Executive Summary

Project Title	: **Developing a Digital Herbarium of Angiospermic Plants of the Western Ghat Regions of Maharashtra.**
Project Sanctioned by	: **University Grants Commission Bahadur Shah Zafar Marg New Delhi – 110 002**
UGC File No.	: **42-943/2013 (SR)**
Duration of the Project	: **01/04/2013 to 31/03/2016**
Place of Work	: **Post-Graduate Research Centre, Department of Botany, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-411005, (MAHARASHTRA, INDIA).**

Work carried out by

Prin. (Dr.) R. S. Zunjarrao,
Principal Investigator.

Dr. R. B. Barmukh,
Co-Investigator

Ms. Anita Kindre
Research Fellow

There are several limitations of traditional herbarium specimens. Though these traditional herbaria are key in taxonomic studies, as the time passes by, the herbarium specimens fade, and the plant parts may get damaged thereby creating difficulties in plant identification. A Digital Herbarium can be an affordable and easy to use solution for correct identification of plants.

For making a Digital Herbarium of tree species found in the Western Ghat regions of Maharashtra, high quality digital images and field observations were required. Therefore, about 80 locations from eight districts of Maharashtra were visited in total 70 visits arranged during October 2013 to February 2016. The plant images were edited to suit the requirement of the website. The plants were identified with the help of literature such as regional floras published by Botanical Survey of India and few field guides. The plant names were updated with the help of websites such as www.tropicos.org, www.ipni.org, www.theplantlist.org. Data on about 650 tree species was collected, which include 25 rare plants, 42 endemic plants, 55 medicinal plants, and 72 plants that are edible wild/cultivated fruit plants. Of these 650 plants, the data on 350 Species from 67 plant families of dicotyledonous plants have been uploaded on the website www.indianflora.org. In this database, the families with highest number of representatives are Leguminosae with 50 plant species, Rubiaceae with 26 plant species and Malvaceae with 18 plant Species.

The searchable database of digital herbarium of Angiospermic trees of Western Ghat regions of Maharashtra has been made available online from 29th February 2016. The user can access the information on the website for plant identification by:

a. Selecting the tab 'Search by Name' and entering the suspected name of the plant in the search box provide to retrieve the data to match with the specimen in hand.
b. Selecting the tab 'Botanical Name A-Z' where plants are listed alphabetically as per botanical names. Clicking on the name of plant retrieves the details.
c. Selecting the tab 'Common Name A-Z' where plants are listed alphabetically as per common names. Clicking on the name of plant retrieves the details.
d. Selecting the tab 'Search by Criteria'. On the web page presented, the characters are to be selected as observed in the specimen under study. A list of possible plants meeting the inputted criteria is retrieved. Clicking on the name of plant gives the details of the plant species

This website can help in accurate and efficient identification of trees from Western Ghat regions of Maharashtra, even in the absence of expert taxonomist and has negligible expenses on maintenance of herbarium. This database will provide a home for global, regional or local studies. It can also provide digital study material for teaching Taxonomy, Field Botany, Plant Communities, Ethnobotany, Agriculture, Dendrology, Forestry, etc. It is useful in providing information on common names and local uses of plants which is essential for studies related to Ethnobotany and Economic Botany.

Dr. R. B. Barmukh,
Co-Investigator

Prin. (Dr.) R. S. Zunjarrao,
Principal Investigator.

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