# Training Course on "Classical and Modern Methods in Plant Taxonomy & Biosystematics"



### **Background**

Taxonomy is the science of describing, naming and classifying organisms, and it is therefore, an important tool in understanding the biological diversity. Unfortunately, the ongoing efforts in inventorying and documenting biological resources have been limited greatly by the scarcity of taxonomic expertise in many groups of organisms. Without taxonomists it is impossible to describe and name new species, survey biological diversity and identify biodiversity hotspots or other areas of special conservation concern.

There are only few active centers in India, where researchers are being trained in taxonomy. It is observed that taxonomic researches are not attracting reasonable funding to carry forward the Linnaean legacy. Therefore, there is a constant declining trend in taxonomic research as well as taxonomists the world over. This concern has been expressed globally by eminent biologists. Considering the increasing demand for more trained taxonomists to resolve the issues of biodiversity inventorying, conservation, monitoring and management, it is important that taxonomy-based Institutions in India take stock of the situation, and find out appropriate solutions by organizing training courses on various aspects of traditional and contemporary taxonomy. It is in this context CSIR-NBRI, Lucknow, organizing a 7 day training course on "Classical and Modern Methods in Plant Taxonomy Biosystematics".

#### **About CSIR-NBRI**

CSIR-NBRI is one of the premier research Institutes in India, undertaking active research from classical taxonomy to cutting edge areas of modern biology. The institute has an excellent expertise and infrastructure for carrying out taxonomical researches on different plant groups such as algae, lichen, bryophytes, pteridophytes, gymnosperms and angiosperms. The herbarium (LWG) of the Institute holds about 375000 specimens and is recognized as one of the "National Repositories" for Indian flora by National Biodiversity Authority (NBA) of India. Spread over 25 hectares, the Botanical Garden of the Institute is a "National Facility" with three main functions viz.: conservation, education and bio-aesthetics. The Garden holds rich collection of germplasms of gladiolii, bougainvillea, canna, roses, lotus, plumeria and cycads. The bonsai section, conservatory, fern, palm, moss, orchid, cycad, cactus and succulent houses are the other attractions of the botanical garden. The library of CSIR-NBRI has a rich collection of books and journals related to plant sciences. The library subscribes 210 print and 40 online journals. The expert manpower, the herbarium and library are expected to provide a splendid atmosphere for the participants of the training course.

#### Eligibility

The training course has been designed to attract young and enthusiastic research scholars, faculties working in various academic Institutions, Colleges and Universities. Fresh M.Sc. students having deep interest to pursue researches in Plant Systematics will be encouraged.

#### **Registration Fee**

Rs 7500/- (Rupees Seven thousand five hundred only) will be charged from each candidate towards the course material that includes a book on 'Plant Taxonomy & Biosystematics'. Local hospitality like fooding and lodging will be provided by the host Institute (CSIR-NBRI). No TA/DA will be provided to the participants. Selected candidates will have to make their own arrangements for *to and fro* travel. Registration charges are to be paid through Demand Draft of a Nationalized Bank drawn in favor of "Director, CSIR-NBRI" payable at Lucknow.

## How to Apply?

Completed application forms duly forwarded and recommended by Research Guide/Supervisor/ Head of the Department should reach the "Course Coordinator" on or before September 15, 2015. Applications received after the due date will not be entertained.

#### Structure of the training course

- Theoretical and practical aspects on systematics of Algae, Lichens, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms.
- Hands on training on herbarium and DNA fingerprinting/ DNA markers techniques.
- Lectures on various aspects of Plant Systematics by eminent experts of different plant groups.







#### **Application Form** Topics to be covered in the training course Patron Herbarium Techniques and Curation Name of the candidate Dr./Mr./Ms.... Dr. C.S. Nautiyal International Code of Nomenclature for algae, fungi, Director, CSIR-NBRI and plants Designation: Botanical keys, floras, revisions and monographs Age: Gender (M/F): Convener Species concepts Address: Phytogeography and Plant Evolution Dr. D.K. Upreti, Chief Scientist Palynology, Reproductive Biology and Email: Conservation Mobile No: Course Coordinator Molecular Systematics, Phylogeny and DNA bar Telephone No: Fax: coding. Ethnobotany and Bioprospection Are you registered for Ph.D.? If, Yes name of the Dr. T.S. Rana University: Horticultural Taxonomy Senior Principal Scientist Year of Registration: Plant Diversity, Systematics & Herbarium Division Role of Taxonomy in Agronomy, Forestry and Current research activity in plant systematics: **Ecology CSIR-National Botanical Research Institute** Plants and Climate change Rana Pratap Marg, Lucknow-226001 **Botanical Informatics** Phone (O): 0522-2297854, Fax: 0522-2205836 **Important Dates** Email: ranats@nbri.res.in Why do you want to attend the training course? September 15, 2015: Last date for receiving the application form **Training Course on "Classical and** Recommendation of the Research Guide/ Supervisor/ September 20, 2015: Screening of applications **Modern Methods in Plant Taxonomy &** and selection of the candidates Biosystematics" Excursion (October 29-November 4, 2015) Signature of the Research Guide/Supervisor/HOD Participants will be exposed to "hands on training" Signature of the Candidate on collection of different plant groups, knowledge Venue to gather field data, processing and preservation of collected materials. \*Application form can be downloaded from CSIR-**CSIR-National Botanical Research Institute** NBRI's website http://www.nbri.res.in Rana Pratap Marg, Lucknow-226001