COORDINATING UNIT OF SURVEY OF MEDICINAL PLANTS OF WESTERN GHATS OF INDIA

Database on Ethnomedicinal Plants of Western Ghats

Final Report

Period: From 05-07-2005 to 30-06-2008

Submitted to

INDIAN COUNCIL OF MEDICAL RESEARCH

New Delhi

By

Dr. S.D. Kholkute

Principle Investigator,

Scientist 'F' & Officer-in-Charge

Regional Medical Research Centre,

(Indian Council of Medical Research)

Belgaum- 590 010, Karnataka.

1. **Title of the Project:**

   Coordinating Unit of Survey of Medicinal Plants of Western Ghats of India

2. **Principle Investigator:**

   Dr. S.D Kholkute, Officer- In- Charge, regional Medical Research Centre, Belgaum.

3. **Implementing Institution:**

   Regional Medical Research Centre (ICMR), Nehru Nagar, Belgaum-590 010

4. **Date of Commencement:** August 5th 2005

5. **Duration:** Three Years

6. **Date of Completion:** June 30th 2008

7. **Objectives as approved:**

   The present project is in continuation of 'MULTICENTRIC PROJECT ON SURVEY OF MEDICINAL PLANTS OF WESTERN GHATS' funded by Indian Council of Medical Research, New Delhi.

   The study was initiated with following **objectives:**

   1. Survey of medicinal plants of known and unknown medicinal values by scouting and interacting with local healers and practitioners to identify these plants.
   2. Collect the seasonal and non-seasonal plants, prepare and preserve the voucher specimens, establish botanical identity of the medicinal plants with help of taxonomist, document the details of plants with the help of photographs, diagrams, drawings etc. and preparation of herbarium for the preservation of medicinal plants.
   3. Assess the status of medicinal plants of Western Ghats.
   4. Database on medicinal plants on the basis of above mentioned studies and prepare monograph.

   In order to achieve these objectives and to ensure complete and extensive study of the Western Ghats of India, 5 Centres were identified by the Council in different states. All the Centres followed uniform protocol and data collection sheets for this purpose. The Centres were:

1. Survey of Medicinal Plants of Western Ghats in Tamil Nadu.

Principle Investigator: Dr. S. Ignacimuthu,
Director, Loyola College, Chennai

Co-Investigator : Dr. V.S. Manickam

2. Survey of Medicinal Plants of Western Ghats of Goa and Gujarat.

Principle Investigator : Dr. B.F. Rodrigues,
Reader, Goa University, Goa

3. Survey of Medicinal Plants of Western Ghats in Maharashtra.

Principle Investigator : Dr. (Mrs.) Usha Mukundan,
Principal, Ram Narayan Jhunjhunwala College, Mumbai

4. Survey of Medicinal Plants of Western Ghats of Karnataka.

Principle Investigator : Dr. F.V. Manvi,
Principal, College of Pharmacy, Belgaum

Co-Investigator : Shri B.C. Hatapakki

5. Survey of Medicinal Plants of Western Ghats of Kerala.

Principle Investigator : Dr. A. Banarji,
Emeritus Scientist, R.R.L. Trivendrum

Co-Investigator : Mr. K.G. Sreekumar, SRO,
Pharmacology

The study was initiated in August 2001 and completed in August-September 2004. During these 3 years, preliminary ethnobotanical survey and documentation of medicinal plants of Western Ghats were made throughout the Western Ghats by the respective Centres.

The Task Force of Multicentric Project designated Regional Medical Research Centre, Belgaum as the Co-ordinating unit (Principle Investigator: Officer-in-Charge) in August 2004 (Minutes of Task Force meeting held at ICMR Hqrs. on 27th Aug. 2005). Additional staffs and contingency was recommended for the compilation and analysis of the data generated from the 5 centres. It was also proposed to develop a 'Database of Medicinal Plants of Western Ghats'. A research scheme was sanctioned to RMRC, Belgaum to develop the database initially for one year. Later the project was extended

twice for the total duration of three years with a total budgetary sanction of **Rs. 7, 39,228/-.**

The objectives of the Coordinating Unit are:

► To compile and analyze the data generated by the 5 Centres including herbaria and photographs.

► To develop a database on Medicinal Plants of Western Ghats based on the data.

8. Deviation made from original objectives if any, while implementing the project and reasons thereof:

No major deviations were made from the original objectives.

9. Research Report giving full details of work done:

A. Collection of Data:

The detail of the reports obtained from 5 Centres is as follows:

1. Survey of Medicinal Plants of Western Ghats in Tamil Nadu:
   In all, 349 medicinal plant species have been recorded during the study. The soft copy of the complete report with passport datasheets has been received.
2. Survey of Medicinal Plants of Western Ghats of Goa and Gujarat:
   The soft copy of the report including the passport datasheets describing 32 medicinal plant species has been received.
3. Survey of Medicinal Plants of Western Ghats in Maharashtra:
   The medicinal values of 98 plants were recorded during the study. Both the soft and hard copies of the reports have been procured. The report includes passport data sheets and well documented monographs.
4. Survey of Medicinal Plants of Western Ghats of Karnataka:
   77 medicinal plant species were reported in the study. The complete report has been received in the form of hard copy consisting of the passport data sheets.
5. Survey of Medicinal Plants of Western Ghats of Kerala:

The final report describes the medicinal values of 57 medicinal plants. The soft copy of the report includes the passport data sheets.

B. Collection of Herbaria and Photographs:

Efforts were made to collect the herbaria and photographs of all the reported plants. Visits were made to two of the Centres- Loyola College, Chennai, and Ram Narayan Jhunjhunwala College, Mumbai in this regard. The details of herbaria and photographs collected so far are as follows:

1. Survey of Medicinal Plants of Western Ghats in Tamil Nadu:
   287 herbarium sheets and 299 photographs have been obtained.
2. Survey of Medicinal Plants of Western Ghats of Goa and Gujarat:
   No photographs were received, while most of the herbaria received were spoiled and not up to the standard. PI has informed that he was unable to prepare herbarium sheets of good quality.
3. Survey of Medicinal Plants of Western Ghats in Maharashtra:
   In all 212 herbarium sheets of 151 plant species were obtained. Photographs of 56 plant species were received.
4. Survey of Medicinal Plants of Western Ghats of Karnataka:
   154 photographs of 70 plant species were received. The PI and Co investigator reported that they could not prepare any herbarium sheets.
5. Survey of Medicinal Plants of Western Ghats of Kerala:
   Herbarium sheets of 36 plant species were received. However, only 15 of them are in good condition, while others are unidentified, repeated or spoiled. No photographs available.

In all, 535 herbarium sheets of 345 plant species and 509 photographs of 369 plant species were collected from 5 Centres.

C. Interactions and discussions:

The format and contents of proposed database was discussed with experts. During the visit to Loyola College Chennai, the possible ways of database creation was discussed with Dr. S. Ignacimuthu, PI of the multicentric project. The visit was also made to French Institute, Pondicherry and in turn Dr. Santosh Patil, Researcher from FIP visited our Centre and

gave valuable suggestions about creation of database. Several experts from the local area were also consulted to create a suitable model for the database.

D. Model development for database creation:

Computer and CD-writer has been procured under the head of non-recurring expenses. The general format of the database has been prepared in consultation with the experts and the programming for the database had been made by M/s World Soft Solutions, Hubli and initial introductory part was developed by Softmusk Solutions, Belgaum. Meantime the works carried out at the Centre were:

D.1. Compilation of the data:

The data collected by 5 centres was compiled and formatted as per the requirement of the database. Even though most of the data is available in soft copy, it was in the *MS Word* format and the whole data has been converted in to required *Excel* and *MS Access* format as suggested by the programmer. Finally, seeing on the available information, it is decided to accommodate **500 plants** in the database (List enclosed: ***Annexure-1***).

D.2. Data Entry:

Entering the available data in to the database programme was a huge task. The data regarding botanical name, synonyms, vernacular names, plant description, parts used, utility and distribution has been entered in to the database. Photographs were also included.

The entire available herbarium sheets were scanned and stored in digital format. These were also incorporated in the database, which serve as digital herbaria.

D.3. Literature search for additional information:

Extensive literature survey has been made for the 500 plants to add the additional/ missing information to the database. The additional information added are:

- Chemical composition
- Pharmacology and Clinical trials
- References
- Phenology

- Distribution
- Detailed plant description

E. Task Force Meeting on Medicinal Plants of the Western Ghats:

The Task Force Meeting on Medicinal Plants of Western Ghats convened at RMRC Committee Room on 6th May 2006 at 2.00 p.m. The members present were:

Dr. Vasantha Muthuswamy, Sr. DDG & Chief (BMS), ICMR
Dr. Nandini K. Kumar, DDG (BMS), ICMR
Dr. O. P. Agarwal, Emeritus Scientist, CSIR
Dr. S. Ignacimuthu, Director, ERI, Loyola College Chennai
Dr. Anil Gupta, National Innovation Foundation, Ahmedabad
Dr. PSN Rao, Joint Director, Botanical Survey of India, Pune
Dr. S. D. Kholkute, Officer-in-Charge, RMRC, Belgaum
Dr. Sudipto, NIF, Ahmedabad
Dr. Sanjeev, NIF, Ahmedabad
Mr. S. B. Kulkarni, World Soft Solutions, Hubli
Mr. Shripad Bhat, Research Asst., RMRC, Belgaum
Mr. Ashok Naik, Research Asst., RMRC, Belgaum
Dr. Harsha Hegde, Sr. Research Fellow, RMRC, Belgaum
Mr. Vinayak Upadhya, Sr. Research Fellow, RMRC, Belgaum

Dr. Harsha Hegde, SRF, presented the tentative format of the database and information collected so for from the 5 centres. The committee reviewed the progress of the project (database on Medicinal Plants of Western Ghats) and following recommendations were made about the project during the meeting:

- The database on medicinal plants of Western Ghats should be improved with parts of plants used for medicinal activity as one of the search option.
- Survey of medicinal plants of Western Ghats, Kerala, should be continued by Dr. Ignacimuthu's group. SRF and travel grant should be provided by the Council.

- Botanical Survey of India, Western Region, Pune should be involved for identification / authentication of medicinal plants.

E. Preparation of Demo CD and distribution to experts for feedback:

A Demonstration CD with detailed information including the search option for plant parts used as per recommendation of Task Force Committee on 13 plants was prepared and the copies were sent to the various experts including the SAC members for their feed back. The experts were:

Dr. Rev. S. Ignacimuthu, Director, Entomology Research Institute, Loyola College, Chennai.

Dr. Usha Mukundan, Principal & Head, Department of Botany, Ram Narayan Jhunjhunwala College, Mumbai.

Dr. Girish Tillu, HBCG, Centre for Development of Advanced Computing, Pune.

Dr. Ashok D. B. Vaidya, Medical & Research Director, Bharatiya Vidya Bhavan's SPARC, Mumbai.

Dr. P.S.N. Rao, Joint Director, Botanical Survey of India, Western Circle, Pune.

Dr. Hirwani, URDIP, Pune.

Dr. Vivek Kumar, NIF, Ahmedabad

Vaidya Vilas M. Nanal, Pune

And the SAC Members were:

Dr. Vasantha Muthuswamy, Sr. DDG & Chief (BMS), ICMR, New Delhi.

Dr. M K Gurjar, Head & Scientist (G), NCL (CSIR), Pune.

Dr. Bhushan Patwardhan, Deptt. Of Health Sciences, University of Pune, Pune.

Prof. C. Kokate, Vice Chancellor, KLE University, Belgaum

Dr. G. R. Hegde, Professor, Department of Botany, Karnataka University, Dharwad.

Dr. G. J. Samathanam, Director (Sc.-F), DST, New Delhi.

Prof. R. Kumar, Department of Chemical Engineering, IISc, Bangalore.

Prof. Anil K. Gupta, Executive Vice Chairperson, NIF, Ahmedabad.

Dr. S. D. Seth, Chair-in in Pharmacology, National Institute of Medical Sciences (ICMR), New Delhi.

Dr. O. P. Agarwal, Emeritus Scientist, CSIR, New Delhi.

Prof. Shirish C. Gupta, Emeritus Scientist, New Delhi.

Selected Feedback from Experts

Many experts responded positively and gave valuable feedback while others did not respond. It was decided to incorporate the important possible suggestions while other suggestions were planned to include in future, as it was not possible at the juncture. Selected feedbacks incorporated are:

- Provisions to search all fields
- Incorporation of printing/ reporting option
- Elaborative descriptions for plants along with key characters for easier identification
- Addition of phenological data

After thorough discussion among the team members and software experts it is found that the software already developed cannot support the changes. So a new software company, Mind Power, Hubli was given the task to develop new software.

F. Recommendations of Scientific Advisory Committee meeting 2008:

The improved version of the database was presented before SAC members and the following recommendations were made:

- Short list the plants to identify the leads for selected diseases.
- Compare the RMRC database with NIF data and come out with 5 diseases for further work.
- Study the chemistry and biology of plants used for treating herpes, rabies, diarrhoea, dysentery and rheumatism.
- Select the herpes and rabies for further study as a initiation

With respect to database software, the committee suggested for getting the software reviewed by some experts before finalizing it. Accordingly an Expert Group meeting was held.

G. Expert Group Meeting for Database:

An Expert Group Meeting was held at RMRC committee room on 18th March 2008, to see and assess the new software developed by Mind Power, Hubli on "Database of Ethnomedicinal Plants of Western Ghats".

Following invited experts were present in the meeting:

Dr. Medha Dhurandhar, Program Coordinator, HBCG, CDAC, Pune

DR. Girish Tillu, HBCG, CDAC, Pune

Dr. Vaidya Vilas M. Nanal, Pune and

Mr. Artthur Pradeep Singh, IT Support Engineer, JNMC, Belgaum

Mr. Arvind Anvekar, Mind Power, Hubli presented the software developed by him on the database. He showed to the members how the software is different from the earlier version and explained the steps in detail. After thorough discussion the committee gave some valuable general and technical recommendations. Some of the selected recommendations are:

- Home page should include disclaimer
- Online help facility in the database to both the Data Entry Operator and user
- Incorporation of multiple query facility
- Search facility with two inputs
- Facility to delete the unwanted images during data entry

Most of the recommendations of the committee were incorporated in the final version of the database.

H. Additional efforts:

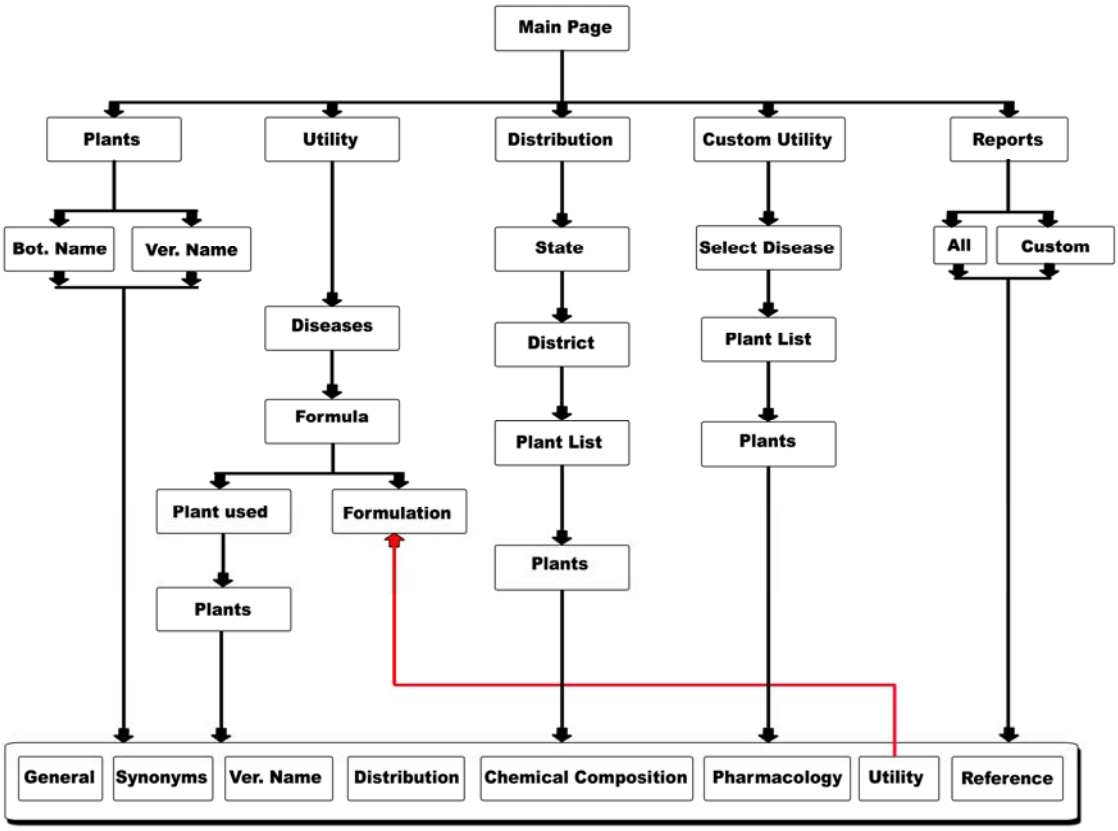
Even though the collected data from 5 Centres gives good information about the botanical name, local names, family, parts used, formulation, dose and duration, diseases to which the plant/part is used, reported distribution, source and plant availability etc., it is not sufficient to come up with a quality

database. In view of this, following additional information including chemical composition of the plant/parts, pharmacological /clinical trials and toxicological data if any with complete list of references were added by exhaustive literature survey.

1. Plant synonyms: Many plants have been named by one or more alternative scientific names by different authors. Such additional names are called synonyms. To help the users all the available synonyms have been added to the 500 plants.
2. Vernacular names: Very few vernacular names of plants were provided by 5 centres. Tamil Nadu and Maharashtra were the two centres together gave more than 475. At present more than 11000 vernacular names in English, Hindi, Sanskrit, Marathi, Tamil and Malayalam has been added.
3. Plant description with key character: The detail botanical description of all the plants with key characters for easier identification has been provided.
4. Distribution: The distribution of plants given by different states was the information on the exact location where the reported plant has been collected. But in the database it was misleading. So the global distribution of the plant species has been incorporated by referring various floras.
5. Phenology: As many formulations given in the database use flowers, fruits, seeds etc the phonological aspects of the plants are been provided for each plant.
6. Chemical composition and Pharmacology: A huge effort was put to collect information on the chemical composition and pharmacological aspects of the plants. Phytochemical studies on the plants available in literature and using different search engines like Chemical abstracts (with the help of NCL, Pune), Scopus (thanks to Elsevier), Google Scholar etc have been provided. However, even after a rigorous search through literature and web we could not collect the chemical composition data for few plants.
7. Reference: For the convenience of researchers and interested people, the references related to the phytochemical and pharmacological aspects has been provided.
8. Photographs and Herbarium: The photographs and herbaria for many of the reported plants were missing while; some others are not up to the

mark. Several trips were made to nearby forest area of Belgaum and Uttara Kannada district to collect herbaria and photographs to fill the gaps. All the available herbarium specimens have been scanned and included.

I. Final structure of Database:



J. Status of Database:

It is planned to publish/ bring out the Database in the form of DVD. The correspondence with the Council is in progress to finalize the modalities for bringing the Database in to public domain. It is expected that DVD of “Database on Ethnomedicinal Plants of Western Ghats” will be ready by September, 2009.

10. Detailed analysis of results indicating contributions made towards increasing the state of knowledge in the subject.

a. Detailed analysis:

The data was analysed with respect to various aspects like habit, parts used, formulations etc. Along with the progress of the database, these results were presented in SAC meeting. Some analysed results of the database are:

Total plants listed : 500
Total families : 115
Total Ailments : 180
Total formulations : 600

Table 1: Distribution of plants under different forms/habits

Sl. No.	Habit	No. of plant species
1	Herbs	191
2	Trees	122
3	Shrubs	118
4	Climbers	69
	Total	500

Table 2: Distribution of plants under different groups

Sl. No.	Plant Group	No. of plant species
1	Dicots	449
2	Monocots	48
3	Pteridophytes	3

Table 3: Families with maximum number of claims

Family	No. of Species	Claims
Fabaceae	36	170
Euphorbiaceae	35	127
Lamiaceae	23	102
Asteraceae	27	80
Piperaceae	5	60
Acanthaceae	12	51
Rubiaceae	22	51
Rutaceae	8	51
Apocynaceae	10	48
Asclepiadaceae	10	45
Solanaceae	12	45

Table 4: Plant parts and disease claims

Sl. No.	Part Name	Claims
1	Leaves	760
2	Stem/ Bark	381
3	Root	294
4	Fruit	211
5	Seed	94
6	Flower	67
7	Rhizome	59
8	Whole plant	24
9	Latex/Resin	21
10	Inflorescence	20
11	Tuber	16
12	Corm	2

Table 5: Diseases having higher number of plants

Sl. No.	Disease name	Plants Reported
1	Skin diseases	112
2	Snake bite	62
3	Wounds	56
4	Fever	55
5	Cold	53
6	Stomach ache	48
7	Cough	46
8	Scorpion sting	44
9	Tonic	39
10	Rheumatism	37

Table 6: Diseases having higher number of claims

Sl. No.	Disease	Claims
1	Skin disease	173
2	Snake bite	96
3	Wounds	84
4	Cold	82
5	Stomach ache	75
6	Fever	72
7	Cough	68
8	Rheumatism	61
9	Scorpion sting	61
10	Tonic	55

Table 7: List of plants used to treat maximum number of diseases

Sl. No.	Plant Name	Family	No.of Diseases
1	*Naravelia zeylanica* DC.	Ranunculaceae	18
2	*Adhathoda zeylanica* Medic.	Acanthaceae	17
3	*Cassia auriculata* L.	Fabaceae	17
4	*Vitex negundo* L.	Verbenaceae	17
5	*Aloe vera* (L.) Burm. f.	Liliaceae	16
6	*Alstonia scholaris* R. Br.	Apocynaceae	16
7	*Asparagus racemosus* Willd	Liliaceae	16
8	*Begonia fallax* DC.	Begoniaceae	15
9	*Pongamia pinnata* (L.) Pierre.	Fabaceae	15
10	*Andrographis paniculata* (Burm.f.) Wall. ex. Nees.	Acanthaceae	14
11	*Emblica officinalis* Gaertn.	Euphorbiaceae	14
12	*Thespesia populnea* Soland ex Correa.	Malvaceae	14
13	*Toddalia asiatica* (L.) Lam var. *floribunda* Gamble.	Rutaceae	14

Table 8: Selected plants having highest number of claims

Sl. No.	Plant Name	Family	Claims
1	*Piper hymenophyllum* Miq.	Piperaceae	28
2	*Pongamia pinnata* (L.) Pierre.	Fabaceae	23
3	*Cassia auriculata* L.	Fabaceae	22
4	*Toddalia asiatica* (L.) Lam var. *floribunda* Gamble.	Rutaceae	22
5	*Naravelia zeylanica* DC.	Ranunculaceae	21
6	*Aristolochia tagala* Cham.	Aristolochiaceae	20
7	*Adhathoda zeylanica* Medic.	Acanthaceae	19
8	*Aloe vera* (L.) Burm. f.	Liliaceae	18
9	*Asparagus racemosus* Willd	Liliaceae	18
10	*Begonia fallax* DC.	Begoniaceae	18
11	*Tribulus terrestris* L.	Zygophyllaceae	18

b. Contributions made towards increasing the state of knowledge in the subject:

It was decided in the SAC meeting to look in to the possibilities of getting leads from the Database for selected diseases. Further, as per the recommendations of SAC-sub-committee, 5 diseases were selected for study namely Diarrhea, Dysentery, Herpes, Rabies and Rheumatism. Leads were identified for the said diseases from the database based on the wider use, availability of plant, part of medicinal value and simple formulation types. In all 8 formulations incorporating 17 plant species were enlisted for Diarrhea; 18 formulations with 29 plants for Dysentery; 2 formulations with 2 plants for herpes; 2 formulations with 6 plants for Rabies and 17 formulations consisting of 49 plants were enlisted for Rheumatism.

In the process of lead identification, our database was compared with other available databases of FRLHT, Bangalore and NIF, Ahmadabad. It is found that many of the plants in the list of leads are not reported in codified system for the said purpose. It is also found that several plants are used for the same purpose in traditional systems of other communities/ geographically distant places as recorded by NIF.

The process of finding the collaborators/ institutions working in the area of selected diseases are in progress to take leads for further research.

11. Conclusions summarizing the achievements and indication of scope for future work:

The database is prepared as per the objective of the project, which include:

- 500 medicinal plants
- More than 200 diseases
- More than 7000 vernacular names in 7 languages
- More than 800 photographs
- Reports from 22 districts of 5 states

The structure and function of the database is simple, user friendly and will be useful to:

- Students
- Teachers
- Researchers
- Ayurvedic & Siddha practitioners
- Traditional healers
- Medical & Pharmaceutical companies

And in general to all those who are having interest in Traditional Herbal Medicine.

The database will help in creating general awareness about traditional herbal medicine and medicinal plants along with promoting scientific temperament in local community by disseminating the scientific information.

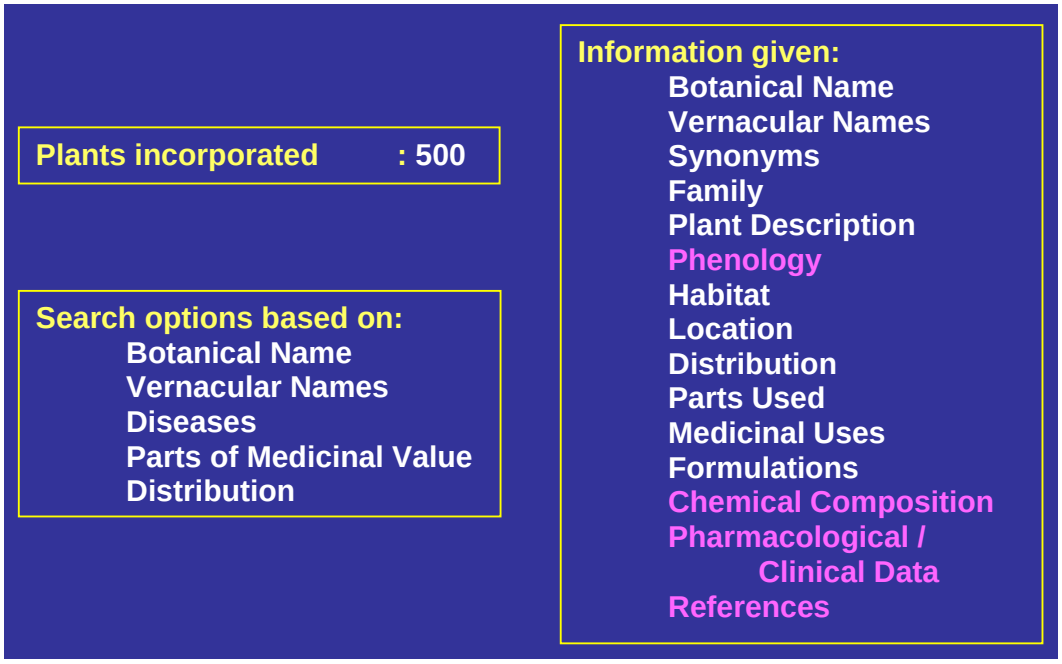
The plants and formulations documented in the database helps in protecting the diminishing wealth of herbal healing along with claiming the rights on IPR issues. It serves as an information bank for future research in herbal and traditional medicine. The scientific validation (efficacy, safety, mode of action and clinical trials) of the formulations in the database will be resulted in newer and efficient herbal drugs for various conditions, which in turn beneficial to the whole human community.

12. S&T benefits accrued:

i. List of research publications with complete details:
   Nil.
ii. Manpower trained on the project:
    a. Research Scientists or Research Fellows: 2
    b. No. of Ph.Ds produced: Nil
    c. Other Technical Personnel trained: 2
iii. Patents taken, if any: Nil
iv. Products developed, if any: DVD on “Database on ethnomedicinal plants of Western Ghats”. (Will be ready by September, 2008)

13. Abstract (300 words for possible publication in ICMR Bulletin):

Survey was conducted in the Western Ghats region for collecting the information on plants used by the traditional medicinal practitioners for treatment of various diseases. 500 medicinal plants were identified. Along with the data, 535 herbarium sheets of 345 plant species and 453 photographs of 369 plant species were collected by the five participating Centres of this multricentric project. Separate software program was developed with the help of experts for the database. There are several search options in the database like names of the plants (both botanical and vernacular names in 6 languages), parts of medicinal value, utility and distribution, which shall facilitate easier and faster retrieval of the data. Additional information on chemical composition, pharmacology and clinical trials was also added to the database through extensive literature search. The contents of the database will be:



This database will be ready by September 2008. It is hoped that the database will be useful to common man, students, academicians, traditional healers and scientific community.

14. **Procurement/usage of Equipment(s):** Nil

Place: Belgaum

Date: **Principle Investigator**

Annexure-1

List of plants in the Database on Ethnomedicinal Plants of Western Ghats

No.	Plant_Name	Author	Family_Name
1	*Abrus precatorius*	L.	Fabaceae
2	*Abutilon crispum*	(L.) Medicus	Malvaceae
3	*Acacia mearnsii*	(DC.) Willd.	Fabaceae
4	*Acalypha ciliata*	Forrsk.	Euphorbiaceae
5	*Acalypha indica*	L.	Euphorbiaceae
6	*Acalypha racemosa*	Wall. ex Baill.	Euphorbiaceae
7	*Achillea millefolium*	L.	Asteraceae
8	*Achyranthes aspera*	L.	Amaranthaceae
9	*Achyranthes aspera* var. *porphyrostachya*	(Wall. ex Moq.) Hook. f.	Amaranthaceae
10	*Acorus calamus*	L.	Araceae
11	*Acronychia pedunculata*	(L.) Miq.	Rutaceae
12	*Acrotrema arnottianum*	Wt.	Dilleniaceae
13	*Actinopteris radiata*	(Koen.) Link.	Actinopteridaceae
14	*Adhatoda zeylanica*	Medic.	Acanthaceae
15	*Adhatoda beddomei*	Clarke.	Acanthaceae
16	*Adina cordifolia*	(Roxb.) Hook. f. ex Brandis.	Rubiaceae
17	*Aegle marmelos*	(L.) Correa	Rutaceae
18	*Aerva lanata*	(L.) Juss. ex Schult.	Amaranthaceae
19	*Aeschynomene indica*	L.	Fabaceae
20	*Ageratum conyzoides*	L.	Asteraceae
21	*Aglaia lawii*	(Wight) Saldanha	Meliaceae
22	*Aglaia roxburghiana*	Hiern.	Meliaceae
23	*Albizia amara*	(Roxb.) Boiv.	Fabaceae
24	*Allophylus cobbe*	(L.) Raeusch	Sapindaceae
25	*Aloe vera*	(L.) Burm. f.	Liliaceae
26	*Alpinia galanga*	Willd.	Zingiberaceae
27	*Alpinia malaccensis*	(Burm. f.) Rosc.	Zingiberaceae
28	*Alstonia scholaris*	(L.) R. Br.	Apocynaceae
29	*Alstonia venenata*	R. Br.	Apocynaceae
30	*Alternanthera sessilis*	(L.) R. Br. ex DC.	Amaranthaceae
31	*Alysicarpus vaginalis*	DC.	Fabaceae
32	*Amorphophallus campanulatus*	Blume. ex Decue.	Araceae
33	*Alangium salvifolium*	(L. f.) Wang	Alangiaceae
34	*Anacardium occidentale*	L.	Anacardiaceae
35	*Anamirta cocculus*	(L.) Wight & Arn.	Menispermaceae
36	*Anaphalis wightii*	DC.	Asteraceae
37	*Ancistrocladus heyneanus*	Wall. ex Grah.	Ancistrocladaceae
38	*Andrographis paniculata*	(Burm. f.) Wall. ex Nees.	Acanthaceae
39	*Anisochilus scaber*	(Benth.) DC.	Lamiaceae
40	*Annona reticulata*	L.	Annonaceae
41	*Anotis leschenaultiana*	Benth. ex Hook. f.	Rubiaceae
42	*Anthocephalus indicus*	Rich.	Rubiaceae
43	*Antidesma menasu*	Miq. ex Tul.	Euphorbiaceae
44	*Antidesma zeylanicum*	Lam.	Euphorbiaceae
45	*Apama siliquosa*	Lam.	Aristolochiaceae

No.	Plant_Name	Author	Family_Name
46	*Areca catechu*	L.	Arecaceae
47	*Arenga wightii*	Griff.	Arecaceae
48	*Argemone mexicana*	L.	Papaveraceae
49	*Argyreia nervosa*	Daly.	Convulvulaceae
50	*Ariopsis peltata*	Nimmo.	Arecaceae
51	*Aristida setacea*	Retz.	Poaceae
52	*Aristolochia indica*	L.	Aristolochiaceae
53	*Aristolochia krisagathra*	Sivarajan & Pradeep	Aristolochiaceae
54	*Aristolochia tagala*	Cham.	Aristolochiaceae
55	*Artanema sesamoides*	Benth.	Scrophulariaceae
56	*Artemisia nilagirica*	(Clarke) Pampan.	Asteraceae
57	*Artemisia parviflora*	Buch.-Ham. ex Roxb.	Asteraceae
58	*Artocarpus heterophyllus*	Lam.	Moraceae
59	*Artocarpus incisus*	L. f.	Moraceae
60	*Asclepias curassavica*	L.	Asclepiadaceae
61	*Asparagus racemosus*	Willd.	Liliaceae
62	*Asystasia gangetica*	And.	Acanthaceae
63	*Atalantia racemosa*	Wight & Arn.	Rutaceae
64	*Atylosia scarabaeoides*	(L.) Benth.	Fabaceae
65	*Azadirachta indica*	A. Juss.	Meliaceae
66	*Baccaurea courtallensis*	Muell.-Arg.	Euphorbiaceae
67	*Bacopa monneria*	L. Wettst.	Scrophulariaceae
68	*Balanophora fungosa* ssp. *indica*	(Arn.) Hansen.	Balanophoraceae
69	*Baliospermum montanum*	(Willd.) Muell.-Arg.	Euphorbiaceae
70	*Bambusa arundinacea*	(Retz.) Willd.	Poaceae
71	*Bauhinia tomentosa*	L.	Fabaceae
72	*Bauhinia variegata*	L.	Fabaceae
73	*Begonia fallax*	DC.	Begoniaceae
74	*Begonia floccifera*	Bedd.	Begoniaceae
75	*Withania somnifera*	Dunal	Solanaceae
76	*Berberis tinctoria*	Lesch.	Berberidaceae
77	*Bidens pilosa*	L.	Asteraceae
78	*Biophytum insignis*	Gamble	Oxalidaceae
79	*Biophytum intermedium* var. *pulneyense*	Edgew.	Oxalidaceae
80	*Biophytum longibracteatum*	Tad. & Jac.	Oxalidaceae
81	*Biophytum sensitivum*	(L.) DC.	Oxalidaceae
82	*Blachia calycina*	Benth.	Euphorbiaceae
83	*Blachia umbellata*	(Willd.) Baill.	Euphorbiaceae
84	*Blepharis maderaspatensis*	(L.) Roth.	Acanthaceae
85	*Blepharispermum petiolare*	DC.	Asteraceae
86	*Blumea oxyodonta*	DC.	Asteraceae
87	*Boehmeria malabarica*	Wedd.	Urticaceae
88	*Boerrhavia diffusa*	L.	Nyctaginaceae
89	*Borreria ocymoides*	(Burm. f.) DC.	Rubiaceae
90	*Breynia patens*	(Roxb.) Rolfe.	Euphorbiaceae
91	*Bridelia scandens*	Gehrm.	Euphorbiaceae
92	*Bridelia stipularis*	Blume. Bijdr.	Euphorbiaceae
93	*Careya arborea*	Roxb.	Lecythidaceae

No.	Plant_Name	Author	Family_Name
94	*Butea monosperma*	(Lam.) Taub.	Fabaceae
95	*Calamus rotang*	L.	Arecaceae
96	*Calophyllum inophyllum*	L.	Clusiaceae
97	*Calotropis gigantea*	(L.) R. Br.	Asclepiadaceae
98	*Calycopteris floribunda*	(Roxb.) Poiret	Combretaceae
99	*Canna indica*	L.	Cannaceae
100	*Cansjera rheedii*	Gmel.	Opiliaceae
101	*Canthium dicoccum*	(Gaertn.) Tegsm & Binn.	Rubiaceae
102	*Capparis moonii*	Wight.	Capparaceae
103	*Capparis parviflora*	Hook. f. & Thoms.	Capparaceae
104	*Capsicum frutescens*	L.	Solanaceae
105	*Cardiospermum halicacabum*	L.	Sapindaceae
106	*Carissa carandas*	L.	Apocynaceae
107	*Carmona retusa*	(Vahl.) Masam.	Boraginaceae
108	*Caryota urens*	L.	Araceae
109	*Casearia elliptica*	Tul.	Flacourtiaceae
110	*Cassia auriculata*	L.	Fabaceae
111	*Cassia retusa*	Vogel	Fabaceae
112	*Cassia tora*	L.	Fabaceae
113	*Cayratia pedata*	(Lam.) Juss.	Vitaceae
114	*Celastrus paniculatus*	Willd.	Celastraceae
115	*Celtis cinnamomea*	Lindl. ex Planch.	Ulmaceae
116	*Centella asiatica*	(L.) Urban.	Apiaceae
117	*Centratherum anthelminticum*	(L.) Kuntze.	Asteraceae
118	*Cerastium glomeratum*	Thuill.	Caryophyllaceae
119	*Ceropegia candelabrum*	L.	Asclepiadaceae
120	*Chionanthus malabarica*	Bedd.	Oleaceae
121	*Chlorophytum tuberosum*	(Roxb.) Baker.	Liliaceae
122	*Chrysanthemum coronarium*	L.	Asteraceae
123	*Cipadessa baccifera*	(Roth.) Miq.	Meliaceae
124	*Cissampelos pareira*	L.	Menispermaceae
125	*Cissus quadrangularis*	L.	Vitaceae
126	*Cissus trilobata*	Lam.	Vitaceae
127	*Citrullus colocynthis*	Schrad.	Cucurbitaceae
128	*Clausena austroindica*	Stone & Nair	Rutaceae
129	*Clematis gouriana*	Roxb.	Ranunculaceae
130	*Clematis triloba*	Heyne ex Roth	Ranunculaceae
131	*Cleome monophylla*	L.	Capparaceae
132	*Cleome viscosa*	L.	Capparaceae
133	*Clerodendrum serratum*	(L.) Moon	Verbenaceae
134	*Clitoria ternatea*	L.	Fabaceae
135	*Coccinia grandis*	(L.) Voigt.	Cucurbitaceae
136	*Cocos nucifera*	L.	Arecaceae
137	*Colocasia esculenta*	(L.) Schott.	Araceae
138	*Commelina benghalensis*	L.	Commelinaceae
139	*Commelina ensifolia*	R. Br.	Commelinaceae
140	*Commelina nudiflora*	L.	Commelinaceae
141	*Commiphora caudata*	(Wight & Arn.) Engl.	Burseraceae

No.	Plant_Name	Author	Family_Name
142	*Conyza ambigua*	DC.	Asteraceae
143	*Coriandrum sativum*	L.	Apiaceae
144	*Coscinium fenestratum*	(Gaertn.) Colebr.	Menispermaceae
145	*Costus speciosus*	(Koen.) Smith	Zingiberaceae
146	*Crassocephalum crepidioides*	(Benth.) Moore.	Asteraceae
147	*Crotalaria pallida*	Aiton.	Fabaceae
148	*Crotalaria walkeri*	Arn.	Fabaceae
149	*Croton klotzschianus*	(Wight.) Thwaites.	Euphorbiaceae
150	*Croton oblongifolious*	Roxb.	Euphorbiaceae
151	*Cryptolepis buchanani*	Roemer & Schultes	Asclepiadaceae
152	*Curculigo orchioides*	Gaertn.	Amaryllidaceae
153	*Cuscuta reflexa*	Roxb.	Convolvulaceae
154	*Cyanotis villosa*	(Spreng.) Schultes	Commelinaceae
155	*Cyclea arnotti*	Miers.	Menispermaceae
156	*Cymbopogan citratus*	Stapf.	Poaceae
157	*Cyperus haspan*	L.	Cyperaceae
158	*Cyperus rotundus*	L.	Cyperaceae
159	*Datura stramonium*	L.	Solanaceae
160	*Dendrophthoe falcate*	(L. f) Ethingsh.	Loranthaceae
161	*Desmodium dolabriforme*	Benth.	Fabaceae
162	*Desmodium laxiflorum*	DC.	Fabaceae
163	*Desmodium rufescens*	DC.	Fabaceae
164	*Desmodium triangulare*	(Retz.) Merr.	Fabaceae
165	*Didymocarpus humboldtiana*	Gardn.	Gesneriaceae
166	*Didymocarpus tomentosa*	W.	Gesneriaceae
167	*Dillenia indica*	L.	Dilleniaceae
168	*Dimorphocalyx lawianus*	(Muell.-Arg.) Hook. f.	Euphorbiaceae
169	*Dioscorea bulbifera*	L.	Dioscoreaceae
170	*Dioscorea pentaphylla*	L.	Dioscoreaceae
171	*Diospyros montana*	Roxb.	Ebenaceae
172	*Diospyros ebenum*	Roxb.	Ebenaceae
173	*Diotacanthus albiflorus*	Benth.	Acanthaceae
174	*Diplocyclos palmatus*	(L.) Jeffrey	Cucurbitaceae
175	*Dodonaea angustifolia*	L. f.	Sapindaceae
176	*Dolichos falcatus*	Klein. ex Willd.	Fabaceae
177	*Dorstenia indica*	Wall. ex Wight	Moraceae
178	*Dracaena terniflora*	Roxb.	Liliaceae
179	*Drymaria cordata*	(L.) Roemer ex Schultes	Caryophyllaceae
180	*Dumasia villosa*	DC.	Fabaceae
181	*Dunbaria ferruginea*	Wight & Arn.	Fabaceae
182	*Ecbolium viride*	(Forssk.) Alston	Acanthaceae
183	*Eclipta alba*	Hassk.	Asteraceae
184	*Elaeagnus indica*	Servattax	Elaeagnaceae
185	*Elaeocarpus lanceaefolius*	Roxb.	Elaeocarpaceae
186	*Elephantopus scaber*	L.	Asteraceae
187	*Elytraria acaulis*	(L. f.) Lindau.	Acanthaceae
188	*Embelia ribes*	Burm. f.	Myrsinaceae
189	*Emblica officinalis*	Gaertn.	Euphorbiaceae

No.	Plant_Name	Author	Family_Name
190	*Emilia sonchifolia*	(L.) DC. ex Wight	Asteraceae
191	*Erigeron karvinskianus*	DC.	Asteraceae
192	*Erinocarpus nimmonii*	Grath.	Tiliaceae
193	*Eriocaulon dalzelii*	Koern.	Eriocaulaceae
194	*Ervatamia heyneana*	(Wall.) Cooke	Apocynaceae
195	*Erythrina variegata*	L.	Fabaceae
196	*Erythroxylon monogynum*	Roxb.	Erythroxylaceae
197	*Eucalyptus globulus*	Labill. Voy. Rech.	Myrtaceae
198	*Eugenia singampattiana*	Bedd.	Myrtaceae
199	*Eulophia epidendracea*	(Koen.) Schelt.	Orchidaceae
200	*Euonymus dichotomus*	Heyne ex Roxb.	Celastraceae
201	*Eupatorium glandulosum*	Kunth.	Asteraceae
202	*Eupatorium odoratum*	L.	Asteraceae
203	*Euphorbia cyathophora*	Murr.	Euphorbiaceae
204	*Euphorbia hirta*	L.	Euphorbiaceae
205	*Evolvulus alsinoides*	(L.) L.	Convolvulaceae
206	*Evolvulus nummularius*	(L.) L.	Convolvulaceae
207	*Excoecaria crenulata*	Wight	Euphorbiaceae
208	*Ficus asperrima*	Roxb.	Moraceae
209	*Ficus benghalensis*	L.	Moraceae
210	*Ficus hispida*	L. f.	Moraceae
211	*Ficus retusa*	L. f.	Moraceae
212	*Flemingia grahamiana*	Wight & Arn.	Fabaceae
213	*Fragaria vesca*	L.	Rosaceae
214	*Gaillardia pulchella*	Foug.	Asteraceae
215	*Garcinia cambogia*	(Gaertn.) Desr.	Clusiaceae
216	*Garcinia indica*	(Dupetit-Thouars) Choisy	Clusiaceae
217	*Gardenia gummifera*	L.	Rubiaceae
218	*Gaultheria fragrantissima*	Wall.	Ericaceae
219	*Gelonium multiflorum*	A. Juss.	Euphorbiaceae
220	*Geophylla reniformis*	Roxb.	Rubiaceae
221	*Girardinia leschenaultiana*	Dene.	Urticaceae
222	*Glochidion velutinum*	Wight	Euphorbiaceae
223	*Gloriosa superba*	L.	Liliaceae
224	*Glycosmis mauritiana*	(Lam.) Tanaka.	Rutaceae
225	*Gnidia glauca*	(Fresen.) Gilg.	Thymelaeaceae
226	*Gomphandra coriacea*	Wight	Icacinaceae
227	*Gordonia obtusa*	Wall. ex Wight & Arn.	Theaceae
228	*Graptophyllum hortense*	Nees.	Acanthaceae
229	*Grewia abutilifolia*	Vent.	Tiliaceae
230	*Grewia asiatica*	L.	Tiliaceae
231	*Grewia gamblei*	Drumm.	Tiliaceae
232	*Grewia pilosa*	Wight & Arn.	Tiliaceae
233	*Grewia tiliaefolia*	Vahl.	Tiliaceae
234	*Gymnema sylvestre*	(Retz.) Schult.	Asclepiadaceae
235	*Gymnosporia rothiana*	Laws.	Celastraceae
236	*Hedyotis nitida*	Wight & Arn.	Rubiaceae
237	*Hedyotis corymbosa*	Lam.	Rubiaceae

No.	Plant_Name	Author	Family_Name
238	*Hedyotis umbellata*	L.	Rubiaceae
239	*Helicteres isora*	L.	Sterculiaceae
240	*Heliotropium indicum*	L.	Boraginaceae
241	*Hemidesmus indicus*	(L.) R. Br.	Asclepiadaceae
242	*Hemionitis arifolia*	(Burm.) Moore	Pteridaceae
243	*Hibiscus ovalifolius*	(Forssk.) Vahl.	Malvaceae
244	*Hibiscus platanifolius*	(Willd.) Sweet.	Malvaceae
245	*Hibiscus rosa-sinensis*	L.	Malvaceae
246	*Hibiscus setinervis*	Dunn.	Malvaceae
247	*Hibiscus vitifolius*	L.	Malvaceae
248	*Terminalia tomentosa*	Wight & Arn.	Combretaceae
249	*Holarrhena pubescens*	(Buch.-Ham.) Wallich ex G. Don.	Apocynaceae
250	*Holigarna arnottiana*	(Wight & Arn.) Hook.	Anacardiaceae
251	*Holostemma annulare*	(Roth) Schum.	Asclepiadaceae
252	*Hugonia mystax*	L.	Linaceae
253	*Hydnocarpus laurifolia*	(Dennst.) Sleumer	Flacourtiaceae
254	*Hyptis suaveolens*	(L.) Poit.	Lamiaceae
255	*Indigofera enneaphylla*	L.	Fabaceae
256	*Indigofera pulchella*	Roxb.	Fabaceae
257	*Indigofera tinctoria*	L.	Fabaceae
258	*Melia azedarach*	L.	Meliaceae
259	*Ipomoea nil*	(L.) Roth.	Convolvulaceae
260	*Ipomoea obscura*	K. Gawl.	Convolvulaceae
261	*Isonandra lanceolata*	Wight	Sapotaceae
262	*Jasminum angustifolium*	Vahl.	Oleaceae
263	*Jasminum flexile*	Vahl.	Oleaceae
264	*Jasminum malabaricum*	Wight.	Oleaceae
265	*Jatropha curcas*	L.	Euphorbiaceae
266	*Kalanchoe pinnata*	(Lamk) Pers.	Crassulaceae
267	*Kirganelia reticulata*	(Poir.) Baillon	Euphorbiaceae
268	*Kleinia grandiflora*	(DC.) Rani.	Asteraceae
269	*Knoxia heyneana*	DC.	Rubiaceae
270	*Kyllinga melanosperma*	Nees.	Cyperaceae
271	*Lablab purpureus*	(L.) Sweet.	Fabaceae
272	*Lantana camara*	L.	Verbenaceae
273	*Lantana indica*	Roxb.	Verbenaceae
274	*Lawsonia inermis*	L.	Lythraceae
275	*Leea indica*	(Burm. f.) Merr.	Vitaceae
276	*Leucas apsera*	(Willd.) Link.	Lamiaceae
277	*Leucas biflora*	(Vahl.) R. Br.	Lamiaceae
278	*Leucas cephalotes*	Spr.	Lamiaceae
279	*Leucas vestita*	Benth.	Lamiaceae
280	*Ligustrum neilgherrense*	Wight.	Oleaceae
281	*Ligustrum roxburghii*	Clarke.	Oleaceae
282	*Litsea ligustrina*	Hook. f.	Lauraceae
283	*Lobelia heyneana*	Roemer & Schultes	Campanulaceae
284	*Lycopersicum esculentum*	Mill.	Solanaceae
285	*Macaranga peltata*	(Roxb.) Muell. Arg.	Euphorbiaceae

No.	Plant_Name	Author	Family_Name
286	*Machilus macrantha*	Nees.	Lauraceae
287	*Maesa indica* var. *perrottetiana*	Cl.	Myrsinaceae
288	*Mahonia leschnaultii*	(Wight & Arn.) Takeda	Berberidaceae
289	*Mallotus philippinensis*	(Lam.) Muell.-Arg.	Euphorbiaceae
290	*Mallotus rhamnifolius*	(Willd.) Muell.	Euphorbiaceae
291	*Mallotus stenanthus*	Muell.-Arg.	Euphorbiaceae
292	*Malvastrum coromandelianum*	(L.) Garcke	Malvaceae
293	*Mangifera indica*	L.	Anacardiaceae
294	*Meiogyne pannosa*	(Dalzell) Sinclair.	Annonaceae
295	*Melochia corchorifolia*	L.	Sterculiaceae
296	*Memecylon malabaricum*	(Clarke) Cogn.	Melastomataceae
297	*Mentha arvensis*	L.	Lamiaceae
298	*Merremia hastata*	Hall.	Convolvulaceae
299	*Mesua ferrea*	L.	Clusiaceae
300	*Michelia champaca*	L.	Magnoliaceae
301	*Micromeria biflora*	(D. Don) Benth.	Lamiaceae
302	*Miliusa eriocarpa*	Dunn.	Annonaceae
303	*Mimosa pudica*	L.	Fabaceae
304	*Mimosops elengi*	L.	Sapotaceae
305	*Mirabilis jalapa*	L.	Nyctaginaceae
306	*Mollugo nudicaulis*	Lam.	Aizoaceae
307	*Mollugo pentaphylla*	L.	Aizoaceae
308	*Momordica dioica*	Roxb.	Cucurbitaceae
309	*Morinda citrifolia*	L.	Rubiaceae
310	*Morinda pubescens*	Roxb.	Rubiaceae
311	*Moringa oleifera*	Lamk.	Moringaceae
312	*Mucuna pruriens*	(L.) DC.	Fabaceae
313	*Mukia maderaspatana*	(L.) Roemer.	Cucurbitaceae
314	*Murdannia montanum*	(Clarke) Bruckn.	Commelinaceae
315	*Murdannia spirata*	(L.) Bruce	Commelinaceae
316	*Murraya koenigii*	(L.) Spreng.	Rutaceae
317	*Musa paradisiaca*	L.	Musaceae
318	*Mussaenda hirsutissima*	(Hook. f.) Hutch.	Rubiaceae
319	*Naravelia zeylanica*	(L.) DC.	Ranunculaceae
320	*Nerium oleander*	L.	Apocynaceae
321	*Nothapodytes nimmoniana*	(Graham.) Mabberley	Icacinaceae
322	*Nyctanthes arbor-tristis*	L.	Oleaceae
323	*Ocimum basilicum*	L.	Lamiaceae
324	*Ocimum canum*	Sims.	Lamiaceae
325	*Ocimum gratissimum*	L.	Lamiaceae
326	*Ocimum sanctum*	L.	Lamiaceae
327	*Ocimum tenuiflorum*	L.	Lamiaceae
328	*Oldenlandia auricularia*	Schum.	Rubiaceae
329	*Opuntia stricta* var. *dilleni*	(Ker-Gawler) Benson	Cactaceae
330	*Oreocnide integrifolia*	(Gaudich.) Miq.	Urticaceae
331	*Orophea thomsonii*	Bedd.	Annonaceae
332	*Oroxylum indicum*	(L.) Kurz	Bignoniaceae
333	*Orthosiphon diffusus*	Benth.	Lamiaceae

No.	Plant_Name	Author	Family_Name
334	*Orthosiphon glabratus*	Benth.	Lamiaceae
335	*Osbeckia aspera*	(L.) Bl.	Melastomataceae
336	*Osbeckia leschenaultiana*	DC.	Melastomataceae
337	*Osbeckia zeylanica*	Willd.	Melastomataceae
338	*Osyris wightiana*	Wallich ex Wight	Santalaceae
339	*Oxalis corniculata*	L.	Oxalidaceae
340	*Pandanus odoratissimus*	Roxb.	Pandanaceae
341	*Passiflora leschenaultii*	DC.	Passifloraceae
342	*Passiflora subpeltata*	Ortega.	Passifloraceae
343	*Pavetta hispidula*	Wight & Arn.	Rubiaceae
344	*Pavetta indica*	L.	Rubiaceae
345	*Pavonia procumbens*	(Wight & Arn.) Walp.	Malvaceae
346	*Pelargonium graveolens*	L. Her.	Geraniaceae
347	*Pellionia heyneana*	Wedd.	Urticaceae
348	*Peperomia tetraphylla*	(Forst. f.) Hook. & Arn.	Piperaceae
349	*Pergularia daemia*	(Forssk.) Chiov.	Asclepiadaceae
350	*Phoenix sylvestris*	(L.) Roxb.	Arecaceae
351	*Phyllanthus amarus*	L.	Euphorbiaceae
352	*Phyllanthus baillonianus*	Arg.	Euphorbiaceae
353	*Phyllanthus fraternus*	Webster	Euphorbiaceae
354	*Phyllanthus polyphyllus*	Willd.	Euphorbiaceae
355	*Phyllanthus urinaria*	L.	Euphorbiaceae
356	*Phyllanthus virgatus*	G. Forst.	Euphorbiaceae
357	*Physalis minima*	L.	Solanaceae
358	*Physalis peruviana*	L.	Solanaceae
359	*Phytolocca octandra*	L.	Phytolaccaceae
360	*Pilea trinervia*	Wight.	Urticaceae
361	*Piper betle*	L.	Piperaceae
362	*Piper hookeri*	L.	Piperaceae
363	*Piper hymenophyllum*	Miq.	Piperaceae
364	*Piper longum*	L.	Piperaceae
365	*Piper nigrum*	L.	Piperaceae
366	*Pittosporum tetraspermum*	Wight & Arn.	Pittosporaceae
367	*Plectranthus coetsa*	Buch.-Ham.	Lamiaceae
368	*Plectranthus coleoides*	Benth.	Lamiaceae
369	*Plectranthus deccanicus*	Briq.	Lamiaceae
370	*Plectranthus wightii*	Benth.	Lamiaceae
371	*Plumbago zeylanica*	L.	Plumbaginaceae
372	*Pogostemon parviflorus*	Benth.	Lamiaceae
373	*Polygonum chinense*	L.	Polygonaceae
374	*Polygonum punctatum*	Buch.-Ham. ex D. Don	Polygonaceae
375	*Pongamia pinnata*	(L.) Pierre.	Fabaceae
376	*Pothos scandens*	L.	Araceae
377	*Pouzolzia bennettiana*	Wight.	Urticaceae
378	*Pouzolzia cymosa*	Wight.	Urticaceae
379	*Premna serratifolia*	L.	Verbenaceae
380	*Priva cordifolia*	(L. f.) Druce.	Verbenaceae
381	*Prunus persica*	(L.) Batsch	Rosaceae

No.	Plant_Name	Author	Family_Name
382	*Prunus salicina*	Lindl.	Rosaceae
383	*Pseudarthria viscida*	Wight & Arn.	Fabaceae
384	*Psidium guajava*	L.	Myrtaceae
385	*Psychotria connata*	L.	Rubiaceae
386	*Psychotria curviflora*	Wall.	Rubiaceae
387	*Psychotria flavida*	Talb.	Rubiaceae
388	*Pterocarpus marsupium*	Roxb.	Fabaceae
389	*Pterospermum obtusifolium*	Wight	Sterculiaceae
390	*Punica granatum*	L.	Punicaceae
391	*Pyrus communis*	L.	Rosaceae
392	*Quisqualis indica*	L.	Combretaceae
393	*Ranunculus wallichianus*	Wight & Arn.	Ranunculaceae
394	*Raphanus sativus*	L.	Brassicaceae
395	*Rauvolfia beddomei*	Hook. f.	Apocynaceae
396	*Rauvolfia serpentina*	(L.) Benth. ex Kurz	Apocynaceae
397	*Rauvolfia tetraphylla*	L.	Apocynaceae
398	*Reidia longiflora*	Gamble	Euphorbiaceae
399	*Rhododendron arboreum* var. *nilagirica*	Cl.	Ericaceae
400	*Rhynchoglossum notonianum*	(Wall.) Burtt.	Gesneriaceae
401	*Richardia scabra*	L.	Rubiaceae
402	*Ricinus communis*	L.	Euphorbiaceae
403	*Rosmarinus officinalis*	L.	Lamiaceae
404	*Rubia cordifolia*	L.	Rubiaceae
405	*Rubus ellipticus*	Sm.	Rosaceae
406	*Rubus niveus*	Thunb.	Rosaceae
407	*Ruellia prostrata*	L.	Acanthaceae
408	*Rungia linifolia*	Nees.	Acanthaceae
409	*Rungia repense*	(L.) Nees.	Acanthaceae
410	*Ruta graveolens*	L.	Rutaceae
411	*Salacia chinensis*	L.	Hippocrateaceae
412	*Santalum album*	L.	Santalaceae
413	*Santolina chamaecyparissus*	L.	Asteraceae
414	*Sapindus laurifolius*	Vahl.	Sapindaceae
415	*Saraca asoca*	(Roxb.) de Willd.	Fabaceae
416	*Sarcococca trinervia*	W.	Buxaceae
417	*Schefflera racemosa*	(Wight) Harm.	Araliaceae
418	*Schumannianthus virgatus*	(Roxb.) Rolfe.	Marantaceae
419	*Scleria lithosperma*	(L.) Sw.	Cyperaceae
420	*Scleropyrum pentandrum*	(Dennst.) Mabb.	Santalaceae
421	*Scolopia crenata*	(Wight & Arn.) Clos.	Flacourtiaceae
422	*Scoparia dulcis*	L.	Scrohphulariaceae
423	*Scutellaria violacea*	Heyne	Lamiaceae
424	*Selaginella repanda*	(Desv. ex Poir) Spring.	Selaginellaceae
425	*Sesamum orientale*	L.	Pedaliaceae
426	*Setaria verticillata*	Beauv.	Poaceae
427	*Sida acuta*	Burm. f.	Malvaceae
428	*Smilax aspera*	L.	Smilacaceae
429	*Smilax macrophylla*	Roxb.	Smilacaceae

No.	Plant_Name	Author	Family_Name
430	*Smilax perfoliata*	Lour.	Smilacaceae
431	*Smilax zeylanica*	L.	Smilacaceae
432	*Smilax china*	L.	Smilacaceae
433	*Smithia sensitiva*	Aiton	Fabaceae
434	*Solanum erianthum*	D. Don.	Solanaceae
435	*Solanum indicum*	L.	Solanaceae
436	*Solanum nigrum*	L.	Solanaceae
437	*Solanum torvum*	Sw.	Solanaceae
438	*Solanum vagum*	Heyne	Solanaceae
439	*Solanum violaceum* ssp. *multiflorum*	(Clarke) Matthew.	Solanaceae
440	*Sonchus oleraceus*	L.	Asteraceae
441	*Sopubia delphinifolia*	(L.) G. Don.	Scrohphulariaceae
442	*Spilanthes acmella*	(L.) Murray.	Asteraceae
443	*Spondias mangifera*	Willd.	Anacardiaceae
444	*Stachytarpheta mutabilis*	Vahl.	Verbenaceae
445	*Stephania japonica*	(Thunb.) Miers	Menispermaceae
446	*Strobilanthes callosus*	Nees.	Acanthaceae
447	*Strychnos nux-vomica*	L.	Loganiaceae
448	*Stylosanthes fruticosa*	(Retz.) Alston	Fabaceae
449	*Symplocos cochinchinensis* ssp. *laurina*	(Retz.) Noot.	Symplocaceae
450	*Syzygium zeylanicum* var. *lineare*	(Wall.) Alston	Myrtaceae
451	*Tabernaemontana coronaria*	R. Br.	Apocynaceae
452	*Tamarindus indica*	L.	Fabaceae
453	*Tecoma undulata*	G. Don.	Bignoniaceae
454	*Tephrosia purpurea*	(L.) Pers.	Fabaceae
455	*Terminalia arjuna*	(Roxb. ex DC.) Wight & Arn.	Combretaceae
456	*Terminalia bellirica*	(Gaertn.) Roxb.	Combretaceae
457	*Terminalia chebula*	Retz.	Combretaceae
458	*Terminalia paniculata*	Roth.	Combretaceae
459	*Themeda triandra*	Forssk	Poaceae
460	*Theriophonum minutum*	(Willd.) Baill.	Araceae
461	*Thespesia populnea*	(L.) Soland ex Correa.	Malvaceae
462	*Thymus vulgaris*	L.	Lamiaceae
463	*Tinospora cordifolia*	(Willd.) Hook. f. & Thoms.	Menispermaceae
464	*Tinospora malabarica*	(Lam.) Hook. f. & Thoms.	Menispermaceae
465	*Toddalia asiatica* var. *floribunda*	Gamble	Rutaceae
466	*Trema orientalis*	(L.) Blume.	Ulmaceae
467	*Trianthema portulacastrum*	L.	Aizoaceae
468	*Tribulus alatus*	Delile.	Zygophyllaceae
469	*Tribulus terrestris*	L.	Zygophyllaceae
470	*Trichodesma zeylanicum*	(Burm. f.) R. Br.	Boraginaceae
471	*Trichopus zeylanicus*	Gaertn.	Dioscoreaceae
472	*Trichosanthes cuspidata*	Lam.	Cucurbitaceae
473	*Tridax procumbens*	L.	Asteraceae
474	*Triumfetta pentandra*	A. Rich	Tiliaceae
475	*Triumfetta rhomboidea*	Jacq.	Tiliaceae
476	*Turpinia nepalensis*	Wall. ex Wight & Arn.	Staphyleaceae
477	*Tylophora asthmatica*	Wight & Arn.	Asclepiadaceae

No.	Plant_Name	Author	Family_Name
478	*Tylophora tenuis*	Blume.	Asclepiadaceae
479	*Urena lobata* ssp. *lobata*	(L.) Bross Wal.	Malvaceae
480	*Urena lobata* ssp. *Sinuata*	(L.) Bross. Wal.	Malvaceae
481	*Vaccinium leschenaultii*	Wight	Ericaceae
482	*Vanda roxburghii*	R. Br.	Orchidaceae
483	*Vernonia cinerea*	(L.) Less.	Asteraceae
484	*Vernonia divergens*	(Roxb.) Edgew.	Asteraceae
485	*Viburnum cylindricum*	Buch. Ham.	Caprifoliaceae
486	*Vitex altissima*	L. f.	Verbenaceae
487	*Vitex leucoxylon*	L. f.	Verbenaceae
488	*Vitex negundo*	L.	Verbenaceae
489	*Wagatea spicata*	(Dalz.) Wight	Fabaceae
490	*Waltheria indica*	L.	Sterculiaceae
491	*Wedelia calendulacea*	Less.	Asteraceae
492	*Wendlandia thyrsoidea*	(Roem. & Schult.) Steud.	Rubiaceae
493	*Woodfordia fruticosa*	(L.) Kurz	Lythraceae
494	*Wrightia tinctoria*	(Roxb.) R. Br.	Apocynaceae
495	*Zehneria maysorensis*	(Wight & Arn.) Arn.	Cucurbitaceae
496	*Zingiber officinale*	Roscoe	Zingiberaceae
497	*Zizyphus jujuba*	(L.) Gaertn.	Rhamnaceae
498	*Zizyphus oenoplia*	(L.) Miller	Rhamnaceae
499	*Zizyphus rugosa*	Lam.	Rhamnaceae
500	*Zornia diphylla*	(L.) Pers.	Fabaceae