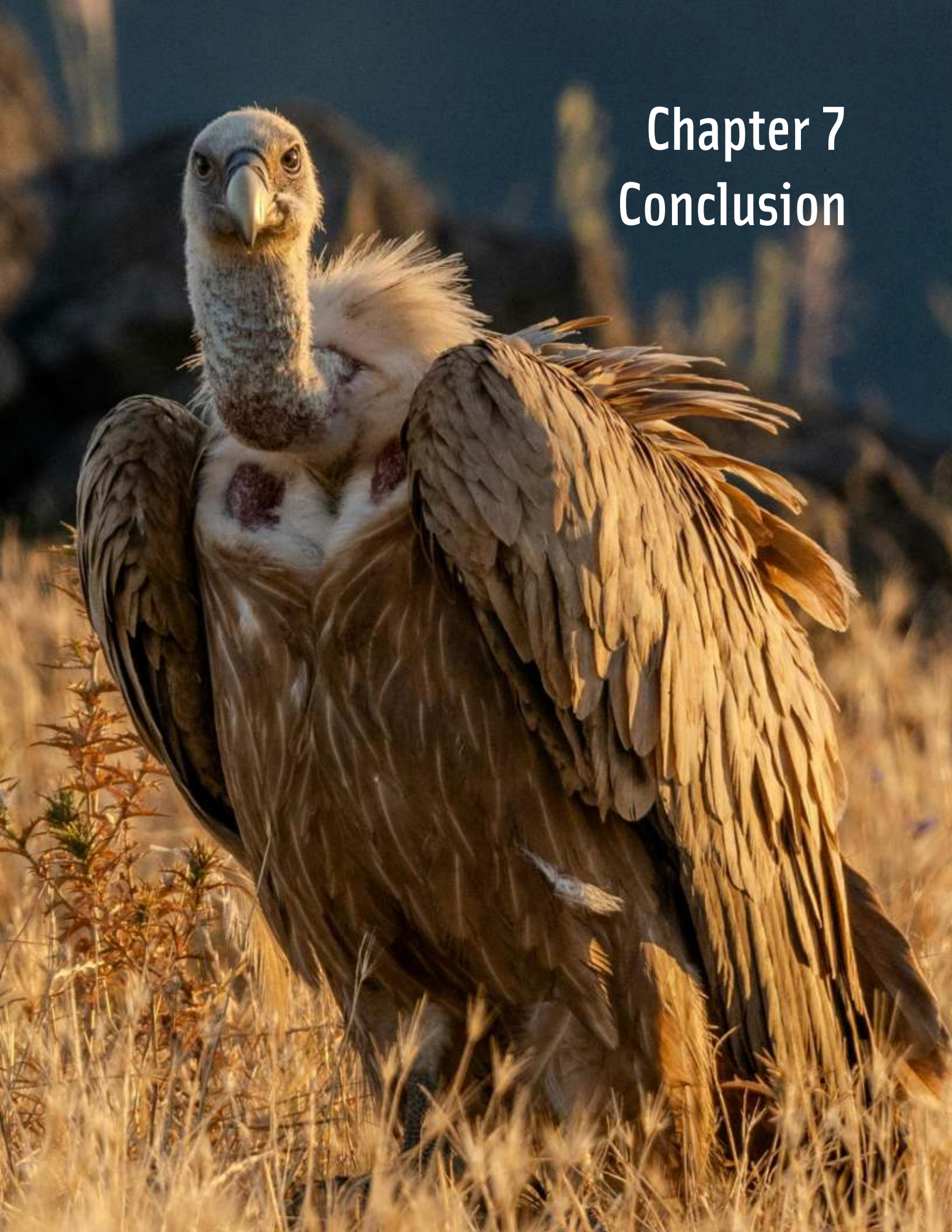


6.1 Habitat utilization by vulture in Madhya Pradesh

The survey recorded vulture populations across various habitat types, providing a comprehensive view of how vultures are distributed in different ecosystems. Thedata highlights the most preferred habitats for vultures, which include cliffs, trees, carcass sites (feeding site), and areas near water bodies, with agriculture and other (pole, monument and fort) areas also being significant for some species.

Fig. 25 Habitat utilization by vulture in M.P.





Chapter 7
Conclusion

Vulture Population Estimation 2025 marks a significant milestone in Madhya Pradesh's ongoing efforts toward the conservation of vultures, one of nature's most efficient and ecologically vital scavengers. The survey, conducted across both winter and summer seasons and involving all forest circles and protected areas, has yielded critical insights into the current status, distribution of vulture species in the state.

The results are encouraging. Over the nine-year period from 2016 to 2025, the total winter population of vultures in Madhya Pradesh has increased by over 82%, from 6,999 individuals to 12,710. All major resident species - Long-billed Vulture, White- rumped Vulture, and Egyptian Vulture have shown significant recovery.

Several Protected Areas such as Veerangana Durgavati Tiger Reserve, Panna Tiger Reserve, and Ratapani Wildlife Sanctuary have emerged as strongholds for vultures, reaffirming the importance of habitat protection, prey availability in sustaining vulture populations. The presence of seasonal migrants like the Himalayan and Eurasian Griffons further adds to the ecological significance of the state's diverse landscapes.

However, the findings also raise areas of concern. Certain regions including Betul, Khandwa, zero vulture sightings and Pench Tiger Reserve reported minimum population indicating possible threats or lack of nesting structures. The critically low population and nesting numbers of Red-headed vultures remain particularly alarming and call for targeted conservation interventions.

The data clearly highlights that while the overall population of vultures in Madhya Pradesh appears stable or slightly increasing compared to previous surveys, challenges persist. These include the continued threat of toxic NSAIDs such as diclofenac, habitat disturbances, infrastructure-related mortality (like powerline collisions), and reduced food availability in certain regions. The presence of a healthy vulture population in a state as large and ecologically diverse as Madhya Pradesh is a positive sign, but it also places a responsibility on all stakeholders to ensure long-term protection.

In conclusion, this estimation exercise has not only provided an updated baseline for species-wise and region-wise population figures but has also identified critical gaps and conservation priorities. The findings underline the importance of sustained monitoring, stringent regulation of harmful veterinary drugs, habitat restoration in low-density areas, and community engagement. Madhya Pradesh, by virtue of its population size and breeding habitats, holds a central role in India's vulture conservation strategy. With continued policy support, scientific monitoring, and ground-level action, the state can emerge as a national leader in safeguarding the future of India's vultures.

Recommendations

- Immediate conservation attention must be given to known vulture nesting and roosting sites, particularly in areas with low vulture populations. While high-density zones are critical for sustaining vulture numbers, low vulture population areas require targeted conservation efforts to prevent further decline and encourage long-term recovery.
- Vulture-safe disposal of livestock carcasses, free from harmful veterinary drugs, should be promoted in both protected and non-protected areas.
- Local communities, especially those near vulture nesting sites, must be engaged through awareness campaigns. Involving Panchayats and youth groups in nest protection, carcass management can create grassroots support for conservation.
- Rescue, rehabilitation, and training programs should be established in key vulture habitats, with local communities actively involved. This will ensure timely interventions and foster long-term conservation efforts.
- Vultures face various threats, including powerline collisions, habitat destruction, Negative effect of veterinary drugs. Powerlines near vulture habitats should be marked or rerouted to prevent collisions. Regular monitoring and active community involvement are essential to mitigate these threats.
- Vulture conservation strategies should be mainstreamed into Protected Area Management Plans, state biodiversity strategies, and landscape restoration programs to ensure cross-sectoral coordination and funding.
- Periodic, systematic vulture surveys must be in both summer and winter seasons. Long-term research including tagging, satellite telemetry, and studies on breeding success and mortality factors.

Annexure: 1

Division wise vulture population (winter count) 2025

Sr. No.	Division Name	Vulture Population
1	North Balaghat	16
2	South Balaghat	0
3	North Betul	0
4	South Betul	0
5	West Betul	0
6	Bhopal	181
7	Raisen	951
8	Obedullaganj/Ratapani TR	549
9	Sehore	205
10	Vidisha	505
11	Rajgarh	20
12	Chhatarpur	252
13	Tikamgarh	19
14	North Panna	362
15	South Panna	701
16	Panna Tiger Reserve	691
17	East Chhindwara	49
18	West Chhindwara	37
19	South Chhindwara	0
20	Gwalior	287
21	Morena	73
22	Datia	87
23	Sheopur	109
24	Bhind	3
25	Kuno National Park	106
26	Narmadapuram	0
27	Harda	0
28	Satpura Tiger Reserve	202
29	Indore	29
30	Dhar	2
31	Jhabua	0
32	Alirajpur	0
33	Jabalpur	66
34	Katni	215
35	East Mandla	73
36	West Mandla	4
37	Dindori	83

Sr. No.	Division Name	Vulture Population
38	Kanha Tiger Reserve	259
39	Khandwa	0
40	Burhanpur	0
41	Khargone	0
42	Badwah	0
43	Badwani	0
44	Sendhwa	0
45	Rewa	456
46	Satna	1221
47	Singrauli	7
48	Sidhi	31
49	Sanjay Tiger Reserve	212
50	South Sagar	90
51	North Sagar	285
52	Damoh	146
53	VDTR	817
54	North Seoni	175
55	South Seoni	0
56	Narsinghpur	6
57	Pench Tiger Reserve	13
58	Barghat Pariyojna Seoni	165
59	Umaria	59
60	Anuppur	426
61	North Shahdol	104
62	South Shahdol	79
63	Bandhavgarh Tiger Reserve	305
64	Shivpuri	168
65	Guna	91
66	Ashoknagar	41
67	Madhav Tiger Reserve	53
68	Ujjain	0
69	Shajapur	4
70	Ratlam	0
71	Mandsaur	992
72	Neemuch	578
73	Dewas	50
	Total	**12710**

Annexure: 2

Circle wise vulture population (winter count) 2025

S. No.	Circle	Vulture Population
1	Betul	0
2	Khandwa	0
3	Balaghat	16
4	Indore	31
5	Chhindwara	86
6	Narmadapuram	202
7	Shivpuri	353
8	Seoni	359
9	Gwalior	665
10	Jabalpur	700
11	Shahdol	973
12	Sagar	1338
13	Ujjain	1624
14	Rewa	1927
15	Chhatarpur	2025
16	Bhopal	2411
	Total	**12710**

Annexure: 3

Division wise vulture population (summer count) 2025

Sr. No.	Division Name	Vulture Population
1	North Balaghat	0
2	South Balaghat	0
3	North Betul	0
4	South Betul	0
5	West Betul	0
6	Bhopal	0
7	Raisen	292
8	Obedullaganj/Ratapani TR	425
9	Sehore	123
10	Vidisha	322
11	Rajgarh	17
12	Chhatarpur	209
13	Tikamgarh	0
14	North Panna	326
15	South Panna	575
16	Panna Tiger Reserve	731
17	East Chhindwara	90
18	West Chhindwara	51
19	South Chhindwara	0
20	Gwalior	217
21	Morena	0
22	Datia	71
23	Sheopur	51
24	Bhind	6
25	Kuno National Park	229
26	Narmadapuram	0
27	Harda	0
28	Satpura Tiger Reserve	253
29	Indore	18
30	Dhar	2
31	Jhabua	0
32	Alirajpur	0
33	Jabalpur	0
34	Katni	401
35	East Mandla	42
36	West Mandla	2
37	Dindori	0
38	Kanha Tiger Reserve	266
39	Khandwa	0
40	Burhanpur	0
41	Khargone	0
42	Badwah	0
43	Badwani	0
44	Sendhwa	0
45	Rewa	303
46	Satna	1026
47	Singrauli	5
48	Sidhi	36
49	Sanjay Tiger Reserve	168
50	Maihar	214
51	South Sagar	71
52	North Sagar	194
53	Damoh	33
54	VDTR	870
55	North Seoni	22
56	South Seoni	0
57	Narsinghpur	5
58	Pench Tiger Reserve	24
59	Barghat Pariyojna Seoni	22
60	Umaria	72
61	Anuppur	308
62	North Shahdol	0
63	South Shahdol	47
64	Bandhavgarh Tiger Reserve	246
65	Shivpuri	140
66	Guna	43
67	Ashoknagar	0
68	Madhav Tiger Reserve	14
69	Ujjain	0
70	Shajapur	0
71	Ratlam	0
72	Mandsaur	517
73	Neemuch	343
74	Dewas	67
	Total	**9509**

Annexure: 4

Circle wise vulture population (summer count) 2025

S. No.	Circle	Vulture Population
1	Betul	0
2	Khandwa	0
3	Balaghat	0
4	Indore	20
5	Chhindwara	141
6	Narmadapuram	253
7	Shivpuri	197
8	Seoni	73
9	Gwalior	574
10	Jabalpur	711
11	Shahdol	673
12	Sagar	1168
13	Ujjain	927
14	Rewa	1752
15	Chhatarpur	1841
16	Bhopal	1179
	Total	9509

Annexure: 5

Division wise vulture population in 2021 to 2025 (winter count)

क्रम संख्या	वनमंडल का नाम	2021	2021	2021
1	उत्तर बालाघाट	0	0	16
2	दक्षिण बालाघाट	0	0	0
3	उत्तर बैतूल	0	0	0
4	दक्षिण बैतूल	0	0	0
5	पश्चिम बैतूल	0	0	0
6	भोपाल	180	43	181
7	रायसेन	315	340	951
8	ओबेदुल्लागंज /रातापानी टाइगर रिज़र्व	205	418	549
9	सीहोर	125	135	205
10	विदिशा	266	143	505
11	राजगढ़	12	2	20
12	छतरपुर	441	202	252
13	टीकमगढ़	71	16	19
14	उत्तर पन्ना	438	369	362
15	दक्षिण पन्ना	614	648	701
16	पन्ना टाइगर रिज़र्व	722	935	691
17	पूर्व छिंदवाड़ा	63	49	49
18	पश्चिम छिंदवाड़ा	50	40	37
19	दक्षिण छिंदवाड़ा	0	0	0
20	ग्वालियर	162	337	287
21	मुरैना	114	104	73
22	दतिया	41	48	87
23	श्योपुर	350	108	109
24	भिंड	17	12	3
25	कुनो राष्ट्रीय उद्यान	381	505	106
26	नर्मदापुरम्	0	0	0
27	हरदा	0	0	0
28	सतपुड़ा टाइगर रिज़र्व	144	198	202
29	इंदौर	117	32	29
30	धार	0	0	2
31	झाबुआ	0	0	0
32	अलीराजपुर	0	0	0
33	जबलपुर	92	89	66
34	कटनी	64	151	215
35	पूर्व मंडला	72	0	73
36	पश्चिम मंडला	18	22	4
37	डिंडोरी	68	0	83

क्रम संख्या	वनमंडल का नाम	2021	2024	2025
38	कान्हा टाइगर रिज़र्व	98	172	259
39	खंडवा	0	0	0
40	बुरहानपुर	0	0	0
41	खरगोन	0	0	0
42	बड़वाह	0	0	0
43	बड़वानी	0	0	0
44	सेंधवा	0	0	0
45	रीवा	345	648	456
46	सतना	474	1200	1221
47	सिंगरौली	0	0	7
48	सीधी	75	21	31
49	संजय टाइगर रिज़र्व	188	220	212
50	दक्षिण सागर	115	136	90
51	उत्तर सागर	50	210	285
52	दमोह	194	328	146
53	वीरांगना दुर्गावती टाइगर रिजर्व	300	592	817
54	उत्तर सिवनी	164	191	175
55	दक्षिण सिवनी	0	0	0
56	नरसिंहपुर	3	7	6
57	पेंच टाइगर रिज़र्व	26	38	13
58	बरघाट परियोजना सिवनी	2	61	165
59	उमरिया	40	42	59
60	अनुपपुर	278	241	426
61	उत्तर शहडोल	68	98	104
62	दक्षिण शहडोल	50	63	79
63	बांधवगढ़ टाइगर रिज़र्व	172	197	305
64	शिवपुरी	148	133	168
65	गुना	85	32	91
66	अशोकनगर	17	0	41
67	माधव टाइगर रिज़र्व	194	82	53
68	उज्जैन	0	0	0
69	शाजापुर	0	13	4
70	रतलाम	0	0	0
71	मंदसौर	675	704	992
72	नीमच	543	160	578
73	देवास	0	10	50
	कुल योग	9446	10845	12710

Annexure: 6

Nest of Vulture

Annexure: 7

Threats

Food Competition

Van Vihar National Park & Zoo, Bhopal

CONCEPT ORANGE