



# India conservation records

A publication of the Harini Nature Conservation Foundation 2003(1)

## About the Harini Nature Conservation Foundation

The [Harini Nature Conservation Foundation](http://www.harini.org) aims to focus its activities on:

- Providing facts and researching perspectives on nature conservation in India, South Asia and multi-national concerns to individuals and organisations.
- Developing web-based and electronic format documentation on nature conservation and ensuring easy distribution and access.
- Networking individuals and organisations for conservation of specific endangered and /or endemic fauna and /or flora in India.

The website at <http://www.angelfire.com/falcon/harini> provides more information about the Foundation.

The world has grown small. Very very small. The problems concerning nature conservation have grown enormous. Very very very enormous. The paradox is that there is more than enough information out there in the world to help individuals and organisations everywhere to protect and conserve nature. The HNCF website - falcon@harini, as we call it, - is meant to help provide support and direction to access information about nature conservation. Information is power, and accessing it at the moment that you need it, is to be powerful.

falcon@harini hopes to help individuals and organisations to use the internet, position a smart and alert network of individuals and organisations, understand how to use the information without all the clutter, provide clear and concise and specific interventions without having to reinvent the wheel.

The main index of the website provides a detailed table of topics, concepts and perspectives that falcon@harini hopes to build up. We do not know as yet how it would add up.

The final result and output is something we do not dare to define today. There is more than the world out there.

**India Conservation Records** as a major contribution of falcon@harini will scope data mining software available on the web, list and link all the search facilities available on the net. Developing a major platform based on the search engines and data mining software available would help individuals and organisations access information specific to their requirements for nature conservation in India and South Asia.

Another initiative in enabling information documentation for nature conservation would be to provide support to the various individuals and organisations who are unable to access or utilise the internet to the best of their requirements.

Other internet-based initiatives of the Harini Nature Conservation Foundation include the:

- (a) Journal for Indian Bird Records and Conservation available at <http://www.angelfire.com/fl/indianbirds>
- (b) SHARADA – Education Planning Journal available at <http://www.angelfire.com/falcon/sharada>

## NEWS

### Indian Environment Online starts State-level Chapters

Indian Environment Online has started separate State Chapters for all States & Union Territories of India to enable state specific issues to be discussed in separate State Environment Online Discussion Groups in detail.

The website <http://indianenvironmentonline.net/state-frame.htm> provides a link to each State Chapter area by clicking on the India Map at that page. Membership is on a gratis basis. [M. Tamil Selvan](mailto:M.Tamil.Selvan@ieo.org), Editor, IEO/SEISD, New Delhi. <http://indianenvironmentonline.net>

**DOCUMENTS****United States Senate Hearings about Conservation of Asian Elephant**

Source: [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105\\_senate\\_hearings&docid=f:47220.wais](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=105_senate_hearings&docid=f:47220.wais)

[105 Senate Hearings] [From the U.S. Government Printing Office via GPO Access] [DOCID: f:47220.wais] S. Hrg. 105-409

The United States Senate conducted Hearings on November 4, 1997, to discuss perspectives for conservation of the Asian and African Elephant. The Hearing took place before the Committee on Environment and Public Works, United States Senate, One Hundred Fifth Congress, First Session on the consideration of S. 1287, The Asian Elephant Conservation Act, and S. 627, The African Elephant Conservation Act.

The documents have been printed for the use of the Committee on Environment and Public Works, by the U.S. GOVERNMENT PRINTING OFFICE in 1998 and are available for sale by the U.S. Government Printing Office Superintendent of Documents, Congressional Sales Office, Washington, DC 20402.

The COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS ONE HUNDRED FIFTH CONGRESS also included Daniel Patrick Moynihan, Senator from New York among various others.

The committee held the hearing to solicit views on two bills relating to conservation of the two species of elephants in the world. The first bill was S. 1287, which dealt with the Asian Elephant Conservation Act, and the second was S. 627, a bill to reauthorize the African Elephant Conservation Act. The African Elephant Conservation Act was a reauthorization, while the Asian Elephant Conservation Act was a first-time bill.

Both these bills aimed to promote worthy goals and programs in conserving these magnificent animals. Both had companion measures that had passed the House of Representatives and were referred to this committee.

**India Conservation Records** hopes to establish contact with the officials responsible for permission to reproduce the discussions in the Hearings and circulate them for understanding these prestigious policy interventions within India. Hopefully, the documents may help advance the cause of conservation of the Asian Elephant in India.

**BIODIVERSITY CONSERVATION****National Biodiversity Strategy and Action Plan profiles the Eastern Ghats of southern India**

Source: [http://sdnp.delhi.nic.in/nbsap/dactionp/ec\\_oregion/eghatdraft.html](http://sdnp.delhi.nic.in/nbsap/dactionp/ec_oregion/eghatdraft.html)

**Note:** *The National Biodiversity Strategy and Action Plan is an initiative of the Ministry of Environment and Forests, Government of India, and has been coordinated by KALPAVRIKSH, Pune.*

**Geographical profile**

The Eastern Ghats are located between 70° 22' and 85° 21' E Longitudes and 11° 31' and 21° 0' N Latitudes. They extend in a north-east south-west strike in the Indian Peninsula covering an area of about 75,000 Sq. Km. with an average width of 220 Km in the north and 100 Km in the south. They extend over a length of 1750 Km between the rivers of Mahanandi and Vaigai along East Coast of India. The Mahanandi basin marks the northern boundary of the Eastern Ghats while the southern boundary is the Nilagiri hills. To the west lie the tips of Bastar, Telangana and Karnataka plateaus and Tamil Nadu uplands. The coastal area in the east limits its eastern part.

The Eastern Ghats do not form a continuous range because of the great rivers Mahanandi, Godavari and Krishna cut across them. In the northern section of the Eastern Ghats most of the terrain lies about 400 m with a few peaks exceeding 1100 m. The geographers consider the Simlipal massif lying to the North West of the Khondmal hills in the Phulbani district of Orissa as the starting point of Eastern Ghats.

People conveniently divide Eastern Ghats into 3 regions, the northern section starting in Orissa and terminating near Guntur just south of the Krishna river, the middle section extending up to the border of Tamil Nadu with Andhra Pradesh and the last section entirely located in Tamil Nadu (Legris and Meher-Homji, 1982).

The component hills of middle section of Eastern Ghats include Nallamalais, Yerramalais, Palakonda, Velikonda, Seshachalam and Kambakkam hills whose average elevation is 750 m. In the last section the Eastern Ghats run in a West-South-West direction meeting the Western Ghats in the Nilagiris. The component hills of Eastern Ghats of Tamil Nadu region are the Javadu hills, Yelagiri, Kollimalai, Pacchamalai, the Kalrayans, Shervaroys, Alagar hills and a group of small hillocks together called Sirumalai or Chinnamalai group of hills lying in Tiruchirappalli, Dindigul, Karur and Sivangai districts.

The region falls under tropical monsoon climate receiving rainfall from both south-west monsoon and north-east retreating monsoon. In the northern part the rainfall ranges from 120 cm to 160 cm whereas in the central and southern parts, it is 60 cm and 100 cm respectively exhibiting semi-arid climate except in the hilly peaks. The mean temperature in January ranges between 20°C and 25°C indicating a north-south increasing trend. The maximum temperature shoots up to 41°C during hot season.

#### Floral diversity in the Eastern Ghats

Eastern Ghats are rich in floristic diversity. More than 2500 species of Angiosperms occur in this region which constitute about 13% of the flowering plants of India. Ellis (1987-90) made several intensive collections from Nallamalais and enumerated 843 species under 419 genera belonging 109 families. Ranjitakaani (1998) who made a floristic survey of Kolli hills in Salem district reported 854 species of Angiosperms, 57 pteridophytes and 5 Gymnosperms. Senthil Kumar and Krishnamurthy (1993) extensively surveyed the flora of Shevaroy hills and reported 1184 species of flowering plants under 674 genera belonging 150 families.

Professor T. Pullaiah of Sri Krishnadevaraya University is working on Flora of Eastern Ghats. They have reported 328 species legumes (Pullaiah and Sriramamurthy, 2001), 69 species of Convolvulaceae, 14 species Boraginaceae, 16 species of Cordiaceae and 34 species of Solanaceae (Venkatappa et al., 1998, Venkatappa, 1998). Saxena and Brahmam (1994) gave detailed account of Flora of Orissa, while Pullaiah et al. (1997) gave an account of Flora of Andhra Pradesh and Nair and Henry (1983) gave flora of Tamil Nadu. These three floras cover most of Eastern Ghats.

#### Prioritising Species Conservation

Broadly speaking, three major groups may be recognized among the Eastern Ghats flora and fauna. (i) Species with wide distribution in India, Burma and Sri Lanka, (ii) Species found in the Western and Eastern Ghats, representing Peninsular Distribution, and (iii) Species restricted to the Eastern Ghats and represent either mostly localized and discontinuous geographical relicts or to a very small extent true endemic, even if not strictly autochthonous, forms. Besides, a very small number of subspecies seems to have differentiated on some of the hills and often with a series of transitional forms.

All references to be sourced at the NBSAP webpages.

India Conservation Records hopes to coordinate with KALPAVRIKSH for permission to present the recommendations and abstracts of action plans to enable discussion and conservation of biodiversity and regions.

## BIODIVERSITY DATABASES

# Species 2000

Source: <http://www.sp2000.org/> (c) Species 2000

**Species 2000** has the objective of enumerating all known species of organisms on Earth (animals, plants, fungi and microbes) as the baseline dataset for studies of global biodiversity.

*Species 2000* Goal is to provide a uniform and validated quality index of names of all known species for use as a practical tool. The index will be used to provide:

1. an electronic baseline species list for use in inventorying projects worldwide;
2. the index for an Internet gateway to species databases worldwide;
3. a reference system for comparison between inventories;
4. a comprehensive worldwide catalogue for checking the status, classification and naming of species.

*Species 2000* objectives include:

1. Operate a dynamic Common Access System on the Internet through which users can locate a species by name across an array of on-line taxonomic databases.
2. Produce a stable species index, the Species 2000 Annual Checklist, available on the Internet and on CD-ROM, to be updated once a year.
3. Stimulate completion of the array of taxonomic databases by seeking resources both for the completion of existing databases, and to help establish new databases to cover identified gaps.
4. Establish a system of onward links connecting each species entry in the checklist with a wide range of other species databases with information about that species (to include germplasm, museum/herbarium, ecosystem and other data systems).

#### Species 2000 Network on February 2003

[Biosis UK](#), York, UK.

[CABI Bioscience](#), Egham, UK. Species Fungorum represented by Dr Paul Kirk

[Expert Center for Taxonomic Information \(ETI\)](#), University of Amsterdam, The Netherlands. Euphausiids of the World's Ocean represented by Dr Peter Schalk

[Ecological Consultancy Services Ltd](#), Dublin, Ireland.  
European Register of Marine Species (ERMS)

Dr Rainer Froese, Kiel, Germany [FishBase](#)

[ILDIS - World Legume Database](#) Represented by Dr James Zarucchi, Missouri Botanical Garden, USA

[International Organisation of Paleobotany](#) Plant Fossil Record represented by Professor Mike Boulter, University of East London, UK

[International Organisation for Plant Information](#) Global Plant Checklist represented by Karen Wilson, Royal Botanic Garden, Sydney, Australia

[Martin Ryan Institute](#), National University of Ireland, Galway, Ireland. AlgaeBase represented by Professor Michael Guiry

[Missouri Botanic Gardens](#) Moss TROPICOS represented by Dr Robert E. Magill

[The Natural History Museum](#), London, UK. Chalcidoidea and Tineid moths

[Naturalis](#), Leiden The Netherlands. UNESCO/IOC Register of Marine Organisms

[The Royal Botanic Gardens](#), Kew, UK. Fagales represented by Professor Stephen Owens

**India Conservation Records** hopes to coordinate with SPECIES 2000 for permission to present the more information about various floral and faunal databases to enable discussion and achieve conservation of biodiversity and regions in India.

## WCU (IUCN) SPECIES SPECIALIST GROUPS

### The Legume Specialist Group and its relevance to India's biodiversity

Source: <http://www.iucn.org/themes/ssc/news/ebulletin2001/ebulletinoc.html>

The Legume Specialist Group, Chaired by Dr. Nigel Maxted, a legume specialist and Senior Lecturer and Consultant in the Conservation of Plant Genetic Resources at the University of Birmingham, U.K is a major move to cover one of the world's largest and most important plant groups. The initiative is a vital component of the proposal to use Red Listing as an indicator of global biodiversity health, given the very broad geographical and ecological range of this family. Legumes also make up a significant

component of crop wild relatives, the conservation of which has been recognized by the IUCN/SSC Plant Programme as a priority. The Group works closely with ILDIS, the International Legume Database and Information Service, an extensive and efficient network of specialists on Leguminosae. This network, mostly involved in taxonomic work, and will now add conservation activities to its programme.

Legumes (Source: <http://www.ildis.org/Leguminosae/>) are plants of the pea or bean family, the Leguminosae (Fabaceae in the USA). The Leguminosae is one of the largest families of flowering plants with 18,000 species classified into around 650 genera ([Polhill & Raven, 1981](#)). This is just under a twelfth of all known flowering plants. The Leguminosae is an extremely diverse family.

The Leguminosae ([an economically important family](#)) constitute one of humanity's most important groups of plants. **Several Leguminosae species include important crops, major and minor timber species found in India.** Legumes are used as crops, forages and green manures. They also synthesise a wide range of natural products such as flavours, drugs, poisons and dyes.

The family is usually divided into three sub-families: [Papilionoideae](#), [Caesalpinioideae](#) and [Mimosoideae](#). These sub-families are sometimes recognised as three separate families: Papilionaceae, Caesalpinaceae and Mimosaceae.

The Papilionoideae contains most of the important leguminous crop species such as the Soya Bean (*Glycine max*), Common Pea (*Pisum sativum*), Chickpea (*Cicer arietinum*), French Bean (*Phaseolus vulgaris*), Lentil (*Lens culinaris*) and Peanut (*Arachis hypogaea*).

The Caesalpinioideae are well-known tropical ornamentals such as Flamboyant (*Delonix regia*) and Barbados Pride (*Caesalpinia pulcherrima*). Alexandrian Senna (*Senna alexandrina*) is a commercially grown medicinal plant, known for its purgative qualities.

The Mimosoideae are tropical or subtropical trees and shrubs. Examples of genera within this subfamily are *Acacia* and *Mimosa*. Certain *Acacia* species are extremely important economically. Extract from the bark of *Acacia* is used in tanning. Several *Acacia* species, provide useful timbers and some yield commercial gum arabic, which is used in a wide range of industrial processes.

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