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## COMMUNICATION

### A CHECKLIST OF MAMMALS WITH HISTORICAL RECORDS FROM DARJEELING-SIKKIM HIMALAYA LANDSCAPE, INDIA

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## A checklist of mammals with historical records from Darjeeling-Sikkim Himalaya landscape, India

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**Abstract:** A region-specific species checklist is an important resource for biodiversity documentation and conservation. This review provides an updated mammal species checklist for the biodiversity hotspots of the Darjeeling-Sikkim landscape in Eastern Himalaya. The list was compiled by systematically reviewing 94 available publications spanning 178 years from 1841 to 2019, for mammals from the region. The species checklist is envisioned to aid in understanding the current status of mammal records, historical distribution, ranked conservation status of mammals, and research gaps. A total of 173 mammal species under 11 orders and 33 families, including the recently upgraded taxon, Sikkim Pika *Ochotona sikimaria* was enlisted. There are 25 species included in the IUCN threatened categories, 58 species listed in the CITES Appendices, and 112 species included in the schedules of the Wildlife (Protection) Act, 1972 in India. Although mammals receive the maximum research attention in the landscape, small mammals and bats have rarely been subjected to systematic studies in recent years.

**Keywords:** Biodiversity hotspot, Eastern Himalaya, research trends, updated checklist

**Nepali सार:** क्षेत्र विशेषको हिसाबले प्रजातको सूची जैवविविधताको संरक्षण र दस्तावेजीकरणका लागि महत्वपूर्ण संसाधन हुन्छ। यस समीक्षामा पूर्वी हिमालय अन्तर्गत दार्जीलिंग-सिक्किम परिक्षेत्रको जैवविविधता केन्द्रमा पाइने स्तनधारी प्राणीहरूको ताजा सूची उपलब्ध गराइएको छ। यो सूची, यस भेकमा पाइने स्तनधारी प्राणीहरूका लागि सन् 1841 देखि 2019 सम्म 178 वर्षको अवधिमा प्रकाशित 94 वटा लेख अनि प्रकाशनको योजनाबद्ध तरिकाले समीक्षापछि तयार पारिएको हो। यो सूची, ती स्तनधारी प्राणीहरूको वर्तमान स्थिति, पूर्वमा यसका थात-थलो अर्थात् ती प्राणीहरू पाइने इलाका, ती स्तनधारीहरूको संरक्षण स्थिति तथा शोधकार्यको सन्दर्भमा देखिएका अन्तर वा कमीबारे बुझ्नका लागि तयार पारिएको हो। हाल मात्र सूचीबद्ध गरिएको लडि मुसा (Sikkim Pika *Ochotona sikimaria*) सहित 11 प्रजाति तथा 33 परिवार अन्तर्गत कूल 173 वटा स्तनधारी प्राणी सूचीबद्ध गरिएका छन्। यसमा आइयुसीएनको सङ्कटग्रस्त सूचीमा सामेल 25 वटा प्रजाति, सीआइटीईएसको परिशिष्टमा सूचीबद्ध 58 वटा प्रजाति तथा भारतीय वन्यप्राणी (संरक्षण) ऐन, 1972 को अनुसूचीमा सामेल 112 वटा प्रजातिका स्तनधारी प्राणी छन्। कुनै परिक्षेत्रमा स्तनधारी प्राणीमार्थ धेरै शोध कार्य गर्ने गरिँ तापनि, हालका वर्षहरूमा स-साना स्तनधारी प्राणी लगायत चमेराहरूमार्थ धेरै कम प्रणालीबद्ध अध्ययन गरिएका छन्।

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**Author contribution:** SP conceptualized, collected data, analyzed and prepared manuscript. TN collected data, analyzed and prepared manuscript.

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## INTRODUCTION

A region-specific species checklist that summarises and documents the current status is an important resource for biodiversity documentation and conservation (Nameer et al. 2015). Mammals form a significant taxon, often considered for monitoring because of their vulnerability to hunting and sensitivity to human activity (Robinson & Bodmer 1999). In a review of biodiversity research trends in Eastern Himalaya, Kandel et al. (2016) showed that mammals were the most studied taxa in the region. Mammals have been documented in Darjeeling-Sikkim Himalaya in the form of anecdotal accounts, collection records, compiled reports, laboratory-based studies on pathogens found in wild animals, field surveys, and ecological works (Blyth 1841, 1863; Hodgson 1847; Anderson 1881; Blanford 1888; Sclater 1891; Dalgleish 1906; Shebbeare 1914; Thomas 1915, 1916a,b, 1920; Elwes 1916; Millard et al. 1916a, 1916b; Primrose 1916; Wroughton 1916a,b,c, 1917; Hinton 1918; Fry 1923; Baldry 1932; Sanborn 1932; Wood 1933; Matthews 1934; Pinckney 1939; Gabb 1945; Maclaren 1949; Dutt-Mazumdar 1955; Saha 1955; Ellerman 1961; Hill 1963, 1986; Ellerman & Morrison-Scott 1966; Gurung & Agarwal 1969; Chatterjee et al. 1970, 2018; Khajuria & Ghose 1970; Topál 1970; Pal & Dasgupta 1982, 1984; Bandyopadhyay & Dasgupta 1984a,b; Dey et al. 1984; Ghose 1984; Das 1986, 2003; Hill et al. 1986; Dasgupta 1987, 1991; Agrawal et al. 1992; Saha et al. 1992; Pradhan 1995; Banerjee et al. 1996; Ganguli-Lachungpa 1997; Avasthe & Jha 1999; Biswas et al. 1999; Agrawal 2000; Molur et al. 2002, 2003, 2005; Sharma & Lachungpa 2002; Chakraborty 2003; Brandon-Jones 2004; Vijayan et al. 2004; Ghosh 2005, 2008; Chattopadhyay et al. 2006; Sanyal et al. 2007; Lachungpa 2009; Groves & Grubb 2011; Sathyakumar et al. 2011a,b; Ghose et al. 2012; Mallick 2012, 2019; Ghose et al. 2014; Khatiwara & Srivastava 2014; Sharma et al. 2015; Dahal et al. 2017; Saikia et al. 2017; Saikia 2018). The advancements in technology and its applications for wildlife research has enabled photographic records and molecular identification of new species for taxonomic revision while also providing insights into mammal behavioral ecology (Sathyakumar 2001; Chanchani et al. 2010; Bashir et al. 2011; Rawat & Tambe 2011; Ghose et al. 2012, 2014; Dahal et al. 2017; Srivastava & Kumar 2018).

Many attempts in the past to compile mammal records in Darjeeling-Sikkim Himalaya have been carried out. One-hundred-and-fifty-six mammals were recorded in Sikkim by Avasthe & Jha (1999), 169 by Vijayan et

al. (2004), 91 by Chattopadhyay et al. (2006), and 125 by Chakraborty (2011). Similarly, from Darjeeling, Agrawal et al. (1992) listed 128 mammals, Pradhan & Bhujel (2000) recorded 128 mammals, Mitra (2004) documented 180 mammals, and Sanyal et al. (2007) recorded 126 mammals. All these compilations do not take into account the recent changes in taxonomy, such as Sikkim Pika *Ochotona sikimaria* from Sikkim (Dahal et al. 2017), which was recently upgraded from subspecies to species. The latest species enumeration in Sikkim enlists 125 mammal species (Chakraborty 2011), 126 in Darjeeling, including Kalimpong (Sanyal et al. 2007) and a separate list for Kalimpong stands at 99 species (Mallick 2012).

This necessitated a methodological literature review of mammal species recorded so far to compile a species list of mammals recorded in the landscape. The reviewed species list is envisioned as a precursor to initiate systematic documentation of mammals in the Darjeeling-Sikkim Himalaya landscape. The reviewed species list aims to aid in understanding the current status of mammal records, their distribution and ranked conservation status, and patterns emerging from these records, along with other knowledge gaps in the region. The compiled species list would also be a reference for systematic field surveys to establish new detection localities, distribution range, and catalogue any new species records. The completeness of any inventory from such field surveys could also be compared against this generated species list.

## MATERIALS AND METHODS

The study area comprising of Darjeeling, including the newly formed district Kalimpong, (26.45°–27.22° N & 87.98°–88.88°E) in West Bengal and the Himalayan state of Sikkim (27.05°–28.12° N & 88.05°–88.95° E) forms a part of the Eastern Himalaya, India (Figure 1). Hereafter, Darjeeling would imply both the districts of Kalimpong and Darjeeling.

Darjeeling and Sikkim are rich repositories of valuable biodiversity, which always have interested naturalists and natural scientists from as early as the 19<sup>th</sup> century, as a result of which there is a body of literature which records mammals and other taxa from the region.

A thorough literature survey, both offline and open-access online, of published articles (67), books (17), book section (4), report (4), thesis (1), and news article (1), which include archived literature from various issues of very old journals available at the libraries of Darjeeling

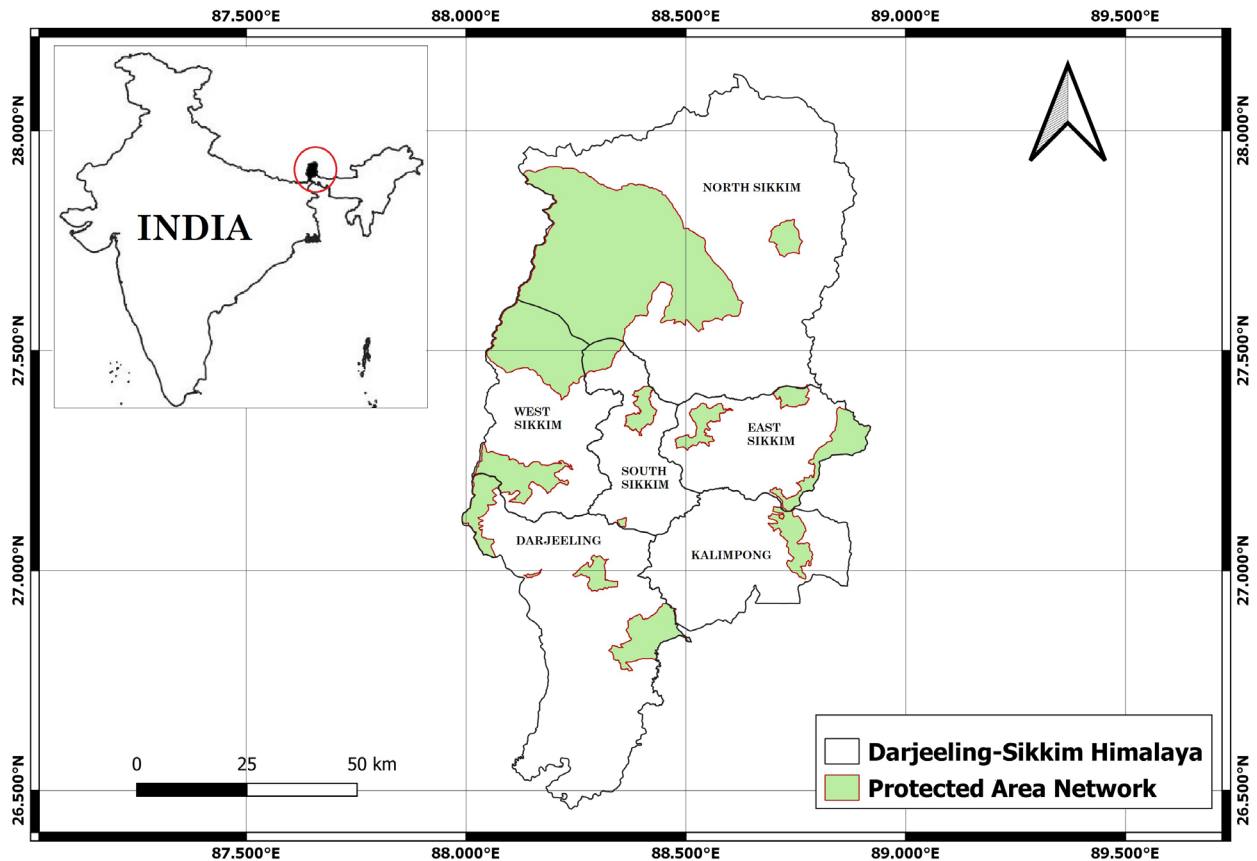


Figure 1. Darjeeling-Sikkim Himalaya Landscape.

Natural History Museum and Darjeeling Government College, articles from the Journal of the Bombay Natural History Society and Journal of the Asiatic Society of Bengal available in the Biodiversity Heritage Library was done and then used to prepare a checklist of mammals recorded so far from Darjeeling-Sikkim Himalaya.

To update this checklist, necessary corrections from previous publications were made, which include synonyms reported as two different species, subspecies elevated to species, revised nomenclature, and inclusion of new species recorded and not recorded previously. Exclusion of historical species records from singular grey literature not supported by IUCN Red List distribution range and inclusion of species, whose distribution was found to not overlap with IUCN distribution range but supported by peer-reviewed literature were also included. The nomenclature and taxonomic arrangement of the species of the mammals in the checklist are based on the checklist of mammals of southern Asia by Nameer (2015) and cross-checked with the IUCN Red List of Threatened Species for updated nomenclature (IUCN 2020). The present status of each species was also determined at the landscape level based on records

updated until 2019, and categorized as Extinct (based on subsequent studies revealing species absence in previously recorded sites or no reports for more than 20 years), Present (species reported within the last 20 years), and Uncertain (reported more than 20 years ago and needs further exploration to confirm species presence). The spellings of location names are kept, as-is from the cited literature.

## RESULTS

A total of 94 relevant pieces of literature from available sources for mammalian diversity in Sikkim-Darjeeling Himalayan landscape were reviewed. The majority of literature available pertains to cataloguing, species records, new sightings, and reports accounting for 54 sources. Some studies, however, relate to taxonomy (15), ecology (12), pathology (6), genetics & evolution (2), ethno-zoology (2), and conservation (3). This review covered a span of 178 years dating from 1841 to 2019 and revealed a historical record of 173 species representing 11 orders and 33 families in this landscape



(Appendix 1). A total of 153 and 145 mammalian species were listed from Sikkim and Darjeeling, respectively. Of the 173 species with historical records in Darjeeling-Sikkim Himalaya landscape, 168 species are currently present; one species—Pygmy Hog *Porcula salvania*, is locally extirpated, and four species—Indian Gerbil *Tatera indica*, Little Indian Field Mouse *Mus booduga*, Hispid Hare *Caprolagus hispidus*, and Black-striped Weasel *Mustela strigidorsa*, need further exploration to confirm their presence.

The available literature, when grouped as <1900 and a decade each after, showed that the number of publications peaked at two points, first during 1911–1920 (n=13) followed by a general decline until 1980. After that, the trend showed a rise in publications from 1981 onwards (Figure 2). The other peak was during 2010–2019 (n=19), however, it is expected that the number of publications is likely to increase by the end of the decade. A closer look at recent studies from 2000–2019, 44 literature in total, showed that the maximum number of studies pertain to medium and large-sized mammals (56.8%) followed by mammals in general (18.2%), bats (13.6%) and small mammals (11.34%). Only one empirical study based on fieldwork for small mammals, 11 for medium and large-sized mammals, four for mammals in general were carried out. However, no study on bats was conducted during during this period.

Of 173 species, 17 species are endemic to southern Asia (Nameer 2015), namely Tarai Gray Langur *Semnopithecus hector*; Royle's Mountain Vole *Alticola roylei*; Bhutan Giant Flying Squirrel *Petaurista nobilis*; Lesser Bandicoot Rat *Bandicota bengalensis*; Little Indian Field Mouse *Mus booduga*; Himalayan White-bellied Rat *Niviventer niviventer*; Hispid Hare *Caprolagus hispidus*; Indian Hare *Lepus nigricollis*; Indian Leaf-nosed Bat *Hipposideros lankadiva*; Sombre Bat *Eptesicus tatei*; Indian Pangolin *Manis crassicaudata*; Bengal Fox *Vulpes bengalensis*; Sloth Bear *Melursus ursinus*; Pygmy Hog *Porcula salvania*; Chital *Axis axis*; Himalayan Musk Deer *Moschus leucogaster*, and the recently elevated species Sikkim Pika *Ochotona sikimaria*, a species endemic to eastern Himalaya (Dahal et al. 2017; Dahal et al. 2020).

Order Chiroptera represents the maximum number of species (n=54 species) followed by order Carnivora (n=40) and order Rodentia (n=37) (Figure 3). Family Vespertilionidae of order Chiroptera has the maximum number of representations, with 30 species. Besides this, there are six other families (Pteropodidae, Rhinolophidae, Hipposideridae, Megadermatidae, Emballonuridae, and Molossidae) of the same order amounting to a total of 56 species (Figure 4). The least

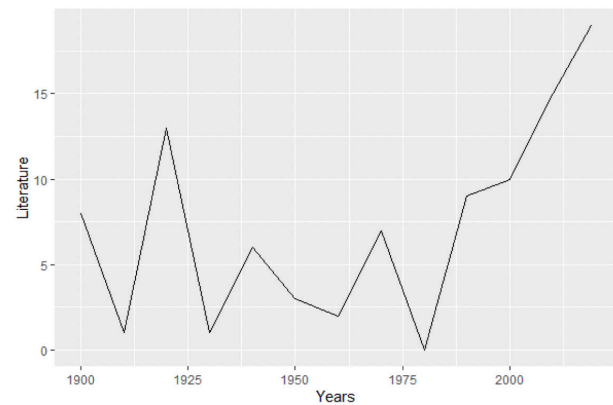


Figure 2. Trend of publication on mammals from 1841–2019 in Darjeeling-Sikkim Himalaya.

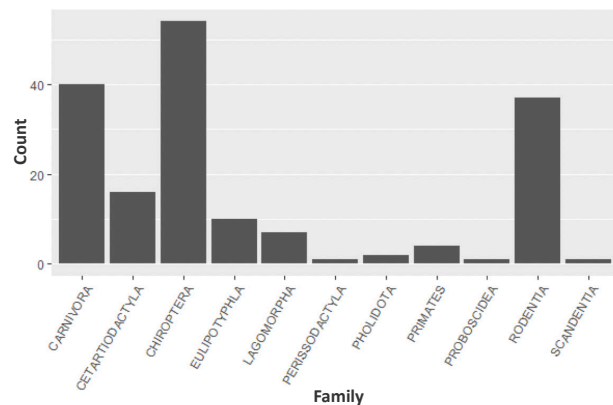


Figure 3. Order-wise representation of mammal diversity in Darjeeling-Sikkim Himalaya.

represented families are Elephantidae, Tuapaiidae, Spalacidae, Hystricidae, Talpidae, Megadermatidae, Molossidae, Prionodontidae, Ailuridae, and Equidae, represented by one species each (Figure 4) (Appendix 1).

According to the IUCN Red List, of the 173 species of mammal recorded from Darjeeling-Sikkim Himalayan landscape, 25 species belong to threatened category (2 Critically Endangered(1.2%), 10 Endangered (5.8%), and 13 Vulnerable(7.5%)); 14 species (8.1%) are Near Threatened; 129 species (74.6%) are Least Concern; four species (2.3%) are Data Deficient; and one species (0.6%) not assessed (Appendix 1). The total number of species falling under various appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) accounts for more than one-fourth (n=54 species) of the total species found in Darjeeling-Sikkim Himalaya, of which 24 species are listed under Appendix I, 15 under Appendix II, and 19 under Appendix III. Almost two-thirds of the total species recorded

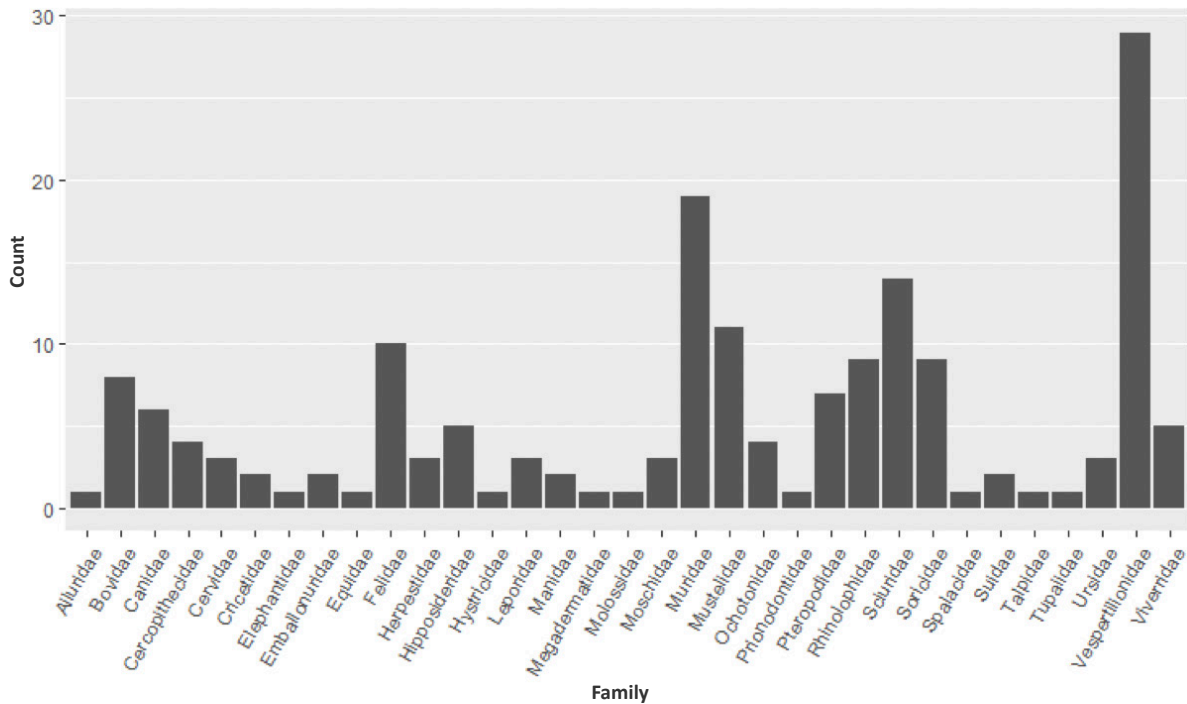


Figure 4. Family-wise representation of mammal diversity in Darjeeling-Sikkim Himalaya.

are protected under the schedules of the Wildlife (Protection) Act, 1972 (WPA, 1972) in India, of which 36 species are listed in Schedule I, 38 in Schedule II, five in Schedule III, four in Schedule IV, and 29 in Schedule V (Appendix 1).

**DISCUSSION**

The review of biodiversity research trends (Kandel et al. 2016) showed that mammal studies contributed to 45% of total faunal studies in Eastern Himalaya comprising Nepal, Bhutan, and India (Darjeeling-Sikkim). The bulk of mammal documentation in Darjeeling-Sikkim Himalaya was done half a century ago which is likely to have changed in their distribution records and status due to various factors, including the rapidly changing land-use patterns, urbanization, climate change, and other anthropogenic pressures such as hydroelectric projects and road construction (Banerjee et al. 2019)

The resultant checklist from this review is inconsistent with the mammal list of India (Sharma et al. 2014), where the maximum representation is of the orders Chiroptera and Rodentia. This observation could be due to the lack of research in some of the mammal orders like Rodentia in Darjeeling-Sikkim Himalaya. The number of mammal

species in Darjeeling and Sikkim also differed, with Sikkim having more number of records than Darjeeling, perhaps due to the considerable altitudinal variation in Sikkim.

This checklist provides for necessary corrections from previous literature, such as the Tarai Gray Langur *Semnopithecus entellus* ssp. *hector*, which is now considered a separate species *Semnopithecus hector*, Greater Hairy-winged Bat *Harpiocephalus mordax* now synonymized with Lesser Hairy-winged Bat *Harpiocephalus harpia* (Matveev 2005) and Rufous Horseshoe Bat *Rhinolophus rouxii* is now synonymized with Chinese Rufous Horseshoe Bat *Rhinolophus sinicus*. New scientific nomenclatures were also incorporated; replacing the old nomenclature such as Cadorna’s Pipistrelle *Pipistrellus cadorna* is now *Hypsugo cadornae* (Bates et al. 2019). The present species list also includes a recently upgraded taxon Sikkim Pika *Ochotona sikimaria* (Dahal et al. 2017).

The previous records confirming the presence of Rohu’s Bat *Philetor brachypterus* in Sikkim (Molur et al. 2002; Srinivasulu & Srinivasulu 2012) were that of misidentified Joffre’s Pipistrelle *Hypsugo joffrei* (Saikia et al. 2017). Previous records of Forrest’s Pika *Ochotona forresti* in Sikkim were also merged with records of Large-eared Pika *Ochotona macrotis* in light of the new

taxonomic assessment of specimens of Forrest's Pika from Eastern Himalaya (Lissovsky et al. 2017) which considers it as a new subspecies of Large-eared Pika in Eastern Himalaya based on phylogenetic analysis and morphometric measurements. Forrest's Pika was not recorded in subsequent studies as well (Dahal et al. 2020). Therefore, Rohu's Bat and Forrest's Pika are not included in this checklist.

Historical species records based on singular grey literature (Avasthe & Jha 1999) excluded from the species list in Sikkim were Indian Bush Rat *Golunda ellioti*, Hispid Hare *Caprolagus hispidus*, Edward's Rat *Leopoldamys edwardsi*, Hardwicke's Woolly Bat *Kerivoula hardwickii*, Bengal Fox *Vulpes bengalensis*, Smooth-coated Otter *Lutrogale perspicillata*, and Tibetan Antelope/Chiru *Pantholops hodgsonii*. The Bengal Fox although likely present (Gompper & Vanak 2006), is not included in Sikkim species list due to the absence of supporting primary evidence, its distribution range not overlapping as per the extant (resident) shown in the IUCN geographic distribution range and subsequent literature (Menon 2014). The Tibetan Antelope/Chiru was confirmed to be locally extirpated in Sikkim by Chanchani et al. (2010) as they had assumed the species' presence in the region based on Hooker's account. Joseph Dalton Hooker, however, had not reported the species' sighting in Sikkim and had stated that he "found the horns of this animal on the southern side of Donkia Pass, but (I) never saw a live one except in Tibet" (Hooker 1854, p 157). Hence, there is neither concrete and definitive historical evidence, nor subsequent accounts of this species that suggests its presence in Sikkim (Dawson 1934). Therefore it has been excluded from the species checklist.

Similarly, Tibetan Shrew *Sorex thibetanus* Kastschenko, 1905, and Southeastern Asian Shrew *Crociodura fuliginosa* (Blyth, 1856) were also not included. These species, however, had been mentioned in a non-peer-reviewed report from an ecological study in Teesta Basin (Vijayan et al. 2004). Besides, these species were also not reported in subsequent literature (Molur et al. 2005; Srinivasulu & Srinivasulu 2012), and the IUCN geographic distribution range does not overlap with the study area.

A few species records from singular grey literature from Sikkim (Avasthe & Jha 1999) but whose geographical distribution range are found to overlap with the IUCN distribution range were considered as being present. These include the Northern Tailless Fruit Bat *Megaerops niphanae*, Blyth's Horseshoe Bat *Rhinolophus lepidus*, Trefoil Horseshoe Bat *Rhinolophus trifoliatus*, Greater False Vampire Bat *Megaderma lyra*, European Free-

tailed Bat *Tadarida teniotis*, Serotine *Eptesicus serotinus*, Rufous Tube-nosed Bat *Murina leucogaster*, and Crab-eating Mongoose *Herpestes urva*.

Another notable inclusion is the Pygmy Hog *Porcula salvania*. The Pygmy Hog is still included in the checklist, although the current geographic distribution range does not overlap due to empirical research (Hodgson 1847; Sclater 1891) confirming historical presence. Although the Blue Sheep or Bharal *Pseudois nayaur* recorded in Phalut 1955 (Dutt-Mazumdar 1955) is now considered locally extinct in Darjeeling (Mallick 2019), it also is included due to its presence within the landscape.

## CONCLUSION

The present review of literature, updated till 2019, for records of mammal species in Darjeeling-Sikkim landscape compiles an updated mammal list which generates an overview of mammals in different taxonomic orders, families, and genera which allows an analysis on areas requiring focus on survey, monitoring, and research in the region.

**Small mammals:** Three orders of mammalian taxa, namely Rodentia, Scandentia, and Eulipotyphla form the small mammals. Globally, these three orders comprised of more than 2,800 species, of which 437 (15%) of them are considered to be threatened with extinction by the IUCN (IUCN SMSG 2018). The small mammals, however, are also inadequately studied, with many hundreds of species never being photographed in the wild and even their basic ecology unknown (Gomez et al. 2017). Moreover, they also serve as model organisms for a better understanding of ecosystem and landscape processes due to their short life cycles and smaller areas of land use (Barrett & Peles 1999). Pradhan et al. (2018) reported large- and medium-sized mammals from the agroecosystems of Darjeeling but not the small mammals. The recent species inventory of mammals in protected areas (PAs) of Sikkim also does not include small mammals (Lepcha et al. 2017). The fact that small mammals have less representation in recent research studies as compared to large- and medium-sized mammals calls for a priority survey and focus on small mammals in Darjeeling-Sikkim Himalaya.

## Bats (Order Chiroptera)

Order Chiroptera has a large number of species in the Darjeeling-Sikkim landscape, but there are minimal systematic surveys and monitoring of bats in the context of changes in land use and agroecosystems.

The most recent study on bats in the region was in 2012 in Kalimpong (Mallick 2012). The species list for bats requires an update for other parts of Darjeeling and Sikkim, and their status needs to be understood for further long term research on bat ecology and monitoring in the region.

### Areas outside of protected areas

There is growing recognition of agroecosystems as repositories of significant biodiversity (Altieri 1999; Bali et al. 2007; Bhagwat et al. 2008; Perfecto & Vandermeer 2008; Chazdon et al. 2009; Chettri et al. 2018), which requires serious conservation attention (Perfecto et al. 2005). For instance, there is no record of threatened species such as the Critically Endangered Chinese Pangolin in the recent study by the Forest Department, Sikkim in the protected areas (Lepcha et al. 2017) although there were records of its presence in Sikkim (Avasthe & Jha 1999; Sathyakumar et al. 2011b; The Statesman 2019).

Besides the above three major concerns, the findings from this review also give rise to questions as to what is the current distribution and status of the four Data Deficient species—Hairy-footed Flying Squirrel *Belomys pearsonii*, Millard's Rat *Dacnomys millardi*, Sombre Bat *Eptesicus tatei*, and Joffre's Pipistrelle *Hypsugo joffrei*—one not assessed species Sikkim Pika *Ochotona sikimaria*, and 17 endemic mammals in the region. It is also important to know the present status and understand the ecology of mammals in the agroecological matrix, a prerequisite for their conservation and co-existence with humans in the socioecological landscapes. Future research should be directed to address these gaps in the mammal survey and ecological studies in the region.

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**Appendix 1. Mammals of Darjeeling-Sikkim Himalaya with their conservation status, present status, and previous records in the landscape.**

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
<b>I. ORDER PROBOSCIDEA Illiger, 1811</b>			
1) Family Elephantidae Gray, 1821 (elephants)			
1. <i>Elephas maximus</i> Linnaeus, 1758 Asian Elephant	EN, I, (I), Present	Eastern Sikkim, 3657.6m (Elwes 1916), Pangolakha Wildlife Sanctuary (Avasthe & Jha 1999)	Common in Terai and sighting at 1524m (Dalgilesh 1906), Rechila (Shebbeare 1914; Elwes 1916), Rishi La (Dutt-Mazumdar 1955), Neora Valley National Park (Ghose 1984), Sakkam, Gorubathan, Taghera, Tashiding and Mongpong (Mallick 2012)
<b>II. ORDER SCANDENTIA Wagner, 1855</b>			
2) Family Tupaiidae Gray, 1825 (treeshrews)			
2. <i>Tupaia belangeri</i> (Wagner, 1841) Northern Treeshrew	LC, II, (II), Present	Rongli (Wroughton 1916a), Gangtok (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Gangtok, Teesta Valley, Tumin (Molur et al. 2005), Sikkim (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906), Ghoom, Narbong, Sivok (Wroughton 1916a), Nimbong (Wroughton 1917), Mongpu hills (Fry 1923), Mongpoo and Sangsir (Sanborn 1932), Nimbong and Sivok (Agrawal et al. 1992), Kalimpong (Mallick 2012)
<b>III. ORDER PRIMATES Linnaeus, 1758</b>			
SUBORDER: HAPLORRHINI Pocock, 1918			
3) Family Cercopithecidae Gray, 1821 (Old World monkeys)			
Subfamily Cercopithecinae Gray, 1821 (macaques)			
3. <i>Macaca assamensis</i> (McClelland, 1840) Assam Macaque	NT, II, (II), Present	Chuntang, Dikchu (Wroughton 1916a), Lingtam (Sanborn 1932), Sikkim, between 762–1828.8 m (Maclaren 1949), Khangchendzonga National Park (Avasthe & Jha 1999), Rongli, Chuntang, Melli and Rongli (Molur et al. 2003), Teesta Valley (Vijayan et al. 2004), Geyzing and Singtam (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Fambhonglho Wildlife Sanctuary, Kitam Bird Sanctuary, Khangchendzonga Biosphere Reserve, Maenam Wildlife Sanctuary (Lepcha et al. 2017)	Pashok, Sukhiapokhri, Batasia (Wroughton 1916a), Pashok (Wroughton 1916b), Sangsir and Tarkhola (Sanborn 1932), Tarkhola and Takdah (Khajuria & Ghose 1970), Neora Valley National Park (Ghose 1984), Pashok, Sukhiapokhri, Takdah and Tarkhola (Agrawal et al. 1992), Batasia, Bijanbari, Chitrey, Ghoom, Gopaldhara, Kalijhora, Lepchajagat, Mahanadi, Mirik, Mongpong, Pagalijhora, Pashok, Rumbi, Sevok, Sukhiapokhri, Tarjomjhara, Teesta Bazar, Tindharia, Zero Point (Molur et al. 2003) Neora Valley National Park, Suntalekhola, Lava, Zero Point and Tarkhola (Mallick 2012)
4. <i>Macaca mulatta</i> (Zimmermann, 1780) Rhesus Macaque	LC, II, (II), Present	Sikkim, upto 2400m (Avasthe & Jha 1999), Sikkim (Srinivasulu & Srinivasulu 2012)	Darjeeling District (Dalgilesh 1906), Narbong (Wroughton 1916a), Pashok (Wroughton 1916b), Sivok and Mungpoo (Sanborn 1932), Darjeeling, Sepoydhara and Sukhna (Agrawal et al. 1992), Bengdubi, Lava, Mahakal Temple (Molur et al. 2003), Samsing in Neora Valley National Park, Neora river, Ashalari Khola, Sakam Khola, Dhoulakhola and Lava (Mallick 2012)
Subfamily Colobinae Jerdon, 1867 (langurs and leaf-monkeys)			
5. <i>Semnopithecus hector</i> (Pocock, 1928) Tarai Gray Langur	NT, II, (II), Present	Khangchendzonga National Park (Avasthe & Jha 1999)	Sevok (Wroughton 1916a; Brandon-jones 2004), Lava (Mallick 2012), Sivok, Pankhabari, Naxalbari (Molur et al. 2003)
6. <i>Semnopithecus schistaceus</i> Hodgson, 1840 Nepal Gray Langur	LC, I, (II), Present	Chuntang, Lachen, Sedonchen (Wroughton 1916a), Lingtam, Lachung and Lachen (Sanborn 1932), Khangchendzonga National Park (Avasthe & Jha 1999), Chuntang, Lachen, Lachung, Lingtam, Sedonchen (Molur et al. 2003), Teesta Valley (Vijayan et al. 2004), Yumthang (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	
<b>IV. ORDER RODENTIA Bowdich, 1821</b>			
SUBORDER SCIUROMORPHA Brandt, 1855			
4) Family Sciuridae Hemprich, 1820 (squirrels)			
Subfamily Ratufinae Moore, 1959			
7. <i>Ratufa bicolor</i> (Sparrman, 1778) Black Giant Squirrel	NT, II, (II), Present	Rongli and Dikchu (Wroughton 1916a), Ravangla, Damthang and Maenam Wildlife Sanctuary in South; Khangchendzonga National Park and Barsey Rhododendron Sanctuary in West, Tong RF, Chungthang, Dzongu and Shepyur in North; Fambong Lho, Lagyap RF, Bhusuk, Barapthing RF, Premlakha and Regu in East District (Avasthe & Jha 1999), Temi (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906), Narbong and Sivok (Wroughton 1916a), Pashok (Wroughton 1916a), Sangser (Wroughton 1917), Sivok, Sangsir and Tarkhola (Sanborn 1932), Tarkhola and Takdah (Khajuria & Ghose 1970), Pashok, Sukhiapokhri, Jaributi, Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Narbong, Rungbee, Sangser, Sivok and Tarkhola (Agrawal et al. 1992), Darjeeling, Mahananda Wildlife Sanctuary and Pashok (Molur et al. 2005), Samsing, Rangpo, Mouchowki, Lava and Jaributi valley (Mallick 2012)



	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
Subfamily Sciurinae Fischer, 1817			
Tribe Pteromyini Brandt, 1855			
8. <i>Belomys pearsonii</i> (Gray, 1842) Hairy-footed Flying Squirrel	DD, (II), Present	East Sikkim (Sclater 1891; Avasthe & Jha 1999; Chattopadhyay et al. 2006), Sombaria (Molur et al. 2005)	Darjeeling, 1828.8 m (Dalgilesh 1906; Molur et al. 2005), Mungpoo (Sanborn 1932), Neora Valley National Park (Ghose 1984)
9. <i>Eupetaurus cinereus</i> Thomas, 1888 Woolly Flying Squirrel	EN, (II), Present	Pangdin, Kangarten, Rangit Valley and Bakkhim (Avasthe & Jha 1999), Sikkim (Molur et al. 2005; Chattopadhyay et al. 2006)	
10. <i>Hylopetes alboniger</i> (Hodgson, 1836) Particoloured Flying Squirrel	LC, (II), Present	Chuntang and Singhik (Wroughton 1916a), Bakkhim (Avasthe & Jha 1999), Sikkim (Molur et al. 2005; Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Pashok (Wroughton 1916a; Molur et al. 2005), Pashok and Ambootia (Wroughton 1916b), Rhenok, Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Kurseong, Pashok and Selimbong (Agrawal et al. 1992)
11. <i>Petaurista elegans</i> (Müller, 1840) Spotted Giant Flying Squirrel	LC, (II), Present	Sikkim (Avasthe & Jha 1999), Yumthang (Molur et al. 2005), Yumthang and Bakkhim (Chattopadhyay et al. 2006)	Manebhanjan (Pal & Dasgupta 1984), Ghoombhanjan, Phalut and Tonglu (Agrawal et al. 1992), Ghoom, Selimbong, Tongsong (Molur et al. 2005)
12. <i>Petaurista magnificus</i> (Hodgson, 1836) Hodgson's Giant Flying Squirrel	LC, (II), Present	Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Chuntang, Damthang (Molur et al. 2005), Geyzing (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906; Gurung & Agarwal 1969; Chatterjee et al. 1970; Bandyopadhyay & Dasgupta 1984b; Dey et al. 1984; Banerjee et al. 1996), Ghoombhanjan (Agrawal et al. 1992), Darjeeling and Ghoom (Molur et al. 2005)
13. <i>Petaurista nobilis</i> (Gray, 1842) Bhutan Giant Flying Squirrel	NT, (II), Present	Sedonchen (Wroughton 1916a), Zeluk (Sanborn 1932), Sikkim (Avasthe & Jha 1999), Sedonchen, Tumin (Molur et al. 2005), Singhik, Tumin, Rabangla, Ralang, Damthang (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Batasia and Darjeeling (Wroughton 1916a), Neora Valley National Park (Ghose 1984), Ghoombhanjan and Selimbong (Agrawal et al. 1992), Darjeeling, Ghoom, Manebhanjan, Palmajua, Selimbong (Molur et al. 2005)
14. <i>Petaurista petaurista</i> (Pallas, 1766) Red Giant Flying Squirrel	LC, (II), Present	Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Neora Valley National Park (Mallick 2012)
Subfamily Callosciurinae Pocock, 1923			
15. <i>Callosciurus erythraeus</i> (Pallas, 1779) Pallas's Squirrel	LC, (II), Present	Sikkim (Thomas 1916a), Sedonchen (Wroughton 1916a; Molur et al. 2005; Chattopadhyay et al. 2006), Lingtam (Sanborn 1932)	
16. <i>Callosciurus pygerythrus</i> (I. Geoffroy Saint Hilaire, 1833) Hoary-bellied Squirrel	LC, (II), Present	Sedonchen (Thomas 1916a), Rongli, Gangtok and Dikchu (Wroughton 1916a), Lingtam, Dikchu and Toong (Sanborn 1932), Sikkim, 762–1524 m (Maclaren 1949; Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Chuntang, Gangtok and Lachen (Molur et al. 2005), Tumin, Singtam and Ranipool (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Pashok, Kurseong, Narbong and Sivok (Wroughton 1916a), Gopaldhara, Pashok and Tong Song (Wroughton 1916b), Nimbong and Sangser (Wroughton 1917), Gopaldhara and Mungpoo hills (Fry 1923), Sivok, Sangsir and Mungpoo (Sanborn 1932), Takdah (Khajuria & Ghose 1970), Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Gopaldhara, Mungpoo, Narbong, Pashok, Samsing, Sangser, Sivok, Tarkhola and Tindharia (Agrawal et al. 1992; Molur et al. 2005), Rashet and Lava (Mallick 2012)
17. <i>Dremomys lokriah</i> (Hodgson, 1836) Orange-bellied Himalayan Squirrel	LC, (II), Present	Sedonchen (Thomas 1916a), Karponang, Sedonchen, Chungtang and Gangtok (Wroughton 1916a), Chungthang, Jeluk, Lachen and Lachung (Sanborn 1932), Sikkim between 1500–2700m, Bakkhim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Ringin, Sedonchen, Gangtok (Molur et al. 2005), Rabangla and Bakkhim (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve, Maenam Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling, 1524 m (Dalgilesh 1906), Pashok (Wroughton 1916b), Palmajua (Khajuria & Ghose 1970), Lava, Damdama danda, Thosum and Rechila, Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012), Palmajua and Selimbong (Agrawal et al. 1992), Sukhiapokhri (Molur et al. 2005)
18. <i>Funambulus pennantii</i> (Wroughton, 1905) Five-striped Palm Squirrel	LC, (IV), Present	Sikkim (Avasthe & Jha 1999), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Sivok (Sanborn 1932)
19. <i>Tamiops maccllellandii</i> (Horsfield, 1840) Himalayan Striped Squirrel	LC, (II), Present	Sedonchen, Penlong, Gangtok, Chungtang and Ringin (Wroughton 1916a), Lingtam and Chungthang (Sanborn 1932), Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Ringin, Sedonchen, Chuntang, Gangtok, Sombaria (Molur et al. 2005)	Darjeeling, 1524m (Dalgilesh 1906), Batasia (Wroughton 1916a), Gopaldhara (Wroughton 1916b), Palmajua (Khajuria & Ghose 1970), Gopaldhara, Palmajua and Selimbong (Agrawal et al. 1992), Lava (Mallick 2012)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
Subfamily Xerinae Osborn, 1910			
Tribe Marmotini Pocock, 1923			
20. <i>Marmota himalayana</i> (Hodgson, 1841) Himalayan Marmot	LC, III, (II), Present	Kapup and above Thangu (Wroughton 1916a), Thangu, Gyangong and Ghora la (Sanborn 1932), Cho Lhamu, Lhonak valley, Green Lake, Lasher, Yumesamdong, Kyongnosla Alpine Sanctuary (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Geygong, Yumthang (Molur et al. 2005), Geygong, Lhasar and Thangu (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	
SUBORDER MYOMORPHA Brandt, 1855			
5) Family Spalacidae Gray, 1821			
Subfamily Rhizomyinae Winge, 1887 (bamboo rats)			
21. <i>Cannomys badius</i> (Hodgson, 1841) Lesser Bamboo Rat	LC, (V), Present	Sikkim (Sterndale 1884; Avasthe & Jha 1999)	Narbong (Wroughton 1916a, 1916b), Darjeeling (Molur et al. 2005)
6) Family Cricetidae Fischer, 1817			
Subfamily Arvicolinae Gray, 1821 (voles)			
22. <i>Alticola roylei</i> Gray, 1842 Royle's Mountain Vole	NT, (V), Present	Changu, Kapup, Gantong, Lachen, Thangu (Wroughton 1916a), Sikkim above 3000m (Avasthe & Jha 1999)	
23. <i>Neodon sikimensis</i> (Horsfield, 1841) Sikkim Vole	LC, (V), Present	Lachen and Thangu (Sanborn 1932), Sikkim (Khajuria & Ghose 1970), Sikkim (Avasthe & Jha 1999), Yumthang, Kapup, Lachen, Thangu (Molur et al. 2005), Yumthang, Thangu and Lachen (Chattopadhyay et al. 2006)	Sandakphu (Khajuria & Ghose 1970; Agrawal et al. 1992), Lava and Rechila, Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012)
7) Family Muridae Illiger, 1811			
Subfamily Gerbillinae Gray, 1825 (gerbils, jirds)			
24. <i>Tatera indica</i> (Hardwicke, 1807) Indian Gerbil	LC, (V), Uncertain		Darjeeling, among tea at 1524m (Dalgilesh 1906)
Subfamily Murinae Illiger, 1811 (rats and mice)			
25. <i>Bandicota bengalensis</i> (Gray, 1835) Lesser Bandicoot Rat	LC, (V), Present	In agricultural lands in Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), all over India (Srinivasulu & Srinivasulu 2012)	Pashok, Ghoom, and Narbong (Wroughton 1916a), Pashok (Wroughton 1916b), Kalimpong and Nimbong (Wroughton 1917), Gopaldhara (Fry 1923), Mungpoo (Sanborn 1932), Tarkhola (Khajuria & Ghose 1970), Kalimpong, Nimbong and Pashok (Agrawal et al. 1992), Kalimpong (Mallick 2012)
26. <i>Bandicota indica</i> (Bechstein, 1800) Greater Bandicoot Rat	LC, (V), Present	Sikkim (Agrawal et al. 1992; Chattopadhyay et al. 2006), Near Human settlements in Sikkim (Avasthe & Jha 1999)	
27. <i>Dacnomys millardi</i> Thomas, 1916 Millard's Rat	DD, (V), Present	Sikkim (Thomas 1916a; Avasthe & Jha 1999)	Gopaldhara and Pashok (Thomas 1916a; Wroughton 1916b), Mungpoo (Sanborn 1932)
28. <i>Golunda ellioti</i> Gray, 1837 Indian Bush Rat	LC, (V), Present		Kurseong (Agrawal et al. 1992; Mallick 2019)
29. <i>Leopoldamys edwardsi</i> (Thomas, 1882) Edward's Rat	LC, (V), Present		Pashok (Thomas 1916a; Wroughton 1916b), Darjeeling (Agrawal 2000; Molur et al. 2005)
30. <i>Mus booduga</i> (Gray, 1837) Little Indian Field Mouse	LC, (V), Uncertain		Gopaldhara (Fry 1923)
31. <i>Mus cervicolor</i> Hodgson, 1845 Fawn-colored Mouse	LC, (V), Present	Teesta Valley (Vijayan et al. 2004) Sikkim (Srinivasulu & Srinivasulu 2012)	
32. <i>Mus musculus</i> (Linnaeus, 1758) House Mouse	LC, (V), Present	Sedonchen, Rongli, Gangtok, Lachen, Chuntang, Ringin, and Dikchu (Wroughton 1916a), Chungtang (Sanborn 1932), Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Tadong and Yuksom (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906), Ghoom, Darjeeling, Narbong, Sivok, Sukhiapokhri and Batasia (Wroughton 1916a), Gopaldhara, Songma, Pashok, Tong Song (Wroughton 1916b), Gopaldhara and Mongpu hills (Fry 1923), Kalimpong, Nimbong and Pedong (Wroughton 1917), Tarkhola, Takdah and Sandakphu (Khajuria & Ghose 1970), Batasia, Ghoom, Gopaldhara, Kalimpong, Narbong, Tongsong, Pashok, Pedong, Sandakphu, Sukhiapokhri, Takdah and Tarkhola (Agrawal et al. 1992), Neora Valley National Park (Mallick 2012)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
33. <i>Mus pahari</i> Thomas, 1916 Gairdner's Shrewmouse	LC, (V), Present	Sikkim (Thomas 1916a), Chuntang (Wroughton 1916a; Ellerman 1961; Chattopadhyay et al. 2006), Lingtam (Sanborn 1932), in the forest of Sikkim below 1650m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004)	Tonglu, Singalila National Park (Thomas 1916a), Batasia (Thomas 1916a; Wroughton 1916a), Pashok (Wroughton 1916b), Pedong and Sangser (Wroughton 1917), Takdah and Batasia (Khajuria & Ghose 1970), Thosum and Rechila (Ghose 1984; Biswas et al. 1999; Mallick 2012), Pashok and Takdah (Agrawal et al. 1992)
34. <i>Niviventer eha</i> (Wroughton, 1916) Smoke-bellied Rat	LC, (V)	Lachen (Thomas 1916a; Sanborn 1932; Khajuria & Ghose 1970), Lachen and Thangu (Wroughton 1916a), Sikkim in Rhododendron forest (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Lachen, Thangu, Yumthang (Molur et al. 2005), Yumthang and Thangu (Chattopadhyay et al. 2006)	Ghoom and Sukhiapokhri (Wroughton 1916a), Palmajua and Sandakphu (Khajuria & Ghose 1970; Agrawal et al. 1992; Molur et al. 2005), Neora Valley National Park (Ghose 1984)
35. <i>Niviventer fulvescens</i> (Gray, 1847) Chestnut White-bellied Rat	LC, (V), Present	Chuntang and Lachen (Wroughton 1916a), Lingtam and Chungthang (Sanborn 1932), Lower Eastern Himalayas (Avasthe & Jha 1999), Rabangla, Chuntang, Lachen (Molur et al. 2005), Rabangla (Chattopadhyay et al. 2006)	Ghoom, Sukhiapokhri, Batasia and Narbong (Wroughton 1916a), Gopaldhara, Songma and Pashok (Wroughton 1916b), Nimbong and Pedong (Wroughton 1917), Mongpu hills (Fry 1923), Mungpoo (Sanborn 1932), Palmajua and Takdah (Khajuria & Ghose 1970), Neora Valley National Park (Ghose 1984), Batasia, Nimbong, Palmajua, Pashok, Pedong, Selimbong and Takdah (Agrawal et al. 1992)
36. <i>Niviventer niviventer</i> (Hodgson, 1836) Himalayan White-bellied Rat	LC, (V), Present	Chuntang (Thomas 1916a), Chuntang and Lachen (Wroughton 1916a), Lower Himalayas (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Bakhim, Chuntang, Lachen (Molur et al. 2005), Bakhim (Chattopadhyay et al. 2006)	Palmajua and Sandakphu (Khajuria & Ghose 1970; Agrawal et al. 1992), Neora Valley National Park (Ghose 1984), Ghoombhanjan and Selimbong (Agrawal et al. 1992)
37. <i>Rattus andamanensis</i> (Blyth, 1860) Indochinese Forest Rat	LC, (V), Present	Pashok, Singhik, Ringin and Rongli (Hinton 1918), Chakung, Rongli and Singhik (Ellerman 1961; Agrawal 2000; Molur et al. 2005), Teesta Valley (Vijayan et al. 2004), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Gopaldhara (Hinton 1918), Kalimpong, Gopaldhara, Darjeeling, and Pashok (Ellerman 1961; Agrawal 2000; Molur et al. 2005)
38. <i>Rattus nitidus</i> (Hodgson, 1845) Himalayan Field Rat	LC, (V), Present	Gangtok, Gnatong, Rongli, Chunthang and Dikchu (Wroughton 1916a), Gnatong and Lingtam (Sanborn 1932), Eastern Himalayas (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Gangtok (Molur et al. 2005)	Ghoom, Sukhiapokhri, Pashok and Batasia (Wroughton 1916a), Gopaldhara, Tong Song and Pashok (Wroughton 1916b), Kalimpong, Nimbong, Pedong and Sangser (Wroughton 1917), Gopaldhara and Mongpu hills (Fry 1923), Mongpoo (Sanborn 1932), Takdah and Sandakphu (Khajuria & Ghose 1970) Neora Valley National Park (Ghose 1984), Batasia, Ghoombhanjan, Gopaldhara, Mongpu, Nimbong, Palmajua, Pashok, Pedong, Sangser, Sukhiapokhri and Takdah (Agrawal et al. 1992), Darjeeling, Pashok and Ghoom (Molur et al. 2005)
39. <i>Rattus pyctoris</i> (Hodgson, 1845) Himalayan Rat	LC, (V), Present	Chuntang (Wroughton 1916a; Agrawal et al. 1992), Eastern Himalayas (Avasthe & Jha 1999), Lachen and Chuntang (Molur et al. 2005; Chattopadhyay et al. 2006)	Ghoom and Batasia (Wroughton 1916a), Ghoom (Agrawal et al. 1992; Molur et al. 2005)
40. <i>Rattus rattus</i> (Linnaeus, 1758) House Rat	LC, (V), Present	Sedonchen, Rongli, Singhik, Gangtok, Dikchu and Ringin (Wroughton 1916a), Lingtam (Sanborn 1932), Eastern Himalayas (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Tumin (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906), Pashok, Batasia and Narbong (Wroughton 1916a), Gopaldhara, Songma and Pashok (Wroughton 1916b), Kalimpong, Nimbong, Pedong and Sangser (Wroughton 1917), Mungpoo and Tarkhola (Sanborn 1932), Tarkhola, Palmajua and Takdah (Khajuria & Ghose 1970)
41. <i>Rattus tanezumi</i> Temminck, 1844 Oriental House Rat	LC, (V), Present	Lingtam (Sanborn 1932), Rabangla and Yuksom (Chattopadhyay et al. 2006)	Sivok, Sangsir and Mungpoo (Sanborn 1932), Gopaldhara and Mungpo hills (Fry 1923), Gopaldhara, Narbong, Kalimpong, Nimbong, Palmajua, Pashok, Pedong, Sangser, Takdah and Tarkhola (Agrawal et al. 1992)
42. <i>Vandeleuria oleracea</i> (Bennett, 1832) Asiatic Long-tailed Climbing Mouse	LC, (V), Present	Common in Lower Himalayas (Avasthe & Jha 1999), Sikkim (Srinivasulu & Srinivasulu 2012)	Pashok (Wroughton 1916b, 1916a; Agrawal et al. 1992), Kalimpong (Wroughton 1917)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
SUBORDER HYSTRICOMORPHA Brandt, 1855			
8) Family Hystricidae G.Fisher, 1817 (Old World porcupines)			
43. <i>Hystrix brachyura</i> Linnaeus, 1758 Malayan Porcupine	LC, (II), Present	Foothills (Wroughton 1916a), Sikkim, below 1000m (Avasthe & Jha 1999; Molur et al. 2005; Chattopadhyay et al. 2006), Teesta Valley (Vijayan et al. 2004), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a) Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Kitam Bird Sanctuary, Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Mungpoo (Sanborn 1932), Alubari, Neora Valley National Park (Biswas et al. 1999; Mallick 2012), Darjeeling (Molur et al. 2005)
<b>V. ORDER LAGOMORPHA Brandt, 1855</b>			
9) Family Ochotonidae Thomas, 1897 (pikas)			
44. <i>Ochotona curzoniae</i> (Hodgson, 1858) Plateau Pika	LC, Present	Kamparab to Kala (Maclaren 1949), Sikkim (Molur et al. 2005; Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Tso Lhamo plateau (Rawat & Tambe 2011)	
45. <i>Ochotona macrotis</i> (Günther, 1875) Large-eared Pika	LC, Present	Teesta Valley (Vijayan et al. 2004), Sikkim (Molur et al. 2005), Lhasar and Thangu (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	
46. <i>Ochotona roylei</i> (Ogilby, 1839) Royle's Pika	LC, (IV), Present	Gnatong and Lachen (Wroughton 1916a), Cho Lhamu, Lhonak Valley, Kishongla, Jelep la, Lampokhari, Botang La, Thanggu, Samthong and Dzongri (Avasthe & Jha 1999), East Sikkim (Molur et al. 2005), Gomchen and Thangsing (Chattopadhyay et al. 2006)	
47. <i>Ochotona sikimaria</i> Thomas, 1922 Sikkim Pika	NE, Present	Gnatong, Lachen, Thangu (Sanborn 1932), Sikkim-Tibet, Between 2438.4–3657.6 m (Maclaren 1949), Lachen (Khajuria & Ghose 1970), North Sikkim (Avasthe & Jha 1999), Lachung (Molur et al. 2005), Lachen, Lachung, Yumthang, Thang, Dzongri, Menam, Kyongnosla and Tsomgo (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), 2600–4754m (Dahal et al. 2017)	Sandakphu (Khajuria & Ghose 1970; Agrawal et al. 1992), Darjeeling (Molur et al. 2005), Kalimpong, Nimbong, Pedong and Sangser (Wroughton 1917)
10) Family Leporidae Fischer, 1817 (hares and rabbits)			
48. <i>Caprolagus hispidus</i> (Pearson, 1839) Hispid Hare	EN, I, (I), Uncertain		Kalimpong and Darjeeling (Wroughton 1916a)
49. <i>Lepus nigricollis</i> F. Cuvier, 1823 Indian Hare	LC, (IV), Present	Sikkim, upto 2700m (Avasthe & Jha 1999), Dikling, East Sikkim (Chattopadhyay et al. 2006)	Kurseong (Dalgilesh 1906), Gopaldhara (Wroughton 1916b), Mungpo Hills (Fry 1923), Munsong, Kalimpong (Sanborn 1932), Darjeeling and Tonglu (Agrawal et al. 1992), Samsing, Tarkhola, Neora Valley National Park (Mallick 2012)
50. <i>Lepus oiostolus</i> Hodgson, 1840 Wolly Hare	LC, Present	Kongra Lama Pass, above Thangu (Wroughton 1916a), Tangla to Kala, Tang pun sum plain and west of Dochen (Maclaren 1949), Gyagong (Sanborn 1932), Sikkim plateau, usually above 3300m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Rabangla, South Sikkim and Kongra Lama Pass (Chattopadhyay et al. 2006), Tso Lhamo plateau (Rawat & Tambe 2011)	
<b>VI. ORDER EULIPOTYPHLA Waddell et al., 1999</b>			
11) Family Soricidae Fischer, 1817 (shrews, moles, and hedgehogs)			
Subfamily Crocidurinae Milne-Edwards, 1872			
51. <i>Crocidura attenuata</i> Milne-Edwards, 1872 Grey Shrew	LC, Present	Sikkim (Anderson 1877; Ellerman & Morrison-Scott 1966), Sikkim, sub-tropical and temperate regions (Avasthe & Jha 1999)	Narbong (Wroughton 1916a), Takdah (Khajuria & Ghose 1970), Gopaldhara, Mungpo, Pashok and Takdah (Agrawal et al. 1992), Darjeeling and Pashok (Molur et al. 2005)
52. <i>Suncus etruscus</i> (Savi, 1822) Pygmy White-toothed Shrew	LC, Present	Lingtam (Sanborn 1932), Sikkim, sub-tropical and temperate regions (Avasthe & Jha 1999)	Mungpu and Darjeeling (Anderson 1881; Agrawal et al. 1992), Narbong (Wroughton 1916a), Pashok (Wroughton 1916b)



	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
53. <i>Suncus murinus</i> Linnaeus, 1766 House Shrew	LC, Present	Gnatong, Rongli, Dikchu (Wroughton 1916a), Lingtam and Rongli (Sanborn 1932), Teesta Valley (Vijayan et al. 2004), Sikkim, tropical, sub-tropical and temperate regions (Avasthe & Jha 1999), Rongli (Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906; Bandyopadhyay and Dasgupta, 1984a), Darjeeling, Ghoom, Narbong, Sivok, Siliguri (Wroughton 1916a), Gopaldhara and Pashok (Wroughton 1916b), Kalimpong, Nimbong, Pedong and Sangser (Wroughton 1917), Mungpoo and Sangsir (Sanborn 1932), Tarkhola (Khajuria & Ghose 1970), Neora Valley National Park (Ghose 1984), Shrubbery Park, Darjeeling (Dasgupta, 1987), Ghoom, Kalimpong, Kurseong, Manibhanjan, Pedong, Rangiroom, Sivok, Ghoombhanjan, Tonglu and Tarkhola (Agrawal et al. 1992)
<i>Tribe: Nectogalini</i> Anderson, 1879			
54. <i>Chimarrogale himalayica</i> (Gray, 1842) Himalayan Water Shrew	LC, Present	Rongli (Wroughton 1916a; Molur et al. 2005; Chattopadhyay et al. 2006), Sikkim (Avasthe & Jha 1999)	Darjeeling, near mountain streams 1524m (Dalgilesh 1906), Pashok (Agrawal et al. 1992), Gopaldhara (Molur et al. 2005)
55. <i>Episoriculus caudatus</i> (Horsfield, 1851) Hodgson's Brown-toothed Shrew	LC, Present	Sedonchen, Chuntang, Lachen (Wroughton 1916a), Lingtam (Sanborn 1932), Sikkim, sub-tropical and temperate regions (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Chungthang and Lachen (Molur et al. 2005), Lachen and Chunthang (Chattopadhyay et al. 2006)	Ghoom (Wroughton 1916a), Gopaldhara, Songma, and Pashok (Wroughton 1916b), Sangser (Wroughton 1917), Sandakphu (Khajuria & Ghose 1970), Mungpo and Sandakphu (Agrawal et al. 1992), Ghoombangjan (Molur et al. 2005)
56. <i>Episoriculus leucops</i> (Horsfield, 1855) Long-tailed Brown-toothed Shrew	LC, Present	Lachen (Molur et al. 2005)	Darjeeling (Agrawal et al. 1992)
57. <i>Episoriculus macrurus</i> (Blanford 1888) Long-tailed Mountain Shrew	LC, Present	Chuntang and Lachen (Wroughton 1916a; Chattopadhyay et al. 2006)	Darjeeling (Molur et al. 2005)
58. <i>Nectogale elegans</i> Milne-Edwards, 1870 Elegant Water Shrew	LC, Present	Gangtok (Millard et al. 1916b), Chuntang (Wroughton 1916a), Chungthang, Lachung and Lachen (Sanborn 1932), Sikkim (Avasthe & Jha 1999), Yumthang (Molur et al. 2005), Lachung, Chunthang, Yumthang (Chattopadhyay et al. 2006)	Tong Song and Pashok (Wroughton 1916b)
59. <i>Soriculus nigrescens</i> (Gray, 1842) Himalayan Shrew	LC, Present	Sedonchen, Gangtok, Chuntang, Lachen (Wroughton 1916a), Lingtam (Sanborn 1932), Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), FLachen (Molur et al. 2005), Gnatong, Chunthang, Sedonchen, Lachen (Chattopadhyay et al. 2006)	Darjeeling, 1524m (Dalgilesh 1906), Ghoom, Sukhiapokhri (Wroughton 1916a), Gopaldhara and Pashok (Wroughton 1916b), Palmajua (Khajuria & Ghose 1970), Jaributi, Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012), Ghoom, Gopaldhara and Palmajua (Agrawal et al. 1992)
12) Family Talpidae Fischer, 1817 (desmans, shrew moles and moles)			
Subfamily Talpinae G. Fischer, 1814 (moles)			
<i>Tribe: Talpini</i> G. Fischer, 1814			
60. <i>Euroscaptor micrura</i> (Hodgson, 1841) Himalayan Mole	LC, Present	Dikchu (Wroughton 1916a), Zeluk (Sanborn 1932), Sikkim, between 1500–2400m (Avasthe & Jha 1999; Chattopadhyay et al. 2006)	Kurseong and Darjeeling (Dalgilesh 1906), Gopaldhara, Tong Song, Pashok and Songma (Wroughton 1916b), Darjeeling, Batasia, Sivok (Wroughton 1916a), Gopaldhara (Fry 1923), Mungpoo and Tarkhola (Sanborn 1932), Neora Valley National Park (Ghose 1984; Mallick 2012), Gopaldhara, Pashok and Selimbong (Agrawal et al. 1992); Batasia and Gopaldhara (Molur et al. 2005)
<b>VII. ORDER CHIROPTERA Blumenbach, 1779</b>			
13) Family Pteropodidae Gray, 1821 (Old World fruit bats)			
61. <i>Cynopterus sphinx</i> (Vahl, 1797) Greater Short-nosed Fruit Bat	LC, (V), Present	Sikkim, upto 2000m (Avasthe & Jha 1999; Das 2003; Chattopadhyay et al. 2006)	Darjeeling (Dalgilesh 1906; Molur et al. 2002), Singla (Wroughton 1916a), Tong Song and Pashok (Wroughton 1916b), Sivok (Sanborn 1932), Neora Valley National Park (Ghose 1984), Chunabhati, Darjeeling, Gorubathan, Kumani and Sukna (Agrawal et al. 1992; Das 2003), Darjeeling, Kumani (Ghosh 2005)
62. <i>Eonycteris spelaea</i> (Dobson, 1871) Lesser Dawn Bat	LC, (V), Present	Sikkim, upto 2000m (Avasthe & Jha 1999; Das 2003; Chattopadhyay et al. 2006), Hee Gyathang (Molur et al. 2002)	Pashok (Agrawal et al. 1992), Pashok, Sivok and Sukna (Das 2003; Ghosh 2005)
63. <i>Megaerops niphanae</i> Yenbutra and Felten, 1983 Northern Tailless Fruit Bat	LC, (V), Present	Sikkim (Avasthe & Jha 1999)	Pashok (Molur et al. 2002; Das 2003)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
64. <i>Macroglossus sobrinus</i> K. Andersen, 1911 Greater Long-nosed Fruit Bat	LC, (V), Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002; Das 2003)	Darjeeling (Agrawal et al. 1992; Molur et al. 2002; Das 2003; Ghosh 2005)
65. <i>Pteropus giganteus</i> (Brünnich, 1782) Indian Flying Fox	LC, II, (V), Present	Melli, Singtam, Rangpo, Tong, Chakung and Ranipool (Avasthe & Jha 1999), Gangtok (Molur et al. 2002)	Darjeeling, warmer valleys at low elevation (Dalgilesh 1906), Siliguri (Wroughton 1916a; Agrawal et al. 1992; Molur et al. 2002; Das 2003; Ghosh 2005)
66. <i>Rousettus leschenaultii</i> (Desmarest, 1820) Leschenault's Rousette	LC, (V), Present	Sikkim, upto 2250m (Avasthe & Jha 1999), 17km WSW Mangan (Molur et al. 2002), Hee Gyathang (Ghosh 2005; Chattopadhyay et al. 2006)	Pedong (Wroughton 1917), Tarkhola (Khajuria & Ghose 1970), Neora Valley National Park (Ghose 1984), Gorubathan and Tarkhola (Agrawal et al. 1992; Das 2003; Ghosh 2005), Darjeeling (Molur et al. 2002)
67. <i>Sphaerias blanfordi</i> (Thomas, 1891) Blanford's Fruit Bat	LC, (V), Present	Sikkim (Avasthe & Jha 1999; Das 2003), Fambong Lho Wildlife Sanctuary (Molur et al. 2002), Tumin (Ghosh 2005; Chattopadhyay et al. 2006)	Darjeeling, Ghoomti and Palmajua (Agrawal et al. 1992; Das 2003; Ghosh 2005), Darjeeling and Goomti (Molur et al. 2002)
14) Family Rhinolophidae Gray, 1825 (horseshoe bats)			
68. <i>Rhinolophus affinis</i> Horsfield, 1823 Intermediate Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Srinivasulu & Srinivasulu 2012)	Kurseong, (Dalgilesh 1906), Pashok (Wroughton 1916b; Agrawal et al. 1992; Das 2003), Darjeeling and Pashok (Molur et al. 2002)
69. <i>Rhinolophus ferrumequinum</i> (Schreber, 1774) Greater Horseshoe Bat	LC, Present	Rongli (Wroughton 1916a), Ringin and Rongli (Molur et al. 2002), Lachen (Chattopadhyay et al. 2006; Ghosh 2008)	Darjeeling (Molur et al. 2002)
70. <i>Rhinolophus lepidus</i> Blyth, 1844 Blyth's Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999)	Nimbong, Pedong, and Sangser (Wroughton 1917), Darjeeling (Molur et al. 2002)
71. <i>Rhinolophus luctus</i> Temminck, 1834 Great Woolly Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003)	Singla (Wroughton 1916a), Darjeeling and Nimbong (Agrawal et al. 1992; Das 2003), Kalimpong and Rechila, Neora Valley National Park (Biswas et al. 1999; Mallick 2012), Darjeeling and Singla (Molur et al. 2002)
72. <i>Rhinolophus macrotis</i> Blyth, 1844 Big-eared Horseshoe Bat	LC, Present		Lopchu (Molur et al. 2002)
73. <i>Rhinolophus pearsonii</i> Horsfield, 1851 Pearson's Horseshoe Bat	LC, Present	Sikkim (Hill 1986; Chattopadhyay et al. 2006), Sikkim, Lower Himalayan range (Avasthe & Jha 1999), Chunthang and Fambong Lho Wildlife Sanctuary (Molur et al. 2002), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Pashok (Wroughton 1916b), Darjeeling, Mahanadi and Pashok (Agrawal et al. 1992; Das 2003; Ghosh 2008), Darjeeling, Pashok and Lopchu (Molur et al. 2002)
74. <i>Rhinolophus pusillus</i> Temminck, 1834 Least Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003), Fambong Wildlife Sanctuary (Molur et al. 2002), Mangan (Ghosh 2008)	Darjeeling, Nimbong, Pashok and Sangser (Agrawal et al. 1992; Das 2003), Sangser, Pashok and Nimbong (Molur et al. 2002), Nimbong, Sangser (Ghosh 2008)
75. <i>Rhinolophus sinicus</i> K. Andersen, 1905 Chinese Rufous Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003), Tashiding (Molur et al. 2002), Tumin (Chattopadhyay et al. 2006; Ghosh 2008)	Nimbong (Wroughton 1917; Ghosh 2008), Singhmari (Pal & Dasgupta 1982), Kumani and Nimbong (Agrawal et al. 1992; Das 2003), Darjeeling, Nimbong and Pashok (Molur et al. 2002)
76. <i>Rhinolophus trifoliatius</i> Temminck, 1834 Trefoil Horseshoe Bat	LC, Present	Sikkim (Avasthe & Jha 1999)	Darjeeling (Agrawal et al. 1992; Molur et al. 2002; Das 2003)
15) Family Hipposideridae Lydekker, 1891 (Old World leaf-nosed bats, trident bats)			
77. <i>Coelops frithii</i> Blyth, 1848 Tailless Leaf-nosed Bat	LC, Present		Darjeeling (Blanford 1888; Agrawal et al. 1992; Molur et al. 2002; Das 2003), Gopaldhara, Tongsong, Nimbong, Peshok (Ghosh 2008)
78. <i>Hipposideros armiger</i> (Hodgson, 1835) Great Leaf-nosed Bat	LC, Present	Sikkim, upto 1800m (Blanford 1888; Avasthe & Jha 1999; Das 2003; Chattopadhyay et al. 2006); Hee Gyathang and Rongli (Molur et al. 2002)	Gopaldhara, Tong Song and Pashok (Wroughton 1916b), Nimbong (Wroughton 1917), Darjeeling, Goomti, Gopaldhara, Lopchu, Mahandi, Nimbong, Pashok and Tongsong (Agrawal et al. 1992; Molur et al. 2002; Das 2003), Gopaldhara, Tongsong, Peshok, Nimbong (Ghosh 2008)
79. <i>Hipposideros cineraceus</i> Blyth, 1853 Least Leaf-nosed Bat	LC, Present		Sangser (Molur et al. 2002), Nimbong, Pashok, Sangser (Das 2003)
80. <i>Hipposideros lankadiva</i> Kelaart, 1850 Indian Leaf-nosed Bat	LC, Present		Darjeeling (Anderson 1881; Agrawal et al. 1992; Molur et al. 2002; Das 2003)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
81. <i>Hipposideros pomona</i> K. Andersen, 1918 Pomona Leaf-nosed Bat	LC, Present	Rongli (Wroughton 1916b; Molur et al. 2002; Das 2003), Sikkim (Hill et al. 1986; Avasthe & Jha 1999; Chattopadhyay et al. 2006)	Pashok and Narbong (Wroughton 1916a; Ghosh 2008), Pashok (Wroughton 1916b; Agrawal et al. 1992), Nimbong and Sangser (Wroughton 1917), Tongsong (Agrawal et al. 1992), Narbong, Nimbong, Pashok, Sangser and Tong Song (Molur et al. 2002)
16) Family Megadermatidae H. Allen, 1864 (false-vampire bats)			
82. <i>Megaderma lyra</i> E. Geoffroy, 1810 Greater False Vampire Bat	LC, Present	Sikkim (Avasthe & Jha 1999)	Terai, Darjeeling (Dalgiesh 1906; Molur et al. 2002), Siliguri (Wroughton 1916a), Sivok (Sanborn 1932), Gyabari, Lopchu, Siliguri, and Sukna (Agrawal et al. 1992; Das 2003)
17) Family Emballonuridae Gervais, 1855 (sheath-tailed bats)			
Subfamily Taphozoinae Jerdon, 1867 (tomb bats)			
83. <i>Taphozous longimanus</i> Hardwicke, 1825 Long-winged Tomb Bat	LC, Present		Darjeeling (Blyth 1841; Agrawal et al. 1992; Molur et al. 2002; Das 2003), Peshok, Tongsong (Ghosh 2008)
84. <i>Taphozous nudiventris</i> Cretzschmar, 1830 Naked-rumped Tomb Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002; Das 2003; Chattopadhyay et al. 2006)	Sivok (Wroughton 1916a; Agrawal et al. 1992; Molur et al. 2002; Das 2003)
18) Family Molossidae Gervais, 1856 (free-tailed bat)			
Subfamily Molossinae Gervais, 1856			
85. <i>Tadarida teniotis</i> (Rafinesque, 1814) European Free-tailed Bat	LC, Present	Sikkim, Eastern Himalayas (Avasthe & Jha 1999)	Kurseong (Hill 1963; Molur et al. 2002), Darjeeling (Agrawal et al. 1992; Das 2003)
19) Family Vespertilionidae Gray, 1821 (vesper bats)			
Subfamily Vespertilioninae Gray, 1821			
Tribe: <i>Eptesicini</i> Volleth and Heller, 1994			
86. <i>Arielulus circumdatus</i> (Temminck, 1840) Bronze Sprite	LC, Present	Hee Gyathang (Molur et al. 2002)	
87. <i>Eptesicus serotinus</i> (Schreber, 1774) Serotine	LC, Present	Sikkim, colder areas (Avasthe & Jha 1999)	Rechila, Neora Valley National Park (Biswas et al. 1999; Mallick 2012)
88. <i>Eptesicus tatei</i> Ellerman and Morrison-Scott, 1951 Sombre Bat	DD, Present	Sikkim (Blyth 1863; Avasthe & Jha 1999)	Darjeeling (Blyth 1863; Agrawal et al. 1992; Molur et al. 2002; Das 2003)
Tribe: <i>Nycticeiini</i> Gervais, 1855			
89. <i>Scotomanes ornatus</i> (Blyth, 1851) Harlequin Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002)	Darjeeling (Blyth 1863), Kurseong (Primrose 1916; Millard et al. 1916b), Singla and Sivok (Wroughton 1916a), Tong Song and Pashok (Wroughton 1916b), Darjeeling, Pashok and Sivok (Agrawal et al. 1992; Das 2003), Pashok, Sivok, Singla, Tongsong (Molur et al. 2002), Tindharia, Peshok, Sivok (Ghosh 2008)
90. <i>Scotophilus kuhlii</i> Leach, 1821 Lesser Asiatic Yellow House Bat	LC, Present		Pashok (Agrawal et al. 1992; Das 2003), Darjeeling (Molur et al. 2002)
Tribe: <i>Pipistrellini</i> Tate, 1942			
91. <i>Nyctalus noctula</i> (Schreber, 1774) Noctule	LC, Present	Sikkim (Blanford 1888; Avasthe & Jha 1999; Chattopadhyay et al. 2006), Lingtam (Sanborn 1932), Hee Gyathang and Lingtam (Molur et al. 2002)	Tong Song (Wroughton 1916b), Sangser (Wroughton 1917), Darjeeling and Sangser (Agrawal et al. 1992; Das 2003), Sangser and Tongsong (Molur et al. 2002)
92. <i>Pipistrellus coromandra</i> (Gray, 1838) Indian Pipistrelle	LC, Present	Rongli and Penlong (Wroughton 1916a), Sikkim (Avasthe & Jha 1999), Mangpu and Rongli (Molur et al. 2002), Penlong (Chattopadhyay et al. 2006; Ghosh 2008)	Siliguri (Wroughton 1916a), Gopaldhara and Pashok (Wroughton 1916b), Nimbong, Pedong, Sangser and Kalimpong (Wroughton 1917), Mungpoo (Sanborn 1932), Takdah (Khajuria & Ghose 1970), Gopaldhara, Nimbong, Pashok, Pedong, Ranichera, Takdah (Agrawal et al. 1992; Das 2003), Gopaldhara, Pashok, Pedong and Siliguri (Molur et al. 2002), Gopaldhara, Pedong, Nimbong, Peshok (Ghosh 2008)
93. <i>Pipistrellus javanicus</i> (Gray, 1838) Javan Pipistrelle	LC, Present	Rongli (Sanborn 1932; Molur et al. 2002), Sikkim (Avasthe & Jha 1999; Das 2003)	Pashok (Wroughton 1916b), Darjeeling (Agrawal et al. 1992; Ghosh 2008), Paperkheti, Sukna, Takdah (Das 2003), Darjeeling, Nimbong and Pashok (Molur et al. 2002)
94. <i>Pipistrellus tenuis</i> (Temminck, 1840) Least Pipistrelle	LC, Present		Neora Valley National Park (Ghose 1984), Kalijhora (Agrawal et al. 1992; Das 2003), Darjeeling (Molur et al. 2002)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
<i>Tribe: Plecotini Gray, 1866</i>			
95. <i>Barbastella leucomelas</i> (Cretzschmar, 1826) Eastern Barbastelle	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003), Hee Gyathang, Lachung and Mangpu (Molur et al. 2002), Lachung (Chattopadhyay et al. 2006; Ghosh 2008)	Tong Song (Wroughton 1916b), Nimbong (Wroughton 1917; Ghosh 2008), Mungpoo (Sanborn 1932), Darjeeling and Nimbong (Agrawal et al. 1992; Das 2003), Darjeeling, Kurseong, Nimbong, Tongsong (Molur et al. 2002)
96. <i>Plecotus auritus</i> (Linnaeus, 1758) Brown Long-eared Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003), North Sikkim (Molur et al. 2002), Yumthang and Thangu (Chattopadhyay et al. 2006; Ghosh 2008)	Darjeeling (Agrawal et al. 1992; Molur et al. 2002; Das 2003; Chattopadhyay et al. 2006)
<i>Tribe: Vespertilionini Gray, 1821</i>			
97. <i>Falsistrellus affinis</i> Dobson, 1871 Chocolate Pipistrelle	LC, Present		Gopaldhara (Wroughton 1916b), Darjeeling (Agrawal et al. 1992; Das 2003), Gopaldhara and Kurseong (Molur et al. 2002)
98. <i>Hypsugo cadornae</i> Thomas, 1916 Cadorna's Pipistrelle	LC, Present		Pashok (Thomas 1916a; Wroughton 1916b; Molur et al. 2002), Darjeeling (Agrawal et al. 1992; Das 2003)
99. <i>Hypsugo joffrei</i> (Thomas, 1915) Joffre's Pipistrelle	DD, Present	Hee Gyathang (Molur et al. 2002; Saikia et al. 2017; Saikia 2018), Sikkim (Srinivasulu & Srinivasulu 2012)	
100. <i>Tylonycteris pachypus</i> (Temminck, 1840) Lesser Bamboo Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002; Das 2003)	Sivok (Wroughton 1916a), Pashok (Wroughton 1916b), Kalimpong, Nimbong and Sangser (Wroughton 1917), Darjeeling, Kalimpong, Pashok and Sivok (Agrawal et al. 1992; Das 2003); Darjeeling, Kalimpong, Nimbong, Pashok, Sangser, and Sivok (Molur et al. 2002), Darjeeling, Sivok, Pashok, Kalimpong (Ghosh 2008)
<i>Subfamily Myotinae Tate, 1942</i>			
101. <i>Myotis annectans</i> (Dobson, 1871) Hairy-faced Bat	LC, Present		Pashok (Thomas 1920; Topál 1970; Agrawal et al. 1992), Pashok and Teesta Valley (Molur et al. 2002)
102. <i>Myotis formosus</i> (Hodgson, 1835) Hodgson's Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002; Das 2003)	Darjeeling (Molur et al. 2002; Das 2003)
103. <i>Myotis muricola</i> (Gray, 1846) Nepalese Whiskered Bat	LC, Present	Lachung (Anderson 1881), Sedonchen and Lachen (Wroughton 1916a), Lachung and Jeluk (Sanborn 1932), Jeluk, Lachung, Lachen and Sedonchen (Molur et al. 2002), Lachen (Das 2003), Lachung and Lachen (Chattopadhyay et al. 2006)	Darjeeling (Anderson 1881; Agrawal et al. 1992; Das 2003), Neora Valley National Park (Ghose 1984), Gairibas and Ghoom (Molur et al. 2002)
104. <i>Myotis nipalensis</i> (Dobson, 1871) Nepal Myotis	LC, Present	Sikkim (Avasthe & Jha 1999), Lachen (Ghosh 2008)	Neora Valley National Park (Ghose 1984), Darjeeling (Agrawal et al. 1992; Molur et al. 2002; Das 2003)
105. <i>Myotis sicarius</i> Thomas, 1915 Mandelli's Mouse-eared Myotis	VU, Present	Rongli (Sanborn 1932; Molur et al. 2002), Sikkim (Avasthe & Jha 1999; Das 2003)	Pashok (Wroughton 1916b; Molur et al. 2002; Das 2003)
106. <i>Myotis siligorensis</i> (Horsfield, 1855) Himalayan Whiskered Myotis	LC, Present	Sikkim (Avasthe & Jha 1999; Das 2003), Bakhim (Molur et al. 2002), Mangan, Yuksam and Bakhim (Chattopadhyay et al. 2006; Ghosh 2008)	Siliguri (Agrawal et al. 1992; Das 2003), Siliguri and Ghoom (Molur et al. 2002)
<i>Subfamily Murinae Miller, 1904 (tube-nosed bat)</i>			
107. <i>Harpiocephalus harpia</i> (Temminck, 1840) Lesser Hairy-winged Bat	LC, Present	Takchom Chu (Maclaren 1949), Sikkim (Avasthe & Jha 1999), Tackchom/Roro river, Ranipool (Molur et al. 2002; Ghosh 2008), Sikkim (Das 2003)	Tong Song (Wroughton 1916b), Neora Valley National Park (Ghose 1984), Darjeeling and Kurseong (Agrawal et al. 1992; Das 2003; Ghosh 2008)(Das 2003; Ghosh 2008), Darjeeling, Ghoom, Kurseong, Teesta Valley and Tongsong (Molur et al. 2002)
108. <i>Murina aurata</i> Milne-Edwards, 1872 Little Tube-nosed Bat	LC, Present	Sedonchen (Wroughton 1916a; Molur et al. 2002), Sikkim (Chattopadhyay et al. 2006)	



	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
109. <i>Murina cyclotis</i> Dobson, 1872 Round-eared Tube-nosed Bat	LC, Present	Sikkim (Avasthe & Jha 1999; Molur et al. 2002; Das 2003), Yumthang (Chattopadhyay et al. 2006; Ghosh 2008)	Singla (Wroughton 1916a), Gopaldhara and Pashok (Wroughton 1916b), Sangser (Wroughton 1917), Takdah (Khajuria & Ghose 1970), Darjeeling, Pashok, Takdah (Agrawal et al. 1992; Das 2003), Darjeeling, Gopaldhara, Tongsong, Singla, Pashok and Teesta Valley (Molur et al. 2002), Darjeeling District (Chattopadhyay et al. 2006), Peshok, Takdah (Ghosh 2008)
110. <i>Murina huttoni</i> (Peters, 1872) White-bellied Tube-nosed Bat	LC, Present	Sikkim (Agrawal et al. 1992; Avasthe & Jha 1999; Das 2003)	Darjeeling (Agrawal et al. 1992; Das 2003), Darjeeling, Pashok, Sangser, Teesta Valley, Tong Song (Molur et al. 2002)
111. <i>Murina leucogaster</i> Milne-Edwards, 1872 Rufous Tube-nosed Bat	LC, Present	Sikkim (Avasthe & Jha 1999)	Pashok (Thomas 1916b; Wroughton 1916b), Sangser (Agrawal et al. 1992; Das 2003), Pashok and Sangser (Molur et al. 2002)
112. <i>Murina tubinaris</i> (Scully, 1881) Scully's Tube-nosed Bat	LC, Present	Chungthang (Sanborn 1932; Molur et al. 2002), Sikkim (Avasthe & Jha 1999)	Gopaldhara and Tongsong (Wroughton 1916b), Sangser (Wroughton 1917), Darjeeling (Agrawal et al. 1992; Das 2003), Darjeeling and Gopaldhara (Molur et al. 2002)
Subfamily Kerivoulinae Miller, 1907 (woolly bats)			
113. <i>Kerivoula hardwickii</i> (Horsfield, 1824) Hardwicke's Woolly Bat	LC, Present		Gopaldhara, Pashok and Tong Song (Wroughton 1916b; Molur et al. 2002), Gopaldhara (Fry 1923), Gopaldhara and Pashok (Das 2003)
114. <i>Kerivoula picta</i> (Pallas, 1767) Painted Woolly Bat	LC, Present	Sikkim (Blanford 1888; Avasthe & Jha 1999; Molur et al. 2002)	Darjeeling (Anderson 1881; Agrawal et al. 1992; Molur et al. 2002)
<b>VIII. ORDER PHOLIDOTA Weber, 1904</b>			
20) Family Manidae Gray, 1821 (pangolins)			
115. <i>Manis crassicaudata</i> E. Geoffroy, 1803 Indian Pangolin	EN, I, (I), Present		Kalimpong (Mallick 2012)
116. <i>Manis pentadactyla</i> Linnaeus, 1758 Chinese Pangolin	CR, I, (I), Present	Melli, Kitam, and Manpur (Avasthe & Jha 1999), Yuksam (Sathyakumar et al. 2011a), Sikkim (The Statesman 2019)	Margaret's Hope Tea Estate at 1524 m, Darjeeling (Dalgilesh 1906), Piok Basti, Kalimpong (Mallick 2012)
<b>IX. ORDER CARNIVORA Bowdich, 1821</b>			
21) Family Felidae Fischer, 1817 (cats)			
SUBORDER FELIORMIA Kretzoi, 1945			
Subfamily Felinae Fischer, 1817 (cats)			
117. <i>Catopuma temminckii</i> (Vigors and Horsfield, 1827) Asiatic Golden Cat	NT, I, (I), Present	Gangtok (Millard et al. 1916b), Sikkim (Wroughton 1916a), Sikkim (Pocock 1939), Pangdin, Kangarten, Lasher, Thela, Green Lake, Marcopolo camp, Shibringu within Khangchendzonga National Park, Tamzay, Thosa lake, Chimathang, Gochela and Lampokhari (Avasthe & Jha 1999), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Nagdok, Legship and Lachung (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Bashir et al. 2011; Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary (Lepcha et al. 2017)	Neora Valley National Park (Ghose 1984; Chatterjee et al. 2018; Mallick 2019)
118. <i>Felis chaus</i> Schreber, 1777 Jungle Cat	LC, II, (II), Present	Sikkim (Wroughton 1916a), Sikkim, tropical forest (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Kyongnosla Alpine Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906; Wroughton 1916a), Nimbong (Wroughton 1917), Kalimpong (Agrawal et al. 1992), Rechila, Jaributi and Lava (Biswas et al. 1999; Mallick 2012)
119. <i>Lynx lynx</i> (Linnaeus, 1758) Eurasian Lynx	LC, II, (I), Present	Sikkim-Tibet Border (Ganguli-Lachungpa 1997), Sikkim, plateau region (Avasthe & Jha 1999), Tso Lhamo plateau (Rawat and Tamba 2011)	
120. <i>Pardofelis marmorata</i> (Martin, 1837) Marbled Cat	NT, I, (I), Present	Chungthang Bob and Khangchendzonga National Park (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Rabdanche Reserve Forest, Pelling and Rangtalao near Chunthang (Chattopadhyay et al. 2006), Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Ghoom (Wroughton 1916a), Jaributi forest, Neora Valley National Park (Ghose 1984; Biswas et al. 1999)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
121. <i>Prionailurus bengalensis</i> (Kerr, 1792) Leopard Cat	LC, II, (I), Present	Chuntang and Lachung (Wroughton 1916a), Lingtam (Sanborn 1932), Khangchengzonga National Park and Quite Common throughout Sikkim at an elevation between 2100–2400m (Avasthe & Jha 1999), Yuksom (Chakraborty 2003), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906; Agrawal et al. 1992), Pashok (Wroughton 1916a), Jaributi, East Nar and Thosum of Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012)
122. <i>Prionailurus viverrinus</i> (Bennett, 1833) Fishing Cat	VU, II, (I), Present	East and South Districts, upto 1800m (Avasthe & Jha 1999), Sikkim (Srinivasulu & Srinivasulu 2012)	Aluburi and Jaributi of Neora Valley National Park (Biswas et al. 1999; Mallick 2012)
Subfamily Pantherinae Pocock, 1917			
123. <i>Neofelis nebulosa</i> (Griffith, 1821) Clouded Leopard	VU, I, (I), Present	Shot in Sikkim (Wroughton 1916a; Chakraborty 2003), Manpur, Kerabari, Kitam, Dzongu, Rhenock, Barapathing, Sombaria, Bagu, Ranipool and Khangchendzonga National Park (Avasthe & Jha 1999), Kalikhola (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Fambhonglho Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906), Kurseong, Runjeet Valley and Above Rungbee, Teesta Valley (Matthews, 1934), Rungneet Tea Estate (Gabb 1945), Jaributi, Mouchowki, East Nar and West Nar of Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012)
124. <i>Panthera uncia</i> (Schreber, 1775) Snow Leopard	VU, I, (I), Present	Thangu (Wroughton 1916a), Sikkim-Tibet border (Ganguli-Lachungpa 1997), Lasher Valley, Yumesamdang, Cho Lhamu, Near Thanggu, Sebu La, Lhonak valley, Youmcho, Seokun, Bhamchona, Dzongri, Sevo, Semchang kha, Sarum, Dudhpokhari and Khangchendzonga National Park (Avasthe & Jha 1999), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Bop, North Sikkim (Chattopadhyay et al. 2006), Tso Lhamo plateau (Rawat & Tamba 2011), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary (Lepcha et al. 2017)	Singalila National Park (Chattopadhyay et al. 2006)
125. <i>Panthera pardus</i> (Linnaeus, 1758) Leopard	VU, I, (I), Present	Rishi, Phenock, Manpur, Kitam RF, Sombaria and Khangchengdzonga National Park (Avasthe & Jha 1999), Khangchendzonga Biosphere Reserve, Pangolakha Wildlife Sanctuary (Sathyakumar et al. 2011a)	Darjeeling (Dalgilesh 1906), Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Samsing, Mal, Chunabhati, Rechila, Alubari, Jaributi, Jorepokhri, Mouchowki, West Nar, East Nar and Thosum (Mallick 2012)
126. <i>Panthera tigris</i> (Linnaeus, 1758) Tiger	EN, I, (I), Present	Scare in Sikkim (Wroughton 1916a), Rachela, Talkharga, Regu, Phadamchen, Zuluk, Gnathang, Bhusuk yalli, Men-men chu RF, Changu, Lagyap RF, Tamze RF, Kabi, Phensung, Phodong, Ringu, Tong RF, Chyakhung RF, Khudum, Lema, Lachung, Dombangin north-east, and Karchi, Loddang, Phamthey, Maenam and Rumdung (Avasthe & Jha 1999)	Kurseong (Dalgilesh 1906), Darjeeling Terai (Saha, 1955), Neora Valley National Park (Ghose 1984; Biswas et al. 1999) East Nar, West Nar, Thosum), Rhenok, Rechila and East Nar (Mallick 2012)
22) Family Viverridae Gray, 1821 (civets and palm civets)			
Subfamily Paradoxurinae Gray, 1865 (palm civets)			
127. <i>Arctictis binturong</i> (Raffles, 1821) Binturong	VU, III, (I), Present	Khangchenzonga National Park, Luing, Parbing, Fombong Lho and West Dentam (Avasthe & Jha 1999), Menshithang and Hee Gyathang (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	
128. <i>Paguma larvata</i> (C. E. H. Smith, 1827) Masked Palm Civet	LC, III, (II), Present	Yuksom (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Sosing, Singhik, Naya Bazar and Yuksom (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Fambhonglho Wildlife Sanctuary (Lepcha et al. 2017)	Narbong (Wroughton 1916a), Rechila, Neora Valley National Park (Biswas et al. 1999)
129. <i>Paradoxurus hermaphroditus</i> (Pallas, 1777) Common Palm Civet	LC, III, (II), Present	Sikkim (Pocock 1939; Srinivasulu & Srinivasulu 2012), Sikkim, tropical forest (Avasthe & Jha 1999), Kitam Bird Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906), Narbong and Sivok (Wroughton 1916a), Rechila, Neora Valley National Park (Biswas et al. 1999)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
Subfamily Viverrinae Gray, 1821 (civets)			
130. <i>Viverra zibetha</i> Linnaeus, 1758 Large Indian Civet	LC, III, (II), Present	Rongli and Gangtok (Wroughton 1916a), Rangpo (Sanborn 1932), Khangchendzonga National Park and throughout the state upto 2100m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Singhik, Yuksom, Naya Bazar and Pelling (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Fambhonglho Wildlife Sanctuary (Lepcha et al. 2017)	Ring-Tong Tea Estate (Dalgilesh 1906), Batasia, Tonglu, Narbong and Sivok (Wroughton 1916a), Gopaldhara, Songma and Pashok (Wroughton 1916b), Nimbong (Wroughton 1917), Sivok and Mungpoo (Sanborn 1932), Neora Valley National Park (Ghose 1984), Narbong, Sivok and Sungma (Agrawal et al. 1992), Rechila (Mallick 2012)
131. <i>Viverricula indica</i> (E. Geoffroy Saint-Hilaire, 1803) Small Indian Civet	LC, III, (II), Present	Singtam, Sangkhola, and Makha (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Sikkim (Srinivasulu & Srinivasulu 2012), Kitam Bird Sanctuary (Lepcha et al. 2017)	Neora Valley National Park, Jore Pokhri Wildlife Sanctuary, Mahananda Wildlife Sanctuary and Senchel Wildlife Sanctuary (Saha et al. 1992), Kalimpong (Mallick 2012)
23) Family Prionodontidae Pocock, 1933 (linsangs)			
132. <i>Prionodon pardicolor</i> Hodgson, 1842 Spotted Linsang	LC, I, (I), Present	Chuntang, Singhik, and Dikchu (Wroughton 1916a), Lingtam, Sedonchen and Jeluk (Sanborn 1932), Sikkim, tropical and sub-tropical forest upto 2100m (Avasthe & Jha 1999), Yuksam and Lima (Chattopadhyay et al. 2006), Barsey Rhododendron Sanctuary (Ghose et al. 2012, 2014)	Neora Valley National Park, upto 2100m (Mallick 2012)
24) Family Herpestidae Bonaparte, 1845 (mongooses)			
133. <i>Herpestes auropunctatus</i> (Hodgson, 1836) Small Indian Mongoose	LC, (IV), Present	Sikkim (Avasthe & Jha 1999) Fambhonglho Wildlife Sanctuary, Kitam Bird Sanctuary (Lepcha et al. 2017)	Darjeeling District (Agrawal et al. 1992), Kalimpong (Mallick 2012)
134. <i>Herpestes edwardsii</i> (É. Geoffroy Saint-Hilaire, 1818) Grey Mongoose	LC, III, (II), Present	Sikkim, tropical forest edges, scrub jungles and cultivated areas (Avasthe & Jha 1999) Sikkim (Srinivasulu & Srinivasulu 2012)	Darjeeling (Dalgilesh 1906), Suntalekhola (Mallick 2012)
135. <i>Herpestes urva</i> (Hodgson, 1836) Crab-eating Mongoose	LC, III, (II), Present	Near hill streams in South and East Districts (Avasthe & Jha 1999)	Pashok and Kurseong (Wroughton 1916a), Sivok (Sanborn 1932)
SUBORDER CANIFORMIA Kretzoi, 1938			
25) Family Canidae Fischer, 1817 (dogs)			
136. <i>Canis aureus</i> Linnaeus, 1758 Golden Jackal	LC, III, (II), Present	Rongli and Dikchu (Wroughton 1916a, 1916c), Sikkim, upto 3600m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Yuksom, Geyzing, Pelling, Kabi, Gangtok, Tumin and Fambong Lho Wildlife Sanctuary (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Darjeeling (Dalgilesh 1906; Fry 1923), Sukhiapokhri, Narbong and Sivok (Wroughton 1916a), Pedong (Wroughton 1917), Mungpoo and Sivok (Sanborn 1932), Neora Valley National Park (Biswas et al. 1999), Dkyati, Ghoombanjan and Pedong (Agrawal et al. 1992)
137. <i>Canis lupus</i> Linnaeus, 1758 Grey Wolf	LC, I, (I), Present	Gnatong, Thangu and above Lachung (Wroughton 1916a), Lachung (Sanborn 1932), Chho Lhamo (Ganguli-Lachungpa 1997), Yumthang valley, Lasher valley, Cho Lhamu, Lhonak valley, Shingba Rhododendron Sanctuary, Tamze, Kyongnosla Alpine Sanctuary, Pangolakha, Rachel, Maenam Wildlife Sanctuary, Lampokhari, Kasturi, Odar, Bhanjyang, Hilley, Barsey Rhododendron Sanctuary, Bamchhona and Sesse la meadows (Avasthe & Jha 1999), Tso Lhamo plateau (Rawat and Tambe 2011), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Thosum, Neora Valley National Park (Mallick 2012)
138. <i>Cuon alpinus</i> (Pallas, 1811) Dhole	EN, II, (II), Present	Gangtok (Millard et al. 1916b), Sikkim (Ellerman & Morrison-Scott 1966; Chattopadhyay et al. 2006), Khangchendzonga National Park, Cho Lhamu, Pangolakha, Tshimthang, Pangdin, Kangarten and Rangit Valley (Avasthe & Jha 1999), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Maenam Wildlife Sanctuary, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906; Agrawal et al. 1992), Narbong (Wroughton 1916a), Tumsong Tea Estate (Baldry, 1932), Rechila, East Nar, West Nar and Ruka Reserve Forest (Biswas et al. 1999; Mallick 2012)
139. <i>Vulpes bengalensis</i> (Shaw, 1800) Bengal Fox	LC, III, (II), Present		Darjeeling (Agrawal et al. 1992), Senchel and Mahanada Wildlife Sanctuaries (Saha et al. 1992), Kalimpong (Mallick 2012)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
140. <i>Vulpes ferrilata</i> Hodgson, 1842 Tibetan Fox	LC, (I), Present	Menphu (Katao), Chho Lhamu, Green Lake in North Sikkim, Botang la and Doka la in East Sikkim (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Tso Lhamo plateau (Rawat and Tambe 2011)	
141. <i>Vulpes vulpes</i> (Linnaeus, 1758) Red Fox	LC, III, (II), Present	Kapup and Thangu (Wroughton 1916a; Pocock, 1941), Gyam Chohona Lake (5400m), Changri meadow along Chhому Chu and near Oloten, Khangchendzonga National Park (Avasthe & Jha 1999), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary, Pangolakha Wildlife Sanctuary, Shingba Rhododendron Sanctuary (Lepcha et al. 2017)	Neora Valley National Park (Biswas et al. 1999)
26) Family Ursidae Fischer, 1817 (bears and pandas)			
142. <i>Melursus ursinus</i> (Shaw, 1791) Sloth Bear	VU, I, (I), Present		Neora Valley National Park (Ghose 1984), Darjeeling (Agrawal et al. 1992)
143. <i>Ursus arctos</i> Linnaeus, 1758 Brown Bear	LC, II, (I), Present	Phuni in Lachung, Green Lake, Lampokhari and the plateau (Avasthe & Jha 1999) Sikkim (Srinivasulu & Srinivasulu 2012)	
144. <i>Ursus thibetanus</i> G.[Baron] Cuvier, 1823 Asiatic Black Bear	VU, I, (II), Present	Gangtok (Millard et al. 1916b), Throughout state at an elevation between 1200–3600 m, Forests below Chewabhanjyang, Uttarey, and Dzongri. Also at Nibe, Nalung, Tinjurey (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Fambong Wildlife Sanctuary, Khangchendzonga National Park and Pangolakha National Park (Sathyakumar 2001), Yuksam and Pelling (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Serai to Darjeeling (Dalgilesh 1906), Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Neora Valley National Park, Singalila National Park, and Mahananda Wildlife Sanctuary (Sathyakumar 2001), Mouchowki, Rechila, Thosum, East Nar and Jorepokhri (Mallick 2012)
27) Family Mustelidae Fischer, 1817 (otters, weasels, martens, badgers and honey badgers)			
Subfamily Lutrinae Bonaparte, 1838 (otters)			
145. <i>Aonyx cinereus</i> (Illiger, 1815) Oriental small-clawed Otter	VU, I, (I), Present	Sikkim (Avasthe & Jha 1999; Srinivasulu & Srinivasulu 2012)	Darjeeling District (Agrawal et al. 1992)
146. <i>Lutra lutra</i> (Linnaeus, 1758) Eurasian Otter	NT, I, (II), Present	Chuntang and Dikchu (Wroughton 1916a), Sikkim (Sanborn 1932), Rani-Nampey and Doban, throughout Sikkim 600–3600 m (Avasthe & Jha 1999), Dikchu, Phadong, Chunthang, Hee Gyathang and Melli (Chattopadhyay et al. 2006)	Balasund River (Dalgilesh 1906), Darjeeling (Wroughton 1916a; Agrawal et al. 1992), Pedong (Wroughton 1917)
Subfamily Mustelinae Fischer, 1817 (weasels and martens)			
147. <i>Arctonyx collaris</i> F.G. Cuvier, 1825 Hog-badger	VU, (I), Present	Sikkim, tropical and sub-tropical regions (Blanford 1888; Avasthe & Jha 1999)	Darjeeling (Agrawal et al. 1992), Neora Valley National Park (Mallick 2012)
148. <i>Martes flavigula</i> (Boddaert, 1785) Yellow-throated Marten	LC, III, (II), Present	Chuntang (Wroughton 1916a), Gangtok, Yumthang and Yumesamdong, throughout Sikkim between 1200–2700m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Phodong (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary (Ghose et al. 2014), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary, Maenam Wildlife Sanctuary, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906), Pedong (Wroughton 1917), Lulegaon, Rishyap, West Nar, Jaributi and Rechila (Ghose 1984; Biswas et al. 1999; Mallick 2012)
149. <i>Martes foina</i> (Erxleben, 1777) Beech Marten	LC, III, (II), Present	Ghora la (Sanborn 1932), Cho Lhamu, Lhonak Valley, Kishongla and Samthong, elevations between 1800–3600m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Jaributi and Rechila, Neora Valley National park (Ghose 1984; Biswas et al. 1999; Mallick 2012), Darjeeling (Agrawal et al. 1992)

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
150. <i>Melogale personata</i> I. Geoffroy Saint-Hilaire, 1831 Large-toothed Ferret Badger	LC, III, (II), Present	Sikkim, tropical and sub-tropical forests (Avasthe & Jha 1999) Sikkim (Srinivasulu & Srinivasulu 2012)	
151. <i>Mustela altaica</i> Pallas, 1811 Mountain Weasel	NT, III, (II), Present	Sikkim, between 2100–4000m (Avasthe & Jha 1999), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	
152. <i>Mustela ermine</i> Linnaeus, 1758 Short-tailed Weasel	LC, III, (I), Present	Teesta Valley (Vijayan et al. 2004), Shingba Rhododendron Sanctuary (Lepcha et al. 2017)	
153. <i>Mustela kathiah</i> Hodgson, 1835 Yellow-bellied Weasel	LC, III, (II), Present	Sikkim (Pocock, 1941), Sikkim, sub-tropical and temperate elevations (Avasthe & Jha 1999)	Darjeeling (Dalgilesh 1906; Agrawal et al. 1992), Pashok (Wroughton 1916b), Mungpoo (Sanborn 1932), Neora Valley National Park (Mallick 2012)
154. <i>Mustela sibirica</i> Pallas, 1773 Siberian Weasel	LC, III, (II), Present	Lachung and Lachen (Wroughton 1916a), Lingtam (Sanborn 1932), Sikkim, between 1500–4800m (Avasthe & Jha 1999), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Dzongri, Yumthang and Lachen (Chattopadhyay et al. 2006), Tso Lhamo plateau (Rawat and Tambe 2011), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary (Ghose et al. 2014)	Darjeeling (Dalgilesh 1906; Agrawal et al. 1992), Rechila, Neora Valley National Park (Biswas et al. 1999)
155. <i>Mustela strigidorsa</i> Gray, 1853 Black-striped Weasel	LC, (I), Uncertain	Sikkim, between 1200–2100m (Sterndale 1884; Blanford 1888; Avasthe & Jha 1999)	
28) Family Ailuridae Gray, 1843 (red panda)			
156. <i>Ailurus fulgens</i> F.G. Cuvier, 1825 Red Panda	EN, I, (I), Present	Gangtok (Millard et al. 1916a), Teesta Valley (Vijayan et al. 2004), Chuntang, Lachung, Lachen and Ringin (Wroughton 1916a), Lachung valley, Lachen, Khangchendzonga National Park, Tong RF, Tamze, Kyongnosla Alpine Sanctuary, Zuluk, Phadamchen, Panglokha, Fambong Lho Wildlife Sanctuary, Maenam Wildlife Sanctuary, Hillee-Barsey, Okharey, Rigdee and Chiwabhanjyang (Avasthe & Jha 1999), Chunthang, Menshithang, Lachung and Yuksom (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary (Ghose et al. 2014) Khangchendzonga Biosphere Reserve, Maenam Wildlife Sanctuary, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906; Agrawal et al. 1992), Sandakphu (Maclaren 1949), Rechila and Pankasari, Neora Valley National Park (Ghose 1984; Biswas et al. 1999), Gairibans, Manebhanjang, Phalut and Sandakphu (Pradhan, 1995), Raschet, Rechila and Thosum (Mallick 2012)
<b>X. ORDER PERISSODACTYLA Owen, 1848</b>			
29) Family Equidae Gray, 1821 (horses, asses, and zebras)			
157. <i>Equus kiang</i> Moorcroft, 1841 Kiang	LC, II, (I), Present	North of Gyagong towards Tibetan Plateau (Pinckney 1939), Tuna to Guru and Tang Sun Pum plain (Maclaren 1949), Cho Lhamo (Ganguli-Lachungpa 1997), Cho Lhamu, Gyamchhona, Chulung valley, Yumchho, Kerang, Chhulung La, Bamchho La and Sesse La (Avasthe & Jha 1999), Sikkim (Chakraborty 2003), Tso Lhamo plateau (Chanchani et al. 2010; Rawat and Tambe 2011)	
<b>XI. ORDER CETARTIODACTYLA Owen, 1848</b>			
30) Family Suidae Gray, 1821 (pigs)			
158. <i>Porcula salvania</i> Hodgson, 1847 Pygmy Hog	CR, I, (I), Extinct	Sikkim Terai (Hodgson 1847; Sclater 1891; Agrawal et al. 1992; Avasthe & Jha 1999)	Darjeeling Terai (Hodgson 1847; Sclater 1891; Agrawal et al. 1992)
159. <i>Sus scrofa</i> Linnaeus, 1758 Wild Boar	LC, (III), Present	Melli RF, Kitam, Soreng RF, Lagyap RF, Tong, Chakung, Rate Chu, Premlakha and Rangpo (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Kitam Bird Sanctuary Khangchendzonga Biosphere Reserve, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling, upto moderate elevation (Dalgilesh 1906), East Nar, Thosum and Rechila, Neora Valley National Park (Mallick 2012)



	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
31) Family Moschidae Gray, 1821 (musk deer)			
160. <i>Moschus chrysogaster</i> (Hodgson, 1839) Alpine Musk Deer	EN, I, (I), Present	Sikkim (Blanford 1888), Lachen and Lachung (Wroughton 1916a; Chattopadhyay et al. 2006), Ridge between Chumbi valley and Sikkim and Gyantse, above 3657.6 m in summers (Wood 1933), All Protected Areas of Sikkim except Fambonglho Wildlife Sanctuary (Sharma & Lachungpa 2002), North Sikkim (Lachungpa 2009), Kyongnosla Alpine Sanctuary (Khataiwara & Srivastava 2014; Srivastava & Kumar 2018), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a)	Phalut (Dutt-Mazumdar 1955)
161. <i>Moschus fuscus</i> Li, 1981 Black Musk Deer	EN, I, (I), Present	Lachen and Lachung (Wroughton 1916a), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	
162. <i>Moschus leucogaster</i> Hodgson, 1839 Himalayan Musk Deer	EN, I, (I), Present	Sikkim between 2500-4000m (Groves & Grubb 2011; Srinivasulu & Srinivasulu 2012; Sharma et al. 2015)	
32) Family Cervidae Goldfuss, 1820 (deer)			
Subfamily Cervinae Goldfuss, 1820			
163. <i>Axis axis</i> (Erxleben, 1777) Chital	LC, (III), Present	Areas bordering West Bengal and Sikkim (Avasthe & Jha 1999; Choudhury 2001), Lowland forests (Sharma & Lachungpa 2002)	West of Balason River, Terai, Darjeeling (Dalgilesh 1906; Dutt-Mazumdar 1955)
164. <i>Muntiacus vaginalis</i> (Boddaert, 1785) Northern Red Muntjac	LC, (III), Present	Ringin (Wroughton 1916a), Khangchendzonga National Park, throughout Sikkim between 600-2800m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Pelling, Melli, Legship and Bakhim (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambonglho Wildlife Sanctuary, Kitam Bird Sanctuary, Khangchendzonga Biosphere Reserve, Maenam Wildlife Sanctuary, Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Darjeeling, 1828.8 m (Dalgilesh 1906), Sukhiapokhri, Narbong and Sivok (Wroughton 1916a), Rungneet Tea Estate (Gabb 1945), Lopchu Tea Estate (Saha, 1955), Neora Valley National Park (Ghose 1984; Biswas et al. 1999), East Nar, West Nar, Thosum, Rechila, Gorubathan forest, Tempola, Choudapheri (Mallick 2012)
165. <i>Rusa unicolor</i> (Kerr, 1792) Sambar	VU, (III), Present		Darjeeling, upto 1066.8m (Dalgilesh 1906; Dutt-Mazumdar 1955), Neora Valley National Park (Ghose 1984) Samsing, Chel Range, Kalimpong Range, East Nar, Thosum, Rechila (Mallick 2012)
33) Family Bovidae Gray, 1821 (cattle, antelope, sheep, and goat)			
Subfamily Antilopinae Gray, 1821 (antelopes)			
166. <i>Procapra picticaudata</i> Hodgson, 1846 Tibetan Gazelle	NT, (I), Present	North of Gyagong towards Tibetan Plateau (Pinckney 1939), Between Tuna and Guru (Maclaren 1949), Chho Lhamo, Chhulung La and Kongra La (Ganguli-Lachungpa 1997), Chhomo Chu, meadows near Gyam Chhona(5100m), Chhangri meadow at 4000-4500m (Avasthe & Jha 1999), Tso Lhamo plateau (Chanchani et al. 2010; Rawat and Tambe 2011)	
Subfamily Bovinae Gray, 1821 (cattle)			
167. <i>Bos gaurus</i> C.H.Smith, 1827 Gaur	VU, I, (I), Present	Pangolakha, Rache la, and Regu, East Sikkim (Avasthe & Jha 1999; Srinivasulu & Srinivasulu 2012) Pangolakha Wildlife Sanctuary (Lepcha et al. 2017)	Kurseong (Dalgilesh 1906), Sukna Reserve (Dutt-Mazumdar 1955), East Nar, Thosum, Rechila, Tempola and Jorepokhari, Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012), Balason Valley, Sukna and Sevoke (Dasgupta 1991)
Subfamily Caprinae Gray, 1821 (goats and sheep)			
168. <i>Budorcas taxicolor</i> Hodgson, 1850 Takin	VU, II, (I), Present	Nimphu, Pangolakha and Rache La, between 2000-3000m (Avasthe & Jha 1999), Menla Reserve Forest (Ganguli-Lachungpa, 2000), Sikkim (Choudhury 2001; Srinivasulu & Srinivasulu 2012)	

	IUCN Status, CITES, (WPA,1972), Present Status	Records in Sikkim	Records in Darjeeling
169. <i>Capricornis thar</i> (Hodgson, 1831) Himalayan Serow	NT, I, (I), Present	Khangchendzonga National Park, throughout the state between 2200–3700m (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014; Srivastava & Kumar 2018), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Barsey Rhododendron Sanctuary, Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve, Maenam Wildlife Sanctuary, Pangolakha Wildlife Sanctuary, Shingba Rhododendron Sanctuary (Lepcha et al. 2017)	Darjeeling (Dalgilesh 1906), Rechila (Mallick 2012)
170. <i>Hemitragus jemlahicus</i> (C.H. Smith, 1826) Himalayan Tahr	NT, (I), Present	Fimphu, Manandang (Bikmatar), above Rahi Chu (Sathdharey), Ruketchu, Ribongthang, Nimphu, Tsingnok, Lingjibok, Khangchendzonga National Park, Aralungchowk and Gomnay (Avasthe & Jha 1999), Chunthang and BOP, North Sikkim (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Neora Valley National Park (Ghose 1984), Thosum, Rechila, Jorepokhri, Triangular Point (Biswas et al. 1999; Mallick 2012)
171. <i>Naemorhedus goral</i> (Hardwicke, 1825) Himalayan Goral	NT, I, (III), Present	Gangtok (Millard et al. 1916b), Khangchendzonga National Park, Kyongnosla, Fimphu and Pentong (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Kyongnosla Alpine Sanctuary (Khatiwara & Srivastava 2014; Srivastava & Kumar 2018), Bop in North Sikkim, Onglakthang and Tolung Gompha in West Sikkim (Chattopadhyay et al. 2006), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Fambhonglho Wildlife Sanctuary, Khangchendzonga Biosphere Reserve, Kyongnosla Alpine Sanctuary, Shingba Rhododendron Sanctuary (Lepcha et al. 2017)	Darjeeling, 1524m (Dalgilesh 1906), Soom Tea Estate Forest (Gabb 1945), Rechila and East Nar, Neora Valley National Park (Ghose 1984; Biswas et al. 1999; Mallick 2012)
172. <i>Ovis ammon</i> (Linnaeus, 1758) Argali	NT, II, (I), Present	Sikkim-Tibetan Border (Sanborn 1932), Chhulung La (Ganguli-Lachungpa 1997), Bamchhona, Gyamchhona, Kerang, Chulung valley, Cha La, Lhonak Valley, Giagong area south of Plateau, and Khangchendzonga National park (Avasthe & Jha 1999), Lasser (Chattopadhyay et al. 2006), Tso Lhamo plateau (Chanchani et al. 2010; Rawat & Tambe 2011)	
173. <i>Pseudois nayaur</i> (Hodgson, 1833) Bharal	LC, III, (I), Present	Lachen (Wroughton 1916a), Pangdin, Kangarten, Rangit valley, Yumesamdong, Sebu la, Sezum Lava, Lasher, Oloten area, Thela, Green Lake, Marcopolo camp, Shibringu within Khangchendzonga National Park, Tamze, Thosa Lake, Chimathang, Gochela, Lampokhari (Avasthe & Jha 1999), Teesta Valley (Vijayan et al. 2004), Geygong, North Sikkim (Chattopadhyay et al. 2006), Tso Lhamo plateau (Chanchani et al. 2010; Rawat and Tambe 2011), Khangchendzonga Biosphere Reserve (Sathyakumar et al. 2011a), Khangchendzonga Biosphere Reserve (Lepcha et al. 2017)	Phalut (Dutt-Mazumdar 1955)
NE—Not Evaluated   DD—Data Deficient   LC—Least Concern   NT—Near Threatened   VU—Vulnerable   EN—Endangered   CR—Critically Endangered; I,II and III – CITES Appendices; (I), (II), (III), (IV) and (V) – The Wildlife (Protection) Act, 1972 Schedule List.			



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