

# An Updated Checklist of Globally Threatened Species in Bhutan as Listed in IUCN Red List of Threatened Species

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**Abstract:** *Bhutan lies to the East of Himalaya and it hosts around 11,248 species in all taxa. Bhutan's lush and green forest covers 71 percent of land which comes under the five National Parks, four Wildlife Sanctuaries, 1 Strict Nature Reserve, Community Forests and biological corridors connecting different protected areas. More than half (51.44 percent) is protected by law and activities are restricted under certain circumstances. It is home to Takin (*Budorcastaxicolorwhitei*), White-bellied Heron (*Ardeainsignis*), Black-necked Crane (*Grusnigricollis*), Red Panda (*Ailurusfulgens*), Great Hornbill (*Bucerosbicornis*) and Chinese Pangolin (*Manispentadactyla*) that are globally threatened. Bhutan contributed around 23 new species between 2017 and 2020 which were new to science, and Bhutan's biodiversity holds immense opportunities for researchers and environmental scientists as its biodiversity is in early stage of discovery. To date, Bhutan records 1 species as Extinct (EX), 1 species as Extinct in the Wild (EW) and 134 species as Vulnerable (VU), Endangered (EN) and Critically Endangered (CR) under International Union of Conservation of Nature (IUCN) Red List of Threatened Species. This paper aims to report a checklist of globally threatened species listed in IUCN Red List of Threatened Species from Bhutan. The paper also lists down the new species that were discovered in Bhutan since 2017. More researchers are needed to discover new species from Bhutan's rich and lush forest.*

**Keywords:** Threatened, Conservation, Biodiversity

## 1. Introduction

Bhutan, a landlocked kingdom between China and India, championed the conservation of environment before it joined any of the world bodies and conventions [22]. Bhutan lies in the Eastern Himalaya [3], with elevation ranging from 97 – 7570 meters above sea level (masl) [29]. The Eastern Himalaya range is one of the richest biodiversity hotspots covering 750,000 sq. km. [1] land area covering the Indian state of Sikkim, Arunachal Pradesh, Assam and West Bengal, Bhutan, Nepal, northern Myanmar and southeast Tibet (China) [26]. Bhutan is part of eight ecoregions, twenty-three important bird areas, important plant areas and wetlands with three Ramsar areas – Phobjikha, Khothokha and Bumdeling [17] [21]. The constitution of the Royal Kingdom of Bhutan mandates to keep 60 percent of its land under forest cover for all time to come [28], the current land under forest cover is 71 percent [5]. More than half (51.44 percent) of the land is protected under National Parks (5), Wildlife Sanctuaries (4), Strict Nature Reserve (1), and biological corridors connecting different protected areas [6]. The country currently hosts 11,248 species within all taxa (figure 1) including the Black-necked Crane (*Grusnigricollis*), Great Hornbill (*Bucerosbicornis*), Rufous-necked Hornbill (*Acerosnipalensis*), White-bellied Heron (*Ardeainsignis*), Snow Leopard (*Pantherauncia*), Takin (*Budorcastaxicolorwhitei*), Chinese Pangolin (*Manispentadactyla*), Bhutan Swallowtail (*Bhutanitisludlowi*) and Blue Poppy (*Meconopsisbhutanica*) that are globally threatened [20] [21].

International Union of Conservation of Nature and Natural Resources (IUCN) was founded in 1948 to work in the field

of natural resources and biodiversity conservation [25]. The IUCN's Red List of Threatened Species was established in 1964 and it is critical indicator of the health of biodiversity [31]. It is predicted that there are around 8.7 million species within all kingdom [19], where 14 percent species on land and 9 percent species in the ocean are described or documented [18]. 86 percent species on land and 91 percent species in the ocean await discovery and documentation [23]. Currently, more than 120,000 species is documented by IUCN Red List of Threatened Species, with more than 32,000 species threatened with extinction including 14 percent of birds, 41 percent of amphibians, 33 percent of reef building corals, 34 percent of conifers and 26 percent mammals [4].

Bhutan's documentation of biological diversity is at early stage. Between 2009 and 2017, Bhutan recorded 16 plants [31], 4 snails [7], 1 dragonfly [15], 3 fishes [10], 2 beetles, 1 stonefly, 4 moths and 2 aphids that were new record for science [20]. Moreover Bhutan also recorded 566 new species including 5 birds, 35 snails and slugs, 59 dragonflies and damselflies, 65 bees and wasps, 1 trueflies, 44 amphibians and reptiles, 101 plants, 108 fishes, 4 beetles, 14 crabs, 4 butterflies, 119 moths, 5 cicadas, and 2 bryophytes in the same years [11]. The new species record for Bhutan has occurred at a rate of 62 species per year (62.88%). Many of the species are not yet discovered and documented in Bhutan, there is a need for much research to document the undiscovered species (to science and Bhutan) and to understand species number and diversity [24] [21].

The study aims to study the threatened species of Bhutan listed in IUCN Red List from numerous published papers and books. There were many published paper on individual

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threatened species but a comprehensive full list of threatened species is not available. This paper also aims to list the new species discovered from Bhutan as we were not able to find any paper published after 2017 listing the new species to science.

## 2. Methods and Materials

The paper was prepared by going through the relevant published journal articles globally and nationally on checklist of IUCN Red List of Threatened Species available online. Google Scholar ([www.scholar.google.com](http://www.scholar.google.com)), Research Gate ([www.researchgate.net](http://www.researchgate.net)), JSTOR ([www.jstor.org](http://www.jstor.org)), ProQuest ([www.proquest.com](http://www.proquest.com)), Nature ([www.nature.com](http://www.nature.com)), Microsoft Academic ([www.academic.microsoft.com](http://www.academic.microsoft.com)), Directory of Open Access Journals ([www.doaj.org](http://www.doaj.org)), Science Direct ([www.sciencedirect.com](http://www.sciencedirect.com)), South Asian Archive ([www.southasiaarchive.com](http://www.southasiaarchive.com)), Springer Link ([www.springer.com](http://www.springer.com)), and Wiley Online Library ([www.onlinelibrary.wiley.com](http://www.onlinelibrary.wiley.com)) were used to search journal papers published since 2000. Distribution and occurrence data of species were extracted from iNaturalist ([www.inaturalist.org](http://www.inaturalist.org)), Bhutan Biodiversity Portal ([www.biodiversity.bt](http://www.biodiversity.bt)), eBird ([www.ebird.org](http://www.ebird.org)) and IUCN Red List website ([www.iucnredlist.org](http://www.iucnredlist.org)). The paper also lists those species that were discovered between 2017 and 2020 from Bhutan and were new to science in table 3. The data collected were interpreted using Microsoft Excel Spreadsheet and presented in a simple and informative way. The authors and organizations are cited well.

## 3. Results and Discussions

The IUCN Red List categorizes species under 9 categories based on specie's extinction risk[16]. The categories are Not Evaluated (NE), Data Deficient (DD), Least Concern (LC), Near Threatened (NT), Vulnerable (VU), Endangered (EN), Critically Endangered (CR), Extinct in the Wild (EW), and Extinct (EX)[16].

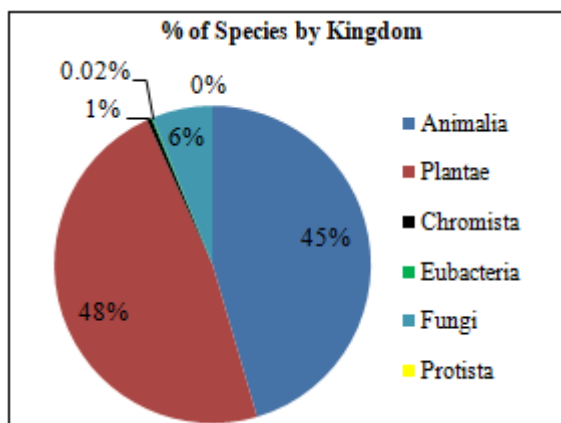


Figure 1: % of Species by Kingdom in Bhutan

Out of 1,438,769[18] species in world, Bhutan is home to around 11,248 species (Table 1 & Figure 1) [21]. 136 species are listed as globally threatened in the IUCN Red List of Threatened Species (Table 2 & Figure 2)[30]. Out of 136 threatened species found in Bhutan, 1 is Extinct, 1 is

Extinct in the Wild and 134 of them are listed as Threatened, Critically Endangered and Vulnerable (Table 4). 1. 21 percent of Bhutan's biological diversity is threatened.

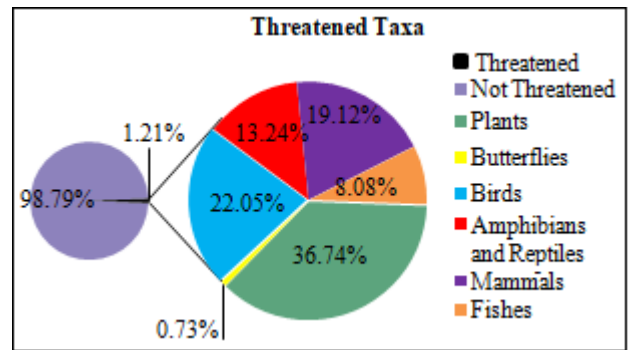


Figure 2: % of Threatened taxa in Bhutan

Bhutan recorded 23 new species to science between 2017 and 2020. Bhutan's biodiversity is rich and not fully documented. If intense research is done in Bhutan's biodiversity, several new species to science would be discovered. There are ample of potential opportunities to future researchers. *Spathogottisjetsuniae* [13], orchid discovered in 2017, was named in honour of Her Majesty AzhiJetsun PemaWangchuck, Queen of Bhutan and *Megalestesgyalsey* [15], dragonfly discovered in 2017, was named in honour of His Highness Gyalsey Jigme Namgyel Wangchuck, Crown Prince of Bhutan.

## 4. Conclusion

While collecting and reviewing the scholarly works, we found out that there were not many papers published regarding checklist of IUCN Red List of Threatened Species and discovery of new species since 2017. The rate of consumption of natural resources, waste generation, economic development, illegal poaching and hunting possess threat to the survival of critically endangered species. Forest and Nature Conservation Act of Bhutan 1995 and Forest and Nature Conservation Rules and Regulations of Bhutan 2017 protect around 62 species, which are already listed as globally threatened under IUCN Red List of Threatened Species. Insufficient data poses major drawback to the management and conservation efforts. The paper also presents the list of new species that were discovered from Bhutan since 2017. More research need to be conducted to discover new species from Bhutan's rich and lush forest.

## 5. Recommendation

Bhutan is rich in biological diversity as news of new species discovered from Bhutan is shown every now and then. Many of the species are not yet discovered and documented in Bhutan, there is a need for much researches to be documented in the undiscovered species list (to science and Bhutan) and to understand species number and diversity. The younger generation interested in environment, biodiversity and research need to be taught the importance of species for our survival and encourage them to do more research based in Bhutan. Our only hope is in younger minds and future generation. The incomplete data possess threats to species and hinders the conservation efforts.

## 6. Competing Interests

The authors declared that no conflict of interest exists in this work.

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**Table 1: Species Diversity of World and Bhutan**

Kingdom	World	Bhutan	Bhutan %
Plantae	224,244	5,369	2.40
Animalia	1,124,516	5,114	0.46
Fungi	44,368	690	1.56
Chromista	17,892	55	0.31
Eubacteria	11,010	18	0.16
Protista	16,236	2	0.01
Archaeobacteria	503	0	0
<b>Total</b>	<b>1,438,769</b>	<b>11,248</b>	<b>0.78 %</b>

**Table 2: Threatened percentage of Biodiversity in Bhutan**

Order	Bhutan	Threatened	Threatened %
Plants	5,369	50	0.93
Butterflies	759	1	0.13
Birds	752	30	4.98
Amphibians and Reptiles	158	18	11.39
Mammals	129	26	20.15
Fishes	125	11	8.80
<b>Total biodiversity</b>	<b>11,248</b>	<b>136</b>	<b>1.20 %</b>

**Table 3: New Species discovered in Bhutan (new to science) (2017-2020)**

Sl.No.	Groups	Species	Author (s)	Year
1	Fishes	<i>Parachiloganisdrukyulensis</i>	D. B. Gurung & R. J. Thoni [10]	2018
2		<i>Parachiloganisbenjii</i>	D. B. Gurung & R. J. Thoni [10]	2018
3		<i>Parachiloganisdangmechhuensis</i>	D. B. Gurung & R. J. Thoni [10]	2018
4		<i>Exostomamangdechhuensis</i>	D. B. Gurung & R. J. Thoni [10]	2018
5		<i>Creteuchiloglanisbumdelingensis</i>	D. B. Gurung & R. J. Thoni [10]	2018
6	Plants	<i>Bulbophyllumtrongsense</i>	P. Gyeltshen, D. B. Gurung & P. Kumar [14]	2020
7		<i>Chiloschistahimalaica</i>	N. Gyeltshen, C. Gyeltshen, K. Tobgay, S. Dalstrom, D. B. Gurung, N. Gyeltshen & B. B. Ghalley [12]	2020
8		<i>Chiloschistagelephuense</i>	N. Gyeltshen, C. Gyeltshen, K. Tobgay, S. Dalstrom, D. B. Gurung, N. Gyeltshen & B. B. Ghalley [12]	2020
9		<i>Chiloschistadensiflora</i>	N. Gyeltshen, C. Gyeltshen, K. Tobgay, S. Dalstrom, D. B. Gurung, N. Gyeltshen & B. B. Ghalley [12]	2020
10		<i>Roscoeamegalantha</i>	T. Yoshida, R. Yangzom & M. F. Newman [32]	2017
11		<i>Meconopsisgakyidiana</i>	T. Yoshida, R. Yangzom & D. Long [31]	2017
12		<i>Meconopsismerakensis</i>	T. Yoshida, R. Yangzom & D. Long [31]	2017
13		<i>Spathogottisjetsuniae</i>	N. Gyeltshen, K. Tobgyel & T. Dalstrom [13]	2017
14		Snails	<i>Erhaiaepelkia</i>	E. Gittenberger, P. Leda, J. Wangchuk, C. Gyeltshen & B. Stelbrink
15	<i>Erhaiajannei</i>		E. Gittenberger, P. Leda, J. Wangchuk, C. Gyeltshen & B. Stelbrink [9]	2020
16	<i>Endothyrellabhutanensis</i>		E. Gittenberger, P. Leda, S. Sherub & B. P. Gergely [8]	2018
17	<i>Endothyrellaspirostriata</i>		E. Gittenberger, P. Leda, S. Sherub & B. P. Gergely [8]	2018
18	<i>Endothyrellapemagatshel</i>		E. Gittenberger, P. Leda, S. Sherub & B. P. Gergely [8]	2018
19	<i>Rahulakleini</i>		E. Gittenberger, P. Leda & S. Sherub [7]	2017
20	<i>Rahulatrongsensis</i>	E. Gittenberger, P. Leda & S. Sherub [7]	2017	
21	Trueflies	<i>Eumerusdruk</i>	J. Smith, T. Zeegers & P. Dorji [27]	2020
22	Dragonflies	<i>Megalestesgyalsey</i>	T. Gyeltshen, V. J. Kalkman & A. G. Orr [15]	2017
23	Beetles	<i>Trilophidiusgemmatus</i>	M. Balkenohl [2]	2017

**Table 4: List of IUCN Red List of Threatened Species in Bhutan**

Sl. No.	Common Name	Biological Name	Status
<b>Mammals</b>			
1	Chinese Pangolin	<i>Manispentadactyla</i>	Critically Endangered
2	Pygmy Hog	<i>Sussalvanus</i>	Critically Endangered
3	Dhole	<i>Cuonalpinus</i>	Endangered
4	Bengal Tiger	<i>Pantheratigris</i>	Endangered
5	Snow Leopard	<i>Pantherauncia</i>	Vulnerable
6	Clouded Leopard	<i>Neofelisnebulosa</i>	Vulnerable

7	Common Leopard	<i>Pantherapardus</i>	Vulnerable
8	Golden Langur	<i>Trachypithecusgeeii</i>	Endangered
9	Capped Langur	<i>Trachypithecuspileatus</i>	Vulnerable
10	Asian Small-clawed Otter	<i>Anoxcinereus</i>	Vulnerable
11	Smooth-coated Otter	<i>Lutrogaleperspicillata</i>	Vulnerable
12	Bearcat / Binturong	<i>Arctictis binturong</i>	Vulnerable
13	Asiatic Black Bear	<i>Ursusthibetanus</i>	Vulnerable
14	Indian Rhinoceros	<i>Rhinoceros unicornis</i>	Vulnerable
15	Asian Elephant	<i>Elephasmaximus</i>	Endangered
16	Himalayan Musk Deer	<i>Moschusleucogaster</i>	Endangered
17	Alpine Musk Deer	<i>Moschuschrysogaster</i>	Endangered
18	Bhutan Takin	<i>Budorcastaxicolorwhitei</i>	Vulnerable
19	Sambar	<i>Rusa unicolor</i>	Vulnerable
20	Gaur	<i>Bosgaurus</i>	Vulnerable
21	Red Panda	<i>Ailurusfulgens</i>	Endangered
22	Bengal Slow Loris	<i>Nycticebusbengalensis</i>	Vulnerable
23	Hog Deer	<i>Axis porcinus</i>	Endangered
24	Wild Water Buffalo	<i>Bubalusarnee</i>	Endangered
25	Arunachal Macaque	<i>Macacamunzala</i>	Endangered
26	Hispid Hare	<i>Caprolagushispidus</i>	Endangered
<b>Butterfly</b>			
27	Ludlow's Bhutan Swallowtail	<i>Bhutanitisludlowi</i>	Vulnerable
<b>Fishes</b>			
28	Walking Catfish	<i>Clariasmagur</i>	Endangered
29	---	<i>Devarioassamensis</i>	Vulnerable
30	Loach	<i>Aborichthysgaroensis</i>	Vulnerable
31	---	<i>Pterocryptisbarakensis</i>	Endangered
32	Golden Mahseer	<i>Tor putitora</i>	Endangered
33	---	<i>Pseudecheneissirenica</i>	Vulnerable
34	Common Snow Trout	<i>Schizothoraxrichardsonii</i>	Vulnerable
35	---	<i>Schisturainglisi</i>	Vulnerable
36	Assamese Kingfish	<i>Cyprinuscarpio</i>	Vulnerable
37	Mrigal Carp	<i>Cirrhinuscirrhosus</i>	Vulnerable
38	European Carp	<i>Cyprinuscarpio</i>	Vulnerable
<b>Amphibians and Reptiles</b>			
39	Indian Peacock Softshell Turtle	<i>Nilssoniahurum</i>	Vulnerable
40	Nankiang Horned Toad	<i>Xenophrysnankiangensis</i>	Vulnerable
41	Gharial	<i>Gavialisgangeticus</i>	Critically Endangered
42	Three-striped Roofed Turtle	<i>Kachungadhongoko</i>	Endangered
43	Indian Roofed Turtle	<i>Kachugakachuga</i>	Critically Endangered
44	Southeast Asian Box Turtle	<i>Cuoraamboinensis</i>	Vulnerable
45	Elongata Tortoise	<i>Indotestudoelongata</i>	Endangered
46	Crowned River Turtle	<i>Hardellathurjii</i>	Vulnerable
47	Keeled Box Turtle	<i>Cuoramouhotii</i>	Endangered
48	Spotted Pond Turtle	<i>Geoclemyshamiltonii</i>	Vulnerable
49	Assam Roofed Turtle	<i>Pangshurasylhetensis</i>	Endangered
50	Burmese Python	<i>Python bivittatus</i>	Vulnerable
51	Narrow-headed Softshell Turtle	<i>Chitraindica</i>	Endangered
52	King Cobra	<i>Ophiophagushannah</i>	Vulnerable
53	Asian Rock Python	<i>Python molurus</i>	Vulnerable
54	Indian Eyed Turtle	<i>Moreniapetersi</i>	Vulnerable
55	Walnut Kukri Snake	<i>Oligodonjuglandifer</i>	Vulnerable
56	Tricarinate Hill Turtle	<i>Melanochelystricarinata</i>	Vulnerable
<b>Birds</b>			
57	Kashmir Flycatcher	<i>Ficedulasubrubra</i>	Vulnerable
58	Black-necked Crane	<i>Grusnigricolis</i>	Vulnerable
59	Blyth's Tragopan	<i>Tragopanblythii</i>	Vulnerable
60	Red-headed Vulture	<i>Sarcogypsacalvus</i>	Critically Endangered
61	Steppe Eagle	<i>Aquila nipalensis</i>	Endangered
62	Rustic Bunting	<i>Emberizarustica</i>	Vulnerable
63	White-rumped Vulture	<i>Gyps bengalensis</i>	Critically Endangered
64	Pallas's Fish Eagle	<i>Haliaeetusleucoryphus</i>	Endangered
65	White-bellied Heron	<i>Ardeainsignis</i>	Critically Endangered
66	White-winged Duck	<i>Asarcornisscutulata</i>	Endangered
67	Baer's Pochard	<i>Aythyaabaeri</i>	Critically Endangered
68	Egyptian Vulture	<i>Neophronpercnopterus</i>	Endangered
69	Common Pochard	<i>Aythyaferina</i>	Vulnerable

70	Beautiful Nuthatch	<i>Sittaformosa</i>	Vulnerable
71	Wood Snipe	<i>Gallinagonemorica</i>	Vulnerable
72	Indian Spotted Eagle	<i>Clangahastata</i>	Vulnerable
73	Hodgson's Bushchat	<i>Saxicolainsignis</i>	Vulnerable
74	Lesser Adjutant	<i>Leptoptilosjavanicus</i>	Vulnerable
75	Great Hornbill	<i>Bucerosbicornis</i>	Vulnerable
76	Rufous-necked Hornbill	<i>Acerosnipalensis</i>	Vulnerable
77	Long-tailed Duck	<i>Clangulayemalis</i>	Vulnerable
78	Wreathed Hornbill	<i>Rhyticerosundulatus</i>	Vulnerable
79	Woolly-necked Stork	<i>Ciconiaepiscopus</i>	Vulnerable
80	Grey-sided Thrush	<i>Turdusfae</i>	Vulnerable
81	Greater Spotted Eagle	<i>Clangaclanga</i>	Vulnerable
82	Chestnut-breasted Partridge	<i>Arborophilamandellii</i>	Vulnerable
83	Dark-rumped Swift	<i>Apusacuticauda</i>	Vulnerable
84	Eastern Imperial Eagle	<i>Aquila heliaca</i>	Vulnerable
85	Grey-crowned Prinia	<i>Priniacinerocapilla</i>	Vulnerable
86	Great Slaty Woodpecker	<i>Mulleripicuspulverulentus</i>	Vulnerable
<b>Plants</b>			
87	Bhutanese Blue Poppy	<i>Meconopsisbhutanica</i>	Critically Endangered
88	---	<i>Sorbuslingshiensis</i>	Critically Endangered
89	The Striped Petal	<i>Eulophiastenopetala</i>	Extinct
90	---	<i>Bulleyayunnanensis</i>	Endangered
91	Sargent Spruce	<i>Piceabrachytyla</i>	Vulnerable
92	---	<i>Ilex venulosa</i>	Endangered
93	---	<i>Meconopsisisuperba</i>	Endangered
94	---	<i>Carexnigradrukyulensis</i>	Endangered
95	Mangalore Aglaia	<i>Aglaiaperviridis</i>	Vulnerable
96	Heart-shaped Slipper Orchid	<i>Cypripedium cordigerum</i>	Vulnerable
97	White Angel Trumpet	<i>Brugmansiasuaveolens</i>	Extinct in the Wild
98	---	<i>Ophiorrhizalongii</i>	Critically Endangered
99	---	<i>Bistortagriersonii</i>	Endangered
100	Jatamansi	<i>Nardostachysjatamansi</i>	Critically Endangered
101	---	<i>Androsacehemisphaerica</i>	Endangered
102	Agarwood, Aloeswood, Eaglewood	<i>Aquilariamalaccensis</i>	Critically Endangered
103	---	<i>Onosmagriersonii</i>	Critically Endangered
104	---	<i>Astragalusparoenis</i>	Critically Endangered
105	Crown Wand Orchid	<i>Paphiopedilumfairrieanum</i>	Critically Endangered
106	---	<i>Bambusaclavata</i>	Vulnerable
107	---	<i>Saxifragavacillans</i>	Vulnerable
108	Himalayan Slipper Orchid	<i>Cypripedium himalaicum</i>	Endangered
109	---	<i>Pedicularissanguilimbata</i>	Endangered
110	Montrey Cypress	<i>Cupressusmacrocarpa</i>	Vulnerable
111	---	<i>Strobilanthesacrescensacrescens</i>	Endangered
112	---	<i>Hypericumsherriffii</i>	Endangered
113	---	<i>Cymbopogonbhutanicus</i>	Vulnerable
114	Fern Tree, Blue Jacaranda, Black Poui	<i>Jacaranda mimosifolia</i>	Vulnerable
115	Spicer's Slipper Orchid	<i>Paphiopedilumspicerianum</i>	Endangered
116	Himalayan Yew	<i>Taxuswallichiana</i>	Endangered
117	---	<i>Rhododendron dalhousiae var. rhabdotum</i>	Vulnerable
118	---	<i>Illiciumgriffithii</i>	Endangered
119	---	<i>Ceropegiaabhutanica</i>	Endangered
120	---	<i>Buddlejabhutanica</i>	Vulnerable
121	---	<i>Pedicularisgriniformis</i>	Vulnerable
122	---	<i>Sorbusrinzenii</i>	Endangered
123	---	<i>Corallodiscuscooperi</i>	Vulnerable
124	Leopard Spotted Bulbophyllum	<i>Bulbophyllumleopardinum var. tuberculatum</i>	Critically Endangered
125	Adder's Mouth	<i>Malaxismuscifera</i>	Vulnerable
126	---	<i>Cheirostylissherriffii</i>	Critically Endangered
127	---	<i>Neopicrorhiza minima</i>	Endangered
128	PanduaGogan	<i>Saurauiapunduana</i>	Critically Endangered
129	Assam Cycas	<i>Cycaspectinata</i>	Vulnerable
130	---	<i>Ceropegiaadorjei</i>	Critically Endangered
131	Wax Plant	<i>Hoya bhutanica</i>	Endangered
132	---	<i>Oreorchissanguinea</i>	Critically Endangered
133	---	<i>Isodonatroruber</i>	Endangered
134	---	<i>Drepanostachyumannulatum</i>	Vulnerable
135	---	<i>Cypripedium elegans</i>	Endangered

136	Charming Slipper Orchid	<i>Paphiopedilumvenustum</i>	Endangered
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