

**Rapid Biodiversity Assessment of Proposed Mining
Lease area of Village Degave, Sawantwadi block,
Sindhudurg District Maharashtra**



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Background

Degave is a small village in Sawantwadi block of Sindhudurg district of Maharashtra. It is surrounded by the mountain ranges of Western Ghats. It receives average 4000 mm annual rainfall. Degave's landscape is characterized by semi evergreen forest and cashew plantations, paddy fields, shifting cultivation and Coconut -Arecanut orchards that are part of village production landscape. This mixed production landscape is also a source of various streams and springs not only supplying drinking water to the village but also provide irrigation to orchards of Degave and many downstream villages. All stream and springs are perennial. That way it is self-sustainable village with respect to the natural resources.

In this part of the Sawantwadi block, since last one decade the state Government and various mining companies are planning to start mining for iron ore. This area is rich in inferior quality iron ore. The high quality iron ore has been available in the neighbouring state of Goa. In the Western Ghats of Goa rich forests have been destroyed since last one and half century and ores are completely exploited. Therefore the companies are now looking for new deposits in the neighbouring state of Maharashtra especially adjoining Sindhudurg district for continuing their business of mining. As a part of these efforts state government is in a process of inviting tenders to provide mining leases to the interested companies since 2014 for 152 ha right within this production landscape of village Degave. In the earlier efforts only two parties have applied for the tenders and the process has been cancelled. Now the process has initiated again.

In the Sawantadi and Dodamarg blocks from Sidhudurg district have background of local community's resistance to the iron ore mining since

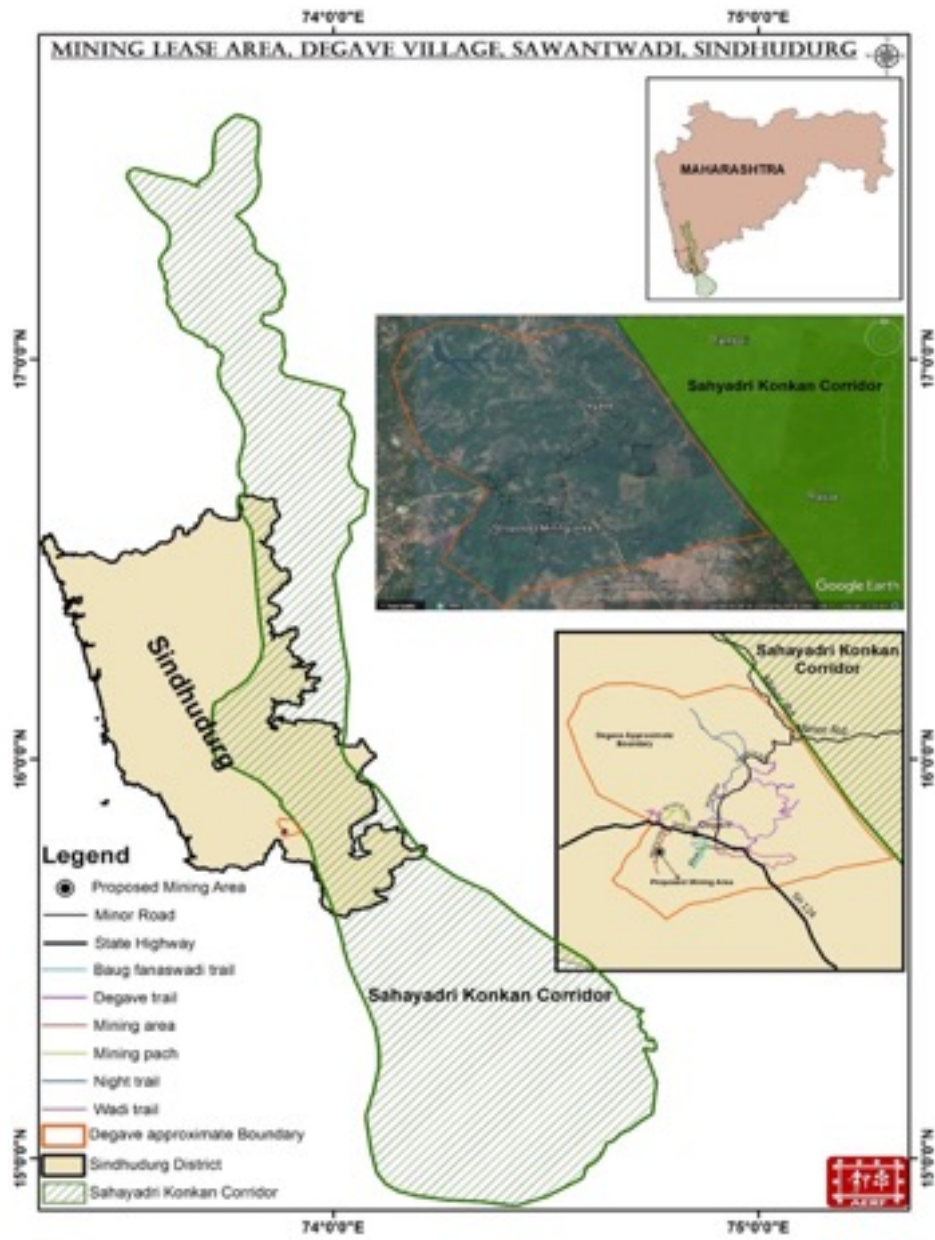
2010. There were about 22 mining leases proposed in this landscape of two blocks. But due to systematic struggle of local people using biodiversity surveys and assessments as tools and facilitation of civil society organizations proposed mining in the nearby Asaniye village has been stopped successfully though the public hearing has been organized by the project proponents in 2010. In 2010 Government of India, appointed Western Ghats Ecology Expert panel has studied the entire western Ghats and ecological status of the region to designate ecologically sensitive areas from Western Ghats region. Western Ghats region is one of 34 global biodiversity hotspot, many of the areas have also been inscribed as World natural heritage sites by UNESCO in 2011. The WGEEP has submitted its report to the Government and in the report they have provided a comprehensive data and list of villages to be considered as ecologically sensitive areas. However no action has been taken on the report but with due process and PIL by civil society organizations Government made the report public and decided to revise the list of ESA villages. There were a few issues regarding the methodology used by WGEEP while designating ESAs. Therefore MoEF has formed High level working group to further refine and correct methodology for designating ESAs.

Therefore since 2010 the awareness level of communities has been enhanced and local people are totally against proposed mining in their villages as there is no apt poverty in the region, local people have enough livelihood opportunities linked to their production landscapes and forests and they are well versed with the adverse impacts of mining. Therefore to stop this mining project well in advance community has initiated process of creating evidence of biodiversity within their surroundings and particularly in the proposed mining lease area.

The Applied Environmental Research Foundation (AERF) from Pune has worked with the Asaniye village community and produced a detailed biodiversity assessment report after a yearlong participatory biodiversity documentation. This report has been used by WGEEP in 2011, it was used as an evidence of biodiversity in the court by

organizations involved in activism against mining . Therefore Biodiversity management Committee of Village Degave has invited AERF to conduct the rapid biodiversity survey of proposed mining lease area and surroundings of Degave village. AERF voluntarily accepted the request and a team of four experts conducted the rapid biodiversity surveys in village Degave in Oct. 2016. The findings of the report are provided in this report. The Degave surroundings are lush green with thick vegetation and orchards exhibiting the mix of production spaces and forest ecosystems. Such a mix is providing a habitat to wildlife and therefore this has formed a corridor from Amboli to other surrounding reserve forests. This area is also adjoining to the Sahyadri Konkan Corridor designated by Critical Ecosystems Partnership Fund for promoting conservation investments in Western Ghats Global biodiversity hot spot.

Map 1 Degave mining lease area and Sahyadari Konkan Corridor



Methodology

This rapid preliminary biodiversity assessment has been carried out with following objectives

1. To understand the extent of biodiversity still available in the proposed mining lease area and its surroundings
2. To look at possibilities of habitat continuation of this area with Amboli RF i.e Sahyadri Konkan corridor serving as Key Biodiversity Area .
3. To create an understanding of the value of these habitats and biodiversity verses the proposed mining benefits among local people and to use it effectively to cancel proposed mining.
4. To discuss the possibilities of protecting the remaining biodiversity, protecting habitats and forests using innovative mechanisms with villagers of Degave
5. To create a baseline to continue the yearlong study of biodiversity covering all seasons.

Following tools have been used for collecting information and data

- Direct observations to prepare checklists of plants animals, birds, butterflies and other elements of biodiversity.
- To study the vegetation in Degave using opportunistic/ random sampling method.
- Individual plant species were noted on field and identification was carried out with the help of regional flora.
- Photographic evidence of species as and when possible.
- The tools of PRA and RRA like transect walks, interviews and group discussions were used to collect the data from villagers that

include, cultural significance of the landscape especially sacred groves and sacred natural sites.

For assessing major faunal elements in study area within short period of time more emphasis was given for detection of as many organisms as possible. Quantitative assessment was carried out for large mammals. Information was collected as per following

- **Secondary Information** : Literature review was carried out from district gazetteers and forest management plans to prepare list of animals with high chances of detection from the study area. To cross check this list semi structured interviews were conducted with villagers. Information regarding presence of various animals was gathered along with the description and local names. Interviews were conducted with elderly people and hunters who have thorough knowledge about the area. Information regarding human wild life conflict such as crop raiding, attack on human or wildlife was collected.
- **Primary Data** : After initial reconnaissance trail surveys were conducted in mining lease area. In each survey block a trail was walked. Trail survey was conducted during day as well as night to detect presence of nocturnal as well as diurnal mammals.
- **Day trail** : During day trails emphasis was given on recording evidences of major wildlife such as sighting, faecal matter, foot prints, scratch marks, etc. were documented. At the location of evidence information regarding GPS coordinates, surrounding vegetation, aspect was recorded. Distance from start of trail was also recorded. In case of direct sighting perpendicular distance of sighted animal from trail was noted.
- **Night trail** : Trails were conducted from 21:00hrs to 11:00hrs in the night. A 6V Halogen headlamp was used to detect eye shine of nocturnal mammals. Emphasis was given on thickets and tree canopies for detection of arboreal mammals in dense areas while open areas were searched intensively for large mammals such as deer.

Besides these; opportunistic observations were taken for certain specific species known to be present from study area. Birds, butterflies, reptiles and amphibians were recorded whenever encountered without special efforts for detection.

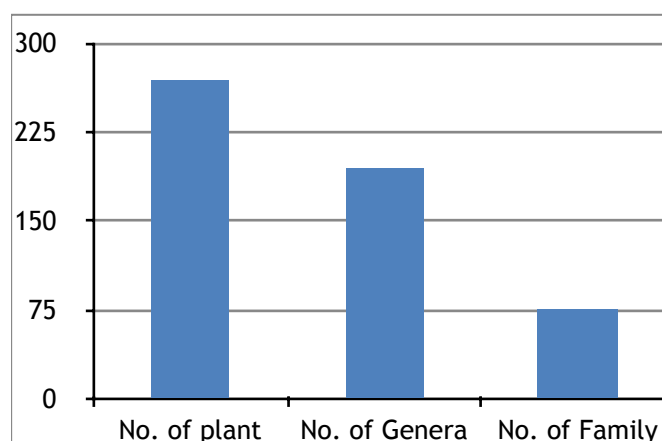
Biodiversity of Degave surroundings

1. Forests & Wildernesses

Degave and surrounding area has moist deciduous and semi evergreen vegetation . Common trees in this regions are *Xylea xylocarpa*, *Haldina cordifolia*, *Carallia brachiata*, *Macaranga peltata*, *Terminalia paniculata*, *Terminalia elliptica*, *Syzygium cumini* and *Mangifera indica*. These forests are owned by local people . These are private forests without any control of Forest department or other state department. Forests are fragmented as due to various land uses like shifting cultivation, cashew, coconut and areca nut plantation as well as these areas are used of grazing and fire wood collection. Village Degave has one degraded sacred grove. Few old growth trees are part of sacred groves but the traditional management and protection system is deteriorated long back and health of trees is not very encouraging in the sacred grove.

However at the landscape level it is still a better green area with biodiversity among all life forms. The average height of trees is 20 to 25 meters and canopy 5 to 7 meters. The forest area has rich diversity of climbers, shrubs, herbs which provides feedings and shelter for birds, insects, mammals. During our survey we recorded 276 plant species (including Pteridophytes) belongs to 194 genera of 76 families.

This mosaic landscape supports good faunal diversity. The area is on the edge of Sahyadri Tiger Corridor so it actually rich in faunal diversity. During this rapid survey AERF recorded 12 mammals species, 82 birds



species, 15 reptiles species, amphibians 14 species, butterflies 64 species, odonates 18 species, spiders 17 species and 40 species of other insects. Many of this faunal species are endemic to WGs, protected under various schedules of Wildlife Protection Act 1972 and listed in Red data category of IUCN. For details please go through the annexure II to IX.

2. Specific observations on Fauna

Mammals like Indian Giant Squirrel, Sambar and South-western Langur were common in this area.

Carnivores: Fresh signs of leopard in 3 different parts of the lease area and surroundings have been observed which is a clear evidence that this is a leopard territory. Signs of wild dogs, palm civets and jackals have also been recorded. However for detailed understanding of use of this habitat by carnivores more studies are required before reaching any conclusion.

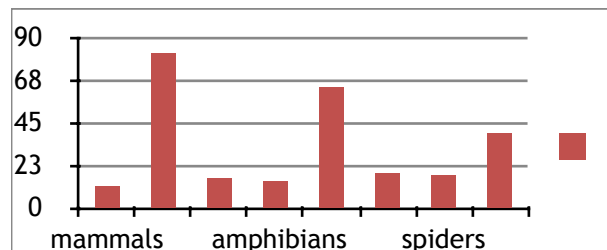
Herbivores: Signs of Gaur, Sambar deer, Barking deer and Wild pig were observed in each sampling for 4 consecutive days. We had sighting of 20 sambar deer are frequent visitors to cashew plantations. Camera traps also provided evidence of gaurs and other small mammals.

Birds : Hornbills (Great, Malabar Pied, and Malabar Grey), Black-throated Munia, Mountain Imperial Pigeon, Little- Spider Hunter, Chestnut Headed bee-eater, Spangled Drongo, and Nilgiri Flowerpecker are common birds which indicate the good quality of landscape as bird habitat. . Amphibian's healthy population indicates the availability of microhabitats in this forest.

Reptiles and amphibians: Some endangered and critically endangered species of frogs like Balloon frog (*Uperdon marmorata*-EN), and Bush frog (*Pseudophilautus amboli*- CR) have been observed . Malabar Gliding frog(LC) famous species of Amboli area has also been observed. The total 14 species of frogs have been recorded . We have encountered 6 species of snakes like Russell's earth boa, Bronze

back tree snake, Vine Snake, wolf snake, striped keelback (road kill) and rat snake. Total 7 species of lizards and a fresh water flap shell turtle have also been recorded.

Fauna recorded from the study area



3.Agriculture & Horticulture

Like any other village in the northern parts of Western Ghats , since time immemorial local communities have been dependent on monsoon paddy and shifting agriculture practiced on steep slopes of the mountains. Due to water availability another traditional and very peculiar rice cultivation known as **Vyangani** is carried out in summer months i.e. from March to June. These were the main livelihood sources since past. Since last two decades the shifting agriculture has been reduced due to lack of manpower and intense nature of cultivation practices. Another important reason for decrease in this practice is introduction of subsidy based plantations of Cashew and Mango , coconut, areca nut and other cash crops in the area. This development brought land use change from shifting agriculture to permanent agroforestry and helped enhancing income of the local people. Most of the orchards are in the mining lease area and are maintained as rich diverse home gardens. People in the village Degave are not poor and certainly are not interested in any development that will destroy their high value livelihood based on these orchards.

It was observed that each family in the village owns an average of 700 to 1000 cashew trees. Cashew harvesting has also led to small business establishment in this area. People are heavily invested in cashew plantation. Main investment is in protection of cashew orchards from wild and domestic animals.

Besides cashew, coconut and areca nut is planted by locals for livelihood. Locals own average 100-200 plants of coconut and 300-400 plants of areca nuts.

Main source of water to agriculture and horticulture is the perennial streams from the landscape. These streams and forests protecting their health play a crucial role in the ecology and economy of this village.

Dairy is another livelihood activity that is dependent on the mixed landscape. Cattle graze in the forests and milk is collected and supplies to bigger dairies in the area.

4. General Observations

- Degave villagers have established Biodiversity Management Committee and they have positive approach to conserve existing biodiversity.
- Banda- Goa state highway passing through village Degave is busy all through the day due to transport of iron ore from nearby Kalane mine. Large number of frogs and snakes are often killed here due to heavy vehicular traffic.
- Degave local people claim that more wildlife species exist in their area like tiger, otters, Pangolin, slender loris and Mouse deer. According to villagers a group of 22 wild dogs roam the village area and regularly hunt Sambar deer in this area.

Future work

This rapid survey has provided glimpses of biodiversity available in this comparatively small area. This area with its rich habitat certainly is

important part of the corridor to regulate movement of wild life and to avoid man animal conflict.

It is evident from the no. of species recorded within this short period that the area is rich in biodiversity and the mining will destroy the diversity and habitat permanently.

Following work in the future will help create more concrete evidence of biodiversity to halt the destructive mining as well as it will provide approaches that will maintain the remaining forests and wildernesses and restore them to maintain this biodiversity.

1. Detailed biodiversity assessment covering all four seasons and their overlap.
2. Creating more evidence for presence of charismatic fauna like Tiger and critically endangered species like pangolin, Slender lorries, amphibians that are critical as indicators of climate change.
3. Analysis of biodiversity data to promote this area as Key Biodiversity Area in Sahyadri Konkan Corridor
4. Detailed assessments like carbon stock estimation, valuation of Ecosystem services to actually understand the value of this landscape.
5. Discussing opportunities that are available through protection of forests and biodiversity eg. Conservation agreements, PES, REDD + that will help halting mining permanently and protect biodiversity in this mixed production landscape.



Annexure- I
Flora of Degave (Higher Plants)

Sr.no.	Name of species	Common name	Family
Trees			
1	<i>Acacia catechu</i>	Khair	<i>Leguminosae</i>
2	<i>Acacia auriculiformis</i>		<i>Leguminosae</i>
3	<i>Aegle marmelos</i>	Bel	<i>Rutaceae</i>
4	<i>Albizia chinensis</i>		<i>Leguminosae</i>
5	<i>Albizia lebeck</i>		<i>Leguminosae</i>
6	<i>Albizia odoratissima</i>		<i>Leguminosae</i>
7	<i>Alseodaphne semicarpifolia</i>		<i>Lauraceae</i>
8	<i>Alstonia scholaris</i>	Satvin	<i>Apocynaceae</i>
9	<i>Anacardium occidentale</i>	Kaju	<i>Anacardiaceae</i>
10	<i>Annona squamosa</i>	Sitafal	<i>Annonaceae</i>
11	<i>Aporosa lindleyana</i>		<i>Euphorbiaceae</i>
12	<i>Artocarpus heterophyllus</i>	Fanas	<i>Moraceae</i>
13	<i>Barringtonia acutangula</i>		<i>Barringtoniaceae</i>
14	<i>Bauhinia racemosa</i>	Apata	<i>Leguminosae</i>
15	<i>Beilschmiedia dalzellii</i>		<i>Lauraceae</i>
16	<i>Bombax ceiba</i>	Sawar	<i>Malvaceae</i>
17	<i>Bombax insigne</i>	Devsawar	<i>Malvaceae</i>
18	<i>Bridelia hamiltoniana</i>	Jangli-asana	<i>Euphorbiaceae</i>
19	<i>Bridelia retusa</i>	Katak	<i>Euphorbiaceae</i>
20	<i>Buchanania lanzan</i>	Char	<i>Anacardiaceae</i>
21	<i>Butea monosperma</i>	Palas	<i>Leguminosae</i>
22	<i>Calophyllum inophyllum</i>	Undi	<i>Clusiaceae</i>
23	<i>Carallia brachiata</i>	Phanashi	<i>Rhizophoraceae</i>
24	<i>Careya arborea</i>	Kumbha	<i>Barringtoniaceae</i>
25	<i>Cascabella thevetia</i>		<i>Apocynaceae</i>
26	<i>Cassia fistula</i>	Bahava	<i>Leguminosae</i>

27	<i>Celtis cinnamomea</i>		<i>Ulmaceae</i>
28	<i>Chukrasia tabularis</i>		<i>Meliaceae</i>
29	<i>Cinnamomum zeylanicum</i>	Dalchini	<i>Lauraceae</i>
30	<i>Cordia dichotoma</i>	Bhokar	<i>Boraginaceae</i>
31	<i>Dalbergia latifolia</i>		<i>Leguminosae</i>
32	<i>Dillenia indica</i>	Karbel	<i>Dilleniaceae</i>
33	<i>Emblica officinalis</i>	Avala	<i>Phyllanthaceae</i>
34	<i>Erythrina stricta</i>	Pangara	<i>Leguminosae</i>
35	<i>Ficus amplissima</i>	Payar	<i>Moraceae</i>
36	<i>Ficus arnottiana</i>		<i>Moraceae</i>
37	<i>Ficus asperrima</i>		<i>Moraceae</i>
38	<i>Ficus benghalensis</i>		<i>Moraceae</i>
39	<i>Ficus callosa</i>		<i>Moraceae</i>
40	<i>Ficus drupacea</i>		<i>Moraceae</i>
41	<i>Ficus hispida</i>		<i>Moraceae</i>
42	<i>Ficus microcarpa</i>		<i>Moraceae</i>
43	<i>Ficus nervosa</i>		<i>Moraceae</i>
44	<i>Ficus racemosa</i>	Umbar	<i>Moraceae</i>
45	<i>Ficus religiosa</i>		<i>Moraceae</i>
46	<i>Ficus tinctoria</i>		<i>Moraceae</i>
47	<i>Ficus tsjahela</i>		<i>Moraceae</i>
48	<i>Firmiana colorata</i>	Udali	<i>Sterculiaceae</i>
49	<i>Flacourtia indica</i>		<i>Flacourtiaceae</i>
50	<i>Flacourtia montana</i>	Atak	<i>Flacourtiaceae</i>
51	<i>Garcinia indica</i>	Kokam	<i>Clusiaceae</i>
52	<i>Garuga pinnata</i>	Kudak	<i>Burseraceae</i>
53	<i>Glochidion ellipticum</i>	Bhoma	<i>Euphorbiaceae</i>
54	<i>Glochidion velutinum</i>		<i>Euphorbiaceae</i>
55	<i>Gmelina arborea</i>	Shivan	<i>Verbenaceae</i>
56	<i>Grevillea robusta</i>		<i>Proteaceae</i>
57	<i>Grewia nervosa</i>	Asal	<i>Tiliaceae</i>

58	<i>Grewia serrulata</i>		<i>Tiliaceae</i>
59	<i>Grewia tiliifolia</i>	Dhaman	<i>Tiliaceae</i>
60	<i>Haldina cordifolia</i>	Hedu	<i>Rubiaceae</i>
61	<i>Heterophragma quadriloculare</i>	Varas	<i>Bignoniaceae</i>
62	<i>Holigarna arnottiana</i>		<i>Anacardiaceae</i>
63	<i>Holoptelea integrifolia</i>	Vavala	<i>Ulmaceae</i>
64	<i>Hydnocarpus pentandra</i>	Kadu kavat	<i>Flacourtiaceae</i>
65	<i>Hymenodictyon obovatum</i>		<i>Rubiaceae</i>
66	<i>Hymenodictyon orixensis</i>		<i>Rubiaceae</i>
67	<i>Ixora brachiata</i>	Khuri	<i>Rubiaceae</i>
68	<i>Kydia calycina</i>	Warang	<i>Malvaceae</i>
69	<i>Lagerstroemia microcarpa</i>	Nanya	<i>Lythraceae</i>
70	<i>Lagerstroemia parviflora</i>		<i>Lythraceae</i>
71	<i>Lagerstroemia speciosa</i>	Tamhan	<i>Lythraceae</i>
72	<i>Lannea coromandelica</i>	Moi	<i>Anacardiaceae</i>
73	<i>Lepisanthes tetraphylla</i>		<i>Sapindaceae</i>
74	<i>Litsea deccanensis</i>		<i>Lauraceae</i>
75	<i>Litsea stocksii</i>		<i>Lauraceae</i>
76	<i>Macaranga peltata</i>	Chandada	<i>Euphorbiaceae</i>
77	<i>Mallotus philippensis</i>	Shendri	<i>Euphorbiaceae</i>
78	<i>Mammea suriga</i>	Surangi	<i>Clusiaceae</i>
79	<i>Mangifera indica</i>	Amba	<i>Anacardiaceae</i>
80	<i>Mesua ferrea</i>		<i>Clusiaceae</i>
81	<i>Michelia champaca</i>	Sonchafa	<i>Magnoliaceae</i>
82	<i>Miliusa tomentosa</i>	Humb	<i>Annonaceae</i>
83	<i>Mimuscops elengi</i>	Bakul	<i>Sapotaceae</i>
84	<i>Mitragyna parvifolia</i>	Kalam	<i>Rubiaceae</i>
85	<i>Moringa oleifera</i>	Shevga	<i>Moringaceae</i>
86	<i>Murraya koenigii</i>	Kadipatta	<i>Rutaceae</i>
87	<i>Myristica sp.</i>	Jayfal	<i>Myristicaceae</i>

88	<i>Nothopegia castaneifolia</i>	Amberi	<i>Anacardiaceae</i>
89	<i>Nyctanthes arbor-tristis</i>	Parijat	<i>Oleaceae</i>
90	<i>Oroxylum indicum</i>	Tetu	<i>Bignoniaceae</i>
91	<i>Pongamia pinnata</i>	Karanj	<i>Leguminosae</i>
92	<i>Prosopis cineraria</i>	Shami	<i>Leguminosae</i>
93	<i>Psidium guajava</i>		<i>Myrtaceae</i>
94	<i>Pterocarpus marsupium</i>	Bivala	<i>Leguminosae</i>
95	<i>Pterospermum acerifolium</i>	Muchkund	<i>Sterculiaceae</i>
96	<i>Randia dumetorum</i>	Gela	<i>Rubiaceae</i>
97	<i>Sageraea laurifolia</i>		<i>Annonaceae</i>
98	<i>Santalum album</i>	Chandan	<i>Santalaceae</i>
99	<i>Sapindus laurifolius</i>	Ritha	<i>Sapindaceae</i>
100	<i>Schleichera oleosa</i>	Kosam	<i>Sapindaceae</i>
101	<i>Semecarpus anacardium</i>	Bibba	<i>Anacardiaceae</i>
102	<i>Spondias pinnata</i>	Ambada	<i>Anacardiaceae</i>
103	<i>Sterculia guttata</i>	Goidhada	<i>Sterculiaceae</i>
104	<i>Sterculia urens</i>		<i>Sterculiaceae</i>
105	<i>Sterculia villosa</i>		<i>Sterculiaceae</i>
106	<i>Stereospermum tetragonum</i>	Palat	<i>Bignoniaceae</i>
107	<i>Strychnos nux-vomica</i>	Kajra	<i>Loganiaceae</i>
108	<i>Syzygium caryophyllatum</i>		<i>Myrtaceae</i>
109	<i>Syzygium cumini</i>	Jambhool	<i>Myrtaceae</i>
110	<i>Tabernaemontana alternifolia</i>		<i>Apocynaceae</i>
111	<i>Tamarindus indica</i>	Chinch	<i>Leguminosae</i>
112	<i>Tectona grandis</i>	Sag	<i>Verbenaceae</i>
113	<i>Terminalia bellirica</i>	Behada	<i>Combretaceae</i>
114	<i>Terminalia elliptica</i>	Ain	<i>Combretaceae</i>
115	<i>Terminalia paniculata</i>	Kinjal	<i>Combretaceae</i>
116	<i>Tetrameles nudiflora</i>	Bhendi	<i>Tetramelaceae</i>
117	<i>Thespesia populnea</i>		<i>Malvaceae</i>

118	<i>Wrightia arborea</i>		<i>Apocynaceae</i>
119	<i>Wrightia tinctoria</i>	Kala kudha	<i>Apocynaceae</i>
120	<i>Xantolis tomentosa</i>	Kumbal	<i>Sapotaceae</i>
121	<i>Xylia xylocarpa</i>	Jambha	<i>Leguminosae</i>
122	<i>Zanthoxylum rhetsa</i>	Tirfal	<i>Rutaceae</i>
123	<i>Ziziphus caracutta</i>		<i>Rhamnaceae</i>
Palms			
124	<i>Areca catechu</i>	Supari	<i>Arecaceae</i>
125	<i>Calamus pseudo-tenuis</i>		<i>Arecaceae</i>
126	<i>Caryota urens</i>	Bherali-mad	<i>Arecaceae</i>
127	<i>Cocos nucifera</i>	Naral	<i>Arecaceae</i>
Shrubs			
128	<i>Acacia pennata</i>		<i>Leguminosae</i>
129	<i>Allophylus cobbe</i>	Tifan	<i>Sapindaceae</i>
130	<i>Bixa orellana</i>		<i>Bixaceae</i>
131	<i>Blumea lanceolaria</i>		<i>Asteraceae</i>
132	<i>Breynia retusa</i>		<i>Euphorbiaceae</i>
133	<i>Callicarpa tomentosa</i>		<i>Verbenaceae</i>
134	<i>Calotropis gigantea</i>		<i>Apocynaceae</i>
135	<i>Capparis sp.</i>		<i>Capparaceae</i>
136	<i>Carissa conjesta</i>	Karvand	<i>Apocynaceae</i>
137	<i>Cheilocostus speciosus</i>		<i>Zingiberaceae</i>
138	<i>Clerodendrum infortunatum</i>		<i>Lamiaceae</i>
139	<i>Clerodendrum serratum</i>	Bharangi	<i>Lamiaceae</i>
140	<i>Colebrookia oppositifolia</i>		<i>Lamiaceae</i>
141	<i>Connarus monocarpus</i>		<i>Connaraceae</i>
142	<i>Dendrophthoe sp.</i>		<i>Loranthaceae</i>
143	<i>Dendrophthoe sp.</i>		<i>Loranthaceae</i>
144	<i>Desmodium umbellatum</i>		<i>Leguminosae</i>

145	<i>Embelia ribes</i>	Vavading	<i>Myrsinaceae</i>
146	<i>Euphorbia ligularia</i>		<i>Euphorbiaceae</i>
147	<i>Glycosmis pentaphylla</i>		<i>Rutaceae</i>
148	<i>Gnidia glauca</i>		<i>Thymelaeaceae</i>
149	<i>Grewia abutilifolia</i>		<i>Tiliaceae</i>
150	<i>Helicteres isora</i>	Murudshng	<i>Malvaceae</i>
151	<i>Holarrhena pubescens</i>	Kadkudya	<i>Apocynaceae</i>
152	<i>Ixora coccinea</i>		<i>Rubiaceae</i>
153	<i>Jatropha curcas</i>		<i>Euphorbiaceae</i>
154	<i>Justicia adhatoda</i>	Adulsa	<i>Acanthaceae</i>
155	<i>Lantana camara</i>	Tantani	<i>Lamiaceae</i>
156	<i>Leea indica</i>		<i>Vitaceae</i>
157	<i>Leucas ciliata</i>		<i>Lamiaceae</i>
158	<i>Ludwigia octovalvis</i>		<i>Onagraceae</i>
159	<i>Mallotus rependus</i>		<i>Euphorbiaceae</i>
160	<i>Melastoma malabathricum</i>		<i>Melastomataceae</i>
161	<i>Mimosa pudica</i>	Lajalu	<i>Leguminosae</i>
162	<i>Mussaenda glabrata</i>		<i>Rubiaceae</i>
163	<i>Ocimum tenuiflorum</i>		<i>Lamiaceae</i>
164	<i>Olax imbricata</i>		<i>Olacaceae</i>
165	<i>Pandanus odoratissimus</i>	Kevada	<i>Pandanaceae</i>
166	<i>Pavetta crassicaulis</i>		<i>Rubiaceae</i>
167	<i>Rauvolfia serpentina</i>	Sarpagandha	<i>Apocynaceae</i>
168	<i>Securinega leucopyrus</i>		<i>Euphorbiaceae</i>
169	<i>Solanum anguivi</i>		<i>Solanaceae</i>
170	<i>Thelepaepale ixiocephala</i>		<i>Acanthaceae</i>
171	<i>Thespesia lampas</i>	Ranbhendi	<i>Malvaceae</i>
172	<i>Urena lobata</i>		<i>Malvaceae</i>
173	<i>Vitex negundo</i>		<i>Lamiaceae</i>
174	<i>Woodfordia fruticosa</i>	Dhavashi	<i>Lythraceae</i>

175	<i>Ziziphus oenoplia</i>		<i>Rhamnaceae</i>
176	<i>Ziziphus rugosa</i>	Toran	<i>Rhamnaceae</i>
Climbers			
177	<i>Abrus precatorius</i>		<i>Leguminosae</i>
178	<i>Anamirta cocculus</i>		<i>Menispermiceae</i>
179	<i>Argyreia elliptica</i>		<i>Convolvulaceae</i>
180	<i>Asparagus racemosa</i>	Shatavari	<i>Liliaceae</i>
181	<i>Celastrus paniculatus</i>		<i>Celastraceae</i>
182	<i>Cissus repens</i>		<i>Vitaceae</i>
183	<i>Cosmostigma racemosum</i>		<i>Apocynaceae</i>
184	<i>Cyclea peltata</i>		<i>Menispermiceae</i>
185	<i>Dalbergia horrida</i>	Pedgul	<i>Leguminosae</i>
186	<i>Dalbergia volubilis</i>		<i>Leguminosae</i>
187	<i>Derris canarensis</i>		<i>Leguminosae</i>
188	<i>Derris heyneana</i>		<i>Leguminosae</i>
189	<i>Derris scandens</i>		<i>Leguminosae</i>
190	<i>Dioscorea bulbifera</i>		<i>Dioscoriaceae</i>
191	<i>Dioscorea pentaphyla</i>		<i>Dioscoriaceae</i>
192	<i>Diploclisia glaucescens</i>	Vatoli	<i>Menispermiceae</i>
193	<i>Entada rheedei</i>		<i>Leguminosae</i>
194	<i>Getonia floribunda</i>	Ukshi	<i>Combretaceae</i>
195	<i>Gloriosa superba</i>		<i>Liliaceae</i>
196	<i>Hemidesmus indicus</i>	Anantamul	<i>Apocynaceae</i>
197	<i>Hippocratea grahamii</i>		<i>Celastraceae</i>
198	<i>Holostemma annulare</i>		<i>Apocynaceae</i>
199	<i>Jasminum multiflorum</i>		<i>Olecaceae</i>
200	<i>Merremia quinquefolia</i>		<i>Convolvulaceae</i>
201	<i>Moullava spicata</i>	Wakeri	<i>Leguminosae</i>

202	<i>Mucuna monosperma</i>		<i>Leguminosae</i>
203	<i>Olax imbricata</i>	Kotluk	<i>Olecaceae</i>
204	<i>Paramignya monophylla</i>	Vagheti	<i>Rutaceae</i>
205	<i>Piper hookeri</i>	Kali-miri	<i>Piperaceae</i>
206	<i>Pueraria tuberosa</i>		<i>Leguminosae</i>
207	<i>Quirivelia frutescens</i>		<i>Apocynaceae</i>
208	<i>Rubia cordifolia</i>	Manjistha	<i>Rubiaceae</i>
209	<i>Smilax ovalifolia</i>	Ghotvel	<i>Smilacaceae</i>
210	<i>Tinospora cordifolia</i>	Gulvel	<i>Menispermiceae</i>
211	<i>Tylophora dalzellii</i>	Lahan pithmari	<i>Apocynaceae</i>
212	<i>Vigna trilobata</i>		<i>Leguminosae</i>
213	<i>Vigna vexillata</i>		<i>Leguminosae</i>
Herbs			
214	<i>Acampe praemorsa</i>		<i>Orchidaceae</i>
215	<i>Achyranthes aspera</i>		<i>Amaranthaceae</i>
216	<i>Aeginetia indica</i>		<i>Orobanchaceae</i>
217	<i>Aerides maculosa</i>		<i>Orchidaceae</i>
218	<i>Ageratum conyzoides</i>		<i>Asteraceae</i>
219	<i>Amorphophallus commutatus</i>		<i>Araceae</i>
220	<i>Asystasia dalzelliana</i>		<i>Acanthaceae</i>
221	<i>Begonia crenata</i>		<i>Begoniaceae</i>
222	<i>Bidens biternata</i>		<i>Asteraceae</i>
223	<i>Biophytum sensitivum</i>		<i>Oxalidaceae</i>
224	<i>Cajanus lineatus</i>		<i>Leguminosae</i>
225	<i>Cassia tora</i>		<i>Leguminosae</i>
226	<i>Celosia argentea</i>		<i>Amaranthaceae</i>
227	<i>Centranthera indica</i>		<i>Orobanchaceae</i>
228	<i>Chlorophytum breviscapum</i>		<i>Liliaceae</i>

229	<i>Cleome rutidosperma</i>		<i>Capparaceae</i>
230	<i>Conchidium microchilos</i>		<i>Orchidaceae</i>
231	<i>Curculigo orchioides</i>		<i>Hypoxidaceae</i>
232	<i>Curcuma pseudomontana</i>		<i>Zingiberaceae</i>
233	<i>Cynarospermum asperrimum</i>		<i>Acanthaceae</i>
234	<i>Desmodium heterocarpon</i>		<i>Leguminosae</i>
235	<i>Desmodium triflorum</i>		<i>Leguminosae</i>
236	<i>Durcuma pseudomontana</i>		<i>Zingiberaceae</i>
237	<i>Elephantopus scaber</i>		<i>Asteraceae</i>
238	<i>Eupatorium divergens</i>		<i>Asteraceae</i>
239	<i>Exacum pedunculatum</i>		<i>Gentianaceae</i>
240	<i>Exacum tetragonum</i>		<i>Gentianaceae</i>
241	<i>Geissaspis cristata</i>		<i>Leguminosae</i>
242	<i>Habenaria marginata</i>		<i>Orchidaceae</i>
243	<i>Impatiens balsmina</i>		<i>Balsaminaceae</i>
244	<i>Impatiens inconspicua</i>		<i>Balsaminaceae</i>
245	<i>Leucas longifolia</i>		<i>Lamiaceae</i>
246	<i>Osbeckia muralis</i>		<i>Melastomataceae</i>
247	<i>Pecteilis gigantea</i>		<i>Orchidaceae</i>
248	<i>Phyllocephalum tenue</i>		<i>Asteraceae</i>
249	<i>Pimpinella tomentosa</i>		<i>Apiaceae</i>
250	<i>Pseuderanthemum malabaricum</i>		<i>Acanthaceae</i>
251	<i>Rhynchoglossum notonianum</i>		<i>Gesneriaceae</i>
252	<i>Rostellularia diffusa</i>		<i>Acanthaceae</i>
253	<i>Rostellularia procumbens</i>		<i>Acanthaceae</i>
254	<i>Sesamum mulayanum</i>		<i>Pedaliaceae</i>
255	<i>Spermacoce articularis</i>		<i>Rubiaceae</i>
256	<i>Torenia indica</i>		<i>Scrophulariaceae</i>
257	<i>Triumfetta rhomboidea</i>		<i>Malvaceae</i>
258	<i>Vernonia cinerea</i>		<i>Asteraceae</i>

259	<i>Wedelia biflora</i>		<i>Asteraceae</i>
260	<i>Zingiber cernuum</i>		<i>Zingiberaceae</i>
Grasses			
261	<i>Bambusa arundinacea</i>		<i>Poaceae</i>
262	<i>Chloris sp.</i>		<i>Poaceae</i>
263	<i>Cynodon dactylon</i>	Durva	<i>Poaceae</i>
264	<i>Echinochloa colonum</i>		<i>Poaceae</i>
265	<i>Eragrostis tenella</i>		<i>Poaceae</i>
266	<i>Heteropogon contortus</i>		<i>Poaceae</i>
267	<i>Oplismenus burmannii</i>		<i>Poaceae</i>
268	<i>Paspalum sp.</i>		<i>Poaceae</i>
Pteridophytes			
269	<i>Lycopodium hamiltonii</i>		
270	<i>Selaginella ciliaris</i>		
271	<i>Osmunda regalis</i>		
272	<i>Lygodium flexuosum</i>		
273	<i>Cheilanthes tenuifolia</i>		
274	<i>Adiantum sp.</i>		
275	<i>Pteridium aquilinum</i>		
276	<i>Asplenium indicum</i>		

Common names provided wherever available.

Annexure-II

Fauna of Degave- Birds

Sr. no.	Common name	Scientific name	IUCN Status	Endemic Status	WPA
1	Red Spurfowl	<i>Galloperdix spadicea</i>	LC		IV
2	Grey Junglefowl	<i>Gallus sonneratii</i>	LC	India	IV

3	Indian Peafowl	<i>Pavo cristatus</i>	LC		I
4	Indian Pond Heron	<i>Ardeola grayii</i>	LC		IV
5	Cattle Egret	<i>Bubulcus ibis</i>	LC		
6	Little Cormorant	<i>Phalacrocorax niger</i>	LC		IV
7	Common Kestrel	<i>Falco tinnunculus</i>	LC		
8	Black-winged Kite	<i>Elanus caeruleus</i>	LC		
9	Brahminy Kite	<i>Haliastur indus</i>	LC		
10	Crested Serpent Eagle	<i>Spilornis cheela</i>	LC		
11	Shikra	<i>Accipiter badius</i>	LC		
12	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	LC		
13	Red-wattled Lapwing	<i>Vanellus indicus</i>	LC		
14	Rock Pigeon	<i>Columba livia</i>	LC		
15	Mountain Imperial Pigeon	<i>Ducula badia</i>	LC	WG and NE India	
16	Spotted Dove	<i>Stigmatopelia chinensis</i>	LC		IV
17	Emerald Dove	<i>Chalcophaps indica</i>	LC		IV
18	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	LC		IV
19	Blue-faced Malkoha	<i>Rhopodytes viridirostris</i>	LC		
20	Southern Coucal	<i>Centropus parroti</i>	LC		IV
21	Spotted Owlet	<i>Athene brama</i>	LC		
22	Indian Eagle Owl	<i>Bubo bengalensis</i>	LC		IV
23	Indian Nightjar	<i>Caprimulgus asiaticus</i>	LC		IV
24	Stork-billed Kingfisher	<i>Pelargopsis capensis</i>	LC		IV
25	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	LC		IV
26	Common Kingfisher	<i>Alcedo atthis</i>	LC		IV
27	Green Bee-eater	<i>Merops orientalis</i>	LC		
28	Chestnut-headed Bee-eater	<i>Merops leschenaulti</i>	LC		
29	Malabar Grey Hornbill	<i>Ocyrceros griseus</i>	LC	Endemic WG	

30	Malabar Pied Hornbill	<i>Anthracoceros coronatus</i>	NT	Endemic WG	I
31	Great Hornbill	<i>Buceros bicornis</i>	NT	Endemic WG	I
32	Brown-headed Barbet	<i>Megalaima zeylanica</i>	LC		IV
33	White-cheeked Barbet	<i>Megalaima viridis</i>	LC	Endemic WG	IV
34	Coppersmith Barbet	<i>Megalaima haemacephala</i>	LC		IV
35	Heart-spotted Woodpecker	<i>Hemicircus canente</i>	LC	India	IV
36	Lesser Goldenback	<i>Dinopium benghalense</i>	LC		IV
37	Common Iora	<i>Aegithina tiphia</i>	LC		IV
38	Small Minivet	<i>Pericrocotus cinnamomeus</i>	LC		IV
39	Orange Minivet	<i>Pericrocotus flammeus</i>	LC	WG and Sri Lanka	IV
40	Spangled Drongo	<i>Dicrurus hottentottus</i>	LC		IV
41	Black Drongo	<i>Dicrurus macrocercus</i>	LC		IV
42	Ashy Drongo	<i>Dicrurus leucophaeus</i>	LC		IV
43	White-bellied Drongo	<i>Dicrurus caerulescens</i>	LC		IV
44	Bronzed Drongo	<i>Dicrurus aeneus</i>	LC		IV
45	Black-hooded Oriole	<i>Oriolus xanthornus</i>	LC		IV
46	Asian Paradise-flycatcher	<i>Terpsiphone paradisi</i>	LC		
47	Black-naped Monarch	<i>Hypothymis azurea</i>	LC		
48	Rufous Treepie	<i>Dendrocitta vagabunda</i>	LC		
49	Indian Jungle Crow	<i>Corvus culminatus</i>	LC		IV
50	House Crow	<i>Corvus splendens</i>	LC		
51	Indian Yellow Tit	<i>Parus aplonotus</i>	Not Recognized		
52	Dusky Crag Martin	<i>Ptyonoprogne concolor</i>	LC		

53	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	LC		IV
54	Red-vented Bulbul	<i>Pycnonotus cafer</i>	LC		IV
55	Yellow-browed Bulbul	<i>Acritillas indica</i>	LC	WG and Shri Lanka	IV
56	Square-tailed Bulbul	<i>Hypsipetes ganeesa</i>	Not Recognized	WG and Shri Lanka	IV
57	Grey-breasted Prinia	<i>Prinia hodgsonii</i>	LC		
58	Common Tailorbird	<i>Orthotomus sutorius</i>	LC		
59	Booted Warbler	<i>Iduna caligata</i>	LC		
60	Greenish Warbler	<i>Phylloscopus trochiloides</i>	LC		
61	Tawny-bellied Babbler	<i>Dumetia hyperythra</i>	LC		IV
62	Indian scimitar Babbler	<i>Pomatorhinus horsfieldii</i>	LC	India	IV
63	Jungle Babbler	<i>Turdoides striata</i>	LC		IV
64	Brown-cheeked Fulvetta	<i>Alcippe poioicephala</i>	LC		
65	Jungle Myna	<i>Acridotheres fuscus</i>	LC		IV
66	Common Myna	<i>Acridotheres tristis</i>	LC		IV
67	Malabar Whistling Thrush	<i>Myophonus horsfieldii</i>	LC	C and W India	IV
68	Oriental Magpie Robin	<i>Copsychus saularis</i>	LC		IV
69	White-rumped Shama	<i>Copsychus malabaricus</i>	LC		
70	Red-breasted Flycatcher	<i>Ficedula parva</i>	LC		IV
71	Tickell's Blue Flycatcher	<i>Cyornis tickelliae</i>	LC		IV
72	Jerdon's Leafbird	<i>Chloropsis jerdoni</i>	LC	India and Shri Lanka	
73	Golden-fronted Leafbird	<i>Chloropsis aurifrons</i>	LC		
74	Nilgiri Flowerpecker	<i>Dicaeum concolor</i>	LC	Endemic WG	IV
75	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i>	LC	India and Shri Lanka	IV

76	Crimson-backed Sunbird	<i>Leptocoma minima</i>	LC	Endemic WG	IV
77	Purple Sunbird	<i>Cinnyris asiaticus</i>	LC		IV
78	Vigor's Sunbird	<i>Aethopyga vigorsii</i>	Not Recognized	Endemic WG	IV
79	Little Spiderhunter	<i>Arachnothera longirostra</i>	LC		
80	White-rumped Munia	<i>Lonchura striata</i>	LC		IV
81	Black-throated Munia	<i>Lonchura kelaarti</i>	LC	WG and Sri Lanka	IV
82	White-browed Wagtail	<i>Motacilla maderaspatensis</i>	LC		

Annexure-III

Fauna of Degave- Mammals

Sr. no.	Common name	Scientific name	IUCN Status	Remark	WAP
1	South-western Langur	<i>Semnopithecus hypoleucos</i>	VU	Sighting	II
2	Sambar	<i>Rusa unicolor</i>	VU	Sighting, Track, Scat	III
3	Gaur	<i>Bos gaurus</i>	VU	Track	I
4	Indian Wild Pig	<i>Sus scrofa</i>	LC	Track	III
5	Common Leopard	<i>Panthera pardus</i>	VU	Track	I
6	Common Palm Civet	<i>Paradoxurus hemaphroditus</i>	LC	Track	II
7	Wild Dog	<i>Cuon alpinus</i>	EN	Scat	II
8	Indian Hare	<i>Lepus nigricollis</i>	LC	Sighting	IV
9	Indian Crested Porcupine	<i>Hystrix indica</i>	LC	Hairs	IV
10	Indian Giant Squirrel	<i>Ratufa indica</i>	LC	Sighting, Scat	I
11	Three-striped Palm Squirrel	<i>Funambulus palmarum</i>	LC	Sighting	Unlisted
12	Indian Flying Fox	<i>Pteropus giganteus</i>	LC	Sighting	V

Annexure- IV
Fauna of Degave- Amphibians

Sr. no.	Common name	Scientific name	IUCN Status	WPA
1	Common Indian Toad	<i>Duttaphrynus melanostictus</i>	LC	IV
2	Ornate Microhylid	<i>Microhyla ornata</i>	LC	IV
3		<i>Uperodon marmorata</i>	EN	IV
4	Tree Frog			IV
5	Amboli Bush Frog	<i>Pseudophilatus amboli</i>	CR	IV
6	Common Tree Frog	<i>Polypedates maculatus</i>	LC	IV
7	Malabar Gliding Frog	<i>Rhacophorus malabaricus</i>	LC	IV
8	Skittering Frog	<i>Euphlyctis cyanophlyctis</i>	LC	IV
9	Indian Bull Frog	<i>Hoplobatrachus tigerinus</i>	LC	IV
10	Beddome's Frog	<i>Indirana beddomii</i>	LC	IV
11	Fungoid Frog	<i>Rana malabarica</i>	LC	IV
12	Rufescent Burrowing Frog	<i>Sphaerotheca rufescens</i>	LC	IV
13	Indian Burrowing Frog	<i>Sphaerotheca breviceps</i>	LC	IV
14		<i>Zakerana sp.</i>		IV

Annexure- V
Fauna of Degave- Reptiles

Sr. no.	Common name	Scientific name	IUCN Status	WPA
1	Indian Mud/ Flap-shell Turtle	<i>Lissemys punctata</i>	LC	I
2		<i>Hemidactylus brookii</i>	LC	IV
3	Bombay Leaf-toed Gecko	<i>Hemidactylus prashadi</i>	LC	IV
4	House Gecko	<i>Hemidactylus flaviviridis</i>	LC	IV
5	Common Garden Lizard/ Bloodsucker	<i>Calotes versicolor</i>	LC	IV
6	Forest Calotes	<i>Calotes rouxii</i>	LC	IV
7		<i>Calotes sp.</i>		IV

8	Common/ Brahminy Skink	<i>Mabuya carinata</i>	LC	IV
9	Russell's Earth Boa	<i>Eryx conicus</i>		IV
10	Dhaman/ Common Ratsnake	<i>Ptyas mucosus</i>		II
11	Common Indian Bronzeback/ Tree Snake	<i>Dendrelaphis tristis</i>		IV
12	Tranvancore Wolf Snake	<i>Lycodon tranvencoricus</i>		IV
13	Buff Striped Keelback	<i>Amphiesma stolata</i>		IV
14	Vine Snake/ Common Green Whip Snake	<i>Ahaetulla nasuta</i>		IV
15	Saw Scaled Viper	<i>Echis carinata</i>		IV

Annexure- VI

Fauna of Degave- Butterflies

Sr. no.	Common name	Scientific name	WPA
1	Common Spotted Flat	<i>Celaenorrhinus leucocera</i>	
2	Water Snow Flat	<i>Tagiades litigiosa</i>	
3	Dark Palm Dart	<i>Telicota ancilla</i>	
4	Rice Swift	<i>Borbo cinnara</i>	
5	Bevan's Swift	<i>Pseudoborbo bevani</i>	
6	Giant Redeye	<i>Gangara thyrasis</i>	
7	Chestnut Bob	<i>Iambrix salsala</i>	
8	Restricted Demon	<i>Notocrypta curvifascia</i>	
9	Grass Demon	<i>Udaspes folus</i>	
10	Common Bluebottle	<i>Graphium sarpedon</i>	I
11	Tailed Jay	<i>Graphium egamemnon</i>	
12	Common Mime	<i>Chilasa clytia</i>	I
13	Common Mormon	<i>Papilio polytes</i>	
14	Red Helen	<i>Papilio helenus</i>	
15	Blue Mormon	<i>Papilio polymnestor</i>	I
16	Lime Butterfly	<i>Papilio demoleus</i>	
17	Malabar Banded Peacock	<i>Papilio buddha</i>	I

18	Common Rose	<i>Atrophaneura aristolochiae</i>	I
19	Crimson Rose	<i>Atrophaneura hector</i>	I
20	Southern Birdwing	<i>Troides minos</i>	
21	Common Grass Yellow	<i>Eurema hecabe</i>	
22	Common Emigrant	<i>Catopsilia pomona</i>	
23	Mottled Emigrant	<i>Catopsilia pyranthe</i>	I
24	Common Wanderer	<i>Pareronia valeria</i>	
25	Common Jezebel	<i>Delias eucharis</i>	I
26	Psyche	<i>Leptosia nina</i>	
27	Western Centaur Oakblue	<i>Arthropala pseudocentaurus</i>	I
28	Yamfly	<i>Loxura atymnus</i>	II
29	Monkey Puzzle	<i>Rathinda amor</i>	
30	Common Imperial	<i>Cheritra freja</i>	II
31	Angled Pierrot	<i>Caleta caleta</i>	
32	Banded Blue Pierrot	<i>Discolampa ethion</i>	
33	Common Pierrot	<i>Castalius rosimon</i>	I
34	Common Cerulean	<i>Jamides celeno</i>	
35	Plains Cupid	<i>Chilades pandava</i>	I
36	Common Hedge Blue	<i>Acytolepis puspa</i>	I
37	Lime Blue	<i>Chilades lajus</i>	
38	Plum Judy	<i>Abisara echerius</i>	II
39	Striped Tiger	<i>Danaus genutia</i>	I
40	Plain Tiger	<i>Danus chrysippus</i>	I
41	Glassy Tiger	<i>Parantica aglea</i>	II
42	Common Nawab	<i>Polyura athamas</i>	I
43	Common Crow	<i>Euploea core</i>	I
44	Common Evening Brown	<i>Melanitis leda</i>	I
45	Common Palmfly	<i>Elymnias hypermnestra</i>	I
46	Common Bushbrown	<i>Mycalesis perseus</i>	I
47	Long-brand Bushbrown	<i>Mycalesis visala</i>	
48	Nigger	<i>Orsotrioena medus</i>	
49	Common Four-ring	<i>Ypthima huebneri</i>	

50	Tamil Yeoman	<i>Cirrochroa thais</i>	
51	Rustic	<i>Cupha erymanthis</i>	
52	Commander	<i>Moduza procris</i>	
53	Common Lascar	<i>Pantoporia hordonia</i>	
54	Common Sailer	<i>Neptis hylas</i>	I
55	Common Baron	<i>Euthalia aconthea</i>	I
56	Grey Count	<i>Tanaecia lepidea</i>	
57	Red Spot Duke	<i>Dophla evelina</i>	I
58	Angled Castor	<i>Ariadne ariadne</i>	
59	Common Castor	<i>Ariadne merione</i>	
60	Chocolate Pansy	<i>Junonia iphita</i>	
61	Grey Pansy	<i>Junonia atlites</i>	
62	Peacock Pansy	<i>Junonia almana</i>	
63	Great Eggfly	<i>Hypolimnas bolina</i>	
64	Danaid Eggfly	<i>Hypolimnas misippus</i>	I

Annexure- VII

Fauna of Degave- Insects

Sr. no.	Common name	Scientific name
1	Spur-throated Grasshopper	<i>Cyrtacauthacris tatarica</i>
2	Tree Cricket	<i>Phanaeroptera sp.</i>
3	Bush Cricket	<i>Tettigonia viridissima</i>
4	Round-headed Katydid	<i>Holocholra albida</i>
5	Mantis	
6	Indian Walking Stick	<i>Carausius morosus</i>
7	Striped Earwig	<i>Labidura riparia</i>
8	Cicada	<i>Platypleura sp.</i>
9	Plant Hopper	<i>Neodaksha sp.</i>
10	Water Strider	<i>Gerris sp.</i>
11	Stainer Bug	<i>Iphita sp.</i>
12	Seed Bug	<i>Spilostethus pandurus</i>

13	Stink Bug	<i>Erthesina acuminata</i>
14	Rhinoceros Beetle	<i>Oryctes rhinoceros</i>
15	Glow Worm	<i>Lampyris sp.</i>
16	Tree-trunk Borer	<i>Stromatium barbatum</i>
17	Long-horned Beetle	<i>Rosalia sp.</i>
18	Water Beetle	
19	Crane Fly	<i>Ctenophora laeta</i>
20	Mosquito	
21	Robber Fly	
22	Hover Fly	<i>Volucella sp.</i>
23	Stalk-eyed Fly	<i>Diopsis indica</i>
24	Blow Fly	<i>Chrysomya sp.</i>
25	Banded Geometer Moth	<i>Semiothisa fasciata</i>
26	Swallowtail Moth	<i>Micronia aculeata</i>
27	Blue Tiger Moth	<i>Dysphania percota</i>
28	Stealth Bomber Moth	
29	Fruit Piercing Moth	<i>Eudocima materna</i>
30	Common Hunter Hawk Moth	<i>Theretra clotho</i>
31	Owl Moth	<i>Erebus ephesperis</i>
32	Black Crazy Ant	<i>Paratrachina longicornis</i>
33	Waever Ant	<i>Oecophylla smaragdina</i>
34	Indian Rock Bee	<i>Apis dorsata</i>
35	Carpenter Bee	<i>Xylocopa sp.</i>
36	Giant Indian Velvet Mite	<i>Trombidium grandissimum</i>
37	Harvestman	<i>Gagrella sp.</i>
38	Tailless Whip Scorpion	
39	Giant Whip Scorpion	
40	Black Wasp	

Annexure- VIII

Fauna of Degave- Odonates (Dragon flies)

Sr. no.	Common name	Scientific name	IUCN Status	Endemic Status
1	Trumpet Tail	<i>Acisoma panoproides</i>	LC	
2	Emerald-Banded Skimmer	<i>Cratilla lineata</i>	LC	
3	Ruddy Marsh Skimmer	<i>Crocothemis servilia</i>	LC	
4	Asiatic Blood Tail	<i>Lathrecista asiatica</i>	LC	
5	Fulvous Forest Skimmer	<i>Neurothemis fulvia</i>	LC	
6	Pied Paddy Skimmer	<i>Neurothemis tullia</i>	LC	
7	Brown-backed Red Marsh	<i>Orthetrum chrysis</i>	LC	
8	Blue Marsh Hawk	<i>Orthetrum glaucum</i>	LC	
9	Tricoloured Marsh Hawk	<i>Orthetrum luzonicum</i>	LC	
10	Crimson-tailed Marsh Hawk	<i>Orthetrum pruinosum</i>	LC	
11	Green Marsh Hawk	<i>Orthetrum sabina</i>	LC	
12	Green Stream Glider	<i>Trithemis festiva</i>	LC	
13	White Dartlet	<i>Agriocnemis pieris</i>	NA	Endemic to WG
14	Pigmy Dartlet	<i>Agriocnemis pygmaea</i>	LC	
15	Black-tipped Forest Glory	<i>Vestalis apicalis</i>	LC	India and Shri Lanka
16	Clear-winged Forest Glory	<i>Vestalis gracilis</i>	LC	
17	River Heliodor	<i>Libellago lineata</i>	LC	
18	Malabar Torrent Dart	<i>Euphaea fraseri</i>	LC	Endemic to WG

Annexure IX

Endemic Birds		
Malabar Grey Hornbill	<i>Ocyrceros griseus</i>	Endemic WG

Malabar Pied Hornbill	<i>Anthracoceros coronatus</i>	Endemic WG
White-cheeked Barbet	<i>Megalaima viridis</i>	Endemic WG
Nilgiri Flowerpecker	<i>Dicaeum concolor</i>	Endemic WG
Crimson-backed Sunbird	<i>Leptocoma minima</i>	Endemic WG
Vigor's Sunbird	<i>Aethopyga vigorsii</i>	Endemic WG

Annexure- X

Fauna of Degave- Spiders

Sr. no.	Common name	Scientific name
1	Garden Cross Spider	<i>Argiope pulchella</i>
2	NA	<i>Cyrtophora sp.</i>
3	NA	<i>Eriowixia sp.</i>
4	NA	<i>Parawixia dehaani</i>
5	NA	<i>Neoscona sp.</i>
6	NA	<i>Neoscona sp.</i>
7	NA	<i>Ctenus sp.</i>
8	Two-tailed Spider	<i>Hersilia sp.</i>
9	Common Funnel Web Spider	<i>Hippasa agelenoides</i>
10	NA	<i>Lycosa sp.</i>
11	Dark Sac Spider	<i>Cleiracanthium sp.</i>
12	Black Wood Spider	<i>Nephila kuhlii</i>
13	Giant Wood Spider	<i>Nephila pilipes</i>
14	Nursery Web Spider	<i>Pisaura sp.</i>
15	NA	<i>Leucauge sp.</i>
16	NA	<i>Leucauge sp.</i>
17	Humped Silver Spider	<i>Opadometa fastigataa</i>

AERF Field Team & Photo credits

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Photo Gallery : Glimpses of Biodiversity ; Degave and surroundings



Opadomata fastigata



Black naped monarch



Mountain Imperial Pigeon



Tree frog



Red Helen butterfly



Platenthera sussannae



Uperodon marmorata



Hemidactylus sps.

