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Cover: Mauve Stinger *Pelagica noctiluca* by Swaathi Na. Medium used is soft pastels and gelly roll.



## INTRODUCTION

Documentation of biodiversity is essential for effective conservation and management efforts, as it provides a comprehensive understanding of the species and habitats that are present in an area. It helps to identify the species and habitats that are most in need of protection. This information can be used to prioritize conservation efforts and support the development of targeted management plans (Vane-Wright et al. 1991). Documentation of biodiversity can support efforts to monitor changes in species populations and the health of ecosystems over time. This information can help to detect emerging threats to biodiversity, such as the spread of invasive species, disease outbreaks, or changes in land use patterns (Sala et al. 2000). The state of Assam is the most urbanized state of northeastern India with a population exceeding 31 million (Saikia 2019). The state has an area of 78,438 km<sup>2</sup>, which comprises of 2.39% of the geographic area of India and is a part of Indo Burma biodiversity hotspot. According to the Forest Survey of India (2021) report, the total recorded forest area of the state is 28,312 km<sup>2</sup> which is 36.09% of the geographic area of the state and is greater than the average forested area of the country which stands at 21.71%. The forest type mostly comprises of tropical wet evergreen, tropical semi evergreen, tropical moist deciduous, sub-tropical broad-leaved hill, sub-tropical pine, littoral, and swamps. A total of 3,513 wetlands exist within the state spreading across an area of 1,012.32 km<sup>2</sup> (Assam Forest Department 2011–12). The faunal composition of the region is particularly interesting as it is located at a confluence of Indo-Chinese, Indo-Malayan, and Indian biogeographic regions (Ahmed et al. 2009). Assam has more than 300 reserve forests with Garbhanga being one of the largest reserve forests (Assam Forest Department 2011–12). Garbhanga Reserve Forest is situated in the north of the Guwahati city of Assam and spreads across an area of 114.6 km<sup>2</sup>. The reserve forest is connected to Rani Reserve Forest which has an area of 437.26 km<sup>2</sup> and is often referred to as Rani-Garbhanga landscape (Devi et al. 2012). Together, they constitute the biggest network of reserve forested areas of Assam. Garbhanga Reserve Forest includes undulating hill ranges with altitude ranging 80–670 m. Recently, through an Assam Gazette notification (No.FR.W.3/2022/44) dated 7 April 2022, an area of 117 km<sup>2</sup> within the Garbhanga Reserve Forest has been proposed for a wildlife sanctuary.

Many hill streams flow within the reserve forest. The main river flowing through the reserve forest is the Basistha River which finally drains into Deeporbeel

Wildlife Sanctuary and Ramsar site. The forest type mostly constitutes of moist deciduous type which accounts for about 75% of the forest type with *Sal Shorea robusta* being the predominant tree species. Secondary forest constitutes mainly of scrub forest and bamboo accounting for 10% and 7%, respectively. The soil type of the reserve forest is gravelly on crests and upper slopes, deep red and clayey in the foot hills, and alluvial lower down (Devi et al. 2012).

Due to the topology, forest type and climatic condition, Garbhanga is home to a wide variety of biodiversity. Lahkar et al. (2010) recorded 128 species of birds; Modak et al. (2018) recorded 54 species of butterflies; Barua et al. (2004) recorded 29 species and subspecies of swallowtail butterflies from Garbhanga. Herein we present a detailed checklist of butterflies, amphibians, reptiles, birds, and mammals within the notified area of Garbhanga wildlife sanctuary (proposed).

## MATERIALS AND METHODS

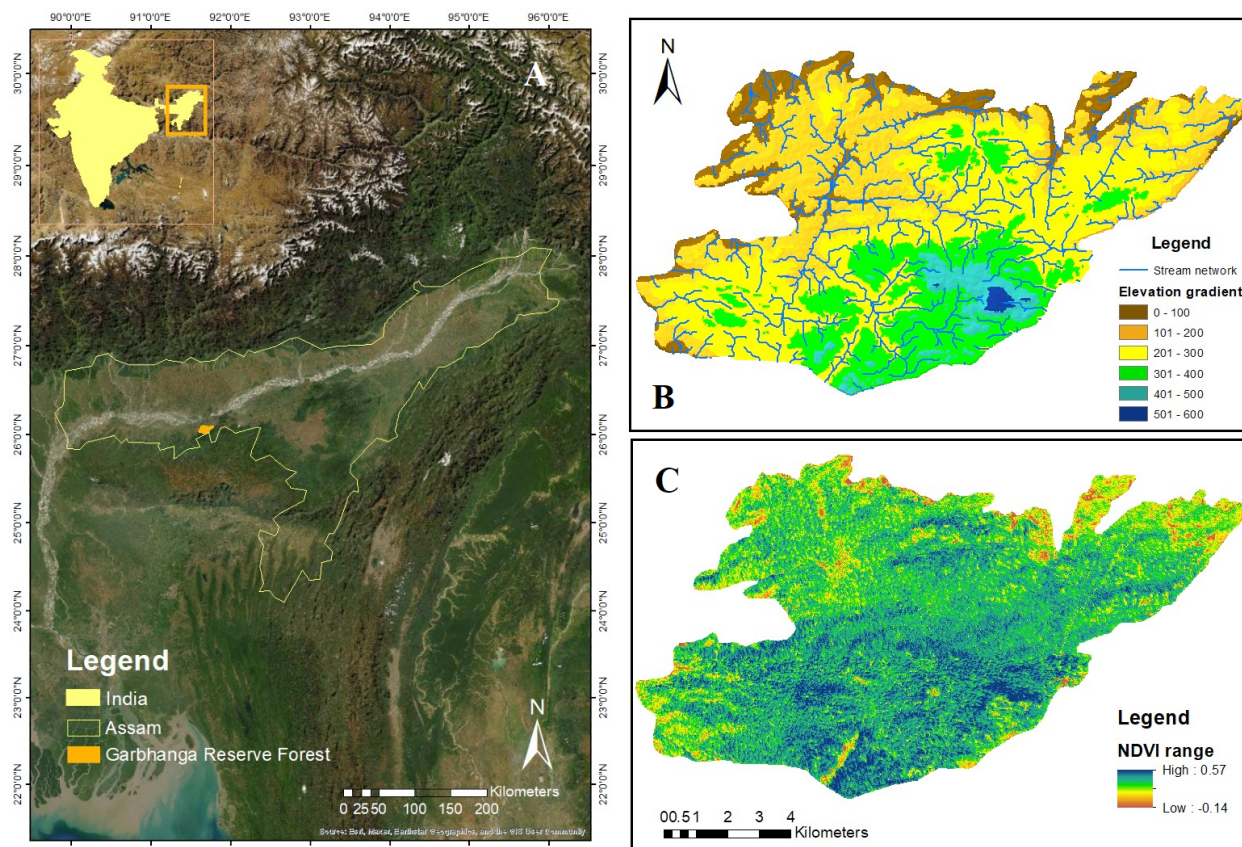
### Study Area

The Rani-Garbhanga forest complex (Rani Reserve Forest: 91.5877–91.7066 °E, 26.1113–26.0208 °N; Garbhanga Reserve Forest: 91.6069–91.7958 °E; 26.0919–25.9033 °N) is located on the south bank of the river Brahmaputra in Assam. The reserve shares its borders on the eastern and northern sides with Meghalaya state. The forest is contiguous with the Nongkhyllem Wildlife Sanctuary of Meghalaya. The forest type of Rani-Garbhanga in Assam valley is tropical mixed moist deciduous forest (Champion & Seth 1968). Once known to be the original habitat of *Sal* species, excessive logging led it to be replaced by secondary bamboo brakes (Champion & Seth 1968). The dominant trees are *Shorea robusta*, *Tectona grandis*, *Schima wallichii*, *Michelia champaca*, *Ficus religiosa*, and *Tetrameles nudiflora*. The dominant bamboo species within the reserve is *Dendrocalamus hamiltonii* (Barua 2007). The forest also borders on the northwestern side with Deeporbeel Wildlife Sanctuary.

The forest has four types of climatic conditions, viz.: pre-monsoon, monsoon, retreating monsoon, and winter. The maximum humidity ranges between 80–90 % (Kakati 2002). The rainfall of the area ranges between 3,000–4,500 mm, and the temperature ranges between 11–36 °C (Kakati 2002).

### Data collection for checklist

The data for all the taxa groups were compiled from



**Figure 1.** A—Location of study area - Garbhanga Reserve Forest in Assam, India; B—Stream network and elevation gradient | C—Normalized Difference Vegetation Index (NDVI) of study area.

multiple sources. Data were gathered employing visual encounter survey and active search (Crump & Scott 1994). Secondary data were collected from research articles (Baruah 2004; Lahkar et al. 2010; Modak et al. 2018; Purkayastha 2018; Bohra & Purkayastha 2021) and citizen science database (eBird 2022) which has bird observation information since 2008 to recent times. The taxa groups were then categorized as per the IUCN Red List criteria.

#### Spatial analyses/ mapping:

Elevation gradient and stream network were derived using the Hydrology tool in Arc Map 10.4 using Carto DEM Version-3 R1 (Figure 1A). We found that elevation gradient ranges 0–594 m. NDVI was calculated using Sentinel 2A data in Arc Map 10.4 (Figure 1B). Elevation and stream network map was generated using data from CartoDEM satellite (<https://bhuvan-app3.nrsc.gov.in>).

## RESULTS

The present study found Garbhanga to be home to 254 species of butterflies (6 families), 29 species of amphibians (seven families), 64 species of reptiles (12 families), 307 species of birds (68 families), and 31 species of mammals (19 families). According to the IUCN Red List data (IUCN 2023), in Garbhanga more than 1% (1.16%) species are 'Near Threatened', 60% species belong to 'Least Concern', more than 1% (1.16%) species are 'Data Deficient', and 34% (34.45%) species are not assessed.

#### Butterflies

A total of 254 species of butterflies representing six families were recorded from the study site. Only 30 species are categorized under different categories as per the IUCN Red List including Common Duffer *Discophora sondaica* which is considered as 'Near Threatened' while all the other species are not assessed (Figure 2, Table 1). Family Nymphalidae was observed to be the most dominant family, accounting for 100 species from the

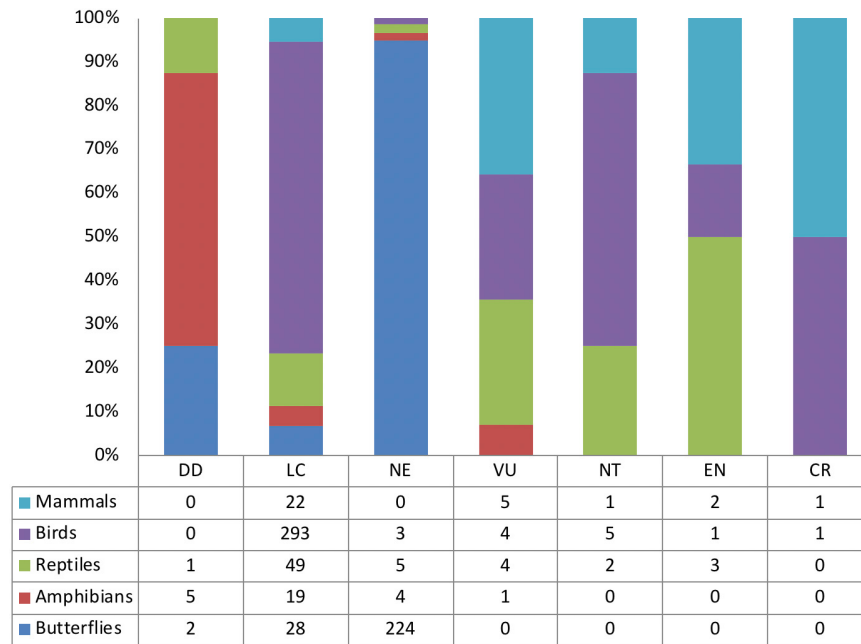


Figure 2. Representation of studied taxa groups of Garbhanga falling under different IUCN Red List categories.

study area.

### Amphibia

We recorded 29 species of amphibians representing two orders (Anura and Gymnophiona) and seven families. The family Dicroglossidae was found to be the most species rich represented by eight species whereas the family Bufonidae was represented by just a single species. According to the IUCN Red List, 19 species were 'Least Concern', five species were 'Data Deficient', one 'Vulnerable', and four species are not assessed (Figure 3, Table 2).

### Reptilia

We recorded 64 species of reptiles representing three orders and 12 families. Lizards were represented by 21 species, snakes by 39 species and turtles by four species. Amongst lizards, family Gekkonidae was found to be dominant and had nine representative species. Colubridae was the most species rich family among snakes accounting for 29 species. According to the IUCN redlist, three species are 'Endangered', four species were 'Vulnerable', two species were 'Near Threatened', one species was 'Data Deficient', 49 species were 'Least Concern', and five species are not assessed (Figure 3, Table 3).

### Birds

We recorded 307 species of birds belonging to 68

families from the study site. Among them, the family Muscipidae was found to be dominating in terms of species richness represented by 34 species. According to the IUCN Red List there are one 'Critically Endangered' species, one 'Endangered' species, four 'Vulnerable' species, five 'Near Threatened' species, 293 'Least Concern' species and three species are yet to be assessed (Figure 3, Table 4).

### Mammals

Garbhanga harbours 31 species of mammals belonging to 19 families. According to the IUCN Red List, one species is 'Critically Endangered', two species are 'Endangered', five species are 'Vulnerable', one species is 'Near Threatened', the remaining 22 species are 'Least Concern' (Figure 3, Table 5).

### DISCUSSION

The data reported above indicate that the Garbhanga landscape is extremely rich in biodiversity and merits more protection through a legal status. It is noteworthy that vide notification number FRW.3/44. dated 28 march 2022, a preliminary notification was passed in The Assam Gazette dated 7 April 2022 showing the intent of the Governor of Assam to declare an area of 117 km<sup>2</sup> of Garbhanga as a wildlife sanctuary. This step will help enhance protection and conservation of the

Table 1. Butterflies of Garbhanga, Assam, India.

| Family       | Common name         | Scientific name                                 | IUCN Red List status |
|--------------|---------------------|-------------------------------------------------|----------------------|
| Papilionidae | Common Batwing      | <i>Atrophaneura varuna</i> White, 1842          | LC                   |
|              | Common Windmill     | <i>Byasa polyeuctes</i> Doubleday, 1842         |                      |
|              | Tailed Jay          | <i>Graphium aggamemnon</i> Linnaeus, 1758       |                      |
|              | Four-bar Swordtail  | <i>Graphium agetes</i> Westwood, 1843           |                      |
|              | Five-bar Swordtail  | <i>Graphium antiphates</i> Cramer, 1775         | LC                   |
|              | Glassy Bluebottle   | <i>Graphium cloanthus</i> Westwood, 1841        | LC                   |
|              | Common Jay          | <i>Graphium doson</i> C. & R. Felder, 1864      | LC                   |
|              | Lesser Zebra        | <i>Graphium macareus</i> Godart, 1819           |                      |
|              | Common Bluebottle   | <i>Graphium sarpedon</i> Linnaeus, 1758         | LC                   |
|              | White Dragontail    | <i>Lamproptera curius</i> Fabricius, 1787       |                      |
|              | Common Rose         | <i>Pachliopta aristolochiae</i> Fabricius, 1775 | LC                   |
|              | Common Raven        | <i>Papilio castor</i> Westwood, 1842            |                      |
|              | Common Mime         | <i>Papilio clytia</i> Linnaeus, 1758            |                      |
|              | Great Jay           | <i>Papilio eurypylus</i> Linnaeus, 1758         |                      |
|              | Lime Butterfly      | <i>Papilio demoleus</i> Linnaeus, 1758          |                      |
|              | Red Helen           | <i>Papilio helenus</i> Linnaeus, 1758           |                      |
|              | Great Mormon        | <i>Papilio memnon</i> Linnaeus, 1758            | LC                   |
|              | Yellow Helen        | <i>Papilio nephele</i> Boisduval, 1836          |                      |
|              | Paris Peacock       | <i>Papilio paris</i> Linnaeus, 1758             |                      |
|              | Common Mormon       | <i>Papilio polytes</i> Linnaeus, 1758           |                      |
| Pieridae     | Spangle             | <i>Papilio protenor</i> Cramer, 1775            |                      |
|              | Golden Birdwing     | <i>Troides aeacus</i> C. & R. Felder, 1860      | LC                   |
|              | Common Birdwing     | <i>Troides helena</i> Linnaeus, 1758            | LC                   |
|              | Great Windmill      | <i>Byasa dasarada</i> Moore, 1858               | LC                   |
|              | Common Albatross    | <i>Appias albina</i> Boisduval, 1836            |                      |
|              | Plain Puffin        | <i>Appias indra</i> Moore, 1858                 |                      |
|              | Spot Puffin         | <i>Appias lalage</i> Doubleday, 1842            |                      |
|              | Chocolate Albatross | <i>Appias lyncida</i> Cramer, 1777              |                      |
|              | Striped Albatross   | <i>Appias olferna</i> Swinhoe, 1890             |                      |
|              | Common Emigrant     | <i>Catopsilia pomona</i> Fabricius, 1775        |                      |
| Pieridae     | Mottled Emigrant    | <i>Catopsilia pyranthe</i> (Linnaeus, 1758)     |                      |
|              | Lesser Gull         | <i>Cepora nadina</i> Lucas, 1852                |                      |

| Family       | Common name                 | Scientific name                              | IUCN Red List status |
|--------------|-----------------------------|----------------------------------------------|----------------------|
| Papilionidae | Common Gull                 | <i>Cepora nerissa</i> Fabricius, 1775        |                      |
|              | Red spot Jezebel            | <i>Delias descombesi</i> Boisduval, 1836     |                      |
|              | Red base Jezebel            | <i>Delias pasithoe</i> Linnaeus, 1767        |                      |
|              | Tailed Sulphur              | <i>Dercas verhuelli</i> Hoeven, 1839         |                      |
|              | One-spot Grass Yellow       | <i>Eurema andersonii</i> Moore, 1886         | LC                   |
|              | Three-spot Grass Yellow     | <i>Eurema blanda</i> Boisduval, 1836         |                      |
|              | Small Grass Yellow          | <i>Eurema brigitta</i> Stoll, 1780           | LC                   |
|              | Common Grass Yellow         | <i>Eurema hecabe</i> Linnaeus, 1758          |                      |
|              | Tree Yellow                 | <i>Gandaca harina</i> Horsfield, 1829        |                      |
|              | Great Orange Tip            | <i>Hebomoia glaucippe</i> Linnaeus, 1758     |                      |
|              | Yellow Orange Tip           | <i>Ixias pyrene</i> Linnaeus, 1764           |                      |
|              | Psyche                      | <i>Leptosia nina</i> Fabricius, 1793         |                      |
|              | Common Wanderer             | <i>Parerionia hippia</i> Fabricius, 1787     |                      |
|              | Large Cabbage White         | <i>Pieris brassicae</i> Linnaeus, 1758       |                      |
|              | Indian Cabbage White        | <i>Pieris canidia</i> Linnaeus, 1768         |                      |
| Lycaenidae   | Common Hedge Blue           | <i>Acetolepis puspa</i> Horsfield, 1828      |                      |
|              | Common Ciliate Blue         | <i>Anthene emolus</i> Godart, 1824           |                      |
|              | Pointed Ciliate Blue        | <i>Anthene lycaenina</i> Felder, 1868        |                      |
|              | Indian Oakblue              | <i>Arhopala atrax</i> Hewitson, 1862         |                      |
|              | Lilac Oakblue               | <i>Arhopala camdeo</i> Moore, 1858           |                      |
|              | Centaur Oakblue             | <i>Arhopala centaurus</i> Fabricius, 1775    |                      |
|              | Green Oakblue               | <i>Arhopala eumolpus</i> Cramer, 1780        |                      |
|              | Spotless Oakblue            | <i>Arhopala fulla</i> Hewitson, 1862         |                      |
|              | Yellowdisc Tailless Oakblue | <i>Arhopala perimuta</i> Moore, 1858         |                      |
|              | Plane                       | <i>Bindahara phocides</i> Fabricius, 1793    |                      |
| Pieridae     | Angled Pierrot              | <i>Caleta decida</i> Hewitson, 1876          | LC                   |
|              | Elbowed Pierrot             | <i>Caleta elna</i> Hewitson, 1876            | LC                   |
|              | Common Pierrot              | <i>Castalius rosimon</i> Fabricius, 1775     |                      |
|              | Common Tinsel               | <i>Catapaecilma major</i> Druce, 1895        |                      |
|              | Silver Forget-me-not        | <i>Catochrysops panormus</i> C. Felder, 1860 |                      |
|              | Forget -me -not             | <i>Catochrysops strabo</i> Fabricius, 1793   |                      |
|              | Common Imperial             | <i>Cheritra freja</i> Fabricius, 1793        | LC                   |

| Family | Common name            | Scientific name                             | IUCN Red List status |
|--------|------------------------|---------------------------------------------|----------------------|
|        | Lime Blue              | <i>Chilades lajus</i> Stoll, 1780           |                      |
|        | Plains Cupid           | <i>Chilades pandava</i> Horsfield, 1829     | LC                   |
|        | Broad Tail Royal       | <i>Creon cleobis</i> Godart, 1824           |                      |
|        | Angled Sunbeam         | <i>Curetis acuta</i> Moore, 1877            |                      |
|        | Saronis Sunbeam        | <i>Curetis saronis</i> Moore, 1877          |                      |
|        | Cornelian              | <i>Deudorix epijarbas</i> Moore, 1858       |                      |
|        | Banded Blue Pierrot    | <i>Discolampa ethion</i> Westwood, 1851     |                      |
|        | Gram Blue              | <i>Euchrysops cnejus</i> Fabricius, 1798    |                      |
|        | Purple Sapphire        | <i>Heliophorus epicles</i> Godart, 1824     |                      |
|        | Common Onyx            | <i>Horaga onyx</i> Moore, 1857              |                      |
|        | Common Tit             | <i>Hypolycaena erylus</i> Godart, 1824      |                      |
|        | Silver Streak Blue     | <i>Iraota timoleon</i> Stoll, 1790          |                      |
|        | Metallic Cerulean      | <i>Jamides alecto</i> Felder, 1860          | LC                   |
|        | Dark Cerulean          | <i>Jamides bochus</i> Stoll, 1782           |                      |
|        | Common Cerulean        | <i>Jamides celeno</i> Cramer, 1775          |                      |
|        | Glistening Cerulean    | <i>Jamides elpis</i> Godart, 1824           |                      |
|        | White Cerulean         | <i>Jamides pura</i> Moore, 1886             |                      |
|        | Peablu                 | <i>Lampides boeticus</i> Linnaeus, 1767     |                      |
|        | Yamfly                 | <i>Loxura atymnus</i> Stoll, 1780           |                      |
|        | Malayan                | <i>Megisba malaya</i> Horsfield, 1828       |                      |
|        | Common Mottle          | <i>Miletus chinensis</i> Felder, 1862       |                      |
|        | Common Quaker          | <i>Neopithecops zalmora</i> Butler, 1870    |                      |
|        | Common Gem             | <i>Poritia hewitsoni</i> Moore, 1866        |                      |
|        | Banded Lineblue        | <i>Prosotas aluta</i> Druce, 1873           |                      |
|        | Tailless Lineblue      | <i>Prosotas dubiosa</i> (Semper, [1879])    |                      |
|        | Common Lineblue        | <i>Prosotas nora</i> (C. Felder, 1860)      |                      |
|        | Pale Grass Blue        | <i>Pseudozizeeria maha</i> Kollar, 1844     |                      |
|        | Common Red Flash       | <i>Rapala iarbas</i> Fabricius, 1787        |                      |
|        | State Flash            | <i>Rapala manea</i> Hewitson, 1863          |                      |
|        | Copper Flash           | <i>Rapala pheretima</i> Hewitson, 1863      |                      |
|        | Chocolate Royal        | <i>Remelana jangala</i> (Horsfield, [1829]) |                      |
|        | Apefly                 | <i>Spalgis epius</i> Westwood, 1851         |                      |
|        | Long Banded Silverline | <i>Spindasis lohita</i> Horsfield, 1829     |                      |

| Family      | Common name                | Scientific name                               | IUCN Red List status |
|-------------|----------------------------|-----------------------------------------------|----------------------|
|             | Red Imperial               | <i>Suasa lisides</i> Hewitson, 1863           | LC                   |
|             | Common Acacia Blue         | <i>Surendra quercetorum</i> Moore, 1858       |                      |
|             | Zebra Blue                 | <i>Leptotes plinius</i> Fabricius, 1793       |                      |
|             | Forest Pierrot             | <i>Taraka hamada</i> Druce, 1875              |                      |
|             | Common Guava Blue          | <i>Virachola isocrates</i> Fabricius, 1793    |                      |
|             | Fluffy Tit                 | <i>Zeltus amasa</i> Hewitson, 1865            |                      |
|             | Dark Grass Blue            | <i>Zizeeria karsandra</i> Moore, 1865         |                      |
| Riodinidae  | Plum Judy                  | <i>Abisara echerius</i> Stoll, 1790           |                      |
|             | Punchinello                | <i>Zemeros flegyas</i> Cramer, 1780           |                      |
| Nymphalidae | Yellow Coster              | <i>Acraea issoria</i> Hübner, 1818            |                      |
|             | Tawny Coster               | <i>Acraea terpsicore</i> Linnaeus, 1758       |                      |
|             | Angled Castor              | <i>Ariadne ariadne</i> Linnaeus, 1763         |                      |
|             | Common Castor              | <i>Ariadne merione</i> Cramer, 1777           |                      |
|             | Himalayan Studded Sergeant | <i>Athyma asura</i> Moore, [1858]             |                      |
|             | Colour Sergeant            | <i>Athyma inara</i> Westwood, 1850            |                      |
|             | Dot Dash Sergeant          | <i>Athyma kanwa</i> Moore, 1858               |                      |
|             | Common Sergeant            | <i>Athyma perius</i> Linnaeus, 1758           |                      |
|             | Blackvein Sergeant         | <i>Athyma ranga</i> Moore, 1857               |                      |
|             | Staff Sergeant             | <i>Athyma selenophora</i> Kollar, 1844        |                      |
|             | Commodore                  | <i>Auzakia danava</i> Moore, 1857             |                      |
|             | Red Lacewing               | <i>Cethosia biblis</i> Drury, 1770            |                      |
|             | Leopard Lacewing           | <i>Cethosia cyane</i> Drury, 1770             |                      |
|             | Pallid Nawab               | <i>Charaxes arja</i> Felder & Felder, 1866    |                      |
|             | Tawny Rajah                | <i>Charaxes bernardes</i> Fabricius, 1793     |                      |
|             | Common Nawab               | <i>Charaxes bharata</i> Felder & Felder, 1867 |                      |
|             | Stately Nawab              | <i>Charaxes dolon</i> Westwood, 1848          |                      |
|             | Variegated Rajah           | <i>Charaxes kahruha</i> Moore, 1895           |                      |
|             | Yellow Rajah               | <i>Charaxes marmax</i> Westwood, 1847         |                      |
|             | Black Rajah                | <i>Charaxes solon</i> Fabricius, 1793         |                      |
|             | Indian Red Maplet          | <i>Chersonesia rahrioides</i> Martin, 1895    | LC                   |
|             | Common Maplet              | <i>Chersonesia risa</i> Doubleday, 1848       |                      |
|             | Large Yeoman               | <i>Cirrochroa aoris</i> Doubleday, 1847       |                      |
|             | Common Yeoman              | <i>Cirrochroa tyche</i> Felder & Felder, 1861 |                      |

| Family | Common name            | Scientific name                             | IUCN Red List status |
|--------|------------------------|---------------------------------------------|----------------------|
|        | Rustic                 | <i>Cupha erymanthis</i> Drury, 1773         |                      |
|        | Common Map             | <i>Cyrestis thyodamas</i> Doyère, 1840      |                      |
|        | Plain Tiger            | <i>Danaus chrysippus</i> Linnaeus, 1758     | LC                   |
|        | Common Tiger           | <i>Danaus genutia</i> Cramer 1779           |                      |
|        | Constable              | <i>Dichorragia nesimachus</i> Doyère, 1840  |                      |
|        | Common Duffer          | <i>Discophora sondiaca</i> Boisduval, 1836  |                      |
|        | Autumn Leaf            | <i>Doleschallia bisaltide</i> Cramer, 1777  |                      |
|        | Common Palmfly         | <i>Elymnias hypermnestra</i> Linnaeus, 1763 |                      |
|        | Spotted Palmfly        | <i>Elymnias malelas</i> Hewitson, 1863      |                      |
|        | Blue striped Palmfly   | <i>Elymnias patna</i> Westwood, 1851        |                      |
|        | Dusky Diadem           | <i>Ethope himachala</i> Moore, 1857         |                      |
|        | Long Branded Blue Crow | <i>Euploea algea</i> Godart, 1819           |                      |
|        | Common Crow            | <i>Euploea core</i> Cramer, 1780            | LC                   |
|        | Blue Spotted Crow      | <i>Euploea midamus</i> Linnaeus, 1758       |                      |
|        | Striped Blue Crow      | <i>Euploea mulciber</i> Cramer, 1777        |                      |
|        | Double Branded Crow    | <i>Euploea sylvestre</i> Fabricius, 1793    |                      |
|        | Courtesan              | <i>Euripus nyctelius</i> Doubleday, 1845    |                      |
|        | Common Baron           | <i>Euthalia aconthea</i> Cramer, 1777       |                      |
|        | Grey Baron             | <i>Euthalia anosia</i> Moore, 1858          |                      |
|        | Gaudy Baron            | <i>Euthalia lubentina</i> Cramer, 1777      |                      |
|        | Powdered Baron         | <i>Euthalia monina</i> Fabricius, 1787      |                      |
|        | White-edged Blue Baron | <i>Euthalia phemius</i> Doubleday, 1848     |                      |
|        | Common Faun            | <i>Faunis canens</i> Hübner, 1826           |                      |
|        | Pasha                  | <i>Heronia marathus</i> Doubleday, 1848     |                      |
|        | Great Eggfly           | <i>Hypolimnys bolina</i> Linnaeus, 1758     |                      |
|        | Peacock Pansy          | <i>Junonia almana</i> Linnaeus, 1758        | LC                   |
|        | Grey Pansy             | <i>Junonia atlites</i> Linnaeus, 1763       |                      |
|        | Yellow Pansy           | <i>Junonia hierta</i> Fabricius, 1798       | LC                   |
|        | Chocolate Pansy        | <i>Junonia iphita</i> Cramer, 1779          |                      |
|        | Lemon Pansy            | <i>Junonia lemonias</i> Linnaeus, 1758      |                      |
|        | Blue Pansy             | <i>Junonia orithya</i> Linnaeus, 1758       | LC                   |
|        | Orange Oakleaf         | <i>Kallima inachus</i> Doyere, 1840         |                      |
|        | Blue Admiral           | <i>Kaniska canace</i> (Linnaeus, 1763)      |                      |

| Family | Common name           | Scientific name                               | IUCN Red List status |
|--------|-----------------------|-----------------------------------------------|----------------------|
|        | Knight                | <i>Lebadea martha</i> Fabricius, 1787         |                      |
|        | Angled Red Forester   | <i>Lethe chandica</i> Moore, 1857             |                      |
|        | Banded Treebrown      | <i>Lethe confusa</i> Aurivillius, 1898        |                      |
|        | Bamboo Treebrown      | <i>Lethe europa</i> Fabricius, 1775           | DD                   |
|        | Common Red Forester   | <i>Lethe mekara</i> Moore, 1857               |                      |
|        | Common Treebrown      | <i>Lethe rhorja</i> Fabricius, 1787           |                      |
|        | Dark Archduke         | <i>Lexias dirtea</i> Fabricius, 1793          |                      |
|        | Common Evening Brown  | <i>Melanitis leda</i> Linnaeus, 1758          | LC                   |
|        | Dark Evening Brown    | <i>Melanitis phedima</i> Cramer, 1780         |                      |
|        | Great Evening Brown   | <i>Melanitis zitenius</i> Herbst, 1796        |                      |
|        | Purple Emperor        | <i>Mimathyma ambica</i> Kollar, 1844          |                      |
|        | Commander             | <i>Modusa procris</i> Cramer, 1777            |                      |
|        | White-bar Bushbrown   | <i>Mycalesis anaxias</i> Hewitson, 1862       |                      |
|        | Dark Brand Bushbrown  | <i>Mycalesis mineus</i> Linnaeus, 1758        |                      |
|        | Common Bushbrown      | <i>Mycalesis perseus</i> Fabricius, 1775      |                      |
|        | Long Brand Bushbrown  | <i>Mycalesis visala</i> Moore, 1857           |                      |
|        | Sullied Sailor        | <i>Neptis clinia</i> Moore, 1872              |                      |
|        | Common Sailor         | <i>Neptis hylas</i> Linnaeus, 1758            |                      |
|        | Clear Sailor          | <i>Neptis nata</i> Moore, 1857                |                      |
|        | False Dingy Sailor    | <i>Neptis pseudovikasi</i> Moore, 1899        |                      |
|        | Nigger                | <i>Orsotrioena medus</i> Fabricius, 1775      |                      |
|        | Common Lascar         | <i>Pantoporia hordonia</i> Stoll, 1790        |                      |
|        | Glassy Tiger          | <i>Parantica aglea</i> Stoll, 1782            |                      |
|        | Chestnut Tiger        | <i>Parantica sita</i> Kollar, 1844            |                      |
|        | Clipper               | <i>Parthenos sylvia</i> Cramer, 1775          |                      |
|        | Small Leopard         | <i>Phalanta alcippe</i> Stoll, 1782           |                      |
|        | Common Leopard        | <i>Phalanta phalantha</i> Drury, 1773         | LC                   |
|        | Tabby                 | <i>Pseudergolis wedah</i> Kollar, 1844        |                      |
|        | Black Prince          | <i>Rohana parisatis</i> Westwood, 1851        | LC                   |
|        | Popinjay              | <i>Stibochiona nicea</i> (Gray, 1846)         |                      |
|        | Northern Jungle Queen | <i>Stichophthalma camadeva</i> Westwood, 1848 |                      |
|        | Spotted Jester        | <i>Symbrenthia hypselis</i> Godart, 1823      |                      |

| Family      | Common name                | Scientific name                                     | IUCN Red List status |
|-------------|----------------------------|-----------------------------------------------------|----------------------|
|             | Common Jester              | <i>Symbrenthia lilaea</i> Hewitson, 1864            | DD                   |
|             | Common Earl                | <i>Tanaecia julii</i> Lesson, 1837                  |                      |
|             | Grey Count                 | <i>Tanaecia lepidea</i> Butler, 1868                |                      |
|             | Jungle Glory               | <i>Thaumantis diores</i> Doubleday, 1845            |                      |
|             | Vagrant                    | <i>Vagrans egista</i> Cramer, 1780                  |                      |
|             | Painted Lady               | <i>Vanessa cardui</i> Linnaeus, 1758                | LC                   |
|             | Indian Red Admiral         | <i>Vanessa indica</i> Herbst, 1794                  |                      |
|             | Common Fivering            | <i>Ypthima baldus</i> Fabricius, 1775               |                      |
|             | Common Fourring            | <i>Ypthima hubeni</i> Kirby, 1871                   |                      |
|             | Cruiser                    | <i>Vindula erota</i> (Fabricius, 1793)              |                      |
|             | Blue Tiger                 | <i>Tirumala limniace</i> (Cramer, 1775)             |                      |
| Hesperiidae | Chocolate Demon            | <i>Ancistroides nigrita</i> Latreille, 1824         |                      |
|             | Atkinson's Bob             | <i>Arnetta atkinsoni</i> Moore, 1878                |                      |
|             | Forest Hopper              | <i>Astictopterus jama</i> Felder & Felder, 1860     |                      |
|             | Small Paint-brush Swift    | <i>Baoris chapmani</i> Evans, 1937                  |                      |
|             | Black Paint-brush Swift    | <i>Baoris unicolor</i> Moore, (1884)                |                      |
|             | Small Green Awlet          | <i>Burara amara</i> Moore, [1866]                   |                      |
|             | Harisa Orange Awlet        | <i>Burara harisa</i> Moore, 1865                    |                      |
|             | Branded Orange Awlet       | <i>Burara oedipodea</i> (Swainson, 1820)            |                      |
|             | Common Spotted Flat        | <i>Celaenorrhinus leucocera</i> Kollar, 1844        |                      |
|             | Plain Palm Dart            | <i>Cephenes acalle</i> (Höpfner, 1874)              |                      |
|             | Indian Awlking             | <i>Choaspes benjaminii</i> (Guérin-Ménéville, 1843) |                      |
|             | Wax Dart                   | <i>Cupitha purreea</i> Moore, 1877                  |                      |
|             | Common Yellow-breast Flat  | <i>Gerosis bhagava</i> Moore, 1866                  |                      |
|             | Dusky Yellow-breasted Flat | <i>Gerosis phisara</i> Moore, 1884                  |                      |
|             | White Yellow-breasted Flat | <i>Gerosis sinica</i> C. & R. Felder, 1862          |                      |
|             | Gold-spotted Ace           | <i>Halpe homolea</i> Swinhoe, 1893                  |                      |
|             | Moore's Ace                | <i>Halpe porus</i> Mabilie, 1877                    |                      |
|             | Banded ace                 | <i>Halpe zema</i> (Hewitson, 1877)                  |                      |

| Family | Common name                  | Scientific name                                               | IUCN Red List status |
|--------|------------------------------|---------------------------------------------------------------|----------------------|
|        | Common Banded Awl            | <i>Hasora chromus</i> (Cramer, [1780])                        |                      |
|        | Tree Flitter                 | <i>Hyarotis adrastus</i> Stoll, 1780                          |                      |
|        | Dark Velvet Bob              | <i>Koruthaialos butleri</i> de Nicéville, 1883                |                      |
|        | Chestnut Bob                 | <i>Lambrix salsala</i> Moore, 1866                            |                      |
|        | Common Redeye                | <i>Matapa aria</i> Moore, 1866                                |                      |
|        | Black Veined Redeye          | <i>Matapa sasivarna</i> Moore, 1865                           |                      |
|        | Restricted Demon             | <i>Notocrypta curvifascia</i> (C. & R. Felder, 1862)          |                      |
|        | Common Banded Demon          | <i>Notocrypta paralysos</i> (Wood-Mason & de Nicéville, 1881) |                      |
|        | Tiger Hopper                 | <i>Ochus subvittatus</i> Moore, 1878                          |                      |
|        | Chestnut Angle               | <i>Odontoptilum angulata</i> Felder, 1862                     |                      |
|        | Common Dartlet               | <i>Oriens gola</i> Moore, 1877                                |                      |
|        |                              | <i>Parnara</i> sp.                                            |                      |
|        | Great Swift                  | <i>Pelopidas assamensis</i> de Nicéville, 1882                |                      |
|        | Small Branded Swift          | <i>Pelopidas mathias</i> (Fabricius, 1798)                    |                      |
|        | Large Branded Swift          | <i>Pelopidas subochracea</i> (Moore, 1878)                    |                      |
|        |                              | <i>Ponthus</i> sp.                                            |                      |
|        | Fulvous Pied Flat            | <i>Pseudocoladenia dan</i> Fabricius, 1787                    |                      |
|        | Common Small Flat            | <i>Sarangesa dasahara</i> Moore, 1866                         |                      |
|        | Khasi Hills Bob              | <i>Scobura isota</i> Swinhoe, 1893                            |                      |
|        | Malay Forest Bob             | <i>Scobura phiditia</i> (Hewitson, [1866])                    |                      |
|        | Indian Skipper               | <i>Spialia galba</i> Fabricius, 1793                          |                      |
|        | Indian Palm Bob              | <i>Suastus gremius</i> (Fabricius, 1798)                      |                      |
|        | Suffused Snow Flat           | <i>Tagiades gana</i> Moore, 1866                              |                      |
|        | Common Snow Flat             | <i>Tagiades japedus</i> Stoll, 1781                           |                      |
|        | Water Snow Flat              | <i>Tagiades litigiosa</i> Möschler, 1878                      |                      |
|        | Pale Palm Dart               | <i>Telicta colon</i> (Fabricius, 1775)                        |                      |
|        | Grass Demon                  | <i>Udaspes folus</i> Cramer, 1775                             |                      |
|        | Purple and Gold Flitter      | <i>Zographetus satwa</i> de Nicéville, 1884                   |                      |
|        | Tricoloured Pied Flat        | <i>Coladenia indrani</i> (Moore, [1866])                      |                      |
|        | Myanmarrese Large forest Bob | <i>Scobura cephaloides</i> (de Nicéville, 1889)               |                      |

Table 2. Amphibians of Garbhanga, Assam, India.

| Family         | Common name                    | Scientific name                                                                           | IUCN Red List status |
|----------------|--------------------------------|-------------------------------------------------------------------------------------------|----------------------|
| Bufonidae      | Common Asian Toad              | <i>Duttaphrynus melanostictus</i> (Schneider, 1799)                                       | LC                   |
| Megophryidae   | Red-Eyed Frog                  | <i>Leptobrachium smithi</i> (Matsui et al. 1999)                                          | LC                   |
|                | Big Headed Horned Frog         | <i>Megophrys megacephala</i> (Mahony, Sengupta, Kamei, & Biju, 2011)                      |                      |
|                | White-lipped Horned Toad       | <i>Megophrys major</i> (Boulenger, 1908)                                                  | LC                   |
|                | Indian Balloon Frog            | <i>Uperodon globulosus</i> (Günther, 1864)                                                | LC                   |
| Microhylidae   | Mymensingh Narrow-mouthed Frog | <i>Microhyla mymensinghensis</i> Hasan, Islam, Kuramoto, Kurabayashi, & Sumida, 2014      |                      |
|                | Berdmore's Narrow-mouthed Frog | <i>Microhyla berdmorei</i> (Blyth, 1856)                                                  | LC                   |
| Rhacophoridae  | Garro Hills Bush Frog          | <i>Philautus garo</i> (Boulenger, 1919)                                                   | VU                   |
|                | Six-lined Tree Frog            | <i>Polypedates leucomystax</i> (Gravenhorst, 1829)                                        | LC                   |
|                | Twin-spotted Tree Frog         | <i>Rhacophorus bipunctatus</i> Ahl, 1927                                                  | LC                   |
|                | Annandale's Tree Frog          | <i>Chiromantis simus</i> (Annandale, 1915)                                                | LC                   |
|                | Baibung Small Treefrog         | <i>Theloderma baibungense</i> (Jiang, Fei, & Huang, 2009)                                 | DD                   |
| Dicroglossidae | Nepal Cricket Frog             | <i>Minervarya nepalensis</i> (Dubois, 1975)                                               | LC                   |
|                | Pierre's Cricket Frog          | <i>Minervarya pierrei</i> (Dubois, 1975)                                                  | LC                   |
|                | Small Cricket Frog             | <i>Minervarya syhadrensis</i> (Annandale, 1919)                                           | LC                   |
|                | Tera Cricket Frog              | <i>Minervarya teraiensis</i> (Dubois, 1975)                                               | LC                   |
|                | Skittering Frog                | <i>Euphlyctis cyanophlyctis</i> (Schneider, 1799)                                         | LC                   |
|                | Indian Bull Frog               | <i>Hoplobatrachus tigerinus</i> (Daudin, 1802)                                            | LC                   |
|                | Littoral Bull Frog             | <i>Hoplobatrachus litoralis</i> Hasan, Kuramoto, Islam, Alam, Khan, and Sumida, 2012      |                      |
|                | Khasi Wart Frog                | <i>Limnonectes khasianus</i> (Anderson, 1871)                                             | DD                   |
| Ranidae        | Assam Hills Frog               | <i>Clinotarsus alticola</i> (Boulenger, 1882)                                             | LC                   |
|                | Theobald's Ranid Frog          | <i>Hylarana tytleri</i> (Theobald, 1868)                                                  | LC                   |
|                | Bhamo Frog                     | <i>Humerana humeralis</i> (Boulenger, 1887)                                               | LC                   |
|                | Cope's Assam Frog              | <i>Hydrophylax leptoglossa</i> (Cope, 1868)                                               | LC                   |
|                | Sengupta's Cascade Frog        | <i>Amolops assamensis</i> (Sengupta, Hussain, Choudhury, Gogoi, Ahmed, & Choudhury, 2008) | DD                   |
|                | Gerbil Stream Frog             | <i>Amolops gerbillus</i> (Annandale, 1912)                                                | LC                   |
| Ichthyophidae  | Garro Hills Caecilian          | <i>Ichthyophis garoensis</i> (Pillai & Ravichandran, 1999)                                | DD                   |
|                | Manipur Moustached Ichthyophis | <i>Ichthyophis moustakius</i> Kamei et al. 2009                                           | DD                   |
|                | Gaiduwan's Chikila             | <i>Chikila gaiduwani</i> Kamei, Gower, Wilkinson, & Biju, 2013                            |                      |

forest which is in the vicinity of the biggest metropolis of northeastern India, the Guwahati City. The forest is under tremendous pressure from the anthropogenic activities such as stone mining, illegal felling of trees, and unsustainable non-timber forest products collection. Also, the busy concrete road connecting the forest with Meghalaya adds to the threats (Lahkar et al. 2010). The dynamite blast in the stone quarries is having a negative impact on its biodiversity (Purkayastha 2018). All these factors disturb the ecological functioning of the area.

Recent discovery of a new species of Bent-toed Gecko *Cyrtodactylus urbanus* from the fringes of Garbhanga (Purkayastha et al. 2020), new locality record for

Yellow-throated Marten (Kakati et al. 2021) along with the findings of 254 species of butterflies, 29 species of amphibians, 64 species of reptiles, 307 species of birds and 31 species of mammals stress on the importance of the landscape in terms of its rich biodiversity. Garbhanga is also a favorable elephant habitat, supporting a good population, connected by corridors to Meghalaya (Borah et al. 2004).

Many species of different taxa groups in Garbhanga are of conservation concerns. 3% (3.2%) of all the recorded species were found to be threatened according to IUCN red list. Also 34% (34.5%) of the species are yet to be evaluated highlighting the huge gap in research

Table 3. Reptiles of Garbhanga, Assam, India.

| Family      | Common name                     | Scientific name                                                                   | IUCN Red List status |
|-------------|---------------------------------|-----------------------------------------------------------------------------------|----------------------|
| Agamidae    | Common Garden Lizard            | <i>Calotes versicolor</i> (Daudin, 1802)                                          | LC                   |
|             | Khasi Hills Forest Lizard       | <i>Calotes maria</i> Gray, 1845                                                   | LC                   |
|             | Blue-throated Lizard            | <i>Ptyctolaemus gularis</i> (Peters, 1864)                                        | LC                   |
|             | Spotted Gliding Lizard          | <i>Draco maculatus</i> (Gray, 1845)                                               | LC                   |
|             | Smooth-Scaled Mountain Lizard   | <i>Cristidorsa planidorsata</i> (Jerdon, 1870)                                    | LC                   |
| Gekkonidae  | Common House Gecko              | <i>Hemidactylus frenatus</i> (Duméril & Bibron, 1836)                             | LC                   |
|             | Brook's House Gecko             | <i>Hemidactylus brookii</i> (Gray, 1845)                                          | LC                   |
|             | Garnot's House Gecko            | <i>Hemidactylus garnotii</i> (Duméril & Bibron, 1836)                             | LC                   |
|             | Flat-tailed House Gecko         | <i>Hemidactylus platyurus</i> (Schneider, 1792)                                   | LC                   |
|             | Northern House Gecko            | <i>Hemidactylus aquilonius</i> (McMahan & Zug, 2007)                              | LC                   |
|             | Tokay Gecko                     | <i>Gekko gekko</i> (Linnaeus, 1758)                                               | LC                   |
|             | Assamese Day Gecko              | <i>Cnemaspis assamensis</i> (Das & Sengupta, 2000)                                | VU                   |
|             | Urban bent-toed Gecko           | <i>Cyrtodactylus urbanus</i> Purkayastha, Das, Bohra, Bauer & Agarwal, 2020       |                      |
|             | Guwahati bent-toed Gecko        | <i>Cyrtodactylus guwahatiensis</i> Agarwal, Mahony, Giri, Chaitanya & Bauer, 2018 | DD                   |
| Lacertidae  | Khasi Hill's Long-tailed Lizard | <i>Takydromus khasiensis</i> Boulenger, 1917                                      | LC                   |
| Scincidae   | Bronze Skink                    | <i>Eutropis macularia</i> (Blyth, 1853)                                           | LC                   |
|             | Many-lined Sun Skink            | <i>Eutropis multifasciata</i> (Kuhl, 1820)                                        | LC                   |
|             | Spotted Forest Skink            | <i>Sphenomorphus maculatus</i> (Blyth, 1853)                                      | LC                   |
|             | White-spotted Supple Skink      | <i>Lygosoma albopunctata</i> (Gray, 1846)                                         | LC                   |
| Varanidae   | Bengal Monitor Lizard           | <i>Varanus bengalensis</i> (Daudin, 1802)                                         | NT                   |
|             | Yellow monitor Lizard           | <i>Varanus flavescens</i> (Gray, 1827)                                            | EN                   |
| Typhlopidae | Brahminy Blindsnake             | <i>Indotyphlops braminus</i> (Daudin, 1803)                                       | LC                   |
|             | Diard's Blindsnake              | <i>Argyrophis diardii</i> (Schlegel, 1839)                                        | LC                   |
| Pythonidae  | Burmese Python                  | <i>Python bivittatus</i> (Kuhl, 1820)                                             | VU                   |
| Colubridae  | Rainbow Water Snake             | <i>Enhydryis enhydryis</i> (Schneider, 1799)                                      | LC                   |
|             | Common Wolf Snake               | <i>Lycodon aulicus</i> (Linnaeus, 1758)                                           | LC                   |
|             | Zaw's wolf Snake                | <i>Lycodon zawi</i> Slowinski, Pawar, Win, Thin, Gyi, Oo, & Tun, 2001             | LC                   |
|             | Twin-spotted Wolf Snake         | <i>Lycodon jara</i> (Shaw, 1802)                                                  | LC                   |
|             | Rat Snake                       | <i>Ptyas mucosa</i> (Linnaeus, 1758)                                              | LC                   |
|             | Indo-Chinese RatSnake           | <i>Ptyas korros</i> (Schlegel, 1837)                                              | NT                   |
|             | Heller's Red-necked Keelback    | <i>Rhabdophis helleri</i> (Schmidt, 1925)                                         |                      |
|             | Himalayan Keelback              | <i>Rhabdophis himalayanus</i> (Günther, 1864)                                     | LC                   |
|             | Painted Bronzeback              | <i>Dendrelaphis proarchos</i> (Wall, 1909)                                        |                      |
|             | Blue Bronzeback                 | <i>Dendrelaphis cyanochloris</i> (Wall, 1921)                                     | LC                   |
|             | White-barred Kukri Snake        | <i>Oligodon albocinctus</i> (Cantor, 1839)                                        | LC                   |
|             | Günther's Kukri Snake           | <i>Oligodon cinereus</i> (Günther, 1864)                                          | LC                   |
|             | Cantor's Kukri Snake            | <i>Oligodon cyclurus</i> (Cantor, 1839)                                           | LC                   |
|             | Gray's Kukri Snake              | <i>Oligodon dorsalis</i> (Gray & Hardwicke, 1835)                                 | LC                   |
|             | Black-banded Trinket Snake      | <i>Oreocryptophis porphyraceus</i> (Cantor, 1839)                                 | LC                   |
|             | Assam Snail-eater               | <i>Pareas monticola</i> (Cantor, 1839)                                            | LC                   |
|             | Buff Striped Keelback           | <i>Amphiesma stolatum</i> (Linnaeus, 1758)                                        | LC                   |
|             | Eastern Cat Snake               | <i>Boiga gokool</i> (Gray, 1835)                                                  | LC                   |
|             | Green Cat Snake                 | <i>Boiga cyanea</i> (Duméril et al. 1854)                                         | LC                   |
|             | Assamese Cat Snake              | <i>Boiga quincunciata</i> (Wall, 1908)                                            | LC                   |
|             | Thai Cat Snake                  | <i>Boiga siamensis</i> (Nutaphand, 1971)                                          | LC                   |
|             | Checkered Keelback              | <i>Fowlea piscator</i> (Schneider, 1799)                                          | LC                   |

| Family       | Common name                 | Scientific name                                                                                        | IUCN Red List status |
|--------------|-----------------------------|--------------------------------------------------------------------------------------------------------|----------------------|
|              | Common Mock Viper           | <i>Psammodynastes pulverulentus</i> (Boie, 1827)                                                       | LC                   |
|              | Copper-headed Trinket Snake | <i>Coelognathus radiates</i> (Schlegel, 1837)                                                          | LC                   |
|              | Trinket Snake               | <i>Coelognathus helena</i> (Daudin, 1803)                                                              | LC                   |
|              | Laudankia Vine Snake        | <i>Ahaetulla laudankia</i> Deepak, Narayanan, Sarkar, Dutta, & Mohapatra, 2019                         | LC                   |
|              | Asian Vine Snake            | <i>Ahaetulla prasina</i> (Boie, 1827)                                                                  | LC                   |
|              | Ornate Flying Snake         | <i>Chrysopelea ornate</i> (Shaw, 1802)                                                                 | LC                   |
|              | Mock Cobra                  | <i>Pseudoxenodon macrops</i> (Blyth, 1855)                                                             | LC                   |
| Elapidae     | Monocled Cobra              | <i>Naja kaouthia</i> (Lesson, 1831)                                                                    | LC                   |
|              | King Cobra                  | <i>Ophiophagus hannah</i> (Cantor, 1836)                                                               | VU                   |
|              | Banded Krait                | <i>Bungarus fasciatus</i> (Schneider, 1801)                                                            | LC                   |
|              | Lesser Black Krait          | <i>Bungarus lividus</i> Cantor, 1839                                                                   | LC                   |
|              | Greater Black Krait         | <i>Bungarus niger</i> Wall, 1908                                                                       | LC                   |
| Viperidae    | Salazar's Pit Viper         | <i>Trimeresurus salazar</i> Mirza, Bhosale, Phansalkar, Sawant, Gowande, & Patel, 2020                 |                      |
|              | Maya's Pit Viper            | <i>Trimeresurus mayae</i> Rathee, Purkayastha, Lalremsanga, Dalal, Biakzuala, Muansanga, & Mirza, 2022 |                      |
| Trionychidae | Peacock Soft-shelled Turtle | <i>Nilssonina hurum</i> (Gray, 1831)                                                                   | EN                   |
|              | Indian Flap-shelled Turtle  | <i>Lissemys punctata</i> (Bonnaterre, 1789)                                                            | VU                   |
| Geoemydidae  | Indian Tent Turtle          | <i>Pangshura tentoria</i> (Gray, 1834)                                                                 | LC                   |
|              | Spotted Pond Turtle         | <i>Geoclemys hamiltonii</i> (Gray, 1831)                                                               | EN                   |

and status evaluation of understudied species. This in turn also provides further research opportunities on the lesser-known species.

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Table 4. Birds of Garbhanga, Assam, India.

| Family         | Common name                   | Scientific name                                      | IUCN Red List status |
|----------------|-------------------------------|------------------------------------------------------|----------------------|
| Accipitridae   | Black Kite                    | <i>Milvus migrans</i> (Boddaert, 1783)               | LC                   |
|                | Pied Harrier                  | <i>Circus melanoleucos</i> (Pennant, 1769)           | LC                   |
|                | Crested Serpent-Eagle         | <i>Spilornis cheela</i> (Latham, 1790)               | LC                   |
|                | Jerdon's Baza                 | <i>Aviceda jerdoni</i> (Blyth, 1842)                 | LC                   |
|                | Black Baza                    | <i>Aviceda leuphotes</i> (Dumont, 1820)              | LC                   |
|                | Crested Goshawk               | <i>Accipiter trivirgatus</i> (Temminck, 1824)        | LC                   |
|                | Oriental Honey-buzzard        | <i>Pernis ptilorhynchus</i> (Temminck, 1821)         | LC                   |
|                | Shikra                        | <i>Accipiter badius</i> (Gmelin, 1788)               | LC                   |
|                | Long-legged Buzzard           | <i>Buteo rufinus</i> (Cretschmar, 1829)              | LC                   |
|                | Hen Harrier                   | <i>Circus cyaneus</i> (Linnaeus, 1766)               | LC                   |
|                | Eastern Marsh-Harrier         | <i>Circus spilonotus</i> Kaup, 1847                  | LC                   |
|                | Changeable Hawk-Eagle         | <i>Nisaetus cirrhatus</i> Gmelin, 1788               | LC                   |
|                | Himalayan Griffon             | <i>Gyps himalayensis</i> Hume, 1869                  | NT                   |
|                | Eurasian Sparrowhawk          | <i>Accipiter nisus</i> Linnaeus, 1758                | LC                   |
|                | Black Eagle                   | <i>Ictinaetus malaiensis</i> Temminck, 1822          | LC                   |
|                | White-rumped Vulture          | <i>Gyps bengalensis</i> Gmelin, 1788                 | CR                   |
|                | Greater Spotted Eagle         | <i>Clanga clanga</i> (Pallas, 1811)                  | VU                   |
|                | Black-winged Kite             | <i>Elanus caeruleus</i> (Desfontaines, 1789)         | LC                   |
| Acrocephalidae | Thick-billed Warbler          | <i>Arundinax aedon</i> (Pallas, 1776)                | LC                   |
| Aegithinidae   | Common Iora                   | <i>Aegithina tiphia</i> Linnaeus, 1758               | LC                   |
| Alaudidae      | Bengal Bushlark               | <i>Mirafra assamica</i> Horsfield, 1840              | LC                   |
| Alcedinidae    | White-throated Kingfisher     | <i>Halcyon smyrnensis</i> (Linnaeus, 1758)           | LC                   |
|                | Common Kingfisher             | <i>Alcedo atthis</i> (Linnaeus, 1758)                | LC                   |
|                | Ruddy Kingfisher              | <i>Halcyon coromanda</i> (Latham, 1790)              | LC                   |
|                | Stork-billed Kingfisher       | <i>Pelargopsis capensis</i> (Linnaeus, 1766)         | LC                   |
|                | Black-backed Dwarf-Kingfisher | <i>Ceyx erithaca</i> (Linnaeus, 1758)                | LC                   |
|                | Pied Kingfisher               | <i>Ceryle rudis</i> (Linnaeus, 1758)                 | LC                   |
|                | Blue-eared Kingfisher         | <i>Alcedo meninting</i> Horsfield, 1821              | LC                   |
| Anatidae       | Cotton Pygmy-Goose            | <i>Nettapus coromandelianus</i> Gmelin, 1789         | LC                   |
|                | Lesser Whistling-Duck         | <i>Dendrocygna javanica</i> Horsfield, 1821          | LC                   |
| Apodidae       | Asian Palm-Swift              | <i>Cypsiurus balasensis</i> Gray, 1829               | LC                   |
|                | House Swift                   | <i>Apus nipalensis</i> (Hodgson, 1837)               | LC                   |
| Ardeidae       | Cattle Egret                  | <i>Bubulcus ibis</i> (Linnaeus, 1758)                | LC                   |
|                | Grey Heron                    | <i>Ardea cinerea</i> Linnaeus, 1758                  | LC                   |
|                | Great Egret                   | <i>Ardea alba</i> Linnaeus, 1758                     | LC                   |
|                | Indian Pond-Heron             | <i>Ardeola grayii</i> (Sykes, 1832)                  | LC                   |
|                | Intermediate Egret            | <i>Ardea intermedia</i> Wagler, 1829                 | LC                   |
|                | Purple Heron                  | <i>Ardea purpurea</i> Linnaeus, 1766                 | LC                   |
|                | Little Egret                  | <i>Egretta garzetta</i> (Linnaeus, 1766)             | LC                   |
|                | Striated Heron                | <i>Butorides striata</i> (Linnaeus, 1758)            | LC                   |
|                | Cinnamon Bittern              | <i>Ixobrychus cinnamomeus</i> Gmelin, 1789           | LC                   |
|                | Malayan Night Heron           | <i>Gorsachius melanolophus</i> (Raffles, 1822)       | LC                   |
| Artamidae      | Ashy Woodswallow              | <i>Artamus fuscus</i> Vieillot, 1817                 | LC                   |
| Bucerotidae    | Great Hornbill                | <i>Buceros bicornis</i> Linnaeus, 1758               | VU                   |
|                | Oriental Pied-Hornbill        | <i>Anthraceros albirostris</i> (Shaw, 1808)          | LC                   |
| Campephagidae  | Black-winged Cuckooshrike     | <i>Lalage melaschistos</i> (Hodgson, 1836)           | LC                   |
|                | Large Cuckooshrike            | <i>Coracina macei</i> (Lesson, 1831)                 | LC                   |
|                | Long-tailed Minivet           | <i>Pericrocotus ethologus</i> Bangs & Phillips, 1914 | LC                   |
|                | Scarlet Minivet               | <i>Pericrocotus speciosus</i> (Latham, 1790)         | LC                   |
|                | Small Minivet                 | <i>Pericrocotus cinnamomeus</i> (Linnaeus, 1766)     | LC                   |
|                | Short-billed Minivet          | <i>Pericrocotus brevirostris</i> (Vigors, 1831)      | LC                   |

| Family        | Common name                  | Scientific name                                    | IUCN Red List status |
|---------------|------------------------------|----------------------------------------------------|----------------------|
|               | Rosy Minivet                 | <i>Pericrocotus roseus</i> (Vieillot, 1818)        | LC                   |
| Caprimulgidae | Large-tailed Nightjar        | <i>Caprimulgus macrurus</i> Horsfield, 1821        | LC                   |
|               | Savanna Nightjar             | <i>Caprimulgus affinis</i> Horsfield, 1821         | LC                   |
| Charadriidae  | Red-wattled Lapwing          | <i>Vanellus indicus</i> (Boddaert, 1783)           | LC                   |
| Chloropseidae | Golden-fronted Leafbird      | <i>Chloropsis aurifrons</i> (Temminck, 1829)       | LC                   |
|               | Orange-bellied Leafbird      | <i>Chloropsis hardwickii</i> Jardine & Selby, 1830 | LC                   |
|               | Blue-winged Leafbird         | <i>Chloropsis cochinchinensis</i> Gmelin, 1789     | LC                   |
| Ciconiidae    | Lesser Adjutant              | <i>Leptoptilos javanicus</i> (Horsfield, 1821)     | VU                   |
|               | Asian Openbill               | <i>Anastomus oscitans</i> (Boddaert, 1783)         | LC                   |
|               | Greater Adjutant             | <i>Leptoptilos dubius</i> Gmelin, 1789             | EN                   |
| Cisticolidae  | Common Tailorbird            | <i>Orthotomus sutorius</i> (Pennant, 1769)         | LC                   |
|               | Rufescent Prinia             | <i>Prinia rufescens</i> Blyth, 1847                | LC                   |
|               | Dark-necked Tailorbird       | <i>Orthotomus atrogularis</i> Temminck, 1836       | LC                   |
|               | Gray-breasted Prinia         | <i>Prinia hodgsonii</i> Blyth, 1844                | LC                   |
|               | Plain Prinia                 | <i>Prinia inornata</i> Sykes, 1832                 | LC                   |
| Columbidae    | Oriental Turtle-Dove         | <i>Streptopelia orientalis</i> (Latham, 1790)      | LC                   |
|               | Spotted Dove                 | <i>Streptopelia chinensis</i> (Scopoli, 1786)      | LC                   |
|               | Yellow-footed Green-Pigeon   | <i>Treron phoenicopterus</i> (Latham, 1790)        | LC                   |
|               | Asian Emerald Dove           | <i>Chalcophaps indica</i> (Linnaeus, 1758)         | LC                   |
|               | Wedge-tailed Green-Pigeon    | <i>Treron sphenurus</i> (Vigors, 1832)             | LC                   |
|               | Thick-billed Green-Pigeon    | <i>Treron curvirostra</i> Gmelin, 1789             | LC                   |
|               | Red Collared-Dove            | <i>Streptopelia tranquebarica</i> Hermann, 1804    | LC                   |
|               | Rock Pigeon                  | <i>Columba livia</i> Gmelin, 1789                  | LC                   |
|               | Ashy-headed Green-Pigeon     | <i>Treron phayrei</i> (Blyth, 1862)                | NT                   |
|               | Orange-breasted Green-Pigeon | <i>Treron bicinctus</i> (Jerdon, 1840)             | LC                   |
|               | Green Imperial Pigeon        | <i>Ducula aenea</i> (Linnaeus, 1766)               | LC                   |
|               | Pin-tailed Green-Pigeon      | <i>Treron apicauda</i> Blyth, 1846                 | LC                   |
|               | Eurasian Collared-Dove       | <i>Streptopelia decaocto</i> Frivaldszky, 1838     | LC                   |
| Coraciidae    | Indochinese Roller           | <i>Coracias affinis</i> McClelland, 1839           | LC                   |
|               | Dollarbird                   | <i>Eurystomus orientalis</i> (Linnaeus, 1766)      | LC                   |
| Corvidae      | House Crow                   | <i>Corvus splendens</i> Vieillot, 1817             | LC                   |
|               | Large-billed Crow            | <i>Corvus macrorhynchos</i> Wagler, 1827           | LC                   |
|               | Common Green-Magpie          | <i>Cissa chinensis</i> (Boddaert, 1783)            | LC                   |
|               | Rufous Treepie               | <i>Dendrocitta vagabunda</i> (Latham, 1790)        | LC                   |
|               | Grey Treepie                 | <i>Dendrocitta formosae</i> Swinhoe, 1863          | LC                   |
| Cuculidae     | Asian Koel                   | <i>Eudynamys scolopaceus</i> (Linnaeus, 1758)      | LC                   |
|               | Green-billed Malkoha         | <i>Phaenicophaeus tristis</i> (Lesson, 1830)       | LC                   |
|               | Indian Cuckoo                | <i>Cuculus micropterus</i> Gould, 1838             | LC                   |
|               | Banded Bay Cuckoo            | <i>Cacomantis sonneratii</i> (Latham, 1790)        | LC                   |
|               | Greater Coucal               | <i>Centropus sinensis</i> (Stephens, 1815)         | LC                   |
|               | Asian Emerald Cuckoo         | <i>Chrysococcyx maculatus</i> Gmelin, 1788         | LC                   |
|               | Lesser Coucal                | <i>Centropus bengalensis</i> Gmelin, 1788          | LC                   |
|               | Violet Cuckoo                | <i>Chrysococcyx xanthorhynchus</i> Horsfield, 1821 | LC                   |
|               | Square-tailed Drongo-Cuckoo  | <i>Surniculus lugubris</i> Horsfield, 1821         | LC                   |
|               | Common Hawk-Cuckoo           | <i>Hierococcyx varius</i> Vahl, 1797               | LC                   |
|               | Common Cuckoo                | <i>Cuculus canorus</i> Linnaeus, 1758              | LC                   |
|               | Plaintive Cuckoo             | <i>Cacomantis merulinus</i> Scopoli, 1786          | LC                   |
|               | Chestnut-winged Cuckoo       | <i>Clamator coromandus</i> Linnaeus, 1766          | LC                   |
|               | Lesser Cuckoo                | <i>Cuculus poliocephalus</i> Latham, 1790          | LC                   |
|               | Large Hawk-Cuckoo            | <i>Hierococcyx sparveroides</i> Vigors, 1832       | LC                   |
|               | Hodgson's Hawk-Cuckoo        | <i>Hierococcyx nasicolor</i> (Blyth, 1843)         | LC                   |
|               | Pied Cuckoo                  | <i>Clamator jacobinus</i> Boddaert, 1783           | LC                   |

| Family         | Common name                      | Scientific name                                   | IUCN Red List status |
|----------------|----------------------------------|---------------------------------------------------|----------------------|
| Dicaeidae      | Plain Flowerpecker               | <i>Dicaeum minullum</i> Swinhoe, 1870             | LC                   |
|                | Scarlet-backed Flowerpecker      | <i>Dicaeum cruentatum</i> (Linnaeus, 1758)        | LC                   |
|                | Yellow-vented Flowerpecker       | <i>Dicaeum chrysorrheum</i> Temminck, 1829        | LC                   |
| Dicruridae     | Black Drongo                     | <i>Dicrurus macrocercus</i> Vieillot, 1817        | LC                   |
|                | Bronzed Drongo                   | <i>Dicrurus aeneus</i> Vieillot, 1817             | LC                   |
|                | Greater Racket-tailed Drongo     | <i>Dicrurus paradiseus</i> (Linnaeus, 1766)       | LC                   |
|                | Hair-crested Drongo              | <i>Dicrurus hottentottus</i> (Linnaeus, 1766)     | LC                   |
|                | Lesser Racket-tailed Drongo      | <i>Dicrurus remifer</i> (Temminck, 1823)          | LC                   |
|                | Ashy Drongo                      | <i>Dicrurus leucophaeus</i> Vieillot, 1817        | LC                   |
|                |                                  |                                                   |                      |
| Estrildidae    | Scaly-breasted Munia             | <i>Lonchura punctulata</i> Linnaeus, 1758         | LC                   |
|                | White-rumped Munia               | <i>Lonchura striata</i> Linnaeus, 1766            | LC                   |
| Eurylaimidae   | Long-tailed Broadbill            | <i>Psarisomus dalhousiae</i> Jameson, 1835        | LC                   |
|                | Silver-breasted Broadbill        | <i>Serilophus lunatus</i> Gould, 1834             | LC                   |
| Falconidae     | Eurasian Kestrel                 | <i>Falco tinnunculus</i> Linnaeus, 1758           | LC                   |
|                | Collared Falconet                | <i>Microhierax caerulescens</i> Linnaeus, 1758    | LC                   |
| Fringillidae   | Common Rosefinch                 | <i>Carpodacus erythrinus</i> (Pallas, 1770)       | LC                   |
| Hirundinidae   | Striated Swallow                 | <i>Cecropis striolata</i> (Schlegel, 1844)        | NA                   |
|                | Barn Swallow                     | <i>Hirundo rustica</i> Linnaeus, 1758             | LC                   |
|                | Red-rumped Swallow               | <i>Cecropis daurica</i> (Laxmann, 1769)           | LC                   |
|                | Nepal House-Martin               | <i>Delichon nipalense</i> Moore, 1854             | LC                   |
|                |                                  |                                                   |                      |
| Irenidae       | Asian Fairy-Bluebird             | <i>Irena puella</i> (Latham, 1790)                | LC                   |
| Jacaniae       | Bronze-winged Jacana             | <i>Metopidius indicus</i> (Latham, 1790)          | LC                   |
| Laniidae       | Grey-backed Shrike               | <i>Lanius tephronotus</i> (Vigors, 1831)          | LC                   |
|                | Long-tailed Shrike               | <i>Lanius schach</i> Linnaeus, 1758               | LC                   |
|                | Brown Shrike                     | <i>Lanius cristatus</i> Linnaeus, 1758            | LC                   |
| Leiothrichidae | Greater Necklaced Laughingthrush | <i>Pterorhinus pectoralis</i> Gould, 1836         | LC                   |
|                | Lesser Necklaced Laughingthrush  | <i>Garrulax monileger</i> (Hodgson, 1836)         | LC                   |
|                | Jungle Babbler                   | <i>Argya striata</i> (Dumont, 1823)               | LC                   |
|                | Nepal Fulvetta                   | <i>Alcippe nipalensis</i> (Hodgson, 1837)         | LC                   |
|                | Blue-winged Minla                | <i>Actinodura cyanouroptera</i> (Hodgson, 1837)   | LC                   |
|                | Striated Babbler                 | <i>Argya earlei</i> (Blyth, 1844)                 | LC                   |
|                | White-crested Laughingthrush     | <i>Garrulax leucolophus</i> (Hardwicke, 1816)     | LC                   |
| Locustellidae  | Striated Grassbird               | <i>Megalurus palustris</i> Horsfield, 1821        | LC                   |
|                | Baikal Bush Warbler              | <i>Locustella davidi</i> (La Touche, 1923)        | LC                   |
|                | Spotted Bush Warbler             | <i>Locustella thoracica</i> (Blyth, 1845)         | LC                   |
| Megalaimidae   | Blue-throated Barbet             | <i>Psilopogon asiaticus</i> (Latham, 1790)        | LC                   |
|                | Coppersmith Barbet               | <i>Psilopogon haemacephalus</i> Muller, 1776      | LC                   |
|                | Great Barbet                     | <i>Psilopogon virens</i> (Boddaert, 1783)         | LC                   |
|                | Lineated Barbet                  | <i>Psilopogon lineatus</i> (Vieillot, 1816)       | LC                   |
|                | Blue-eared Barbet                | <i>Psilopogon duvaucelii</i> Lesson, 1830         | LC                   |
| Meropidae      | Chestnut-headed Bee-eater        | <i>Merops leschenaulti</i> Vieillot, 1817         | LC                   |
|                | Green Bee-eater                  | <i>Merops orientalis</i> Latham, 1801             | LC                   |
|                | Blue-bearded Bee-eater           | <i>Nyctyornis athertoni</i> Jardine & Selby, 1828 | LC                   |
|                | Blue-tailed Bee-eater            | <i>Merops philippinus</i> Linnaeus, 1767          | LC                   |
| Monarchidae    | Black-naped Monarch              | <i>Hypothymis azurea</i> (Boddaert, 1783)         | LC                   |
|                | Blyth's Paradise-Flycatcher      | <i>Terpsiphone affinis</i> (Blyth, 1846)          | LC                   |
| Motacillidae   | Paddyfield Pipit                 | <i>Anthus rufulus</i> Vieillot, 1818              | LC                   |
|                | Olive-backed Pipit               | <i>Anthus hodgsoni</i> Richmond, 1907             | LC                   |
|                | Gray Wagtail                     | <i>Motacilla cinerea</i> Tunstall, 1771           | LC                   |
|                | White Wagtail                    | <i>Motacilla alba</i> Linnaeus, 1758              | LC                   |
|                | White-browed Wagtail             | <i>Motacilla maderaspatensis</i> Gmelin, 1789     | LC                   |
|                | Forest Wagtail                   | <i>Dendronanthus indicus</i> Gmelin, 1789         | LC                   |

| Family        | Common name                  | Scientific name                                      | IUCN Red List status |
|---------------|------------------------------|------------------------------------------------------|----------------------|
|               | Eastern Yellow Wagtail       | <i>Motacilla tschutschensis</i> Gmelin, 1789         | LC                   |
|               | Citrine Wagtail              | <i>Motacilla citreola</i> Pallas, 1776               | LC                   |
| Muscicapidae  | Blue Whistling-Thrush        | <i>Myophonus caeruleus</i> (Scopoli, 1786)           | LC                   |
|               | White-rumped Shama           | <i>Copsychus malabaricus</i> (Scopoli, 1786)         | LC                   |
|               | Oriental Magpie-Robin        | <i>Copsychus saularis</i> Linnaeus, 1758             | LC                   |
|               | Taiga Flycatcher             | <i>Ficedula albicilla</i> (Pallas, 1811)             | LC                   |
|               | Black-backed Forktail        | <i>Enicurus immaculatus</i> (Hodgson, 1836)          | LC                   |
|               | Pale-chinned Blue Flycatcher | <i>Cyornis poliogenys</i> Brooks, 1880               | LC                   |
|               | Small Niltava                | <i>Niltava macgrigoriae</i> Burton, 1836             | LC                   |
|               | Snowy-browed Flycatcher      | <i>Ficedula hyperythra</i> (Blyth, 1843)             | LC                   |
|               | Dark-sided Flycatcher        | <i>Muscicapa sibirica</i> Gmelin, 1789               | LC                   |
|               | Lesser Shortwing             | <i>Brachypteryx leucophris</i> (Temminck, 1828)      | LC                   |
|               | Pygmy Flycatcher             | <i>Ficedula hodgsoni</i> Moore, 1854                 | LC                   |
|               | Grey Bushchat                | <i>Saxicola ferreus</i> Gray & Gray, 1847            | LC                   |
|               | White-tailed Robin           | <i>Myiomela leucura</i> (Hodgson, 1845)              | LC                   |
|               | Brown-breasted Flycatcher    | <i>Muscicapa muttui</i> Layard, 1854                 | LC                   |
|               | Blue-throated Flycatcher     | <i>Cyornis rubeculoides</i> (Vigors, 1831)           | LC                   |
|               | Little Pied Flycatcher       | <i>Ficedula westermanni</i> (Sharpe, 1888)           | LC                   |
|               | Pale Blue Flycatcher         | <i>Cyornis unicolor</i> Blyth, 1843                  | LC                   |
|               | Asian Brown Flycatcher       | <i>Muscicapa dauurica</i> Pallas, 1811               | LC                   |
|               | Blue Rock-Thrush             | <i>Monticola solitaries</i> (Linnaeus, 1758)         | LC                   |
|               | Slaty-backed Forktail        | <i>Enicurus schistaceus</i> (Hodgson, 1836)          | LC                   |
|               | Black Redstart               | <i>Phoenicurus ochruros</i> Gmelin, 1774             | LC                   |
|               | Verditer Flycatcher          | <i>Eumyias thalassinus</i> (Swainson, 1838)          | LC                   |
|               | Plumbeous Redstart           | <i>Phoenicurus fuliginosus</i> (Vigors, 1831)        | LC                   |
|               | White-capped Redstart        | <i>Phoenicurus leucocephalus</i> (Vigors, 1831)      | LC                   |
|               | Spotted Forktail             | <i>Enicurus maculatus</i> Vigors, 1831               | LC                   |
|               | Slaty-blue Flycatcher        | <i>Ficedula tricolor</i> (Hodgson, 1845)             | LC                   |
|               | Chestnut-bellied Rock-Thrush | <i>Monticola rufiventris</i> (Jardine & Selby, 1833) | LC                   |
|               | Rufous-gorgeted Flycatcher   | <i>Ficedula strophia</i> (Hodgson, 1837)             | LC                   |
|               | Rufous-bellied Niltava       | <i>Niltava sundara</i> Hodgson, 1837                 | LC                   |
|               | Siberian Rubythroat          | <i>Calliope calliope</i> (Pallas, 1776)              | LC                   |
|               | White-crowned Forktail       | <i>Enicurus leschenaulti</i> (Vieillot, 1818)        | LC                   |
|               | Large Niltava                | <i>Niltava grandis</i> (Blyth, 1842)                 | LC                   |
|               | Daurian Redstart             | <i>Phoenicurus aureus</i> (Pallas, 1776)             | LC                   |
|               | Sapphire Flycatcher          | <i>Ficedula sapphire</i> (Blyth, 1843)               | LC                   |
| Nectariniidae | Crimson Sunbird              | <i>Aethopyga siparaja</i> (Raffles, 1822)            | LC                   |
|               | Ruby-cheeked Sunbird         | <i>Chalcoparia singalensis</i> Gmelin, 1789          | LC                   |
|               | Streaked Spiderhunter        | <i>Arachnothera magna</i> (Hodgson, 1836)            | LC                   |
|               | Little Spiderhunter          | <i>Arachnothera longirostra</i> (Latham, 1790)       | LC                   |
|               | Purple Sunbird               | <i>Cinnyris asiaticus</i> (Latham, 1790)             | LC                   |
|               | Black-throated Sunbird       | <i>Aethopyga saturate</i> (Hodgson, 1836)            | LC                   |
| Oriolidae     | Black-hooded Oriole          | <i>Oriolus xanthornus</i> (Linnaeus, 1758)           | LC                   |
|               | Maroon Oriole                | <i>Oriolus traillii</i> (Vigors, 1832)               | LC                   |
|               | Black-naped Oriole           | <i>Oriolus chinensis</i> Linnaeus, 1766              | LC                   |
| Paridae       | Cinereous Tit                | <i>Parus cinereus</i> Vieillot, 1818                 | LC                   |
|               | Fire-capped Tit              | <i>Cephalopyrus flammiceps</i> Burton, 1836          | LC                   |
|               | Sultan Tit                   | <i>Melanochlora sultanea</i> (Hodgson, 1837)         | LC                   |
| Passeridae    | Eurasian Tree Sparrow        | <i>Passer montanus</i> (Linnaeus, 1758)              | LC                   |
|               | House Sparrow                | <i>Passer domesticus</i> (Linnaeus, 1758)            | LC                   |
|               | Russet Sparrow               | <i>Passer cinnamomeus</i> (Gould, 1836)              | LC                   |
| Pellorneidae  | Puff-throated Babbler        | <i>Pellorneum ruficeps</i> Swainson, 1832            | LC                   |

| Family            | Common name                    | Scientific name                                      | IUCN Red List status |
|-------------------|--------------------------------|------------------------------------------------------|----------------------|
|                   | Abbott's Babbler               | <i>Malacocincla abbotti</i> Blyth, 1845              | LC                   |
|                   | Buff-breasted Babbler          | <i>Pellorneum tickelli</i> Blyth, 1859               | LC                   |
| Phalacrocoracidae | Little Cormorant               | <i>Microcarbo niger</i> (Vieillot, 1817)             | LC                   |
| Phasianidae       | Kalij Pheasant                 | <i>Lophura leucomelanos</i> (Latham, 1790)           | LC                   |
|                   | Red Junglefowl                 | <i>Gallus gallus</i> (Linnaeus, 1758)                | LC                   |
|                   | White-cheeked Partridge        | <i>Arborophila atrogularis</i> (Blyth, 1849)         | NT                   |
|                   | Black Francolin                | <i>Francolinus francolinus</i> (Linnaeus, 1766)      | LC                   |
|                   | Gray Peacock-Pheasant          | <i>Polyplectron bicalcaratum</i> (Linnaeus, 1758)    | LC                   |
| Phylloscopidae    | Blyth's Leaf Warbler           | <i>Phylloscopus reguloides</i> (Blyth, 1842)         | LC                   |
|                   | Whistler's Warbler             | <i>Phylloscopus whistleri</i> Ticehurst, 1925        | LC                   |
|                   | White-spectacled Warbler       | <i>Phylloscopus intermedius</i> Moore, 1854          | LC                   |
|                   | Yellow-browed Warbler          | <i>Phylloscopus inornatus</i> (Blyth, 1842)          | LC                   |
|                   | Lemon-rumped Warbler           | <i>Phylloscopus chloronotus</i> Gray & Gray, 1847    | LC                   |
|                   | Tickell's Leaf Warbler         | <i>Phylloscopus affinis</i> (Tickell, 1833)          | LC                   |
|                   | Yellow-vented Warbler          | <i>Phylloscopus cantator</i> (Tickell, 1833)         | LC                   |
|                   | Dusky Warbler                  | <i>Phylloscopus fuscatus</i> (Blyth, 1842)           | LC                   |
|                   | Greenish Warbler               | <i>Phylloscopus trochiloides</i> (Sundevall, 1837)   | LC                   |
|                   | Hume's Warbler                 | <i>Phylloscopus humei</i> Brooks, 1878               | LC                   |
|                   | Gray-hooded Warbler            | <i>Phylloscopus xanthoschistos</i> Gray & Gray, 1847 | LC                   |
|                   | Green-crowned Warbler          | <i>Phylloscopus burkii</i> (Burton, 1836)            | LC                   |
|                   | Ashy-throated Warbler          | <i>Phylloscopus maculipennis</i> Blyth, 1867         | LC                   |
|                   | Gray-cheeked Warbler           | <i>Phylloscopus poliogenys</i> (Blyth, 1847)         | LC                   |
|                   | Chestnut-crowned Warbler       | <i>Phylloscopus castaneiceps</i> (Hodgson, 1845)     | LC                   |
| Picidae           | Grey-capped Pygmy Woodpecker   | <i>Yungipicus canicapillus</i> (Blyth, 1845)         | NA                   |
|                   | Grey-headed Woodpecker         | <i>Picus canus</i> Gmelin, 1788                      | LC                   |
|                   | Lesser Yellow naped Woodpecker | <i>Picus chlorolophus</i> Vieillot, 1818             | LC                   |
|                   | Greater Flameback              | <i>Chrysocolaptes guttacristatus</i> (Tickell, 1833) | LC                   |
|                   | Rufous Woodpecker              | <i>Micropternus brachyurus</i> (Vieillot, 1818)      | LC                   |
|                   | White-browed Piculet           | <i>Sasia ochracea</i> Hodgson, 1837                  | LC                   |
|                   | Black-rumped Flameback         | <i>Dinopium benghalense</i> (Linnaeus, 1758)         | LC                   |
|                   | Speckled Piculet               | <i>Picumnus innominatus</i> Burton, 1836             | LC                   |
|                   | Pale-headed Woodpecker         | <i>Gecinulus grantia</i> (Horsfield, 1840)           | LC                   |
|                   | Greater Yellownappe            | <i>Chrysophlegma flavinucha</i> Gould, 1834          | LC                   |
|                   | Streak-throated Woodpecker     | <i>Picus xanthopygaeus</i> Gray & Gray, 1846         | LC                   |
|                   | Fulvous-breasted Woodpecker    | <i>Dendrocopos macei</i> (Vieillot, 1818)            | LC                   |
|                   | Great Slaty Woodpecker         | <i>Mulleripicus pulverulentus</i> (Temminck, 1826)   | VU                   |
|                   | Bay Woodpecker                 | <i>Blythipicus pyrrhotis</i> (Hodgson, 1837)         | LC                   |
| Pittidae          | Hooded Pitta                   | <i>Pitta sordida</i> Muller, 1776                    | LC                   |
|                   | Blue-naped Pitta               | <i>Hydrornis nipalensis</i> Hodgson, 1837            | LC                   |
| Ploceidae         | Baya Weaver                    | <i>Ploceus philippinus</i> Linnaeus, 1766            | LC                   |
| Pnoepygidae       | Pygmy Cupwing                  | <i>Pnoepyga pusilla</i> Hodgson, 1845                | LC                   |
| Psittaculidae     | Red-breasted Parakeet          | <i>Psittacula alexandri</i> (Linnaeus, 1758)         | NT                   |
|                   | Rose-ringed Parakeet           | <i>Psittacula krameri</i> (Scopoli, 1769)            | LC                   |
|                   | Alexandrine Parakeet           | <i>Psittacula eupatria</i> (Linnaeus, 1766)          | NT                   |
| Pycnonotidae      | Red-vented Bulbul              | <i>Pycnonotus cafer</i> (Linnaeus, 1766)             | LC                   |
|                   | Ashy Bulbul                    | <i>Hemixos flava</i> Blyth, 1845                     | LC                   |
|                   | Black Bulbul                   | <i>Hypsipetes leucocephalus</i> Gmelin, 1789         | LC                   |
|                   | Black-crested Bulbul           | <i>Rubigula flaviventris</i> (Tickell, 1833)         | LC                   |
|                   | White-throated Bulbul          | <i>Alophoixus flaveolus</i> (Gould, 1836)            | LC                   |
|                   | Red-whiskered Bulbul           | <i>Pycnonotus jocosus</i> (Linnaeus, 1758)           | LC                   |
|                   | Striated Bulbul                | <i>Pycnonotus striatus</i> (Blyth, 1842)             | LC                   |
| Rallidae          | Gray-headed Swampphen          | <i>Porphyrio poliocephalus</i> (Latham, 1801)        | LC                   |

| Family           | Common name                   | Scientific name                                 | IUCN Red List status |
|------------------|-------------------------------|-------------------------------------------------|----------------------|
|                  | White-breasted Waterhen       | <i>Amaurornis phoenicurus</i> (Pennant, 1769)   | LC                   |
|                  | Brown Crake                   | <i>Zapornia akool</i> (Sykes, 1832)             | LC                   |
|                  | Black-tailed Crake            | <i>Zapornia bicolor</i> (Walden, 1872)          | LC                   |
| Recurvirostridae | Black-winged Stilt            | <i>Himantopus himantopus</i> (Linnaeus, 1758)   | LC                   |
| Rhipiduridae     | White-throated Fantail        | <i>Rhipidura albicollis</i> (Vieillot, 1818)    | LC                   |
| Scolopacidae     | Marsh Sandpiper               | <i>Tringa stagnatilis</i> (Bechstein, 1803)     | LC                   |
|                  | Green Sandpiper               | <i>Tringa ochropus</i> Linnaeus, 1758           | LC                   |
| Scotocercidae    | Yellow-bellied Warbler        | <i>Abroscopus superciliosus</i> (Blyth, 1859)   | LC                   |
|                  | Gray-bellied Tesia            | <i>Tesia cyaniventer</i> Hodgson, 1837          | LC                   |
|                  | Mountain Tailorbird           | <i>Phyllergates cucullatus</i> (Temminck, 1836) | LC                   |
| Sittidae         | Velvet-fronted Nuthatch       | <i>Sitta frontalis</i> Swainson, 1820           | LC                   |
|                  | Chestnut-bellied Nuthatch     | <i>Sitta cinnamoventris</i> Blyth, 1842         | LC                   |
| Stenostiridae    | Grey-headed Canary-Flycatcher | <i>Culicicapa ceylonensis</i> (Swainson, 1820)  | LC                   |
| Strigidae        | Asian Barred Owllet           | <i>Glaucidium cuculoides</i> (Vigors, 1831)     | LC                   |
|                  | Spot-bellied Eagle-Owl        | <i>Bubo nipalensis</i> Hodgson, 1836            | LC                   |
|                  | Oriental Scops-Owl            | <i>Otus sunia</i> (Hodgson, 1836)               | LC                   |
|                  | Collared Owllet               | <i>Taenioptynx brodiei</i> Burton, 1836         | LC                   |
|                  | Spotted Owllet                | <i>Athene brama</i> (Temminck, 1821)            | LC                   |
|                  | Brown Boobook                 | <i>Ninox scutulata</i> (Raffles, 1822)          | LC                   |
|                  | Collared Scops Owl            | <i>Otus lettia</i> (Hodgson, 1836)              | LC                   |
|                  | Mountain Scops Owl            | <i>Otus spilocephalus</i> (Blyth, 1846)         | LC                   |
|                  | Brown Wood Owl                | <i>Strix leptogrammica</i> Temminck, 1832       | LC                   |
| Sturnidae        | Asian Pied Starling           | <i>Gracupica contra</i> (Linnaeus, 1758)        | LC                   |
|                  | Chestnut-tailed Starling      | <i>Sturnia malabarica</i> Gmelin, 1789          | LC                   |
|                  | Common Hill Myna              | <i>Gracula religiosa</i> Linnaeus, 1758         | LC                   |
|                  | Common Myna                   | <i>Acridotheres tristis</i> (Linnaeus, 1766)    | LC                   |
|                  | Jungle Myna                   | <i>Acridotheres fuscus</i> (Wagler, 1827)       | LC                   |
|                  | Great Myna                    | <i>Acridotheres grandis</i> Moore, 1858         | LC                   |
|                  | Spot-winged Starling          | <i>Saroglossa spilopterus</i> (Vigors, 1831)    | LC                   |
| Timaliidae       | Rufous-capped Babbler         | <i>Cyanoderma ruficeps</i> , (Blyth, 1847)      | LC                   |
|                  | Pin-striped Tit-Babbler       | <i>Mixornis gularis</i> (Horsfield, 1822)       | LC                   |
|                  | White-browed Scimitar-Babbler | <i>Pomatorhinus schisticeps</i> Hodgson, 1836   | LC                   |
|                  | Gray-throated Babbler         | <i>Stachyris nigriceps</i> Blyth, 1844          | LC                   |
|                  | Buff-chested Babbler          | <i>Cyanoderma ambiguum</i> (Harington, 1915)    | NA                   |
|                  | Large Scimitar-Babbler        | <i>Erythrogonys hypoleucos</i> (Blyth, 1844)    | LC                   |
| Trogonidae       | Red-headed Trogon             | <i>Harpactes erythrocephalus</i> (Gould, 1834)  | LC                   |
| Turdidae         | Eyebrowed Thrush              | <i>Turdus obscurus</i> Gmelin, 1789             | LC                   |
|                  | Gray-winged Blackbird         | <i>Turdus boulboul</i> (Latham, 1790)           | LC                   |
|                  | Orange-headed Thrush          | <i>Geokichla citrina</i> (Latham, 1790)         | LC                   |
|                  | Red-throated Thrush           | <i>Turdus ruficollis</i> Pallas, 1776           | LC                   |
| Tytonidae        | Oriental Bay-Owl              | <i>Phodilus badius</i> (Horsfield, 1821)        | LC                   |
| Upupidae         | Eurasian Hoopoe               | <i>Upupa epops</i> Linnaeus, 1758               | LC                   |
| Vangidae         | Common Woodshrike             | <i>Tephrodornis pondicerianus</i> Gmelin, 1789  | LC                   |
|                  | Large Woodshrike              | <i>Tephrodornis virgatus</i> Temminck, 1824     | LC                   |
|                  | Bar-winged Flycatcher-shrike  | <i>Hemipus picatus</i> (Sykes, 1832)            | LC                   |
| Vireonidae       | White-bellied Erpornis        | <i>Erpornis zantholeuca</i> Blyth, 1844         | LC                   |
| Zosteropidae     | Oriental White-eye            | <i>Zosterops palpebrosus</i> (Temminck, 1824)   | LC                   |
|                  | Whiskered Yuhina              | <i>Yuhina flavicollis</i> Hodgson, 1836         | LC                   |

Table 5. Mammals of Garbhanga, Assam, India.

| Family           | Common name                    | Scientific name                                  | IUCN Red List status |
|------------------|--------------------------------|--------------------------------------------------|----------------------|
| Cercopithecidae  | Capped Langur                  | <i>Trachypithecus pileatus</i> (Blyth, 1843)     | VU                   |
|                  | Pig-tailed Macaque             | <i>Macaca leonina</i> (Blyth, 1863)              | NT                   |
|                  | Rhesus Macaque                 | <i>Macaca mulatta</i> (Zimmermann, 1780)         | LC                   |
| Hylobatidae      | Western Hoolock Gibbon         | <i>Hoolock hoolock</i> (Harlan, 1834)            | VU                   |
| Lorisidae        | Bengal Slow Loris              | <i>Nycticebus bengalensis</i> (Lacépède, 1800)   | EN                   |
| Elephantidae     | Asiatic Elephant               | <i>Elephas maximus</i> Linnaeus, 1758            | EN                   |
| Bovidae          | Gaur                           | <i>Bos gaurus</i> Smith, 1827                    | VU                   |
| Suidae           | Wild Boar                      | <i>Sus scrofa</i> Linnaeus, 1758                 | LC                   |
| Cervidae         | Barking Deer                   | <i>Muntiacus muntjak</i> (Zimmermann, 1780)      | LC                   |
| Felidae          | Leopard                        | <i>Panthera pardus</i> (Linnaeus, 1758)          | VU                   |
|                  | Jungle Cat                     | <i>Felis chaus</i> Schreber, 1777                | LC                   |
|                  | Leopard Cat                    | <i>Prionailurus bengalensis</i> (Kerr, 1792)     | LC                   |
| Canidae          | Golden Jackal                  | <i>Canis aureus</i> Linnaeus, 1758               | LC                   |
| Herpestidae      | Indian Mongoose                | <i>Herpestes javanicus</i> (Hilaire, 1818)       | LC                   |
|                  | Crab-eating Mongoose           | <i>Herpestes urva</i> (Hodgson, 1836)            | LC                   |
|                  | Small Indian Civet             | <i>Viverricula indica</i> (Hilaire, 1803)        | LC                   |
|                  | Common Palm Civet              | <i>Paradoxurus hermaphroditus</i> (Pallas, 1777) | LC                   |
| Mustelidae       | Smooth-coated Otter            | <i>Lutrogale perspicillata</i> (Hilaire, 1826)   | VU                   |
|                  | Yellow-throated Marten         | <i>Martes flavigula</i> (Boddaert, 1785)         | LC                   |
| Leporidae        | Indian Hare                    | <i>Lepus nigricollis</i> Cuvier, 1823            | LC                   |
| Manidae          | Chinese Pangolin               | <i>Manis pentadactyla</i> Linnaeus, 1758         | CR                   |
| Soricidae        | Asian House Shrew              | <i>Suncus murinus</i> Linnaeus, 1766             | LC                   |
| Hystriidae       | Asiatic Brush-tailed Porcupine | <i>Atherurus macrourus</i> Linnaeus, 1758        | LC                   |
| Sciuridae        | Hoary-bellied Squirrel         | <i>Callosciurus pygerythrus</i> (Hilaire, 1832)  | LC                   |
|                  | Particolored Flying Squirrel   | <i>Hylopetes alboniger</i> (Hodgson, 1836)       | LC                   |
| Muridae          | Black Rat                      | <i>Rattus rattus</i> (Linnaeus, 1758)            | LC                   |
|                  | House mouse                    | <i>Mus musculus</i> Linnaeus, 1758               | LC                   |
|                  | Lesser Bandicoot Rat           | <i>Bandicota bengalensis</i> (Gray, 1835)        | LC                   |
| Pteropodidae     | Indian Flying Fox              | <i>Pteropus giganteus</i> (Brünnich, 1782)       | LC                   |
|                  | Short-nosed Fruit Bat          | <i>Cynopterus sphinx</i> (Vahl, 1797)            | LC                   |
| Vespertilionidae | Indian Pipistrelle             | <i>Pipistrellus coromandra</i> (Gray, 1838)      | LC                   |



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