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Uncovering wildlife trafficking, poaching methods and law enforcement strategies in vidarbha region of central India: A comprehensive analysis.

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Abstract

Wildlife trafficking and poaching are grave concerns that endanger the survival of numerous endangered species. This study examines the investigation of wildlife trafficking and poaching methods in the Vidarbha region of Maharashtra, India. During the period of wildlife protection work from July 2021 to July 2023, 33 cases of wildlife trafficking were raided, and 163 accused were nabbed. It was found that poachers mainly used methods such as electrocution, poisoning, snare and trap, shooting by gun, spear, and other methods like starvation. The cumulative seizure of live wild animals such as Pangolin, Red sand boa, Star tortoises, birds like Parakeets and Munia, and body part articles like skins, canine/teeth, claws, bones, scales, whiskers, ambergris, Porcupine, Peafowl, Owl, Sea fan, Skink, and Monitor lizard articles, which are used for traditional medicine, were seized. Our findings suggest that wildlife trafficking is a serious issue that is increasing in Vidarbha. The high number of cases of Tiger and Leopard body part smuggling and Pangolin trafficking is particularly concerning, as these animals are endangered and their populations are already under threat. The seizure of live Pangolins and Star tortoises is also alarming, as these animals are protected under the Wildlife (Protection) Act, 1972 of India. The high number of cases of wildlife trafficking and poaching is a serious issue that needs to be addressed. We recommend that the government take steps to increase awareness about the importance of wildlife conservation and provide better protection and law enforcement for endangered species.

Keywords: Wildlife trafficking, wild animal article, poaching methods, crime, law enforcement

Introduction

Vidarbha is a region located in the eastern part of the state of Maharashtra, India. It is known for its rich cultural heritage, diverse flora and fauna, and several protected areas. Vidarbha comprises 11 districts, namely Amravati, Akola, Buldhana, Washim, Yavatmal, Wardha, Nagpur, Bhandara, Gondia, Chandrapur, and Gadchiroli. The region is situated between 19.65°N to 21.65°N latitude and 76.5°E to 79.5°E longitude. Vidarbha has its own administrative division, known as the Nagpur Division, with Nagpur as its headquarters. Vidarbha is blessed with diverse flora and fauna due to its unique geographical location and varied habitats. The region has a mix of dry deciduous forests, grasslands, wetlands, and riverine ecosystems. The forests of Vidarbha are home to a wide range of plant species, including teak, bamboo, salai, tendu, and several medicinal plants. The region is also rich in wildlife, with a variety of mammals, birds, reptiles, and amphibians. Some of the notable species found here are tigers, leopards, sloth bears, Indian gaur, sambar deer, chital deer, and many more. Vidarbha is home to several protected areas, including national parks, wildlife sanctuaries, conservation reserves, and tiger reserves. Some of the prominent tiger reserves in Vidarbha are Pench Tiger Reserve, Tadoba Andhari Tiger Reserve, Bor Tiger Reserve, and Melghat Tiger Reserve. These protected areas play a crucial role in conserving the region's biodiversity, including the habitats of tigers, leopards, and other rare and endangered species. Vidarbha is known for its successful tiger conservation efforts, with Tadoba Andhari Tiger Reserve and Melghat Tiger Reserve being important strongholds for tiger populations. Vidarbha has gained recognition for its conservation efforts and successful tiger conservation programs. Tadoba Andhari Tiger Reserve and Melghat Tiger Reserve are known for their significant tiger populations and conservation initiatives. Besides tigers, Vidarbha is also home to a substantial population of leopards. The region is known for its efforts to protect and conserve rare and endangered species like the Indian gaur, sloth bear, wild dog, and several species of birds and reptiles. Vidarbha, with its rich natural beauty, biodiversity, and dedication to conservation, offers a unique experience for nature enthusiasts and wildlife lovers.

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It stands as a testament to the importance of preserving our natural heritage for future generations. Wildlife crime, including the smuggling of wildlife and poaching of wild animals, has emerged as a significant global issue, posing a severe threat to biodiversity and ecological balance. (Ajay Kumar Rana *et al.*, 2023) ^[1].

The state of Maharashtra, particularly its Vidarbha region, has been becoming a hotspot for such illicit activities. Wildlife crime encompasses a range of illegal activities, including poaching, trafficking, and smuggling of endangered species and their parts. (Pires, SF, *et al.*, 2022; Singh, R, *et al.*, 2023) ^[21, 24]. These activities are driven by the lucrative illegal wildlife trade, which is estimated to be worth billions of dollars globally. (Galeotti, M, 2014; UNODC, 2018; UNEP, 2019) ^[7, 29, 25]. The Vidarbha region in Maharashtra, known for its rich biodiversity and diverse ecosystems, has become a major hub for wildlife crime due to its proximity to wildlife reserves, forests, and interstate borders. Poaching, the illegal hunting of wild animals, poses a severe threat to the survival of numerous species. (Kemp, *et al.*, 2020) ^[12].

In Vidarbha, iconic species such as Tigers, Leopards, Pangolin, and Red sand boa are targeted by poachers for their valuable body parts, including skins, bones, claws, scales and even live. These items are in high demand in illegal markets, both domestically and internationally, driven by beliefs in traditional medicine, cultural practices, and the exotic pet trade. (Annika Mozer, *et al.*, 2023) ^[4]. The illegal wildlife trade in Maharashtra, with Vidarbha at its epicenter, operates through well-organized networks that span across national and international boundaries. The trade involves the smuggling of live animals, animal parts, and derivatives, with a focus on species such as tigers, leopards, pangolins, tortoise, birds and snakes. (Huges, AC, 2021; Nijman, V, 2010) ^[10, 19]. The porous borders, lack of proper surveillance, and corruption within enforcement agencies have contributed to the growth of this illicit trade. (Wyatt, T. *et al.*, 2018; Annika Mozer, *et al.*, 2023) ^[37, 4].

Materials and Methods

Study Area

Vidarbha region of Maharashtra, India, is known for its rich biodiversity, encompassing diverse flora and fauna. However, the rampant activities of wildlife trafficking and poaching have emerged as pressing issues, endangering the survival of

numerous species.

Study Period and Selection of wildlife crime cases

A selection of 33 cases were selected for this study from July 2021 to July 2023 during the raids conducted by the team of Nagpur Forest Division. These raids were carried out in various locations within Vidarbha. The cases between two-year period allowed for a comprehensive analysis of wildlife trafficking and poaching methods in the region.

Seizure and Documentation

Upon raiding the locations, seized wildlife articles were carefully collected, sealed, and documented by anti-poaching team. Data of seized articles included various wildlife products such as animal skins, horns, bones, and other parts used for analysis.

Forensic Analysis

The seized wildlife articles were sent to reputable institutions for forensic analysis by IO. The Wildlife Institute of India (WII) in Dehradun, the Zoological Survey of India (ZSI) in Pune, and the Regional Forensic Laboratory (RFL) in Nagpur were the institutions involved in the forensic analysis.

Data Collection

The data collected for analysis included:

A) Total number of accused nabbed in the 33 raid cases

Table 1: Wildlife species wise crime cases and Number of accused nabbed

Sr. No.	Wildlife species	No of cases	No of accused arrested
1.	Tiger	12	73
2.	Pangolin	5	19
3.	Leopard	5	36
4.	Star tortoise	1	3
5.	Red sand boa	1	2
6.	Ambergris (sperm whale)	1	4
7.	Birds	2	7
8.	Misc. species	6	19
	Total	33	163

B) Cumulative seizure of wild animal articles during the study period. (Figure 4)

Table 2: Cumulative seizure of wild animal articles / Uncured / Trophies in 33 raids

Sr. No.	Wild animal	Skin (No)	Canines/Teeth (Nos)	Claws (Nos.)	Head (Nos.)	Bones (kg)	Whiskers (Nos.)	Scales (kg)	Live (Nos.)	Other Parts
1.	Tiger	2	40	99	1	23.845	65	-	-	-
2.	Leopard	5	29	14	0	3.00	31	-	-	-
3.	Pangolin	-	-	-	-	-	-	10.25	3	-
4.	Star tortoise	-	-	-	-	-	-	-	6	-
5.	Ambergris	-	-	-	-	-	-	-	-	250 gm*
6.	Birds-Munia	-	-	-	-	-	-	-	795	-
	Parrakeet	-	-	-	-	-	-	-	69	-
7.	Red sand boa	-	-	-	-	-	-	-	1	-
8.	Misc. species	-	-	-	-	-	-	-	-	20
	Total	7	69	113	1	26.845	96	10.25	874	21*

*considering 250gm is one part

C) Different poaching methods employed by the accused

Table 3: Poaching methods wise wildlife cases

Sr. No.	Poaching Method	No of Cases	Percentages (%)
1.	Electrocution	6	18.18
2.	Poisoning	5	15.15
3.	Snare and Trap	11	33.33
4.	Shooting by gun	1	3.035
5.	Spear	1	3.035
6.	Direct capture, Starvation victims and other methods	9	27.27
	Total	33	100

Data Analysis

The collected data was analyzed to identify patterns and trends in wildlife trafficking and poaching methods. Statistical analysis and data visualization techniques were employed to gain insights into the extent and nature of these illegal activities. (Kothari, CR, *et al.*, 2022) ^[13].

Limitations

It is important to note that this study focused solely on wildlife trafficking and poaching methods in Vidarbha, Maharashtra, India. The findings may not be generalized to other regions. Additionally, the study relied on the accuracy and completeness of the seized articles and the information provided by the accused and from complaints.

Statistic and Data Interpretation:

The results of the data analysis were interpreted and discussed in the context of existing literature on wildlife trafficking and poaching. The implications of the findings for wildlife conservation efforts in the region were also discussed.

Illegal Wildlife Trade in Vidarbha, Maharashtra

Illegal wildlife trade poses a significant threat to the biodiversity and ecosystem of Vidarbha, Maharashtra, India. The region's rich natural resources and diverse flora and fauna make it a prime target for poaching and trafficking. Several factors contribute to the rampant illegal wildlife trade in Vidarbha, including poaching for traditional medicine, pet trade, cultural beliefs, and the lure of financial gain through the black market. The main markets for illegal wildlife trade in Maharashtra include local markets, as well as regional and international trade routes, which exacerbate the problem. (Sharma, CP, *et al.*, 2019; Upadhyaya, S, 2019) ^[23, 27].

Reasons for Poaching

1. **Traditional Medicine:** Many animal parts are used in traditional medicine, leading to a high demand for wildlife products such as tiger bones, skin and claw, and pangolin scales. (WCS, 2004) ^[33].
2. **Pet Trade:** Exotic species are often captured and trafficked for the pet trade, with species such as parrots, tortoise and turtles, and reptiles being particularly sought after. (Petrossian, GA, *et al.*, 2014) ^[20].
3. **Cultural Beliefs:** Certain wildlife products are believed to possess mystical or spiritual properties, driving demand for items such as tiger skin and claws, owl, sea fans, skink and tortoise. (Rajpoot, A, *et al.*, 2018) ^[22].
4. **Financial Gain:** The lucrative black-market prices for wildlife products incentivize poachers to illegally hunt and trade in endangered species for profit. (Van Uhm, DP, 2016) ^[32].
5. **Accessories, Decoration and Fashion:** Poaching driven by the demand for accessories, decorations, and fashion items leads to the illegal hunting of endangered species

for their skins, tusks, or feathers, further endangering their survival in the wild. (Zimmerman, ME, 2013) ^[38].

6. **Wild Food:** The consumption of wild animals for food not only threatens the survival of various species but also disrupts the balance of ecosystems, causing long-term harm. (Aguirre, AA, *et al.*, 2020) ^[2].

Illegal wildlife activities

Wildlife crime encompasses a range of illegal activities that pose a serious threat to both endangered species and the ecosystems they inhabit. Some of the key illegal activities involved in wildlife crime are:

1. **Poaching:** Poaching refers to the illegal hunting, capturing, or killing of wild animals. It is driven by the demand for animal parts, such as skins, bones, claws, whisker, scales and organs like sex part, which are valued for their use in traditional medicine, ornaments, and exotic products.
2. **Trafficking and Smuggling:** Trafficking involves the illegal transportation of live animals, animal parts, and derivatives across borders or within a country. Smuggling refers to the clandestine movement of these items to evade detection. Wildlife traffickers and smugglers operate through well-organized networks, exploiting loopholes in transportation systems and exploiting corruption.
3. **Illegal Trade:** The illegal wildlife trade involves the buying, selling, and trading of endangered species and their parts or derivatives. It encompasses a wide range of products, including live animals, native and exotic pets, medicinal products, luxury goods, and trophies.
4. **Wildlife Cybercrime:** With the advent of technology, wildlife crime has also extended into the digital realm. Wildlife cybercrime involves the online sale of endangered species, their parts, and illegal wildlife products. It includes activities such as online marketplaces, social media platforms, and illicit websites that facilitate the trade.
5. **Habitat Destruction and Encroachment:** Illegal activities such as deforestation, land encroachment, and habitat destruction contribute to wildlife crime. These activities disrupt ecosystems, displace wildlife, and make them more vulnerable to poaching and trafficking.
6. **Wildlife Farming and Breeding:** In some cases, wildlife crime involves the illegal farming and breeding of endangered species for commercial purposes. Breeding of different species of tortoise, Crocodile, Quail etc.

It is important to note that wildlife crime is a complex issue with multiple interconnected factors. It thrives due to the demand for wildlife products, weak legislation, inadequate enforcement, corruption, and socioeconomic factors. Addressing these illegal activities requires a multi-dimensional approach that involves international cooperation,

law enforcement, community engagement, and raising awareness about the importance of wildlife conservation. (Anagnostou, M, 2021; Broad, S, *et al.*, 2003; WPSI, 2021; UNDOC, 2015; WCS, 2020; Kurland, J, *et al.*, 2017; Homel, R, *et al.*, 1997) ^[3, 5, 35, 36, 34, 14, 9].

Consequences on environment, humans, and biodiversity:

- 1. Environmental Impact:** Illegal wildlife trade contributes to the decline of endangered species and disrupts ecosystems, leading to imbalances in natural habitats and potentially driving species to extinction. (Anagnostou, M, 2021) ^[3].
- 2. Human Health and Safety:** The illegal trade in wildlife can pose public health risks, as it may involve the sale of unregulated and potentially contaminated animal products, contributing to the spread of diseases and zoonotic infections.
- 3. Biodiversity Loss:** The depletion of wildlife populations through poaching and trafficking jeopardizes the biodiversity of the region, affecting the delicate ecological balance and causing long-term damage to the environment. (Maxwell, SL, *et al.*, 2016; Annika Mozer, *et al.*, 2023) ^[15, 4].
- 4. Societal Impact:** Wildlife crime often involves a network of criminal elements, leading to social and economic instabilities in communities and posing a threat to local livelihoods. (Carrington, D, 2013) ^[6].

Preventive strategies for wildlife trafficking in Maharashtra, India

- 1. Strengthening Law Enforcement:** Increase the number and presence of forest guards and law enforcement personnel in vulnerable areas to deter and apprehend wildlife traffickers. Implement stringent penalties and prosecution of offenders under the Wildlife (Protection) Act, 1972, to act as a deterrent. The legal framework that provides for the protection of India's wildlife and regulates the trade and commerce in wild animals and articles made from them.
- 2. Community Engagement and Awareness:** Conduct awareness campaigns and educational programs within local communities to highlight the ecological importance of wildlife and the consequences of trafficking. Foster community involvement in wildlife conservation efforts through the formation of local watchdog groups and reporting mechanisms. Evidence suggests that involving local communities in conservation efforts can lead to better protection of wildlife and their habitats.
- 3. Utilization of Technology:** Implement surveillance technologies such as camera traps, drones, and satellite imaging to monitor and track illegal activities in remote areas. Develop a wildlife crime database and analytical

tools to identify patterns, hotspots, and trafficking routes for proactive intervention. Technological advancements have proven to be effective in monitoring and protecting wildlife, as well as in law enforcement against wildlife crimes.

- 4. Strengthening Border Controls:** Enhance border surveillance and cooperation between state agencies to curb the cross-border trafficking of wildlife and their derivatives. Implement customs and border control measures to detect and confiscate wildlife contraband being smuggled across international borders. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international agreement to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- 5. Collaboration and Partnerships:** Foster collaboration between governmental agencies, non-governmental organizations, and international stakeholders to share resources, intelligence, and best practices. Engage in joint operations and information sharing with neighboring states and countries to combat transnational wildlife trafficking networks effectively. Interpol's Environmental Crime Programme-Interpol provides a platform for international collaboration and information sharing to combat environmental crimes, including wildlife trafficking.
- 6. Economic Alternatives:** Promote sustainable livelihood opportunities and eco-tourism initiatives in wildlife-rich areas to reduce the economic incentives driving wildlife trafficking. Support community-based conservation enterprises that offer viable economic alternatives to wildlife exploitation and trade. Eco-tourism as a Tool for Wildlife Conservation-Sustainable tourism can contribute to the conservation of wildlife and habitats while providing economic benefits to local communities. These comprehensive preventive strategies can help Maharashtra reduce the threat of wildlife trafficking and protect its diverse natural heritage. By tackling the underlying factors of poaching and trafficking, enforcing strict measures, and educating the public, Maharashtra can curb the unlawful trade of wildlife and preserve its precious natural heritage in Vidarbha and beyond. (Galster, S, *et al.*, 2010; Johnson, SD, *et al.*, 2015; Moreto, WD, *et al.*, 2015; Petrossian, GA, *et al.*, 2014) ^[8, 11, 17, 20].

Results

Statistical Analysis

A) Correlation and regression statistical tool used to analyze data to measure the strength and direction of the relationship between two variables, i.e. wildlife crime cases and number of accused arrested.

Table 4: Wildlife species wise crime cases and Number of accused nabbed

Sr. No.	Wildlife species	Trafficking type	No. of cases	No of accused arrested
1.	Tiger	Body part	12	73
2.	Pangolin	Live	2	7
		Body part	3	12
3.	Leopard	Body part	5	36
4.	Star tortoise	Live	1	3
5.	Red sand boa	Live	1	2
6.	Ambergris (sperm whale)	Uncured Trophy	1	4
7.	Birds	Live	2	7
8.	Misc. species	Animal Article	6	19
	Total		33	163

Table 5: Correlation data as given below

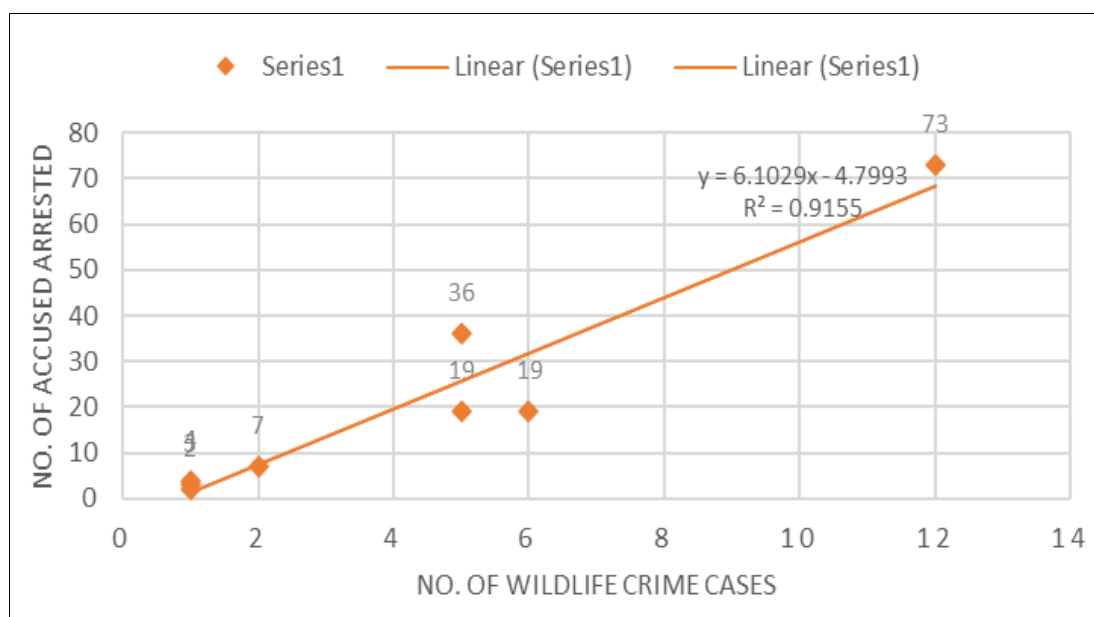
	Wildlife crime cases	No of accused arrested
Wildlife crime cases	1	0.948
No of accused arrested	0.948	1

The table shows the correlation coefficients between the two variables. A correlation coefficient is a number between -1 and 1 that indicates how closely the two variables are related. A positive correlation means that the variables tend to increase or decrease together, while a negative correlation means that the variables tend to move in opposite directions. A

correlation coefficient close to 1 or -1 means that the variables are strongly related, while a coefficient close to 0 means that the variables are weakly related or independent.

From data, the correlation coefficient between wildlife crime cases and number of accused arrested is 0.948, which means that there is a very strong positive relationship between the two variables. This means that as the number of wildlife crime cases increases, the number of accused arrested also increases, and vice versa.

To visualize the relationship between the two variables, a scatter plot with a trendline shown in Fig. 1.

**Fig 1:** Relation between wildlife crime cases and accused arrested.

The chart shows the scatter plot of the two variables, with a straight line that best fits the data points.

The equation of the line is $y = 6.1029x + 4.7993$, Where, y is the number of accused arrested and x is the number of wildlife crime cases.

The trendline has an *R-squared* value of 0.9155. An *R-squared* value close to 1 means that the line explains most of the variation in the data, while a value close to 0 means that the line explains very little of the variation in the data. In this

case, the *R-squared* value of 0.9155 means that the line fits the data very well, and that the number of wildlife crime cases can explain about 90% of the variation in the number of accused arrested.

B) To know the relation between wildlife species and wildlife crime cases with number of accused arrested chi-square test used. A chi-square test can test whether there is a significant association between two categorical variables, i. e. wildlife species and wildlife crime cases.

Table 6: Data shows the frequency of each combination of the two variables.

Wildlife species	1 crime case	2 crime cases	5 crime cases	6 crime cases	12 crime cases	Total
Tiger	0	0	0	0	1	1
Pangolin	0	0	1	0	0	1
Leopard	0	0	1	0	0	1
Star tortoise	1	0	0	0	0	1
Red sand boa	1	0	0	0	0	1
Ambergris	1	0	0	0	0	1
Birds	0	1	0	0	0	1
Misc. species	0	0	0	1	0	1
Total	3	1	2	1	1	8

Table 7: Test result of chi-square and p-value

	Chi-square	P-Value
Test result	20	0.001

The table shows the chi-square statistic and the *p-value* of the test. The chi-square statistic is a measure of how much the observed frequencies differ from the expected frequencies

under the assumption of no association between the two variables. The *p-value* is the probability of obtaining a chi-square statistic as large or larger than the observed one, if the null hypothesis of no association is true. A small *p-value* means that the observed association is unlikely to be due to chance, and that there is evidence to reject the null hypothesis and conclude that there is a significant association between

the two variables.
From data, the *p-value* is 0.001, which is very small and below the common significance level of 0.05. This means that there is a very low probability of getting a chi-square statistic of 20 or more, if there is no association between wildlife species and wildlife crime cases. Therefore, we can reject the null hypothesis and conclude that there is a significant association between the two variables.
C) To know, which wildlife species poaching is on high alert,

Table 1, 2, 3 and Figure 3, shows, the highest number of wildlife crime cases and/or the highest number of accused arrested. From data, the tiger seems to be the most endangered species, as it has the highest number of wildlife crime cases (12) and the highest number of accused arrested (73). This is consistent with the fact that tigers are highly sought after for their skins, bones, and other parts, which are used for traditional medicine, decoration, and status symbols (UNODC: World Wildlife Crime Report, 2012, 2020) ^[31, 28].

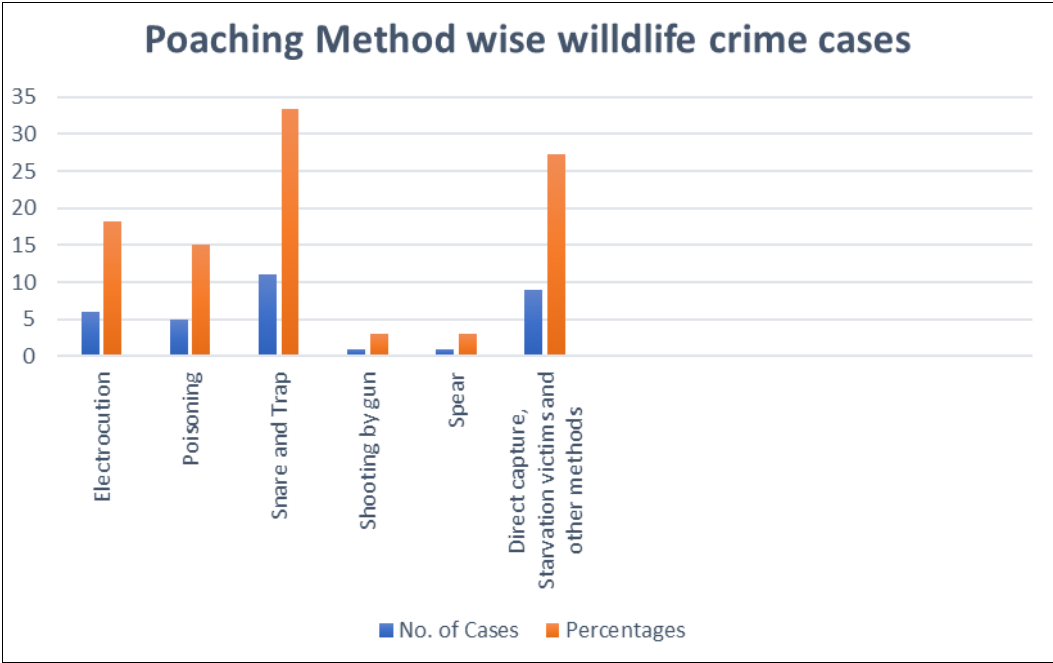


Fig 2: Poaching Method wise wildlife crime cases

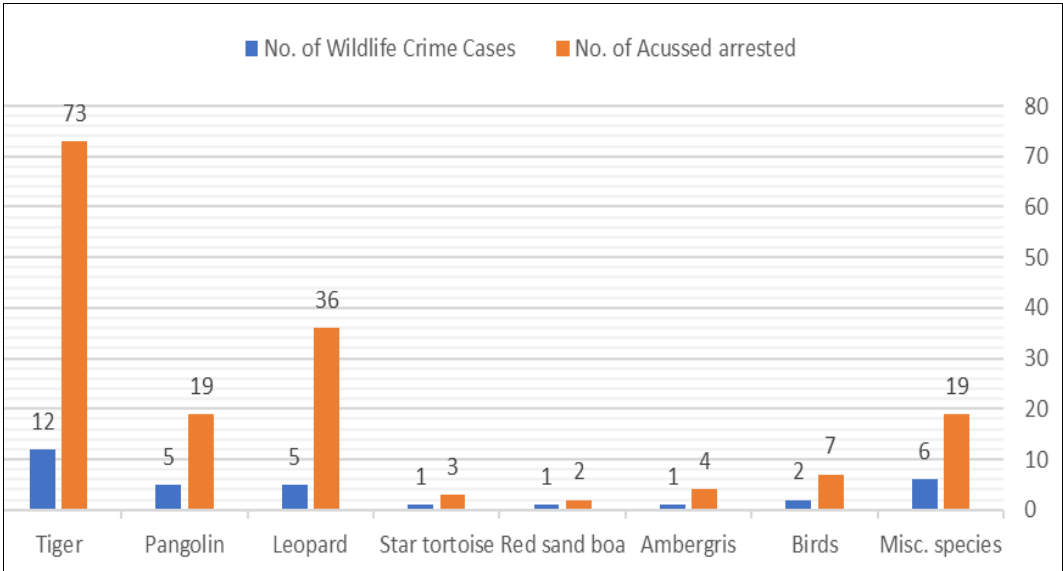


Fig 3: Wildlife species wise wildlife crime cases and number of accused nabbed

Analytical Result

During the period of wildlife protection work from July 2021 to July 2023, we raided 33 cases of wildlife trafficking and nabbed 163 accused. There were 12 cases of Tiger body part smuggling with a total of 72 accused. There were five Pangolin trafficking cases, out of which two was live Pangolin smuggling with 7 accused, and three cases of Pangolin body part smuggling with 12 accused. There were five cases of Leopard poaching and article smuggling with a total of 36 accused. There was one case of Star tortoise

smuggling with 3 accused. There were 10 other miscellaneous cases like Parakeet, Munia bird, Red sand boa live and body part smuggling, etc., with 32 accused. We studied two years of data on wildlife crime and found that poaching methods used by poachers mainly included electrocution, poisoning, snare and trap, shooting by gun, spear, and other methods like direct capture-starvation. There were 6 cases of electrocution, 5 cases of poisoning, 11 cases of snare and trap, 1 case of shooting by gun, 1 case of spear, and 9 cases of other methods like starvation. All cases were prosecuted before court.

Regarding the cumulative seizure of live wild animals and body part articles, 2 Tiger skins, 40 canine/teeth, 99 claws, 1 head, 23.845 kg of bones, and 65 whiskers were seized. For Leopard body parts, 5 skins, 29 canine/teeth, 14 claws, 3.00 kg of bones, and 31 whiskers were seized. For Pangolin scales, 10.250 kg were seized, along with 3 live Pangolins and 6 live Star tortoises. Additionally, 864 birds like Munia and Parakeet were seized, along with 1 live Red sand boa, 250gm Ambergris and 20 body part articles of Spotted deer, Porcupine, Peafowl, Owl, Sea fan, Skink, and Monitor lizard (sex part) (Table 1, 2, 3 and Figure 3 and 4). Furthermore, the cumulative seizure of wildlife contraband serves as a stark indicator of the scale of illegal wildlife trade in Vidarbha. (UNODC, 2023; 2020; 2015; 2012; NCRB, 2020) [28, 31, 30].

Discussion

The results of our study indicate that wildlife trafficking is a serious issue in Vidarbha region of Maharashtra, India. The high number of cases of Tiger/Leopard body part smuggling and Pangolin trafficking is particularly concerning. These

animals are endangered and their populations are already under threat. The seizure of live Pangolins and Star tortoises is also alarming, as these animals are protected under the Wildlife (Protection) Act, 1972 (Amended, 2022) of India. Our findings are poachers use a variety of methods to capture and kill wild animals. Electrocution, poisoning, snare and trap, shooting by gun, spear, and other methods like direct capture-starvation were all used. This highlights the need for better enforcement of wildlife protection laws and stricter penalties for those who engage in wildlife trafficking and poaching. The seizure of a large number of bird species like Munia and Parakeet is also a cause for concern. These birds are often kept as pets and their capture and sale is illegal. Munia birds used as a wild food. Uncured trophy like ambergris seizure is also hot alarming for this region. The seizure of body part articles of spotted deer, Porcupine, Peafowl, Owl, Sea fan, Skink, and Monitor lizard (sex part) is also alarming. These animals are often killed for their body parts, which are used in traditional medicine and other purposes like decoration, money gaining etc.

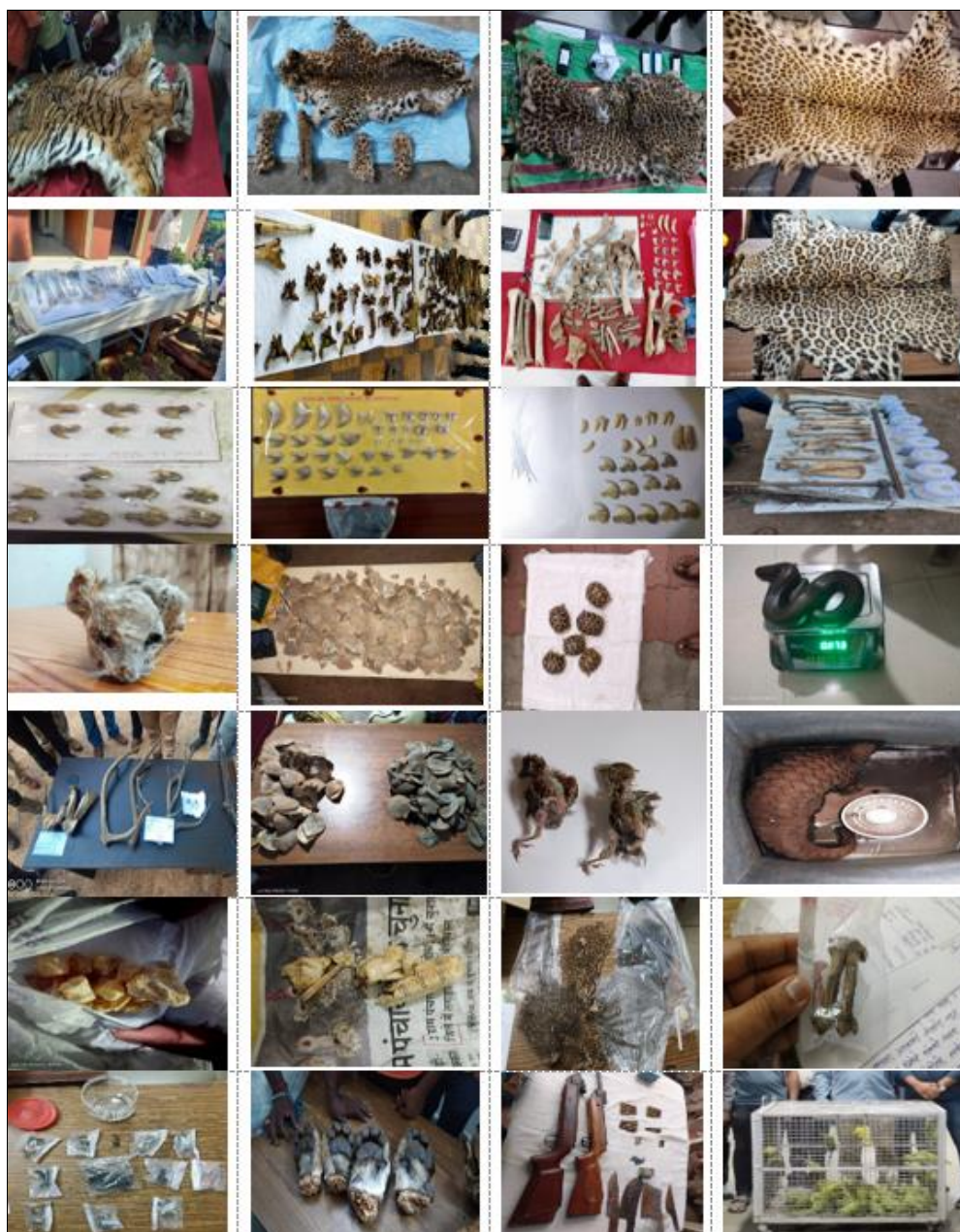


Fig 4: Images of seized material

Conclusion

The findings of this research emphasize the urgent need for robust measures to combat wildlife trafficking and poaching in Vidarbha region Maharashtra, India. The documented poaching methods, arrest of accused individuals, and cumulative seizure of wildlife contraband emphasize the critical importance of proactive conservation efforts and stringent law enforcement to safeguard the region's precious biodiversity.

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Disclosure of conflict of interest

The authors declare no conflict of interest.

Ethical Considerations

The study strictly adhered to ethical guidelines and legal regulations concerning wildlife conservation and protection.

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