



WILDLIFE ASSESSMENT OF THE CHANDRAGIRI HILLS, KATHMANDU: POTENTIAL FOR ECOTOURISM

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Abstract.

Wildlife assessments can provide crucial information regarding species richness, relative abundance and spatial, temporal, and ecological information on wildlife habitat associations. The assessment's information can in turn be used for developing management policies including for establishing touristic zones. We investigated wildlife occurrences in the Chandragiri Hills, Kathmandu Nepal from 2015-2019 to provide baseline data to inform the potential sites for ecotourism. During the study period, we recorded 30 mammal species, 199 bird species, 34 herpetofauna species and 77 butterfly species. The area harbors three globally and six nationally threatened mammal species, two globally and seven nationally threatened with one endemic bird species, one globally and nationally threatened herpetofauna, and one nationally threatened butterfly species. We also explored four potential hiking routes for observing wildlife and providing scenic views of the Himalayan range and Kathmandu city. Therefore, we expect Chandragiri Hills can become one of the hot spot for tourists to observe both common and threatened wildlife species in Nepal.

Key words: bird; butterfly; herpetofauna; mammal; hiking route; threatened species.

INTRODUCTION

Wildlife assessments provide critical data on species richness, abundance and spatial, temporal and ecological knowledge of their habitat (Katuwal et al. 2018). Assessments can be used to analyze the conservation status of species and to develop conservation action programs (Thomas 1982; Inskipp et al. 2016). In addition, data from assessments can benefit wildlife tourism through increased knowledge and potential observations. Increased tourists flow can also increase employment opportunities for local people and communities. Therefore, nature-based tourism is an emerging industry in developing coun-

tries, supporting nature conservation and the well-being of local people (Donohoe and Needham 2006). Hence, wildlife becomes an integral part of ecotourism as people are demonstrating increased interest towards wildlife-based tourism (Cong et al. 2014).

The Nepal government has established protected areas comprising about 24% of the total land area, including National Parks, Wildlife Reserve, Hunting Reserve, Conservation Areas and Cultural Heritage sites to conserve wildlife and enhance ecotourism (Baral et al. 2012). Most of these protected areas are in lowland and high land physiographic regions with few exceptional areas in the mid-hills region

of Nepal (DNPWC 2018). Wildlife in protected areas of Nepal are well known (Jnawali et al. 2011; Inskipp et al. 2016) and ecotourism has occurred for decades (see Bookbinder et al. 1998). However, there are many other potential sites outside the existing protected areas, especially in mid-hills like near to Kathmandu Valley (e.g., Phulchoki Mountain Forest) with diverse wildlife and natural beauty (Baral and Inskipp 2005; Jnawali et al. 2011; Katuwal et al. 2018). These places are more popular as weekend destinations for tourists. The Chandragiri Hills, which occur in the mid-hills region southwest of Kathmandu Valley, has similar topography and vegetation to Shivapuri-Nagarjun National Park and Phulchoki Mountain Forest, and is expected to have diverse wildlife. However, a wildlife assessment has not yet been conducted in the Chandragiri Hills and the current information of wildlife is little known.

We conducted a baseline assessment of wildlife in the Chandragiri Hills to understand the potential for ecotourism near to Kathmandu, the capital city of Nepal. We emphasized our assessment on mammal, bird, herpetofauna, and butterfly species along potential hiking routes. This assessment will provide a baseline data for conserving common and threatened species in this area (e.g., Higginbottom and Tribe 2004; Larm et al. 2018), which potentially may improve local livelihoods (KC et al. 2015), and strengthens local guardianship of endangered species and their habitats (Bookbinder et al. 1998).

1. MATERIALS AND METHODS

1.1. Study area

We conducted this study in Chandragiri Hills (Figure 1), comprising about 11 km² (27.6672° N, 85.2058° E) in Chandragiri Municipality, Kathmandu, Nepal, with an elevational range of 1300 to 2540 m. The Chandragiri Hills is about 16 km far from the core area of the Kathmandu city and is connected with major road with regular bus services. It is an historical place from where the Late King Prithivi Narayan Shah, the unifier of the Nepal Kingdom, had designed a military attack on the Kathmandu Valley during the 18th century. The cable car is operating since December 2016. The area is also famous for visiting the Bhaleshwor Mahadev temple which lies at the top of the Hills, with views of the Kathmandu Valley and Himalayan Range. The climate is sub-tropical to temperate which influences the occurrence of mixed vegetation including *Alnus nep-*

alensis, *Schima wallichii*, *Castanopsis indica*, *Pinus roxburghii*, *Quercus* spp., *Rhododendron* spp., etc. The Chandragiri Hills contains natural and planted forests and is managed as a community forest land.

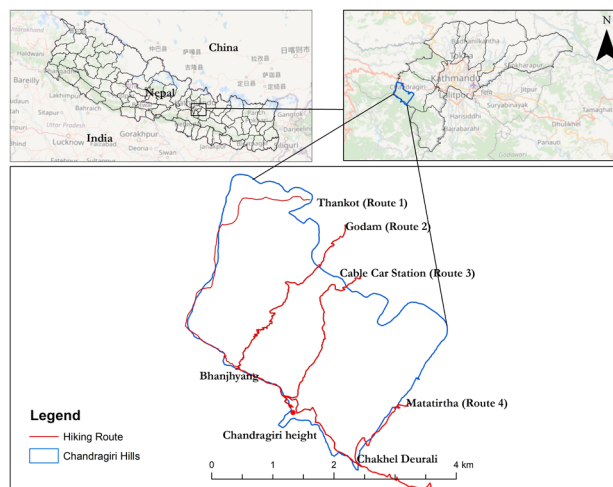


Figure 1: Boundary of Chandragiri Hills, Kathmandu with potential hiking routes.

1.2 Study design

We used multiple methods to detect wildlife species including direct observation, remote cameras, live traps, and species' sign observations. Surveys were conducted for 20 days in July 2015 during the monsoon season, which constrained our efforts to available trails (0.5–4 km long) due to hazardous conditions off-trail by monsoon. We used direct observations and evidence of sign (e.g., tracks, scat, burrows) to identify mammal species along trails. We attached 10 cameras to trees along trails at locations considered likely to detect nocturnal species such as near animal trails. Cameras were typically positioned 40–50 cm above ground and operated from 18:00 to 7:00 am morning for 20 days, removing cameras daily to avoid theft. We surveyed birds along these same trails using line transect method (Bibby et al. 2000; Urfi et al. 2005; Siegel 2009) each morning from 6:30 to 12:00 noon, recording all species observed or heard. In addition, we also observed butterfly and herpetofauna along trails, open places and rivulets. We used field guides for mammals (Baral and Shah 2008), birds (Grimmett et al. 2000), butterflies (Smith 1994; Khanal and Smith 1997), and herpetofauna (Shah and Tiwari 2004) for species identification. We took photographs of all unidentified sign and species and consulted with experts for identification. Additionally, we also placed 40 live traps (Sherman/tube/local/pitfall) for small mammals systematically bait-

ed with balls of oatmeal, biscuit, carrot etc. in March 2019 for 25 days. We checked traps each morning and evening and released animals' onsite immediately after identification. Besides, we also consulted some key informants and made several opportunistic visits to survey butterflies, herpetofauna, birds (also reviewed ebird list) and mammals till May 2019.

We considered images from remote cameras taken >30 min apart as independent events (see O'Brien et al. 2003; Jenks et al. 2011; Katuwal and Dahal 2013) and plotted detections time for each species. We compiled the list of species detected along with their conservation and trade status using the International Union for Conservation of Nature (IUCN) Red List of Threatened Species and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) database, respectively.

2. RESULTS

2.1 Wildlife of Chandragiri Hills

We recorded 30 mammal species (three species identified at genus level only) of 16 families (Appendix 1). We detected three globally threatened species (Chinese Pangolin *Manis pentadactyla*, Leopard *Panthera pardus*, and Himalayan Black Bear *Ursus thibetanus*), six nationally threatened species (Leopard Cat *Prionailurus bengalensis*, Leopard, Chinese Pangolin, Barking Deer *Muntiacus vaginalis*, Himalayan Black Bear and Assam Macaque *Macaca assamensis*), and 10 were CITES listed species (Appendix 1 and 2). Through camera trapping, we confirmed the first occurrence of Chinese Pangolin in the Chandragiri Hills (Appendix 2). Our results indicated that most mammals were active during dawn and dusk (Figure 2). Large Indian Civet (*Viverra zibetha*) was recorded most frequently (48 detections) while Yellow-throated Marten (*Martes flavigula*) was detected only once. Among bats, we identified only the Woolly Horseshoe Bat (*Rhinolophus luctus*) and Greater Short-nosed Fruit Bat (*Cynopterus sphinx*).

We recorded 199 bird species from 47 families (Appendix 3). Most birds were resident (159 species) while some were winter (23 species) and summer (17 species) visitors. Among these bird species, we identified two globally threatened bird species (Steppe Eagle *Aquila nipalensis* and Red-headed Vulture *Sarcogyps calvus*), seven nationally threatened species (Common Barn-owl *Tyto alba*, Brown Wood-owl *Strix leptogrammica*, Steppe Eagle, Red-headed Vulture, Himalayan Griffon *Gyps himalayensis*, Plain-

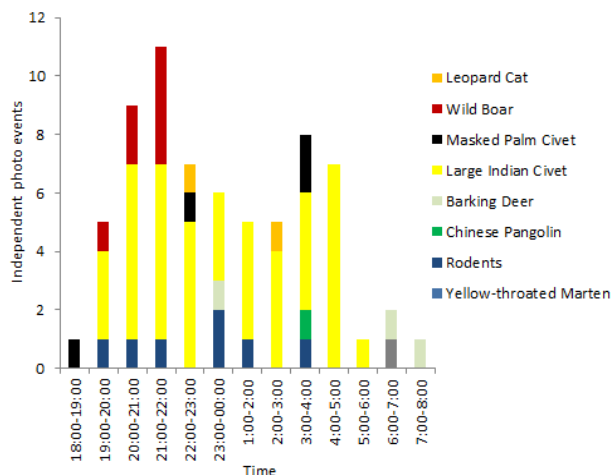


Figure 2: Frequency of mammals in camera traps at Chandragiri Hills in July 2015.

crowned Jay *Garrulus bispecularis*, and Gold-naped Finch *Pyrrhoptetes epauletta*), one was endemic species (Spiny Babbler *Acanthoptila nipalensis*), and 27 were CITES-listed species (Appendix 2 and 3).

We recorded 34 herpetofauna (10 amphibian species from five families, 24 reptile species from six families) (Appendix 2 and 4). The King Cobra (*Ophiophagus hannah*) was the only globally and nationally threatened (Vulnerable) species among the detected species in the Chandragiri Hills. We recorded 77 butterfly species from nine families (Appendix 2 and 5). The Golden Birdwing (*Troides aeacus*) was a CITES-listed species and the Common Siren (*Diagora persimilis*) was a nationally threatened species.

2.2 Identifying potential hiking routes

We identified four hiking routes in the Chandragiri Hills (see Figure 1):

Route 1) Thankot-Bhanjyang-Chandragiri Hills: Visitors can start from Laglage Community Forest located in Thankot around 1300 m of elevation at the base of Kathmandu Valley. It is a well-managed hiking route for one hour and small trail afterward where visitors have opportunity to observe the Critically Endangered Chinese Pangolin and their burrows, other mammals like Wild Boar (*Sus scrofa*), Barking Deer (*Muntiacus vaginalis*) along with the signs of felid species like Leopard, forest birds and soaring raptors, butterflies, and herpetofauna along the trail. In addition, visitors can enjoy the scenery of Kathmandu valley along the eastern side and

beautiful mountain landscape on the western side at an elevation of 2260 m in the Bhanjyang area within 3 hours walk from the starting point. After a 30-45 min walk from Bhanjyang, visitors can reach the Chandragiri peak (2540 m). From the top of the Chandragiri Hills, visitors can enjoy views of the Kathmandu Valley and panoramic view of the Himalayan Range from Mt. Annapurna I (8091 m) to Mt. Everest (8848 m) in clear days.

Route 2) Godam-Bhanjyang-Chandragiri Hills: Visitors can drive from Godam (Thankot area) to Bhanjyang to the top of Chandragiri, or can walk which takes 3–4 hours. It is one of the ancient routes that connect the Kathmandu with Terai region of Nepal. The road also goes to the Chitlang village from Bhanjyang which is famous for homestays. Due to open space, this area is more suitable for observing birds, butterflies, primates, squirrels, and mammal signs (e.g., leopard, civet).

Route 3) Chandragiri cable car station-Chandragiri Hills: This is also the historic and most difficult hiking trail used by local people to reach the Bhaleshwor Mahadev temple at top of Chandragiri. The route starts from cable car station passing through dense forest and is around 2-3 hours hike to the top of Chandragiri. There is a higher chance of observing Chinese Pangolin and its burrows, civets and Barking Deer, along with many forest birds, butterflies and herpetofauna. Visitors can also use a cable car and see the scenic beauty of the Himalayan Range.

Route 4) Matatirtha-Chandragiri Hills: There is a drivable road till Chakhel Deurali and then hiking trail to the Chandragiri top. However, the visitors can directly use the hiking trail to reach the Chandragiri within 3–4 hours from Matatirtha. This hiking route provides excellent views of the Kathmandu Valley and Himalayan range. This area is the best for bird watching and observing different butterflies, herpetofauna, and mammals.

3. DISCUSSION

This study outlined the relevance of Chandragiri Hills for the conservation of different faunal groups. Though presently it is not part of any protected area, it holds a very rich faunal diversity, which may be considered for both global and national importance.

The wildlife inventory and the potential tourist travel routes identified from this study can be served as a baseline data for developing ecotourism planning in Chandragiri Hills.

The observed species diversity in the Chandragiri Hills seems similar to that found in the nearest protected area, Shivapuri-Nagarjun National Park in mid-hills of Kathmandu (DNPWC 2020). For mammal species, most are widely distributed in Nepal except the Chinese Pangolin, which occurs predominantly from eastern to central Nepal (Sharma et al. 2020a). The local communities of Chandragiri areas are willing to protect threatened species like Chinese Pangolin because these communities have more knowledge on the importance of the species (Sharma et al. 2020b). As Leopards appear abundant in this area, human-leopard conflict is frequent (see the recent killing of the Leopard <https://english.khabarhub.com/2020/07/94225/>). It is also not surprising that many local people have experienced injuries, livestock and pets depredations from leopard. For example, people put spiked collars on their dogs to mitigate attacks from Leopard. Interestingly, the frequently detected Large Indian Civet and Yellow-throated Marten in Chandragiri Hills may provide good opportunities for wildlife observers. These species are hardly recorded in the Kathmandu Valley probably due to their often nocturnal and crepuscular behavior (Hunter 2011; Appel et al. 2013) or limited studies of their occurrence. Records of both summer and winter birds suggest the Chandragiri Hills could be a potential site for bird watchers throughout the year. The Chandragiri Hills could also serve as an appropriate site for watching bird migrations (especially Steppe Eagles and other raptors) during winter season in the Kathmandu Valley (V. Thapa and A.V. Rissen personal communications), similar to Thoolakharka in Pokhara, Nepal (Subedi and Gurung, 2018). Due to the presence of fewer water sources in the study area, amphibian diversity and distribution was limited. However, the King Cobra, most often recorded from the low lands in Nepal, is now widely reported from the mid-hills region (Thapa et al. 2019), probably due to more studies. Diversity of butterflies also suggests that the Chandragiri Hills provide suitable habitat for these species. Although anthropogenic land-use change and ongoing climate change are impacting the occurrence, distribution and diversity of many herpetofauna and butterflies (Lütolf et al. 2009; Wanger et al. 2010; Acharya and Chettri 2012), IUCN has not

assessed the conservation status of most of these species. Therefore, we suggest that regular monitoring of habitat, threatened species found in this area, and reducing all kinds of threats (for example, hunting and poaching of the species as we recorded several snares used to capture pheasants and observed children collecting the pheasant eggs and young, habitat loss and fragmentation, and unplanned construction activities) and associated conflicts should be a priority for community forest members and local government to conserving their biodiversity.

Although charismatic species are often the main attractions for ecotourism, tourists are showing increasing interest toward readily-accessible landscapes with greater diversity of plants, birds, herpetofauna, and butterflies, as well as rare, less easily-observed, or less high-profile mammal species (Loubser et al. 2001; Lindsay et al. 2007; Kurnianto et al. 2016; Hausmann 2016). As Chandragiri Hills is a largely intact system with unique landscapes and biodiversity ranging from sub-tropical to the temperate, it has potential for wildlife-based ecotourism. Local communities can develop lodging for visitors interested to explore this area. In addition, local/regional government should take the responsibility for its regulation and promotion and simultaneously precautions should be taken to mitigate potential negative impacts of tourism on the vegetation, watershed, and wildlife, especially threatened species. A code of conduct should be developed for tourists against the possible impacts on wild animals through direct mortality (e.g., vehicle collision), providing food to attract species, degrading crucial habitats, introducing of exotic species, and transmission of infectious diseases (Shannon et al. 2017).

4. CONCLUSIONS

The Chandragiri Hills near to Kathmandu is one of the potential areas for wildlife observation of national to global significance, as well as providing scenic Himalayan views for Nepalese and foreigners or people who have short stay at Kathmandu. The extent of open areas in Kathmandu is declining (Ishtiaque et al. 2017); therefore the Chandragiri Hills can provide unique opportunities to observe wildlife near the capital city. We recommend local government consider promoting through national and international media of this area, as well as additional actions to promote the conservation of nationally and globally threatened species and their habitats.

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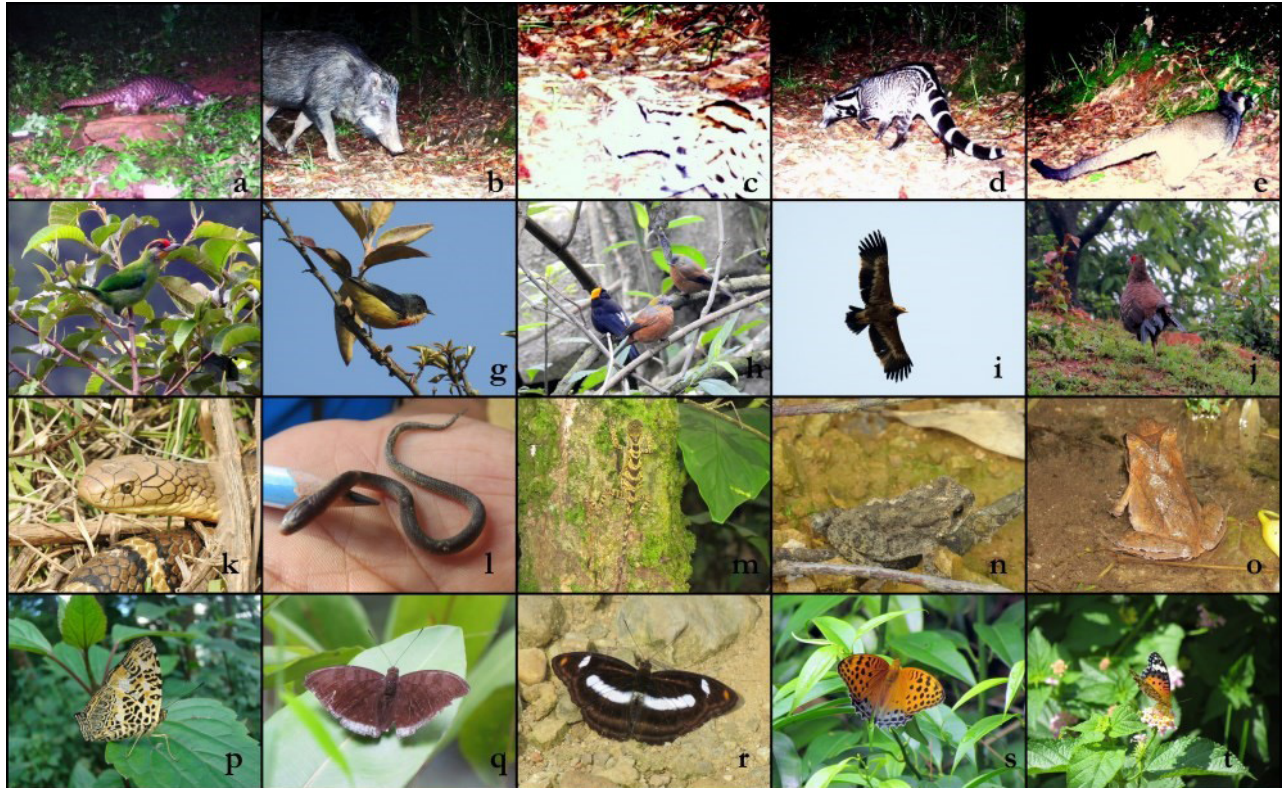
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Appendix 1: Mammals recorded in Chandragiri Hills where DD is Data Deficient, LC is Least Concern, NT is Near Threatened, VU is Vulnerable, CR is Critically Endangered.

S. N.	Order/Family/Common Name	Scientific Name	Sighting Method	Conservation Status		CITES
				National	IUCN	
Carnivora						
	Felidae					
1	Jungle Cat	<i>Felis chaus</i>	Direct	LC	LC	II
2	Leopard	<i>Panthera pardus</i>	Sign	VU	VU	I
3	Leopard Cat	<i>Prionailurus bengalensis</i>	Camera trap	VU	LC	II
	Mustelidae					
4	Yellow-throated Marten	<i>Martes flavigula</i>	Direct, Camera trap	LC	LC	III
	Ursidae					
6	Asiatic Black Bear	<i>Ursus thibetanus</i>	Key informant	EN	VU	I
	Viverridae					
7	Large Indian Civet	<i>Viverra zibetha</i>	Camera trap, Sign	NT	NT	III
5	Masked Palm Civet	<i>Paguma larvata</i>	Direct, Camera trap	LC	LC	
	Canidae					
8	Golden Jackal	<i>Canis aureus</i>	Direct	LC	LC	III
Artiodactyla						
	Cervidae					
9	Barking Deer	<i>Muntiacus vaginalis</i>	Direct, Camera trap, Sign	VU	LC	
	Suidae					
10	Wild Boar	<i>Sus scrofa</i>	Direct, Camera trap, Sign	LC	LC	
Chiroptera						
	Rhinolophidae					
11	Woolly Horseshoe Bat	<i>Rhinolophus luctus</i>	Direct	LC	LC	
	Pteropodidae					
12	Greater Shortnosed Fruit Bat	<i>Cynopterus sphinx</i>	Direct	LC	LC	
	Vespertilionidae					
13	Pipistrellus Bat	<i>Pipistrelle spp.</i>	Direct			
Soricomorpha						
	Soricidae					
14	Asian House Shrew	<i>Suncus murinus</i>	Direct, Live trap	LC	LC	
15	Himalayan Shrew	<i>Soriculus nigrescens</i>	Live trap	LC	LC	
Pholidota						
	Manidae					
16	Chinese Pangolin	<i>Manis pentadactyla</i>	Camera trap, Sign	EN	CR	I

Primates						
	Cercopithecidae					
17	Rhesus Macaque	<i>Macaca mulatta</i>	Direct	LC	LC	II
18	Assam Macaque	<i>Macaca assamensis</i>	Direct	VU	NT	II
Rodentia						
	Muridae					
19	House Rat	<i>Rattus rattus</i>	Direct, Live trap	LC	LC	
20	Himalayan Rat	<i>Rattus pyctoris</i>	Live trap	LC	LC	
21	Indo-Chinese Rat/ Sikkim Rat	<i>Rattus andamanensis</i>	Live trap	DD	LC	
22	Fawn-colored Mouse	<i>Mus cervicolor</i>	Live trap	LC	LC	
23	House Mouse	<i>Mus musculus</i>	Live trap	LC	LC	
24	Soft-furred Rat	<i>Millardia meltada</i>	Live trap	LC	LC	
25	Rat	<i>Rattus sp.</i>	Live trap			
26	Mouse	<i>Mus sp.</i>	Live trap			
	Sciuridae					
27	Irrawaddy Squirrel	<i>Callosciurus pygerythrus</i>	Direct	LC	LC	
28	Particoloured Flying Squirrel	<i>Hylopetes alboniger</i>	Direct	LC	LC	
29	Orange-bellied Himalayan Squirrel	<i>Dremomys lokriah</i>	Direct	LC	LC	
	Hystricidae					
30	Indian Crested Procupine	<i>Hystrix indica</i>	Sign	DD	LC	

Appendix 2: Wildlife of Chandragiri Hills: a-e mammals (a-Chinese Pangolin, b-Wild Boar, c-Leopard Cat, d-Large Indian Civet, e-Masked Palm Civet), f-j birds (f-Golden-throated Barbet, g-Fire-breasted Flowerpecker, h-Gold-naped Finch, i-Steppe Eagle, j-Kalij Pheasant), k-o herpetofauna (k-King Cobra, l-Darjeeling Worm Snake, m-Variegated Mountain Lizard, n- Marbled Toad, o-Myanmar Pelobatid Toad), p-t butterflies (p-Himalayan Jester, q- Grey Count, r-Colour Sergent, s-Large Silver Stripe, t-Indian Fritillary).



Appendix 3: Birds recorded in Chandragiri Hills where DD is Data Deficient, LC is Least Concern, NT is Near Threatened, VU is Vulnerable, EN is Endangered.

S. N	Order/Family/Commo n Name	Scientific Name	Migration Status	Conservation Status		CITES
				National	IUCN	
	Galliformes					
	Phasianidae					
1	Hill Partridge	<i>Arborophila torqueola</i>	Resident	LC	LC	
2	Kalij Pheasant	<i>Lophura leucomelanos</i>	Resident	LC	LC	III
	Columbiformes					
	Columbidae					
3	Rock Dove	<i>Columba livia</i>	Resident	LC	LC	
4	Speckled Woodpigeon	<i>Columba hodgsonii</i>	Resident	LC	LC	
5	Oriental Turtle-dove	<i>Streptopelia orientalis</i>	Resident	LC	LC	
6	Western Spotted Dove	<i>Spilopelia suratensis</i>	Resident	LC	LC	
7	Grey-capped Emerald Dove	<i>Chalcophaps indica</i>	Resident	LC	LC	
8	Wedge-tailed Green Pigeon	<i>Treron sphenurus</i>	Resident	LC	LC	
	Caprimulgiformes					
	Apodidae					
9	House Swift	<i>Apus nipalensis</i>	Resident	LC	LC	
	Cuculiformes					
	Cuculidae					
10	Greater Coucal	<i>Centropus sinensis</i>	Resident/Summer migrant	LC	LC	
11	Green-billed Malkoha	<i>Phaenicophaeus tristis</i>	Resident	LC	LC	
12	Western Koel	<i>Eudynamis scolopaceus</i>	Resident	LC	LC	
13	Common Cuckoo	<i>Cuculus canorus</i>	Resident	LC	LC	
14	Oriental Cuckoo	<i>Cuculus saturates</i>	Summer migrant	LC	LC	
15	Large Hawk-cuckoo	<i>Hierococcyx sparveroides</i>	Resident	LC	LC	
16	Grey-bellied Cuckoo	<i>Cacomantis passerines</i>	Summer migrant	LC	LC	
17	Lesser Cuckoo	<i>Cuculus poliocephalus</i>	Summer migrant	LC	LC	
18	Fork-tailed Drongo-cuckoo	<i>Surniculus dicruroides</i>	Summer migrant	LC	LC	
	Pelecaniformes					
	Ardeidae					
19	Cattle Egret	<i>Bubulcus ibis</i>	Resident	LC	LC	
20	Indian Pond-heron	<i>Ardeola grayii</i>	Resident	LC	LC	
21	Little Egret	<i>Egretta garzetta</i>	Resident	LC	LC	

	Strigiformes					
	Tytonidae					
22	Common Barn-owl	<i>Tyto alba</i>	Resident	VU	LC	II
	Strigidae					
23	Spotted Owlet	<i>Athene brama</i>	Resident	LC	LC	II
24	Mountain Scops-owl	<i>Otus spilocephalus</i>	Resident	LC	LC	II
25	Collared Owlet	<i>Glaucidium brodiei</i>	Resident	LC	LC	II
26	Brown Wood-owl	<i>Strix leptogrammica</i>	Resident	VU	LC	II
27	Asian Barred Owlet	<i>Glaucidium cuculoides</i>	Resident	LC	LC	II
28	Rock Eagle-owl	<i>Bubo bengalensis</i>	Resident	VU	LC	
	Accipitriformes					
	Accipitridae					
29	Crested Serpent-eagle	<i>Spilornis cheela</i>	Resident	LC	LC	II
30	Black Kite	<i>Milvus migrans</i>	Resident	LC	LC	II
31	Shikra	<i>Accipiter badius</i>	Resident	LC	LC	II
32	Steppe Eagle	<i>Aquila nipalensis</i>	Winter migrant	VU	EN	II
33	Northern Goshawk	<i>Accipiter gentilis</i>	Resident	LC	LC	II
34	Mountain Hawk-eagle	<i>Nisaetus nipalensis</i>	Resident	LC	LC	II
35	Black Eagle	<i>Ictinaetus malaiensis</i>	Resident	LC	LC	II
36	Himalayan Buzzard	<i>Buteo refectus</i>	Winter migrant	LC	LC	II
37	Long-legged Buzzard	<i>Buteo rufinus</i>	Winter migrant	LC	LC	II
38	Red-headed Vulture	<i>Sarcogyps calvus</i>	Resident	EN	CR	II
39	Himalayan Griffon	<i>Gyps himalayensis</i>	Resident	VU	NT	II
40	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>	Resident	LC	LC	II
41	Bonelli's Eagle	<i>Aquila fasciata</i>	Winter migrant	LC	LC	II
42	Booted Eagle	<i>Hieraaetus pennatus</i>	Winter migrant	LC	LC	II
43	Besra	<i>Accipiter virgatus</i>	Resident	LC	LC	II
	Bucerotiformes					
	Upupidae					
44	Common Hoopoe	<i>Upupa epops</i>	Resident	LC	LC	
	Coraciiformes					
	Alcedinidae					
45	White-breasted	<i>Halcyon</i>	Resident	LC	LC	

	Kingfisher	<i>smyrnensis</i>				
	Piciformes					
	Megalaimidae					
46	Great Barbet	<i>Psilopogon virens</i>	Resident	LC	LC	
47	Golden-throated Barbet	<i>Psilopogon franklinii</i>	Resident	LC	LC	
48	Blue-throated Barbet	<i>Psilopogon asiatica</i>	Resident	LC	LC	
	Picidae					
49	Scarlet-breasted Woodpecker	<i>Dryobates cathpharius</i>	Resident	LC	LC	
50	Rufous-bellied Woodpecker	<i>Dendrocopos hyperythrus</i>	Resident	LC	LC	
51	Darjeeling Woodpecker	<i>Dendrocopos darjellensis</i>	Resident	LC	LC	
52	Lesser Yellownape	<i>Picus chlorolophus</i>	Resident	LC	LC	
53	Greater Yellownape	<i>Chrysophlegma flavinucha</i>	Resident	LC	LC	
54	Grey-capped Woodpecker	<i>Picoides canicapillus</i>	Resident	LC	LC	
55	Speckled Piculet	<i>Picumnus innominatus</i>	Resident	LC	LC	
	Cariamiformes					
	Falconidae					
56	Eurasian Hobby	<i>Falco subbuteo</i>	Passage migrant	LC	LC	II
57	Common Kestrel	<i>Falco tinnunculus</i>	Resident and passage migrant	LC	LC	II
58	Peregrine Falcon	<i>Falco peregrinus</i>	Resident	LC	LC	I
	Psittaciformes					
	Psittacidae					
59	Alexandrine Parakeet	<i>Psittacula eupatria</i>	Resident	LC	NT	II
60	Rose-ringed Parakeet	<i>Psittacula krameri</i>	Resident	LC	LC	
61	Slaty-headed Parakeet	<i>Psittacula himalayana</i>	Resident	LC	LC	II
	Passeriformes					
	Oriolidae					
62	Maroon Oriole	<i>Oriolus traillii</i>	Resident	LC	LC	
63	Indian Golden Oriole	<i>Oriolus kundoo</i>	Summer migrant	LC	LC	
	Vireonidae					
64	White-bellied Erpornis	<i>Erpornis zantholeuca</i>	Resident	LC	LC	

	Campephagidae					
65	Long-tailed Minivet	<i>Pericrocotus ethologus</i>	Resident	LC	LC	
66	Scarlet Minivet	<i>Pericrocotus flammeus</i>	Resident	LC	LC	
67	Indian Cuckooshrike	<i>Coracina macei</i>	Resident	LC	LC	
68	Black-winged Cuckooshrike	<i>Lalage melaschistos</i>	Resident	LC	LC	
	Rhipiduridae					
69	White-throated Fantail	<i>Rhipidura albicollis</i>	Resident	LC	LC	
	Dicruridae					
70	Black Drongo	<i>Dicrurus macrocercus</i>	Resident	LC	LC	
71	Ashy Drongo	<i>Dicrurus leucophaeus</i>	Resident and partial migrant	LC	LC	
72	Hair-crested Drongo	<i>Dicrurus hottentottus</i>	Resident	LC	LC	
73	Bronzed Drongo	<i>Dicrurus aeneus</i>	Resident	LC	LC	
74	Lesser Racquet-tailed Drongo	<i>Dicrurus remifer</i>	Resident	LC	LC	
	Laniidae					
75	Long-tailed Shrike	<i>Lanius schach</i>	Resident	LC	LC	
76	Grey-backed Shrike	<i>Lanius tephronotus</i>	Winter migrant	LC	LC	
77	Brown Shrike	<i>Lanius cristatus</i>	Winter migrant	LC	LC	
	Corvidae					
78	Rufous Treepie	<i>Dendrocitta vagabunda</i>	Resident	LC	LC	
79	Grey Treepie	<i>Dendrocitta formosae</i>	Resident	LC	LC	
80	Plain-crowned Jay	<i>Garrulus bispecularis</i>	Resident	EN	LC	
81	Black-headed Jay	<i>Garrulus lanceolatus</i>	Winter migrant	LC	LC	
82	House Crow	<i>Corvus splendens</i>	Resident	LC	LC	
83	Large-billed Crow	<i>Corvus macrorhynchos</i>	Resident	LC	LC	
84	Red-billed Blue Magpie	<i>Urocissa erythroryncha</i>	Resident	LC	LC	
85	Common Green Magpie	<i>Cissa chinensis</i>	Resident	LC	LC	
	Stenostiridae					
86	Yellow-bellied Fairy-fantail	<i>Chelidorhynch hypoxanthus</i>	Resident	LC	LC	
87	Grey-headed Canary-flycatcher	<i>Culicicapa ceylonensis</i>	Partial migrant	LC	LC	
	Paridae					

88	Great Tit	<i>Parus major</i>	Resident	LC	LC	
89	Green-backed Tit	<i>Parus monticolus</i>	Resident	LC	LC	
90	Black-lored Tit	<i>Machlolophus xanthogenys</i>	Resident	LC	LC	
91	Black-throated Tit	<i>Aegithalos concinnus</i>	Resident	LC	LC	
92	Yellow-browed Tit	<i>Sylviparus modestus</i>	Resident	LC	LC	
	Cisticolidae					
93	Striated Prinia	<i>Prinia crinigera</i>	Resident	LC	LC	
94	Common Tailorbird	<i>Orthotomus sutorius</i>	Resident	LC	LC	
	Pnoepyidae					
95	Scaly-breasted Cupwing	<i>Pnoepyga albiventer</i>	Resident	LC	LC	
	Hirundinidae					
96	Red-rumped Swallow	<i>Cecropis daurica</i>	Resident	LC	LC	
97	Barn Swallow	<i>Hirundo rustica</i>	Resident and summer migrant	LC	LC	
	Pycnonotidae					
98	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Resident	LC	LC	
99	Himalayan Bulbul	<i>Pycnonotus leucogenys</i>	Resident	LC	LC	
100	Mountain Bulbul	<i>Ixos mcclllandii</i>	Resident	LC	LC	
101	Striated Bulbul	<i>Pycnonotus striatus</i>	Resident	LC	LC	
102	Black Bulbul	<i>Hypsipetes leucocephalus</i>	Resident	LC	LC	
	Phylloscopidae					
103	Grey-bellied Tesia	<i>Tesia cyaniventer</i>	Resident	LC	LC	
104	Chestnut-headed Tesia	<i>Cettia castaneocoronata</i>	Resident	LC	LC	
105	Blyth's Leaf-warbler	<i>Phylloscopus reguloides</i>	Resident	LC	LC	
106	Buff-barred Warbler	<i>Phylloscopus pulcher</i>	Resident	LC	LC	
107	Greenish Warbler	<i>Phylloscopus trochiloides</i>	Summer and Passage Migrant	LC	LC	
108	Ashy-throated Warbler	<i>Phylloscopus maculipennis</i>	Resident	LC	LC	
109	Whistler's Warbler	<i>Phylloscopus whistleri</i>	Resident	LC	LC	
110	Grey-cheeked Warbler	<i>Phylloscopus poliogenys</i>	Resident	LC	LC	
111	Green-crowned Warbler	<i>Phylloscopus burkii</i>		LC	LC	

112	Chestnut-crowned Warbler	<i>Phylloscopus castaniceps</i>		LC	LC	
113	Grey-hooded Warbler	<i>Phylloscopus xanthoschistos</i>	Resident	LC	LC	
114	Hume's Leaf-warbler	<i>Phylloscopus humei</i>	Resident	LC	LC	
115	Lemon-rumped Leaf-warbler	<i>Phylloscopus chloronotus</i>	Resident	LC	LC	
116	Black-faced Warbler	<i>Abroscopus schisticeps</i>	Resident	LC	LC	
	Sylviidae					
117	White-browed Fulvetta	<i>Fulvetta vinipectus</i>	Resident	LC	LC	
	Zosteropidae					
118	Whiskered Yuhina	<i>Yuhina flavicollis</i>	Resident	LC	LC	
119	Oriental White-eye	<i>Zosterops palpebrosus</i>	Resident	LC	LC	
	Timaliidae					
120	Rusty-cheeked Scimitar Babbler	<i>Erythrogonys erythrogonys</i>	Resident	LC	LC	
121	Streak-breasted Scimitar Babbler	<i>Pomatorhinus ruficollis</i>	Resident	LC	LC	
122	Black-chinned Babbler	<i>Cyanoderma pyrrhops</i>	Resident	LC	LC	
123	Grey-throated Babbler	<i>Stachyris nigriceps</i>	Resident	LC	LC	
	Pellorneidae					
124	Puff-throated Babbler	<i>Pellorneum ruficeps</i>	Resident	LC	LC	
125	Rufous-winged Fulvetta	<i>Schoeniparus castaneiceps</i>	Resident	LC	LC	
	Leiotrichidae					
126	Nepal Fulvetta	<i>Alcippe nipalensis</i>	Resident	LC	LC	
127	Spiny Babbler	<i>Acanthoptila nipalensis</i>	Resident	LC	LC	
128	White-throated Laughingthrush	<i>Garrulax albogularis</i>	Resident	LC	LC	
129	White-crested Laughingthrush	<i>Garrulax leucolophus</i>	Resident	LC	LC	
130	Striated Laughingthrush	<i>Grammatoptila striata</i>	Resident	LC	LC	
131	Chestnut-crowned Laughingthrush	<i>Trochalopteron erythrocephalum</i>	Resident	LC	LC	
132	Streaked Laughingthrush	<i>Trochalopteron lineatum</i>	Resident	LC	LC	
133	Red-billed Leiothrix	<i>Leiothrix lutea</i>	Resident	LC	LC	
134	Rufous Sibia	<i>Heterophasia capistrata</i>	Resident	LC	LC	
135	Hoary-throated Barwing	<i>Sibia nipalensis</i>	Resident	LC	LC	

136	Blue-winged Minla	<i>Siva cyanouroptera</i>	Resident	LC	LC	
	Certhiidae					
137	Rusty-flanked Treecreeper	<i>Certhia nipalensis</i>	Resident	LC	LC	
	Sittidae					
138	Chestnut-bellied Nuthatch	<i>Sitta cinnamoventris</i>	Resident	LC	LC	
139	Velvet-fronted Nuthatch	<i>Sitta frontalis</i>	Resident	LC	LC	
140	White-tailed Nuthatch	<i>Sitta himalayensis</i>	Resident	LC	LC	
	Sturnidae					
141	Common Myna	<i>Acridotheres tristis</i>	Resident	LC	LC	
142	Jungle Myna	<i>Acridotheres fuscus</i>	Resident	LC	LC	
143	Chestnut-tailed Starling	<i>Sturnia malabarica</i>	Resident	LC	LC	
144	Brahminy Starling	<i>Sturnia pagodarum</i>	Resident	LC	LC	
	Turdidae					
145	Pied Thrush	<i>Geokichla wardii</i>	Summer migrant	LC	LC	
146	Scaly Thrush	<i>Zoothera dauma</i>	Winter migrant	LC	LC	
147	Tibetan Blackbird	<i>Turdus maximus</i>	Resident	LC	LC	
148	Black-throated Thrush	<i>Turdus atrogularis</i>	Winter migrant	LC	LC	
149	Grey-winged Blackbird	<i>Turdus boulboul</i>	Resident	LC	LC	
150	White-collared Blackbird	<i>Turdus albocinctus</i>	Resident	LC	LC	
	Muscicapidae					
151	Oriental Magpie-robin	<i>Copsychus saularis</i>	Resident	LC	LC	
152	Dark-sided Flycatcher	<i>Muscicapa sibirica</i>	Summer migrant	LC	LC	
153	Rufous-gorgeted Flycatcher	<i>Ficedula strophliata</i>	Resident	LC	LC	
154	Verditer Flycatcher	<i>Eumyias thalassinus</i>	Resident and partial migrant	LC	LC	
155	Slaty-blue Flycatcher	<i>Ficedula tricolor</i>	Winter migrant	LC	LC	
156	Ultramarine Flycatcher	<i>Ficedula superciliaris</i>	Summer migrant	LC	LC	
157	Red-throated Flycatcher	<i>Ficedula albicilla</i>	Winter migrant	LC	LC	
158	Blue Whistling-thrush	<i>Myophonus caeruleus</i>	Resident	LC	LC	
159	Blue-capped Rock-thrush	<i>Monticola cinclorhyncha</i>	Summer migrant	LC	LC	

160	Chestnut-bellied Rock-thrush	<i>Monticola rufiventris</i>	Resident	LC	LC	
161	Small Niltava	<i>Niltava macgrigoriae</i>	Resident	LC	LC	
162	Rufous-bellied Niltava	<i>Niltava sundara</i>	Resident	LC	LC	
163	Indian Blue Robin	<i>Larvivora brunnea</i>	Resident	LC	LC	
164	White-tailed Blue Robin	<i>Myiomela leucura</i>	Resident	LC	LC	
165	Spotted Forktail	<i>Enicurus maculatus</i>	Resident	LC	LC	
166	Slaty-backed Forktail	<i>Enicurus schistaceus</i>	Resident	LC	LC	
167	Hodgson's Redstart	<i>Phoenicurus hodgsoni</i>	Winter migrant	LC	LC	
168	Plumbeous Water-redstart	<i>Phoenicurus fuliginosus</i>	Resident	LC	LC	
169	White-capped Water-redstart	<i>Phoenicurus leucocephalus</i>	Resident	LC	LC	
170	Blue-fronted Redstart	<i>Phoenicurus frontalis</i>	Winter migrant	LC	LC	
171	Blue-capped Redstart	<i>Phoenicurus coeruleocephala</i>	Winter migrant	LC	LC	
172	Common Stonechat	<i>Saxicola torquatus</i>	Passage migrant	LC	LC	
173	Pied Bushchat	<i>Saxicola caprata</i>	Resident	LC	LC	
174	Grey Bushchat	<i>Saxicola ferreus</i>	Resident	LC	LC	
175	Himalayan Bush-robin	<i>Tarsiger rufilatus</i>	Resident	LC	LC	
	Chloropseidae					
176	Orange-bellied Leafbird	<i>Chloropsis hardwickii</i>	Resident	LC	LC	
	Dicaeidae					
177	Plain Flowerpecker	<i>Dicaeum minullum</i>	Resident	LC	LC	
178	Fire-breasted Flowerpecker	<i>Dicaeum ignipectus</i>	Resident	LC	LC	
	Nectariniidae					
179	Green-tailed Sunbird	<i>Aethopyga nipalensis</i>	Resident	LC	LC	
180	Black-throated Sunbird	<i>Aethopyga saturate</i>	Resident	LC	LC	
181	Crimson Sunbird	<i>Aethopyga siparaja</i>	Resident	LC	LC	
182	Fire-tailed Sunbird	<i>Aethopyga ignicauda</i>	Summer migrant	LC	LC	
	Ploceidae					
183	Baya Weaver	<i>Ploceus philippinus</i>	Summer migrant	LC	LC	
	Estrildidae					
184	Scaly-breasted Munia	<i>Lonchura punctulata</i>	Resident	LC	LC	

185	White-rumped Munia	<i>Lonchura striata</i>	Summer migrant	LC	LC	
	Passeridae					
186	House Sparrow	<i>Passer domesticus</i>	Resident	LC	LC	
187	Eurasian Tree Sparrow	<i>Passer montanus</i>	Resident	LC	LC	
	Motacillidae					
188	Paddyfield Pipit	<i>Anthus rufulus</i>	Resident	LC	LC	
189	Rosy Pipit	<i>Anthus roseatus</i>	Resident	LC	LC	
190	Olive-backed Pipit	<i>Anthus hodgsoni</i>	Winter migrant	LC	LC	
191	Grey Wagtail	<i>Motacilla cinerea</i>	Winter migrant	LC	LC	
192	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	Summer migrant	LC	LC	
193	White Wagtail	<i>Motacilla alba</i>	Winter migrant	LC	LC	
	Fringillidae					
194	Common Rosefinch	<i>Carpodacus erythrinus</i>	Winter migrant	LC	LC	
195	Beautiful Rosefinch	<i>Carpodacus pulcherrimus</i>	Winter migrant	LC	LC	
196	Dark-breasted Rosefinch	<i>Procarduelis nipalensis</i>	Winter migrant	LC	LC	
197	Yellow-breasted Greenfinch	<i>Chloris spinoides</i>	Winter migrant	LC	LC	
198	Gold-naped Finch	<i>Pyrrhoptes epaulette</i>	Winter migrant	VU	LC	
	Emberizidae					
199	Crested Bunting	<i>Emberiza lathami</i>	Summer migrant	LC	LC	

Appendix 4: Herpetofauna recorded in Chandragiri Hills where LC is Least Concern, VU is Vulnerable.

S.N.	Class/Order/Family/Common Names	Scientific Name	Conservation Status		CITES
			IUCN	National	
	Amphibia				
	Anura				
	Bufo				
1	Himalayan Toad	<i>Duttaphrynus himalayanus</i>	LC		
2	Black-spined Toad	<i>Duttaphrynus melanostictus</i>	LC		
3	Marbled Toad	<i>Bufo stomaticus</i>	LC		
	Microhylidae				
4	Narrow-mouthed Frog	<i>Microhyla ornata</i>	LC		
	Megophryidae				
5	Myanmar Pelobatid Toad	<i>Megophrys parva</i>	LC		
	Ranidae				
6	Skittering Frog	<i>Euphlyctis cyanophlyctis</i>	LC		
7	Indian Bull Frog	<i>Hoplobatrachus tigerinus</i>	LC		
8	Nepalese Cricket Frog	<i>Fejervarya nepalensis</i>	LC		
9	Indian Burrowing Frog	<i>Sphaerotheca breviceps</i>	LC		
	Rhacophoridae				
10	Java Whipping Frog/Common Tree Frog	<i>Polypedates leucomystax</i>	LC		
	Reptilia				
	Squamata				
	Agamidae				
11	Common Garden Lizard	<i>Calotes versicolor</i>			
12	Three Keeled Mountain Lizard	<i>Japalura tricarinata</i>	LC		
13	Variegated Mountain Lizard	<i>Japalura variegata</i>			
14	Kashmiri Rock Agama	<i>Laudakia tuberculata</i>			
	Scincidae				
15	Brahminy Skink	<i>Eutropis carinata</i>	LC		
16	Spotted Forest Skink	<i>Sphenomorphus maculatus</i>			
17	Sikkim Skink	<i>Asymblepharus sikkimensis</i>			
	Varanidae				
18	Bengal Monitor Lizard	<i>Varanus bengalensis</i>	LC	Susceptible	I
	Typhlopidae				
19	Brahminy Blind Snake	<i>Indotyphlops</i>			

		<i>braminus</i>			
	Colubridae				
20	Boulenger's Keelback	<i>Amphiesma parallelum</i>			
21	Himalayan Keelback	<i>Amphiesma platyceps</i>			
22	Buff-striped Keelback	<i>Amphiesma stolatum</i>			
23	Common Trinket Snake	<i>Coelognathus helena</i>			
24	Copper-headed Trinket Snake	<i>Coelognathus radiatus</i>			
25	Common Bronzeback Tree Snake	<i>Dendrelaphis tristis</i>			
26	Himalayan Trinket Snake	<i>Orthriophis hodgsoni</i>			
27	Common Wolf Snake	<i>Lycodon aulicus</i>			
28	Indian Rat Snake	<i>Ptyas mucosa</i>		Susceptible	II
29	Darjeeling Worm Snake	<i>Trachischium fuscum</i>			
	Elapidae				
30	Indian/Common Cobra	<i>Naja naja</i>			II
31	Monocled Cobra	<i>Naja kaouthia</i>	LC		II
32	King Cobra	<i>Ophiophagus hannah</i>	VU	VU	II
	Viperidae				
33	Mountain Pit Viper	<i>Ovophis monticola</i>	LC		
34	White-lipped Pit Viper	<i>Trimeresurus albolabris</i>	LC		

Appendix 5: Butterfly recorded in Chandragiri Hills, where LC is Least Concern, VU is Vulnerable.

S.N.	Order/Family/Common Name	Scientific Name	Conservation Status		CITES
			IUCN	National	
	Lepidoptera				
	Nymphalidae				
1.	Common Tiger	<i>Danaus genutia</i>			
2.	Glassy Tiger	<i>Parantica aglea</i>			
3.	Striped Blue Crow	<i>Euploea mulciber</i>			
4.	Chocolate Pansy	<i>Junonia iphita</i>			
5.	Yellow Pansy	<i>Junonia hierta</i>			
6.	Lemon Pansy	<i>Junonia orithya</i>			
7.	Peacock Pansy	<i>Junonia almanac</i>			
8.	Common Earl	<i>Tanaecia julii</i>			
9.	Grey Count	<i>Tanaecia lepidea</i>			
10.	Common Lascar	<i>Pantoporia hordonia</i>			
11.	Yellow Coster	<i>Acraea issoria</i>			
12.	Common Leopard	<i>Phalanta phalantha</i>			
13.	Common Map	<i>Cyrestis thyodamas</i>			
14.	Common Sailor	<i>Neptis hylas</i>			
15.	Common Sergeant	<i>Athyma perius</i>			
16.	Eastern Courtier	<i>Sephisia Chandra</i>			
17.	Grand Duchess	<i>Euthalia patala</i>			
18.	Himalayan Sergeant	<i>Athyma opalina</i>			
19.	Indian Fritillary	<i>Argyreus hyperbius</i>			
20.	Indian Red Admiral	<i>Vanessa indica</i>			
21.	Indian Tortoiseshell	<i>Aglais cashmirensis</i>			
22.	Large Silverstripe	<i>Childrena childreni</i>			
23.	Painted Lady	<i>Vanessa cardui</i>	LC		
24.	Red Lacewing	<i>Cethosia bibilis</i>			
25.	Himalayan Jester	<i>Symbrenthia hypselis</i>			
25.	Orange Staff Sergeant	<i>Athyma cama</i>			
27.	Colour Sergeant	<i>Athyma nefte</i>			
28.	Vagrant	<i>Vagrant egista</i>	LC		
29.	Common Siren	<i>Hestina persimilis</i>		VU	
30.	Indian Commodore	<i>Auzakia danava</i>			
31.	Great Eggfly	<i>Hypolimnas bolina</i>			
32.	Bluetail Jester	<i>Symbrenthia niphanda</i>			
33.	Common Castor	<i>Ariadne merione</i>			

34.	Gray Pansy	<i>Precis atlites</i>			
35.	Bhutan Sergeant	<i>Athyma jina</i>			
36.	White Commodore	<i>Limenitis dudu</i>			
37.	Yellow Sailor	<i>Neptis ananta</i>			
38.	Banded Treebrown	<i>Lethe confusa</i>			
39.	Himalayan Fivering	<i>Ypthima sakra</i>			
40.	Common Fivering	<i>Ypthima baldus</i>			
41.	Large Three Ring	<i>Ypthima nereda</i>			
42.	Newar Three-Ring	<i>Ypthima newara</i>			
43.	Tiger Brown	<i>Orinoma damaris</i>			
	Lycaenidae				
44.	Peablu	<i>Lampides boeticus</i>			
45.	Purple Sapphire	<i>Heliophorus epicles</i>			
46.	Silver Grey-Silver Line	<i>Spindasis nipalicus</i>			
47.	Common Hedgeblue	<i>Actyolepis puspa</i>			
48.	Large Hedge Blue	<i>Celastrina huegeli</i>			
49.	Common Cerulean	<i>Jamides celeno</i>			
50.	Dark Grassblue	<i>Zizeeria karsandra</i>			
51.	Pale Grass Blue	<i>Pseudozizeeria maha</i>			
	Riodiniidae				
52.	Double Banded Judy	<i>Abisara bifasciata</i>			
53.	Dark Judy	<i>Abisara fylla</i>			
54.	Punchinello	<i>Zemoros flegyas</i>			
55.	Striped Punch	<i>Dodona adonira</i>			
56.	Tailed Punch	<i>Dodona eugenes</i>			
57.	Lesser Punch	<i>Dodona dipoea</i>			
58.	Plum Judy	<i>Abisara echerius</i>			
	Papilionidae				
59.	Common Bluebottle	<i>Graphium serpedon</i>	LC		
60.	Common Mormon	<i>Papilio polytes</i>	LC		
61.	Common Mime	<i>Chilasa clytia dissimilis</i>	LC		
62.	Golden Birdwing	<i>Troides aeacus</i>	LC	Susceptible	II
63.	Paris Peacock	<i>Papilio paris</i>	LC		
64.	Rose Windmill	<i>Byasa latreillei</i>	LC		
65.	Spangle	<i>Papilio protenor</i>	LC		
66.	Tailed Jay	<i>Graphium agamemnon</i>	LC		

67.	Glassy Bluebottle	<i>Graphium cloanthus</i>	LC		
68.	Lime Swallowtail	<i>Papilio demoleus</i>	LC		
69.	Common Peacock	<i>Papilio polyctor</i>	LC		
70.	Red Helen	<i>Papilio helenus</i>	LC		
71.	Great Mormon	<i>Papilio memnon</i>	LC		
	Pieridae				
72.	Great Blackvein	<i>Metaporia agathon</i>			
73.	Common Emigrant	<i>Catopsilia pomona</i>			
74.	Indian Cabbage White	<i>Pieris canidia</i>			
75.	Dark Clouded Yellow	<i>Colias fieldii</i>			
76.	Hill Jezebel	<i>Delias belladonna</i>			
	Hesperiidae				
77.	Fulvous Pied Flat	<i>Pseudocoladenia dan</i>			