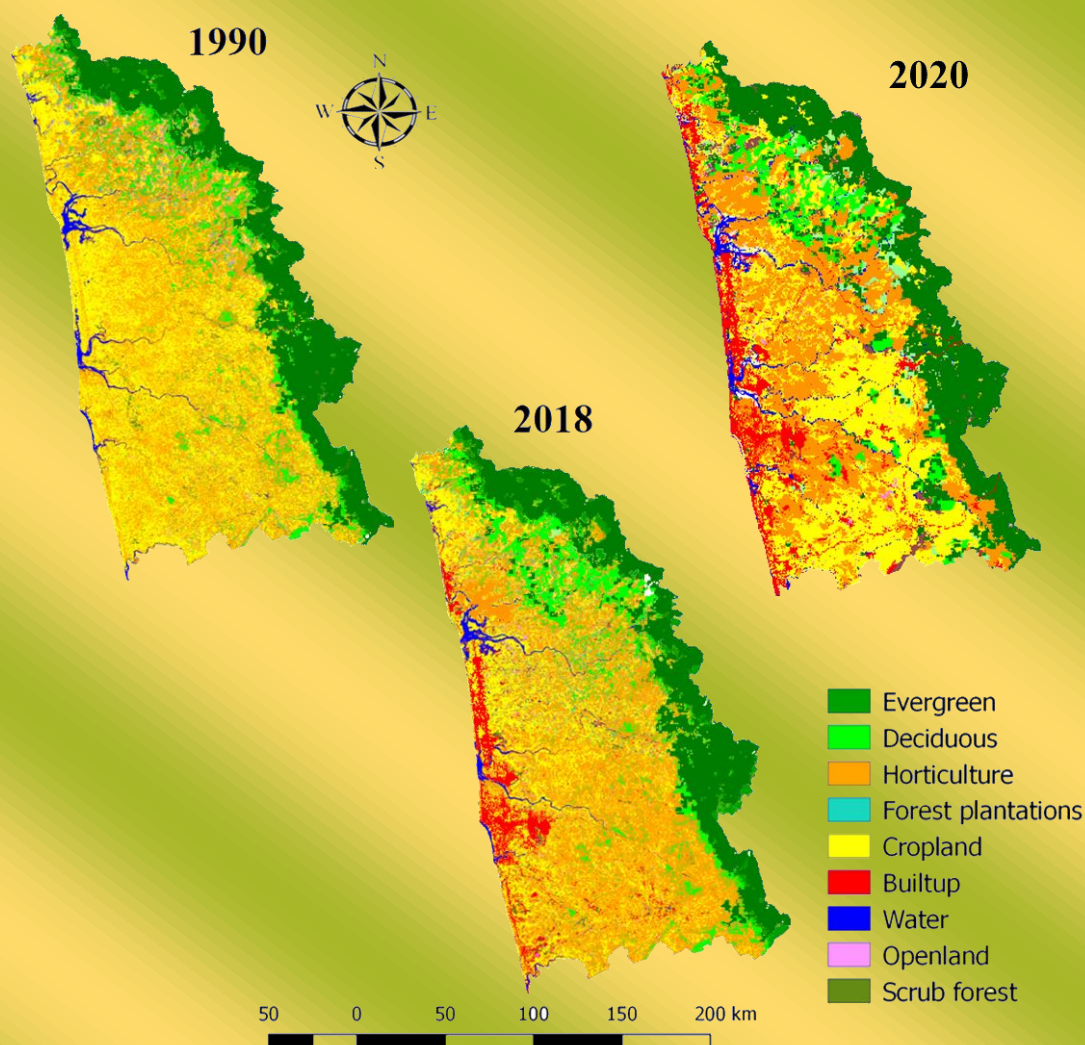


Grid based Inventorying and Mapping of Ecologically Sensitive Regions in Udupi district, Karnataka

Ramachandra T.V.

Bharath Settur



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	CONTENT	PAGE NO
	Research Highlights	1
	Executive Summary	2
1	Introduction	4
2	Materials and Method	7
3	Results	19
4	Ecologically Sensitive Regions	24
Annexure	Flora of the district	34
	Fauna of the district	95



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Grid based Inventorying and Mapping of Ecological Sensitive Regions in Udupi district, Karnataka

Research Highlights

- Ecological sensitivity or fragility refers to permanent and irreparable loss of extant life forms or significant damage to the natural processes of evolution and speciation with the alterations in the ecological integrity of a region.
- Ecological sensitive regions at decentralised levels in Udupi district has been identified by considering composite metric based on bio, geo, hydro, climatic and ecological factors with the social aspects, which were compiled at grid levels (5'x5' grids or 9 x 9 km) through grid based natural environment survey at representative grids and the extensive literature review for the information at district level.
- LULC changes leading to deforestation has altered the landscape structure.
- Decline in forest cover during 1990-2020 with an increase in urban and open surfaces. Horticulture plantations increased from 36.82 % (1990) to 42.39% (2020),
- Conversion of agricultural land to commercial uses, all along the major highways has increased the built-up area from 0.22% to 9.22%.
- Fragmentation analysis shows a decline in interior forests and an increase of non-forest areas. Temporal land surface temperature analysis across LU categories shows an increase of land surface temperature. It has been observed that urban areas show an increase in maximum temperature.
- Bio-Geo climatic, ecological and social attributes were used for prioritizing and identification of ESR regions at disaggregated levels (grids).
- Ecological Sensitive Regions analysis highlights that Udupi one of the coastal districts shows, spatially 15% of the area represents ESR 1, while 31% of the area represents ESR 2. 42% of the area represents ESR 3 and about 12% of the area is in ESR 4.
- ESR 2 regions have sensitivity similar to ESR 1 and have the potential to become ESR 1 with appropriate eco-restoration strategies. The level of eco-sensitiveness has a direct impact on temperature with a correlation of 0.69 across eco-sensitive regions in Udupi.

Grid based Inventorying and Mapping of Ecological Sensitive Regions in Udupi district, Karnataka

Executive Summary

Ecological sensitivity or fragility refers to permanent and irreparable loss of extant life forms or significant damage to the natural processes of evolution and speciation with the alterations in the ecological integrity of a region. The comprehensive knowledge of ecological fragility of a region is quintessential for evolving strategies of conservation. This entails understanding factors responsible for ecological sensitivity and also visualization of future growth to overcome the problems of haphazard and uncontrolled development approaches. This has been done through assessment of LULC dynamics using temporal remote sensing data along with the field data and predicted future scenarios of transformation, which helps in the development of appropriate management strategies. Prioritization of Ecological Sensitive Regions in the district was done at decentralized levels (dividing the region into 5'x5' grids) by using geo-climatic, ecological, hydrologic and social variables.

Biodiversity Act (2002) Government of India empowers Biodiversity Management Committees at each panchayat for prudent management of natural resources at decentralised levels. The spatial extent of grids (5'x5' or 9 km x 9 km), is approximately equivalent to a panchayat. This framework also helps in geospatial analyses by overlaying the collateral data available at decentralised levels. These grids correspond to (i) the Survey of India topographic maps of scale 1:50,000 and (ii) the spatial extent of each grid correspond to a panchayat, an administrative unit for the decentralised level of governance with an organized monitoring system for conservation of the region.

Forests are a major source for a wide range of goods (timber, fuelwood, non-timber forest produce, etc.) and services that are critical to support people's livelihood support and economy. Unregulated changes in forests through unplanned developmental activities contributing to a rapid depletion of forest cover thereby threatening their sustenance. In this context, the region is prioritized as ESR 1, ESR 2, ESR 3 and ESR 4 for sustainable management of ecologically fragile regions.

ESR 1 & ESR 2 are the no-go area with respect to developments and ESR 4 is referred as the least possible eco-sensitive region. The Community-based Conservation (CBC) of ESR 2 & 3

is proposed for conservation of biological diversity (or wildlife) involving local communities in decision-making. This approach would aid in the improvement of local ecology. The impacts of unplanned developmental activities are evident from barren hill tops, reduced number of rainy days, the conversion of perennial streams to seasonal ones, frequent occurrence of land slides, lowered agriculture productivity, etc. which necessitates conservation of fragile ecosystems to support local livelihoods .

A landscape refers to an ecological space with a mosaic of heterogeneous elements, and structure (composition and configuration) determines ecosystem functions and hence resources availability. Alteration in the landscape structure with fragmentation would lead to loss of habitat and biodiversity. Landscape dynamics with changes occurring in the physical space are driven by either natural or induced by humans. Landscape dynamics operating along with a broad range of temporal and spatial scales changes the stability, persistence, resistance, resilience, and recovery properties of a landscape. Understanding landscape dynamics are crucial for prudent management of natural resources (land, water, etc.) and conservation. Landscape dynamics has a crucial significance in ecological processes at social, economic and ecological health of individuals. However, unplanned developmental activities have been affecting the sustenance of natural resources evident from the barren hilltops, conversion of perennial streams to the seasonal streams threatening water security, loss of topsoil threatening food security, etc. Rapid unsustainable development during the post industrialization and globalization era has led to the reduction of natural spaces with an exponential increase in pervious surfaces and burgeoning population has led to changes in local climate and formation of urban heat islands. Due to the increase in urban areas, paved surfaces and loss of green belts, there has been an increase in land surface temperature. The current study prioritizes villages in the Udupi district, Central Western Ghats based on ecological sensitiveness based on ecological, geo-climatic, land and social prospects. Ecological Sensitive Regions are the distinct ecological units with exceptional biotic and abiotic elements which need at most care and sustainable development. Unplanned developmental activities altering the landscape structure impacts the sustenance of natural resources evident from barren hilltops, conversion of perennial streams to seasonal ones, increase in the land surface temperature, etc. This necessitates prudent management of natural resources. In this regard, a spatial decision support system will aid in the decision making with a better understanding of the landscape dynamics to ensure sustainable development. Multivariate statistical analysis is done to understand the

role of landscape dynamics on the land surface temperature. The analyses of landscape dynamics using the temporal remote sensing data in Udupi district, Karnataka State reveal an increase in built-up areas by 2.68%, which also resulted in the increase in maximum temperature by 4°C in Udupi district during 1990-2018. The correlation analysis shows an increasing trend of LST across the ESR region with $r^2 = 0.64$ where ESR 1 shows the lowest temperature and ESR 4 has the maximum temperature.

1.0 Introduction

Ecosystems are the distinct biological entities that connect biotic (living organisms) with the abiotic (nonliving) components (Fosberg, 1963; Lindeman 1942)., interacting as a system and characterized by a range of functions: nutrient cycling, bio-geochemical cycle, hydrological cycling, etc. They provide a range of goods and services that are essential for human well-being, health, livelihood, and survival. Ecosystem goods include food, fiber, freshwater, biochemical and genetic resources, etc. Services provided by an ecosystem with the regulation of ecosystem processes are air quality regulation, climate regulation, water purification, disease control etc. The goods and services provided by ecosystems sustain the livelihood of people and the extent of support depends on the conditions or health and spatial extent of the respective ecosystems. Humans have been altering the integrity of the ecosystem evident from one third of the earth's land surface turned into croplands and pastures with the decline of natural areas (Houghton 1994). This necessitates an understanding of landscape dynamics to formulate effective management policies and sustain goods and services (Reid et al., 2000).

Land use and land cover (LULC) information are vital for understanding the ecosystem and interactions of human activities. LU changes caused by anthropogenic activities lead to alteration in landscape dynamics causing various changes in biogeochemical cycles. Thus, plays an important role in global climate change (Ramachandra et al., 2018). LC relates to the type of physical features (vegetation, non-vegetation) present on the earth surface. LU relates to the human activity or economic function associated with a specific piece of land, for example – agriculture, horticulture, forest, etc. (Lillesand et al., 2004). Landscape structure (size, shape and configuration) decides its functional aspects such as bio-geo chemical cycling and hydrological regimes. Alteration in the structure of a landscape either due to natural or anthropogenic activities, affects the processes such as hydrologic regime, ecology, biodiversity, etc. (Vinay et al., 2017). Anthropogenic activities leading to large-scale

alterations in LULC have been affecting the environment at a global scale. Escalated deforestation to cater the growing demands with industrialization and globalization has been contributing to global climate changes with the alteration of biogeochemical cycles. During the last three decades, there has been a substantial reduction in the spatial extent of forests with globalization and the subsequent opening of Indian markets (Bharath et al., 2017).

Forests constitute vital ecosystems covering about 30% of the Earth's surface. Forest cover changes, especially due to unplanned anthropogenic activities (Huang et al., 2008), have widespread effects on the provision of ecosystem services towards human welfare. As pressure on forest cover is increasing due to human interventions, there has been a growing concern to mitigate deforestation through monitoring at global and regional scales (Kuemmerle et al., 2007). Vegetation in forest ecosystem plays a significant role in mitigating carbon in the atmosphere through sequestration during photosynthesis (Hansen et al., 2010). Forests provide ecological, economic, and social services to human society, including the provision of food, refuges for biodiversity, regulation of the hydrologic cycle, medicinal, and forest products, recreational uses, protection of soil resources, and spiritual needs. Forests play a decisive role in the hydrologic cycle through evapotranspiration which cools climate through feedbacks with clouds and precipitation. The ratio of evapotranspiration to available energy is generally low in native forests compared to croplands or monoculture plantations (Bonan et al., 2008).

Vegetation cover in forests is a product of the long-term interaction of geomorphological features, hydrological conditions, soil type, climate change, and human activities (Zhu et al., 2012). It helps in modulating the ecosystem through water retention, atmospheric circulation, and terrestrial soil stability, and maintains the balance of an ecosystem. (Leilei et al., 2014; Liu et al., 2009). Therefore, quantification of spatial extent and conditions of an ecosystem provide insights into LULC changes which will aid in natural resources management (Hansen et al., 2000).

Changes in the LU involving degradation of forests has resulted in the increase in land surface temperature (LST), which is the radiative skin temperature of the earth's surface. It is one of the key elements representing the integrated features of land atmosphere physical and dynamic processes (Shwetha et al., 2016). Land surface temperature and emissivity aid in understanding energy budget estimation (Chakraborty et al., 2015).

Emissivity is the ratio of energy radiated from a material's surface to that radiated from a blackbody (a perfect emitter) at the same temperature and wavelength at the same viewing conditions. The emissivity of a surface depends not only on the material but also on the nature of the surface. Estimating LST using emissivity as a parameter provides accurate information with appropriate calibration of land use land cover changes (Bharath et al., 2013). Conventionally, Land Surface Temperature (LST) is measured from the direct ground measurement. The advancement in satellite remote sensing, land surface temperature is estimated using the data of thermal infrared bands by either split-window algorithms or mono window algorithms or radiative transfer equation (Bakar et al., 2016; Mujabar et al., 2018; Estoque et al., 2017; Asgarian et al., 2014; Danodia et al., 2018; Kumari et al., 2018; Kayet et al., 2016). Urbanization is a dominant demographic trend, marked by the process of change in land use, causing the transition from a rural to a more urban society. As an increment in urban land use, it reflects the loss of vegetation, agricultural land, open space, etc. This has prompted investigation of the causes and consequences of LULC by mapping and modeling landscape patterns, and dynamics (Ramachandra and Bharath, 2018). Hence, land use change analysis has become a prerequisite for managing and monitoring ecosystem and environmental changes. Humans depend either directly or indirectly on forests to an extent of 80% in the developing world. Altering the ecological integrity would impact the ecological goods and services affecting the livelihood of the dependent population (Ramachandra et al., 2016). The conservation and sustainable management of ecosystems are the vital components in the pursuit of ecologically sound, economically viable, and socially acceptable development goals (Ramachandra et al., 2018; Ramachandra and Bharath, 2021). This entails identifying eco-sensitive regions and their preservations. Eco-sensitive area refers not only to ecologically sensitive areas or ecologically fragile areas but also ecologically significant areas for their ecological, biological, cultural, economic and historical values and is protected by government regulations. (Gadgil et al., 2011). The increased exploitation of natural resources and large-scale landscape transformations have led to the degradation of the ecosystem. The process of decision making should mandatorily include the importance of the intact ecosystems for the sustenance of natural resources to meet the present as well as the future needs (Ramachandra et al., 2016). The main objective of the current study is to prioritize ecologically sensitive areas in Udupi district, Karnataka State, India, and understand the linkages of LST with LU and ecologically sensitive regions.

2.0 Materials and Method

2.1 Study area: Udupi district was created in August 1997 by bifurcating three taluks viz, Udupi, Kundapur, and Karkala from the undivided parent district of Dakshina Kannada and accounts for 1.9% of the total population of the State. It is located in the coastal region at the foot of the Western Ghats running along the West Coast of Karnataka. It shares its boundary with Uttara Kannada district in north and Dakshina Kannada district in southern direction lying between 13°04' and 13°59' N latitude and 74°35' and 75°12' E longitude (Figure 1.1). Geographically, the districts have a total area of 3582 square kilometers and is divided into three sub-districts namely Kundapura, Udupi, and Karkal. It has large tracks of tropical evergreen forest called Western Ghats forest which is one of the biodiversity hot spots in the world which covers an area of 100102 hectares and is equally distributed in all taluks.

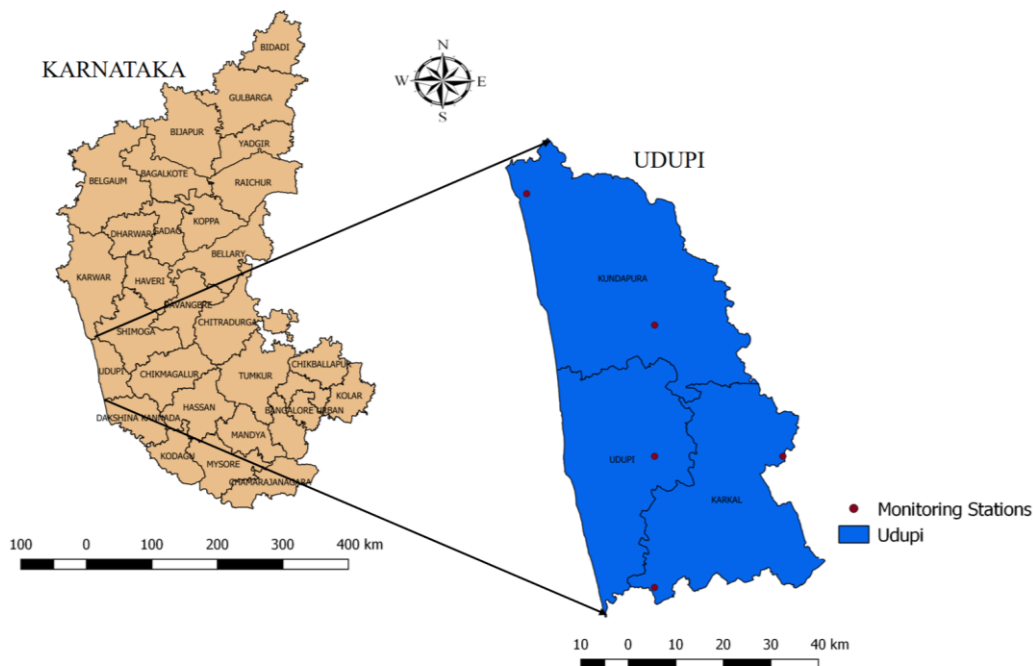


Figure 1.1 Geographic location- Udupi District

The district is blessed with abundant rainfall, fertile soil, and lush vegetation. Pristine beaches, picturesque mountain ranges, temple towns, and rich culture make it a famous tourist destination. It is well known for Yakshagana- a fabulous costumed dance-drama form, Kambala- the sport of buffalo racing by farmers, Kori-katta (Cock Fight), and Bootha Kola. It is called the hub for Cashew Processing Industries and outsourcing companies. The district has a coastal line of about 100 km length with rich marine output and beautiful beaches, abundant religious and spiritual centres. In the north, particularly in the Kundapura taluk, the Western

Ghats are nowhere more than 40 km from the sea and at one point there is an extent of only about 10 km. of plain land and at that point, the northern boundary of this district and the southern boundary of the Uttara Kannada district meet. The northern portion has steep mountainous cliffs while the southern portion has parallel ridges intersected by deep valleys. The most important mountains are the peak of Kodachadri, about 27 km from Kundapura, which is 1,341 meters (4,400 feet) high.

Forest cover: The slopes of the Western Ghats are endowed with dense forests containing valuable species including timber and fuelwood. The heavy rainfall in the district stimulates the growth of forests, which sometimes, begin with a few kilometers of the seacoast. Generally, the dense forest begins about 30 to 40 km from the coast. The region is naturally blessed with evergreen, semi-evergreen and moist forests which totals approximately about 27.9 percent of the total geographical area (DCMSME, 2011). Dense forest areas are prevalent in Kundapura and Karkal taluks. The important timber trees are the teak, rosewood, ben teak (*Tectona grandis*), kiral bhogi (*Hopea parviflora*, Dipterocarpaceae family), Matti (*Terminalia tomentosa*; *Terminalia arjuna*), Maavu (*Mangifera indica*), and Kaadu halasu (*Artocarpus hirsutus*). Portuguese introduced pineapple (*Ananas comosus*) in the district which is now cultivated throughout the district. Turmeric (*Curcuma longa*) is essentially found in the Karkal taluk and is cultivated in small patches in the district. Ginger (*Zingiber officinale* Rosc.), cardamom (*Elettaria cardamomum*), plantains (*Musa acuminata*, *Musa balbisiana*, *Musa × paradisiaca*), pepper (*Piper nigrum*) are some of the important crops which are grown in the district.

River and Drainage: The main drainage network is in the westward of the district. The rivers and streams of the district flow from east to west as the Western Ghats are located in the eastern part of the district. Varahi, Gangolli, Sitandi and Swarna are the important rivers. These rivers are perennial whereas tributaries and smaller streams are seasonal and become dry during summer. The prevailing high gradient in the hilly terrain and heavy rainfall bring a great volume of water in these rivers during the monsoon. All these rivers join the Arabian Sea and are prone to tidal effects to considerable lengths in the inland area.

Lithology and soil: The soils of the district are derived from the coastal strips. Laterite soil is the dominated soil characterized by a high iron and aluminium content (Figure 1.2). This soil type occurs usually in heavy rainfall zone and is suitable for crops such as paddy, sugarcane,

areca nut, coconut, cardamom and plantains. Valleys and ravines in the district contain fertile alluvial soil. The district contains recent and sub-recent deposits and lateritic formations. The older metamorphic rocks constitute mainly the Dharwars which are represented by the banded ferruginous quartzite and by the talc and hornblende schist (Figure 1.3).

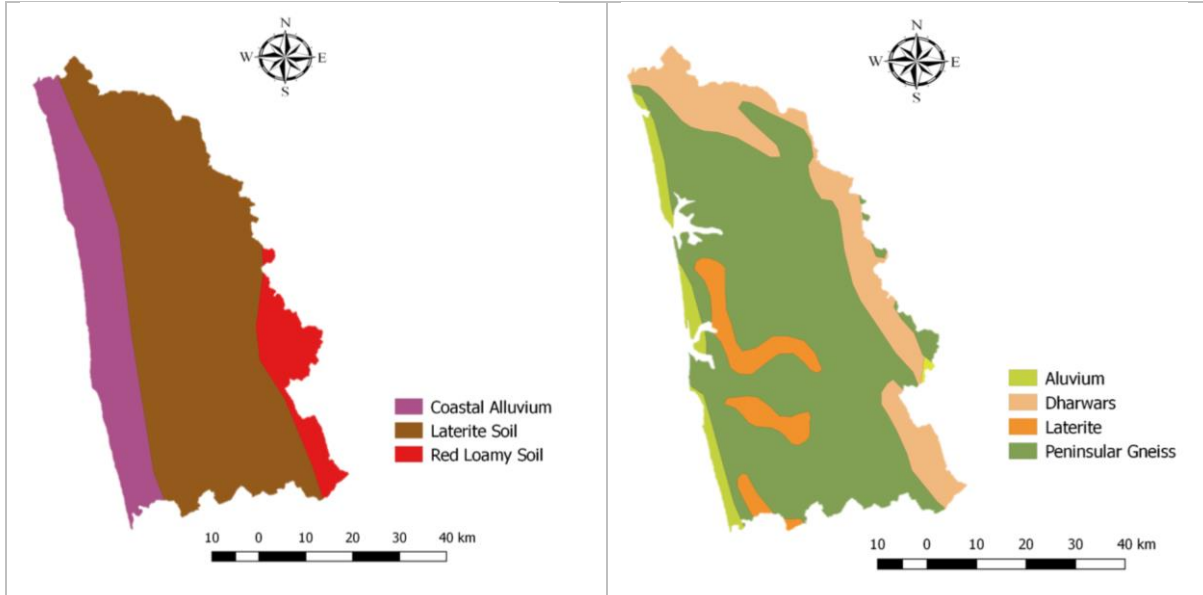


Figure1.2. Soil map of Udupi

Figure1.3. Lithology map of Udupi

Rainfall: Udupi district gets an annual rainfall of 4000 mm. The district falls under the coastal agro-climatic zone and has a good network of registered rain gauge stations:14 in Kundapura taluk, 9 in Karkal taluk, and 5 in Udupi taluk. Mainly the rainy season starts from June and lasts till September end. The rainfall increases from the coast towards the Western Ghats on the eastern border of the district (figure 1.4). More than 85% of the annual rainfall is in the southwest monsoon season and the heaviest rainfall is during July.

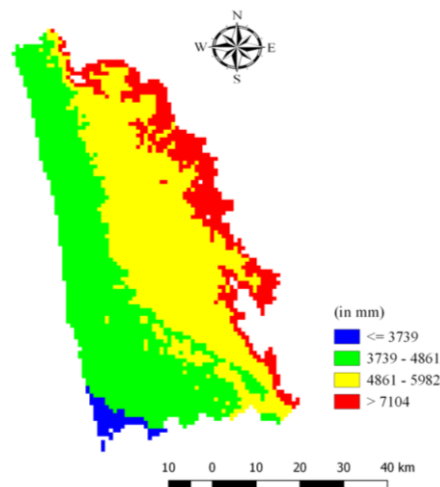


Figure1.4. Spatial variability of rainfall in Udupi

Climate and Temperature: The climate is marked by heavy rainfall, high humidity, and sticky weather in the hot seasons. The hot season is from March to May, followed by the Southwest monsoon season, October and November are post-monsoon seasons and December to February are the northeast monsoon, although the rains cease after December and the rest of the season is generally dry. May is the hottest month during which the maximum temperature reaches up to 40°C and the minimum stays around 22°C. The weather in the district is well suited for the cultivation of paddy and for raising plantation crops like Areca nut, Coconut, and Banana on the slopes of hills and in the valleys. The district is endowed with hot moist subhumid and hot humid wherein the region experiences warm summer and cool and dry winters.

2.2 Data

2.2.1 Remote Sensing data

Landsat products: Landsat 5 Thematic Mapper (TM) data of 1990 and Landsat 8 Operational Land Imager (OLI) of 2018, were used in the study (table 2.2.1).

Table 2.2.1. Spatial data used for land use analyses

Sl.No.	Dataset	Year	Source
1.	LANDSAT 4– 5 TM	1990	https://earthexplorer.usgs.gov
2.	LANDSAT – 8 OLI & TIRS	2018	https://earthexplorer.usgs.gov

Cloud free data of bands 1-5 and 7 with a spatial resolution of 30 m, and the thermal infrared band (band 6) of spatial resolution of 120m for Landsat 5 TM and 100m for Landsat 8 OLI images. The Landsat data all bands including the thermal band were registered to a common Universal Transverse Mercator coordinate system and resampled to 30 m using the nearest neighbor algorithm. Description of the data used for the study are as follows:

Landsat 5 TM: The **Landsat Thematic Mapper (TM)** sensors (Landsat 4 and Landsat 5), and images consist of six spectral bands (Table 2.2.2) with a spatial resolution of 30 meters for Bands 1-5 and 7, and one thermal band (Band 6). TM Band 6 was acquired at 120-meter resolution, and all these are resampled to 30-meter pixels. Bands 2, 3 and 4 i.e., green, red, and near infrared bands were used for LU classification for false color composition. Band 6 i.e., the thermal band was used for estimation of Land surface temperature using mono window algorithm.

Table 2.2.2. data details of Landsat 5 TM

Band Number	Wavelength (in μm)	Resolution (in m)
1 – Blue	0.45-0.52	30
2 – Green	0.52-0.60	30
3 – Red	0.63-0.69	30
4 - Near Infrared (NIR)	0.76-0.90	30
5 - Shortwave Infrared (SWIR) 1	1.55-1.75	30
6 – Thermal	10.40-12.50	120* (30)
7 - Shortwave Infrared (SWIR) 2	2.08-2.35	30

Landsat 8 OLI and TIRS: The data consist of nine spectral bands with a spatial resolution of 30 meters for Bands 1 to 7 and 9 (Table 2.2.3). The ultra-blue Band 1 is useful for coastal and aerosol studies. Band 9 is useful for cirrus cloud detection. The resolution for Band 8 (panchromatic) is 15 meters. Thermal bands 10 and 11 are useful in providing more accurate surface temperatures and are collected at 100 meters but products are resampled to 30-meter pixels. Bands 3, 4 and 5 i.e. green, red, and near infrared bands were used for LU classification for false color composition. Band 10 i.e., thermal band was used for estimation of Land surface temperature using mono window algorithm.

Table 2.2.3. Data details of Landsat 8 OLI

Band Number	Wavelength (in μm)	Resolution (in m)
1 - Ultra Blue (coastal/aerosol)	0.435 - 0.451	30
2 – Blue	0.452 - 0.512	30
3 – Green	0.533 - 0.590	30
4 – Red	0.636 - 0.673	30
5 - Near Infrared (NIR)	0.851 - 0.879	30
6 - Shortwave Infrared (SWIR) 1	1.566 - 1.651	30
7 - Shortwave Infrared (SWIR) 2	2.107 - 2.294	30
8 – Panchromatic	0.503 - 0.676	15
9 – Cirrus	1.363 - 1.384	30
10 - Thermal Infrared (TIRS) 1	10.60 - 11.19	100 * (30)
11 - Thermal Infrared (TIRS) 2	11.50 - 12.51	100 * (30)

2.2.2 Field data: Field data of LU were collected for classification and validation of classified LU and Land Surface Temperature. The data from Google Earth for various classes like forest, plantation, agriculture, urban, water and open spaces were collected and used during analysis and validation.

For air temperature, ground data of 2018 was taken from KSNDMC (Karnataka State Natural Disaster Monitoring Centre). Karnataka has the distinction of establishing country's first Drought Monitoring Cell (DMC and later KSNDMC since 2007) in 1988 as an institutional mechanism affiliated with Department of Science and Technology.

2.2.3. Global meteorological forcing dataset for land surface modeling: Global air temperature data (at 2 m from ground based on climate modeling grid of 0.25) is used for the validation of LST maps for 1990. A 10 km, the daily meteorological dataset of 0.25 deg grid is used for the validation of LST of 1990. The dataset is based on the NCEP-NCAR reanalysis (NNR- <https://psl.noaa.gov/data/gridded/data.ncep.reanalysis.pressure.html#>) merged with the University of East Anglia Climate Research Unit (CRU) monthly gridded temperature product and the NASA Langley Surface Radiation Budget (SRB- <https://asdc.larc.nasa.gov/project/SRB>) product. The data are available in 'netcdf' format with one file per variable per year.

2.2.4. Population data: Population data of 1901 and 2001 of Census of India (<https://censusindia.gov.in/>) and projected population of 2011.

2.2.5. Geological data: Geological data such as soil, lithology, and agro-ecological zones were obtained from ICAR- NBSS & LUP (National Bureau of Soil Survey and Land Use Planning).

2.2.6. SRTM- DEM: DEM data was obtained from SRTM of 30-meter resolution. Terrain analysis was used to obtain slope.

2.2.7. Rainfall data: Rainfall data is obtained from WorldClim- Global Climate Data version-2. It is a set of global climate layers (gridded climate data) with a spatial resolution of about 1 km² which can be used for mapping and spatial modeling.

2.3 Method

The present study has been carried out (i) using remote sensing data to analyse land uses extent and conditions, (ii) identify and prioritize ecologically sensitive regions based on ecology, geo-climatic, land, and social attributes. The approaches used in the study include land use analysis, fragmentation, land surface temperature, weightage metric score, and spatial decision support system. The details of the approach are outlined in Figure 2.1 are discussed below:

Land Use/Land Cover Classification

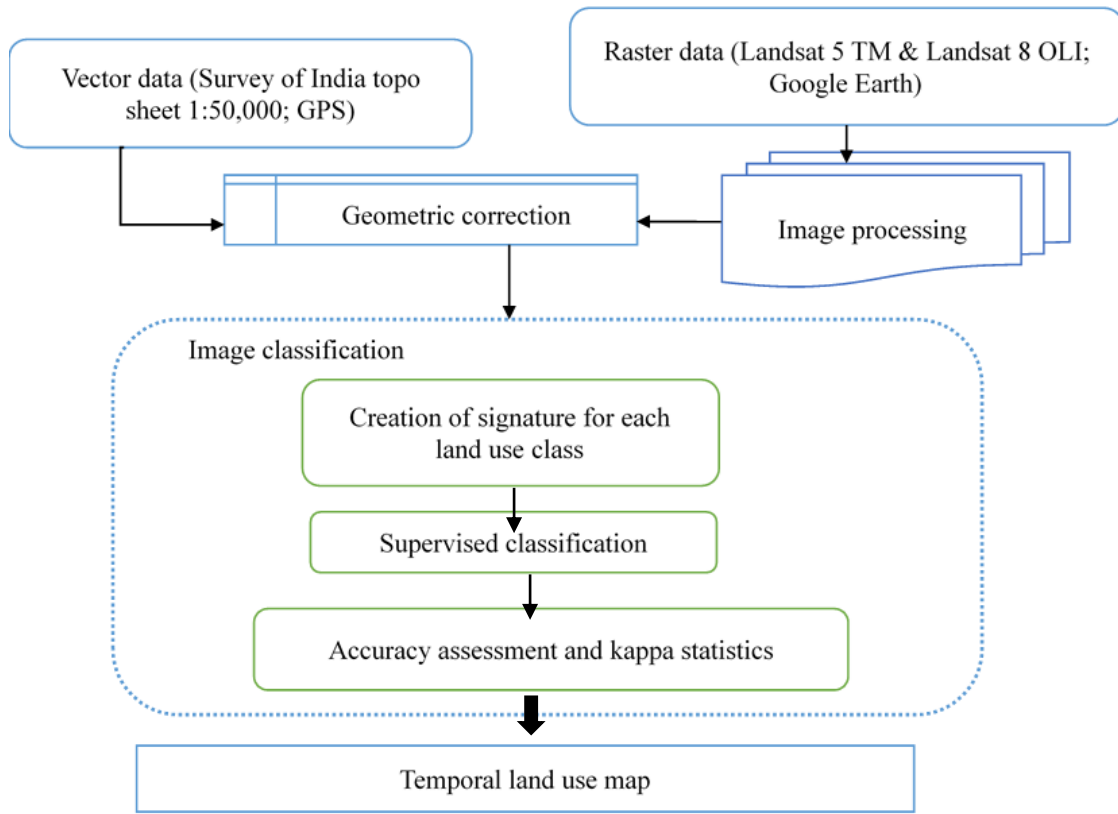


Figure 2.1. Method adopted for LULC Analysis

2.3.1 Land Use Analysis: LU analysis involved :

- i. Quality parameters: The remote sensing data were chosen so that the data has no or minimal cloud cover (less than 10 percent) and pixel quality.
- ii. Image pre-processing and geo-referencing: The data was rectified radiometric errors and geometric errors. Geometric rectification is done using ground control points with the nearest neighbourhood technique. The geo-rectified image is then projected to WGS/UTM 43N (EPSG: 32643).
- iii. LU Classification: Remote sensing data is classified using a supervised classifier based on the Gaussian Maximum Likelihood principle. In the supervised technique, training data of representative LU describing the spectral attributes (Lillesand et al., 2004) is considered. The technique essentially uses a Gaussian maximum likelihood classifier considering variance and covariance of the unknown pixels.
- iv. Validation of LU information: Classified LU information is validated by accuracy assessment through computation of error matrix and Kappa statistics. Error matrix

compares, on a category-by-category basis, the relationship between ground truth data (reference data) and the corresponding results of the classified data. Kappa coefficient is estimated (eq. 1) which measures the difference between the actual agreement between the reference data and classified data.

$$K = \frac{\text{Observed Accuracy} - \text{Chance Agreement}}{1 - \text{Chance Agreement}} \dots\dots 1$$

2.3.2 Fragmentation: The condition of forest ecosystem is assessed through fragmentation analyses involving both the extent of the forest and its spatial pattern. Fragmentation of forests measures the degree to which forested areas are being broken into smaller patches and pierced with non-forest cover. It is estimated through the computation of P_f and P_{ff} . P_f is the ratio of number of pixels that are forested to the total number of non-forested non-water pixels in the kernel (3X3) and P_{ff} is the proportion of all adjacent (in all cardinal directions) pixel pairs that include at least one forest pixel, for which both pixels are forested. Various levels of fragmentation are outlined in Figure 2.2, which consists of five components: (i) Interior forest: It is essentially consisting of thick forest cover, (ii) Patch forest: Forest area comprising small forested areas surrounded by non-forested land cover, (iii) Perforated forest: Forest pixels forming the boundary between an interior forest and relatively small clearings (perforations) within forest landscape, (iv) Edge forest: Forest pixels that define the boundary between interior forest and large non-forested land cover features and (v) Transitional forest: Areas between edge type and non-forest types. If higher pixels are non-forest, then they will be tending to non-forest cover with a higher degree of edge.

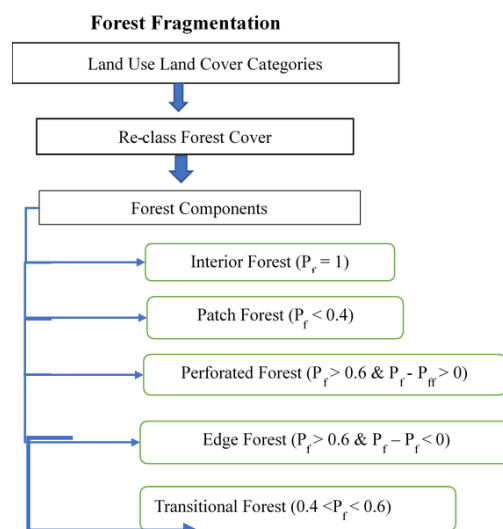


Figure 2.2. Method adopted for Fragmentation Analysis

2.3.3 Land surface temperature: It is estimated using time series data from Top-of-Atmosphere brightness temperatures from the infrared spectral channels of a constellation of geostationary satellites. Its estimation depends on the albedo, the vegetation cover, and the soil moisture. LST influences the partition of energy between ground and vegetation and determines the surface air temperature. Retrieval of LST from Landsat 8 thermal data involves computation of radiance correction, reflectance correction, converting DN value to brightness temperature, computation of NDVI, the proportion of vegetation, Emissivity-corrected LST (details in Figure 2.3) as follows:

$$\text{Radiance correctness: } L_{\lambda} = M_L Q_{cal} + A_L \quad \dots 2$$

L_{λ} is TOA (temperature of atmosphere) spectral radiance (Watts/ (m² * srad * μm)), M_L is Band specific multiplicative rescaling factor from the metadata, A_L is Band specific additive rescaling factor from the metadata, Q_{cal} is Quantized and calibrated standard product pixel values (DN).

$$\text{Reflectance correctness: } \rho_{\lambda}' = M_{\rho} Q_{cal} + A_{\rho} \quad \dots 3$$

ρ_{λ}' is TOA (temperature of atmosphere) planetary reflectance, M_{ρ} is Band-specific multiplicative rescaling factor from the metadata, A_{ρ} is Band-specific additive rescaling factor from the metadata.

$$\text{DN value converted to brightness temperature: } T_b = \frac{K_2}{\ln\left[\frac{K_1}{L_{10}} + 1\right]} \quad \dots 4$$

L_{10} is the spectral radiance of thermal band 10 [Wm⁻²sr⁻¹μm⁻¹], T_b is the brightness temperature [Kelvin] and K_1 and K_2 are constants [Wm⁻²ster⁻¹μm⁻¹], $K_1 = 666.09$, $K_2 = 1282.71$.

$$\text{Calculation of NDVI: } NDVI = \frac{Band5 - Band4}{Band5 + Band4} \quad \dots 5$$

Where Band5 is the near infrared band and band4 is the red band.

Step 5:

$$\text{Calculation of Proportion of vegetation (P}_v\text{): } P_v = \left(\frac{NDVI - NDVI_{min}}{NDVI_{max} - NDVI_{min}}\right)^2 \quad \dots 6$$

Land surface emissivity is very important in the calculation of LST as it is the proportionality factor that scales blackbody radiance (Planck's law) to predict emitted radiance, and it is the efficiency of transmitting thermal energy across the surface into the atmosphere (Kumari et al., 2018). For all objects, emissivity are very close to 1, but to get a more precise temperature

emissivity of each LC class is considered separately (Table 2.2.4). The land surface emissivity LSE (ϵ) is calculated as proposed by Sobrino et al., 2004

$$\epsilon = 0.004P_V + 0.986 \quad \dots\dots 7$$

where ϵ is the emissivity.

Table 2.2.4. Table showing LU categories and emissivity values

Land cover types	Emissivity Values
Densely urban	0.946
Forest cover	0.985
Non-forest cover	0.950
Water	0.990

Step 7:

$$\text{Emissivity-corrected LST in degrees Celsius : } LST = \frac{T_b}{\{1 + [(\frac{\lambda T_b}{\rho}) \ln \epsilon_\lambda]\}} \quad \dots\dots 8$$

$\rho = h \frac{c}{\sigma} = 1.438 \times 10^{-2} \text{ mK}$ Where σ is the Stefan-Boltzmann constant ($1.38 \times 10^{-23} \text{ J/K}$), h is the Planck's constant ($6.626 \times 10^{-32} \text{ Js}$), and c is the velocity of light ($2.998 \times 10^8 \text{ m/s}$).

Retrieval of LST from Landsat TM:

Step 1:

$$\text{Radiance correctness: } L_\lambda = \left(\frac{L_{max} - L_{min}}{Q_{cal_{max}} - Q_{cal_{min}}} \right) * (Q_{cal} - Q_{cal_{min}}) + L_{min} \quad \dots 9$$

L_λ is temperature of atmosphere spectral radiance

Q_{cal} is the quantized and calibrated standard product pixel value (DN)

Step 2:

$$\text{DN value converted to brightness temperature: } T_b = \frac{K_2}{\ln[\frac{K_1}{L_\lambda} + 1]} \quad \dots 10$$

L_λ is the spectral radiance of thermal band 6 [$\text{Wm}^{-2}\text{sr}^{-1}\mu\text{m}^{-1}$], T_b is the brightness temperature [Kelvin] and K_1 and K_2 are constants [$\text{mW} \cdot \text{cm}^{-2} \cdot \text{sr}^{-1}$], $K_1 = 1260.56$, $K_2 = 607.76$.

Emissivity corrected final Land surface temperature will be computed using equation 7.

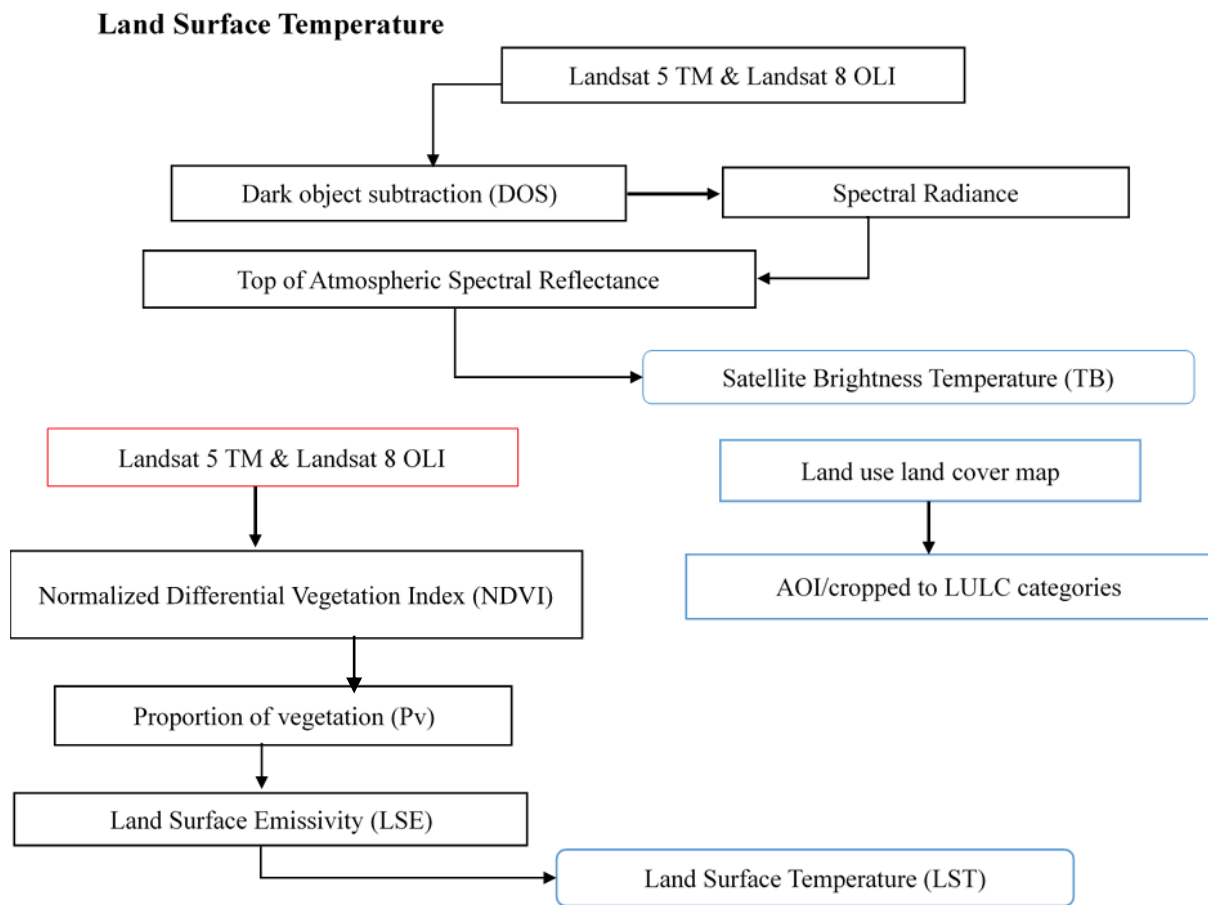


Figure 2.3. Method adopted for LST Analysis

2.3.4 Prioritization of Ecological Sensitive Zones: Ecologically sensitive regions necessarily refer to the areas of high ecological significance value. These are the regions where anthropogenic activities can cause alterations in the natural structure of the biological communities and natural habitats. The steps followed during identification and prioritization of ecological sensitive regions are detailed in Figure 2.4 and listed below:

- i. Creation of grids: The study area is divided into grids of 5' X 5' covering approximately 9 X 9 km² (comparable to grids of the Survey of India topographic maps of scale 1:50000) for prioritizing ESR at decentralized levels (panchayat level).
- ii. Integration of data with grid: In this study, four different attributes being ecology, geo-climatic, land, and social were selected for the prioritization of ESR. Ecology consists of flora and fauna present in the region. Geo-climatic refers to the various geological and climatic parameters such as rainfall, elevation, slope, LST, soil, agro-

ecological zones, and lithology. Land essentially consists of forest cover and interior forest extent and social consisting of tribal and social population density.

- iii. Weightage metric score: Weightages were assigned to attributes based on their significance value. Weightage metric score is estimated using equation 11.

$$Weightage = \sum_{i=1}^n W_i V_i \dots\dots\dots 11$$

Where n is the number of data sets (variables), V_i is the value associated with criterion i, and W_i is the weight associated with that criterion. Based on the weightage, rank is given between 1 to 10 wherein value 10 corresponds to the highest priority for conservation, 7, 5, and 3 corresponds to high, moderate and low level of prioritization whereas 1 corresponds to least priority for conservation

- iv. Prioritization of ESR: Weights are aggregated for each grid and grouped into four groups as ESR 1, ESR 2, ESR 3 and ESR 4 based on the aggregated scores (ESR 1: aggregated scores $> \mu + 2\sigma$, ESR 2 (for grids within $\mu + 2\sigma$ and $\mu + \sigma$), ESR 3 (for grids with $\mu + \sigma$ and μ) and ESR 4 (grids with values $< \mu$). In particular, the weightages are based on an individual proxy and depends extensively on GIS techniques, which is the most effective method.

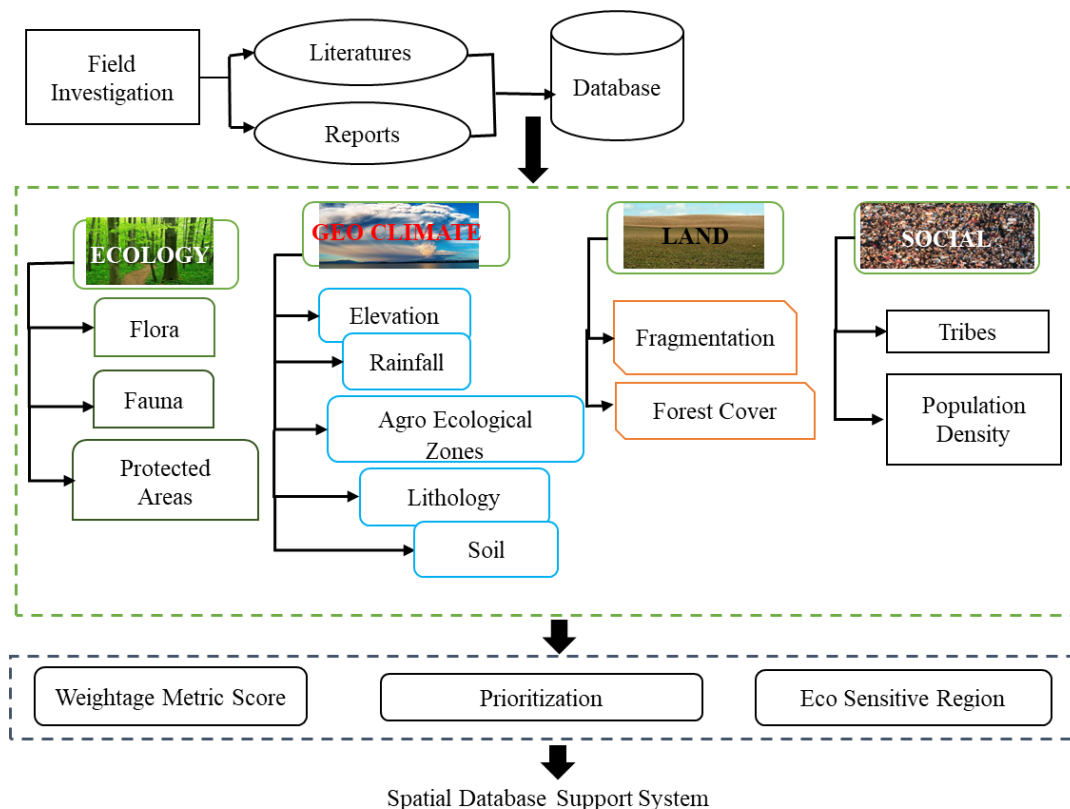


Figure 2.4. Method adopted for prioritizing Ecological sensitive regions

3.0 Results:

Spatio temporal quantification of changes in the land use pattern of Udupi for 1990 and 2018 was performed using the Maximum Likelihood Classification algorithm and accuracy of the classified map was analyzed by estimating kappa value and overall accuracy.

Udupi is one of the important coastal districts of Karnataka known for its estuarine diversity. The land use map of Udupi has been shown in Figure 3.1. The built-up area in the coastal region show increase from 1485 hectares to 33,052.53 hectares, of 8.81% during the three decades. Area under forest cover i.e., evergreen and deciduous has decreased from 11.74%, 10.47% (1990) to 11.21%, 9.16% (2020) respectively. Scrub forest increased from 1.85% (1990) to 2.76% (2020). The conversion of agricultural land to commercial use along the major highways has increased the built-up area. Horticulture plantations show an increase from 36.86% to 43.77% with rubber plantations during three decades (Table 3.1).

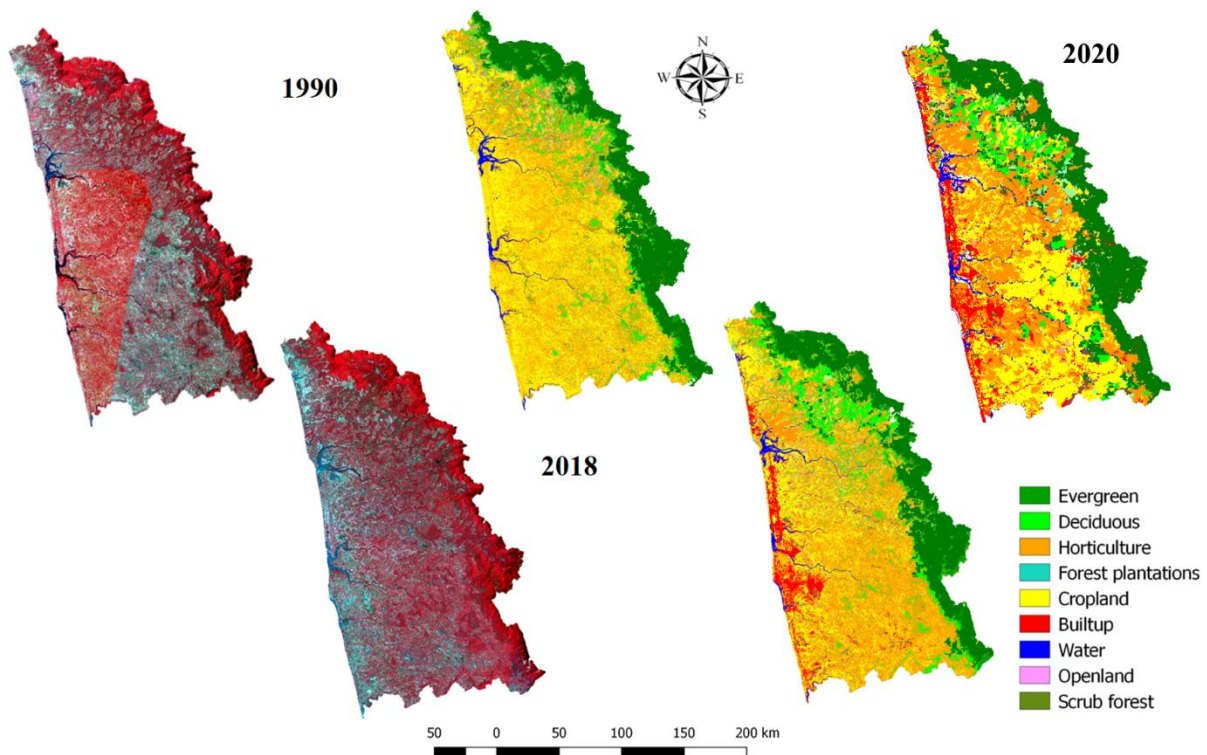


Figure 3.1. LU analysis of Udupi from 1990 to 2020

Table 3.1. Land uses in Udupi District (1990-2020)

Land Use Categories	1990		2018		2020	
	(Ha)	(%)	(Ha)	(%)	(Ha)	(%)
1. Evergreen forest	42,068.79	11.74	40,798.62	11.38	40,178.33	11.21
2 Deciduous forest	37,466.19	10.46	29,999.97	8.37	32,835.18	9.16
3 Horticulture	1,31,933.07	36.82	1,56,911.94	43.77	1,51,911.94	42.39
4 Forest Plantations	5,090.76	1.42	7,265.25	2.03	7,265.25	2.03
5 Croplands	1,20,544.83	33.64	90,132.75	25.14	1,04,305.67	29.11
6 Built up	1,485.72	0.41	11,069.64	3.09	33,052.53	9.22
7 Water	6,511.77	1.82	6,309.27	1.76	8,966.06	2.50
8 Open lands	6,635.25	1.85	6,162.57	1.73	10,136.03	2.83
9 Scrub forest	6,612.30	1.85	9,698.67	2.73	9,876.02	2.76
Total	3,58,348.68					

Figure 3.2, illustrates that scrub forest increase by 1.37%, and built-up areas increase by 7.17%. Agricultural activities are replaced by horticulture plantations during three decades.

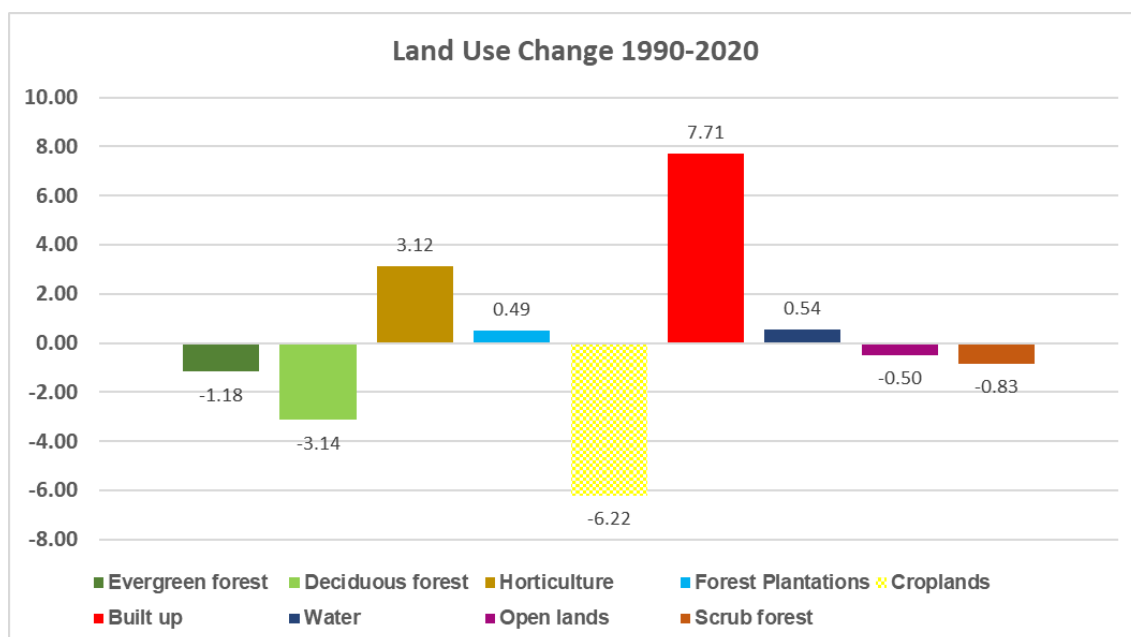


Figure 3.2. Percentage change in LU analysis of Udupi during (1990-2020)

Fragmentation analyses show loss of core forest and Figure 3.3 depicts the level of fragmentation is during 1990 to 2020. Table 3.2 gives the spatial extent of various types of fragments (interior non-forest, patch forest, transitional forest, edge forest, perforated forest and interior forest). Area under interior forest has decreased from 16.77% (1990) to 13.97%

(2020) while non-forest areas has increased from 74.27% (1990) to 78.24% (2020). The transitional forest has decreased from 1.8% (1990) to 1.04% (2020) with increased edge forests indicating boundary between interior forest and non-forest has increased. The increase in non-forest areas signifies a major portion of the forest area has been converted into built-up areas, croplands, roads etc. Figures 3.4 and 3.5 give an insight into the present rate of deforestation and habitat destruction across the region. The core forest exists only as protected areas, sanctuaries, national parks and sacred groves.

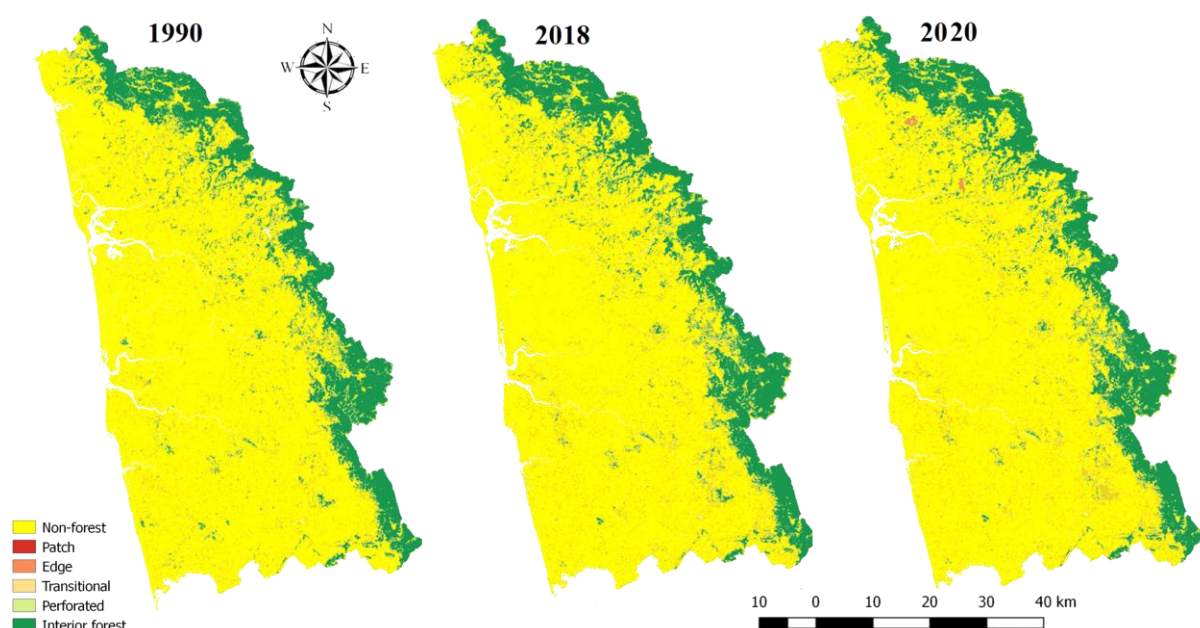


Figure 3.3. Fragmentation analysis of Udupi from 1990 to 2020

Table 3.2. Fragmentation Analysis of Udupi District (1990-2020)

Sl.No.	Components	1990		2018		2020	
		Ha	%	Ha	%	Ha	%
1	Non-forest	2,66,144.67	74.27	2,71,530.63	75.77	2,80,373.84	78.24
2	Patch	3573.9	1.00	2124.18	0.59	1524.18	0.43
3	Transitional	6339.15	1.77	6738.39	1.88	3738.39	1.04
4	Edge	2713.59	0.76	3174.84	0.89	3174.84	0.89
5	Perforated	12,963.24	3.62	12,492.45	3.49	10,492.45	2.93
6	Interior	60,102.36	16.77	55,978.92	15.62	50,078.92	13.97
7	Water	6,511.77	1.82	6,309.27	1.76	8966.05737	2.50
Total Area		3,58,348.68					

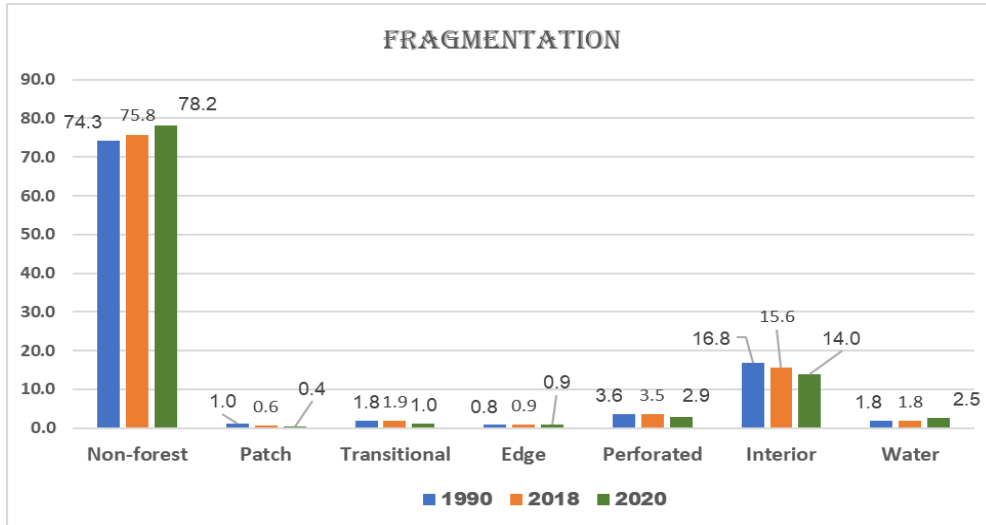


Figure 3.4 Temporal fragmentation analysis

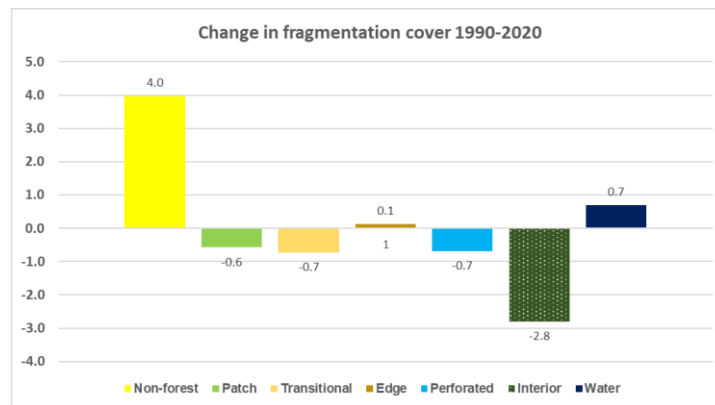


Figure 3.5. Percentage changes in fragmentation status

Land Surface Temperature [LST]: The higher temperature can be seen especially in non-forest areas due to an increase in built-up areas. The temporal land surface temperature analysis shows hilly regions are with moderate surface temperatures, evident from Table 3.3. Urban areas show an increase in temperature (maximum) from 30.71°C (in 1990) to 37.51 °C (in 2018). Due to reduction in the interior or intact forests cover, there is an increase in temperature from 29.47 °C (in 1990) to 38.94 °C (in 2018).

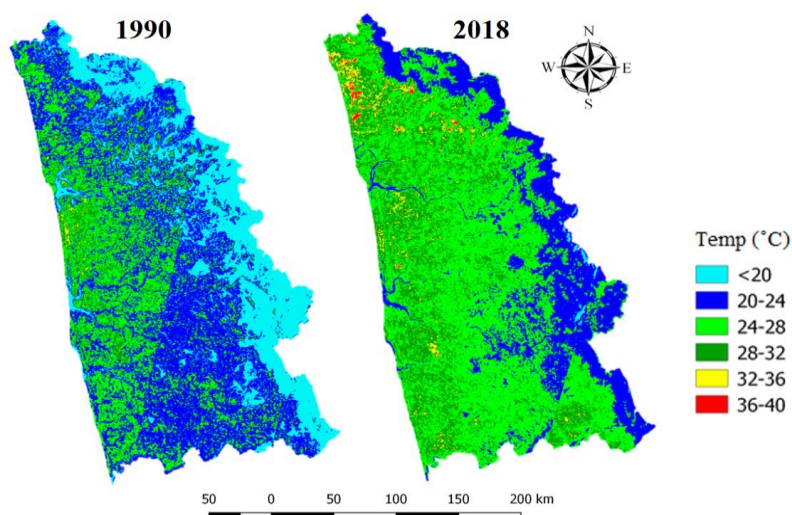


Figure 3.6. Temporal dynamics of LST of Udupi from 1990-2018

Table 3.3. Temperature Analysis of Udupi District (1990-2018)

Sl.No.	Land use categories	1990			2018		
		Area (%)	Temp (°C)		Area (%)	Temp (°C)	
1	FOREST	23.95	19.38	29.47	20.31	22.68	38.94
2	NON-FOREST	73.82	19.39	31.9	74.70	23.69	38.99
3	URBAN	0.42	22	30.71	3.18	24.38	37.51
4	WATER	1.82	20.68	28.65	1.81	23.27	37.17

Table 3.4 and Figure 3.7 illustrates the change in temperature across land use categories over the period. The maximum change in temperature was observed over forest cover (with the fragmentation of forests) by 6.39 °C followed by non-forest cover by 5.70 °C during the past 28 years which is comparable with ground data.

Table 3.4. Temperature Change Analysis of Udupi District (1990-2018)

	Land Use Categories	1990	2018	Change
		Mean Temp (°C)	Mean Temp (°C)	
1	FOREST	24.43	30.81	6.39
2	NON-FOREST	25.65	31.34	5.70
3	URBAN	26.36	30.95	4.59
4	WATER	24.67	30.22	5.56

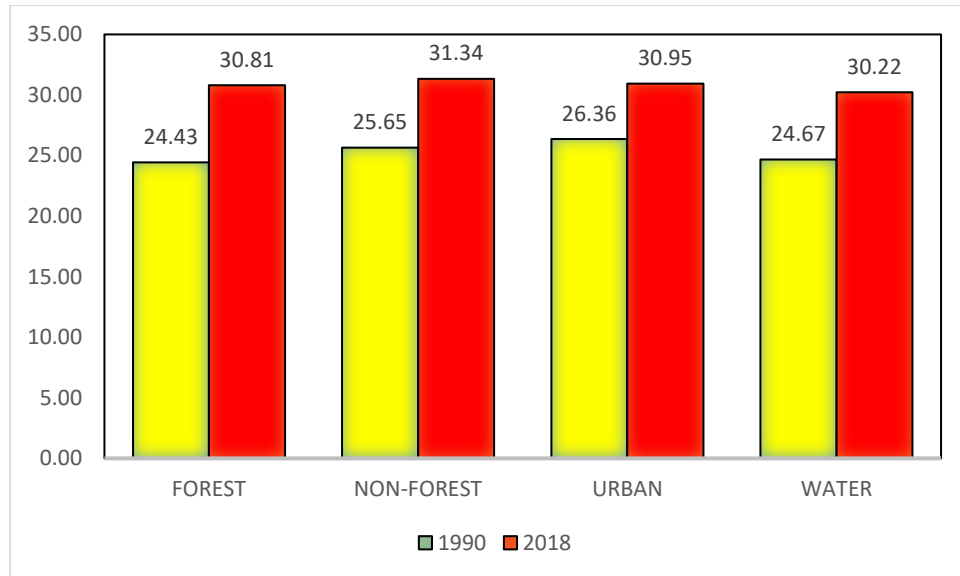


Figure 3.7. Percentage changes in mean temperature of Udupi from 1990-2018

Ecological Sensitive Regions: Compilation of attribute data related to ecology, geo-climate, land and social aspects has been collected, and aggregated weight has been computed.

Ecology: The health of the ecosystem is assessed based on key variables such as conservation status, diversity, etc. Data is compiled from the field, review of published literature and virtual data portals such as avibase, ifoundbutterflies etc. Conservation Reserves (CR) have been established under the framework of Protected Areas under the Wildlife Amendment Act of 2002. Conservation Reserves are essentially the buffer zone between National Parks (NP), Wildlife Sanctuaries and reserve forests. Higher weights were assigned to CR and NP and the grids with the critically endangered and endangered species were assigned a value of 10, vulnerable and near threatened species are assigned value of 7, threatened species is assigned 5, common, data deficient, rare and lower risk were assigned a value of 3 while not evaluated is assigned a value of 1. Figure 3.8 to– Figure 3.11 depicts the distribution of flora and fauna with conservation status and weights, which shows most of the species are concentrated across wildlife sanctuaries in the district.

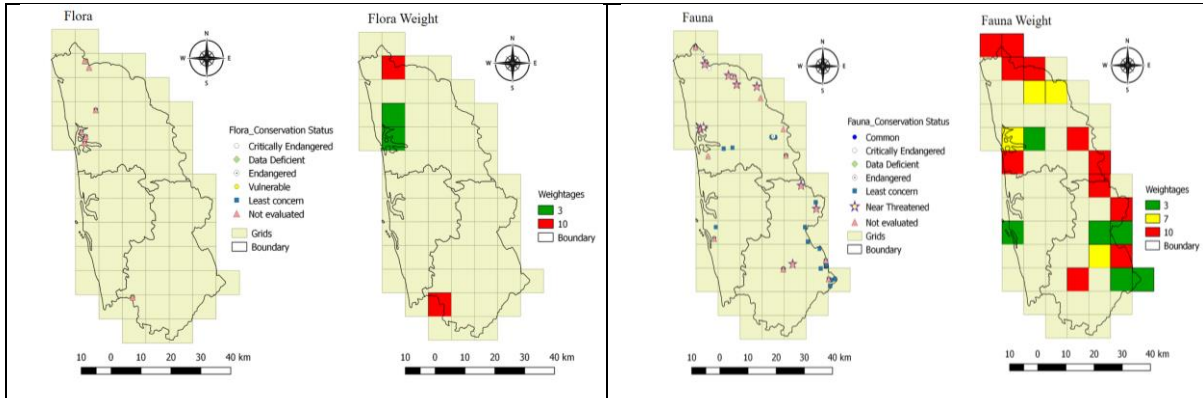


Figure 3.8. Flora diversity with weight

Figure 3.9. Faunal diversity and weight

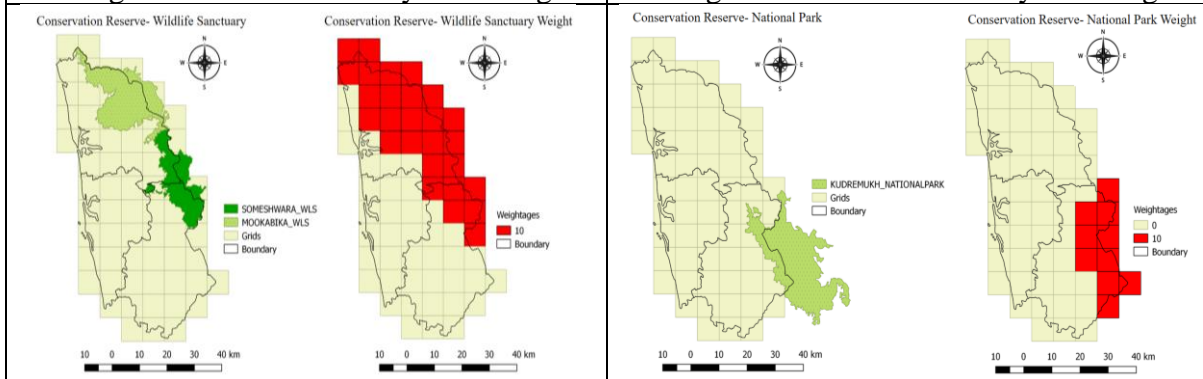


Figure 3.10. Wildlife Sanctuaries

Figure 3.11 National Park and weight

The flora of Udupi district has been compiled (Annexure 1) by reviewing published literature and data portals. The district is home to critically endangered species such as *Elaeocarpus gaussonii*, *Syzygium travancoricum*, *Uleria salicifolia*, *Vateria indica*, *Vatica chinensis* and vulnerable species such as *Chloroxylon swietenia*, *Cinnamomum sulphuratum*, *Dalbergia latifolia*, *Garcinia indica*, *Myristica malabarica*, *Ochreinauclea missionis*, *Paracautleya bhatii*, *Santalum album*, *Saraca asoca*, *Saraca indica*. The dominant families are Fabaceae, Lamiaceae, Dipterocarpaceae, Euphorbiaceae.

Udupi district has rich faunal diversity (Annexure 2). The region has near threatened amphibian species such as *Philautus beddomii*, *Ramanella montana*, *Rana curtipes*, *Tomopterna rufescens*, and vulnerable species such as *Ichthyophis beddomei*, *Micrixalus Saxicola*, *Nyctibatrachus major*, *Philautus glandulosus*, *Rana aurantiaca*, *Rana leithi*. Mammals species such as *Bos gaurus*, *Cervus unicolor*, *Funambulus subineatus*, *Melursus ursinus*, *Neophocaena phocaenoides*, *Physeter macrocephalus* are under near threatened and species are *Hyaena hyaena*, *Lutra lutra*, *Panthera pardus*, *Ratufa macroura*, *Sousa chinensis* under vulnerable category of IUCN conservation status. The district has critically endangered birds such as *Fregata andrewsi*, *Gyps bengalensis*, *Gyps indicus*, *Sarcogyps calvus* and vulnerable category

birds such as *Chaetornis striata*, *Ciconia episcopus*, *Clanga clanga*, *Clanga hastata*, *Columba elphinstonii*, *Gallinago nemoricola*, *Leptoptilos javanicus*, *Schoenicola platyurus*. The district has vulnerable category reptiles such as *Cnemaspis indica*, *Cnemaspis indraneildasi*, *Cnemaspis jerdonii*, *Hemidactylus albofasciatus*, *Hemidactylus sataraisensis*, *Kaestlea laterimaculata*, *Melanophidium bilineatum*, *Oligodon brevicauda*, *Uropeltis phipsonii*

Kudermukh National Park covers a minor portion of the study region and shares its boundary with Dakshina Kannada. The study region has diverse flora and fauna: 162 species of flowering plants representing 50 families. Fabaceae, had maximum tree species (23), followed by Rhizophoraceae (17 species), Moraceae (7 species) – known as the family of figs and keystone species for plants, etc. *Vateria indica* is one of the critically endangered species present in the district while *Hopea ponga*, and *Syzygium caryophyllatum* are the two endangered species and *Garcinia indica*, and *Ochreinauclea missionis* are the two vulnerable species that are well distributed in the district. Someshwara and Mookambika wildlife sanctuary are known for the variety of birds and wild flowering species that are endemic to the region. 816 species of fauna representing 123 families were documented. Malabar Grey Hornbill, Small Green Barbet, Gotyla, Rock Bush Quail, Grey Jungle fowl, Malabar Wood shrike, Indian Rufous Babbler, Nilgiri Thrush, Nilgiri Blue Robin, Day's Glass Fish, Gunther's catfish, Tyler's Leaf Warbler, etc. are found in the district.

Geo-climate: The geo-climatic parameter plays a crucial role in determining the landscape dynamics of any region. The patterns of altitude, slope, rainfall helps in determining the forest cover, biodiversity, etc., of a region. Regions with high rainfall, elevation and slope were assigned a value of 10 and the lowest is given a value of 1. Loamy soil is considered best for agricultural purposes with rich porosity and humus content, which is assigned a value of 10, while laterite and mixed red and black soil are assigned a value of 7, red sandy and medium black were given 5 and coastal alluvium as 1. Lithology is an important factor considering landscape structure and patterns. Charnockites was given the highest value of 10 followed by peninsular gneiss of 7, clospet granite, and Dharwars were assigned 5 while alluvium was assigned 1. Agro-ecological zones play a significant role in determining climate of a region. Therefore, hot humid is assigned the highest value of 10 as the region receives high rainfall around 1500mm or more. Hot moist sub-humid is assigned 7, hot dry sub-humid is given 5 and hot moist semi-arid is assigned a lowest value of 3.

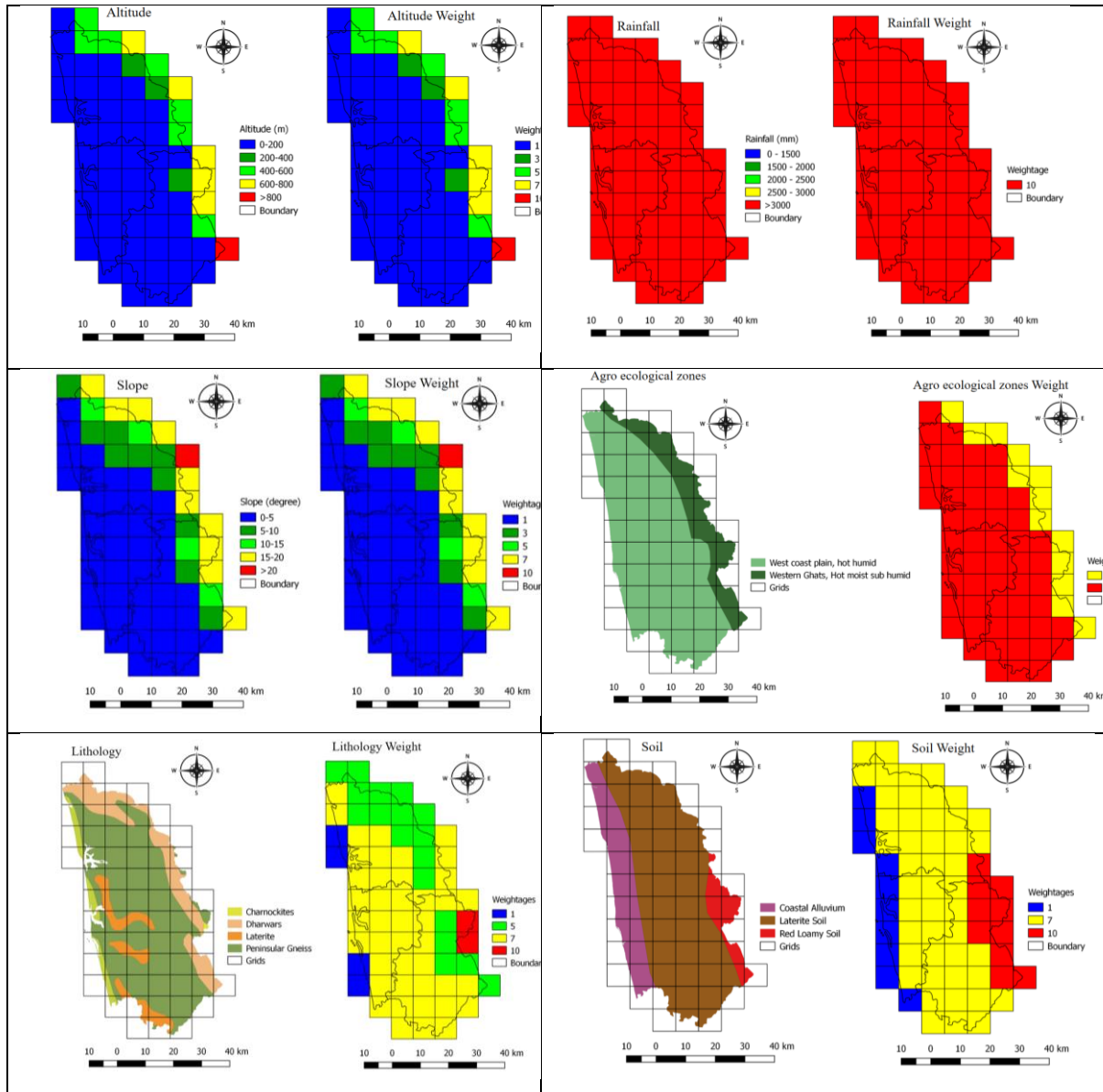


Figure.3.12 Geo-climatic variables and their weights

Figure 3.12 depicts the different geo-climatic parameters in the region and their weights assigned to the grids. Rainfall pattern shows entire district receives high rainfall during all seasons. The coastal part falls under hot moist sub-humid region can be attributed to favourable climatic pattern for healthy vegetation. Grids with high rainfall and soil types have rich forest cover with high biodiversity and conservation values.

Land: Grids are prioritized based on the proportion of forest cover. Forest fragments were computed using standard protocol wherein interior core forest patches were considered devoid of any edge effects. Grids having more than 60% forest cover were assigned a value of 10 and accordingly values were assigned. Land use analysis revealed that the region has about 2.98% under evergreen forest (Table 3.5). Most of the region are with less than 15% forest cover.

Expansion of agricultural activities and the introduction of exotic species has led to the destruction of large forest patches at a temporal scale. Figure 3.13 depicts the weights assigned to the grids based on the extent of forest cover. Fragmentation analysis revealed that 3.39% of the area is under core interior forest while 94.25% area is under non-forest cover (Table 3.6).

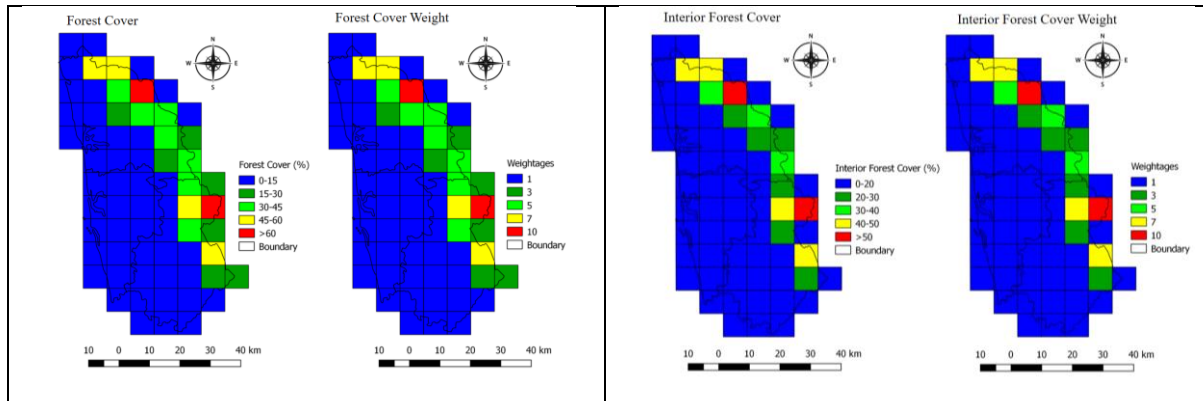


Figure 3.13. forest cover and interior forest cover status and their weights- Udupi District

Land use analysis revealed that the region has about 11.38% under evergreen forest (Table 3.5). The coastal taluks have forest cover of less than 15% forest cover. Expansion of agricultural activities and the introduction of exotic species has led to the destruction of large forest patches at a temporal scale. Figure 3.13 depicts the weights assigned to the grids based on the extent of forest cover. Fragmentation analysis revealed that only 15.9% of the area is under core interior forest while 77.14% area is under non-forest cover (Table 3.6).

Social: Forest dwellers (tribes) of the study regions were mapped and the grids with high tribal population were given higher weightage. Population increase is one of the global phenomena leading to resource degradation. An increase in population density will lead to loss of natural resources, species extinction etc. In this study, population density per sq. km has been considered as one of the influencing factors in resource use. Therefore, grids with less population density were given higher weightages.

Forest dwellers were spatially mapped and were given higher weights as they were directly or indirectly dependent on forest resources and also protects the forest. Grid wise village population was computed for 2011. The grids with a population density of less than 50 persons were assigned high weights and vice-versa. Figure 3.14 depicts population density assigned to the grids with corresponding weights. The hilly regions have high forest cover with less population density.

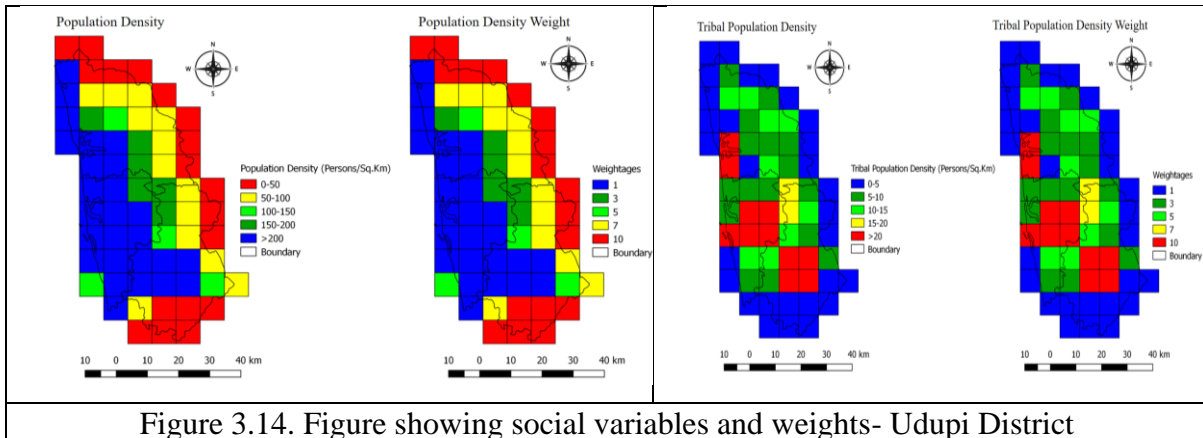


Figure 3.14. Figure showing social variables and weights- Udupi District

Ecological Sensitive Regions: Ecologically sensitive regions were prioritized considering ecological, geo-climatic, land and social prospects. Based on the relative significance of themes, regions were prioritized using weightage metric score as ESR 1 (Regions of highest sensitivity), ESR 2 (Regions of higher sensitivity), ESR 3 (Regions of high sensitivity) and ESR 4 (Regions of moderate sensitivity).

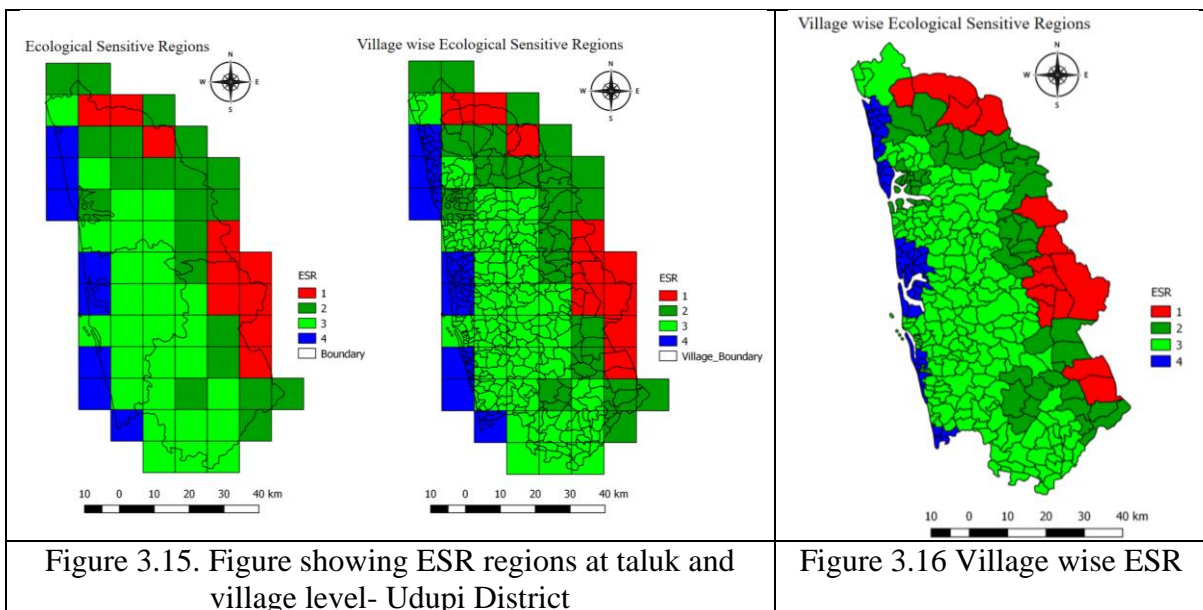


Figure 3.15. Figure showing ESR regions at taluk and village level- Udupi District

Figure 3.16 Village wise ESR

Spatially 15% of the district represents ESR 1, while 31% of area represents ESR 2. 42% of the district represents ESR 3 and about 12% of the district is in ESR 4. Figure 3.15 depicts with taluk and village boundaries. ESR analysis at village level shows only 14 villages are in ESR 1, 52 villages in ESR 2, 178 villages in ESR 3 and rest 51 in ESR 4 (Figure 3.16).

Eco sensitiveness and LST:

Eco sensitiveness of a region has a direct impact on temperature. ESR 1 shows less temperature as compared to ESR 2, ESR 3 and ESR 4. ESR 1 has the maximum forest cover and rich

biodiversity along with less population which aided in the low land surface temperature. LST trend shows an increase in temperature ($r=0.69$) across ESR regions.

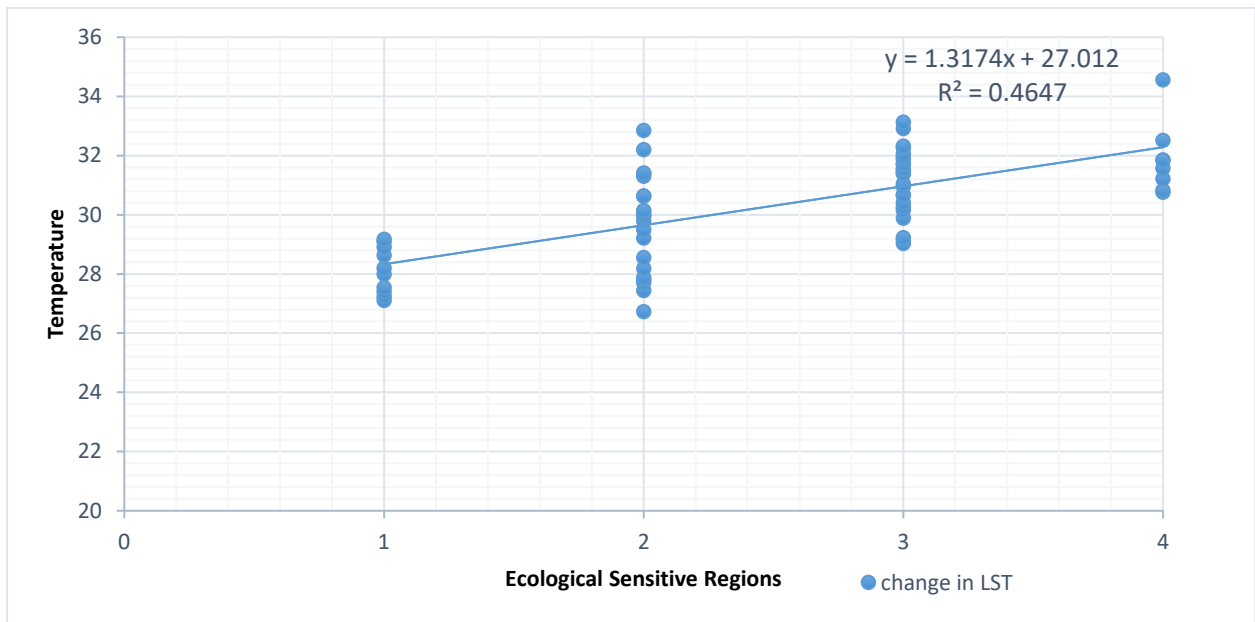


Figure 3.17. LST across ESR- Udupi

Multivariate analysis is carried out to find out the relationship between LST and various independent variables (rainfall, forest cover, interior forest cover and population density). In the study, variables considered are rainfall weight (x_1), forest cover (x_2), interior forest cover (x_3) and population density weight (x_4) to understand the change of temperature across the ESR regions in the districts. Probable relationship is given by

$$LST = 0 x_1 - 0.28x_2 + 0.16 x_3 - 0.28 x_4 + 31.94 \quad (r: 0.851, p < 0.05)$$

Conclusion

LULC changes leading to deforestation has altered the landscape structure. The anthropogenic activities have led to the loss of primaeval forest cover due to monoculture plantations of exotic species. The study showed a loss in forest cover during 1990-2018 with an increase in urban and open surfaces. Horticulture plantations increased from 17.01% (1990) to 27.54% (2018), while cropland shows a decline with an increase in horticulture plantations of acacia, eucalyptus etc. Conversion of agricultural land to commercial uses, all along the major highways has increased the built-up area from 0.78% to 0.92%. Fragmentation analysis shows a decline in interior forests and an increase of non-forest areas. Temporal land surface temperature analysis across LU categories shows an increase of land surface temperature. It

has been observed that urban areas show an increase in maximum temperature. Bio-Geo climatic, ecological and social attributes were used for prioritizing and identification of ESR regions at disaggregated levels (grids). The study showed the variation in soil, lithology etc., across the districts and change in climate pattern with respect to different prospects. Ecological Sensitive Regions analysis highlights that Udupi one of the coastal districts shows, spatially 15% of the area represents ESR 1, while 31% of the area represents ESR 2. 42% of the area represents ESR 3 and about 12% of the area is in ESR 4. ESR 2 regions have sensitivity similar to ESR 1 and have the potential to become ESR 1 with appropriate eco-restoration strategies. The level of eco-sensitiveness has a direct impact on temperature with a correlation of 0.69 across eco-sensitive regions in Udupi.

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Annexure 1: Flora of Udupi District

The flora of Udupi district has been analysed by reviewing published literature and data portals. The district is home to critically endangered species such as *Elaeocarpus gaussenii*, *Syzygium travancoricum*, *Utleria salicifolia*, *Vateria indica*, *Vatica chinensis* and vulnerable species such as *Chloroxylon swietenia*, *Cinnamomum sulphuratum*, *Dalbergia latifolia*, *Garcinia indica*, *Myristica malabarica*, *Ochreinauclea missionis*, *Paracautleya bhatii*, *Santalum album*, *Saraca asoca*, *Saraca indica*. The dominant families are Fabaceae, Lamiaceae, Dipterocarpaceae, Euphorbiaceae.

Sno	Latitude	Longitude	Location	Species Name	Family Name	Conservation Status	Endemism	Uses	Habitat	Common Name (English)
1	13.861	74.64	Byndoor	<i>Acacia aurculiformis</i>	Fabaceae	LC				Australian wattle
2	13.868	74.62	Byndoor	<i>Acacia sinuata</i>	Fabaceae	NE		Folk medicine, Ayurveda	Moist deciduous forests	Soap Pod Tree
3	13.878	74.622	Byndoor	<i>Albizia lebbek</i>	Fabaceae	NE	Native	Medicinal, food, fuel, fodder	Dry deciduous forests, along hill sides	Black siri
4	13.891	74.63	Byndoor	<i>Alstonia scholaris</i>	Apocynaceae	LC		Medicinal	Open evergreen forests to moist deciduous forests	Devil Tree, Dita Bark Tree
5	13.906	74.652	Byndoor	<i>Artocarpus heterophyllus</i>	Moraceae	NE		Food, medicinal, fuel, fodder	Evergreen Forests, Cultivated in Plains	Jack fruit tree
6	13.913	74.671	Byndoor	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini
7	13.915	74.659	Byndoor	<i>Borassus flabellifer</i>	Araceae	NE		Medicinal	n dry areas and along bunds in paddy fields	Palmyra palm
8	13.947	74.686	Byndoor	<i>Casurina equisetifolia</i>	Casurinaceae	NE		Medicinal, food, Fodder, Fuelwood, Pest management	Along river banks, swamps, marshes	Whistling pine, She oak
9	13.931	74.675	Byndoor	<i>Calophyllum inophyllum</i>	Calophyllaceae	LC			In plains along the banks of rivers and mangrove forests	Alexandrian laurel
10	13.913	74.677	Byndoor	<i>Caryota urens</i>	Arecaceae	LC			Terrestrial	Elephant's palm
11	13.907	74.702	Byndoor	<i>Dalbergia sissoo</i>	Fabaceae	NE		Medicinal, food, fodder, pest management	Deciduous	Indian Rosewood

12	13.912	74.695	Byndoor	<i>Erythrina variegata</i>	Fabaceae	NE				Indian Coral Tree
13	13.9	74.669	Byndoor	<i>Eucalyptus tereticornis</i>	Myrtaceae	NE			Roadsides, forest edges, cultivated	Forest Red Gum
14	13.882	74.64	Byndoor	<i>Ficus benghalensis</i>	Moraceae	NE		Medicinal,Food,Fodder, Fuel	Evergreen to deciduous forests; and cultivated around villages.	Banyan
15	13.868	74.642	Byndoor	<i>Ficus religiosa</i>	Moraceae	NE			Cosmopolitan	Pipul, Peepal tree
16	13.847	74.663	Byndoor	<i>Hopea parviflora</i>	Dipterocarpaceae	EN			Terrestrial	Hopea
17	13.86	74.663	Byndoor	<i>Hopea ponga</i>	Dipterocarpaceae	EN				Thingam
18	13.87	74.628	Byndoor	<i>Mammea suriga</i>	Clusiaceae	NE				
19	13.875	74.617	Byndoor	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy,Mango tree
20	13.882	74.622	Byndoor	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten,Medicinal	Semi-evergreen and evergreen forests, also grown in homesteads	Asian bullet wood
21	13.893	74.635	Byndoor	<i>Morinda citrifolia</i>	Rubiaceae	NE		Medicinal	Waste places and mangrove forests	Indian Mulberry, Great Morinda
22	13.925	74.633	Byndoor	<i>Olea dioica</i>	Oleaceae	NE		Folk medicine, Siddha	In both deciduous and evergreen forests	Rose Sandalwood
23	13.928	74.617	Byndoor	<i>Pongamia pinnata</i>	Fabaceae	LC		Food,fodder,fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech
24	13.93	74.605	Byndoor	<i>Pterocarpus marcupium</i>	Fabaceae	NE		Meicinal	Moist and dry deciduous forests, also in the plains	Bastard teak, Gammalu, Kino
25	13.93	74.619	Byndoor	<i>Samanea saman</i>	Mimosaceae	NE				
26	13.923	74.627	Byndoor	<i>Syzizium cumini</i>	Myrtaceae	NE				Indian Blackberry, Jaman
27	13.919	74.633	Byndoor	<i>Tectona grandis</i>	Verbenaceae	NE		Medicinal	Moist deciduous forests, also	Teak

									raised in plantations	
28	13.908	74.647	Byndoor	<i>Vatica chinensis</i>	Dipterocarpaceae	CR				
29	13.907	74.643	Byndoor	<i>Vateria indica</i>	Dipterocarpaceae	CR			Terrestrial	Indian Copal Tree
30	13.911	74.642	Byndoor	<i>Calymperes tenerum</i>	Calymperaceae	NE				
31	13.91	74.649	Byndoor	<i>Selaginella tenera</i>	Selaginellaceae	LC				
32	13.915	74.668	Byndoor	<i>Taxillus tomentosus</i>	Loranthaceae	NE				
33	13.913	74.667	Byndoor	<i>Drynaria quercifolia</i>	Polypodiaceae	NE				
34	13.906	74.666	Byndoor	<i>Acampe praemorsa</i>	Orchidaceae	NE				
35	13.914	74.688	Byndoor	<i>Cleisostoma tenuifolium</i>	Orchidaceae	NE				
36	13.926	74.682	Byndoor	<i>Bulbophyllum mysorensense</i>	Orchidaceae	NE				
37	13.944	74.68	Byndoor	<i>Rhynchostylis retusa</i>	Orchidaceae	LC				
38	13.953	74.679	Byndoor	<i>Dendrobium herbaceum</i>	Orchidaceae	NE				
39	13.964	74.662	Byndoor	<i>Vanda testacea</i>	Orchidaceae	NE				
40	13.086	74.768	Hejamadi Kodi	<i>Ipomea batatas</i>	Convolvulaceae	NE		Medicinal	Ponds, low lying swampy localities	
41	13.081	74.772	Hejamadi Kodi	<i>Canavalia ensiformis</i>	Fabaceae	NE				Sword Bean
42	13.08	74.773	Hejamadi Kodi	<i>Spimfex littoralis</i>	Graminae	NE				
43	13.083	74.774	Hejamadi Kodi	<i>Cuscuta chinensis</i>	Convolvulaceae	NE				
44	13.087	74.773	Hejamadi Kodi	<i>Derris indica</i>	Fabaceae	LC		Food,fodder,fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech
45	13.091	74.773	Hejamadi Kodi	<i>Sesuvium portulacastrum</i>	Aizoaceae	NE				Canieroc
46	13.09	74.769	Hejamadi Kodi	<i>Wedelia trilobata</i>	Astraceae	NE				Yellow dots
47	13.095	74.772	Hejamadi Kodi	<i>Schefflera capitata</i>	Araliaceae	NE				

48	13.094	74.768	Hejamadi Kodi	<i>Casurina equisetifolia</i>	Casurinaceae	NE		Medicinal, food, Fodder, Fuelwood, Pest management	Along river banks, swamps, marshes	Whistling pine, She oak
49	13.098	74.766	Hejamadi Kodi	<i>Morinda citrifolia</i>	Rubiaceae	NE		Medicinal	Waste places and mangrove forests	Indian Mulberry, Great Morinda
50	13.098	74.776	Hejamadi Kodi	<i>Cassia tora</i>	Caesalpiniaceae	NE		young leaves use as vegetable	Common in plains from the coast in low lying places, river banks	Pot Cassia
51	13.096	74.792	Hejamadi Kodi	<i>Clerodendrum inerme</i>	Verbenaceae	NE		Used in traditional medicine and ornamental.	Backwater low lying areas, rocky coastal belts, roadsides and cultivated	Indian privet, Garden quinine
52	13.089	74.792	Hejamadi Kodi	<i>Pongamia pinnata</i>	Fabaceae	LC		Food, fodder, fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech
53	13.094	74.795	Hejamadi Kodi	<i>Acacia aurculiformis</i>	Fabaceae	LC				Australian wattle
54	13.101	74.786	Hejamadi Kodi	<i>Thespesia populnea</i>	Malvaceae	NE			Moist deciduous forests and grasslands, also in the plains	Common Tephrosia
55	13.099	74.782	Hejamadi Kodi	<i>Pterocarpus santalinus</i>	fabaceae	EN		Ayurveda, Folk medicine, Sowa-Rigpa, Unani, Siddha	Dry Evergreen to Dry Deciduous Forests, Cultivated	Red sandalwood
56	13.096	74.78	Hejamadi Kodi	<i>Ceriscoides turgida</i>	Rubiaceae	NE				
57	13.099	74.778	Hejamadi Kodi	<i>Mimosa pudica</i>	Fabaceae	NE		medicinal	Moist localities	Sensitive plant
58	13.099	74.775	Hejamadi Kodi	<i>Leucas aspera</i>	Lamiaceae	NE		medicinal	Deciduous forests and wastelands	Common Leucas, Thumba
59	13.1	74.772	Hejamadi Kodi	<i>Tridax procumbens</i>	Asteraceae	NE		medicinal	Deciduous forests	Tridax procumbens
60	13.104	74.771	Hejamadi Kodi	<i>Cocos nucifera</i>	Arecaceae	NE		medicinal	Cultivated	Coconut
61	13.662	74.695	Hejamadi Kodi	<i>Avicennia officinalis</i>	Verbenaceae	LC			Terrestrial, Marine	
62	13.664	74.69	Hejamadi Kodi	<i>Sonneratia alba</i>	Lythraceae	LC				

63	13.666	74.689	Hemmadi	<i>Avicennia officinalis</i>	Verbenaceae	LC			Terrestrial, Marine	
64	13.668	74.685	Hemmadi	<i>Rhizophora mucronata</i>	Rhizophoraceae	LC				
65	13.671	74.69	Hemmadi	<i>Rhizophora apiculata</i>	Rhizophoraceae	LC				
66	13.672	74.684	Hemmadi	<i>Bruguiera gymnorrhiza</i>	Rhizophoraceae	LC			Kolache Gida	
67	13.67	74.681	Hemmadi	<i>Kandelia candel</i>	Rhizophoraceae	LC			Terrestrial, Marine	
68	13.672	74.68	Hemmadi	<i>Sonneratia alba</i>	Lythraceae	LC				
69	13.673	74.685	Hemmadi	<i>Aegicerus corniculatum</i>	Primulaceae	LC			Terrestrial, Marine	Holy Mangrove
70	13.672	74.689	Hemmadi	<i>Acantus ilicifolius</i>	Acanthaceae	LC		Folk medicine, ayurveda, siddha	Marine, Freshwater	Blinding tree
71	13.674	74.69	Hemmadi	<i>Excocaria agallocha</i>	Euphorbiaceae	LC			Marine, Freshwater, Terrestrial	Embrert
72	13.676	74.692	Hemmadi	<i>Chlerodendron inerme</i>	Verbenaceae	NE				Chillanki, Chillingi
73	13.677	74.69	Hemmadi	<i>Derris trifoliata</i>	Fabaceae	NE		Folk medicine, Tadtional chinese	Marine, Terrestrial	Golden Leather Fern
74	13.678	74.687	Hemmadi	<i>Dalbergia volubilis</i>	Fabaceae	NE				
75	13.679	74.689	Hemmadi	<i>Acrostichum aureum</i>	Pteridaceae	LC				
76	13.681	74.692	Hemmadi	<i>Ipomea batatas</i>	Convolvulaceae	NE		Medicinal	Ponds, low lying swampy localities	
77	13.68	74.694	Hemmadi	<i>Pandanus odoratissimus</i>	Pandanaceae	NE				
78	13.682	74.694	Hemmadi	<i>Sesuvium portulacastrum</i>	Aizoaceae	NE		siddha		Canieroc
79	13.683	74.695	Hemmadi	<i>Caesalpinia crista</i>	Fabaceae	NE		Folk medicine, ayurveda, Tadtional chinese	Terrestrial	
80	13.642	74.701	Hemmadi	<i>Aeluropus lagopoides</i>	Poaceae	NE				West Indian Fimbry
81	13.643	74.701	Hemmadi	<i>Fimbristylis ferruginea</i>	Cyperaceae	LC			Terrestrial, Freshwater	Rattle Pod
82	13.643	74.701	Herikudru	<i>Avicennia officinalis</i>	Verbenaceae	LC			Terrestrial, Marine	
83	13.643	74.701	Herikudru	<i>Rhizophora mucronata</i>	Rhizophoraceae	LC				
84	13.644	74.701	Herikudru	<i>Rhizophora apiculata</i>	Rhizophoraceae	LC				

85	13.644	74.7	Herikudru	<i>Bruguiera gymnorrhiza</i>	Rhizophoraceae	LC			Kolache Gida	
86	13.644	74.7	Herikudru	<i>Kandelia candel</i>	Rhizophoraceae	LC			Terrestrial, Marine	
87	13.644	74.7	Herikudru	<i>Sonneratia alba</i>	Lythraceae	LC				
88	13.643	74.7	Herikudru	<i>Aegicerus corniculatum</i>	Primulaceae	LC			Terrestrial, Marine	Holy Mangrove
89	13.643	74.7	Herikudru	<i>Acantus ilicifolius</i>	Acanthaceae	LC		Folk medicine, ayurveda, siddha	Marine, Freshwater	Blinding tree
90	13.642	74.701	Herikudru	<i>Excocaria agallocha</i>	Euphorbiaceae	LC			Marine, Freshwater, Terrestrial	Embrert
91	13.642	74.701	Herikudru	<i>Chlerodendron inerme</i>	Verbenaceae	NE				Chillanki, Chillingi
92	13.642	74.7	Herikudru	<i>Derris trifoliata</i>	Fabaceae	NE		Folk medicine, Tadtional chinese	Marine, Terrestrial	Golden Leather Fern
93	13.642	74.699	Herikudru	<i>Dalbergia volubilis</i>	Fabaceae	NE				
94	13.643	74.699	Herikudru	<i>Acrostichum aureum</i>	Pteridaceae	LC				
95	13.643	74.699	Herikudru	<i>Ipomea batatas</i>	Convolvulaceae	NE		Medicinal	Ponds, low lying swampy localities	
96	13.643	74.699	Herikudru	<i>Pandanus odoratissimus</i>	Pandanaceae	NE				
97	13.644	74.699	Herikudru	<i>Sesuvium portulacastrum</i>	Aizoaceae	NE		siddha		Canieroc
98	13.644	74.699	Herikudru	<i>Caesalpinia crista</i>	Fabaceae	NE		Folk medicine, ayurveda, Tadtional chinese	Terrestrial	
99	13.799	74.813	Herikudru	<i>Aeluropus lagopoides</i>	Poaceae	NE				West Indian Fimbry
100	13.806	74.811	Herikudru	<i>Fimbristylis ferruginea</i>	Cyperaceae	LC			Terrestrial; Freshwater	
101	13.808	74.798	Jadkal Forest	<i>Acacia sinuata</i>	Fabaceae	NE		Folk medicine, Ayurveda	Moist deciduous forests	Soap Pod Tree
102	13.799	74.775	Jadkal Forest	<i>Actinodaphne malabarica</i>	Lauraceae	NE				
103	13.807	74.78	Jadkal Forest	<i>Aeschynomene indica</i>	Fabaceae	NE				Indian Joint vetch
104	13.819	74.8	Jadkal Forest	<i>Ailanthus malabarica</i>	Simaroubaceae	NE			Semi-evergreen forests, also planted in the plains	Maharukh
105	13.83	74.806	Jadkal Forest	<i>Alstonia scholaris</i>	Apocynaceae	LC		Medicinal	Open evergreen forests to moist deciduous forests	Devil Tree, Dita Bark Tree

106	13.854	74.804	Jadkal Forest	<i>Ancistrocladus heyneanus</i>	Ancistrocladaceae	NE				
107	13.845	74.813	Jadkal Forest	<i>Aporosa lindleyana</i>	Euphorbiaceae	NE				
108	13.829	74.824	Jadkal Forest	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha	Aini	
109	13.827	74.849	Jadkal Forest	<i>Calophyllum apetalum</i>	Calophyllaceae	NE				
110	13.84	74.86	Jadkal Forest	<i>Calycopteris floribunda</i>	Combretaceae	NE				
111	13.826	74.863	Jadkal Forest	<i>Carallia brachiata</i>	Rhizophoraceae	NE		Folk medicine		
112	13.815	74.856	Jadkal Forest	<i>Careya arborea</i>	Lecythidaceae	LC		Folk medicine, Ayurveda, Siddha	Kumbi	
113	13.799	74.849	Jadkal Forest	<i>Chionanthus malabaricus</i>	Oleaceae	NE				
114	13.802	74.846	Jadkal Forest	<i>Cinnamomum malabathrum</i>	Lauraceae	NE				
115	13.82	74.83	Jadkal Forest	<i>Combretum latifolium</i>	Combretaceae	NE				
116	13.818	74.823	Jadkal Forest	<i>Dalbergia latifolia</i>	Fabaceae	VU		Terrestrial	Bombay blackwood	
117	13.795	74.82	Jadkal Forest	<i>Dillenia pentagyna</i>	Dilleniaceae	NE			Dillenia pentagyna	
118	13.795	74.812	Jadkal Forest	<i>Diospyros buxifolia</i>	Ebenaceae	NE				
119	13.811	74.803	Jadkal Forest	<i>Diospyros paniculata</i>	Ebenaceae	NE	Endemic to the Western Ghats- South and Central Sahyadris.	Evergreen and semi-evergreen forests		
120	13.815	74.822	Jadkal Forest	<i>Diospyros sylvatica</i>	Ebenaceae	NE				
121	13.838	74.823	Jadkal Forest	<i>Dipterocarpus indicus</i>	Dipterocarpaceae	EN		Evergreen and semi-evergreen forests of Western Ghats	New Guinea rosewood	
122	13.827	74.824	Jadkal Forest	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	NE		evergreen to semi-evergreen forests	Rosary nut, Utrasum bead tree	
123	13.856	74.862	Jadkal Forest	<i>Elaeocarpus tuberculatus</i>	Elaeocarpaceae	NE				
124	13.85	74.857	Jadkal Forest	<i>Entada purseatha</i>	Mimosaceae	NE				
125	13.846	74.853	Jadkal Forest	<i>Ficus religiosa</i>	Moraceae	NE		Cosmopolitan	Pipul, Peepal tree	
126	13.838	74.849	Jadkal Forest	<i>Flacourtia Montana</i>	Salicaceae	NE		Fruits are edible, Wood is used for building purposes	Moist deciduous to semi evergreen forests	Mountain Sweet Thorn

127	13.834	74.85	Jadkal Forest	<i>Garcinia morella</i>	Clusiaceae	NE		Folk medicine, ayurveda, siddha, Homeopathy, modern medicine		Indian Gamboge
128	13.834	74.862	Jadkal Forest	<i>Gnetum ula</i>	Gnetaceae	LC				
129	13.826	74.861	Jadkal Forest	<i>Guizotia abyssinica</i>	Asteraceae	NE				
130	13.807	74.855	Jadkal Forest	<i>Holigama arnottiana</i>	Anacardiaceae	NE		Folk medicine, Siddha		Black Varnish Tree
131	13.806	74.849	Jadkal Forest	<i>Holigama ferruginea</i>	Anacardiaceae	NE				
132	13.829	74.842	Jadkal Forest	<i>Hopea parviflora</i>	Dipterocarpaceae	EN			Terrestrial	Hopea
133	13.814	74.84	Jadkal Forest	<i>Hopea ponga</i>	Dipterocarpaceae	EN				Thingam
134	13.832	74.823	Jadkal Forest	<i>Hydnocarpus pentandra</i>	Flacourtiaceae	NE		Folk medicine		Chaulmugra
135	13.817	74.833	Jadkal Forest	<i>Ixora brachiata</i>	Rubiaceae	NE			Semi-evergreen forests and sacred groves	Gorbale
136	13.794	74.838	Jadkal Forest	<i>Lagerstroemia microcarpa</i>	Lythraceae	NE			Moist deciduous forests, also in the plains	Ben Teak
137	13.794	74.838	Jadkal Forest	<i>Macaranga peltata</i>	Euphorbiaceae	NE		Folk medicine, Siddha		Macaranga
138	13.794	74.838	Jadkal Forest	<i>Machilus macarantha</i>	Lauraceae	NE				
139	13.794	74.837	Jadkal Forest	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy, Mango tree
140	13.794	74.836	Jadkal Forest	<i>Memecylon talbotianum</i>	Melastomataceae	NE				Folk medicine
141	13.79	74.831	Jadkal Forest	<i>Murraya paniculata</i>	rutaceae	NE		Wood very hard, used for construction works, Medicinal	Common on hills, especially in shaded ravines	Satin Wood
142	13.787	74.827	Jadkal Forest	<i>Naringi crenulata</i>	Rutaceae	NE				
143	13.789	74.824	Jadkal Forest	<i>Nothopegia travancorica</i>	Anacardiaceae	NE				
144	13.798	74.816	Jadkal Forest	<i>Olea dioica</i>	Oleaceae	NE		Folk medicine, Siddha	In both deciduous and evergreen forests	Rose Sandalwood
145	13.804	74.808	Jadkal Forest	<i>Psychotria dalzellii</i>	Rubiaceae	NE				

146	13.801	74.792	Jadkal Forest	<i>Pterospermum diversifolium</i>	Sterculiaceae	NE				
147	13.8	74.779	Jadkal Forest	<i>Schleichera oleosa</i>	Sapindaceae	NE			Semi-evergreen and moist deciduous forests	Macassar oil tree
148	13.807	74.79	Jadkal Forest	<i>Strychnos dalzellii</i>	Loganiaceae	NE				
149	13.826	74.804	Jadkal Forest	<i>strychnos nux vomica</i>	Loganiaceae	NE		The seed contains a chemical called 'strychnine' extensively used for preparation of medicines.	Moist and dry deciduous forests, also in the plains	Nux-vomica tree
150	13.817	74.796	Jadkal Forest	<i>Syzygium caryophyllatum</i>	Myrtaceae	EN				Folk medicine, Ayurveda
151	13.813	74.823	Jadkal Forest	<i>Syzygium mungudam</i>	Myrtaceae	NE				
152	13.824	74.821	Jadkal Forest	<i>Tabernaemontana heyneana</i>	Apocynaceae	Low risk			Terrestrial	
153	13.831	74.819	Jadkal Forest	<i>Terminalia bellerica</i>	Combretaceae	NE		Medicinal	Common	Bedda nut tree
154	13.83	74.805	Jadkal Forest	<i>Terminalia paniculata</i>	Combretaceae	NE		Folk medicine, Ayurveda, Siddha		Flowering Murdah
155	13.84	74.805	Jadkal Forest	<i>Terminalia tomentosa</i>	Combretaceae	NE				Indian Laurel
156	13.846	74.813	Jadkal Forest	<i>Vateria indica</i>	Dipterocarpaceae	CR			Terrestrial	Indian Copal Tree
157	13.853	74.813	Jadkal Forest	<i>Vepris bilocularis</i>	Rutaceae	NE		Folk medicine		
158	13.856	74.801	Jadkal Forest	<i>Vitex altissima</i>	Lamiaceae	NE			Open areas, forested areas	Tall chaste tree
159	13.666	74.701	Jadkal Forest	<i>Xylia xylocarpa</i>	Fabaceae	NE				Burma Ironwood
160	13.666	74.7	Jadkal Forest	<i>Zanthoxylum rhetsa</i>	Rutaceae	NE		Folk medicine, Ayurveda, Siddha		Indian Prickly Ash
161	13.667	74.7	Jaladi	<i>Avicennia officinalis</i>	Verbenaceae	LC			Terrestrial, Marine	
162	13.668	74.7	Jaladi	<i>Rhizophora mucronata</i>	Rhizophoraceae	LC				
163	13.668	74.699	Jaladi	<i>Rhizophora apiculata</i>	Rhizophoraceae	LC				
164	13.666	74.7	Jaladi	<i>Bruguiera gymnorrhiza</i>	Rhizophoraceae	LC				Kolache Gida
165	13.667	74.699	Jaladi	<i>Kandelia candel</i>	Rhizophoraceae	LC			Terrestrial, Marine	
166	13.668	74.699	Jaladi	<i>Sonneratia alba</i>	Lythraceae	LC				

167	13.669	74.699	Jaladi	<i>Aegicerus corniculatum</i>	Primulaceae	LC			Terrestrial, Marine	Holy Mangrove
168	13.669	74.7	Jaladi	<i>Acantus ilicifolius</i>	Acanthaceae	LC		Folk medicine, ayurveda, siddha	Marine, Freshwater	Blinding tree
169	13.668	74.701	Jaladi	<i>Excocaria agallocha</i>	Euphorbiaceae	LC			Marine, Freshwater, Terrestrial	Embrert
170	13.667	74.702	Jaladi	<i>Chlerodendron inerme</i>	Verbenaceae	NE				Chillanki, Chillingi
171	13.666	74.702	Jaladi	<i>Derris trifoliata</i>	Fabaceae	NE		Folk medicine, Tadtional chinese	Marine, Terrestrial	Golden Leather Fern
172	13.667	74.703	Jaladi	<i>Dalbergia volubilis</i>	Fabaceae	NE				
173	13.667	74.703	Jaladi	<i>Acrostichum aureum</i>	Pteridaceae	LC				
174	13.668	74.702	Jaladi	<i>Ipomea batatas</i>	Convolvulaceae	NE		Medicinal	Ponds, low lying swampy localities	
175	13.669	74.702	Jaladi	<i>Pandanus odoratissimus</i>	Pandanaceae	NE				
176	13.67	74.701	Jaladi	<i>Sesuvium portulacastrum</i>	Aizoaceae	NE		siddha		Canieroc
177	13.671	74.7	Jaladi	<i>Caesalpinia crista</i>	Fabaceae	NE		Folk medicine, ayurveda, Tadtional chinese	Terrestrial	
178	13.617	74.692	Jaladi	<i>Aeluropus lagopoides</i>	Poaceae	NE				West Indian Fimbry
179	13.623	74.693	Jaladi	<i>Fimbristylis ferruginea</i>	Cyperaceae	LC			Terrestrial; Freshwater	
180	13.622	74.689	Kundapura	<i>Acacia aurculiformis</i>	Fabaceae	LC				Australian wattle
181	13.619	74.685	Kundapura	<i>Acacia sinuata</i>	Fabaceae	NE		Folk medicine, Ayurveda	Moist deciduous forests	Soap Pod Tree
182	13.621	74.684	Kundapura	<i>Albizia lebbeck</i>	Fabaceae	NE	Native	Medicinal, food, fuel, fodder	Dry deciduous forests, along hill sides	Black siri
183	13.625	74.682	Kundapura	<i>Alstonia scholaris</i>	Apocynaceae	LC		Medicinal	Open evergreen forests to moist deciduous forests	Devil Tree, Dita Bark Tree
184	13.628	74.683	Kundapura	<i>Artocarpus heterophyllus</i>	Moraceae	NE		Food, medicinal, fuel, fodder	Evergreen Forests, Cultivated in Plains	Jack fruit tree
185	13.629	74.683	Kundapura	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini
186	13.631	74.688	Kundapura	<i>Borassus flabellifer</i>	Araceae	NE		Medicinal	n dry areas and along bunds in paddy fields	Palmyra palm

187	13.631	74.694	Kundapura	<i>Casurina equisetifolia</i>	Casurinaceae	NE		Medicinal,food,Fodder,Fuelwood,Pest management	Along river banks, swamps, marshes	Whistling pine, She oak
188	13.628	74.696	Kundapura	<i>Calophyllum inophyllum</i>	Calophyllaceae	LC			In plains along the banks of rivers and mangrove forests	Alexandrian laurel
189	13.623	74.694	Kundapura	<i>Caryota urens</i>	Arecaceae	LC			Terrestrial	Elephant's palm
190	13.623	74.688	Kundapura	<i>Dalbergia sissoo</i>	Fabaceae	NE		Medicinal,food,fodder,pest management	Deciduous	Indian Rosewood
191	13.618	74.689	Kundapura	<i>Erythrina variegata</i>	Fabaceae	NE				Indian Coral Tree
192	13.61	74.69	Kundapura	<i>Eucalyptus tereticornis</i>	Myrtaceae	NE			Roadsides, forest edges, cultivated	Forest Red Gum
193	13.611	74.686	Kundapura	<i>Ficus benghalensis</i>	Moraceae	NE		Medicinal,Food,Fodder, Fuel	Evergreen to deciduous forests; and cultivated around villages.	Banyan
194	13.611	74.684	Kundapura	<i>Ficus religiosa</i>	Moraceae	NE			Cosmopolitan	Pipul, Peepal tree
195	13.615	74.685	Kundapura	<i>Hopea parviflora</i>	Dipterocarpaceae	EN			Terrestrial	Hopea
196	13.619	74.684	Kundapura	<i>Hopea ponga</i>	Dipterocarpaceae	EN				Thingam
197	13.623	74.683	Kundapura	<i>Mammea suriga</i>	Clusiaceae	NE				
198	13.619	74.689	Kundapura	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy,Mango tree
199	13.611	74.689	Kundapura	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten,Medicinal	Semi-evergreen and evergreen forests, also grown in homesteads	Asian bullet wood
200	13.61	74.697	Kundapura	<i>Morinda citrifolia</i>	Rubiaceae	NE		Medicinal	Waste places and mangrove forests	Indian Mulberry, Great Morinda
201	13.612	74.693	Kundapura	<i>Olea dioica</i>	Oleaceae	NE		Folk medicine, Siddha	In both deciduous and evergreen forests	Rose Sandalwood
202	13.616	74.691	Kundapura	<i>Pongamia pinmata</i>	Fabaceae	LC		Food,fodder,fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech

203	13.62	74.693	Kundapura	<i>Pterocarpus marcupium</i>	Fabaceae	NE		Meicinal	Moist and dry deciduous forests, also in the plains	Bastard teak, Gammalu, Kino
204	13.625	74.694	Kundapura	<i>Samanea saman</i>	Mimosaceae	NE				
205	13.623	74.687	Kundapura	<i>Syzizium cumini</i>	Myrtaceae	NE				Indian Blackberry, Jaman
206	13.621	74.684	Kundapura	<i>Tectona grandis</i>	Verbenaceae	NE		Medicinal	Moist deciduous forests, also raised in plantations	Teak
207	13.624	74.683	Kundapura	<i>Vatica chinensis</i>	Dipterocarpaceae	CR				
208	13.627	74.683	Kundapura	<i>Vateria indica</i>	Dipterocarpaceae	CR			Terrestrial	Indian Copal Tree
209	13.626	74.688	Kundapura	<i>Calymperes tenerum</i>	Calymperaceae	NE				
210	13.627	74.692	Kundapura	<i>Selaginella tenera</i>	Selaginellaceae	LC				
211	13.625	74.694	Kundapura	<i>Taxillus tomentosus</i>	Loranthaceae	NE				
212	13.628	74.694	Kundapura	<i>Drynaria quercifolia</i>	Caryophyllaceae	NE				
213	13.631	74.691	Kundapura	<i>Acampe praemorsa</i>	Orchidaceae	NE				
214	13.631	74.687	Kundapura	<i>Cleisostoma tenuifolium</i>	Orchidaceae	NE				
215	13.631	74.683	Kundapura	<i>Bulbophyllum mysorensense</i>	Orchidaceae	NE				
216	13.623	74.692	Kundapura	<i>Rhynchostylis retusa</i>	Orchidaceae	LC				
217	13.656	74.678	Kundapura	<i>Dendrobium herbaceum</i>	Orchidaceae	NE				
218	13.654	74.687	Kundapura	<i>Vanda testacea</i>	Orchidaceae	NE				
219	13.653	74.689	Uppinakudru	<i>Avicennia officinalis</i>	Verbenaceae	LC			Terrestrial, Marine	
220	13.65	74.688	Uppinakudru	<i>Rhizophora mucronata</i>	Rhizophoraceae	LC				
221	13.649	74.687	Uppinakudru	<i>Rhizophora apiculata</i>	Rhizophoraceae	LC				
222	13.647	74.685	Uppinakudru	<i>Bruguiera gymnorrhiza</i>	Rhizophoraceae	LC				Kolache Gida
223	13.649	74.684	Uppinakudru	<i>Kandelia candel</i>	Rhizophoraceae	LC			Terrestrial, Marine	
224	13.653	74.683	Uppinakudru	<i>Sonneratia alba</i>	Lythraceae	LC				

225	13.649	74.682	Uppinakudru	<i>Aegicerus corniculatum</i>	Primulaceae	LC			Terrestrial, Marine	Holy Mangrove
226	13.648	74.68	Uppinakudru	<i>Acantus ilicifolius</i>	Acanthaceae	LC		Folk medicine, ayurveda, siddha	Marine, Freshwater	Blinding tree
227	13.651	74.679	Uppinakudru	<i>Excocaria agallocha</i>	Euphorbiaceae	LC			Marine, Freshwater, Terrestrial	Embrert
228	13.653	74.68	Uppinakudru	<i>Chlerodendron inerme</i>	Verbenaceae	NE				Chillanki, Chillingi
229	13.656	74.68	Uppinakudru	<i>Derris trifoliata</i>	Fabaceae	NE		Folk medicine, Tadtional chinese	Marine, Terrestrial	Golden Leather Fern
230	13.652	74.685	Uppinakudru	<i>Dalbergia volubilis</i>	Fabaceae	NE				
231	13.653	74.685	Uppinakudru	<i>Acrostichum aureum</i>	Pteridaceae	LC				
232	13.656	74.685	Uppinakudru	<i>Ipomea batatas</i>	Convolvulaceae	NE		Medicinal	Ponds, low lying swampy localities	
233	13.657	74.683	Uppinakudru	<i>Pandanus odoratissimus</i>	Pandanaceae	NE				
234	13.659	74.68	Uppinakudru	<i>Sesuvium portulacastrum</i>	Aizoaceae	NE		siddha		Canieroc
235	13.66	74.678	Uppinakudru	<i>Caesalpinia crista</i>	Fabaceae	NE		Folk medicine, ayurveda, Tadtional chinese	Terrestrial	
236	13.658	74.986	Uppinakudru	<i>Aeluropus lagopoides</i>	Poaceae	NE				West Indian Fimbry
237	13.658	74.986	Uppinakudru	<i>Fimbristylis ferruginea</i>	Cyperaceae	LC			Terrestrial; Freshwater	
238	13.669	74.996	Varahi river_Hosangadi	<i>Abrus pulchellus</i>	Fabaceae	NE				
239	13.7	74.997	Varahi river_Hosangadi	<i>Abutilon persicum</i>	Malvaceae	Rare				
240	13.702	74.991	Varahi river_Hosangadi	<i>Acacia caesia</i>	Fabaceae	NE				
241	13.702	74.988	Varahi river_Hosangadi	<i>Acacia catechu</i>	Fabaceae	NE	native	medicinal, food, fodder, fuel, pest management	Dry deciduous forests	Black cutch tree
242	13.705	74.984	Varahi river_Hosangadi	<i>Acacia torta</i>	Fabaceae	NE			Deciduous forests, also in the plains	Twisted Acacia
243	13.703	74.977	Varahi river_Hosangadi	<i>Acampe wightiana</i>	Orchidaceae	NE				

244	13.686	74.95	Varahi river_Hosan gadi	<i>Acrocarpus fraxinifolius</i>	Fabaceae	NE		Folk medicine		
245	13.693	74.955	Varahi river_Hosan gadi	<i>Actinodaphne tadulingami</i>	Lauraceae	Rare				
246	13.695	74.959	Varahi river_Hosan gadi	<i>Adina cordifolia</i>	Rubiaceae	NE		medicinal,food,fodder, fuel	Moist deciduous forests, also in the plains	Haldu, Yellow teak
247	13.702	74.959	Varahi river_Hosan gadi	<i>Aegle marmelos</i>	Rutaceae	NE	native	Medicinal,food,fodder, fuel	Plain areas, forests, near roadsides	Bael tree
248	13.707	74.966	Varahi river_Hosan gadi	<i>Aerva lanata</i>	Amaranthaceae	NE			Deciduous forests and waste lands in the plains	Polpala
249	13.706	74.965	Varahi river_Hosan gadi	<i>Aeschynanthus perrottettii</i>	Gesneriaceae	NE				
250	13.662	74.972	Varahi river_Hosan gadi	<i>Aeschynomene aspera</i>	Fabaceae	LC				
251	13.654	74.966	Varahi river_Hosan gadi	<i>Ailanthus malabarica</i>	Simaroubaceae	NE			Semi-evergreen forests, also planted in the plains	Maharukh
252	13.646	74.962	Varahi river_Hosan gadi	<i>Alangium salvifolium</i>	Amaranthaceae	NE		Medicinal	Deciduous forests and waste lands in the plains	Polpala
253	13.651	74.95	Varahi river_Hosan gadi	<i>Albizia odoratissima</i>	Fabaceae	NE			Humid valley forests, open forests, hill slopes	Ceylon rosewood
254	13.656	74.943	Varahi river_Hosan gadi	<i>Alseodaphne semecarpifolia</i>	Lauraceae	NE			semi-evergreen forests	Nelthare
255	13.69	74.952	Varahi river_Hosan gadi	<i>Alstonia scholaris</i>	Apocynaceae	LC		Medicinal	Open evergreen forests to moist deciduous forests	Devil Tree, Dita Bark Tree
256	13.682	74.948	Varahi river_Hosan gadi	<i>Alternanthera sessilis</i>	Amaranthaceae	LC		medicinal,young shoots and leaves are cooked	Moist open places, ponds, ditches, puddles	Tangle Mat, Sessile joyweed
257	13.671	74.944	Varahi river_Hosan gadi	<i>Amaranthus viridis</i>	Amaranthaceae	NE		edible,nutritional value	Wastelands and degraded forests	Wild Amaranth, Slender amaranth

258	13.655	74.938	Varahi river_Hosan gadi	<i>Ammannia baccifer</i>	Lythraceae	LC			Wet places, near river banks, pond, ditches, puddle	Blistering Ammania
259	13.66	74.942	Varahi river_Hosan gadi	<i>Anacardium occidentale</i>	Anacardiaceae	NE		medicine,nuts	Cultivated	Cashew Apple
260	13.66	74.944	Varahi river_Hosan gadi	<i>Annona reticulata</i>	Annonaceae	NE				Netted custard apple
261	13.666	74.947	Varahi river_Hosan gadi	<i>Anogeissus latifolia</i>	Combretaceae	NE		Medicinal,wood used for agricultural implements	Moist and dry deciduous forests	Dhawa, Indian Gum Tree
262	13.67	74.949	Varahi river_Hosan gadi	<i>Anthocephalus cadamba</i>	Rubiaceae	NE			Along banks of rivers and streams in evergreen forests, also in the plains	Kadam
263	13.642	74.953	Varahi river_Hosan gadi	<i>Aporosa lindleyana</i>	Euphorbiaceae	NE				
264	13.645	74.954	Varahi river_Hosan gadi	<i>Argyreia involucrata</i>	Convolvulaceae	NE				
265	13.65	74.955	Varahi river_Hosan gadi	<i>Aristolochia indica</i>	Aristolochiaceae	NE		Medicinal,antidote for snake-bite	moist deciduous forests	Indian birthwort
266	13.648	74.963	Varahi river_Hosan gadi	<i>Artabotrys zeylanicus</i>	Annonaceae	NE			Tropical evergreen and semi evergreen forests.	Ceylon green champa
267	13.699	74.989	Varahi river_Hosan gadi	<i>Artemisia vulgaris</i>	Asteraceae	NE				common mugwort
268	13.699	74.989	Varahi river_Hosan gadi	<i>Artocarpus gomezianus</i>	Moraceae	NE				
269	13.699	74.985	Varahi river_Hosan gadi	<i>Artocarpus heterophyllus</i>	Moraceae	NE		Food,medicinal,fuel,fodder	Evergreen Forests, Cultivated in Plains	Jack fruit tree
270	13.7	74.969	Varahi river_Hosan gadi	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini

271	13.698	74.97	Varahi river_Hosangadi	<i>Asclepias curassavica</i>	Asclepidaceae	NE		Ornamental, medicinal	Hilly areas, marshy land, along stream banks	Blood Flower, West Indian Ipecacuanha
272	13.69	74.967	Varahi river_Hosangadi	<i>Asparagus racemosus</i>	Asparagaceae	NE		medicinal, nutritional value	All forest types, also in the plains	Asparagus, Spiny Asparagus
273	13.681	74.967	Varahi river_Hosangadi	<i>Asystasia gangetica</i>	Acanthaceae	NE			Grows in open areas and also cultivated in gardens	Coromandel/Chinese violet,
274	13.678	74.966	Varahi river_Hosangadi	<i>Atalantia wightii</i>	Rutaceae	NE				
275	13.673	74.965	Varahi river_Hosangadi	<i>Azadirachta indica</i>	Meliaceae	NE	native	medicinal, fodder, fuelwood, pest management, windbreak	Dry deciduous forests, also widely planted	Neem tree
276	13.667	74.959	Varahi river_Hosangadi	<i>Bambusa arundinaceae</i>	Poaceae	NE		Shoots and seed grains are edible	Wild in most parts of tropical India	Bamboo
277	13.664	74.958	Varahi river_Hosangadi	<i>Bambusa tulda</i>	Poaceae	NE				Bamboo
278	13.664	74.951	Varahi river_Hosangadi	<i>Bassia latifolia</i>	Sapotaceae	NE		medicinal, food, fodder	Forested areas	Mowra butter tree
279	13.668	74.951	Varahi river_Hosangadi	<i>Bauhinia foveolata</i>	Fabaceae	NE				
280	13.674	74.949	Varahi river_Hosangadi	<i>Bauhinia malabarica</i>	Fabaceae	NE				
281	13.679	74.945	Varahi river_Hosangadi	<i>Bauhinia phoenicia</i>	Caesalpiniaceae	NE				
282	13.681	74.948	Varahi river_Hosangadi	<i>Bauhinia racemosa</i>	Caesalpiniaceae	NE			Very common in foothills, Dry and moist deciduous forests	Burmese Silk Orchid
283	13.685	74.952	Varahi river_Hosangadi	<i>Bischofia javanica</i>	Phyllanthaceae	NE		Folk medicine, Siddha, Traditional Chinese medicine		Bischofia
284	13.692	74.956	Varahi river_Hosangadi	<i>Bixa orellana</i>	Bixaceae	NE			Cultivated, tolerant of poor soils but intolerant of shades	Annatto tree, Annatto

285	13.696	74.961	Varahi river_Hosan gadi	<i>Blepharis asperima</i>	Acanthaceae	NE			Dry Evergreen to Dry Deciduous Forests	
286	13.697	74.964	Varahi river_Hosan gadi	<i>Boerhaavia chinensis</i>	Nyctaginaceae	NE			Dry and moist deciduous forests	
287	13.7	74.975	Varahi river_Hosan gadi	<i>Boerhaavia diffusa</i>	Nyctaginaceae	NE			Moist and dry deciduous forests and also in the plains	Pigweed, Common Hogweed
288	13.698	74.987	Varahi river_Hosan gadi	<i>Bombax ceiba</i>	Malvaceae	NE			Moist deciduous and semi-evergreen forests, also in the plains	Indian bombax, Silk Cotton Tree
289	13.685	74.994	Varahi river_Hosan gadi	<i>Borreria hispida</i>	Rubiaceae	NE	Endemic to peninsular India	Medicinal	Sandy low lands	
290	13.682	74.994	Varahi river_Hosan gadi	<i>Bridalia retusa</i>	Phyllanthaceae	NE		Medicinal	Semi-evergreen and deciduous forests, also in the plains	
291	13.676	74.994	Varahi river_Hosan gadi	<i>Bridelia scandens</i>	Euphorbiaceae	NE				
292	13.648	74.952	Varahi river_Hosan gadi	<i>Buddleja asiatica</i>	Scrophulariaceae	NE				
293	13.647	74.955	Varahi river_Hosan gadi	<i>Bulbophyllum mysorensense</i>	Orchidaceae	NE				
294	13.647	74.959	Varahi river_Hosan gadi	<i>Butea superba</i>	Fabaceae	NE			Sal forest	
295	13.648	74.96	Varahi river_Hosan gadi	<i>Caesalpinia crista</i>	Fabaceae	NE				
296	13.653	74.961	Varahi river_Hosan gadi	<i>Calamus rotang</i>	Arecaceae	NE			n sacred groves near coastal regions and backwaters	Common rattan
297	13.656	74.964	Varahi river_Hosan gadi	<i>Callicarpa tomentosa</i>	Lamiaceae	NE		Folk medicine, Siddha	Moist deciduous and degraded forests, also in the plains	Great woolly malayan lilac

298	13.653	74.967	Varahi river_Hosan gadi	<i>Calophyllum apetalum</i>	Calophyllaceae	NE			
299	13.646	74.942	Varahi river_Hosan gadi	<i>Calotropis gigantea</i>	Asclepiadaceae	LC	medicinal,nutritional value	Deciduous forests, also in wet places in the plains	Madar, Crown Flower
300	13.647	74.941	Varahi river_Hosan gadi	<i>Calycopteris floribunda</i>	Combretaceae	NE			
301	13.648	74.944	Varahi river_Hosan gadi	<i>Canarium strictum</i>	Burseraceae	NE	Medicinal	Semi evergreen forests, moist deciduous forests	Black Dammar
302	13.651	74.947	Varahi river_Hosan gadi	<i>Canavalia ensiformis</i>	Fabaceae	NE			Sword Bean
303	13.654	74.95	Varahi river_Hosan gadi	<i>Canscora diffusa</i>	Gentianaceae	NE		Dry deciduous forests	Kilvar
304	13.656	74.95	Varahi river_Hosan gadi	<i>Capparis cleghornii</i>	Capparaceae	NE	Medicinal	Along the margins of semi-evergreen forests	Wagati
305	13.66	74.952	Varahi river_Hosan gadi	<i>Capparis zeylanica</i>	Capparaceae	NE		Scrub forests and dry plains	Ceylon Caper
306	13.666	74.951	Varahi river_Hosan gadi	<i>Carallia brachiata</i>	Rhizophoraceae	NE	Folk medicine		
307	13.672	74.951	Varahi river_Hosan gadi	<i>Cardiospermum halicacabum</i>	Sapindaceae	NE	Medicinal	Moist deciduous forests, also in scrub jungles	Balloon vine
308	13.681	74.956	Varahi river_Hosan gadi	<i>Careya arborea</i>	Lecythidaceae	LC	Folk medicine, Ayurveda, Siddha		Kumbi
309	13.685	74.958	Varahi river_Hosan gadi	<i>Carissa spinarum</i>	Apocynaceae	NE		Common in the plains from the coast, in scrub jungles	
310	13.69	74.963	Varahi river_Hosan gadi	<i>Casurina equisetifolia</i>	Casurinaceae	NE	Medicinal,food,Fodder,Fuelwood,Pest management	Along river banks, swamps, marshes	Whistling pine, She oak
311	13.695	74.965	Varahi river_Hosan gadi	<i>Carvia callosa</i>	Acanthaceae	NE			Karvi
312	13.7	74.968	Varahi river_Hosan gadi	<i>Caryota urens</i>	Arecaceae	LC		Terrestrial	Elephant's palm

313	13.7	74.97	Varahi river_Hosangadi	<i>Cassia alata</i>	Caesalpiniaceae	NE				
314	13.698	74.971	Varahi river_Hosangadi	<i>Cassia fistula</i>	Fabaceae	NE				The Indian Laburnum
315	13.699	74.976	Varahi river_Hosangadi	<i>Cassia hirsute</i>	Fabaceae	NE			Degraded forests also in the plains	Wolly senna
316	13.699	74.979	Varahi river_Hosangadi	<i>Cassytha filiformis</i>	Lauraceae	NE			Among bushes in plains	
317	13.696	74.983	Varahi river_Hosangadi	<i>Celosia argentea</i>	Amaranthaceae	NE		tender shoots and leaves are edible	Weed in cultivated areas and wastelands	Silver Spiked Cockscomb
318	13.657	74.969	Varahi river_Hosangadi	<i>Centella asiatica</i>	Apiaceae	LC		medicinal,nutritional value	Deciduous forests, also in wet places in the plains	Indian Pennywort
319	13.657	74.972	Varahi river_Hosangadi	<i>Chloroxylon swietenia</i>	Rutaceae	VU		Great demand for agricultural implements		Indian Satin wood Tree
320	13.657	74.977	Varahi river_Hosangadi	<i>Chukrasia tabularis</i>	Meliaceae	Low risk			Semi-evergreen, moist deciduous, evergreen and shola forests	Chikrassy
321	13.66	74.979	Varahi river_Hosangadi	<i>Cinnamomum sulphuratum</i>	Lauraceae	VU				
322	13.664	74.984	Varahi river_Hosangadi	<i>Cinnamomum zeylanicum</i>	Lauraceae	NE			Evergreen and riparian forests, also cultivated	Ceylon Cinnamon
323	13.669	74.989	Varahi river_Hosangadi	<i>Cipadessa baccifera</i>	Meliaceae	NE			Moist deciduous and semi-evergreen forests, also in the sacred groves	
324	13.671	74.993	Varahi river_Hosangadi	<i>Cissus discolor</i>	Vitaceae	NE				
325	13.678	74.993	Varahi river_Hosangadi	<i>Clematis gouriana</i>	Ranunculaceae	NE			Moist deciduous forests and grasslands	Indian Travelers's Joy
326	13.681	74.993	Varahi river_Hosangadi	<i>Clerodendrum inerme</i>	Verbenaceae	NE		Used in traditional medicine and ornamental.	Backwater low lying areas, rocky coastal	Indian privet, Garden quinine

									belts, roadsides and cultivated	
327	13.686	74.993	Varahi river_Hosan gadi	<i>Clerodendrum serratum</i>	Verbenaceae	NE				Blue-flowered Glory Tree
328	13.689	74.992	Varahi river_Hosan gadi	<i>Cocos nucifera</i>	Arecaceae	NE		medicinal	Cultivated	Coconut
329	13.69	74.989	Varahi river_Hosan gadi	<i>Coldenia procumbens</i>	Boraginaceae	NE				
330	13.686	74.989	Varahi river_Hosan gadi	<i>Colebrookea oppositifolia</i>	Lamiaceae	NE				Indian Squirrel Tail
331	13.68	74.991	Varahi river_Hosan gadi	<i>Colocasia esculenta</i>	Areceae	LC		medicinal	Waterlogged ditches and streamside	Taro, Wild taro
332	13.674	74.987	Varahi river_Hosan gadi	<i>Combretum latifolium</i>	Combretaceae	NE				
333	13.673	74.985	Varahi river_Hosan gadi	<i>Conarus wightii</i>	Connaraceae	NE				
334	13.668	74.982	Varahi river_Hosan gadi	<i>Cosciniium fenestratum</i>	Menispermaceae	DD			Semi-evergreen and evergreen forests	Flase calumba
335	13.668	74.982	Varahi river_Hosan gadi	<i>Costus speciosus</i>	Costaceae	NE				Cane-reed
336	13.668	74.977	Varahi river_Hosan gadi	<i>Crateva magna</i>	Capparaceae	NE			River banks in semi-evergreen forests	Garlic Pear Tree
337	13.665	74.975	Varahi river_Hosan gadi	<i>Crinum viviparum</i>	Amaryllidaceae	NE				
338	13.658	74.97	Varahi river_Hosan gadi	<i>Crotalaria pallida</i>	Fabaceae	NE		Green maure		chique chique, streaked rattlepod
339	13.656	74.968	Varahi river_Hosan gadi	<i>Crotalaria umbellata</i>	Fabaceae	NE				
340	13.654	74.964	Varahi river_Hosan gadi	<i>Cryptolepis buchananii</i>	Asclepiadaceae	LC		Medicinal	Moist and dry deciduous forests, also in the plains	

341	13.654	74.962	Varahi river_Hosan gadi	<i>Cymbidium aloifolium</i>	Orchidaceae	NE				
342	13.656	74.959	Varahi river_Hosan gadi	<i>Cyperus difformis</i>	Cyperaceae	LC				
343	13.649	74.964	Varahi river_Hosan gadi	<i>Dalbergia latifolia</i>	Fabaceae	VU			Terrestrial	Bombay blackwood
344	13.649	74.954	Varahi river_Hosan gadi	<i>Dalzellia ceylanica</i>	Podostemaceae	NE				
345	13.649	74.952	Varahi river_Hosan gadi	<i>Debregeasia longifolia</i>	Urticaceae	NE		Folk medicine, Siddha		Wild Rhea
346	13.652	74.949	Varahi river_Hosan gadi	<i>Decaschistia crotonifolia</i>	Malvaceae	NE				
347	13.656	74.951	Varahi river_Hosan gadi	<i>Dendrobium barbatulum</i>	Orchidaceae	NE				
348	13.659	74.959	Varahi river_Hosan gadi	<i>Derris thyrsoiflora</i>	Fabaceae	NE				
349	13.664	74.961	Varahi river_Hosan gadi	<i>Dillenia pentagyna</i>	Dilleniaceae	NE				Dillenia pentagyna
350	13.666	74.964	Varahi river_Hosan gadi	<i>Dioscorea wallichii</i>	Dioscoreaceae	NE				
351	13.669	74.969	Varahi river_Hosan gadi	<i>Dioscorea bulbifera</i>	Dioscoreaceae	NE		Medicinal,vegetable	Moist deciduous forests, also in the plains	Air potato
352	13.671	74.972	Varahi river_Hosan gadi	<i>Dioscorea pentaphylla</i>	Dioscoreaceae	NE		Folk medicine, Ayurveda, Siddha		Fiji yam
353	13.674	74.974	Varahi river_Hosan gadi	<i>Diospyros ebenum</i>	Ebenaceae	NE				
354	13.679	74.975	Varahi river_Hosan gadi	<i>Diospyros gandolleana</i>	Ebenaceae	NE				
355	13.681	74.976	Varahi river_Hosan gadi	<i>Dipterocarpus indicus</i>	Dipterocarpaceae	EN			Evergreen and semi-evergreen forests of Western Ghats	New Guinea rosewood

356	13.682	74.978	Varahi river_Hosan gadi	<i>Dracaena terniflora</i>	Agavaceae	NE			
357	13.681	74.965	Varahi river_Hosan gadi	<i>Ehretia laevis</i>	Boraginaceae	Rare			
358	13.68	74.963	Varahi river_Hosan gadi	<i>Elaeagnus conferta</i>	Elaeagnaceae	NE		Folk medicine	
359	13.674	74.96	Varahi river_Hosan gadi	<i>Elaeocarpus tuberculatus</i>	Elaeocarpaceae	NE			
360	13.669	74.959	Varahi river_Hosan gadi	<i>Elephantopus scaber</i>	Asteraceae	NE			Prickly leaved elephant's foot
361	13.664	74.957	Varahi river_Hosan gadi	<i>Ensete superbum</i>	Musaceae	NE		Moist deciduous and semi-evergreen forests	Wild Plantain
362	13.667	74.956	Varahi river_Hosan gadi	<i>Entada scandeus</i>	Mimosaceae	NE			
363	13.672	74.955	Varahi river_Hosan gadi	<i>Eriocaulon xeranthemum</i>	Eriocaulaceae	LC		Terrestrial, Freshwater	
364	13.678	74.954	Varahi river_Hosan gadi	<i>Euginea gradineri</i>	Myrtaceae	NE			
365	13.682	74.956	Varahi river_Hosan gadi	<i>Eupatorium adenophorum</i>	Asteraceae	NE		Folk medicine	Degraded forest areas
366	13.685	74.96	Varahi river_Hosan gadi	<i>Evolvulus alsinoides</i>	Convolvulaceae	NE			Little Glory
367	13.68	74.96	Varahi river_Hosan gadi	<i>Ficus benghalensis</i>	Moraceae	NE		Medicinal, Food, Fodder, Fuel	Evergreen to deciduous forests; and cultivated around villages.
368	13.675	74.963	Varahi river_Hosan gadi	<i>Ficus racemosa</i>	Moraceae	NE		Medicinal, Food, Fodder, Fuel	Evergreen to moist deciduous forests; and cultivated.
369	13.676	74.969	Varahi river_Hosan gadi	<i>Ficus religiosa</i>	Moraceae	NE			Cosmopolitan
									Pipul, Peepal tree

370	13.678	74.969	Varahi river_Hosan gadi	<i>Ficus tsjahela</i>	Moraceae	NE				
371	13.682	74.967	Varahi river_Hosan gadi	<i>Flacourtia Montana</i>	Salicaceae	NE		Fruits are edible, Wood is used for building purposes	Moist deciduous to semi evergreen forests	Mountain Sweet Thorn
372	13.689	74.966	Varahi river_Hosan gadi	<i>Garcinia morella</i>	Clusiaceae	NE		Folk medicine, ayurveda, siddha, Homeopathy, modern medicine		Indian Gamboge
373	13.687	74.971	Varahi river_Hosan gadi	<i>Garcinia spicata</i>	Clusiaceae	NE				
374	13.684	74.97	Varahi river_Hosan gadi	<i>Garcinia talboti</i>	Clusiaceae	NE				
375	13.681	74.973	Varahi river_Hosan gadi	<i>Glochidion zeylanicum</i>	Euphorbiaceae	NE				
376	13.684	74.974	Varahi river_Hosan gadi	<i>Glycosmis pentaphylla</i>	Rutaceae	NE				Ash Sheora
377	13.686	74.974	Varahi river_Hosan gadi	<i>Gnetum scandens</i>	Gnetaceae	LC				Joint Fir
378	13.689	74.973	Varahi river_Hosan gadi	<i>Gnetum ula</i>	Gnetaceae	LC				
379	13.69	74.971	Varahi river_Hosan gadi	<i>Grewia tilifolia</i>	Malvaceae	NE			Moist deciduous forests	Dhaman
380	13.69	74.969	Varahi river_Hosan gadi	<i>Gomphrena serrata</i>	Amaranthaceae	NE				
381	13.688	74.967	Varahi river_Hosan gadi	<i>Gymnema sylvestre</i>	Asclepiadaceae	NE				Gymnema, Small Indian Ipecae
382	13.69	74.966	Varahi river_Hosan gadi	<i>Helicteres isora</i>	Malvaceae	NE			Deciduous forests, also in plantations and plains	East Indian ScrewTree
383	13.694	74.968	Varahi river_Hosan gadi	<i>Hemidesmus indicus</i>	Periplocaceae	NE		western ghat		Indian Sarsaparilla
384	13.69	74.969	Varahi river_Hosan gadi	<i>Heteropogon contortus</i>	Asclepiadaceae	NE	western ghat	roots used for drinks and beverages	Plains from the coast, in scrub jungles	Indian Sarsaparilla

385	13.693	74.972	Varahi river_Hosan gadi	<i>Hibiscus cannabinus</i>	Malvaceae	NE			Tropical and subtropical regions, near villages, cultivated places and roadsides	Ambari hemp, Brown Indian hemp
386	13.695	74.971	Varahi river_Hosan gadi	<i>Holarrhena antidysenterica</i>	Apocynaceae	NE		Plant is rich in alkaloids, a preparation from the bark is effective against dysentery		Easter Tree
387	13.699	74.969	Varahi river_Hosan gadi	<i>Holigarna arnottiana</i>	Anacardiaceae	NE		Folk medicine, Siddha		Black Varnish Tree
388	13.688	74.952	Varahi river_Hosan gadi	<i>Holigarna grahamii</i>	Anacardiaceae	NE	WG			
389	13.683	74.949	Varahi river_Hosan gadi	<i>Homonoia riparia</i>	Euphorbiaceae	LC				
390	13.675	74.948	Varahi river_Hosan gadi	<i>Homonoia riparia</i>	Euphorbiaceae	LC				
391	13.67	74.946	Varahi river_Hosan gadi	<i>Hopea canarensis</i>	Dipterocarpaceae	DD				
392	13.665	74.944	Varahi river_Hosan gadi	<i>Hopea parviflora</i>	Dipterocarpaceae	EN			Terrestrial	Hopea
393	13.66	74.941	Varahi river_Hosan gadi	<i>Hopea ponga</i>	Dipterocarpaceae	EN			Evergreen and semi-evergreen forests, also in the plains in sacred groves	Thingam
394	13.646	74.935	Varahi river_Hosan gadi	<i>Hopea wightiana</i>	Dipterocarpaceae	NE				
395	13.646	74.94	Varahi river_Hosan gadi	<i>Humboldtia vahliana</i>	Fabaceae	NE	WG			
396	13.647	74.942	Varahi river_Hosan gadi	<i>Humboldtia brunonis</i>	Fabaceae	NE	WG			
397	13.649	74.947	Varahi river_Hosan gadi	<i>Hydnocarpus laurifolia</i>	Achariaceae	NE				

398	13.651	74.957	Varahi river_Hosan gadi	<i>Hydrilla verticillata</i>	Hydrocharitaceae	LC			Stagnant ponds	Hydrilla
399	13.652	74.968	Varahi river_Hosan gadi	<i>Hyptis suaveolens</i>	Lamiaceae	NE		leaves as vegetable, medicinal	moist and dry deciduous forests and wastelands	
400	13.654	74.974	Varahi river_Hosan gadi	<i>Ichnocarpus frutescens</i>	Apocynaceae	NE		Medicinal		Slender Dog-Bane
401	13.656	74.98	Varahi river_Hosan gadi	<i>Imperata cylindrica</i>	Poaceae	NE			Grasslands, banks of backwaters, forest clearings and fallow fields	Cogongrass, Sword Grass
402	13.663	74.987	Varahi river_Hosan gadi	<i>Indonesiella echioides</i>	Acanthaceae	NE		leaves as vegetable, medicinal	moist and dry deciduous forests and wastelands	
403	13.674	74.993	Varahi river_Hosan gadi	<i>Ipomea aquatica</i>	Convolvulaceae	LC			Margins of ditches and ponds	Swamp cabbage
404	13.681	74.993	Varahi river_Hosan gadi	<i>Ixora coccinea</i>	Rubiaceae	NE		ornamental, medicinal	In the plains, also grown in homesteads	Jungle flame, Flame of the woods
405	13.688	74.994	Varahi river_Hosan gadi	<i>Ixora pavetta</i>	Rubiaceae	NE				
406	13.692	74.989	Varahi river_Hosan gadi	<i>Jasminum malabaricum</i>	Oleaceae	NE				
407	13.697	74.982	Varahi river_Hosan gadi	<i>Knema attenuata</i>	Myristicaceae	Low risk			Terrestrial	
408	13.684	74.986	Varahi river_Hosan gadi	<i>Kydia calycina</i>	Malvaceae	NE		The honey will be thick and sweet. Leaves are eaten by the elephant, sambar deer	Deciduous forests	Roxburgh's Kydia, Pula
409	13.685	74.981	Varahi river_Hosan gadi	<i>Lagascea mollis</i>	Asteraceae	NE			Weed in cultivated fields, also in waste lands	Silk Leaf
410	13.689	74.983	Varahi river_Hosan gadi	<i>Lagerstroemia microcarpa</i>	Lythraceae	NE			Moist deciduous forests, also in the plains	Ben Teak
411	13.687	74.984	Varahi river_Hosan gadi	<i>Lagerstroemia reginae</i>	Lythraceae	NE				

412	13.681	74.984	Varahi river_Hosangadi	<i>Lantana camara</i>	Verbenaceae	NE		Flower attracts butterflies and moths. Birds disperse the seeds.	Cosmopolitan, Aggressive weed in cultivated fields	Common Lantana
413	13.689	74.981	Varahi river_Hosangadi	<i>Lawsonia inermis</i>	Lythraceae	NE		medicinal, dye	Cosmopolitan, Plains and lower hill	Henna
414	13.687	74.977	Varahi river_Hosangadi	<i>Leea asiatica</i>	Vitaceae	NE		Folk medicine		
415	13.685	74.973	Varahi river_Hosangadi	<i>Leea indica</i>	Vitaceae	NE		Folk medicine, Ayurveda, Siddha		Bandicoot Berry
416	13.683	74.971	Varahi river_Hosangadi	<i>Leea macrophylla</i>	Vitaceae	NE				
417	13.677	74.968	Varahi river_Hosangadi	<i>Leonotis neptifolia</i>	Lamiaceae	NE			Deciduous forests	
418	13.676	74.964	Varahi river_Hosangadi	<i>Leucas aspera</i>	Lamiaceae	NE		medicinal	Deciduous forests and wastelands	Common Leucas, Thumba
419	13.672	74.96	Varahi river_Hosangadi	<i>Ligustrum gamblei</i>	Oleaceae	NE				
420	13.664	74.958	Varahi river_Hosangadi	<i>Limonia crenulata</i>	Rutaceae	NE				
421	13.668	74.959	Varahi river_Hosangadi	<i>Litsea coriacea</i>	Lauraceae	NE				
422	13.673	74.96	Varahi river_Hosangadi	<i>Lobelia nicotianifolia trichandra</i>	Lobeliaceae	NE				
423	13.677	74.957	Varahi river_Hosangadi	<i>Lophopetalum wightianum</i>	Celastraceae	LC				
424	13.673	74.962	Varahi river_Hosangadi	<i>Ludwigia adscendens</i>	Onagraceae	NE			Waste lands, degraded places	Water Primrose
425	13.676	74.964	Varahi river_Hosangadi	<i>Luvunga eleutherandra</i>	Rutaceae	NE				
426	13.688	74.96	Varahi river_Hosangadi	<i>Macaranga peltata</i>	Euphorbiaceae	NE		Folk medicine, Siddha		Macaranga

427	13.701	74.948	Varahi river_Hosan gadi	<i>Madhuca neriifolia</i>	Sapotaceae	NE		Folk medicine		
428	13.703	74.955	Varahi river_Hosan gadi	<i>Maesa indica</i>	Myrsinaceae	NE				
429	13.706	74.959	Varahi river_Hosan gadi	<i>Mallotus philippensis</i>	Euphorbiaceae	NE		Folk medicine, ayurveda, siddha, Homeopathy		Kamala Dye Tree
430	13.711	74.961	Varahi river_Hosan gadi	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy, Mango tree
431	13.714	74.967	Varahi river_Hosan gadi	<i>Melastoma malabathrica</i>	Melastomaceae	NE				
432	13.711	74.971	Varahi river_Hosan gadi	<i>Melia dubia</i>	Meliaceae	NE				
433	13.711	74.977	Varahi river_Hosan gadi	<i>Memecylon malabaricum</i>	Melastomataceae	NE			Western Ghats, Evergreen Forests	
434	13.71	74.982	Varahi river_Hosan gadi	<i>Memecylon talbotianum</i>	Melastomataceae	NE				Folk medicine
435	13.706	74.991	Varahi river_Hosan gadi	<i>Mesua ferrea</i>	Calophyllaceae	NE			Nag Champa	Iron Wood Tree
436	13.701	75.002	Varahi river_Hosan gadi	<i>Michelia champaca</i>	Magnoliaceae	NE		Ornamental, medicinal	Evergreen forests	Joy Perfume Tree
437	13.694	75.005	Varahi river_Hosan gadi	<i>Mimosa pudica</i>	Fabaceae	NE		medicinal	Moist localities	Sensitive plant
438	13.689	75.001	Varahi river_Hosan gadi	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten, Medicinal	Semi-evergreen and evergreen forests, also grown in homesteads	Asian bullet wood
439	13.681	74.992	Varahi river_Hosan gadi	<i>Mitragyna parvifolia</i>	rubiaceae	NE				
440	13.667	74.984	Varahi river_Hosan gadi	<i>Moullava spicata</i>	Fabaceae	NE	Endemic to Western Ghats	Folk medicine		Candy Corn Plant

441	13.657	74.977	Varahi river_Hosan gadi	<i>Mucuna pruriens</i>	Fabaceae	NE		Medicinal,edible tubers	Scrub jungles, waste lands	Cow hage, Common cow itch
442	13.648	74.976	Varahi river_Hosan gadi	<i>Murraya paniculata</i>	rutaceae	NE		Wood very hard, used for construction works ,Medicinal	Common on hills, especially in shaded ravines	Satin Wood
443	13.64	74.969	Varahi river_Hosan gadi	<i>Mussaenda frondosa</i>	Rubiaceae	NE				
444	13.64	74.956	Varahi river_Hosan gadi	<i>Myristica beddomei</i>	Myristicaceae	NE				
445	13.636	74.949	Varahi river_Hosan gadi	<i>Myristica malabarica</i>	Myristicaceae	VU			Terrestrial	Bombay mace
446	13.633	74.944	Varahi river_Hosan gadi	<i>Naravelia zeylanica</i>	Ranunculaceae	NE				
447	13.635	74.938	Varahi river_Hosan gadi	<i>Nervilia plicata</i>	Orchidaceae	NE				
448	13.64	74.933	Varahi river_Hosan gadi	<i>Nilgiranthus heyneanus</i>	Acanthaceae	NE				
449	13.646	74.933	Varahi river_Hosan gadi	<i>Oberonia ensiformis</i>	Orchidaceae	NE				
450	13.651	74.934	Varahi river_Hosan gadi	<i>Oldenlandia corymbosa</i>	Rubiaceae	LC			Wet places, near rivers, canals	Diamond Flower
451	13.655	74.935	Varahi river_Hosan gadi	<i>Olea dioica</i>	Oleaceae	NE		Folk medicine, Siddha	In both deciduous and evergreen forests	Rose Sandalwood
452	13.66	74.938	Varahi river_Hosan gadi	<i>Ophiorrhiza mungos</i>	rubiceae	NE			Primary and secondary forest, in moist localities	Mongoose plant
453	13.663	74.939	Varahi river_Hosan gadi	<i>Oroxylum indicum</i>	Bignoniaceae	LC			Moist deciduous forests, also in the plains	Broken Bones Plant
454	13.666	74.942	Varahi river_Hosan gadi	<i>Oryza sativa</i>	Poaceae	NE				
455	13.678	74.982	Varahi river_Hosan gadi	<i>Osbeckia brachystemon</i>	Melastomataceae	NE				

456	13.676	74.981	Varahi river_Hosan gadi	<i>Osbeckia muralis</i>	Melastomatoceae	NE				
457	13.673	74.978	Varahi river_Hosan gadi	<i>Ottelia alismoides</i>	Hydrocharitaceae	LC				
458	13.675	74.978	Varahi river_Hosan gadi	<i>Oxalis corniculata</i>	Oxalidiaceae	NE		Leaves edible after cooking.	Forests, grasslands, moist places, irrigation channels	Indian Sorrel
459	13.68	74.979	Varahi river_Hosan gadi	<i>Palaquium ellipticum</i>	Sapotaceae	NE		Folk medicine		Palai
460	13.681	74.983	Varahi river_Hosan gadi	<i>Pandanus canaranus</i>	Pandanaceae	NE	Endemic to peninsular India		Along banks of stream	
461	13.684	74.987	Varahi river_Hosan gadi	<i>Pandanus tectorius</i>	Pandanaceae	LC				
462	13.67	74.947	Varahi river_Hosan gadi	<i>Pandonus thwaitesii</i>	Pandanaceae	LC				
463	13.672	74.939	Varahi river_Hosan gadi	<i>Paspalidium flavidum</i>	Poaceae	NE				
464	13.669	74.939	Varahi river_Hosan gadi	<i>Pavetta indica</i>	Rubiaceae	NE		Medicinal	Undergrowth in disturbed evergreen to semievergreen forests	Indian Pavetta
465	13.666	74.943	Varahi river_Hosan gadi	<i>Peristrophe paniculata</i>	Acanthaceae	NE			Plains, Dry Localities	Panicled Peristrophe
466	13.663	74.948	Varahi river_Hosan gadi	<i>Persea macrantha</i>	Lauraceae	NE				
467	13.665	74.951	Varahi river_Hosan gadi	<i>Pholidota imbricata</i>	Orchidaceae	NE				
468	13.665	74.956	Varahi river_Hosan gadi	<i>Phyllanthus emblica</i>	Euphorbiaceae	NE		Medicinal	Dry and moist deciduous forests, also cultivated in the plains	Indian gooseberry
469	13.667	74.959	Varahi river_Hosan gadi	<i>Phyllanthus lawii</i>	Euphorbiaceae	NE				

470	13.672	74.959	Varahi river_Hosan gadi	<i>Pinanga dicksonii</i>	Arecaceae	NE				
471	13.648	74.954	Varahi river_Hosan gadi	<i>Piper nigrum</i>	Piperaceae	NE				Black pepper
472	13.648	74.954	Varahi river_Hosan gadi	<i>Pithecellobium dulce</i>	Mimosaceae	NE		Food,Fodder,Fuel	Forested areas	Pithecellobium dulce
473	13.651	74.953	Varahi river_Hosan gadi	<i>Plantago asiatica</i>	Plantaginaceae	NE				
474	13.653	74.948	Varahi river_Hosan gadi	<i>Plecosperrum spinosum</i>	Ulmaceae	NE				
475	13.652	74.947	Varahi river_Hosan gadi	<i>Poeciloneuron indicum</i>	Calophyllaceae	NE				Puthang Kolli
476	13.658	74.963	Varahi river_Hosan gadi	<i>Polygala chinensis</i>	Polygalaceae	NE	Native			Indian milkwort
477	13.659	74.963	Varahi river_Hosan gadi	<i>Pongamia glabra</i>	Fabaceae	LC		Food,fodder,fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech
478	13.662	74.965	Varahi river_Hosan gadi	<i>Pothos scandens</i>	Araceae	NE				
479	13.664	74.965	Varahi river_Hosan gadi	<i>Pouzolzia zeylanica</i>	Urticaceae	NE				
480	13.665	74.964	Varahi river_Hosan gadi	<i>Pouzolzia pentandra</i>	Urticaceae	NE				
481	13.669	74.965	Varahi river_Hosan gadi	<i>Psychotria nigra</i>	Rubiaceae	NE				
482	13.67	74.966	Varahi river_Hosan gadi	<i>Pterocarpus santalinus</i>	fabaceae	EN		Ayurveda, Folk medicine, Sowa-Rigpa, Unani, Siddha	Dry Evergreen to Dry Deciduous Forests, Cultivated	Red sandalwood
483	13.669	74.969	Varahi river_Hosan gadi	<i>Pterospermum rubiginosum</i>	Sterculiaceae	NE				

484	13.669	74.971	Varahi river_Hosan gadi	<i>Radermachera xylocarpa</i>	Bignoniaceae	NE			
485	13.67	74.974	Varahi river_Hosan gadi	<i>Randia dumetorium</i>	rubiaceae	NE			Common in the foothills, scrub jungles, dry deciduous forests
486	13.672	74.978	Varahi river_Hosan gadi	<i>Rauwolfia serpentina</i>	Apocynaceae	NE			Moist deciduous forests, also in the plains
487	13.675	74.979	Varahi river_Hosan gadi	<i>Rhaphanus sativus</i>	Brassicaceae	NE		Widely cultivated, used as vegetable and medicine.	Cultivated fields.
488	13.677	74.977	Varahi river_Hosan gadi	<i>Rubia cordifolia</i>	Rubiaceae	NE		Folk medicine, Traditional Chinese medicine, Ayurveda, Siddha	Indian madder
489	13.675	74.976	Varahi river_Hosan gadi	<i>Saccharum spontaneum</i>	Poaceae	NE			
490	13.673	74.975	Varahi river_Hosan gadi	<i>Sagittaria sagitifolia</i>	Alismataceae	NE			Old World Arrowhead,
491	13.67	74.973	Varahi river_Hosan gadi	<i>Santalum album</i>	Santalaceae	VU		Oil,Scent,medicinal	Lower slopes, plain and foothills
492	13.669	74.971	Varahi river_Hosan gadi	<i>Sapindus laurifolius</i>	Sapindaceae	NE			Semi-evergreen and moist deciduous forests
493	13.67	74.967	Varahi river_Hosan gadi	<i>Saraca asoca</i>	Fabaceae	VU		Medicinal	Semi evergreen forests, cultivated
494	13.687	74.979	Varahi river_Hosan gadi	<i>Saraca indica</i>	Fabaceae	VU			
495	13.687	74.979	Varahi river_Hosan gadi	<i>Schefflera wallichiana</i>	Arecaceae	NE			
496	13.687	74.982	Varahi river_Hosan gadi	<i>Schleichera trijuga</i>	Sapindaceae	NE			Semi-evergreen and moist deciduous forests
497	13.685	74.989	Varahi river_Hosan gadi	<i>Scoparia dulcis</i>	Scophulariaceae	NE			
498	13.684	74.988	Varahi river_Hosan gadi	<i>Sesamum indicum</i>	Pedaliaceae	NE		medicinal	Cosmopolitan, cultivated

499	13.683	74.987	Varahi river_Hosan gadi	<i>Sesbania bispinosa</i>	Fabaceae	LC			Occasional in wet places	
500	13.682	74.985	Varahi river_Hosan gadi	<i>Smilax zeylanica</i>	Smilacaceae	NE				
501	13.68	74.984	Varahi river_Hosan gadi	<i>Solanum torvum</i>	Solanaceae	NE				Devil's Fig
502	13.681	74.982	Varahi river_Hosan gadi	<i>Sphaeranthus indicus</i>	Asteraceae	LC				Indian globe flower
503	13.683	74.961	Varahi river_Hosan gadi	<i>Stachytarpheta indica</i>	Verbenaceae	NE		medicinal	Thickets, near cultivated places and roadsides.	Blue snakeweed
504	13.686	74.963	Varahi river_Hosan gadi	<i>Stephania japonica</i>	Menispermaceae	NE				
505	13.687	74.963	Varahi river_Hosan gadi	<i>Sterculia guttata</i>	Malvaceae	NE			Semi-evergreen and moist deciduous forests, also in the plains	Golder
506	13.687	74.959	Varahi river_Hosan gadi	<i>strychnos nux vomica</i>	Loganiaceae	NE		The seed contains a chemical called 'strychnine' extensively used for preparation of medicines.	Moist and dry deciduous forests, also in the plains	Nux-vomica tree
507	13.678	74.942	Varahi river_Hosan gadi	<i>Syzygium caryophyllatum</i>	Myrtaceae	EN			Kunta Nerale	Folk medicine, Ayurveda
508	13.675	74.943	Varahi river_Hosan gadi	<i>Syzizium cumini</i>	Myrtaceae	NE		Honey bitter fruits edible, Elephants and also used to brew liquor	swamps,riverbanks	Indian Blackberry, Jaman
509	13.675	74.943	Varahi river_Hosan gadi	<i>Syzygium hemisphericum</i>	Myrtaceae	NE				Rose apple
510	13.679	74.945	Varahi river_Hosan gadi	<i>Syzygium laetum</i>	Myrtaceae	NE				
511	13.678	74.948	Varahi river_Hosan gadi	<i>Syzygium zeylanicum</i>	Myrtaceae	NE				
512	13.67	74.952	Varahi river_Hosan gadi	<i>Tabernaemontana heyneana</i>	Apocynaceae	Low risk			Terrestrial	

513	13.672	74.952	Varahi river_Hosangadi	<i>Tamarindus indica</i>	Cesalpiniaceae	NE	native	cooking purpose, medicinal	A large evergreen tree	Indian Date
514	13.675	74.953	Varahi river_Hosangadi	<i>Tectona grandis</i>	Verbenaceae	NE		Medicinal	Moist deciduous forests, also raised in plantations	Teak
515	13.677	74.953	Varahi river_Hosangadi	<i>Terminalia alata</i>	Combretaceae	NE		Medicinal, hosts of the silkworm moth	Common	
516	13.679	74.954	Varahi river_Hosangadi	<i>Terminalia arjuna</i>	Combretaceae	NE		Nesting site of <i>Apis dorsata</i> , <i>Trigonasp.</i> Bees, medicinal	Moist Deciduous to Evergreen Forests	Arjun
517	13.681	74.957	Varahi river_Hosangadi	<i>Terminalia bellerica</i>	Combretaceae	NE		Medicinal	Common	Bedda nut tree
518	13.67	74.97	Varahi river_Hosangadi	<i>Terminalia chebula</i>	Combretaceae	NE			Deciduous forest	Haritaki
519	13.67	74.968	Varahi river_Hosangadi	<i>Terminalia paniculata</i>	Combretaceae	NE		Folk medicine, Ayurveda, Siddha		Flowering Murdah
520	13.671	74.968	Varahi river_Hosangadi	<i>Themeda triandra</i>	Poaceae	NE				
521	13.671	74.966	Varahi river_Hosangadi	<i>Tinospora cardifolia</i>	Menispermaceae	LC				Indian Tinospora,
522	13.669	74.966	Varahi river_Hosangadi	<i>Toddalia bilocularis</i>	Rutaceae	NE				
523	13.667	74.966	Varahi river_Hosangadi	<i>Toona ciliata</i>	Meliaceae	NE			Semi-evergreen and evergreen forests	Australian redcedar, Red cedar
524	13.661	74.956	Varahi river_Hosangadi	<i>Torenia bicolor</i>	Scrophulariaceae	LC				
525	13.661	74.956	Varahi river_Hosangadi	<i>Trema orientalis</i>	Cannabaceae	LC		Folk medicine, Ayurveda, Siddha		Charcoal Tree
526	13.662	74.956	Varahi river_Hosangadi	<i>Typha angustata</i>	Typhaceae	LC			shallow water of lakes, rivers, ponds, marshes, and ditches	Reed mace, Elephant grass
527	13.66	74.951	Varahi river_Hosangadi	<i>Urena lobata</i>	Malvaceae	NE			Undergrowth in orchards, forests, waste place	Caesar's weed

528	13.662	74.951	Varahi river_Hosangadi	<i>Utricularia scandens</i>	Lentibulariaceae	NE			
529	13.664	74.95	Varahi river_Hosangadi	<i>Vanda tessellata</i>	Orchidaceae	NE			
530	13.665	74.951	Varahi river_Hosangadi	<i>Vateria indica</i>	Dipterocarpaceae	CR		Terrestrial	Indian Copal Tree
531	13.665	74.954	Varahi river_Hosangadi	<i>Ventilago maderaspatna</i>	Rhamnaceae	NE	Medicinal	Common on hills, from foothills, scrub jungle, Moist deciduous forests	Red Creepe
532	13.664	74.956	Varahi river_Hosangadi	<i>Vetiveria zizaniodes</i>	Poaceae	NE		Banks of streams and backwaters, also cultivated	Khus-khus, Cuscus grass
533	13.664	74.958	Varahi river_Hosangadi	<i>Vitex altissima</i>	Lamiaceae	NE		Open areas, forested areas	Tall chaste tree
534	13.666	74.96	Varahi river_Hosangadi	<i>Vitex negundo</i>	Verbenaceae	NE	Use of lakky locally called is known to the rural people.	Deciduous forests, river banks, villages and cultivated as hedge plant.	Chaste tree, Negundo Chastetree
535	13.668	74.961	Varahi river_Hosangadi	<i>Vitex leucoxylo</i>	Lamiaceae	NE			
536	13.67	74.962	Varahi river_Hosangadi	<i>Wendlandia notoniana</i>	Rubiaceae	NE			
537	13.672	74.962	Varahi river_Hosangadi	<i>Woodfordia fruticosa</i>	Lythraceae	LC	medicinal	Waste lands	Fire flame bush
538	13.674	74.962	Varahi river_Hosangadi	<i>Wrightia tinctoria</i>	Menispermaceae	LC	ayurvedhic	Moist deciduous forests and scrub jungles	Indian Tinospora,
539	13.675	74.965	Varahi river_Hosangadi	<i>Xylia xylocarpa</i>	Fabaceae	NE			Burma Ironwood
540	13.674	74.967	Varahi river_Hosangadi	<i>Zanthoxylum armatum</i>	Rutaceae	NE		prickly, deciduous to evergreen shrub, woody climber or small tree	Wingleaf pricklyash

541	13.675	74.969	Varahi river_Hosan gadi	<i>Zanthoxylum rhetsa</i>	Rutaceae	NE		Folk medicine, Ayurveda, Siddha		Indian Prickly Ash
542	13.506	74.706	Varahi river_Hosan gadi	<i>Zingiber officinale</i>	Zingiberaceae	NE		medicinal	Widely cultivated	Canton Ginger
543	13.498	74.705	Varahi river_Hosan gadi	<i>Zizyphus oenoplia</i>	Rhamnaceae	NE		edible fruit, medicinal, folklore	Moist and dry deciduous forests, also in the plains	Jackal jujube
544	13.488	74.702	Udupi coastal area	<i>Aegle marmelos</i>	Rutaceae	NE	native	Medicinal, food, fodder, fuel	Plain areas, forests, near roadsides	Bael tree
545	13.478	74.694	Udupi coastal area	<i>Aristolochia indica</i>	Aristolochiaceae	NE		Medicinal, antidote for snake-bite	moist deciduous forests	Indian birthwort
546	13.492	74.69	Udupi coastal area	<i>Asparagus racemosus</i>	Asparagaceae	NE		medicinal, nutritional value	All forest types, also in the plains	Asparagus, Spiny Asparagus
547	13.498	74.691	Udupi coastal area	<i>Barringtonia acutangula</i>	Lecythidaceae	NE			Banks of streams, edges of swamps and moist places	Indian oak
548	13.504	74.692	Udupi coastal area	<i>Breynia vitis-idaea</i>	Euphorbiaceae	NE			Semi-evergreen and moist deciduous forests, also in the plains	Indian snowberry
549	13.51	74.697	Udupi coastal area	<i>Caesalpinia bonduc</i>	Fabaceae	NE		medicinal	Evergreen and moist deciduous forests	Physic-Nut
550	13.516	74.69	Udupi coastal area	<i>Calophyllum inophyllum</i>	Calophyllaceae	LC			In plains along the banks of rivers and mangrove forests	Alexandrian laurel
551	13.521	74.691	Udupi coastal area	<i>Calotropis gigantea</i>	Asclepiadaceae	LC		medicinal, nutritional value	Deciduous forests, also in wet places in the plains	Madar, Crown Flower
552	13.531	74.694	Udupi coastal area	<i>Caryota urens</i>	Arecaceae	LC			Terrestrial	Elephant's palm
553	13.538	74.693	Udupi coastal area	<i>Catunaregam spinosa</i>	Rubiaceae	NE		Medicinal, branches used for fencing	Moist deciduous forests, hilly areas	Common emetic nut
554	13.536	74.689	Udupi coastal area	<i>Celastrus paniculata</i>	Celastraceae	NE		Medicinal	Tropical and temperate forests	Mountain Pomegranate
555	13.543	74.687	Udupi coastal area	<i>Croton gibsonianus</i>	Euphorbiaceae	NE				

556	13.552	74.687	Udupi coastal area	<i>Cucurbita maxima</i>	Cucurbitaceae	NE		Vegetable	Long-fallow, loamy soil,Cultivated as vegetable	Pumpkin, Winter squash
557	13.544	74.687	Udupi coastal area	<i>Cuminum cyminum</i>	Apiaceae	NE		Seed - cooked as a flavouring,Medicinal	Cultivated	Cumin
558	13.547	74.687	Udupi coastal area	<i>Curcuma longa</i>	Zinziberaceae	NE		medicinal,skin care	Cultivated	Turmeric
559	13.554	74.684	Udupi coastal area	<i>Cyclea peltata</i>	Menispermaceae	NE		Roots are used as medicine for treating skin diseases	Semi-evergreen and evergreen forests, also in the plains	Pata root, Raj patta
560	13.559	74.683	Udupi coastal area	<i>Elephantopus scaber</i>	Asteraceae	NE				Prickly leaved elephant's foot
561	13.561	74.684	Udupi coastal area	<i>Ervatamia heyneana</i>	Apocynaceae	NE			Deciduous Forests	
562	13.564	74.684	Udupi coastal area	<i>Ficus benghalensis</i>	Moraceae	NE		Medicinal,Food,Fodder, Fuel	Evergreen to deciduous forests; and cultivated around villages.	Banyan
563	13.569	74.681	Udupi coastal area	<i>Ficus racemosa</i>	Moraceae	NE		Medicinal,Food,Fodder, Fuel	Evergreen to moist deciduous forests; and cultivated.	Cluster fig
564	13.571	74.681	Udupi coastal area	<i>Ficus religiosa</i>	Moraceae	NE			Cosmopolitan	Pipul, Peepal tree
565	13.574	74.681	Udupi coastal area	<i>Hemidesmus indicus</i>	Periplocaceae	NE			western ghat	Indian Sarsaparilla
566	13.577	74.68	Udupi coastal area	<i>Hibiscus rosa-sinensis</i>	Malvaceae	NE		Ornamental,medicinal	Cultivated in gardens	Shoe flower
567	13.58	74.679	Udupi coastal area	<i>Hybanthus enneaspermus</i>	Violaceae	NE		Medicinal	Arable, pasture and wastelands	Spade Flower
568	13.582	74.678	Udupi coastal area	<i>Ixora coccinea</i>	Rubiaceae	NE		ornamental,medicinal	In the plains, also grown in homesteads	Jungle flame, Flame of the woods
569	13.586	74.677	Udupi coastal area	<i>Jasminum malabaricum</i>	Oleaceae	NE				
570	13.59	74.677	Udupi coastal area	<i>Kalanchoe pinnata</i>	Crassulaceae	NE		Leaves eaten as vegetable,Medicinal		Air Plant, Donkey Ears
571	13.592	74.677	Udupi coastal area	<i>Leucas aspera</i>	Lamiaceae	NE		medicinal	Deciduous forests and wastelands	Common Leucas, Thumba
572	13.595	74.677	Udupi coastal area	<i>Melastoma malabathrica</i>	Melastomaceae	NE				

573	13.598	74.676	Udupi coastal area	<i>Memecylon malabaricum</i>	Melastomataceae	NE			Western Ghats, Evergreen Forests	
574	13.601	74.675	Udupi coastal area	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten, Medicinal	Semi-evergreen and evergreen forests, also grown in homesteads	Asian bullet wood
575	13.603	74.674	Udupi coastal area	<i>Musa paradisiaca</i>	Musaceae	NE		Medicinal	Forested areas	Banana
576	13.607	74.674	Udupi coastal area	<i>Musa superba</i>	Musaceae	NE				
577	13.609	74.675	Udupi coastal area	<i>Mussaenda belilla</i>	Rubiaceae	NE				
578	13.612	74.674	Udupi coastal area	<i>Ocimum tenuiflorum</i>	Lauraceae	NE				
579	13.615	74.672	Udupi coastal area	<i>Phyllanthus amarus</i>	Phyllanthaceae	NE		medicinal	Sandy rock region of scrub jungles	
580	13.617	74.672	Udupi coastal area	<i>Phyllanthus emblica</i>	Euphorbiaceae	NE		Medicinal	Dry and moist deciduous forests, also cultivated in the plains	Indian gooseberry
581	13.406	74.705	Udupi coastal area	<i>Pongamia pinnata</i>	Fabaceae	LC		Food, fodder, fuel	River and stream banks, moist places, wet places, along irrigation channel	Indian Beech
582	13.4	74.703	Udupi coastal area	<i>Rauvolfia serpentina</i>	Apocynaceae	NE			Moist deciduous forests, also in the plains	Serpentine root
583	13.386	74.698	Udupi coastal area	<i>Ricinus communis</i>	Euphorbiaceae	NE		Medicinal	Cultivated, also runs wild	Castor, Ricin
584	13.392	74.699	Udupi coastal area	<i>Salacia reticulata</i>	Hippocrateaceae	NE				
585	13.399	74.699	Udupi coastal area	<i>Syzizium cumini</i>	Myrtaceae	NE				Indian Blackberry, Jaman
586	13.403	74.698	Udupi coastal area	<i>Tabernaemontana divaricata</i>	Apocynaceae	NE				
587	13.41	74.7	Udupi coastal area	<i>Tamarindus indica</i>	Cesalpiniaceae	NE	native	cooking purpose, medicinal	A large evergreen tree	Indian Date
588	13.402	74.716	Udupi coastal area	<i>Terminalia arjuna</i>	Combretaceae	NE		Nesting site of Apis dorsata, Trigonasp. Bees, medicinal	Moist Deciduous to Evergreen Forests	Arjun

589	13.404	74.713	Udupi coastal area	<i>Tinospora sinensis</i>	Menispermaceae	NE				
590	13.404	74.711	Udupi coastal area	<i>Vitex negundo</i>	Verbenaceae	NE		Use of lakky locally called is known to the rural people.	Deciduous forests, river banks, villages and cultivated as hedge plant.	Chaste tree, Negundo Chastetree
591	13.542	74.891	Udupi coastal area	<i>Zanthoxylum rhetsa</i>	Rutaceae	NE		Folk medicine, Ayurveda, Siddha		Indian Prickly Ash
592	13.537	74.876	Udupi coastal area	<i>Zingiber officinale</i>	Zingiberaceae	NE		medicinal	Widely cultivated	Canton Ginger
593	13.528	74.878	Udupi taluk	<i>Aegle marmelos</i>	Rutaceae	NE	native	Medicinal, food, fodder, fuel	Plain areas, forests, near roadsides	Bael tree
594	13.435	74.908	Udupi taluk	<i>Aeschynomene indica</i>	Fabaceae	NE				Indian Joint vetch
595	13.4	74.899	Udupi taluk	<i>Alangium salvifolium</i>	Amaranthaceae	NE		Medicinal	Deciduous forests and waste lands in the plains	Polpala
596	13.405	74.851	Udupi taluk	<i>Anacardium occidentale</i>	Anacardiaceae	NE		medicine, nuts	Cultivated	Cashew Apple
597	13.412	74.818	Udupi taluk	<i>Annona muricata</i>	Annonaceae	NE			Cultivated	Graviola, Prickly custard apple
598	13.426	74.826	Udupi taluk	<i>Annona reticulata</i>	Annonaceae	NE		Medicine, Fruit	Cultivated and naturalized	Netted custard apple
599	13.5	74.869	Udupi taluk	<i>Annona squamosa</i>	Annonaceae	NE		Medicine, Fruit	Cultivated and naturalized	Netted custard apple
600	13.503	74.879	Udupi taluk	<i>Antidesma acidum</i>	Euphorbiaceae	NE				
601	13.302	74.802	Udupi taluk	<i>Antidesma ghresenhilla</i>	Euphorbiaceae	NE				
602	13.296	74.773	Udupi taluk	<i>Aporosa lindleyana</i>	Euphorbiaceae	NE				
603	13.32	74.769	Udupi taluk	<i>Artocarpus gomezianus</i>	Moraceae	NE				
604	13.354	74.77	Udupi taluk	<i>Artocarpus heterophyllus</i>	Moraceae	NE		Food, medicinal, fuel, fodder	Evergreen Forests, Cultivated in Plains	Jack fruit tree
605	13.368	74.764	Udupi taluk	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini
606	13.359	74.749	Udupi taluk	<i>Averrhoa bilimbi</i>	Oxalidaceae	NE				cucumber tree,
607	13.343	74.737	Udupi taluk	<i>Averrhoa carambola</i>	Oxalidaceae	NE				star fruit

608	13.331	74.738	Udupi taluk	<i>Borassus flabellifer</i>	Araceae	NE		Medicinal	n dry areas and along bunds in paddy fields	Palmyra palm
609	13.277	74.752	Udupi taluk	<i>Bridalia retusa</i>	Phyllanthaceae	NE		Medicinal	Semi-evergreen and deciduous forests, also in the plains	
610	13.241	74.761	Udupi taluk	<i>Buchanania lanzan</i>	Anacardiaceae	NE			Moist deciduous, dry deciduous and semi-evergreen forests	Almondette tree
611	13.203	74.777	Udupi taluk	<i>Canthium coromandelicum</i>	Rubiaceae	NE		Medicinal	Moist and dry deciduous forests, also in sacred groves	Wild jessamine, Carray cheddie
612	13.177	74.805	Udupi taluk	<i>Canthium parviflorum</i>	Fabaceae	NE		Medicinal	Deciduous forests	Barbadoes pride, Peacock flower
613	13.174	74.829	Udupi taluk	<i>Carissa congesta</i>	Apocynaceae	NE				
614	13.194	74.835	Udupi taluk	<i>Citrus aurantifolia</i>	Rutaceae	NE		Medicinal,nutritional value		Key Lime
615	13.243	74.835	Udupi taluk	<i>Citrus medica</i>	Rutaceae	NE			Forest along marshes, sluggish streams	Citron
616	13.263	74.841	Udupi taluk	<i>Citrus limon</i>	Rutaceae	NE			Forest along marshes, sluggish streams	Citron
617	13.29	74.848	Udupi taluk	<i>Citrus sinensis</i>	Rutaceae	NE				Key Lime
618	13.318	74.854	Udupi taluk	<i>Diospyros malabarica</i>	Ebenaceae	NE				
619	13.352	74.934	Udupi taluk	<i>Ensete superbum</i>	Musaceae	NE			Moist deciduous and semi-evergreen forests	Wild Plantain
620	13.356	74.926	Udupi taluk	<i>Ficus auriculata</i>	Moracea	NE				
621	13.374	74.918	Udupi taluk	<i>Ficus racemosa</i>	Moraceae	NE		Medicinal,Food,Fodder, Fuel	Evergreen to moist deciduous forests; and cultivated.	Cluster fig
622	13.409	74.924	Udupi taluk	<i>Flacourtia indica</i>	Flacourtiaceae	NE		Medicinal	Scrubs, deciduous to mixed forests	Batoko palm
623	13.409	74.924	Udupi taluk	<i>Flacourtia Montana</i>	Salicaceae	NE		Fruits are edible,Wood is used for building purposes	Moist deciduous to semi evergreen forests	Mountain Sweet Thorn
624	13.413	74.831	Udupi taluk	<i>Garcinia gummi-gutta</i>	Clusiaceae	NT				Malabar Gamboge

625	13.418	74.778	Udupi taluk	<i>Garcinia indica</i>	Clusiaceae	VU			Terrestrial	Brindonia Tallow Tree
626	13.424	74.768	Udupi taluk	<i>Garcinia morella</i>	Clusiaceae	NE		Folk medicine, ayurveda, siddha, Homeopathy, modern medicine		Indian Gamboge
627	13.434	74.75	Udupi taluk	<i>Garcinia xanthochymus</i>	Clusiaceae	NE				Egg tree
628	13.463	74.74	Udupi taluk	<i>Gardenia gummifera</i>	Rubiaceae	Low risk				Cumbi-gum tree
629	13.48	74.75	Udupi taluk	<i>Holigarna amottiana</i>	Anacardiaceae	NE		Folk medicine, Siddha		Black Varnish Tree
630	13.483	74.79	Udupi taluk	<i>Ixora coccinea</i>	Rubiaceae	NE		ornamental, medicinal	In the plains, also grown in homesteads	Jungle flame, Flame of the woods
631	13.467	74.845	Udupi taluk	<i>Madhuca neriifolia</i>	Sapotaceae	NE		Folk medicine		
632	13.436	74.839	Udupi taluk	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy, Mango tree
633	13.406	74.858	Udupi taluk	<i>Memecylon edule</i>	Melastomataceae	NE			Along watercourses, prefers shade.	
634	13.407	74.895	Udupi taluk	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten, Medicinal	Semi-evergreen and evergreen forests, also grown in homesteads	Asian bullet wood
635	13.421	74.915	Udupi taluk	<i>Mucuna monosperma</i>	Papilionoidaceae	NE				
636	13.448	74.904	Udupi taluk	<i>Musa balbisiana</i>	Musaceae	NE				
637	13.493	74.885	Udupi taluk	<i>Passiflora foetida</i>	Passifloraceae	NE			Wet places	Stinking Passion flower
638	13.51	74.893	Udupi taluk	<i>Phyllanthus emblica</i>	Euphorbiaceae	NE		Medicinal	Dry and moist deciduous forests, also cultivated in the plains	Indian gooseberry
639	13.532	74.862	Udupi taluk	<i>Physalis minima</i>	Solanaceae	NE		Ripe fruits are eaten raw which is sweet scented and delicious	Common weed in open areas, rice field, road sides	Little Gooseberry
640	13.532	74.82	Udupi taluk	<i>Psidium guajava</i>	Myrtaceae	NE		Edible	Cultivated	Common guava
641	13.511	74.803	Udupi taluk	<i>Punica granatum</i>	Punicaceae	NE			Cultivated	Promegranate
642	13.516	74.745	Udupi taluk	<i>Solanum americanum</i>	Solanaceae	NE				

643	13.477	74.871	Udupi taluk	<i>Spondias pinnata</i>	Anacardiaceae	NE			Moist deciduous and semi-evergreen forests, also in the plains	Wild mango
644	13.504	74.838	Udupi taluk	<i>Syzygium caryophyllatum</i>	Myrtaceae	EN				Folk medicine, Ayurveda
645	13.177	74.768	Udupi taluk	<i>Syzizium cumini</i>	Myrtaceae	NE		Honey bitter fruits edible, Elephants and also used to brew liquor	swamps,riverbanks	Indian Blackberry, Jaman
646	13.152	74.796	Udupi taluk	<i>Syzygium jambos</i>	Myrtaceae	NE				Malay Apple,Rose Apple
647	13.18	74.84	Udupi taluk	<i>Syzygium zeylanicum</i>	Myrtaceae	NE				
648	13.204	74.828	Udupi taluk	<i>Tamarindus indica</i>	Ceasalpiniaceae	NE	native	cooking purpose,medicinal	A large evergreen tree	Indian Date
649	13.188	74.799	Udupi taluk	<i>Terminalia bellerica</i>	Combretaceae	NE		Medicinal	Common	Bedda nut tree
650	13.218	74.77	Udupi taluk	<i>Terminalia catappa</i>	Combretaceae	NE		Medicinal,The trunk is a source of gum. The oil from seed is used for making soap	Deciduous, mixed forest	Indian Almond tree
651	13.243	74.779	Udupi taluk	<i>Ziziphus mauritiana</i>	Rhamanaceae	NE		Food,fodder,fuel,medicinal	Dry deciduous forests, also planted in the plains	Indian jujube, Chinese date
652	13.272	74.789	Udupi taluk	<i>Ziziphus oenoplia</i>	Rhamnaceae	NE		edible fruit,medicinal,folklore	Moist and dry deciduous forests,also in the plains	Jackal jujube
653	13.288	74.821	Udupi taluk	<i>Ziziphus rugosa</i>	Rhamnaceae	NE				
654	13.362	74.812	Udupi taluk	<i>Artocarpus incisus</i>	Moraceae	NE				
655	13.335	74.848	Udupi taluk	<i>Momordica dioca</i>	Cucurbitaceae	NE		Medicinal	Deciduous and semi-evergreen forests, also in the plains	
656	13.33	74.897	Udupi taluk	<i>Pavetta indica</i>	Rubiaceae	NE		Medicinal	Undergrowth in disturbed evergreen to semievergreen forests	Indian Pavetta
657	13.358	74.907	Udupi taluk	<i>Solanum virginianum</i>	Solanaceae	NE			Wet places, moist soil, dampy areas	Febrifuge plant
658	13.37	74.881	Udupi taluk	<i>Solanum torvum</i>	Solanaceae	NE				Devil's Fig

659	13.368	74.858	Udupi taluk	<i>Tamilnadia uliginosa</i>	Rubiaceae	NE				
660	13.837	74.888	Udupi taluk	<i>Zanthoxylum ovalifolium</i>	Rutaceae	NE				
661	13.845	74.882	Udupi taluk	<i>Zanthoxylum rhetsa</i>	Rutaceae	NE		Folk medicine, Ayurveda, Siddha		Indian Prickly Ash
662	13.844	74.893	Mookambika Wildlife Sanctuary	<i>Dipterocarpus indicus</i>	Dipterocarpaceae	EN			Evergreen and semi-evergreen forests of Western Ghats	New Guinea rosewood
663	13.855	74.898	Mookambika Wildlife Sanctuary	<i>Poeciloneuron indicum</i>	Calophyllaceae	NE				Puthang Kolli
664	13.846	74.873	Mookambika Wildlife Sanctuary	<i>Calophyllum tomentosum</i>	Calophyllaceae	NE				
665	13.842	74.898	Mookambika Wildlife Sanctuary	<i>Hopea parviflora</i>	Dipterocarpaceae	EN			Terrestrial	Hopea
666	13.852	74.909	Mookambika Wildlife Sanctuary	<i>Machilus macaranta</i>	Lauraceae	NE				
667	13.847	74.908	Mookambika Wildlife Sanctuary	<i>Myristica malabarica</i>	Myristicaceae	VU			Terrestrial	Bombay mace
668	13.842	74.911	Mookambika Wildlife Sanctuary	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	NE			evergreen to semi-evergreen forests	Rosary nut, Utrasum bead tree
669	13.838	74.912	Mookambika Wildlife Sanctuary	<i>Terminalia paniculata</i>	Combretaceae	NE		Folk medicine, Ayurveda, Siddha		Flowering Murdah
670	13.832	74.913	Mookambika Wildlife Sanctuary	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini
671	13.824	74.916	Mookambika Wildlife Sanctuary	<i>Hopea ponga</i>	Dipterocarpaceae	EN			Evergreen and semi-evergreen forests, also in the plains in sacred groves	Thingam
672	13.819	74.915	Mookambika Wildlife Sanctuary	<i>Vitex altissima</i>	Lamiaceae	NE			Open areas, forested areas	Tall chaste tree
673	13.816	74.912	Mookambika Wildlife Sanctuary	<i>Eugenia gradineri</i>	Myrtaceae	NE				

674	13.816	74.91	Mookambika Wildlife Sanctuary	<i>Cinnamomum malabathrum</i>	Lauraceae	NE				
675	13.817	74.903	Mookambika Wildlife Sanctuary	<i>Bombax ceiba</i>	Malvaceae	NE			Moist deciduous and semi-evergreen forests, also in the plains	Indian bombax, Silk Cotton Tree
676	13.818	74.899	Mookambika Wildlife Sanctuary	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy, Mango tree
677	13.824	74.899	Mookambika Wildlife Sanctuary	<i>Dalbergia latifolia</i>	Fabaceae	VU			Terrestrial	Bombay blackwood
678	13.826	74.893	Mookambika Wildlife Sanctuary	<i>Dillenia indica</i>	Dilleniaceae	NE			Bettadakanigala, Kaadu kanigala	Folk medicine, Ayurveda, Siddha
679	13.829	74.888	Mookambika Wildlife Sanctuary	<i>Adina cordifolia</i>	Rubiaceae	NE		medicinal, food, fodder, fuel	Moist deciduous forests, also in the plains	Haldu, Yellow teak
680	13.831	74.889	Mookambika Wildlife Sanctuary	<i>Anaphalis subdecurrens</i>	Asteraceae	NE				
681	13.838	74.889	Mookambika Wildlife Sanctuary	<i>Combretum albidum</i>	Combretaceae	NE		Bark used as scrubber	Semi-evergreen forests, along river banks	Buffalo calf plant
682	13.836	74.883	Mookambika Wildlife Sanctuary	<i>Globba orixensis</i>	Zingiberaceae	NE				
683	13.833	74.878	Mookambika Wildlife Sanctuary	<i>Justicia prostrata</i>	Acanthaceae	NE				
684	13.827	74.874	Mookambika Wildlife Sanctuary	<i>Oxalis corymbosa</i>	Oxalidiaceae	NE				
685	13.829	74.873	Mookambika Wildlife Sanctuary	<i>Oxalis dehradumensis</i>	Oxalidaceae	NE				
686	13.835	74.874	Mookambika Wildlife Sanctuary	<i>Ravuoelfia micrantha</i>	Apocynaceae	LC				
687	13.839	74.874	Mookambika Wildlife Sanctuary	<i>Terminalia paniculata</i>	Combretaceae	NE		Folk medicine, Ayurveda, Siddha		Flowering Murdah

688	13.843	74.874	Mookambik a Wildlife Sanctuary	<i>Machilus macarantha</i>	Lauraceae	NE				
689	13.844	74.877	Mookambik a Wildlife Sanctuary	<i>Lophopetalum wightianum</i>	Celastraceae	LC				
690	13.844	74.888	Mookambik a Wildlife Sanctuary	<i>Mangifera indica</i>	Anacardiaceae	DD			Evergreen and semi-evergreen forests and also widely cultivated	Cuckoo's joy, Mango tree
691	13.842	74.895	Mookambik a Wildlife Sanctuary	<i>Hopea canarensis</i>	Dipterocarpaceae	DD			Terrestrial	
692	13.841	74.905	Mookambik a Wildlife Sanctuary	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini
693	13.841	74.91	Mookambik a Wildlife Sanctuary	<i>Cinnamomum camphora</i>	Luraceae	NE				Camphor Tree
694	13.845	74.908	Mookambik a Wildlife Sanctuary	<i>Dalbergia latifolia</i>	Fabaceae	VU			Terrestrial	Bombay blackwood
695	13.848	74.902	Mookambik a Wildlife Sanctuary	<i>Terminalia tomentosa</i>	Combretaceae	NE				Indian Laurel
696	13.851	74.898	Mookambik a Wildlife Sanctuary	<i>Lagerstroemia lanceolata</i>	Lythraceae	NE			deciduous and dry evergreen forests	Nandi Tree
697	13.857	74.898	Mookambik a Wildlife Sanctuary	<i>Schleichera oleosa</i>	Sapindaceae	NE			Semi-evergreen and moist deciduous forests	Macassar oil tree
698	13.855	74.892	Mookambik a Wildlife Sanctuary	<i>Anacardium occidentale</i>	Anacardiaceae	NE		medicine,nuts	Cultivated	Cashew Apple
699	13.853	74.886	Mookambik a Wildlife Sanctuary	<i>Dillenia pentagyna</i>	Dilleniaceae	NE				Dillenia pentagyna
700	13.852	74.881	Mookambik a Wildlife Sanctuary	<i>Careya arborea</i>	Lecythidaceae	LC		Folk medicine, Ayurveda, Siddha		Kumbi
701	13.85	74.891	Mookambik a Wildlife Sanctuary	<i>Tectona grandis</i>	Verbenaceae	NE		Medicinal	Moist deciduous forests, also raised in plantations	Teak
702	13.541	74.95	Mookambik a Wildlife Sanctuary	<i>Eucalyptus tereticornis</i>	Myrtaceae	NE			Roadsides, forest edges, cultivated	Forest Red Gum

703	13.542	74.953	Mookambika Wildlife Sanctuary	<i>Casurina equisetifolia</i>	Casurinaceae	NE		Medicinal, food, Fodder, Fuelwood, Pest management	Along river banks, swamps, marshes	Whistling pine, She oak
704	13.554	74.956	Udupi	<i>Abrus precatorius</i>	Fabaceae	NE			Deciduous forests	Crab's eye, Rosary pea, Black-Eyed Susan
705	13.562	74.954	Udupi	<i>Abutilon indicum</i>	Malvaceae	NE	Bongaigaon, Darrang, Nagaon, Kamrup	Roots used as tonic. Roots powdered and mixed with ghee and sugar	Tropical and subtropical places as a weed	Country Mallow
706	13.567	74.952	Udupi	<i>Acacia nilotica</i>	Mimosaceae	Low risk			Waste land, Uncultivated land and Forest.	Babul
707	13.581	74.945	Udupi	<i>Acalypha fruticosa</i>	Euphorbiaceae	NE				
708	13.563	74.941	Udupi	<i>Acalypha indica</i>	Euphorbiaceae	NE		Medicinal	Wastelands, in moist and shaded places, riverbanks	Indian Acalypha
709	13.548	74.94	Udupi	<i>Achyranthes aspera</i>	Amaranthaceae	NE		young plant as vegetable, medicinal, slender roots as tooth sticks	Abundant in plantation of the hills, Tropics	Prickly Chaff Flower
710	13.548	74.936	Udupi	<i>Acorus calamus</i>	Acoraceae	LC		Rhizome used as medicine	Semi-aquatic and marshy localities	Sweet Flag, Sweet root
711	13.548	74.927	Udupi	<i>Acrocarpus fraxinifolius</i>	Fabaceae	NE		Folk medicine		
712	13.55	74.921	Udupi	<i>Acronychia pedunculata</i>	Rutaceae	NE		Folk medicine, Traditional chinese medicine	Semi-evergreen forests, also in the plains	Rosewood
713	13.551	74.92	Udupi	<i>Acrotrema arnotianum</i>	Dilleniaceae	NE				
714	13.561	74.918	Udupi	<i>Adenia hondala</i>	Passifloraceae	Rare				
715	13.563	74.917	Udupi	<i>Adenoon indicum</i>	Asteraceae	NE	Endemic to Western Ghats			
716	13.572	74.934	Udupi	<i>Adhatoda zeylanica</i>	Acanthaceae	NE		Flowers are eaten fried, medicinal	In the plains, often planted	Malabar nut
717	13.571	74.936	Udupi	<i>Aegle marmelos</i>	Rutaceae	NE	native	Medicinal, food, fodder, fuel	Plain areas, forests, near roadsides	Bael tree
718	13.576	74.943	Udupi	<i>Aerva lanata</i>	Amaranthaceae	NE			Deciduous forests and waste lands in the plains	Polpala
719	13.592	74.936	Udupi	<i>Alangium salvifolium</i>	Amaranthaceae	NE		Medicinal	Deciduous forests and waste lands in the plains	Polpala

720	13.593	74.932	Udupi	<i>Albizia lebbek</i>	Fabaceae	NE	Native	Medicinal,food,fuel,fodder	Dry deciduous forests, along hill sides	Black siri
721	13.594	74.928	Udupi	<i>Aleo vera</i>	Liliaceae	NE		Medicinal	Hilly areas, thicklets	Curacao Aloe
722	13.587	74.92	Udupi	<i>Alpinia malaccensis</i>	Zingiberaceae	NE				Folk medicine
723	13.586	74.915	Udupi	<i>Alstonia scholaris</i>	Apocynaceae	LC		Medicinal	Open evergreen forests to moist deciduous forests	Devil Tree, Dita Bark Tree
724	13.579	74.91	Udupi	<i>Alternanthera echinata</i>	Amaranthaceae	LC	Native			
725	13.576	74.906	Udupi	<i>Alternanthera sessilis</i>	Amaranthaceae	LC		medicinal,young shoots and leaves are cooked	Moist open places, ponds, ditches, puddles	Tangle Mat, Sessile joyweed
726	13.566	74.906	Udupi	<i>Alysicarpus vaginalis</i>	Papilionaceae	NE				Alyce clover
727	13.566	74.906	Udupi	<i>Amaranthus spinosus</i>	Amaranthaceae	NE			Wet places, river banks	Spiny amaranth, Prickly Amaranth
728	13.587	74.9	Udupi	<i>Amomum masticatorium</i>	Zingiberaceae	NE				
729	13.569	74.895	Udupi	<i>Anamirta cocculus</i>	Menispermaceae	NE				Crow killer
730	13.584	74.888	Udupi	<i>Andrographis paniculata</i>	Acanthaceae	LC		medicinal , folklore	Wet places,Scrub jungles	Green chiretta,Creat,Kalmegh, Andrographis
731	13.585	74.888	Udupi	<i>Anisochilus carnosus</i>	Lamiaceae	NE		Folk medicine, Ayurveda, Siddha		Thick leaved lavender
732	13.411	74.942	Udupi	<i>Anisochilus paniculatus</i>	Lamiaceae	NE				
733	13.405	74.936	Udupi	<i>Anisochilus robustus</i>	Lamiaceae	NE				
734	13.4	74.923	Udupi	<i>Anisomeles heyneana</i>	Lamiaceae	Rare				
735	13.411	74.958	Udupi	<i>Anisomeles indica</i>	Lamiaceae	NE				
736	13.404	74.964	Udupi	<i>Anisomeles malabarica</i>	Lamiaceae	NE				
737	13.412	74.969	Udupi	<i>Aphanamixis polystachya</i>	Meliaceae	NE		Homeopathy, Ayurveda, Siddha		Rohituka tree
738	13.412	74.969	Udupi	<i>Areca catechu</i>	Arecaceae	NE			Paddy fields, marshes	Betel nut
739	13.403	74.98	Udupi	<i>Aristolochia indica</i>	Aristolochiaceae	NE		Medicinal,antidote for snake-bite	moist deciduous forests	Indian birthwort
740	13.403	74.981	Udupi	<i>Artemisia nilagirica</i>	Asteraceae	NE				
741	13.421	74.978	Udupi	<i>Artocarpus hirsutus</i>	Moraceae	NE		Folk medicine, Ayurveda, Siddha		Aini

742	13.399	74.99	Udupi	<i>Asclepias curassavica</i>	Asclepidaceae	NE		Ornamental,medicinal	Hilly areas, marshy land, along stream banks	Blood Flower, West Indian Ipecacuanha
743	13.397	74.998	Udupi	<i>Asparagus racemosus</i>	Asparagaceae	NE		medicinal,nutritional value	All forest types, also in the plains	Asparagus, Spiny Asparagus
744	13.392	74.996	Udupi	<i>Asystasia dalzelliana</i>	Acanthaceae	NE				
745	13.39	74.99	Udupi	<i>Atalantia monophylla</i>	Rutaceae	NE			Common in plains from the coast in scrub jungles	Wild Lime
746	13.393	74.987	Udupi	<i>Atalantia racemosa</i>	Rutaceae	NE				
747	13.45	75.005	Udupi	<i>Atalantia wightii</i>	Rutaceae	NE				
748	13.445	75.01	Udupi	<i>Azadirachta indica</i>	Meliaceae	NE	native	medicinal,fodder,fuelwood,pest management,windbreak	Dry deciduous forests, also widely planted	Neem tree
749	13.445	75.013	Udupi	<i>Bacopa monnieri</i>	Plataginaceae	LC		medicinal,nutritional value	In the plains and mangrove forests	Thyme Leaved Gratiola
750	13.442	75.015	Udupi	<i>Bauhenia variagata</i>	Fabaceae	LC		Medicinal,food ,fodder,fuel	Commonly found	Ebony tree
751	13.456	75.01	Udupi	<i>Becium filamentosum</i>	Lamiaceae	NE				
752	13.454	75.007	Udupi	<i>Blumea lacera</i>	Asteraceae	NE			Dry deciduous forests, also in the plains	
753	13.457	75.003	Udupi	<i>Blumea lacera</i>	Asteraceae	NE			Dry deciduous forests, also in the plains	
754	13.512	74.915	Udupi	<i>Blumea mollis</i>	Asteraceae	NE				
755	13.515	74.909	Udupi	<i>Boerhaavia diffusa</i>	Nyctaginaceae	NE			Moist and dry deciduous forests and also in the plains	Pigweed, Common Hogweed
756	13.515	74.909	Udupi	<i>Boswellia serrata</i>	Burseraceae	NE		Medicinal	Dry deciduous forests	Frankincense,Olibanum, Indian Olibanum
757	13.496	74.962	Udupi	<i>Buchanania lanzan</i>	Anacardiaceae	NE			Moist deciduous, dry deciduous and semi-evergreen forests	Almondette tree
758	13.494	74.961	Udupi	<i>Butea monosperma</i>	Fabaceae	NE	western ghat	medicinal,food, fodder,fuel	Dry and moist deciduous forests	Flame Of The Forest
759	13.485	74.952	Udupi	<i>Calamintha umbrosa</i>	Lamiaceae	NE				
760	13.485	74.952	Udupi	<i>Callicarpa tomentosa</i>	Lamiaceae	NE		Folk medicine, Siddha	Moist deciduous and degraded	Great woolly malayan lilac

									forests, also in the plains	
761	13.483	74.947	Udupi	<i>Cardiospermum halicacabum</i>	Sapindaceae	NE		Medicinal	Moist deciduous forests, also in scrub jungles	Balloon vine
762	13.482	74.939	Udupi	<i>Cassia auriculata</i>	Caesalpiaceae	NE		Indigenous source of tannin, flower used to make drug	Dry deciduous forests	Tanner's senna
763	13.478	74.932	Udupi	<i>Cassia fistula</i>	Fabaceae	NE	Native	medicinal, fuel wood, dye, pest management	Humid valley forests, open forests, hill slopes, open areas	The Indian Laburnum
764	13.474	74.923	Udupi	<i>Cassia occidentalis</i>	Fabaceae	NE			Gregarious weed of wastelands	Coffeeweed
765	13.48	74.92	Udupi	<i>Cassia tora</i>	Caesalpiaceae	NE		young leaves use as vegetable	Common in plains from the coast in low lying places, river banks	Pot Cassia
766	13.484	74.921	Udupi	<i>Catunaregam spinosa</i>	Rubiaceae	NE		Medicinal, branches used for fencing	Moist deciduous forests, hilly areas	Common emetic nut
767	13.494	74.925	Udupi	<i>Celastrus paniculata</i>	Celastraceae	NE		Medicinal	Tropical and temperate forests	Mountain Pomegranate
768	13.498	74.925	Udupi	<i>Centella asiatica</i>	Apiaceae	LC		medicinal, nutritional value	Deciduous forests, also in wet places in the plains	Indian Pennywort
769	13.499	74.93	Udupi	<i>Centratherum punctatum</i>	Asteraceae	NE				
770	13.506	74.937	Udupi	<i>Chenopodium album</i>	Amaranthaceae	NE			Wet places, river banks, cultivated lands	Lamb's quarters
771	13.514	74.932	Udupi	<i>Chenopodium ambrosioides</i>	Chenopodiaceae	NE	Native			
772	13.492	74.941	Udupi	<i>Chloroxylon swietenia</i>	Rutaceae	VU		Great demand for agricultural implements		Indian Satin wood Tree
773	13.493	74.942	Udupi	<i>Cinnamomum camphora</i>	Luraceae	NE				Camphor Tree
774	13.5	74.947	Udupi	<i>Cinnamomum sulphuratum</i>	Lauraceae	VU			Terrestrial	
775	13.507	74.95	Udupi	<i>Cinnamomum travancoricum</i>	Lauraceae	NE				
776	13.498	74.954	Udupi	<i>Cinnamomum verum</i>	Lauraceae	NE				

777	13.41	74.962	Udupi	<i>Cinnanomum wightii</i>	Lauraceae	EN			Terrestrial	
778	13.406	74.966	Udupi	<i>Cissus quadrangularis</i>	Violaceae	NE		medicinal	Common in the plains, from scrub jungles and wastelands	Bone setter
779	13.408	74.972	Udupi	<i>Clausena dentata</i>	Rutaceae	NE	Endemic to Southern Western Ghats		Evergreen and Semi-evergreen Forests	
780	13.413	74.972	Udupi	<i>Clausena heptaphylla</i>	Rutaceae	NE				
781	13.397	74.983	Udupi	<i>Clausena willdenovii</i>	Rutaceae	NE				
782	13.395	74.984	Udupi	<i>Cleome viscosa</i>	Cleomaceae	NE		The leaves and seeds are used in medicinal applications.	Introduced and naturalized widely, native of tropical America	Sticky cleome, Wild mustard
783	13.401	74.988	Udupi	<i>Clerodendrum serratum</i>	Verbenaceae	NE				Blue-flowered Glory Tree
784	13.392	74.993	Udupi	<i>Clitoria ternatea</i>	Fabaceae	NE		Roots and seeds are used in traditional medicine	Common on waysides, thickets, scrub jungles. Widely cultivated in the tropics	Butterfly Bean, Clitoria
785	13.394	74.995	Udupi	<i>Commiphora berryi</i>	Burseraceae	NE				Indian balm of gilead
786	13.452	75.018	Udupi	<i>Convolvulus arvensis</i>	Convolvulaceae	NE				bindweed
787	13.452	75.018	Udupi	<i>Corchorus tridens</i>	Malvaceae	NE				
788	13.456	75.013	Udupi	<i>Crotalaria medicaginea</i>	Fabaceae	NE	Native			Trefoil Rattlepod
789	13.449	75.008	Udupi	<i>Crotalaria prostrate</i>	Fabaceae	NE		folk medicine	Montane grassy wetlands	Prostrate Rattlepod
790	13.455	75.005	Udupi	<i>Croton bonplandianus</i>	Euphorbiaceae	NE		Leaves used in medicinal preparations. Spotted dove observed eating the fruit	Wet sunny places, near drains, hilly area	Ban tulsi
791	13.459	75.005	Udupi	<i>Cucumis callosus</i>	Cucurbitaceae	NE			Scrub jungles	Sweetmelon, Muskmelon
792	13.459	74.997	Udupi	<i>Curcuma aeruginosa</i>	Zingiberaceae	NE				
793	13.454	74.993	Udupi	<i>Curcuma aromatica</i>	Zingiberaceae	NE		Folk medicine, Traditional Chinese medicine, Siddha		Cochin turmeric
794	13.454	74.989	Udupi	<i>Curcuma neilgherrensis</i>	Zingiberaceae	NE				Wild arrow root

795	13.462	74.985	Udupi	<i>Cyathocline purpurea</i>	Asteraceae	LC				
796	13.464	74.99	Udupi	<i>Cyclea peltata</i>	Menispermaceae	NE		Roots are used as medicine for treating skin diseases	Semi-evergreen and evergreen forests, also in the plains	Pata root, Raj patta
797	13.487	74.957	Udupi	<i>Cymbopogon citratus</i>	Poaceae	NE			Grasslands	Oil grass, Melissa grass
798	13.491	74.948	Udupi	<i>Cymbopogon coloratus</i>	Poaceae	NE				
799	13.507	74.947	Udupi	<i>Cymbopogon flexuosus</i>	Poaceae	NE				
800	13.485	74.947	Udupi	<i>Cymbopogon martinii</i>	Poaceae	NE				
801	13.481	74.935	Udupi	<i>Cynodon dactylon</i>	Poaceae	NE			tropical and warm temperate regions, Plains from the coast to lower hills.	Dog's Tooth grass, Bermuda Grass
802	13.481	74.928	Udupi	<i>Datura metel</i>	Solanaceae	NE		The dried flowers are dried and smoked to cure asthma.	Degraded dry and moist deciduous forests and wastelands	Devils Weed, Purple Horn-of-Plenty
803	13.485	74.925	Udupi	<i>Digera alternifolia</i>	Amaranthaceae	NE				
804	13.489	74.927	Udupi	<i>Dioscorea wallichii</i>	Dioscoreaceae	NE				
805	13.492	74.932	Udupi	<i>Diospyros paniculata</i>	Ebenaceae	NE	Endemic to the Western Ghats- South and Central Sahyadris.		Evergreen and semi-evergreen forests	
806	13.495	74.938	Udupi	<i>Dysoxylum malabaricum</i>	Meliaceae	EN			Terrestrial	White cedar
807	13.495	74.94	Udupi	<i>Eclipta prostrata</i>	Asteraceae	DD		Medicinal	Paddy fields and moist localities	Bhringaraj
808	13.507	74.939	Udupi	<i>Elaeocarpus gaussonii</i>	Elaeagnaceae	CR				
809	13.49	74.953	Udupi	<i>Endostemon viscosus</i>	Lamiaceae	NE				
810	13.489	74.954	Udupi	<i>Entada purseatha</i>	Mimosaceae	NE				
811	13.494	74.954	Udupi	<i>Eryngium foetidum</i>	Apiaceae	NE				
812	13.5	74.952	Udupi	<i>Erythrina variegata</i>	Fabaceae	NE				Indian Coral Tree
813	13.505	74.946	Udupi	<i>Euphorbia hirta</i>	Euphorbiaceae	NE		Medicinal	Forest path, grasslands	Snake head, Asthma herb
814	13.288	74.95	Udupi	<i>Euphorbia orbiculata</i>	Euphorbiaceae	NE				
815	13.29	74.916	Udupi	<i>Euphorbia prostrata</i>	Euphorbiaceae	NE				

816	13.293	74.91	Udupi	<i>Euphorbia thymifolia</i>	Euphorbiaceae	NE			Riverbeds in moist deciduous forests, also in plains	Close up of the flowers
817	13.294	74.91	Udupi	<i>Evolvulus alsinoides</i>	Convolvulaceae	NE			Sandy soil, dry slopes, cultivated areas, grasslands, thickets, roadsides	Little Glory
818	13.309	74.913	Udupi	<i>Ficus racemosa</i>	Moraceae	NE		Medicinal, Food, Fodder, Fuel	Evergreen to moist deciduous forests; and cultivated.	Cluster fig
819	13.309	74.913	Udupi	<i>Garcinia cambogia</i>	Clusiaceae	NE				Neela Kudam Puli
820	13.309	74.913	Udupi	<i>Gardenia gummifera</i>	Rubiaceae	Low risk			Dry deciduous forests near streams	Cumbi-gum tree
821	13.309	74.913	Udupi	<i>Gardenia obtusa</i>	Rubiaceae	NE				
822	13.331	74.925	Udupi	<i>Gaultheria fragrantissima</i>	Ericaceae	NE				
823	13.331	74.925	Udupi	<i>Geranium nepalense</i>	Gentianaceae	NE				
824	13.322	74.935	Udupi	<i>Globba ophioglossa</i>	Zingiberaceae	NE				
825	13.322	74.935	Udupi	<i>Gluta travancorica</i>	Anacardiaceae	Low risk				
826	13.322	74.936	Udupi	<i>Glycosmis pentaphylla</i>	Rutaceae	NE				Ash Sheora
827	13.33	74.969	Udupi	<i>Gmelina arborea</i>	Lamiaceae	NE			Moist and dry deciduous forests, also in the plains	Candahar tree
828	13.33	74.968	Udupi	<i>Gomphostemma eriocarpon</i>	Lamiaceae	NE				
829	13.316	74.969	Udupi	<i>Gomphrena serrata</i>	Amaranthaceae	NE				
830	13.313	74.966	Udupi	<i>Gymnema sylvestre</i>	Asclepiadaceae	NE		The leaves are used to neutralize the taste of sugar.	Moist and dry deciduous forests, also in the plains	Gymnema, Small Indian Ipecae
831	13.291	75.06	Udupi	<i>Gymnosporia montana</i>	Moraceae	NE		Medicinal, Food, Fodder, Fuel	Evergreen to moist deciduous forests; and cultivated.	Cluster fig
832	13.283	75.06	Udupi	<i>Hedychium coronarium</i>	Zingiberaceae	NE		Traditional Chinese medicine, Siddha		Butterfly Ginger Lily
833	13.263	75.059	Udupi	<i>Hedychium flavescens</i>	Zingiberaceae	NE				

834	13.239	75.049	Udupi	<i>Hedyotis aspera</i>	Rubiaceae	NE				
835	13.233	75.081	Udupi	<i>Hedyotis corymbosa</i>	Rubiaceae	NE				
836	13.234	75.036	Udupi	<i>Helicteres isora</i>	Malvaceae	NE			Deciduous forests, also in plantations and plains	East Indian ScrewTree
837	13.259	75.015	Udupi	<i>Heliotropium indicum</i>	Boraginaceae	NE			Moist places, roadsides, borders of drains	Indian turnsole
838	13.259	75.015	Udupi	<i>Hemidesmus indicus</i>	Periplocaceae	NE	western ghat	roots used for drinks and beverages	Plains from the coast, in scrub jungles	Indian Sarsaparilla
839	13.27	75.013	Udupi	<i>Hibiscus rosa-sinensis</i>	Malvaceae	NE		Ornamental, medicinal	Cultivated in gardens	Shoe flower
840	13.267	75.023	Udupi	<i>Holigarna arnottiana</i>	Anacardiaceae	NE		Folk medicine, Siddha		Black Varnish Tree
841	13.286	75.039	Udupi	<i>Hubbardia heptaneuron</i>	Poaceae	NE				
842	13.303	75.034	Udupi	<i>Humboldtia vahliana</i>	Fabaceae	NE	WG			
843	13.277	75.039	Udupi	<i>Hybanthus enneaspermus</i>	Violaceae	NE		Medicinal	Arable, pasture and wastelands	Spade Flower
844	13.297	75.045	Udupi	<i>Hydnocarpus alpina</i>	Achariaceae	NE		Folk medicine, Siddha		
845	13.304	75.035	Udupi	<i>Hymenodictyon orixense</i>	Rubiaceae	NE		Folk medicine, Siddha		Kuthan
846	13.295	75.017	Udupi	<i>Hyptis suaveolens</i>	Lamiaceae	NE		leaves as vegetable, medicinal	moist and dry deciduous forests and wastelands	
847	13.196	75.026	Udupi	<i>Ichnocarpus frutescens</i>	Apocynaceae	NE		Medicinal		Slender Dog-Bane
848	13.196	75.027	Udupi	<i>Ilex denticulata</i>	Aquifoliaceae	NE				
849	13.226	75.05	Udupi	<i>Imperata cylindrica</i>	Poaceae	NE			Grasslands, banks of backwaters, forest clearings and fallow fields	Cogongrass, Sword Grass
850	13.224	75.047	Udupi	<i>Indigofera cordifolia</i>	Fabaceae	NE			Open places	Heart-leaf Indigo
851	13.223	75.041	Udupi	<i>Indigofera linifolia</i>	Fabaceae	LC		medicinal	Grasslands	
852	13.235	75.029	Udupi	<i>Indigofera tinctoria</i>	Ulmaceae	NE		The bark of Indian Elm is used in rheumatism		Indian Elm
853	13.156	75.083	Udupi	<i>Indobanalia thyrsoflora</i>	Amaranthaceae	NE	Endemic to Western Ghats			
854	13.154	75.08	Udupi	<i>Indopoa paupercula</i>	Poaceae	NE				

855	13.162	75.08	Udupi	<i>Ipomoea muricata</i>	Convolvulaceae	NE			
856	13.17	75.079	Udupi	<i>Isodon coetsa</i>	Lamiaceae	NE			
857	13.172	75.072	Udupi	<i>Isodon wightii</i>	Lamiaceae	NE			
858	13.147	75.062	Udupi	<i>Janakia arayalpathra</i>	Asclepiadaceae	NE	Endemic to Western Ghats		
859	13.146	75.055	Udupi	<i>Jasminum auriculatum</i>	Oleaceae	NE			
860	13.139	75.055	Udupi	<i>Jasminum azoricum travancorense</i>	Oleaceae	NE			
861	13.139	75.059	Udupi	<i>Jasminum cordifolium</i>	Oleaceae	NE			
862	13.142	75.072	Udupi	<i>Jasminum malabaricum</i>	Oleaceae	NE			
863	13.142	75.072	Udupi	<i>Jasminum officinale</i>	Oleaceae	NE		Western Ghats, Cultivated	Common Jasmin
864	13.156	75.065	Udupi	<i>Jasminum rigidum</i>	Oleaceae	NE			
865	13.082	75.048	Udupi	<i>Jasminum ritchiei</i>	Oleaceae	NE			
866	13.082	75.048	Udupi	<i>Jasminum sambac</i>	Oleaceae	NE			Arabian jasmine
867	13.082	75.045	Udupi	<i>Jasminum scandens</i>	Oleaceae	NE			
868	13.09	75.039	Udupi	<i>Jasminum sessiliflorum</i>	Oleaceae	NE			
869	13.092	75.049	Udupi	<i>Jatropha curcas</i>	Euphorbiaceae	NE		Medicinal	Forested areas, hilly areas
870	13.036	74.998	Udupi	<i>Kaempferia galanga</i>	Zingiberaceae	NE			
871	13.026	75.012	Udupi	<i>Kaempferia rotunda</i>	Zingiberaceae	NE			
872	13.015	75.017	Udupi	<i>Kanjarum palghatense</i>	Acanthaceae	NE			
873	13.015	75.012	Udupi	<i>Kingiodendron pinnatum</i>	Fabaceae	EN	Endemic to Western Ghats		Terrestrial
874	13.023	74.992	Udupi	<i>Knema attenuata</i>	Myristicaceae	Low risk			Terrestrial
875	13.03	74.988	Udupi	<i>Kunstleria keralensis</i>	Fabaceae	NE			
876	13.049	74.989	Udupi	<i>Loggera crispata</i>	Asteraceae	NE			
877	13.055	74.953	Udupi	<i>Lamprachaenium microcephalum</i>	Asteraceae	NE			
878	13.053	74.939	Udupi	<i>Lavandula bipinnata</i>	Lamiaceae	NE		Evergreen Forests	Feather-leaved Lavende
879	13.058	74.927	Udupi	<i>Lavandula bipinnata</i>	Lamiaceae	NE		Medicinal	Evergreen Forests

880	13.08	74.932	Udupi	<i>Lawsonia inermis</i>	Lythraceae	NE		medicinal,dye	Cosmopolitan,Plains and lower hill	Henna
881	13.111	74.963	Udupi	<i>Leonotis neptifolia</i>	Lamiaceae	NE			Deciduous forests	
882	13.111	74.959	Udupi	<i>Leucas aspera</i>	Lamiaceae	NE		medicinal	Deciduous forests and wastelands	Common Leucas, Thumba
883	13.094	74.952	Udupi	<i>Leucas ciliata</i>	Lamiaceae	NE				
884	13.078	74.941	Udupi	<i>Leucas lavandulifolia</i>	Lamiaceae	NE				
885	13.065	74.938	Udupi	<i>Leucas marrubioides</i>	Lamiaceae	NE				
886	13.286	74.866	Udupi	<i>Leucas stelligera</i>	Lamiaceae	NE				
887	13.287	74.866	Udupi	<i>Leucas vestita vestita</i>	Lamiaceae	NE				
888	13.291	74.863	Udupi	<i>Limnopoa meeboldii</i>	Poaceae	DD				
889	13.304	74.865	Udupi	<i>Limonia acidissima</i>	rutaceae	NE		food,fodder,fuel	Open forest areas	Monkey fruit,curd fruit
890	13.296	74.875	Udupi	<i>Limonia crenulata</i>	Rutaceae	NE				
891	13.291	74.878	Udupi	<i>Madhuca longifolia</i>	Sapotaceae	NE		medicinal,food,fooder	Forested areas	Mowra butter tree
892	13.292	74.878	Udupi	<i>Maesua nagassarium</i>	Calophyllaceae	NE				
893	13.29	74.875	Udupi	<i>Mahonia leschenaultii</i>	Berberidaceae	NE				Toda plant
894	13.281	74.877	Udupi	<i>Mallotus philippensis</i>	Euphorbiaceae	NE		Folk medicine, ayurveda, siddha, Homeopathy		Kamala Dye Tree
895	13.279	74.877	Udupi	<i>Memecylon malabaricum</i>	Melastomataceae	NE			Western Ghats, Evergreen Forests	
896	13.28	74.877	Udupi	<i>Mentha arvensis</i>	Lamiaceae	NE			Marshes, borders of lakes, grassy areas, waste areas	Field mint, Corn mint
897	13.283	74.876	Udupi	<i>Mentha spicata</i>	Lamiaceae	NE				
898	13.283	74.874	Udupi	<i>Michelia champaca</i>	Magnoliaceae	NE		Ornamental,medicinal	Evergreen forests	Joy Perfume Tree
899	13.281	74.862	Udupi	<i>Michelia nilagirica</i>	Magnoliaceae	NE			Forested areas	Kattu-Champakam
900	13.282	74.863	Udupi	<i>Microtropis ramiflora</i>	Celastraceae	NE				
901	13.278	74.866	Udupi	<i>Mimosa pudica</i>	Fabaceae	NE		medicinal	Moist localities	Sensitive plant
902	13.279	74.867	Udupi	<i>Mimusops elengi</i>	Sapotaceae	NE		Ripe fruits are eaten,Medicinal	Semi-evergreen and evergreen	Asian bullet wood

									forests, also grown in homesteads	
903	13.28	74.868	Udupi	<i>Mollugo cerviana</i>	Aizoaceae	NE				
904	13.282	74.869	Udupi	<i>Moringa oleifera</i>	Moringaceae	NE		Vegetable		
905	13.284	74.871	Udupi	<i>Mucuna pruriens</i>	Fabaceae	NE		Medicinal,edible tubers	Scrub jungles, waste lands	Cow hage, Common cow itch
906	13.286	74.872	Udupi	<i>Murraya indica</i>	Rutaceae	NE				
907	13.291	74.868	Udupi	<i>Murraya koengii</i>	Rutaceae	NE		medicinal,usec in cooking	Plain areas, along roads, railway lines,undergrowt h	Curry leaf tree
908	13.289	74.874	Udupi	<i>Murraya paniculata</i>	rutaceae	NE		Wood very hard, used for construction works ,Medicinal	Common on hills, especially in shaded ravines	Satin Wood
909	13.295	74.875	Udupi	<i>Myristica malabarica</i>	Myristicaceae	VU			Terrestrial	Bombay mace
910	13.3	74.874	Udupi	<i>Nanothammus sericeus</i>	Asteraceae	NE				
911	13.302	74.873	Udupi	<i>Naregamia alata</i>	Meliaceae	NE				
912	13.303	74.87	Udupi	<i>Neolitsea zeylanica</i>	Lauraceae	NE				
913	13.3	74.869	Udupi	<i>Nothopegia travancorica</i>	Anacardiaceae	NE				
914	13.301	74.86	Udupi	<i>Nyctanthes arbor-tristis</i>	Oleaceae	NE		Flowers used as vegetable,Leaves used for skin diseases	Cosmopolitan	Night Jasmine
915	13.301	74.861	Udupi	<i>Ochreinauclea missionis</i>	Rubiaceae	VU				
916	13.303	74.863	Udupi	<i>Ocimum amerianum</i>	Lamiaceae	NE			Plain areas, forest margins, grassland	Wild Basil
917	13.303	74.868	Udupi	<i>Ocimum basilicum</i>	Lamiaceae	NE		Medicinal	Cosmopolitan	Ocimum basilicum
918	13.304	74.868	Udupi	<i>Ocimum gratissimum</i>	Lauraceae	NE		Traditional Chinese medicine, Ayurveda, Siddha		African Basil
919	13.305	74.87	Udupi	<i>Ocimum kilimandscharicum</i>	Lauraceae	NE				
920	13.309	74.867	Udupi	<i>Ocimum sanctum</i>	Lamiaceae	NE		Medicinal	Cosmopolitan	Wild Basil
921	13.678	74.657	Udupi	<i>Ocimum tenuiflorum</i>	Lauraceae	NE				
922	13.679	74.656	Udupi	<i>Orthosiphon diffuses</i>	Lauraceae	NE				

923	13.682	74.655	Udupi	<i>Orthosiphon thymiflorus</i>	Lauraceae	NE				
924	13.69	74.654	Udupi	<i>Otonephelium stipulaceum</i>	Sapindaceae	NE				
925	13.688	74.663	Udupi	<i>Oxalis corniculata</i>	Oxalidiaceae	NE		Leaves edible after cooking.	Forests, grasslands, moist places, irrigation channels	Indian Sorrel
926	13.679	74.664	Udupi	<i>Paracautleya bhatii</i>	Zingiberaceae	VU				
927	13.67	74.665	Udupi	<i>Paramignya monophylla</i>	Rutaceae	NE			Evergreen forests	Paramignya
928	13.675	74.668	Udupi	<i>Pelargonium graveolens</i>	Gentianaceae	NE				
929	13.679	74.67	Udupi	<i>Phyllanthus amarus</i>	Phyllanthaceae	NE		medicinal	Sandy rock region of scrub jungles	
930	13.684	74.671	Udupi	<i>Phyllanthus emblica</i>	Euphorbiaceae	NE		Medicinal	Dry and moist deciduous forests, also cultivated in the plains	Indian gooseberry
931	13.69	74.671	Udupi	<i>Physalis minima</i>	Solanaceae	NE		Ripe fruits are eaten raw which is sweet scented and delicious	Common weed in open areas, rice field, road sides	Little Gooseberry
932	13.694	74.668	Udupi	<i>Pimpinella ascendens</i>	Asteraceae	NE				
933	13.696	74.665	Udupi	<i>Piper barberi</i>	Piperaceae	NE				
934	13.7	74.659	Udupi	<i>Piper betle</i>	Piperaceae	NE			Western Ghats, Moist Deciduous Forests , Cultivated	Betel vine
935	13.689	74.657	Udupi	<i>Piper longum</i>	Piperaceae	NE				Indian long pepper
936	13.693	74.656	Udupi	<i>Piper nigrum</i>	Piperaceae	NE		medicinal	Cultivated, forest clearings	Black pepper
937	13.695	74.657	Udupi	<i>Plecosperrum spinosum</i>	Ulmaceae	NE				
938	13.7	74.66	Udupi	<i>Plectranthus amboinicus</i>	Lamiaceae	NE				Country Borage
939	13.696	74.663	Udupi	<i>Plectranthus aromaticus</i>	Lamiaceae	NE				
940	13.689	74.657	Udupi	<i>Plectranthus barbatus</i>	Lamiaceae	NE				
941	13.689	74.655	Udupi	<i>Plectranthus coleoides</i>	Lamiaceae	NE				

942	13.688	74.656	Udupi	<i>Plectranthus deccanicus</i>	Lamiaceae	NE			
943	13.685	74.662	Udupi	<i>Plectranthus malabaricus</i>	Lamiaceae	LC			
944	13.683	74.663	Udupi	<i>Plectranthus mollis</i>	Lamiaceae	NE			
945	13.682	74.672	Udupi	<i>Plectranthus subincisus</i>	Lamiaceae	NE			
946	13.678	74.671	Udupi	<i>Plectranthus zeylanicus</i>	Lamiaceae	NE			
947	13.672	74.665	Udupi	<i>Pleiospermum alatum</i>	Rutaceae	NE			
948	13.67	74.666	Udupi	<i>Pluchea tomentosa</i>	Asteraceae	NE			
949	13.67	74.666	Udupi	<i>Plumbago zeylanica</i>	Plumbaginaceae	NE	medicinal	Deciduous forests, also in the plains	The Ceylon Leadwort
950	13.672	74.667	Udupi	<i>Pogostemon benghalensis</i>	Lamiaceae	NE			
951	13.673	74.668	Udupi	<i>Pogostemon heyneanus</i>	Lamiaceae	NE			
952	13.673	74.668	Udupi	<i>Pogostemon mollis</i>	Lamiaceae	NE			
953	13.678	74.67	Udupi	<i>Pogostemon paniculatus</i>	Lamiaceae	NE			
954	13.681	74.67	Udupi	<i>Polyalthia longifolia</i>	Annonaceae	NE	Ornamental	Evergreen forest, cultivated	Asoka tree, False Ashok
955	13.685	74.671	Udupi	<i>Polycarpaea corymbosa</i>	Caryophyllaceae	NE	Used in Ayurveda, Siddha and folk medicine.	Roadsides, near cultivated fields and disturbed places,	Old Man's Cap
956	13.687	74.672	Udupi	<i>Polycarpon prostratum</i>	Caryophyllaceae	NE			
957	13.69	74.673	Udupi	<i>Polygala chinensis</i>	Polygalaceae	NE	Native		Indian milkwort
958	13.694	74.671	Udupi	<i>Polyzygus tuberosus</i>	Apiaceae	LC			
959	13.691	74.67	Udupi	<i>Portulaca oleracea</i>	Portulacaceae	NE	Leaves cooked, Medicinal	Wet areas in degraded forests, also in the plains	Indian parselane
960	13.692	74.67	Udupi	<i>Proteroceras holtumii</i>	Orchidaceae	NE			
961	13.696	74.668	Udupi	<i>Pseudodichanthium serrafalcoides</i>	Poaceae	NE			
962	13.697	74.666	Udupi	<i>Pterocarpus marcupium</i>	Fabaceae	NE	Meicinal	Moist and dry deciduous forests, also in the plains	Bastard teak, Gammalu, Kino

963	13.718	74.844	Udupi	<i>Pterolobium hexapetalum</i>	Leguminosae	NE		The sap from the leaves is used in veterinary medicine.	Dry deciduous forests,foothills, scrub jungles	Indian Redwing
964	13.718	74.844	Udupi	<i>Punica granatum</i>	Punicaceae	NE		Medicinal	Cultivated	Promegranate
965	13.704	74.845	Udupi	<i>Rauvolfia serpentina</i>	Apocynaceae	NE			Moist deciduous forests, also in the plains	Serpentine root
966	13.704	74.845	Udupi	<i>Rhus mysorensis</i>	Anacardiaceae	NE		Firewood species,The stem used for fencing.	Common in foothills, scrub jungle	Mysore Sumac
967	13.711	74.838	Udupi	<i>Ricinus communis</i>	Euphorbiaceae	NE		Medicinal	Cultivated, also runs wild	Castor,Ricin
968	13.711	74.837	Udupi	<i>Rungia repens</i>	Acanthaceae	NE				
969	13.711	74.836	Udupi	<i>Ruta chalapensis</i>	Rutaceae	NE			Cultivated. Native to Mediterranean regions	
970	13.711	74.837	Udupi	<i>Saccharum officinarum</i>	Poaceae	NE				Sugarcane, Noble cane
971	13.713	74.839	Udupi	<i>Sageareae dalzelli</i>	Annonaceae	NE				
972	13.713	74.839	Udupi	<i>Salvia coccinea</i>	Lamiaceae	NE				
973	13.711	74.841	Udupi	<i>Salvia plebeia</i>	Lamiaceae	NE				
974	13.686	74.887	Udupi	<i>Santalum album</i>	Santalaceae	VU		Oil,Scent,medicinal	Lower slopes, plain and foothills	Sandalwood
975	13.686	74.887	Udupi	<i>Sapindus laurifolius</i>	Sapindaceae	NE			Semi-evergreen and moist deciduous forests	Reetha
976	13.669	74.91	Udupi	<i>Saraca asoca</i>	Fabaceae	VU		Medicinal	Semi evergreen forests, cultivated	Ashokam, Ashok tree
977	13.667	74.91	Udupi	<i>Sarcostemma acidum</i>	Asclepiadaceae	NE		Applied latex on wounds and cuts.	Dry Evergreen to Dry Deciduous Forests	
978	13.666	74.91	Udupi	<i>Scoparia dulcis</i>	Scophulariaceae	NE				
979	13.666	74.91	Udupi	<i>Scutellaria violacea</i>	Lamiaceae	NE				
980	13.666	74.907	Udupi	<i>Scutellaria wightiana</i>	Lamiaceae	NE				
981	13.662	74.904	Udupi	<i>Scutia circumscissa</i>	Rhamnaceae	NE				
982	13.664	74.903	Udupi	<i>Semacarpus anacardium</i>	Anacardiaceae	NE		medicinal	Moist deciduous and semi-evergreen forests	Oriental cashew, Marking nut tree,

983	13.663	74.903	Udupi	<i>Sesbania grandiflora</i>	Fabaceae	NE		Medicinal,Edible	Along marshes, wet places	Swamp pea,Vegetable Hummingbird
984	13.611	74.916	Udupi	<i>Seshagiria sahyadrica</i>	Apocynaceae	NE				
985	13.616	74.917	Udupi	<i>Sida cordifolia</i>	Malvaceae	NE		Medicinal	Common on the roadside and slopes	Bala, Country Mallow
986	13.625	74.919	Udupi	<i>Silentvaleya nairii</i>	Poaceae	NE				
987	13.612	74.91	Udupi	<i>Solanum anguivi</i>	Solanaceae	NE				Poison Berry
988	13.611	74.903	Udupi	<i>Solanum nigrum</i>	Solanaceae	NE		Young leaves as mixed vegetable with others.Ripe fruits are eaten	Very common,by riverbanks,moist places,fallow lands,arable lands	Black Night Shade
989	13.612	74.89	Udupi	<i>Solanum torvum</i>	Solanaceae	NE				Devil's Fig
990	13.608	74.905	Udupi	<i>Solenocarpus indica</i>	Anacardiaceae	NE				
991	13.608	74.906	Udupi	<i>Sphaeranthus indicus</i>	Asteraceae	LC		Medicinal	Wet places, paddy fields, ponds, ditches, puddles, fallow lands	Indian globe flower
992	13.612	74.917	Udupi	<i>Sphaeranthus indicus</i>	Asteraceae	LC				Indian globe flower
993	13.62	74.917	Udupi	<i>Strychnos dalzellii</i>	Loganiaceae	NE				
994	13.609	74.908	Udupi	<i>strychnos nux vomica</i>	Loganiaceae	NE		The seed contains a chemical called 'strychnine' extensively used for preparation of medicines.	Moist and dry deciduous forests, also in the plains	Nux-vomica tree
995	13.609	74.906	Udupi	<i>Strychnos potatorum</i>	Asteraceae	LC		Medicinal	Wet places, paddy fields, ponds, ditches, puddles, fallow lands	Indian globe flower
996	13.609	74.902	Udupi	<i>Symplocos cochinchinensis</i>	Symplocaceae	NE				Laurel Sapphire Berry
997	13.607	74.898	Udupi	<i>Syzizium cumini</i>	Myrtaceae	NE		Honey bitter fruits edible, Elephants and also used to brew liquor	swamps,riverbanks	Indian Blackberry, Jaman
998	13.602	74.826	Udupi	<i>Syzigium aromaticum</i>	Myrtaceae	NE				
999	13.602	74.821	Udupi	<i>Syzizium cumini</i>	Myrtaceae	NE				Indian Blackberry, Jaman

1000	13.61	74.816	Udupi	<i>Syzygium lineare</i>	Myrtaceae	NE				
1001	13.607	74.824	Udupi	<i>Syzygium mungudam</i>	Myrtaceae	NE				
1002	13.606	74.824	Udupi	<i>Syzygium travancoricum</i>	Myrtaceae	CR			Terrestrial	
1003	13.609	74.824	Udupi	<i>Tectona grandis</i>	Verbenaceae	NE		Medicinal	Moist deciduous forests, also raised in plantations	Teak
1004	13.639	74.835	Udupi	<i>Tephrosia purpurea</i>	Fabaceae	NE			Moist deciduous forests and grasslands, also in the plains	Common Tephrosia
1005	13.639	74.827	Udupi	<i>Terminalia arjuna</i>	Combretaceae	NE		Nesting site of Apis dorsata, Trigonasp. Bees, medicinal	Moist Deciduous to Evergreen Forests	Arjun
1006	13.641	74.84	Udupi	<i>Terminalia chebula</i>	Combretaceae	NE			Deciduous forest	Haritaki
1007	13.641	74.85	Udupi	<i>Thespesia populnea</i>	Malvaceae	NE			Moist deciduous forests and grasslands, also in the plains	Common Tephrosia
1008	13.649	74.854	Udupi	<i>Thymus vulgaris</i>	Lamiaceae	NE				
1009	13.64	74.851	Udupi	<i>Tinospora cardifolia</i>	Menispermaceae	LC		ayurvedhic	Moist deciduous forests and scrub jungles	Indian Tinospora,
1010	13.636	74.85	Udupi	<i>Tinospora cardifolia</i>	Menispermaceae	LC				Indian Tinospora,
1011	13.646	74.854	Udupi	<i>Toddalia asiatica</i>	Rutaceae	NE			Evergreen and shola forests, also in scrub jungles	Forest-Pepper
1012	13.629	74.86	Udupi	<i>Trachyspermum ammi</i>	Apiaceae	NE				Ajwain
1013	13.63	74.858	Udupi	<i>Trianthema portulacastrum</i>	Aizoaceae	NE	Native	Folk medicine, Ayurveda, Siddha		Black Pig Weed
1014	13.64	74.866	Udupi	<i>Tribulus terrestris</i>	Zygophyllaceae	NE		medicinal, tender shoot edible	Dry deciduous forests, wastelands, Sandy areas	Bullhead, Puncture Vine
1015	13.627	74.868	Udupi	<i>Trichodesma zeylanicum</i>	Boraginaceae	NE			Degraded forest areas, also in the plains	
1016	13.627	74.868	Udupi	<i>Triplopogon romasissimus</i>	Poaceae	NE		Endemic to Western Ghats		
1017	13.627	74.875	Udupi	<i>Tylophora indica</i>	Asclepiadaceae	NE		Medicinal, A tea is made from the tuber,	Common on wayside thickets.	Panacea Twiner

									Plains from the coast	
1018	13.63	74.874	Udupi	<i>Uleria salicifolia</i>	Periplocaceae	CR				
1019	13.638	74.871	Udupi	<i>Vateria indica</i>	Dipterocarpaceae	CR			Terrestrial	Indian Copal Tree
1020	13.656	74.871	Udupi	<i>Vernonia cinerea</i>	Rhamnaceae	NE		Medicinal	Common on hills, from foothills, scrub jungle, Moist deciduous forests	Red Creepe
1021	13.664	74.872	Udupi	<i>Vitex negundo</i>	Verbenaceae	NE		Use of lakky locally called is known to the rural people.	Deciduous forests, river banks, villages and cultivated as hedge plant.	Chaste tree, Negundo Chastetree
1022	13.666	74.886	Udupi	<i>Vitex trifolia</i>	Verbenaceae	NE				
1023	13.661	74.892	Udupi	<i>Withania somnifera</i>	Solanaceae	NE		The roots are used as tonic to strength to the body and to make sexually strong	Cultivated	Winter cherry
1024	13.655	74.892	Udupi	<i>Wrightia tinctoria</i>	Menispermaceae	LC		ayurvedhic	Moist deciduous forests and scrub jungles	Indian Tinospora,
1025	13.644	74.894	Udupi	<i>Xeromphis spinosa</i>	Rubiaceae	NE			Evergreen & Semi Deciduous Forests	
1026	13.635	74.896	Udupi	<i>Zanthoxylum ovalifolium</i>	Rutaceae	NE				
1027	13.644	74.902	Udupi	<i>Zanthoxylum rhetsa</i>	Rutaceae	NE		Folk medicine, Ayurveda, Siddha		Indian Prickly Ash
1028	13.638	74.915	Udupi	<i>Zanthoxylum tetraspermum</i>	Rutaceae	NE				
1029	13.638	74.915	Udupi	<i>Zingiber officinale</i>	Zingiberaceae	NE		medicinal	Widely cultivated	Canton Ginger
1030	13.646	74.911	Udupi	<i>Zingiber zerumbet</i>	Zingiberaceae	NE				Shampoo Ginger
1031	13.65	74.907	Udupi	<i>Ziziphus mauritiana</i>	Rhamanaceae	NE		Food, fodder, fuel, medicinal	Dry deciduous forests, also planted in the plains	Indian jujube, Chinese date

Annexure 2: Fauna of Udupi District

Udupi district has rich faunal diversity. The region has near threatened amphibian species such as *Philautus beddomii*, *Ramanella montana*, *Rana curtipes*, *Tomoptema rufescens*, and vulnerable species such as *Ichthyophis beddomei*, *Micrixalus Saxicola*, *Nyctibatrachus major*, *Philautus glandulosus*, *Rana aurantiaca*, *Rana leithi*. Mammals species such as *Bos gaurus*, *Cervus unicolor*, *Funambulus subineatus*, *Melursus ursinus*, *Neophocaena phocaenoides*, *Physeter macrocephalus* are under near threatened and species are *Hyaena hyaena*, *Lutra lutra*, *Panthera pardus*, *Ratufa macroura*, *Sousa chinensis* under vulnerable category of IUCN conservation status. The district has critically endangered birds such as *Fregata andrewsi*, *Gyps bengalensis*, *Gyps indicus*, *Sarcogyps calvus* and vulnerable category birds such as *Chaetornis striata*, *Ciconia episcopus*, *Clanga clanga*, *Clanga hastata*, *Columba elphinstonii*, *Gallinago nemoricola*, *Leptoptilos javanicus*, *Schoenicola platyurus*. The district has vulnerable category reptiles such as *Cnemaspis indica*, *Cnemaspis indraneildasi*, *Cnemaspis jerdonii*, *Hemidactylus albofasciatus*, *Hemidactylus sataraisensis*, *Kaestlea laterimaculata*, *Melanophidium bilineatum*, *Oligodon brevicauda*, *Uropeltis phipsonii*

Amphibian							
Sno	Latitude	Longitude	Location	Species Name	Family Name	Conservation Status	Endemism
1	13.311	75.063	Andar Reserve Forest	<i>Ansonia ornata</i>	Bufonidae	EN	Endemic to Western Ghats
2	13.317	75.057	Andar Reserve Forest	<i>Bufo beddomii</i>	Bufonidae	LC	Endemic to Western Ghats
3	13.33	75.047	Andar Reserve Forest	<i>Bufo hololius</i>	Bufonidae	DD	
4	13.34	75.035	Andar Reserve Forest	<i>Bufo melanastricus</i>	Bufonidae	LC	
5	13.351	75.033	Andar Reserve Forest	<i>Microhyla ornata</i>	Microhylidae	LC	
6	13.357	75.036	Andar Reserve Forest	<i>Microhyla rubra</i>	Microhylidae	LC	
7	13.359	75.046	Andar Reserve Forest	<i>Ramanella montana</i>	Microhylidae	NT	
8	13.358	75.07	Andar Reserve Forest	<i>Micrixalus gadgili</i>	Micrixalidae	EN	

9	13.357	75.103	Andar Reserve Forest	<i>Micrixalus saxicola</i>	Micrixalidae	VU	
10	13.357	75.116	Andar Reserve Forest	<i>Nyctibatrachus aliciae</i>	Nyctibatrachidae	EN	
11	13.36	75.115	Andar Reserve Forest	<i>Nyctibatrachus hussaini</i>	Nyctibatrachidae	EN	
12	13.361	75.106	Andar Reserve Forest	<i>Nyctibatrachus major</i>	Nyctibatrachidae	VU	
13	13.362	75.098	Andar Reserve Forest	<i>Nyctibatrachus pygmaeus</i>	Nyctibatrachidae	LC	
14	13.36	75.088	Andar Reserve Forest	<i>Nyctibatrachus sanctipalustris</i>	Nyctibatrachidae	EN	Endemic to Western Ghats
15	13.348	75.078	Andar Reserve Forest	<i>Rana aurantiaca</i>	Ranidae	VU	
16	13.352	75.083	Andar Reserve Forest	<i>Rana beddomi</i>	Ranidae	LC	
17	13.345	75.083	Andar Reserve Forest	<i>Rana brachytarsus</i>	Ranidae	EN	
18	13.338	75.075	Andar Reserve Forest	<i>Rana brachytarsus</i>	Ranidae	EN	
19	13.32	75.088	Andar Reserve Forest	<i>Rana curtipes</i>	Ranidae	NT	
20	13.316	75.087	Andar Reserve Forest	<i>Rana cyanoaphlyctis</i>	Ranidae	LC	
21	13.317	75.08	Andar Reserve Forest	<i>Rana leithi</i>	Dicroglossidae	VU	
22	13.319	75.073	Andar Reserve Forest	<i>Rana keralensis</i>	Dicroglossidae	LC	
23	13.324	75.063	Andar Reserve Forest	<i>Rana limnocharis</i>	Dicroglossidae	LC	
24	13.33	75.059	Andar Reserve Forest	<i>Rana semipalmata</i>	Dicroglossidae	LC	
25	13.336	75.052	Andar Reserve Forest	<i>Rana emporalis</i>	Ranidae	DD	
26	13.338	75.05	Andar Reserve Forest	<i>Rana tigerina</i>	Dicroglossidae	LC	
27	13.343	75.041	Andar Reserve Forest	<i>Tomopterna breviceps</i>	Dicroglossidae	LC	
28	13.347	75.041	Andar Reserve Forest	<i>Tomopterna rufescens</i>	Microhylidae	NT	
29	13.353	75.032	Andar Reserve Forest	<i>Philautus beddomii</i>	Rhacophoridae	NT	
30	13.356	75.047	Andar Reserve Forest	<i>Philautus charius</i>	Rhacophoridae	EN	
31	13.36	75.041	Andar Reserve Forest	<i>Philautus femoralis</i>	Rhacophoridae	EN	
32	13.36	75.057	Andar Reserve Forest	<i>Philautus glandulosus</i>	Rhacophoridae	VU	
33	13.362	75.065	Andar Reserve Forest	<i>Philautus leucorhinus</i>	Rhacophoridae	EX	
34	13.363	75.07	Andar Reserve Forest	<i>Philautus nasutus</i>	Rhacophoridae	EX	
35	13.357	75.085	Andar Reserve Forest	<i>Polypedates maculatus</i>	Rhacophoridae	LC	
36	13.348	75.087	Andar Reserve Forest	<i>Rhacophorus malabaricus</i>	Rhacophoridae	LC	

37	13.351	75.088	Andar Reserve Forest	<i>Gegeniophis carnosus</i>	Caecilidae	DD	
38	13.355	75.086	Andar Reserve Forest	<i>Ichthyophis beddomei</i>	Ichthyophidae	VU	
39	13.36	75.089	Andar Reserve Forest	<i>Ichthyophis bombayensis</i>	Ichthyophidae	LC	
40	13.357	75.084	Andar Reserve Forest	<i>Ichthyophis malabarensis</i>	Ichthyophidae	LC	
41	13.363	75.081	Andar Reserve Forest	<i>Ichthyophis tricolor</i>	Ichthyophidae	LC	
42	13.347	75.063	Andar Reserve Forest	<i>Uraeotyphlus narayani</i>	Uraeotyphlidae	DD	

Mammals							
Sno	Latitude	Longitude	Location	Species Name	Family Name	Conservation Status	Common Name (Eng)
1	13.781	74.859	Mookambika Wildlife Sanctuary	<i>Macaca silenus</i>	Cercopithecoidea	EN	Lion-tailed Macaque
2	13.756	74.836	Mookambika Wildlife Sanctuary	<i>Macaca radiata</i>	Cercopithecoidea	LC	Bonnet macaque
3	13.768	74.836	Mookambika Wildlife Sanctuary	<i>Presbytis entellus</i>	Cercopithecoidea	LC	Common langur
4	13.818	74.804	Mookambika Wildlife Sanctuary	<i>Loris tardigradus</i>	Lorisidae	EN	Slender loris
5	13.836	74.853	Mookambika Wildlife Sanctuary	<i>Melursus ursinus</i>	Ursidae	VU	Sloth bear
6	13.825	74.878	Mookambika Wildlife Sanctuary	<i>Bos gaurus</i>	Bovidae	VU	Gaur
7	13.813	74.873	Mookambika Wildlife Sanctuary	<i>Sus scrofa</i>	Suidae	LC	Wild pig
8	13.8	74.882	Mookambika Wildlife Sanctuary	<i>Panthera tigris</i>	Felidae	EN	Tiger
9	13.788	74.895	Mookambika Wildlife Sanctuary	<i>Panthera pardus</i>	Felidae	NT	Leopard
10	13.81	74.889	Mookambika Wildlife Sanctuary	<i>Cuon alpinus</i>	Canidae	EN	Wild dog
11	13.827	74.89	Mookambika Wildlife Sanctuary	<i>Canis aureus</i>	Canidae	LC	Jackal
12	13.834	74.866	Mookambika Wildlife Sanctuary	<i>Macaca radiata</i>	Cercopithecoidea	LC	Bonnet macaque
13	13.818	74.866	Mookambika Wildlife Sanctuary	<i>Cervus unicolor</i>	Cervidae	VU	Sambar
14	13.8	74.863	Mookambika Wildlife Sanctuary	<i>Muntiacus muntjak</i>	Cervidae	LC	Barking deer
15	13.821	74.878	Mookambika Wildlife Sanctuary	<i>Lutra lutra</i>	Mustelidae	NT	Common Otter
16	13.832	74.882	Mookambika Wildlife Sanctuary	<i>Hystrix indica</i>	Hystriidae	LC	Indian Porcupine
17	13.848	74.872	Mookambika Wildlife Sanctuary	<i>Ratufa indica</i>	Sciuridae	LC	Malabar giant squirrel
18	13.818	74.841	Mookambika Wildlife Sanctuary	<i>Petaurista petaurista</i>	Sciuridae	LC	Common Giant Flying Squirrel
19	13.684	74.665	Someshwara Wildlife sanctuary	<i>Macaca silenus</i>	Cercopithecoidea	EN	Lion-tailed Macaque

20	13.69	74.671	Someshwara Wildlife sanctuary	<i>Macaca radiata</i>	Cercopithecoidea	LC	Bonnet macaque
21	13.69	74.663	Someshwara Wildlife sanctuary	<i>Presbytis entellus</i>	Cercopithecoidea	LC	Common langur
22	13.669	74.653	Someshwara Wildlife sanctuary	<i>Loris tardigradus</i>	Lorisidae	EN	Slender loris
23	13.674	74.652	Someshwara Wildlife sanctuary	<i>Melursus ursinus</i>	Ursidae	VU	Sloth bear
24	13.688	74.649	Someshwara Wildlife sanctuary	<i>Bos gaurus</i>	Bovidae	VU	Gaur
25	13.695	74.651	Someshwara Wildlife sanctuary	<i>Sus scrofa</i>	Suidae	LC	Wild pig
26	13.698	74.655	Someshwara Wildlife sanctuary	<i>Panthera tigris</i>	Felidae	EN	Tiger
27	13.69	74.657	Someshwara Wildlife sanctuary	<i>Panthera pardus</i>	Felidae	NT	Leopard
28	13.682	74.66	Someshwara Wildlife sanctuary	<i>Cuon alpinus</i>	Canidae	EN	Wild dog
29	13.673	74.664	Someshwara Wildlife sanctuary	<i>Canis aureus</i>	Canidae	LC	Jackal
30	13.674	74.668	Someshwara Wildlife sanctuary	<i>Bos gaurus</i>	Bovidae	VU	Gaur
31	13.68	74.673	Someshwara Wildlife sanctuary	<i>Cervus unicolor</i>	Cervidae	VU	Sambar
32	13.688	74.673	Someshwara Wildlife sanctuary	<i>Muntiacus muntjak</i>	Cervidae	LC	Barking deer
33	13.692	74.673	Someshwara Wildlife sanctuary	<i>Lutra lutra</i>	Mustelidae	NT	Common Otter
34	13.698	74.666	Someshwara Wildlife sanctuary	<i>Hystrix indica</i>	Hystriidae	LC	Indian Porcupine
35	13.7	74.663	Someshwara Wildlife sanctuary	<i>Ratufa indica</i>	Sciuridae	LC	Malabar giant squirrel
36	13.687	74.666	Someshwara Wildlife sanctuary	<i>Petaurista petaurista</i>	Sciuridae	LC	Common Giant Flying Squirrel
37	13.062	74.94	Uduppi	<i>Axis axis</i>	Cervidae	LC	Spotted deer
38	13.093	74.947	Uduppi	<i>Bos gaurus</i>	Bovidae	VU	Gaur
39	13.07	74.936	Uduppi	<i>Canis aureus</i>	Canidae	LC	Jackal
40	13.915	74.664	Uduppi	<i>Cervus unicolor</i>	Cervidae	VU	Sambar
41	13.907	74.639	Uduppi	<i>Cuon alpinus</i>	Canidae	EN	Wild dog
42	13.911	74.645	Uduppi	<i>Elephas maximus</i>	Elephantidae	EN	Elephant
43	13.903	74.651	Uduppi	<i>Felis bengalensis</i>	Felidae	LC	Leopard cat
44	13.914	74.651	Uduppi	<i>Felis chaus</i>	Felidae	LC	Jungle cat
45	13.909	74.642	Uduppi	<i>Funambulus palmarum</i>	Sciuridae	LC	Three striped palm squirrel
46	13.302	75.034	Uduppi	<i>Funambulus subineatus</i>	Sciuridae	VU	Dusky striped squirrel
47	13.276	75.033	Uduppi	<i>Herpestes edwardsii</i>	Herpestidae	LC	Common mongoose

48	13.253	75.019	Uduppi	<i>Herpestes fuscus</i>	Herpestidae	LC	Brown mongoose
49	13.242	75.037	Uduppi	<i>Herpestes vitticolis</i>	Herpestidae	LC	Stripe necked Mongoose
50	13.23	75.054	Uduppi	<i>Hyaena hyaena</i>	Hyaenidae	NT	Striped hyena
51	13.407	74.981	Uduppi	<i>Hystrix indica</i>	Hystriidae	LC	Indian porcupine
52	13.398	74.984	Uduppi	<i>Lepus nigricolis</i>	Leporidae	LC	Indian Hare
53	13.396	74.992	Uduppi	<i>Loris tardigradus</i>	Lorisidae	EN	Slender loris
54	13.491	74.958	Uduppi	<i>Lutra lutra</i>	Mustelidae	NT	Common otter
55	13.491	74.958	Uduppi	<i>Macaca radiata</i>	Cercopithecoidea	LC	Bonnet macaque
56	13.493	74.944	Uduppi	<i>Manis cradicaudata</i>	Manidae	EN	Pangolin
57	13.653	74.864	Uduppi	<i>Melursus ursinus</i>	Ursidae	VU	Sloth bear
58	13.592	74.905	Uduppi	<i>Muntiacus muntjak</i>	Cervidae	LC	Barking deer
59	13.562	74.931	Uduppi	<i>Panthera pardus</i>	Felidae	NT	Leopard
60	13.519	74.945	Uduppi	<i>Panthera tigris</i>	Felidae	EN	Tiger
61	13.485	74.952	Uduppi	<i>Paradoxurus hermaphroditus</i>	Viverridae	LC	Common palm civet
62	13.492	74.934	Uduppi	<i>Paradoxurus hermaphroditus</i>	Viverridae	LC	Common palm civet
63	13.106	75.09	Uduppi	<i>Pipistrellus coromandra</i>	Vespertilionidae	LC	Indian pipistrelle
64	13.147	75.076	Uduppi	<i>Presbytis entellus</i>	Cercopithecoidea	LC	Common langur
65	13.057	74.936	Uduppi	<i>Pteropus giganteus</i>	Pteropodidae	LC	Flying fox
66	13.083	74.936	Uduppi	<i>Rattus blanfordi</i>	Muridae	LC	White tailed wood rat
67	13.127	74.975	Uduppi	<i>Rattus rattus</i>	Muridae	LC	Rat
68	13.149	74.972	Uduppi	<i>Ratufa indica</i>	Sciuridae	LC	Malabar giant squirrel
69	13.165	75.015	Uduppi	<i>Ratufa macroura</i>	Sciuridae	NT	Giant flying squirrel
70	13.224	75.044	Uduppi	<i>Suncus murinus</i>	Soricidae	LC	Grey musk shrew
71	13.224	75.044	Uduppi	<i>Sus scrofa</i>	Suidae	LC	Indian wild boar
72	13.239	75.035	Uduppi	<i>Tragulus meminna</i>	Tragulidae	LC	Mouse deer
73	13.262	75.027	Uduppi	<i>Viverra megaspilla</i>	Viverridae	CR	Malabar civet
74	13.284	75.042	Uduppi	<i>Viverricula indica</i>	Viverridae	LC	Small Indian civet
75	13.129	74.762	Uduppi	<i>Physeter macrocephalus</i>	Physeteridae	VU	Sperm whale

76	13.209	74.737	Uduppi	<i>Kogia sima</i>	Physeteridae	DD	Dwarf Sperm Whale
77	13.18	74.747	Uduppi	<i>Kogia breviceps</i>	Physeteridae	DD	Pygmy Sperm whale
78	13.189	74.743	Uduppi	<i>Neophocaena phocaenoides</i>	Phacaenidae	VU	Finless porpoise
79	13.29	74.716	Uduppi	<i>Stenella longirostris</i>	Delphanidae	DD	Spinner Dolphin
80	13.419	74.693	Uduppi	<i>Stenella coeruleoalba</i>	Delphanidae	LC	Striped Dolphin
81	13.433	74.693	Uduppi	<i>Sousa chinensis</i>	Delphanidae	NT	Indo-Pacific Humpback Dolphin
82	13.258	74.725	Uduppi	<i>Pseudorca crassidens</i>	Delphanidae	DD	False Killer Whale
83	13.279	74.721	Uduppi	<i>Balaenoptera physalus</i>	Balaenopteridae	EN	Fin whale
84	13.3	74.717	Uduppi	<i>Balaenoptera musculus</i>	Balaenopteridae	EN	Blue Whale
85	13.313	74.714	Uduppi	<i>Balaenoptera edini</i>	Balaenopteridae	DD	Bryde's Whale
86	13.332	74.708	Uduppi	<i>Balaenoptera borealis</i>	Balaenopteridae	EN	Sei whale

Birds							
Sno	Latitude	Longitude	Location	Species Name	Family Name	Conservation Status	Common Name (Eng)
1	13.209	74.997	Anekere wetland	<i>Halcyon smyrnensis</i>	Alcedinidae	LC	White-throated Kingfisher
2	13.209	74.998	Anekere wetland	<i>Milvus migrans</i>	Accipitridae	LC	Black Kite
3	13.208	74.998	Anekere wetland	<i>Nectarinia zeylonica</i>	Nectariniidae	LC	Purplerumped Sunbird
4	13.206	75	Anekere wetland	<i>Pavo cristatus</i>	Phasianidae	LC	Indian Peafowl
5	13.207	75.002	Anekere wetland	<i>Pelagopsis capensis</i>	Alcedinidae	LC	Stork-billed Kingfisher
6	13.205	75.003	Anekere wetland	<i>Asio flammeus</i>	Strigidae	LC	Short-eared Owl
7	13.205	75.001	Anekere wetland	<i>Phalacrocorax niger</i>	Phalacrocoracidae	LC	Little cormorant
8	13.204	74.999	Anekere wetland	<i>Psittacula krameri</i>	Psittaculidae	LC	Rose-ringed Parakeet
9	13.204	74.998	Anekere wetland	<i>Streptopelia chinensis</i>	Columbidae	LC	Spotted Dove
10	13.205	74.997	Anekere wetland	<i>Threskiornis melanocephalus</i>	Threskiornithidae	NT	Black-headed Ibis
11	13.206	74.995	Anekere wetland	<i>Tringa hypoleucos</i>	Scolopacidae	LC	Common sandpiper

12	13.207	74.995	Anekere wetland	<i>Vanellus indicus</i>	Charadriidae	LC	Red-wattled Lapwing
13	13.208	74.995	Anekere wetland	<i>Acridotheres tristis</i>	Sturnidae	LC	Common Myna
14	13.21	74.995	Anekere wetland	<i>Actitis hypoleucos</i>	Scolopacidae	LC	Common Sandpiper
15	13.21	74.996	Anekere wetland	<i>Alauda gulgula</i>	Alaudidae	LC	Oriental Skylark
16	13.211	74.998	Anekere wetland	<i>Anastomus oscitans</i>	Ciconiidae	LC	Asian Openbill
17	13.21	74.999	Anekere wetland	<i>Accipiter virgatus</i>	Accipitridae	LC	Besra
18	13.21	74.998	Anekere wetland	<i>Athena brama</i>	Strigidae	LC	Spotted Owlet
19	13.209	74.998	Anekere wetland	<i>Anthus rufus</i>	Motacillidae	LC	Paddy field pipit
20	13.208	74.997	Anekere wetland	<i>Ardea cinerea</i>	Ardeidae	LC	Gray Heron
21	13.207	74.998	Anekere wetland	<i>Ardea purpurea</i>	Ardeidae	LC	Purple Heron
22	13.207	74.998	Anekere wetland	<i>Ardeola grayii</i>	Ardeidae	LC	Indian Pond-Heron
23	13.208	74.999	Anekere wetland	<i>Arenaria interpres</i>	Scolopacidae	LC	Ruddy Turnstone
24	13.208	74.999	Anekere wetland	<i>Athena brama</i>	Strigidae	LC	Spotted Owlet
25	13.209	75.002	Anekere wetland	<i>Buceros bicornis</i>	Bucerotidae	NT	Great Hornbill
26	13.208	75.002	Anekere wetland	<i>Butorides striata</i>	Ardeidae	LC	Striated Heron
27	13.207	75.002	Anekere wetland	<i>Calidris alba</i>	Scolopacidae	LC	Sanderling
28	13.206	75.001	Anekere wetland	<i>Calidris ferruginea</i>	Scolopacidae	NT	Curlew Sandpiper
29	13.206	74.999	Anekere wetland	<i>Aviceda jerdoni</i>	Accipitridae	LC	Asian Baza
30	13.205	74.999	Anekere wetland	<i>Calidris subminuta</i>	Scolopacidae	LC	Ruff
31	13.204	74.998	Anekere wetland	<i>Centropus sinensis</i>	Cuculidae	LC	Greater Coucal
32	13.203	74.997	Anekere wetland	<i>Charadrius alexandrinus</i>	Charadriidae	LC	Kentish Plover
33	13.204	74.996	Anekere wetland	<i>Charadrius dubius</i>	Charadriidae	LC	Little Ringed Plover
34	13.205	74.996	Anekere wetland	<i>Ciconia episcopus</i>	Ciconiidae	VU	Woolly-necked Stork
35	13.205	74.996	Anekere wetland	<i>Cisticola juncidis</i>	Cisticolidae	LC	Zitting Cisticola
36	13.206	74.996	Anekere wetland	<i>Copsychus saularis</i>	Muscicapidae	LC	Oriental Magpie-Robin
37	13.206	74.996	Anekere wetland	<i>Coracias benghalensis</i>	Coraciidae	LC	Indian Roller
38	13.207	74.996	Anekere wetland	<i>Dendrocitta vagabunda</i>	Corvidae	LC	Rufous Treepie
39	13.208	74.996	Anekere wetland	<i>Dendrocygna javanica</i>	Anatidae	LC	Lesser Whistling-Duck

40	13.208	74.996	Anekere wetland	<i>Aviceda leuphotes</i>	Accipitridae	LC	Black Baza
41	13.209	74.996	Anekere wetland	<i>Dicrurus macrocerus</i>	Dicruridae	LC	Black Drongo
42	13.209	74.996	Anekere wetland	<i>Dicrurus paradiseus</i>	Dicruridae	LC	Greater Racket-tailed Drongo
43	13.209	74.996	Anekere wetland	<i>Dinopium benghalense</i>	Picidae	LC	Black-rumped Flameback
44	13.208	74.998	Anekere wetland	<i>Eudynamys scolopaceus</i>	Cuculidae	LC	Asian Koel
45	13.628	74.704	Kundapura	<i>Pseudibis papillosa</i>	Threskiornithidae	LC	Red-naped Ibis
46	13.627	74.706	Kundapura	<i>Pycnonotus jocosus</i>	Pycnonotidae	LC	Red-whiskered Bulbul
47	13.625	74.711	Kundapura	<i>Saxicola caprata</i>	Muscicapidae	LC	Pied Bushchat
48	13.623	74.716	Kundapura	<i>Galerida cristata</i>	Alaudidae	LC	Eurasian Coot
49	13.621	74.719	Kundapura	<i>Halcyon capensis</i>	Alcedinidae	LC	Eurasian Oystercatcher
50	13.62	74.726	Kundapura	<i>Sturnus malabaricus</i>	Sturnidae	LC	Chest nut tailed starling
51	13.618	74.727	Kundapura	<i>Halcyon pileata</i>	Alcedinidae	LC	Black-capped Kingfisher
52	13.617	74.724	Kundapura	<i>Terpsiphone paradisi</i>	Monarchidae	LC	Indian Paradise-Flycatcher
53	13.618	74.722	Kundapura	<i>Batrachostomus moniliger</i>	Podargidae	LC	Sri Lankan Frogmouth
54	13.619	74.723	Kundapura	<i>Tringa nebularia</i>	Scolopacidae	LC	Pompadour Green Pigeon
55	13.632	74.707	Kundapura	<i>Tringa totanus</i>	Scolopacidae	LC	Pompadour Green Pigeon
56	13.631	74.709	Kundapura	<i>Haliaster indus</i>	Accipitridae	LC	Brahminy Kit
57	13.63	74.71	Kundapura	<i>Tringa stagnatilis</i>	Scolopacidae	LC	Marsh Sandpiper
58	13.629	74.713	Kundapura	<i>Hemiprocne coronata</i>	Hemiprocnidae	LC	Crested Treeswift
59	13.627	74.713	Kundapura	<i>Turdoides striata</i>	Leiothrichidae	LC	Jungle Babbler
60	13.623	74.712	Kundapura	<i>Leptoptilos dubius</i>	Ciconiidae	LC	Purple rumped sun bird
61	13.62	74.713	Kundapura	<i>Tyto alba</i>	Tytonidae	LC	Barn Owl
62	13.618	74.714	Kundapura	<i>Upupa epops</i>	Upupidae	LC	Eurasian Hoopoe
63	13.618	74.711	Kundapura	<i>Zoothera citrina</i>	Muscicapidae	LC	Orangeheaded Ground Thrush
64	13.618	74.709	Kundapura	<i>Botaurus stellaris</i>	Ardeidae	LC	Bittern
65	13.618	74.707	Kundapura	<i>Brachypodius priocephalus</i>	Pycnonotidae	NT	Grey-headed Bulbul
66	13.619	74.705	Kundapura	<i>Aythya fuligula</i>	Anatidae	LC	Tufted Duck
67	13.617	74.704	Kundapura	<i>Bubo bengalensis</i>	Strigidae	LC	Rock Eagle-Owl

68	13.617	74.703	Kundapura	<i>Lonchura malacca</i>	Estrildidae	LC	Tricolored Munia
69	13.619	74.703	Kundapura	<i>Bubo nipalensis</i>	Strigidae	LC	Forest Eagle Owl
70	13.622	74.703	Kundapura	<i>Acridotheres fuscus</i>	Sturnidae	LC	Jungle Myna
71	13.625	74.701	Kundapura	<i>Bubulcus ibis</i>	Ardeidae	LC	Cattle Egret
72	13.626	74.702	Kundapura	<i>Buceros bicornis</i>	Bucerotidae	NT	Great Hornbill
73	13.627	74.704	Kundapura	<i>Megalaima viridis</i>	Megalaimidae	LC	Small Green Barbet
74	13.628	74.706	Kundapura	<i>Butastur teesa</i>	Accipitridae	LC	White-eyed Buzzard
75	13.629	74.705	Kundapura	<i>Buteo buteo</i>	Accipitridae	LC	Common Buzzard
76	13.63	74.706	Kundapura	<i>Megalaima zeylanica</i>	Megalaimidae	LC	Large Green Barbet
77	13.632	74.705	Kundapura	<i>Butorides striata</i>	Ardeidae	LC	Striated Heron
78	13.632	74.704	Kundapura	<i>Cacomantis passerinus</i>	Cuculidae	LC	Gray-bellied Cuckoo
79	13.632	74.707	Kundapura	<i>Merops leschenaulti</i>	Meropidae	LC	Chestnut-headed Bee-eater
80	13.63	74.708	Kundapura	<i>Cacomantis sonneratii</i>	Cuculidae	LC	Banded Bay Cuckoo
81	13.627	74.711	Kundapura	<i>Calandrella dukhunensis</i>	Alaudidae	LC	Sykes's Short-toed Lark
82	13.626	74.715	Kundapura	<i>Calidris alba</i>	Scolopacidae	LC	Sanderling
83	13.625	74.719	Kundapura	<i>Merops orientalis</i>	Meropidae	LC	Green Bee-eater
84	13.624	74.722	Kundapura	<i>Calidris alpina</i>	Scolopacidae	LC	Dunlin
85	13.623	74.722	Kundapura	<i>Acridotheres tristis</i>	Sturnidae	LC	Common Myna
86	13.622	74.721	Kundapura	<i>Calidris falcinellus</i>	Scolopacidae	LC	Broad-billed Sandpiper
87	13.622	74.72	Kundapura	<i>Calidris ferruginea</i>	Scolopacidae	NT	Curlew Sandpiper
88	13.623	74.719	Kundapura	<i>Merops philippinus</i>	Meropidae	LC	Blue-tailed Bee-eater
89	13.624	74.716	Kundapura	<i>Calidris minuta</i>	Scolopacidae	LC	Little Stint
90	13.623	74.712	Kundapura	<i>Calidris pugnax</i>	Scolopacidae	LC	Ruff
91	13.622	74.711	Kundapura	<i>Calidris temminckii</i>	Scolopacidae	LC	Temminck's Stint
92	13.621	74.711	Kundapura	<i>Calidris tenuirostris</i>	Scolopacidae	EN	Eastern Knot
93	13.619	74.711	Kundapura	<i>Caprimulgus affinis</i>	Caprimulgidae	LC	Savanna Nightjar
94	13.617	74.711	Kundapura	<i>Caprimulgus asiaticus</i>	Caprimulgidae	LC	Indian Nightjar
95	13.617	74.71	Kundapura	<i>Caprimulgus atripennis</i>	Caprimulgidae	LC	Jerdon's Nightjar

96	13.618	74.707	Kundapura	<i>Caprimulgus indicus</i>	Caprimulgidae	LC	Jungle Nightjar
97	13.618	74.705	Kundapura	<i>Acrocephalus agricola</i>	Acrocephalidae	LC	Paddyfield Warbler
98	13.62	74.705	Kundapura	<i>Carpodacus erythrinus</i>	Fringillidae	LC	Common Rosefinch
99	13.621	74.707	Kundapura	<i>Mesophoyx intermedia</i>	Ardeidae	LC	Median Egret
100	13.622	74.708	Kundapura	<i>Carpospiza brachyactyla</i>	Passeridae	LC	Pale Rockfinch
101	13.626	74.707	Kundapura	<i>Cecropis daurica</i>	Hirundinidae	LC	Red-rumped Swallow
102	13.626	74.708	Kundapura	<i>Mirafra erythroptera</i>	Alaudidae	LC	Indian Bushlark
103	13.627	74.709	Kundapura	<i>Centropus bengalensis</i>	Cuculidae	LC	Lesser Coucal
104	13.628	74.711	Kundapura	<i>Centropus sinensis</i>	Cuculidae	LC	Greater Coucal
105	13.63	74.71	Kundapura	<i>Ceryle rudis</i>	Alcedinidae	LC	Pied Kingfisher
106	13.631	74.709	Kundapura	<i>Chaetornis striata</i>	Locustellidae	VU	Bristled Grass Warbler
107	13.62	74.699	Kundapura	<i>Chalcophaps indica</i>	Columbidae	LC	Asian Emerald Dove
108	13.626	74.709	Kundapura	<i>Motacilla maderaspatensis</i>	Motacillidae	LC	White-browed Wagtail
109	13.618	74.708	Kundapura	<i>Nycticorax nycticorax</i>	Ardeidae	LC	Black-crowned Night Heron
110	13.618	74.708	Kundapura	<i>Aythya nyroca</i>	Anatidae	NT	Common white-eye
111	13.618	74.707	Kundapura	<i>Charadrius alexandrinus</i>	Charadriidae	LC	Kentish Plover
112	13.618	74.707	Kundapura	<i>Charadrius dubius</i>	Charadriidae	LC	Little Ringed Plover
113	13.618	74.705	Kundapura	<i>Oriolus oriolus</i>	Oriolidae	LC	Golden Oriole
114	13.619	74.705	Kundapura	<i>Acrocephalus dumetorum</i>	Acrocephalidae	LC	Blyth's Reed Warbler
115	13.62	74.706	Kundapura	<i>Charadrius leschenaultii</i>	Charadriidae	LC	Greater Sand Plover
116	13.622	74.709	Kundapura	<i>Oriolus xanthornus</i>	Oriolidae	LC	Black-hooded Oriole
117	13.621	74.709	Kundapura	<i>Charadrius mongolus</i>	Charadriidae	LC	Lesser Sandplover
118	13.622	74.711	Kundapura	<i>Chilonias hybrida</i>	Laridae	LC	Whiskered Tern
119	13.623	74.711	Kundapura	<i>Orthotomus sutorius</i>	Cisticolidae	LC	Common Tailorbird
120	13.623	74.71	Kundapura	<i>Chloropsis aurifrons</i>	Chloropseidae	LC	Golden-fronted Leafbird
121	13.622	74.709	Kundapura	<i>Chloropsis jerdoni</i>	Chloropseidae	LC	Jerdon's Leafbird
122	13.621	74.709	Kundapura	<i>Passer domesticus</i>	Ploceidae	LC	House Sparrow
123	13.622	74.71	Kundapura	<i>Chroicocephalus brunnicephalus</i>	Laridae	LC	Brown-headed Gull

124	13.631	74.706	Kundapura	<i>Chroicocephalus genei</i>	Laridae	LC	Slender-billed Gull
125	13.629	74.705	Kundapura	<i>Chroicocephalus ridibundus</i>	Laridae	LC	Black-headed Gull
126	13.623	74.716	Kundapura	<i>Chrysocolaptes festivus</i>	Picidae	LC	White-naped Woodpecker
127	13.623	74.717	Kundapura	<i>Ploceus philippinus</i>	Ploceidae	LC	Baya Weaver
128	13.624	74.717	Kundapura	<i>Chrysocolaptes guttaeristatus</i>	Picidae	LC	Greater Flameback
129	13.422	74.751	Udupi	<i>Abrornis humei</i>	Phylloscopidae	LC	Hume's Warbler
130	13.422	74.751	Udupi	<i>Acrocephalus stentoreus</i>	Acrocephalidae	LC	Clamorous Reed Warbler
131	13.422	74.749	Udupi	<i>Chrysomma sinense</i>	Paradoxornithidae	LC	Yellow-eyed Babbler
132	13.422	74.749	Udupi	<i>Ciconia ciconia</i>	Ciconiidae	LC	White Stork
133	13.422	74.749	Udupi	<i>Ciconia episcopus</i>	Ciconiidae	VU	Woolly-necked Stork
134	13.416	74.762	Udupi	<i>Ciconia nigra</i>	Ciconiidae	LC	Black Stork
135	13.416	74.764	Udupi	<i>Cinnyris asiaticus</i>	Nectariniidae	LC	Purple Sunbird
136	13.413	74.764	Udupi	<i>Cinnyris lotenius</i>	Nectariniidae	LC	Long-billed Sunbird
137	13.413	74.764	Udupi	<i>Circaetus gallicus</i>	Accipitridae	LC	Short-toed Snake-Eagle
138	13.317	74.8	Udupi	<i>Circus aeraginosus</i>	Accipitridae	LC	Western Marsh- Harrier
139	13.317	74.8	Udupi	<i>Circus macrourus</i>	Accipitridae	NT	Pallid Harrier
140	13.312	74.8	Udupi	<i>Circus melanoleucos</i>	Accipitridae	LC	Pied Harrier
141	13.31	74.8	Udupi	<i>Actitis hypoleucos</i>	Scolopacidae	LC	Common Sandpiper
142	13.31	74.8	Udupi	<i>Circus pygargus</i>	Accipitridae	LC	Montagu's Harrier
143	13.314	74.8	Udupi	<i>Cisticola exilis</i>	Cisticolidae	LC	Golden-headed Cisticola
144	13.325	74.8	Udupi	<i>Cisticola juncidis</i>	Cisticolidae	LC	Zitting Cisticola
145	13.247	74.81	Udupi	<i>Clamator coromandus</i>	Cuculidae	LC	Chestnut-winged Cuckoo
146	13.255	74.794	Udupi	<i>Clamator jacobinus</i>	Cuculidae	LC	Pied Cuckoo
147	13.26	74.817	Udupi	<i>Clanga clanga</i>	Accipitridae	VU	Greater Spotted Eagle
148	13.26	74.817	Udupi	<i>Clanga hastata</i>	Accipitridae	VU	Indian Spotted Eagle
149	13.26	74.816	Udupi	<i>Columba elphinstonii</i>	Columbidae	VU	Nilgiri Wood-Pigeon
150	13.253	74.809	Udupi	<i>Columba livia</i>	Columbidae	LC	Rock Pigeon
151	13.298	74.909	Udupi	<i>Copsychus malabaricus</i>	Muscicapidae	LC	White-rumped Shama

152	13.298	74.909	Udupi	<i>Aeginithina tiphia</i>	Aegithinidae	LC	Common Iora
153	13.298	74.931	Udupi	<i>Copsychus saularis</i>	Muscicapidae	LC	Oriental Magpie-Robin
154	13.298	74.882	Udupi	<i>Coracias benghalensis</i>	Coraciidae	LC	Indian Roller
155	13.298	74.882	Udupi	<i>Coracina macei</i>	Campephagidae	LC	Large Cuckooshrike
156	13.299	74.87	Udupi	<i>Corvus macrorhynchos</i>	Corvidae	LC	Large-billed Crow
157	13.289	74.873	Udupi	<i>Corvus splendens</i>	Corvidae	LC	House Crow
158	13.282	74.873	Udupi	<i>Coturnix coromandelica</i>	Phasianidae	LC	Rain Quail
159	13.282	74.873	Udupi	<i>Coturnix coturnix</i>	Phasianidae	LC	Common Quail
160	13.298	74.868	Udupi	<i>Cuculus canorus</i>	Cuculidae	LC	Common Cuckoo
161	13.326	74.966	Udupi	<i>Cuculus micropeterus</i>	Cuculidae	LC	Indian Cuckoo
162	13.332	74.966	Udupi	<i>Cuculus poliocephalus</i>	Cuculidae	LC	Lesser Cuckoo
163	13.332	74.966	Udupi	<i>Aerodramus unicolor</i>	Apodidae	LC	Indian Swiftlet
164	13.308	74.927	Udupi	<i>Cyornis pallidipes</i>	Muscicapidae	LC	White-bellied Blue Flycatcher
165	13.308	74.925	Udupi	<i>Cyornis rubeculoides</i>	Muscicapidae	LC	Blue-throated Flycatcher
166	13.334	74.922	Udupi	<i>Cyornis tickelliae</i>	Muscicapidae	LC	Tickell's Blue Flycatcher
167	13.465	74.95	Udupi	<i>Cypsiurus balasiensis</i>	Apodidae	LC	Asian Palm-Swift
168	13.474	74.94	Udupi	<i>Delichon urbicum</i>	Hirundinidae	LC	Common House-Martin
169	13.691	74.695	Udupi	<i>Dendrocitta leucogastra</i>	Corvidae	LC	Southern Treepie
170	13.676	74.67	Udupi	<i>Dendrocitta vagabunda</i>	Corvidae	LC	Rufous Treepie
171	13.678	74.668	Udupi	<i>Dendrocygna bicolor</i>	Anatidae	NT	Fulvous Whistling-Duck
172	13.678	74.668	Udupi	<i>Dendrocygna javanica</i>	Anatidae	LC	Lesser Whistling-Duck
173	13.68	74.668	Udupi	<i>Dendronanthus indicus</i>	Motacillidae	LC	Forest Wagtail
174	13.685	74.665	Udupi	<i>Aethopyga vigorsii</i>	Nectariniidae	LC	Vigors's Sunbird
175	13.691	74.661	Udupi	<i>Dicaeum agile</i>	Dicaeidae	LC	Thick-billed Flowerpecker
176	13.714	74.658	Udupi	<i>Dicaeum concolor</i>	Dicaeidae	LC	Nilgiri Flowerpecker
177	13.678	74.668	Udupi	<i>Dicaeum erythrorhynchos</i>	Dicaeidae	LC	Pale-billed Flowerpecker
178	13.678	74.668	Udupi	<i>Dicrurus aeneus</i>	Dicruridae	LC	Bronzed Drongo
179	13.678	74.668	Udupi	<i>Dicrurus hottentottus</i>	Dicruridae	LC	Hair-crested Drongo

180	13.691	74.668	Udupi	<i>Dicrurus leucocephaeus</i>	Dicruridae	LC	Ashy Drongo
181	13.691	74.668	Udupi	<i>Dicrurus macrocerus</i>	Dicruridae	LC	Black Drongo
182	13.694	74.674	Udupi	<i>Dicrurus paradiseus</i>	Dicruridae	LC	Greater Racket-tailed Drongo
183	13.694	74.677	Udupi	<i>Dinopium benghalense</i>	Picidae	LC	Black-rumped Flameback
184	13.687	74.688	Udupi	<i>Dinopium javanense</i>	Picidae	LC	Common Flame-backed Woodpecker
185	13.712	74.834	Udupi	<i>Alauda gulgula</i>	Alaudidae	LC	Oriental Skylark
186	13.718	74.828	Udupi	<i>Dinopium javanense</i>	Picidae	LC	Common Flame-backed Woodpecker
187	13.718	74.821	Udupi	<i>Dromas ardeola</i>	Dromadidae	LC	Crab-plover
188	13.714	74.819	Udupi	<i>Ducula aenea</i>	Columbidae	LC	Green Imperial-Pigeon
189	13.716	74.839	Udupi	<i>Ducula badia</i>	Columbidae	LC	Green Imperial-Pigeon
190	13.73	74.844	Udupi	<i>Dumetia hyperythra</i>	Timaliidae	LC	Tawny-bellied Babbler
191	13.72	74.787	Udupi	<i>Egretta garzeeta</i>	Ardeidae	LC	Little Egret
192	13.711	74.879	Udupi	<i>Egretta gularis</i>	Ardeidae	LC	Western Reef-Heron
193	13.687	74.902	Udupi	<i>Elanus caeruleus</i>	Accipitridae	LC	Black-winged Kite
194	13.705	74.923	Udupi	<i>Eremopterix grisea</i>	Alaudidae	LC	Ashy-crowned Sparrow-Lark
195	13.73	74.965	Udupi	<i>Eudynamys scolopaceus</i>	Cuculidae	LC	Asian Koel
196	13.709	74.943	Udupi	<i>Alcedo athis</i>	Alcedinidae	LC	Common kingfisher
197	13.639	74.938	Udupi	<i>Eumyias albicaudatus</i>	Muscicapidae	NT	Nilgiri Flycatcher
198	13.594	74.965	Udupi	<i>Eumyias thalassinus</i>	Muscicapidae	LC	Verditer Flycatcher
199	13.389	75.024	Udupi	<i>Falco amurensis</i>	Falconidae	LC	Amur Falcon
200	13.389	75.026	Udupi	<i>Falco chicquera</i>	Falconidae	LC	Red-necked Falcon
201	13.398	75.031	Udupi	<i>Falco naumanni</i>	Falconidae	LC	Lesser Kestrel
202	13.427	75.04	Udupi	<i>Falco peregrinus</i>	Falconidae	LC	Peregrine Falcon
203	13.434	75.04	Udupi	<i>Falco tinnuculus</i>	Falconidae	LC	Eurasian Kestrel
204	13.504	74.995	Udupi	<i>Ficedula albicilla</i>	Muscicapidae	LC	Taiga Flycatcher
205	13.533	74.981	Udupi	<i>Ficedula ruficauda</i>	Muscicapidae	LC	Rusty-tailed Flycatcher
206	13.572	74.922	Udupi	<i>Francolinus pondericerianus</i>	Phasianidae	LC	Grey Francolin
207	13.61	74.891	Udupi	<i>Alcedo meninting</i>	Alcedinidae	LC	Blue-eared Kingfisher

208	13.633	74.884	Udupi	<i>Fregata andrewsi</i>	Fregatidae	CR	Christmas Frigatebird
209	13.667	74.884	Udupi	<i>Fregata ariel</i>	Fregatidae	LC	Least Frigatebird
210	13.689	74.889	Udupi	<i>Fulica atra</i>	Rallidae	LC	Eurasian Coot
211	13.689	74.914	Udupi	<i>Galerida malabarica</i>	Alaudidae	LC	Malabar Crested Lark
212	13.666	74.941	Udupi	<i>Gallixrex cinerea</i>	Rallidae	LC	Watercock
213	13.66	74.873	Udupi	<i>Gallinago gallinago</i>	Scolopacidae	LC	Common Snipe
214	13.637	74.855	Udupi	<i>Gallinago nemoricola</i>	Scolopacidae	VU	Wood Snipe
215	13.633	74.843	Udupi	<i>Gallinago stenura</i>	Scolopacidae	LC	Pin-tailed Snipe
216	13.626	74.832	Udupi	<i>Gallinula chloropus</i>	Rallidae	LC	Eurasian Moorhen
217	13.63	74.825	Udupi	<i>Galloperdix spadicea</i>	Phasianidae	LC	Red Spurfowl
218	13.635	74.792	Udupi	<i>Alcippe poioicephala</i>	Leiothrichidae	LC	Brown-cheeked Fulvetta
219	13.61	74.859	Udupi	<i>Gallus sonnerati</i>	Phasianidae	LC	Gray Junglefowl
220	13.606	74.868	Udupi	<i>Gelochelidon nilotica</i>	Laridae	LC	Gull-billed Tern
221	13.592	74.898	Udupi	<i>Geokichla citrina</i>	Turdidae	LC	Orange-headed Thrush
222	13.594	74.9	Udupi	<i>Glareola lactea</i>	Glareolidae	LC	Small Pratincole
223	13.605	74.911	Udupi	<i>Glareola maldivarum</i>	Glareolidae	LC	Oriental Pratincole
224	13.624	74.925	Udupi	<i>Glaucidium radiatum</i>	Strigidae	LC	Jungle Owlet
225	13.615	74.925	Udupi	<i>Gorsachius melanolophus</i>	Ardeidae	LC	Malaysian Night Heron
226	13.61	74.925	Udupi	<i>Gracula indica</i>	Sturnidae	LC	Lesser Hill Myna
227	13.606	74.927	Udupi	<i>Gymnoris xanthocollis</i>	Passeridae	LC	Chestnut-shouldered Bush Sparrow
228	13.603	74.949	Udupi	<i>Gyps bengalensis</i>	Accipitridae	CR	White-rumped Vulture
229	13.597	74.956	Udupi	<i>Amandava amandava</i>	Estrildidae	LC	Red Avadavat
230	13.585	74.995	Udupi	<i>Gyps indicus</i>	Accipitridae	CR	Indian Vulture
231	13.574	74.981	Udupi	<i>Haematopus ostralegus</i>	Haematopodidae	LC	Eurasian Oystercatcher
232	13.596	74.949	Udupi	<i>Halcyon pileata</i>	Alcedinidae	LC	Black-capped Kingfisher
233	13.596	74.932	Udupi	<i>Halcyon smyrnensis</i>	Alcedinidae	LC	White-throated Kingfisher
234	13.587	74.918	Udupi	<i>Haliaeetus humilis</i>	Accipitridae	NT	Lesser Fish-Eagle
235	13.574	74.931	Udupi	<i>Haliaeetus leucogaster</i>	Accipitridae	LC	White-bellied Sea-eagle

236	13.572	74.931	Udupi	<i>Haliaster indus</i>	Accipitridae	LC	Brahminy Kit
237	13.551	74.936	Udupi	<i>Harpactes fasciatus</i>	Trogonidae	LC	Malabar Trogon
238	13.545	74.927	Udupi	<i>Hemicircus canente</i>	Picidae	LC	Heart-spotted Woodpecker
239	13.569	74.916	Udupi	<i>Hemipus picatus</i>	Vangidae	LC	Bar-winged Flycatcher-shrike
240	13.526	74.949	Udupi	<i>Accipiter badius</i>	Accipitridae	LC	Shikra
241	13.526	74.949	Udupi	<i>Amaurornis phoenicurus</i>	Rallidae	LC	White-breasted Waterhen
242	13.526	74.949	Udupi	<i>Hieraaetus pennatus</i>	Accipitridae	LC	Booted Eagle
243	13.554	74.957	Udupi	<i>Hierococcyx sparverioides</i>	Cuculidae	LC	Large Hawk Cuckoo
244	13.499	74.945	Udupi	<i>Hierococcyx varius</i>	Cuculidae	LC	Common Hawk-Cuckoo
245	13.488	74.961	Udupi	<i>Himantopus himantopus</i>	Charadriidae	LC	Black-winged Stilt
246	13.488	74.963	Udupi	<i>Hirundapus giganteus</i>	Apodidae	LC	Brown-backed Needletail
247	13.486	74.934	Udupi	<i>Hirundo rustica</i>	Hirundinidae	LC	Barn Swallow
248	13.409	74.92	Udupi	<i>Hirundo smithii</i>	Hirundinidae	LC	Wire-tailed Swallow
249	13.409	74.92	Udupi	<i>Hydrobates monorhis</i>	Hirundinidae	NT	Fork-tailed Storm-petrel
250	13.402	74.972	Udupi	<i>Hydrophasianus chirugus</i>	Jacanidae	LC	Pheasant-tailed Jacana
251	13.407	74.984	Udupi	<i>Hydroprogne caspia</i>	Laridae	LC	Caspian Tern
252	13.432	74.984	Udupi	<i>Anas acuta</i>	Anatidae	LC	Northern Pintail
253	13.418	74.972	Udupi	<i>Hypothymis azurea</i>	Monarchidae	LC	Black-naped Monarch
254	13.353	74.984	Udupi	<i>Hypsipetes ganeesa</i>	Pycnonotidae	LC	Square-tailed Bulbul
255	13.325	74.988	Udupi	<i>Ianthocincla delesserti</i>	Leiothrichidae	LC	Wynaad Laughingthrush
256	13.319	74.909	Udupi	<i>Ichthyaetus ichthyaetus</i>	Laridae	LC	Pallas's Gull
257	13.289	74.868	Udupi	<i>Ictinaetus malaiensis</i>	Accipitridae	LC	Black Eagle
258	13.242	74.8	Udupi	<i>Iduna caligata</i>	Acrocephalidae	LC	Booted Warbler
259	13.242	74.798	Udupi	<i>Iduna rama</i>	Acrocephalidae	LC	Sykes's Warbler
260	13.325	74.796	Udupi	<i>Iole indica</i>	Pycnonotidae	LC	Yellow-browed Bulbul
261	13.278	74.823	Udupi	<i>Irena puella</i>	Irenidae	LC	Asian Fairy-bluebird
262	13.287	74.879	Udupi	<i>Ixobrychus cinamomeus</i>	Ardeidae	LC	Cinnamon Bittern
263	13.299	74.889	Udupi	<i>Anas crecca</i>	Anatidae	LC	Green-winged Teal

264	13.348	74.927	Udupi	<i>Ixobrychus flavicollis</i>	Ardeidae	LC	Black Bittern
265	13.308	75.017	Udupi	<i>Ixobrychus sinensis</i>	Ardeidae	LC	Yellow Bittern
266	13.292	75.031	Udupi	<i>Jynx torquilla</i>	Picidae	LC	Eurasian Wryneck
267	13.28	74.986	Udupi	<i>Ketupa zeylonensis</i>	Strigidae	LC	Brown Fish-Owl
268	13.238	75.044	Udupi	<i>Lalage melanoptera</i>	Campephagidae	LC	Black-headed Cuckooshrike
269	13.235	75.072	Udupi	<i>Lanius cristatus</i>	Laniidae	LC	Brown Shrike
270	13.226	75.105	Udupi	<i>Lanius excubitor</i>	Laniidae	LC	Great Gray Shrike
271	13.174	75.123	Udupi	<i>Lanius schach</i>	Laniidae	LC	Long-tailed Shrike
272	13.138	75.123	Udupi	<i>Lanius vittatus</i>	Laniidae	LC	Bay-backed Shrike
273	13.136	75.115	Udupi	<i>Larus fuscus</i>	Laridae	LC	Heuglin's Gull
274	13.115	75.069	Udupi	<i>Anas peocilorhyncha</i>	Anatidae	LC	Mallard
275	13.068	75.026	Udupi	<i>Larviva brunnea</i>	Muscicapidae	LC	Indian Blue Robin
276	13.079	75.022	Udupi	<i>Leiopicus mahrattensis</i>	Picidae	LC	Yellow-crowned Woodpecker
277	13.115	75.013	Udupi	<i>Leptocoma minima</i>	Nectariniidae	LC	Crimson-backed Sunbird
278	13.159	74.932	Udupi	<i>Leptocoma zeylonia</i>	Nectarinidae	LC	Purple rumped sun bird
279	13.093	74.966	Udupi	<i>Leptoptilos javanicus</i>	Ciconiidae	VU	Lesser Adjutant
280	13.039	74.97	Udupi	<i>Lewinia striata</i>	Rallidae	LC	Slaty-breasted Rail
281	13.064	74.938	Udupi	<i>Limosa lapponica</i>	Scolopacidae	NT	Bar-tailed Godwit
282	13.841	74.828	Udupi	<i>Limosa limosa</i>	Scolopacidae	NT	Black-tailed Godwit
283	13.841	74.828	Udupi	<i>Locustella naevia</i>	Locustellidae	LC	Grasshopper Warbler
284	13.841	74.828	Udupi	<i>Lonchura kelaarti</i>	Estrildidae	LC	Black-throated Munia
285	13.854	74.828	Udupi	<i>Anastomus oscitans</i>	Ciconiidae	LC	Asian Openbill
286	13.86	74.823	Udupi	<i>Lonchura malacca</i>	Estrildidae	LC	Tricolored Munia
287	13.866	74.822	Udupi	<i>Lonchura punctulata</i>	Estrildidae	LC	Scaly-breasted Munia
288	13.85	74.819	Udupi	<i>Lonchura striata</i>	Estrildidae	LC	White-rumped Munia
289	13.841	74.819	Udupi	<i>Lophotriorchis kienerii</i>	Accipitridae	NT	Rufous-bellied Eagle
290	13.838	74.819	Udupi	<i>Loriculus vernalis</i>	Psittaculidae	LC	Vernal Hanging-Parrot
291	13.806	74.835	Udupi	<i>Luscinia svecica</i>	Muscicapidae	LC	Bluethroat

292	13.801	74.841	Udupi	<i>Lymnocyptes minimus</i>	Scolopacidae	LC	Jack Snipe
293	13.801	74.841	Udupi	<i>Lyncornis macrotis</i>	Caprimulgidae	LC	Great eared-nightjar
294	13.801	74.841	Udupi	<i>Mareca strepera</i>	Anatidae	LC	Gadwall
295	13.793	74.879	Udupi	<i>Merops leschenaulti</i>	Meropidae	LC	Chestnut-headed Bee-eater
296	13.833	74.888	Udupi	<i>Anhinga melanogaster</i>	Anhingidae	NT	Oriental Darter
297	13.817	74.908	Udupi	<i>Merops orientalis</i>	Meropidae	LC	Green Bee-eater
298	13.806	74.93	Udupi	<i>Merops philippinus</i>	Meropidae	LC	Blue-tailed Bee-eater
299	13.808	74.859	Udupi	<i>Metopidius indicus</i>	Jacanidae	LC	Bronze-winged Jacana
300	13.808	74.854	Udupi	<i>Microcarbo nider</i>	Phalacrocoracidae	LC	Little Cormorant
301	13.808	74.841	Udupi	<i>Micropternus brachyurus</i>	Picidae	LC	Rufous Woodpecker
302	13.811	74.83	Udupi	<i>Milvus migrans</i>	Accipitridae	LC	Black Kite
303	13.815	74.805	Udupi	<i>Mirafra affinis</i>	Alaudidae	LC	Jerdon's Bushlark
304	13.83	74.818	Udupi	<i>Mirafra cantillans</i>	Alaudidae	LC	Singing Bushlark
305	13.836	74.82	Udupi	<i>Montecincla cachinnans</i>	Pellorneidae	EN	Black-chinned Laughingthrush
306	13.856	74.809	Udupi	<i>Montecincla jerdoni</i>	Endangered	LC	Banasura Laughingthrush
307	13.868	74.809	Udupi	<i>Anser indicus</i>	Anatidae	LC	Bar-headed Goose
308	13.883	74.809	Udupi	<i>Monticola cinclorhyncha</i>	Muscicapidae	LC	Blue-capped Rock-Thrush
309	13.877	74.833	Udupi	<i>Monticola solitarius</i>	Muscicapidae	LC	Black rock thrush
310	13.839	74.839	Udupi	<i>Motacilla cinerea</i>	Motacillida	LC	Gray Wagtail
311	13.808	74.84	Udupi	<i>Motacilla fava</i>	Motacillidae	LC	Yellow Wagtail
312	13.805	74.809	Udupi	<i>Motacilla maderaspatensis</i>	Motacillidae	LC	White-browed Wagtail
313	13.842	74.801	Udupi	<i>Muscicapa dauurica</i>	Muscicapidae	LC	Asian Brown Flycatcher
314	13.844	74.8	Udupi	<i>Muscicapa muttui</i>	Muscicapidae	LC	Brown-breasted Flycatcher
315	13.823	74.807	Udupi	<i>Muscicapa striata</i>	Muscicapidae	LC	Spotted Flycatcher
316	13.829	74.808	Udupi	<i>Mycteria leucocephala</i>	Ciconidae	NT	Painted stork
317	13.872	74.813	Udupi	<i>Myophonus horsfieldii</i>	Muscicapidae	LC	Malabar Whistling Thrush
318	13.871	74.825	Udupi	<i>Anthraceros coronatus</i>	Bucerotidae	NT	Malabar Pied Hornbill

319	13.846	74.826	Udupi	<i>Neophron percnopterus</i>	Accipitridae	EN	Egyptian Vulture
320	13.82	74.826	Udupi	<i>Nettapus coromandelianus</i>	Anatidae	LC	Cotton Pygmy-Goose
321	13.817	74.84	Udupi	<i>Ninox scutulata</i>	Strigidae	LC	Brown Boobook
322	13.835	74.837	Udupi	<i>Nisaetus cirrhatus</i>	Accipitridae	LC	Crested Hawk-Eagle
323	13.833	74.837	Udupi	<i>Numenius arquata</i>	Scolopacidae	NT	Eurasian Curlew
324	13.814	74.818	Udupi	<i>Numenius phaeopus</i>	Scolopacidae	LC	Whimbrel
325	13.821	74.818	Udupi	<i>Nyctcorax nyctcorax</i>	Ardeidae	LC	Black-crowned Night Heron
326	13.849	74.837	Udupi	<i>Nyctyornis athertoni</i>	Meropidae	LC	Blue-bearded Bee-eater
327	13.848	74.85	Udupi	<i>Ocyrceros griseus</i>	Bucerotidae	LC	Indian Gray Hornbill
328	13.848	74.85	Udupi	<i>Oenanthe isabellina</i>	Muscicapidae	LC	Isabelline Wheatear
329	13.835	74.862	Udupi	<i>Anthus campestris</i>	Motacillidae	LC	Tawny Pipit
330	13.829	74.878	Udupi	<i>Onychoprion anaethetus</i>	Laridae	LC	Bridled Tern
331	13.844	74.882	Udupi	<i>Onychoprion fuscatus</i>	Laridae	LC	Sooty Tern
332	13.818	74.883	Udupi	<i>Oriolus chinensis</i>	Oriolidae	LC	Black-naped Oriole
333	13.811	74.879	Udupi	<i>Oriolus kundoo</i>	Oriolidae	LC	Indian Golden Oriole
334	13.812	74.879	Udupi	<i>Oriolus xanthornus</i>	Oriolidae	LC	Black-hooded Oriole
335	13.829	74.889	Udupi	<i>Orthotomus sutorius</i>	Cisticolidae	LC	Common Tailorbird
336	13.812	74.899	Udupi	<i>Otus bakkamoena</i>	Strigidae	LC	Indian Scops-Owl
337	13.812	74.899	Udupi	<i>Otus sunia</i>	Strigidae	LC	Oriental Scops-Owl
338	13.833	74.875	Udupi	<i>Pandion haliactus</i>	Pandionidae	LC	Osprey
339	13.809	74.882	Udupi	<i>Parus cinereus</i>	Paridae	LC	Cinereous Tit
340	13.832	74.647	Udupi	<i>Anthus godlewskii</i>	Motacillidae	LC	Blyth's Pipit
341	13.832	74.647	Udupi	<i>Passer domesticus</i>	Ploceidae	LC	House Sparrow
342	13.832	74.647	Udupi	<i>Pastor roseus</i>	Sturnidae	LC	Rosy Starling
343	13.832	74.647	Udupi	<i>Pavo cristatus</i>	Phasianidae	LC	Indian Peafowl
344	13.832	74.647	Udupi	<i>Pelagopsis capensis</i>	Alcedinidae	LC	Stork-billed Kingfisher
345	13.836	74.633	Udupi	<i>Pelecanus philippensis</i>	Pelecanidae	NT	Spot-billed Pelican
346	13.905	74.642	Udupi	<i>Pellorneum ruficeps</i>	Pellorneidae	LC	Puff-throated Babbler

347	13.935	74.645	Udupi	<i>Perdicula argoondah</i>	Phasianidae	LC	Rock Bush Quail
348	13.905	74.664	Udupi	<i>Perdicula asiatica</i>	Phasianidae	LC	Jungle Bush-Quail
349	13.905	74.664	Udupi	<i>Perdicula erythrorhyncha</i>	Phasianidae	LC	Painted Bush Quail
350	13.906	74.664	Udupi	<i>Pericrocotus cinnamomeus</i>	Campephagidae	LC	Small Minivet
351	13.93	74.66	Udupi	<i>Accipiter nisus</i>	Accipitridae	LC	Eurasian Sparrowhawk
352	13.934	74.657	Udupi	<i>Anthus hodgsoni</i>	Motacillidae	LC	Olive-backed Pipit
353	13.951	74.671	Udupi	<i>Pericrocotus divaricatus</i>	Campephagidae	LC	Ashy Minivet
354	13.926	74.665	Udupi	<i>Pericrocotus flammeus</i>	Campephagidae	LC	Orange Minivet
355	13.912	74.651	Udupi	<i>Pernis ptilorhynchos</i>	Accipitridae	LC	Honey Buzzard
356	13.912	74.645	Udupi	<i>Petrochelidon fluvicola</i>	Hirundinidae	LC	Streak-throated Swallow
357	13.913	74.645	Udupi	<i>Phaenicophaeus viridirostris</i>	Cuculidae	LC	Blue-faced Malkoha
358	13.911	74.629	Udupi	<i>Phalacrocorax carbo</i>	Phalacrocoracidae	LC	Great Cormorant
359	13.911	74.629	Udupi	<i>Phalacrocorax fuscicollis</i>	Phalacrocoracidae	LC	Indian Cormorant
360	13.929	74.615	Udupi	<i>Phoenicurus ochrurors</i>	Muscicapidae	LC	Black Redstart
361	13.907	74.601	Udupi	<i>Phylloscopus affinis</i>	Phylloscopidae	LC	Tickell's Leaf Warbler
362	13.928	74.606	Udupi	<i>Phylloscopus tytleri</i>	Phylloscopidae	NT	Tytler's Leaf Warbler
363	13.914	74.617	Udupi	<i>Anthus richardi</i>	Motacillidae	LC	Richard's Pipit
364	13.914	74.617	Udupi	<i>Picumnus innominatus</i>	Picidae	LC	Speckled Piculet
365	13.927	74.616	Udupi	<i>Picus chlorolophus</i>	Picidae	LC	Lesser Yellownappe
366	13.017	75.039	Udupi	<i>Picus xanthopygaeus</i>	Picidae	LC	Streak-throated Woodpecker
367	13.017	75.033	Udupi	<i>Pitta brachyura</i>	Pittidae	LC	Indian Pitta
368	13.021	75.033	Udupi	<i>Plegadis falcinellus</i>	Threskiornithidae	LC	Glossy Ibis
369	13.077	75.049	Udupi	<i>Plegadis falcinellus</i>	Threskiornithidae	LC	Glossy Ibis
370	13.077	75.049	Udupi	<i>Ploceus manyar</i>	Ploceidae	LC	Streaked Weaver
371	13.081	75.049	Udupi	<i>Ploceus philippinus</i>	Ploceidae	LC	Baya Weaver
372	13.094	75.053	Udupi	<i>Pluvialis fulva</i>	Charadriidae	LC	Pacific Golden Plover
373	13.147	75.15	Udupi	<i>Pluvialis squatarola</i>	Charadriidae	LC	Grey Plover
374	13.149	75.15	Udupi	<i>Anthus rufus</i>	Motacillidae	LC	Paddy field pipit

375	13.151	75.148	Udupi	<i>Pomatorhinus horsfieldii</i>	Timaliidae	LC	Indian Scimitar-Babbler
376	13.152	75.141	Udupi	<i>Porphyrio porphyrio</i>	Rallidae	LC	Purple moorhen
377	13.152	75.141	Udupi	<i>Porzana porzana</i>	Rallidae	LC	Spotted Crake
378	13.159	75.131	Udupi	<i>Prinia hodgsonii</i>	Cisticolidae	LC	Gray-breasted Prinia
379	13.133	75.048	Udupi	<i>Prinia inorata</i>	Cisticolidae	LC	Plain Prinia
380	13.158	75.053	Udupi	<i>Prinia socialis</i>	Cisticolidae	LC	Ashy Prinia
381	13.186	75.104	Udupi	<i>Prinia sylvatica</i>	Cisticolidae	LC	Jungle Prinia
382	13.176	75.087	Udupi	<i>Pseudibis papillosa</i>	Threskiornithidae	LC	Red-naped Ibis
383	13.157	75.08	Udupi	<i>Pseudibis papillosa</i>	Threskiornithidae	LC	Red-naped Ibis
384	13.154	75.075	Udupi	<i>Psilopogon haemacephalus</i>	Megalaimidae	LC	Coppersmith Barbet
385	13.131	75.055	Udupi	<i>Anthus similis</i>	Motacillidae	LC	Long-billed Pipit
386	13.132	75.055	Udupi	<i>Psilopogon haemacephalus</i>	Megalaimidae	LC	Coppersmith Barbet
387	13.14	75.057	Udupi	<i>Psilopogon malabaricus</i>	Megalaimidae	LC	Crimson-throated Barbet
388	13.142	75.06	Udupi	<i>Psilopogon malabaricus</i>	Megalaimidae	LC	Crimson-throated Barbet
389	13.146	75.065	Udupi	<i>Psilopogon viridis</i>	Megalaimidae	LC	Small Green Barbet
390	13.155	75.067	Udupi	<i>Psilopogon viridis</i>	Megalaimidae	LC	Small Green Barbet
391	13.163	75.078	Udupi	<i>Psilopogon zeylanicus</i>	Megalaimidae	LC	Brown-headed Barbet
392	13.184	75.09	Udupi	<i>Psilopogon zeylanicus</i>	Megalaimidae	LC	Brown-headed Barbet
393	13.183	75.09	Udupi	<i>Psittacula colomboides</i>	Psittaculidae	LC	Bluewinged Parakeet
394	13.172	75.085	Udupi	<i>Psittacula cyanocephala</i>	Psittaculidae	LC	Plum-headed Parakeet
395	13.147	75.073	Udupi	<i>Psittacula eupatria</i>	Psittaculidae	NT	Alexandrine Parakeet
396	13.147	75.072	Udupi	<i>Anthus trivialis</i>	Motacillidae	LC	Tree Pipit
397	13.134	75.072	Udupi	<i>Psittacula krameri</i>	Psittaculidae	LC	Rose-ringed Parakeet
398	13.133	75.072	Udupi	<i>Pterocles indicus</i>	Pteroclididae	LC	Painted Sandgrouse
399	13.126	75.072	Udupi	<i>Ptyonoprogne concolor</i>	Hirundinidae	LC	Dusky Crag Martin
400	13.137	75.072	Udupi	<i>Ptyonoprogne rupestris</i>	Hirundinidae	LC	Eurasian Crag-Martin
401	13.129	75.061	Udupi	<i>Pycnonotus cafer</i>	Pycnonotidae	LC	Red-vented Bulbul
402	13.141	75.061	Udupi	<i>Pycnonotus jocosus</i>	Pycnonotidae	LC	Red-whiskered Bulbul

403	13.028	74.996	Udupi	<i>Pycnonotus luteolus</i>	Pycnonotidae	LC	White-browed Bulbul
404	13.028	74.996	Udupi	<i>Rallina eurizonoides</i>	Rallidae	LC	Slaty-legged Crake
405	13.028	75.017	Udupi	<i>Recurvirostra avosetta</i>	Recurvirostridae	LC	Pied Avocet
406	13.032	75.017	Udupi	<i>Rhipidura albogularis</i>	Rhipiduridae	LC	Spot-breasted Fantail
407	13.041	75.026	Udupi	<i>Apus affinis</i>	Apodidae	LC	Little Swift
408	13.016	75.021	Udupi	<i>Rhipidura aureola</i>	Rhipiduridae	LC	White-browed Fantail
409	13.016	75.021	Udupi	<i>Rhopocichla atriceps</i>	Timaliidae	LC	Dark-fronted Babbler
410	13.015	75.019	Udupi	<i>Rostratula bengalensis</i>	Rostratulidae	LC	Greater Painted-Snipe
411	13.009	75.017	Udupi	<i>Rubigula gularis</i>	Pycnonotidae	LC	Flame-throated Bulbul
412	13.008	75.016	Udupi	<i>Sarcogyps calvus</i>	Accipitridae	CR	Red-headed Vulture
413	13.019	75.012	Udupi	<i>Sarkidiornis melanotos</i>	Anatidae	LC	Knob-billed Duck
414	13.02	75.001	Udupi	<i>Saxicola caprata</i>	Muscicapidae	LC	Pied Bushchat
415	13.021	74.995	Udupi	<i>Saxicola maurus</i>	Muscicapidae	LC	Siberian Stonechat
416	13.021	74.995	Udupi	<i>Schoenicola platyurus</i>	Locustellidae	VU	Broad-tailed Grassbird
417	13.033	74.985	Udupi	<i>Seicercus magnirostris</i>	Phylloscopidae	LC	Large-billed Leaf Warbler
418	13.048	74.989	Udupi	<i>Apus pacificus</i>	Apodidae	LC	Fork-tailed Swift
419	13.058	74.922	Udupi	<i>Seicercus nitidus</i>	Phylloscopidae	LC	Green Leaf Warbler
420	13.071	74.936	Udupi	<i>Seicercus occipitalis</i>	Phylloscopidae	LC	Western Crowned Warbler
421	13.072	74.949	Udupi	<i>Seicercus trochiloides</i>	Phylloscopidae	LC	Greenish Leaf Warbler
422	13.075	74.949	Udupi	<i>Sholicola major</i>	Muscicapidae	EN	Nilgiri Blue Robin
423	13.086	74.949	Udupi	<i>Sitta frontalis</i>	Sittidae	LC	Velvet-fronted Nuthatch
424	13.105	74.961	Udupi	<i>Spatula clypeata</i>	Anatidae	LC	Northern Shoveler
425	13.13	74.978	Udupi	<i>Spatula querquedula</i>	Anatidae	LC	Garganey
426	13.159	75	Udupi	<i>Spilornis cheela</i>	Accipitridae	LC	Crested Serpent-Eagle
427	13.183	75.016	Udupi	<i>Stercorarius parasiticus</i>	Stercorariidae	LC	Arctic Skua
428	13.183	75.016	Udupi	<i>Stercorarius pomarinus</i>	Stercorariidae	LC	Pomarine Jaeger
429	13.165	75.005	Udupi	<i>Aquila fasciata</i>	Accipitridae	LC	Bonelli's Eagle
430	13.165	75.004	Udupi	<i>Sterna acuticauda</i>	Laridae	EN	Black-bellied Tern

431	13.168	74.992	Udupi	<i>Sterna auranta</i>	Laridae	NT	River Tern
432	13.132	74.98	Udupi	<i>Sterna hirundo</i>	Laridae	NT	River Tern
433	13.13	74.972	Udupi	<i>Sternula albifrons</i>	Laridae	LC	Little Tern
434	13.104	74.953	Udupi	<i>Streptopelia chinensis</i>	Columbidae	LC	Spotted Dove
435	13.084	74.94	Udupi	<i>Streptopelia decaocto</i>	Columbidae	LC	Eurasian Collared-Dove
436	13.084	74.936	Udupi	<i>Streptopelia orientalis</i>	Columbidae	LC	Oriental Turtle-Dove
437	13.075	74.943	Udupi	<i>Streptopelia tranquebarica</i>	Columbidae	LC	Red Collared-Dove
438	13.075	74.943	Udupi	<i>Strix leptogrammica</i>	Strigidae	LC	Brown Wood-Owl
439	13.09	74.953	Udupi	<i>Strix ocellata</i>	Strigidae	LC	Mottled Wood-Owl
440	13.111	74.967	Udupi	<i>Arachnothera longirostra</i>	Nectariniidae	LC	Little Spiderhunter
441	13.122	74.97	Udupi	<i>Sturnia blythii</i>	Sturnidae	LC	Chestnut-tailed Myna
442	13.136	74.978	Udupi	<i>Sturnia malabarica</i>	Sturnidae	LC	Chestnut-tailed Starling
443	13.698	74.652	Udupi	<i>Sturnia pagodarum</i>	Sturnidae	LC	Brahminy Starling
444	13.703	74.657	Udupi	<i>Sula dactylatra</i>	Sulidae	LC	Masked Booby
445	13.682	74.668	Udupi	<i>Surniculus dicruroides</i>	Cuculidae	LC	Fork-tailed Drongo Cuckoo
446	13.682	74.668	Udupi	<i>Sylvia althaea</i>	Sylviidae	LC	Hume's Whitethroat
447	13.692	74.667	Udupi	<i>Sylvia crassirostris</i>	Sylviidae	LC	Eastern Orphean Warbler
448	13.69	74.673	Udupi	<i>Synoicus chinensis</i>	Phasianidae	LC	Blue-breasted Quail
449	13.682	74.674	Udupi	<i>Sypheotides indicus</i>	Otididae	EN	Lesser Florican
450	13.668	74.664	Udupi	<i>Taccocua leschenaulti</i>	Cuculidae	LC	Sirkeer Malkoha
451	13.65	74.659	Udupi	<i>Ardea alba</i>	Ardeidae	LC	Great Egret
452	13.65	74.659	Udupi	<i>Tachybaptus rufcollis</i>	Podicipedidae	LC	Little Grebe
453	13.684	74.651	Udupi	<i>Tachymarptis melba</i>	Apodidae	LC	Alpine Swift
454	13.697	74.651	Udupi	<i>Tadorna ferruginea</i>	Anatidae	LC	Ruddy Shelduck
455	13.699	74.652	Udupi	<i>Tephrodornis pondicerianus</i>	Vangidae	LC	Common Woodshrike
456	13.703	74.658	Udupi	<i>Tephrodornis sylvicola</i>	Vangidae	LC	Malabar Woodshrike
457	13.703	74.66	Udupi	<i>Terpsiphone paradisi</i>	Monarchidae	LC	Indian Paradise-Flycatcher
458	13.699	74.667	Udupi	<i>Thalasseus bengalensis</i>	Laridae	LC	Lesser Crested Tern

459	13.692	74.673	Udupi	<i>Thalasseus bergii</i>	Laridae	LC	Greater Crested Tern
460	13.682	74.668	Udupi	<i>Thalasseus sandvicensis</i>	Laridae	LC	Sandwich Tern
461	13.668	74.668	Udupi	<i>Threskiornis melanocephalus</i>	Threskiornithidae	NT	Black-headed Ibis
462	13.651	74.663	Udupi	<i>Accipiter trivirgatus</i>	Accipitridae	LC	Crested Goshawk
463	13.651	74.663	Udupi	<i>Ardea cinerea</i>	Ardeidae	LC	Gray Heron
464	13.672	74.655	Udupi	<i>Threskiornis melanocephalus</i>	Threskiornithidae	NT	Black-headed Ibis
465	13.683	74.654	Udupi	<i>Treron affinis</i>	Columbidae	LC	Gray-fronted Green-Pigeon
466	13.687	74.659	Udupi	<i>Treron bicinctus</i>	Columbidae	LC	Orange-breasted Pigeon
467	13.691	74.659	Udupi	<i>Treron phoenicoptera</i>	Columbidae	LC	Yellow-footed Pigeon
468	13.688	74.656	Udupi	<i>Tringa erythropus</i>	Scolopacidae	LC	Spotted Red Shank
469	13.683	74.666	Udupi	<i>Tringa glareola</i>	Scolopacidae	LC	Wood Sandpiper
470	13.66	74.661	Udupi	<i>Tringa nebularia</i>	Scolopacidae	LC	Common Greenshank
471	13.665	74.661	Udupi	<i>Tringa ochropus</i>	Scolopacidae	LC	Green Sandpiper
472	13.673	74.668	Udupi	<i>Tringa stagnatilis</i>	Scolopacidae	LC	Marsh Sandpiper
473	13.683	74.674	Udupi	<i>Tringa totannus</i>	Scolopacidae	LC	Common Red Shank
474	13.692	74.672	Udupi	<i>Ardea intermedia</i>	Ardeidae	LC	Intermediate Egret
475	13.699	74.672	Udupi	<i>Turdoides affinis</i>	Leiothrichidae	LC	Yellow-billed Babbler
476	13.688	74.667	Udupi	<i>Turdoides striata</i>	Leiothrichidae	LC	Jungle Babbler
477	13.697	74.664	Udupi	<i>Turdus simillimus</i>	Turdidae	LC	Indian Blackbird
478	13.692	74.657	Udupi	<i>Turdus unicolor</i>	Turdidae	LC	Tickell's Thrush
479	13.686	74.658	Udupi	<i>Turnix sicutator</i>	Turnicidae	LC	Barred button quail
480	13.684	74.661	Udupi	<i>Turnix sylvaticus</i>	Turnicidae	LC	Small Buttonquail
481	13.682	74.665	Udupi	<i>Turnix tanki</i>	Turnicidae	LC	Yellow-legged Buttonquail
482	13.68	74.666	Udupi	<i>Tyto alba</i>	Tytonidae	LC	Barn Owl
483	13.69	74.671	Udupi	<i>Upupa epops</i>	Upupidae	LC	Eurasian Hoopoe
484	13.679	74.669	Udupi	<i>Vanellus indicus</i>	Charadriidae	LC	Red-wattled Lapwing
485	13.67	74.666	Udupi	<i>Ardea purpurea</i>	Ardeidae	LC	Purple Heron
486	13.649	74.658	Udupi	<i>Vanellus malabaricus</i>	Charadriidae	LC	Yellow-wattled Lapwing

487	13.65	74.656	Udupi	<i>Xenus cinereus</i>	Scolopacidae	LC	Terek Sandpiper
488	13.654	74.653	Udupi	<i>Yungipicus nanus</i>	Picidae	LC	Brown-capped Woodpecker
489	13.665	74.647	Udupi	<i>Zapornia akool</i>	Rallidae	LC	Brown Crake
490	13.673	74.646	Udupi	<i>Zapornia fusca</i>	Rallidae	LC	Ruddy-breasted Crake
491	13.684	74.646	Udupi	<i>Zapornia pusilla</i>	Rallidae	LC	Baillon's Crake
492	13.695	74.649	Udupi	<i>Zoonavena sylvatica</i>	Apodidae	LC	White-rumped Spinetailed Swift
493	13.702	74.65	Udupi	<i>Zoothera neilgherriensis</i>	Turdidae	LC	Nilgiri Thrush
494	13.71	74.655	Udupi	<i>Zosterops palpebrosus</i>	Zosteropidae	LC	Blue-Tailed Bee-eater
495	13.705	74.668	Udupi	<i>Tachybaptus rufcollis</i>	Podicipedidae	LC	Little Grebe
496	13.692	74.668	Udupi	<i>Ardenna carneipes</i>	Procellariidae	LC	Flesh-footed Shearwater
497	13.684	74.672	Udupi	<i>Phalacrocorax niger</i>	Phalacrocoracidae	LC	Little cormorant
498	13.688	74.678	Udupi	<i>Ardea purpurea</i>	Ardeidae	LC	Purple Heron
499	13.691	74.677	Udupi	<i>Ardea cinerea</i>	Ardeidae	LC	Gray Heron
500	13.684	74.674	Udupi	<i>Ardeola striatus</i>	Ardeidae	LC	Indian Pond-Heron
501	13.675	74.667	Udupi	<i>Ardeola grayii</i>	Ardeidae	LC	Indian Pond-Heron
502	13.673	74.669	Udupi	<i>Bubulcus ibis</i>	Ardeidae	LC	Cattle Egret
503	13.673	74.669	Udupi	<i>Egretta intermedia</i>	Ardeidae	LC	Median egret
504	13.678	74.67	Udupi	<i>Egretta garzeeta</i>	Ardeidae	LC	Little Egret
505	13.69	74.672	Udupi	<i>Anastomus oscitans</i>	Ciconiidae	LC	Asian Openbill
506	13.679	74.665	Udupi	<i>Dendrocygna javanica</i>	Anatidae	LC	Lesser Whistling-Duck
507	13.686	74.665	Udupi	<i>Ardeola grayii</i>	Ardeidae	LC	Indian Pond-Heron
508	13.686	74.665	Udupi	<i>Anas crecca</i>	Anatidae	LC	Green-winged Teal
509	13.693	74.664	Udupi	<i>Nettapus coromandelianus</i>	Anatidae	LC	Cotton Pygmy-Goose
510	13.701	74.659	Udupi	<i>Amaurornis phoenicurus</i>	Rallidae	LC	White-breasted Waterhen
511	13.701	74.667	Udupi	<i>Porphyrio porphyrio</i>	Rallidae	LC	Purple moorhen
512	13.49	74.956	Udupi	<i>Metopidius indicus</i>	Jacanidae	LC	Bronze-winged Jacana
513	13.48	74.953	Udupi	<i>Vanellus indicus</i>	Charadriidae	LC	Red-wattled Lapwing
514	13.476	74.944	Udupi	<i>Tringa hypoleucos</i>	Scolopacidae	LC	Common sandpiper

515	13.481	74.936	Udupi	<i>Charadrius dubius</i>	Charadriidae	LC	Little Ringed Plover
516	13.486	74.925	Udupi	<i>Alcedo atthis</i>	Alcedinidae	LC	Common kingfisher
517	13.486	74.917	Udupi	<i>Halcyon smyrnensis</i>	Alcedinidae	LC	White-throated Kingfisher
518	13.506	74.909	Udupi	<i>Arenaria interpres</i>	Scolopacidae	LC	Ruddy Turnstone
519	13.513	74.918	Udupi	<i>Ceryle rudis</i>	Alcedinidae	LC	Pied Kingfisher
520	13.497	74.924	Udupi	<i>Pelagopsis capensis</i>	Alcedinidae	LC	Stork-billed Kingfisher
521	13.493	74.932	Udupi	<i>Merops orientalis</i>	Meropidae	LC	Green Bee-eater
522	13.499	74.936	Udupi	<i>Motacilla maderaspatensis</i>	Motacillidae	LC	White-browed Wagtail
523	13.505	74.946	Udupi	<i>Hirundo rustica</i>	Hirundinidae	LC	Barn Swallow
524	13.505	74.946	Udupi	<i>Dicrurus adsimilis</i>	Dicaeidae	LC	Fork-tailed Drongo
525	13.494	74.942	Udupi	<i>Dicrurus paradiseus</i>	Dicruridae	LC	Greater Racket-tailed Drongo
526	13.484	74.938	Udupi	<i>Acridotheres tristis</i>	Sturnidae	LC	Common Myna
527	13.48	74.942	Udupi	<i>Corvus macrorhynchos</i>	Corvidae	LC	Large-billed Crow
528	13.496	74.953	Udupi	<i>Dedrocitta vagabunda</i>	Corvidae	LC	Asian Palm-Swift
529	13.58	74.913	Udupi	<i>Argya subrufa</i>	Leiothrichidae	LC	Indian Rufous Babbler
530	13.578	74.907	Udupi	<i>Pycnonotus jocosus</i>	Pycnonotidae	LC	Red-whiskered Bulbul
531	13.582	74.904	Udupi	<i>Copsychus saularis</i>	Muscicapidae	LC	Oriental Magpie-Robin
532	13.58	74.889	Udupi	<i>Milvus migrans</i>	Accipitridae	LC	Black Kite
533	13.581	74.882	Udupi	<i>Haliaster indus</i>	Accipitridae	LC	Brahminy Kit
534	13.585	74.891	Udupi	<i>Accipiter nisus</i>	Accipitridae	LC	Eurasian Sparrowhawk
535	13.566	74.894	Udupi	<i>Columba livia</i>	Columbidae	LC	Rock Pigeon
536	13.591	74.878	Udupi	<i>Streptopelia chinensis</i>	Columbidae	LC	Spotted Dove
537	13.571	74.875	Udupi	<i>Psittacula krameri</i>	Psittaculidae	LC	Rose-ringed Parakeet
538	13.56	74.862	Udupi	<i>Psittacula colomboides</i>	Psittaculidae	LC	Bluewinged Parakeet
539	13.609	74.832	Udupi	<i>Eudynamys scolopaceus</i>	Cuculidae	LC	Asian Koel
540	13.603	74.826	Udupi	<i>Artamus fuscus</i>	Artamidae	LC	Ashy Woodswallow
541	13.602	74.825	Udupi	<i>Centropus sinensis</i>	Cuculidae	LC	Greater Coucal
542	13.606	74.821	Udupi	<i>Apus affinis</i>	Apodidae	LC	Little Swift

543	13.607	74.82	Udupi	<i>Megalaima zeylanica</i>	Megalaimidae	LC	Large Green Barbet
544	13.613	74.82	Udupi	<i>Alcedo athis</i>	Alcedinidae	LC	Common kingfisher
545	13.632	74.821	Udupi	<i>Amaurornis phoenicurus</i>	Rallidae	LC	White-breasted Waterhen
546	13.646	74.84	Udupi	<i>Anhinga melanogaster</i>	Anhingidae	NT	Oriental Darter
547	13.649	74.847	Udupi	<i>Ardeola Striatus</i>	Ardeidae	LC	Indian Pond-Heron
548	13.657	74.868	Udupi	<i>Ardeola grayii</i>	Ardeidae	LC	Indian Pond-Heron
549	13.637	74.878	Udupi	<i>Bubulcus ibis</i>	Ardeidae	LC	Cattle Egret
550	13.622	74.882	Udupi	<i>Casmerodius albus</i>	Ardeidae	LC	Common Egret
551	13.596	74.894	Udupi	<i>Arundinax aedon</i>	Acrocephalidae	LC	Thick-billed Warbler
552	13.663	74.902	Udupi	<i>Ceryle rudis</i>	Alcedinidae	LC	Pied Kingfisher
553	13.653	74.883	Udupi	<i>Columba livia</i>	Columbidae	LC	Rock Pigeon
554	13.643	74.882	Udupi	<i>Corvus splendens</i>	Corvidae	LC	House Crow
555	13.646	74.906	Udupi	<i>Dicrurus adsimilis</i>	Dicaeidae	LC	Fork-tailed Drongo
556	13.654	74.914	Udupi	<i>Egretta garzeeta</i>	Ardeidae	LC	Little Egret

Reptiles								
Sn o	Latitude	Longitude	Location	Species Name	Family Name	Conservation Status	Endemism	Common Name (Eng)
1	13.127	75.052	Uduppi	<i>Ahaetulla perroteti</i>	Colubridae	EN	Endemic to Western Ghats	Bronze-headed vine snake
2	13.127	75.052	Uduppi	<i>Cnemaspis goaensis</i>	Gekkonidae	EN	Endemic to Western Ghats	Goan day gecko
3	13.136	75.054	Uduppi	<i>Cnemaspis indica</i>	Gekkonidae	VU	Endemic to Western Ghats	Indian day gecko
4	13.159	75.068	Uduppi	<i>Cnemaspis indraneildasi</i>	Gekkonidae	VU	Endemic to Western Ghats	Indraneil's day gecko
5	13.15	75.062	Uduppi	<i>Cnemaspis jerdonii</i>	Gekkonidae	VU	Endemic to Western Ghats	Jerdon's Day Gecko
6	13.148	75.062	Uduppi	<i>Cnemaspis wynadensis</i>	Gekkonidae	EN	Endemic to Western Ghats	Wynad day gecko
7	13.191	75.099	Uduppi	<i>Dasia subcaerulea</i>	Scincidae	EN	Endemic to Western Ghats	
8	13.192	75.098	Uduppi	<i>Eurylepis poonaensi</i>	Scincidae	EN	Endemic to Western Ghats	Poona skink

9	13.154	75.155	Uduppi	<i>Eutropis clivicola</i>	Scincidae	EN	Endemic to Western Ghats	Mountain skink
10	13.154	75.155	Uduppi	<i>Hemidactylus albofasciatus</i>	Gekkonidae	VU	Endemic to Western Ghats	White-banded broad-tailed gecko
11	13.15	75.155	Uduppi	<i>Hemidactylus sataraensis</i>	Gekkonidae	VU	Endemic to Western Ghats	
12	13.15	75.138	Uduppi	<i>Kaestlea laterimaculata</i>	Scincidae	VU	Endemic to Western Ghats	Side-spotted ground skink
13	13.147	75.12	Uduppi	<i>Melanophidium bilineatum</i>	Uropeltidae	VU	Endemic to Western Ghats	Yellow-striped shieldtail
14	13.14	75.103	Uduppi	<i>Oligodon brevicauda</i>	Colubridae	VU	Endemic to Western Ghats	
15	13.127	74.972	Uduppi	<i>Otocryptis beddomii</i>	Agamidae	EN	Endemic to Western Ghats	Indian kangaroo lizard
16	13.116	74.967	Uduppi	<i>Platyplectrurus madurensis</i>	Uropeltidae	EN	Endemic to Western Ghats	Madurai shieldtail
17	13.106	74.958	Uduppi	<i>Rhinophis travancoricus</i>	Uropeltidae	EN	Endemic to Western Ghats	Travancore shieldtail
18	13.106	74.956	Uduppi	<i>Uropeltis phipsonii</i>	Uropeltidae	VU	Endemic to Western Ghats	Phipson's shieldtail
19	13.164	74.98	Uduppi	<i>Ahaetulla dispar</i>	Colubridae	NT	Endemic to Western Ghats	Günther's vine snake
20	13.172	74.979	Uduppi	<i>Boiga dightoni</i>	Colubridae	DD	Endemic to Western Ghats	Travancore cat snake
21	13.174	74.984	Uduppi	<i>Boiga nuchalis</i>	Colubridae	DD	Endemic to Western Ghats	Collared Cat Snake
22	13.159	74.992	Uduppi	<i>Calotes aurantolabium</i>	Agamidae	DD	Endemic to Western Ghats	Orange-lipped forest lizard
23	13.148	74.976	Uduppi	<i>Chalcides pentadactylus</i>	Scincidae	DD	Endemic to Western Ghats	
24	13.14	74.984	Uduppi	<i>Cnemaspis australis</i>	Gekkonidae	DD	Endemic to Western Ghats	
25	13.146	74.989	Uduppi	<i>Cnemaspis beddomei</i>	Gekkonidae	DD	Endemic to Western Ghats	Beddome's day gecko
26	13.153	74.994	Uduppi	<i>Cnemaspis heteropholis</i>	Gekkonidae	NT	Endemic to Western Ghats	Heteropholis gecko
27	13.161	75.005	Uduppi	<i>Cnemaspis kolhapurensis</i>	Gekkonidae	DD	Endemic to Western Ghats	Kolhapur day gecko
28	13.166	75.012	Uduppi	<i>Cnemaspis littoralis</i>	Gekkonidae	DD	Endemic to Western Ghats	Coastal day gecko
29	13.175	75.012	Uduppi	<i>Cnemaspis monticola</i>	Gekkonidae	DD	Endemic to Western Ghats	
30	13.181	75.012	Uduppi	<i>Cnemaspis nilagirica</i>	Gekkonidae	DD	Endemic to Western Ghats	

31	13.185	75.013	Uduppi	<i>Cnemaspis ornatus</i>	Gekkonidae	NT	Endemic to Western Ghats	
32	13.142	75.064	Uduppi	<i>Cnemaspis sisparensis</i>	Gekkonidae	NT	Endemic to Western Ghats	Sispara day gecko
33	13.142	75.064	Uduppi	<i>Dendrelaphis chairecacos</i>	Colubridae	DD	Endemic to Western Ghats	
34	13.145	75.069	Uduppi	<i>Eryx whitakeri</i>	Boidae	NT	Endemic to Western Ghats	Whitaker's boa
35	13.152	75.076	Uduppi	<i>Eutropis gansi</i>	Scincidae	DD	Endemic to Western Ghats	Gansgrass skink
36	13.161	75.083	Uduppi	<i>Gerrhopilus beddomii</i>	Gerrhopilidae	DD	Endemic to Western Ghats	Beddome's worm snake
37	13.174	75.1	Uduppi	<i>Gerrhopilus tindalli</i>	Gerrhopilidae	DD	Endemic to Western Ghats	Tindall's worm snake
38	13.188	75.097	Uduppi	<i>Hemidactylus anamallensis</i>	Gekkonidae	NT	Endemic to Western Ghats	Anaimalai gecko
39	13.541	74.942	Uduppi	<i>Kaestlea palnica</i>	Scincidae	DD	Endemic to Western Ghats	Palni hills ground skink
40	13.588	74.925	Uduppi	<i>Lygosoma goaensis</i>	Scincidae	DD	Endemic to Western Ghats	Goan supple skink
41	13.596	74.91	Uduppi	<i>Oligodon nikhili</i>	Colubridae	DD	Endemic to Western Ghats	Nikhil's kukri snake
42	13.626	74.864	Uduppi	<i>Oligodon travancoricus</i>	Colubridae	DD	Endemic to Western Ghats	Travancore kukri snake
43	13.64	74.869	Uduppi	<i>Plectrurus aureus</i>	Uropeltidae	DD	Endemic to Western Ghats	Golden shieldtail
44	13.646	74.902	Uduppi	<i>Peltopelorus macrolepis</i>	Viperidae	NT	Endemic to Western Ghats	Large-scaled green pit viper
45	13.643	74.913	Uduppi	<i>Platyplectrurus trilineatus</i>	Uropeltidae	DD	Endemic to Western Ghats	Three-lined shieldtail
46	13.608	74.911	Uduppi	<i>Plectrurus canaricus</i>	Uropeltidae	DD	Endemic to Western Ghats	Kanara shieldtail
47	13.283	75.032	Uduppi	<i>Plectrurus guentheri</i>	Uropeltidae	DD	Endemic to Western Ghats	Purple shieldtail
48	13.233	75.05	Uduppi	<i>Rhinophis fergusonianus</i>	Uropeltidae	DD	Endemic to Western Ghats	Cardamom shieldtail
49	13.258	75.062	Uduppi	<i>Ristella guentheri</i>	Scincidae	DD	Endemic to Western Ghats	Günther
50	13.255	75.13	Uduppi	<i>Ristella rurkii</i>	Scincidae	DD	Endemic to Western Ghats	Rurk's cat skink
51	13.256	75.133	Uduppi	<i>Ristella travancorica</i>	Scincidae	DD	Endemic to Western Ghats	

52	13.252	75.112	Uduppi	<i>Trimeresurus strigatus</i>	Viperidae	DD	Endemic to Western Ghats	Horseshoe pit viper
53	13.237	75.099	Uduppi	<i>Typhlops exiguus</i>	Typhlopidae	DD	Endemic to Western Ghats	Belgaum Worm Snake
54	13.235	75.07	Uduppi	<i>Typhlops thurstoni</i>	Typhlopidae	DD	Endemic to Western Ghats	Thurston's worm snake
55	13.308	75.03	Uduppi	<i>Uropeltis beddomii</i>	Uropeltidae	DD	Endemic to Western Ghats	Beddome's shieldtail
56	13.286	75.029	Uduppi	<i>Uropeltis bicatenata</i>	Uropeltidae	NT	Endemic to Western Ghats	Bicatenate shieldtail
57	13.257	75.019	Uduppi	<i>Uropeltis broughami</i>	Uropeltidae	DD	Endemic to Western Ghats	Sirumalai shieldtail
58	13.252	75.019	Uduppi	<i>Uropeltis dindigalensis</i>	Uropeltidae	DD	Endemic to Western Ghats	Dindigul shieldtail
59	13.232	75.037	Uduppi	<i>Uropeltis macrorhynchus</i>	Uropeltidae	DD	Endemic to Western Ghats	
60	13.228	75.051	Uduppi	<i>Uropeltis maculatus</i>	Uropeltidae	DD	Endemic to Western Ghats	Red-sided shieldtail
61	13.221	75.061	Uduppi	<i>Uropeltis myhendrae</i>	Uropeltidae	DD	Endemic to Western Ghats	Barred shieldtail
62	13.221	75.051	Uduppi	<i>Uropeltis nitidus</i>	Uropeltidae	DD	Endemic to Western Ghats	Cochin shieldtail
63	13.229	75.037	Uduppi	<i>Uropeltis petersi</i>	Uropeltidae	DD	Endemic to Western Ghats	Peter's shieldtail
64	13.253	75.036	Uduppi	<i>Xylophis stenorhynchus</i>	Xenodermidae	DD	Endemic to Western Ghats	Günther's Mountain Snake, Günther's Narrow-headed Snake
65	13.292	75.042	Uduppi	<i>Ahaetulla perroteti</i>	Colubridae	EN	Endemic to Western Ghats	Bronze-headed vine snake
66	13.275	75.066	Uduppi	<i>Cnemaspis goaensis</i>	Gekkonidae	EN	Endemic to Western Ghats	Goan day gecko
67	13.281	75.081	Uduppi	<i>Cnemaspis indica</i>	Gekkonidae	VU	Endemic to Western Ghats	Indian day gecko
68	13.288	75.104	Uduppi	<i>Cnemaspis indraneildasi</i>	Gekkonidae	VU	Endemic to Western Ghats	Indraneil's day gecko
69	13.312	75.114	Uduppi	<i>Cnemaspis jerdonii</i>	Gekkonidae	VU	Endemic to Western Ghats	Jerdon's Day Gecko
70	13.308	75.093	Uduppi	<i>Cnemaspis wynadensis</i>	Gekkonidae	EN	Endemic to Western Ghats	Wynad day gecko
71	13.312	75.093	Uduppi	<i>Dasia subcaerulea</i>	Scincidae	EN	Endemic to Western Ghats	
72	13.327	75.079	Uduppi	<i>Eurylepis poonaensi</i>	Scincidae	EN	Endemic to Western Ghats	Poona skink

73	13.333	75.063	Uduppi	<i>Eutropis clivicola</i>	Scincidae	EN	Endemic to Western Ghats	Mountain skink
74	13.343	75.072	Uduppi	<i>Hemidactylus albofasciatus</i>	Gekkonidae	VU	Endemic to Western Ghats	White-banded broad-tailed gecko
75	13.357	75.075	Uduppi	<i>Hemidactylus sataraensis</i>	Gekkonidae	VU	Endemic to Western Ghats	
76	13.379	75.062	Uduppi	<i>Kaestlea laterimaculata</i>	Scincidae	VU	Endemic to Western Ghats	Side-spotted ground skink
77	13.406	75.042	Uduppi	<i>Melanophidium bilineatum</i>	Uropeltidae	VU	Endemic to Western Ghats	Yellow-striped shieldtail
78	13.347	74.992	Uduppi	<i>Oligodon brevicauda</i>	Colubridae	VU	Endemic to Western Ghats	
79	13.346	74.983	Uduppi	<i>Otocryptis beddomii</i>	Agamidae	EN	Endemic to Western Ghats	Indian kangaroo lizard
80	13.334	74.958	Uduppi	<i>Platyplectrurus madurensis</i>	Uropeltidae	EN	Endemic to Western Ghats	Madurai shieldtail
81	13.307	74.924	Uduppi	<i>Rhinophis travancoricus</i>	Uropeltidae	EN	Endemic to Western Ghats	Travancore shieldtail
82	13.395	74.997	Uduppi	<i>Uropeltis phipsonii</i>	Uropeltidae	VU	Endemic to Western Ghats	Phipson's shieldtail
83	13.399	74.993	Uduppi	<i>Ahaetulla dispar</i>	Colubridae	NT	Endemic to Western Ghats	Günther's vine snake
84	13.395	74.983	Uduppi	<i>Boiga dightoni</i>	Colubridae	DD	Endemic to Western Ghats	Travancore cat snake
85	13.474	74.962	Uduppi	<i>Boiga nuchalis</i>	Colubridae	DD	Endemic to Western Ghats	Collared Cat Snake
86	13.488	74.951	Uduppi	<i>Calotes aurantolabium</i>	Agamidae	DD	Endemic to Western Ghats	Orange-lipped forest lizard
87	13.483	74.944	Uduppi	<i>Chalcides pentadactylus</i>	Scincidae	DD	Endemic to Western Ghats	
88	13.529	74.943	Uduppi	<i>Cnemaspis australis</i>	Gekkonidae	DD	Endemic to Western Ghats	
89	13.556	74.941	Uduppi	<i>Cnemaspis beddomei</i>	Gekkonidae	DD	Endemic to Western Ghats	Beddome's day gecko
90	13.576	74.931	Uduppi	<i>Cnemaspis heteropholis</i>	Gekkonidae	NT	Endemic to Western Ghats	Heteropholis gecko
91	13.571	74.922	Uduppi	<i>Cnemaspis kolhapurensis</i>	Gekkonidae	DD	Endemic to Western Ghats	Kolhapur day gecko
92	13.593	74.888	Uduppi	<i>Cnemaspis littoralis</i>	Gekkonidae	DD	Endemic to Western Ghats	Coastal day gecko
93	13.586	74.914	Uduppi	<i>Cnemaspis monticola</i>	Gekkonidae	DD	Endemic to Western Ghats	
94	13.607	74.911	Uduppi	<i>Cnemaspis nilagirica</i>	Gekkonidae	DD	Endemic to Western Ghats	

95	13.077	75.026	Uduppi	<i>Cnemaspis ornatus</i>	Gekkonidae	NT	Endemic to Western Ghats	
96	13.086	75.029	Uduppi	<i>Cnemaspis sisparensis</i>	Gekkonidae	NT	Endemic to Western Ghats	Sispara day gecko
97	13.089	75.041	Uduppi	<i>Dendrelaphis chairecacos</i>	Colubridae	DD	Endemic to Western Ghats	
98	13.093	75.075	Uduppi	<i>Eryx whitakeri</i>	Boidae	NT	Endemic to Western Ghats	Whitaker's boa
99	13.08	75.055	Uduppi	<i>Eutropis gansi</i>	Scincidae	DD	Endemic to Western Ghats	Gansgrass skink
100	13.097	75.054	Uduppi	<i>Gerrhopilus beddomii</i>	Gerrhopilidae	DD	Endemic to Western Ghats	Beddome's worm snake
101	13.101	75.047	Uduppi	<i>Gerrhopilus tindalli</i>	Gerrhopilidae	DD	Endemic to Western Ghats	Tindall's worm snake
102	13.08	75.05	Uduppi	<i>Hemidactylus anamallensis</i>	Gekkonidae	NT	Endemic to Western Ghats	Anaimalai gecko
103	13.023	75.001	Uduppi	<i>Kaestlea palnica</i>	Scincidae	DD	Endemic to Western Ghats	Palni hills ground skink
104	13.023	75.001	Uduppi	<i>Lygosoma goaensis</i>	Scincidae	DD	Endemic to Western Ghats	Goan supple skink
105	13.008	75.031	Uduppi	<i>Oligodon nikhili</i>	Colubridae	DD	Endemic to Western Ghats	Nikhil's kukri snake
106	13.017	75.031	Uduppi	<i>Oligodon travancoricus</i>	Colubridae	DD	Endemic to Western Ghats	Travancore kukri snake
107	13.035	75.023	Uduppi	<i>Plectrurus aureus</i>	Uropeltidae	DD	Endemic to Western Ghats	Golden shieldtail
108	13.018	75.001	Uduppi	<i>Peltopelorus macrolepis</i>	Viperidae	NT	Endemic to Western Ghats	Large-scaled green pit viper
109	13.026	74.995	Uduppi	<i>Platyplectrurus trilineatus</i>	Uropeltidae	DD	Endemic to Western Ghats	Three-lined shieldtail
110	13.043	74.992	Uduppi	<i>Plectrurus canaricus</i>	Uropeltidae	DD	Endemic to Western Ghats	Kanara shieldtail
111	13.05	74.972	Uduppi	<i>Plectrurus guentheri</i>	Uropeltidae	DD	Endemic to Western Ghats	Purple shieldtail
112	13.059	74.952	Uduppi	<i>Rhinophis fergusonianus</i>	Uropeltidae	DD	Endemic to Western Ghats	Cardamom shieldtail
113	13.071	74.95	Uduppi	<i>Ristella guentheri</i>	Scincidae	DD	Endemic to Western Ghats	Günther
114	13.062	74.936	Uduppi	<i>Ristella rurkii</i>	Scincidae	DD	Endemic to Western Ghats	Rurk's cat skink
115	13.058	74.931	Uduppi	<i>Ristella travancorica</i>	Scincidae	DD	Endemic to Western Ghats	

11 6	13.053	74.914	Uduppi	<i>Trimeresurus strigatus</i>	Viperidae	DD	Endemic to Western Ghats	Horseshoe pit viper
11 7	13.064	74.92	Uduppi	<i>Typhlops exiguus</i>	Typhlopidae	DD	Endemic to Western Ghats	Belgaum Worm Snake
11 8	13.085	74.934	Uduppi	<i>Typhlops thurstoni</i>	Typhlopidae	DD	Endemic to Western Ghats	Thurston's worm snake
11 9	13.097	74.949	Uduppi	<i>Uropeltis beddomii</i>	Uropeltidae	DD	Endemic to Western Ghats	Beddome's shieldtail
12 0	13.076	74.932	Uduppi	<i>Uropeltis bicatenata</i>	Uropeltidae	NT	Endemic to Western Ghats	Bicatenate shieldtail
12 1	13.097	74.954	Uduppi	<i>Uropeltis broughami</i>	Uropeltidae	DD	Endemic to Western Ghats	Sirumalai shieldtail
12 2	13.115	74.984	Uduppi	<i>Uropeltis dindigalensis</i>	Uropeltidae	DD	Endemic to Western Ghats	Dindigul shieldtail
12 3	13.127	74.982	Uduppi	<i>Uropeltis macrorhynchus</i>	Uropeltidae	DD	Endemic to Western Ghats	
12 4	13.134	75.096	Uduppi	<i>Uropeltis maculatus</i>	Uropeltidae	DD	Endemic to Western Ghats	Red-sided shieldtail
12 5	13.135	75.121	Uduppi	<i>Uropeltis myhendrae</i>	Uropeltidae	DD	Endemic to Western Ghats	Barred shieldtail
12 6	13.157	75.153	Uduppi	<i>Uropeltis nitidus</i>	Uropeltidae	DD	Endemic to Western Ghats	Cochin shieldtail
12 7	13.152	75.138	Uduppi	<i>Uropeltis petersi</i>	Uropeltidae	DD	Endemic to Western Ghats	Peter's shieldtail
12 8	13.151	75.12	Uduppi	<i>Xylophis stenorhynchus</i>	Xenodermidae	DD	Endemic to Western Ghats	Günther's Mountain Snake, Günther's Narrow-headed Snake



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