



Dr. Anurag Dhyani

Division of Conservation Biology
Jawaharlal Nehru Tropical Botanic
Garden and Research Institute
Karimancode, P.O., Palode, 695 562,
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PERMANENT ADDRESS

Dhyani House, Lower Bhaktiyana Near I.T.I.,
Badrinath Road, Srinagar Pauri, Garhwal, Pin-246174,
Uttarakhand, India

RESEARCH INTEREST

Biodiversity and conservation

EDUCATION

Doctorate (Ph.D.) 2006 — 2012

Subject: Plant Physiology

Thesis Title: Ecophysiology, multiplication and domestication of a critically
endangered medicinal herb *Lilium polyphyllum* D. Don ex Royle of North
Western Himalaya Covered by IUCN Red List 2015

H.N.B. Garhwal University (Central), India

Master of Science (M.Sc.) 2003 — 2005

H.N.B. Garhwal University (Central), India

Subject: Botany/ First Division

Bachelor of Science (B.Sc.) 2000 — 2003

H.N.B. Garhwal University (Central), India

Subject: Botany/ First Division

AWARDS & FELLOWSHIPS

- Recipient of **Indian National Science Academy** Visiting Scientist Award 2017-2018
- Winner forest **Asia photo competition**, CIFOR, **Indonesia** 2014
- Recipient of first prize for logo competition, Mekelle University, **Ethiopia** 2015
- Selected for **Young Scientist Grant Award** by EUCARPIA-section ornamentals to present work in Warsaw, **Poland** in 2012
- Recipient for **Alice J. Murphy Outstanding Achievement Award (USA)** for excellence in Research and Education leading to a better understanding of the Ecology of the tropics with prize of \$100/- in 2007

WORK EXPERIENCE

Jawaharlal Nehru Tropical Botanic March 2016 — Present

Garden & Research Institute

Scientist

Current research:

- To assess conservation status and propagation of *Lilium neilgherrense*, a vulnerable endemic lily to the Western Ghats of India

Mekelle University,
Ethiopia
Assistant Professor
Teaching and Research

October 2013 — February 2016

Institute of Horticulture Technology,
Greater Noida, India
Scientist
Training and Research

January 2012 — October 2013

Dabur India Limited,
Sahibabad, India
Senior Research Fellow
Project: “Multi-centric investigations on Brihatpanchamoola with special reference to anti-inflammatory profiling of young roots” (R&D/UP-04/2009-10) funded by NMPB and Dabur India Limited, India

October 2010—December 2011

High Altitude Plant Physiology
Research Centre, India
Senior Research Fellow
Project: “Status, multiplication and conservation of some high altitude medicinal herbs used in Astavarga” (GBP/IERP/UA/04-05/12/305) funded by IERP, MoEF, India

April 2010 — October 2010

High Altitude Plant Physiology
Research Centre, India
Junior Research Fellow
Project: “Status, multiplication and conservation of some high altitude medicinal herbs used in Astavarga” (GBP/IERP/UA/04-05/12/305) funded by IERP, MoEF, India

April 2008 — April 2010

High Altitude Plant Physiology
Research Centre, India
Junior Research Fellow
Project: “Agrotechnology, cultivation and demonstration of some high altitude medicinal plants in Garhwal Himalaya” (A11019/1/2001-NMPB Board, 133/2002) funded by NMPB, India

March 2007 — March 2008

High Altitude Plant Physiology
Research Centre, India
Field Supervisor
Project: “Agrotechnology, cultivation and demonstration of some high altitude medicinal plants in Garhwal Himalaya” (A11019/1/2001-NMPB Board, 133/2002) funded by NMPB, India

August 2006 — March 2007

PUBLICATIONS

In peer reviewed Journals

- ***Dhyani A**, Baskin CC, Nautiyal BP, Nautiyal MC. (Under review). Overcoming root dormancy and identifying the storage behaviour of seeds of *Lilium polyphyllum*. Botany.

- ***Dhyani A**, Nautiyal BP, Nautiyal MC. (Under review). Seedling performance, phenotypic traits and growing media for cultivation of *Lilium polyphyllum*, Garhwal Himalaya, India. Journal of Mountain Science.
- ***Dhyani A**, Nautiyal BP, Nautiyal MC. (2018). Distribution, status and Conservation of *Lilium polyphyllum* (Liliaceae), a Critically Endangered medicinal plant from India. Plant Biosystems. 152:4, 608-611.
- Rajaram A, Vanaja GR, Vyakaranam P, Rachamalla A, Reddy GV, Anilkumar K, Arunasree KM, **Dhyani A**, Prasad NK, Sharma S, Joshi MC, Kimothi GP, Brindavanam NB, Reddanna P. (2018). Anti-inflammatory profile of *Aegle marmelos* (L) Correa (Bilva) with special reference to young roots grown in different parts of India. Journal of Ayurveda and Integrative Medicine. 9:2, 90-98.
- ***†Dhyani A**, C Anilkumar. (2017). Urgent conservation of *Buchanania barberi* (Anacardiaceae) in Kerala, India. Oryx. 51(4), 584.
- Chauhan RS, Nautiyal MC, **Dhyani A**, Bahuguna YM, Rawat S, Tawa A, Cecotti R (2017). Variability in volatile composition of *Skimmia anquetilia* N.P. Taylor & Airyshaw. Journal of Essential Oil Bearing Plants. 20:4, 1167-1171.
- ***†Dhyani A**, Sharma G, Nautiyal BP, Nautiyal MC. (2014). Propagation and Conservation of *Lilium polyphyllum* D.Don ex Royle. Journal of Applied Research on Medicinal and Aromatic Plants. 1 (4): 144-147.
- Semwal K, Lemma H, **Dhyani A**, Equar G, Amhare S. (2014). Mushroom nature's treasure in Ethiopia. Momona Ethiopian Journal of Science. 6(2):138-147.
- ***†Dhyani A**, Phartyal SS, Nautiyal BP, Nautiyal MC (2013). Epicotyl morphophysiological dormancy in seeds of *Lilium polyphyllum* (Liliaceae). Journal of Biosciences. 38;1-7. Photograph featured on cover page
- ***†Dhyani A**, Nautiyal BP, Nautiyal MC. (2012). Age determination of the perennial herb *Lilium polyphyllum* (Liliaceae). Nordic Journal of Botany. 30; 503-505.
- ***†Dhyani A**, Nautiyal BP, Nautiyal MC, Rivera MC, Prasad D, Singh KP. (2012). First report of gray mould caused by *Botrytis cinerea* on *Lilium polyphyllum* in the wild of Uttarakhand, India. Phyton International Journal of Experimental Botany. 81; 157-159.
- ***†Dhyani A**, Nautiyal BP, Nautiyal MC. (2010). Importance of Astavarga plants in traditional systems of medicine in Garhwal, Indian Himalaya. International Journal of Biodiversity Science, Ecosystems services and Management. 6(1); 13-19.
- ***†Dhyani A**, Nautiyal MC, Nautiyal BP. (2010). Phenology of *Lilium polyphyllum*: in Garhwal Himalaya, India. Acta Horticulturae. 855; 107-112.
- ***Dhyani A**, Bahuguna YM, Semwal DP, Nautiyal BP, Nautiyal MC. (2009). Anatomical features of *Lilium polyphyllum* D.Don ex Royle (Liliaceae). Journal of American Science. 5(5); 85-90.

†Covered by IUCN Red List, BGCI Red List, Cambridge International Exams

Book Chapter (s)

- ***Dhyani A.** (2017). Genetic resources of RET medicinal plant species in India: Distribution, Diversity and conservation. (Eds. Rajasekharan, P.E. and Ramanatha Rao, V.) Conservation and Utilisation of Horticultural Genetic Resources. Springer

Popular Articles

- ***Dhyani A.** (Accepted 2018). The Botanical World. Science Reporter.
- **Dhyani A.** (Reviewer). Barstow M (2018). *Buchanania barberi*. The IUCN Red List of Threatened Species 2018.
- ***Dhyani A.** (2017). *Lilium polyphyllum*- rare, endangered Himalayan lily. The North American Lily Society Quarterly Bulletin. Vol.71, No. 2, 14-19. Photograph featured on cover page
- ***Dhyani A** and Dhyani D. (2016). IUCN Red List 2015: Indian Medicinal Plants at risk. Science Reporter, February, Vol. 53(2): 12-13.
- Saha D, Ved D, Ravikumar K, Haridasan K, **Dhyani A.** (2015). *Lilium polyphyllum*. The IUCN Red List of Threatened Species 2015: e. T50126623A79918170. Downloaded on 19 Nov 2015 (<http://www.iucnredlist.org/details/full/50126623/0>)
- ***Dhyani A** (2015). Critically Endangered Indian Medicinal Plants. Heritage Amruth, December Vol. 11, (6): 42-45.
- ***Dhyani A**, Semwal KC, Lemma H. (2015). Tej: an indigenous honey wine of Ethiopia. Science Reporter, July, Vol. 52(7): 12.
- Semwal KC, **Dhyani A**, Weldegerima K. (2014). A glimpse of Ethiopian birds. Science Reporter, Sep, Vol. 51(09): 52-54.
- ***Dhyani A** (2013). Indian Himalayan lily appeals conservation initiatives. Lily Group Newsletter, autumn issue. The Royal Horticulture Society, London.
- Mangal JL and **Dhyani A** (2013). Post harvest technology of fruits and vegetables. Souvenir, Innovative production systems in Horticulture. Institute of Horticulture Technology, Greater Noida, U.P.
- ***Dhyani A**, Nautiyal MC, Nautiyal BP. (2011). Phenology of *Lilium polyphyllum*: in Garhwal Himalaya, India. Lilies and Related Plants Royal Horticulture Society, London. 21-28.
- ***Dhyani A.** (2009). *Lilium polyphyllum*- rarest of rare lilies. Lilies and Related Plants Royal Horticulture Society, London. pp.85-91.
- ***Dhyani A.** (2007). Exploring *Lilium polyphyllum* in Uttarakhand, India. The Lily Yearbook of North American Lily Society. pp. 79 - 82.
*Corresponding author
- Bheemalingeshwara K, Tadesse D, Balehegn M, Mesele T, **Dhyani A** (2015). Book of Abstract (2015). Research and community service, University Industry Community Linkage Directorate, Contract Research and Publication Office. Mekelle University, Ethiopia.

- Yonas M and **Dhyani A.** (2015). Book of Abstracts (2008 E.C/2015-16). Annual research review day. College of Natural and computational science, October 2015, Mekelle University, Ethiopia
- **Dhyani A,** Nautiyal S, Mangal JL, Gaur A. (2013). Innovative production systems in Horticulture, Souvenir. Institute of Horticulture Technology, Greater Noida, U.P.
- Padma shri Chadha KL, Ahlawat YS, Lal OP, **Dhyani A.** (2012). Innovative production systems in Horticulture, Souvenir. Institute of Horticulture Technology, Greater Noida, U.P.

RESEARCH GRANTS

- Studies on conservation biological aspects of selected flowering plants of Kerala, JNTBGRI, **India** (Rs. 39.98 Lakhs) Co-PI (2017-18)
- Global Seed Conservation Challenge Fieldwork Fund supported by Botanic Gardens Conservation International, Richmond, **United Kingdom** (Rs. 1,14,390/-) Co-PI (2016)
- Propagation and Conservation of *Lilium neilgherrense* Wight; a perennial herb from South Western Ghats, India, JNTBGRI, **India** (Rs. 8,00,000/) PI (2016-2017)
- “Propagation, characterization and conservation of Gundagundo sweet orange (*Citrus sinensis*) in Gundagundo monastery of Tigray, Ethiopia” funded by Mekelle University, **Ethiopia**, (ETB 5,48,800/-) Co-PI (2016-2019)
- “Capacitating farmers in Alamata and Maichew region to practice organic farming methods” (CMS/CNCS/04/2016), funded by Mekelle University, **Ethiopia** (ETB 40,000/-) PI (2016)
- “Conserving lesser known wild edible biodiversity and indigenous traditional knowledge of locals in North western Himalaya, India”. (14365-1) funded by Rufford Small Grants for Nature Conservation, **London** (£6000/-) Team member (2014).
- “Low cost organic farming methods for progressive farmers growing vegetables in Mekelle area of Tigray, Ethiopia” (CMS/14/2013) funded by Mekelle University, **Ethiopia**, (ETB 37,500) PI (2013).

PROFESSIONAL TRAINING & FOREIGN VISIT

- Attended two-month training course on ‘Ecological Niche Modelling’ under INSA Visiting Scientist Programme at **Indian Institute of Remote Sensing**, Dehradun, Uttarakhand, 3rd October-30th November (2017).
- Attended training course of ‘Seed conservation’ course organized by **Botanic Gardens Conservation International, Richmond, UK** and JNTBGRI, Kerala, 9-13th May (2016).
- **Higher Diploma in Teaching Profession**, Mekelle University, **Ethiopia** (2015)
- Attended and presented “Low cost organic farming methods for poor farmers growing vegetables in Mekelle area of Tigray, Ethiopia”. Research review day, 15 January, CNCS, Mekelle University, Mekelle, **Ethiopia** (2015)
- Attended and delivered oral presentation entitled “Biodiversity of Lilies and Orchids of Garhwal Himalaya, Uttarakhand, India”. 24th Eucarpia symposium “Ornamental Breeding Worldwide”. 2nd September-5th September Warsaw, **Poland** (2012)
- Attended and presented a poster presentation entitled “Phenology of *Lilium polyphyllum* in Garhwal Himalaya, India. 23rd Eucarpia symposium “Colourful Breeding and Genetics”. 31 August-4 September Leiden, **The Netherlands**. (2009)

REVIEWER

- Biologia (01 Manuscript)
- Ecological Research (01)
- International Journal of Biodiversity Science, Ecosystem Services and Management (02)

- Journal of Asia-Pacific Biodiversity (01)
- Journal of Herbal Medicine (01)
- Journal for Nature Conservation (01)
- Journal of Plant Pathology (01)
- Phytologia Balcanica (01)
- Plant Species Biology (01)

Review record can be verified from Publons ID: <https://publons.com/a/1386789>

STUDENTS MENTORED

- Ms. Amina Thasni, Iqbal College, University of Kerala. M.Sc. dissertation 2018
- Ms. Chavi Tyagi, Sharda University, Greater Noida, U.P. M.Sc. dissertation 2013
- Ms. Kirti Jaiswal, Sharda University, Greater Noida, U.P. M.Sc. dissertation 2013

PERSONAL DETAILS

Date of Birth: March 17, 1983

Place of Birth: Tehri Garhwal, Uttarakhand, India

Sex: Male

Marital Status: Married

Nationality: Indian

REFERENCES

Dr. R. Prakashkumar,

Director, Jawaharlal Nehru Tropical Botanic Garden & Research Institute,
Karimancode, P.O. Palode, 695562, Thiruvananthapuram, Kerala
Email: agpandurangan@gmail.com, Phone: +91-472-2869246

Prof. M.C. Nautiyal,

High Altitude Plant Physiology Research Centre,
Srinagar Garhwal, 246174, Uttarakhand
Email: mcnautiyal@gmail.com, Phone: +91-9411154648

Dr. Carol C. Baskin

Department of Biology, 101 Morgan Building, University of Kentucky,
Lexington, KY 40506-0225
Email: cbbask0@email.uky.edu

DECLARATION

I hereby declare that the above information is true to the best of my knowledge.

Anurag Dhyani

Date: 30 October, 2018