

Curriculum Vitae

Name: Dr. Anil Kumar Bisht

Date of Birth: July 5, 1973

Permanent Address: Karkhana Bazar, Almora, Uttaranchal, India

Current Address: Department of Botany, Tissue Culture Laboratory
D.S.B., Campus, Kumaun University, Nainital

Marital Status: Married

Research Interests: Conservation Biology, Medicinal plants
Tissue Culture, Propagation and Natural resources

Ph.D Thesis: Conservation and Propagation of a critically Endangered
Medicinal herb *Angelica glauca* Edgew. of Western
Himalaya.

Research: 19 years (June, 1999 till date)

Reviewer to Journals:
Journal of Medicinal plant Research
Proceedings of the National Academy of Sciences, India Section B: Biological Sciences

Education:

S. No.	Exam Passed	Year	Board/ Univ.	Subjects
1.	Ph.D.	2003	Kumaun Univ., Nainital	Botany
2.	M.A.	1999	Kumaun Univ., Nainital	English
3.	M.Sc.	1997	Kumaun Univ., Nainital	Botany
4.	B.Sc.	1995	Kumaun Univ., Nainital	Zoology, Botany and Chemistry
5.	Intermediate	1991	C.B.S.E. New Delhi	Hindi, English, Physics, Chemistry & Biology
6.	High school	1989	C.B.S.E. New Delhi	Hindi, English, Maths, Science, & Biology

Appointments held:

Designation	Name of Employer	Date	
		Joining	Leaving Till Date
Associate Professor	Kumaun University	20/07/2014	
Assistant Professor	Kumaun University	20/07/2014	19/07/2017
Assistant Professor (Senior scale)	UK Govt and Kumaun University	20/07/2009	19/07/2014
Lecturer	UK Govt.	20/07/2005	19/7/2009
S.R.F	DBT, N.Delhi	June, 2003	July, 2005
Senior Researcher	IUCN, Himal	April, 2003	May, 2003
S.R.F.	DBT, Delhi	Aug, 2001	Feb, 2003
J.R.F.	DBT, N.Delhi	Aug, 1999	A, 2001

- ◆ **Senior research fellow** in DBT funded project entitled “Biotechnological interventions for propagation and improvement of apple rootstock” (June, 2003 to July, 2005)
- ◆ **Senior researcher** in International Union for Conservation of Nature & Natural Resources in IUCN-Himal program “Documentation of Agro techniques & post harvest processing of medicinal plants of Indian Himalayan region” (April, 2003 to May, 2003)
- ◆ **Senior research fellow** in DBT sponsored project entitled “Evaluation and Propagation of selected endemic medicinal plants of the Himalaya” (August, 2001-February, 2003)
- ◆ **Junior research fellow** in DBT sponsored project entitled “Evaluation and Propagation of selected endemic medicinal plants of the Himalaya” (August, 1999-August, 2001)

Teaching Experience: 14 years (July 2005 till date)

- ◆ **B.Sc (I, II & III)** students at Govt. Degree College, Narayan Nagar, Pithoragarh since July, 2005 till date (Joined the same college through Uttarakhand Public service Commission on July 20, 2005).
- ◆ **B.Sc (I, II & III) and M. Sc** students since Feb, 2011 till date at D.S.B. Campus Kumaun University, Nainital

Research Supervised/Under Supervision: 03

1. Assessment of diversity and development of propagation system for conservation and utilization of *Trillium govianum* Wall. ex. D. Don (Mr. Harsh Chauhan-Awarded)
2. Plant diversity, its Conservation and Sustainable use: with a special focus on the socio-cultural practices of the Lepchas in Sikkim Himalaya (Miss Sheila Sinha – Ongoing)
3. Optimization of suitable regime for maximizing germination and enhancing yield potential of some highly economical plants of Indian Himalayan region (Miss Sheetal Oli- ongoing)

M.Sc Dissertation Supervisor:

1. Ex Situ Propagation of *Hedychium spicatum*: Commercially important plant of Himalayan Region (Neha Basera, Kumaun University Nainital, 2018)
2. Effect of GA and BA on *in-vitro* Seed germination of *Nigella sativa* And Callus induction (Priyanka Bisht, Kumaun University Nainital, 2017)
3. Optimization of Suitable Phytohormones Concentration for Shoot Initiation in *Nigella sativa* Linn. (Ekta Sharma, Kumaun University Nainital, 2017)
4. Effect of different plant hormones on in-vitro shoot and callus establishment in *Nigella sativa* Linn. (Suchita Pant, Kumaun University Nainital, 2017)
5. Effect of Phytohormones (BA & NAA) and their concentration on in vitro callus, shoots and roots formation in *Nigella sativa* Linn. (Miss Divya, Kumaun University Nainital, 2017)
Callus Induction in *Nigella sativa* Linn., A pharmaceutically important Medicinal Plant (Miss Priyanka Shukla, Kumaun University, 2017)
6. Effect of Gibberelic Acid in seed germination of *Bauhinia vahlii* Wight and Arnott (Rajni Bhandari, Kumaun University Nainital, 2014)
7. Callus induction in *Berginea ciliata* Haw Sternb. (Sonika Devi, Kumaun University Nainital, 2014)
8. Clonal Propagation of *Allium hookeri* – A Highly Economical plant of IHR through Tissue culture (Mr. Harsh Kumar Chauhan, Kumaun University Nainital, 2013)
9. Adventitious rooting in stem cuttings of *Zanthoxylum armatum* DC (Rutacea): An important medicinal plant (Mr. Laxman Singh Bisht, Kumaun University Nainital, 2013)
10. In- vitro Shoot initiation from *Allium ascalonicum* (Miss Mamta Bharti, Kumaun University Nainital, 2013)

Workshops/Seminars Attended

- ◆ **International Seminar on “Environmental Governance and Sustainable Development in 21st Century India: Challenges for Mountain Regions in the Antropocene”** (October 7-8, 2017) at UGC, HRDC, Nainital organized by Uttarakhand Political Science Association (UPSA).
- ◆ **Chaired the technical session** in National Seminar on **“Socio-Economic impact of Ecological Ignorance in Development: Raising Disastrous Possibilities”** (May 6-7, 2017) at Govt Post Graduate College, Dwarahat, Almora, organized by Department of Botany, Govt. P.G. College, Dwarahat, Almora.
- ◆ National Seminar on **“Plants and Environment”** (March 27-28, 2017), at D.S.B. Campus, Nainital organized by Botany Department D.S.B, Campus, Kumaun University, Nainital
- ◆ National Seminar on **“Traditional Knowledge and Health Seeking Practices among the Himalayan Region Communities”**(March 4-5, 2016) at Nainital organized by Department of Sociology, School of Social Sciences, Uttarakhand Open University, Haldwani, Nainital.
- ◆ National Seminar on **“Environmental Economics and Social Sustainability”** (Dec 4-5, 2014) at P.G. College Dwarahat organized by P.G. College Dwarahat, as **Invited Speaker**.
- ◆ National Workshop on **“Harnessing Intellectual Property and it’s management for Growth and Prosperity”**(Oct 15, 2014) at DSB Campus, Kumaun University, Nainital, organized by NRDC, New Delhi and Kumaun University, Nainital in association with UCOST, Dehradun.
- ◆ Lecture series on **“Enviromental Studies”** (April 26-27, 2014), at Department of Botany, S.S.J. Campus, Almora, organized by Department of Botany, S.S.J. Campus, Kumaun University.
- ◆ National Workshop on **“Intellectual Property Rights and Patent Awareness”** (July 6, 2011) organized by Kumaun University Nainital in association with TIFAC, New Delhi and UCOST, Dehradun.

- ◆ **6th Uttarakhand State Science & Technology Congress- 2011** (14-16 November, 2011) at Kumaun University, S.S.J. Campus, Almora, witnessed on behalf of the Kumaun University and UCOST as a part of **Coordination Committee**.
- ◆ **National Workshop** on Intellectual Property Rights and Patent Awareness (July 6, 2011) organized jointly by Department of Biotechnology, Kumaun University, Nainital and UCOST, Dehradun and supported by TIFAC & DST, Govt. of India, New Delhi.
- ◆ **International Workshop** on “Mountain Biodiversity and impacts of Climate change with special reference to Himalayan Biodiversity Hotspot (December 6-8, 2010) organized by G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora.
- ◆ **State level Seminar** on “Opportunities and scope for research in Government Colleges (March, 16-17, 2007) organized by Govt. P.G. College Pithoragarh and Presented a paper on “**Conservation and propagation of *Angelica glauca*”**
- ◆ Participated as a resource person in first National Stakeholders Consultation Workshop for project “**Conservation and Management of Pollinators for sustainable Agriculture, through an Ecosystem Approach**” on October, 8-9, 2004, organized by G.B. Pant institute of Himalayan environment & Development, Kosi-Katarmal, Almora.
- ◆ Participated as a resource person in “People’s Participation Workshops on Biodiversity conservation” held at **Saukiathal** (November, 1999), **Dwarahat** (March, 2001), **Syalde** (February, 2002), **Kanda** (February, 2003), **Wajula** (December, 2003), **Ramgarh**, (November, 2004) and **Narayan Nagar** (July, 2005).
- ◆ Red Ribbon Club (AIDS/HIV Workshop), organized by NSS cell, Govt. Degree College, Didihat, Pithoragarh (March 19, 2010).

Other Relevant Academic Programs/Courses attended

- ◆ Short Term Course (Theme: Value Education) (13/10/2016-19/10/2016) at UGC, HRDC, Kumaun University, Nainital, Uttarakhand
- ◆ Winter School (Theme: Environment & Society) (01/12/2015-21/12/2015), Equivalent to 01 OP/RC at UGC, HRDC, Kumaun University, Nainital, Uttarakhand

- ◆ UGC sponsored Refresher Course (Summer School) at **UGC- Academic Staff College, Kumaun University** (April 22-May 11, 2013) with “A”
- ◆ Hands on Training on Plant Tissue Culture and Molecular Biology at Department of Biotechnology, Bhimtal Campus, Kumaun University, Nainital Uttarakhand (April 20-27, 2012).
- ◆ UGC sponsored **Orientation Course** at **UGC- Academic Staff College, Kumaun University** (July 4-27, 2007) with “A” Grade.
- ◆ Course on **Direct Trainer Skills**, at **Uttaranchal Academy of Administration** (Sept 12-16, 2005)
- ◆ **Faculty Development program in Pedagogy, soft skills & evaluation**, Jointly organized by the **Department of Higher Education, Uttarakhand & ICFAI University Dehradun** (April 2-16, 2006)
- ◆ **Field Course on Plant Taxonomy**, at Punian’s Corbet Fall Resort, organized by The **Wildlife Institute of India, Dehradun** (March 15-19, 2009)
- ◆ **NAAC-QAC Awareness Program** at Directorate of Higher Education, Uttarakhand, Haldwani (Nainital) organized by **National Assessment and Accreditation Council Bangalore** (July 16, 2008)
- ◆ **Hands on Training in Plant tissue culture and Molecular Biology**, organized by Department of Biotechnology, Kumaun University, Bhimtal Campus (April 20-29, 2012)

Technical report submitted

“Evaluation and propagation of selected endemic medicinal plants of the Himalaya” 2003,-
Submitted to **Department of Biotechnology, Government of India.**

Additional

Six months Diploma in Computer application including office programs (MS WORD, EXCEL, POWER POINT), Systat

- ◆ N.C.C “B” Certificate Holder
- ◆ Certificate course in Tourism from IGNOU, New Delhi

Research Papers Published (Total citations: 104, H index: 4)

- ◆ Chauhan, H.K., Bhatt, I.D. and **Bisht, A.K.** (2020). Biology, Uses and Conservation of *Trillium govaniatum* In: Roy, N., Roychaudhury, S, Nautiyal, S., Agarwal, S., Bakshi, S. (Eds.) **Socio-economic and Eco-biological Dimension in Resource use and Conservation**, ISBN-987-3-03, *Springer Nature Switzerland AG (In press)*
- ◆ Chauhan, H.K., **Bisht, A.K.**, Bhatt, I.D. (2019). Protocol for vegetative propagation of *Trillium govaniatum* Wall ex. D.Don., *Journal of Applied research in Medicinal and Aromatic Plants*, DOI- 10.1016/j.jarmap.2019.100233 **(In press)**
- ◆ Chauhan, H.K., **Bisht, A.K.**, Bhatt, I.D., Bhatt, A., Gallacher, D. (2019). Trillium- towards Sustainable Utilization of a Biologically Distinct Genus Valued for traditional Medicine, *The Botanical Review* 85 (3): 252-272.
- ◆ Chauhan, H.K., **Bisht, A.K.**, Bhatt, I.D., Bhatt, A., Gallacher, D., Santo, A. (2017). Population change of *Trillium govaniatum* (Melanthiaceae) amid altered indigenous harvesting practices in the Indian Himalayas *Journal of Ethnopharmacology*, 213, pp 303-310.
- ◆ Chauhan, H.K., **Bisht, A.K.**, Bhatt, I.D. (2017). Impediments in the Tissue Culture of High Altitude Medicinal Plants, *Advances in Biotechnology and Microbiology, Volume 4* (2) pp. 1-4.
- ◆ Chauhan, H.K. and **Bisht, A.K.** (2015). Effects of Phytohormones BA (6-benzylaminopurine) and IBA (Indole-3-butyric acid) on Shoot and Root Multiplication in *Allium hookeri* Thw. Enum. *Environment and We an International Journal of Science and Technology*, 10 (2015), pp 94-100
- ◆ **Bisht, A.K.**, Bhatt, A., Dhar, U. (2015). Note on Somatic embryogenesis and synthetic seed production in *Angelica glauca*: a valuable plant of Himalaya. *Journal of Medicinal plant Research*, Vol. 9(12) pp. 419-425.
- ◆ Awasthi, V., **Bisht, A.K.** and Pande, N. (2014). Morphogenetic studies on two mosses *Bryum dichotomum* and *Entodon macropodus* grown in-vitro. *Proceedings of the National*

Academy of Sciences, India, Section B: Biological Sciences, Springer India, DOI:10.1007/s40011-014-0463z, 1-7

- ◆ Bhatt, A and **Bisht, A.K.** (2011). Morphological marker for characterization of two endangered Himalayan Medicinal Plants: *Swertia chirayita* and *S. angustifolia*, In: Chandra Prakash Kala (Ed.) *Medicinal Plants and Sustainable Development*, Nova Science Publishers
- ◆ Joshi, S.K., Bisht, V., Dhar, U., Joshi, M. and **Bisht, A.K.** (2008). In vitro regeneration of “Green Sweet” apple via nucellus raised callus. *Journal of Horticultural Science and Biotechnology*, 83 (4), 447-452.
- ◆ **Bisht, A.K.**, Bhatt, A., Rawal, R.S. and Dhar, U. (2008). Assessment of Reproductive potential of Different populations of *Angelica glauca* Edgew., a critically Endangered Himalayan Medicinal Herb. *Journal of Mountain Science*, 5, 84-90
- ◆ Bhatt, A., **Bisht, A.K.**, Rawal, R.S. and Dhar, U. (2007). Assessment of status and biomass of *Swertia angustifolia*: a high value Himalayan medicinal plant. *African Journal of Plant Science*, 1 (1), 001-006
- ◆ Bisht, A.K., Bhatt, A., Rawal, R.S. and Dhar, U. (2006). Assessment, extraction pattern and restoration through propagation of *Angelica glauca*, a critically endangered Himalayan medicinal herb, *International journal of Biodiversity Science and Management*, Vol. 2, Issue 2, 2006,pp 105-113
- ◆ **Bisht, A.K.**, Bhatt, A., Rawal, R.S. and Dhar, U. (2006). Prioritization and Conservation of Himalayan Medicinal Plants: *Angelica glauca* Edgew. As a case study. *Ethnobotany Research and Application*, 4, 011-023.
- ◆ **Bisht, A.K.**, Manjkhola, S and Joshi, M. (2003). Comparative account of two high value species of Himalaya: *Angelica glauca* and *Angelica archangelica*, *Indian Forester*, 129, 1241-1248.
- ◆ Dhar, U., Manjkhola, S., Joshi, M., Bhatt, A., **Bisht, A.K.** and Joshi, M. (2002). Current status and future strategy for development of medicinal plant sector in Uttarakhand, India. *Current Science*, 83, 956-964

Research Articles

- ◆ Chauhan, H.K. and **Bisht, A.K.** (2017). Making Himalayas Sustainable: opportunities and challenges in Indian Himalayan Region, *In Biotechnology for Sustainability Achievements, Challenges and Perspectives*, Edition: I, Eds: Subhash Bhoire, K. Marimuthu & M. Ravichandran AIMST University Malaysia, , pp.129-140
- ◆ Chauhan, H.K and **Bisht, A.K.** (2014). Himalayan Medicinal Plants At Risk: In-Vitro Propagation: A potential method for their conservation. **Oaks**, Issue:10, pp 53-56
- ◆ Bisht, A.K. (2013). Episodes of Leopard Attacks in Uttarakhand: An ecological perspective. **Oaks**, Issue:9, pp 39-40
- ◆ Bisht, A.K. (2012). *Lanea coromandelica*: A less known Multipurpose tree. **Oaks**, Issue:8, pp10-141
- ◆ Bisht, A.K. (2011). Medicinal Plants: Some facts and Prospects with special reference to Himalaya. **Oaks**:7, ISSN: 0975-5918, pp 33-34
- ◆ **Bisht, A.K.**, Joshi, M. and Airi, S. (2005). Bharatvarsha mein Chay ka itihaas avam Uttaranchal me sambhavanayein In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora
- ◆ **Bisht, A.K.**, Joshi, M. and Airi, S. (2004). Uttaranchal mein Falodyog ka itihaas, Prasar avam Sambhavanayein In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora
- ◆ **Bisht, A.K.** and Bhatt, A. (2003), Jaiv Vividhta Mulya avam Mulya Vridhi In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora
- ◆ **Bisht, A.K.**, Bhatt, A., and Manjkhola, S. (2003). Jaiv Vividhta ke paripeksha me Davanal-Ek Avlokan In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora
- ◆ Manjkhola, S., and **Bisht, A.K.** (2002), Jaiv Vividhta Hrass- Karak avannm Prabbhav In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora

- ◆ **Bisht, A.K** and Joshi, M. (2001). Jaiv Vividhta Sanrakshan mein Bijon ki Mahatta In: *Himalay ki Jaiv Vividhta Sanrakshan me Janta Ki Bhagidari* (in Hindi) (eds. Dhar, U., Rawal, R.S., and Samant, S.S.) G.B.P.I.H.E.D. Kosi-Katarmal, Almora

Book Published

- ◆ Dhar, U., Rawal, R.S., Manjkhola, S., **Bisht, A.K**, Joshi, M., Joshi, M., Bhatt, A., Bisht, G. (2003). *Conservation, propagation and utilization of High value Medicinal plants of Himalaya*, GBPIHED, Kosi-Katarmal, Almora.

Abstracts

- ◆ Chauhan, H.K. and Bisht, A.K (2017). Rapid Vulnerability Assessment of Trillium Govanianum Wall. Ex D. Don; A Commercially Exploited Medicinal Plant of Himalaya, National Seminar on “Plants and Environment (NSSAPPE-2017)” Organised by Department of Botany, D. S. B. Campus, Kumaun University, Nainital
- ◆ Awasthi, V; Bisht, A.K. and Pandey, N. (2012). Morphogenetic studies on two Mosses, *Bryum Bicolor* and *Entodon Macropodus* grown In vitro. Abstracts and Souvenir, VII Uttarakhand State Science and Technology Congress, Dehradun
- ◆ Bisht, A.K. (2011). Review on Tissue culture studies on Himalayan Apiaceae: In proceedings of Implication for conservation. Chemistry Biology interface workshop, Organized by Deptt. Of Chemistry, D.S.B. Campus, Nainital

Declaration

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

Date: 05/06/2020

Place: Nainital

Anil Kumar Bisht