



Kumaun University Nainital



is organizing a

NMHS-sponsored 3-days National Workshop

on:

**“Hands-on training on Classical and Molecular methods of
Lichen-identification”**

with partial support from

Uttarakhand Council for Biotechnology (UCB)*

at (venue)

**The Department of Biotechnology
Kumaun University Campus, Bhimtal
Uttarakhand-263136**

from (dates)

12th March to 14th March 2020



**Support anticipated*

Workshop Details

Department of Biotechnology, Kumaun University Nainital is organizing a 3-days National workshop on **“Hands-on training on Classical and Molecular methods of Lichen-identification”**. The workshop is sponsored by National Mission on Himalayan Studies (NMHS-MoEF & CC), Govt. of India.

Objective of the workshop: Lichens are organisms formed through symbiotic association between ‘fungus’ and ‘alga’. In India, approximately 2700 species of lichens have been reported, from which more than 1000 species have representations in Himalayan region. Uttarakhand, a Himalayan state represents more than 700 species of lichens, is one of the most lichen-rich states of India. It is estimated that in spite of extensive lichen exploration in Uttarakhand Himalayan region, numerous localities situated in different terrain and remote places are yet to be explored. Lichens are well known organisms for their commercial use as spices together with traditional and medicinal applications. Lichens exhibit vast array of novel metabolites and are being explored for the discovery of new therapeutic molecules against various diseases. However, with increasing level of pollutants, global warming and anthropogenic interference with the ecosystem, the diversity of lichens is severely being harmed. Cryptic morphology of lichens makes their identification relatively cumbersome and needs expertise with a combination of techniques including microscopy, anatomy, chemotaxonomy and molecular methods. Due to lack of trained researcher in lichen systematics still the lichen diversity of the country in general and the state of Uttarakhand in particular has not been explored intensively and extensively. To keep pace with the modern researches going on in other regions of the world, there is a need of capacity building in systematics of lichens both by applying the classical and advance molecular tools. In view of the abovementioned objectives with financial support from NMHS (MoEF&CC), Department of Biotechnology, Kumaun University Nainital is organizing a three days workshop on, **“Hands-on training on Classical and Molecular methods of Lichen-identification”**.

Target Participants: Faculty members/Scientists are mainly encouraged to apply. Total number of seats is limited to 15. Other researchers/students may also participate depending on availability of seats. The seats would be granted on ‘*first come first serve*’ basis. To ensure wider representation, candidates from different places and women participants may be given priority. Regarding distribution of seats the decision of organizing committee would be final. No TA/DA or conveyance would be provided to participants for attending the workshop. Accommodation could be provided

depending on availability of funds. Breakfast, Lunch and Tea would be provided at the workshop venue. Participants would need to arrange for their Dinners.

Venue: Department of Biotechnology, Kumaun University Campus, Bypass Road Bhimtal (Uttarakhand)-263136

How to reach: By Air: The nearest Airport from Bhimtal is Pant Nagar that is approx. 55 kms from Bhimtal. By Train: The Nearest Railway station is Kathgodam situated approx. 26 kms from Bhimtal. Frequent Taxi Services (Booking and sharing basis) are available between Kathgodam/Haldwani to Bhimtal from 6AM to 6PM.



Important Dates:

<i>Workshop dates:</i>	<i>12 to 14 March 2020</i>
<i>Inauguration:</i>	<i>12 March 2020</i>
<i>Valedictory Function:</i>	<i>14 March 2020</i>
<i>Last date for application:</i>	<i>02 March 2020</i>

To Apply: Please Email your CV and contact details with a statement of interest to the convener of the workshop Dr. Santosh K. Upadhyay at his Email ID: upadhyaysk97@gmail.com.

Registration fee:

A copy of completed workshop-registration form (scanned copy) should be emailed to Convener's Email ID: upadhyaysk97@gmail.com.

After confirmation of participation (*subjected to submission of fee*) from organizers, candidates should draw a **Demand Draft of INR 700/-** in favour of 'Finance Officer, Kumaun University Nainital' payable at Nainital, & a scanned copy of same should be emailed to the convener's Email ID no later than **5 March 2019**.

Contact:

For any help please contact:

7272931261, 7017896438, 7895849930, 8171365799

List of Speakers/Resource persons

Dr. D.K. Upreti, CSIR-NBRI-Lucknow

Dr. Rajesh Bajpai, CSIR-NBRI Lucknow

Dr. Yogesh Joshi, University of Rajasthan, Jaipur

Dr. Santosh K. Upadhyay, Kumaun University, Nainital

Dr. Penny Joshi, Kumaun University, Nainital

Supported by: Ms. Nidhi Negi, Mr. Ashutosh Paliwal, Ms. Ankita Tripathi, Ms. Amrita Kumari,
Mr. Rahul Anand, Ms. Himani Tewari

Organizing Committee:

Prof. Lalit M. Tewari, Department of Botany, Kumaun University, Nainital.

Prof. Veena Pande, Dept. of Biotechnology, Kumaun University Campus, Bhimtal.

Dr. Santosh K. Upadhyay, Dept. of Biotechnology, Kumaun Univ. Campus, Bhimtal (*Convenor*)

Dr. Penny Joshi, Department of Chemistry, Kumaun University, Nainital.

Dr. Yogesh Joshi, Department of Botany University of Rajasthan, Jaipur.

Dr. Geeta Tewari, Department of Chemistry, Kumaun University, Nainital.

Mr. B. B. Pant, Sarthak Prayas Seva Samiti (NGO), Pithoragarh.

Scholars/Students/Staff- Members:

Mr. Ashutosh Paliwal, Ms. Nidhi Negi, Ms. Rekha Gahtori, Ms. Ankita Tripathi, Ms. Amrita Kumari, Mr. Rahul Anand, Ms. Garima Chand, Ms. Himani Tewari, Mr. Prajesh Tamang, Mr. Abhishek

Advisory Committee:

1. Dr. D.K. Upreti, CSIR-National Botanical Research Institute (NBRI)-Lucknow
2. Dr. Ranbeer Singh Rawal, Director, GBPNIHESD- Kosi-Katarmal
3. Er. Kireet Kumar, Scientist 'G', Nodal Officer NMHS-PMU, GBPNIHESD- Kosi-Katarmal
4. Dr. S. S. Samant, Director, Himalayan Forest Research Institute (HFRI)-Shimla
5. Prof. D. S. Rawat, Dept. of Chemistry, University of Delhi, Delhi
6. Prof. P. K. Divakar, Complutense University of Madrid, Madrid
7. Prof. P.L. Uniyal, Dept. of Botany, University of Delhi, Delhi
8. Prof. Satish C. Garkoti, School of Environmental Sciences, JNU-New Delhi
9. Dr. B.S. Kholia, Botanical Survey of India (BSI)- Dehradun
10. Prof. Uma Melkania, Dept. of Environmental Science, GBPUAT- Pantnagar
11. Prof. G. S. Rawat, Former Scientist, Wildlife Institute of India (WII)-Dehradun
12. Prof. N.G. Sahoo, Dept. of Chemistry, Kumaun University Campus, Bhimtal
13. Dr. G.C. Joshi, Former Senior Research Officer, Reg. Ayurveda Res., Institute- Ranikhet
14. Dr. Gopal K. Joshi, HNB Garhwal University-Srinagar
15. Dr. Tapan K. Nailwal, Dept. of Biotechnology, Kumaun University Campus, Bhimtal

Tentative Program:

NMHS-sponsored National Workshop/Training Program

“Hands-on training on Classical and Molecular methods of Lichen-identification”

(3 Days –National Workshop)

<u>Time</u>	<u>Activities</u>
Day 1 (12 March 2020)	
9:00-10:00 AM	Registration /Breakfast
10:00AM to 11:00 AM	Inauguration
11:00 AM to 12:30 AM	Introduction to Lichens (<i>Theory</i>)
12:30 PM to 1:30 PM	Lunch
1:30 PM to 2:30 PM	Collection, preservation and identification of lichens by Classical approach and Chemotaxonomy (<i>Theory</i>)
2:30PM -3:30 PM	DNA-isolation for barcoding (<i>Introduction + Practical started</i>)
3:30 PM to 5:00 PM	Lichen Identification by Morphology, Microscopy & Chemotaxonomy (<i>Practical</i>)
Day 2 (13 March 2020)	
9:30 AM to 10:00 AM	Breakfast
10:00 AM -11:00 AM	Lichens and environmental monitoring (<i>Theory</i>)
11:00AM to 12:30 PM	Lichen Chemotaxonomy & DNA-isolation from Lichens (<i>Practical</i>)
12:30 PM to 1:30 PM	Lunch
1:30 PM-5:00 PM	Trekking for Lichen sample-collection
Day 3 (14 March 2020)	
9:30 AM -10:00 AM	Breakfast
10:00 AM -11:30 AM	PCR amplification for DNA-barcoding & <i>In-silico</i> component of DNA-barcoding (<i>Practical</i>)
11:30 AM-12:30 PM	Theory (<i>Topic to be provided by the resource person</i>)
12:30 PM - 1:30 PM	Lunch
1:30 PM-3:00 PM	Electrophoresis for DNA barcoding (<i>Practical</i>)
3:00 PM-4:00 PM	Valedictory
4:00 PM onwards	High Tea

PARTICIPANT REGISTRATION FORM

NMHS-sponsored 3-days National Workshop on

“Hands-on training on Classical and Molecular methods of Lichen-identification”

12th to 14th March 2020

Department of Biotechnology, Kumaun University Campus, Bhimtal, Uttarakhand-263136

Please use CAPITAL LETTERS or TYPE and return this form (scanned copy) to Convener’s Email ID:

upadhyaysk97@gmail.com

Department of Biotechnology, Kumaun University Campus, Bhimtal, Uttarakhand-263136

Please submit the completed form ASAP (Seats are limited)

Registration Details

Mr. Ms. Dr. Prof.

Sex: Male/Female

Category: General / SC /ST /OBC

Aadhar Card No.

Affix your
passport size
Photograph,
Please self-
attest

Date of Birth:

Family Name:..... First Name:.....

Position:..... Department:

Organisation*:.....

Address:.....

..... State Zip code:

Phone:..... Mobile:WhatsApp No.:.....

(Emergency) Contact no. of family member(s)/relative(s) :.....

Email:.....

Accommodation requirements*: ...Yes/No.....

Check-in Date:.....Time:.....

Check-out Date:.....Time:.....

***IMPORTANT: Please note that you must carry your Institutional ID for workshop-participation /availing guest house facility**

Academic/Lichen-research Background

Highest Qualification:.....

Prior Background in Lichen Biology (Please describe):.....

.....

Prior Background in Chemotaxonomy/ DNA-barcoding (Please describe):.....

.....

Why do you want to attend this workshop:

.....

.....

Registration/Other fee:

After confirmation of participation (*subjected to submission of fee*) from organizers, candidates should draw a **Demand Draft of INR 700/-** in favour of '**Finance Officer, Kumaun University Nainital**' payable at Nainital, & a scanned copy of same should be emailed to the convener's Email ID no later than **5 March 2019**.

Declaration:

I hereby confirm that all the information furnished above is true to the best of my knowledge.

Signature with date:

Name:

=====Do Not Write below this point=====

For OFFICE USE:

Scanned copy of DD received: Yes/No

Email dated:

Arrival Details: