

## CURRICULUM VITAE

**Name** DR. MAN SINGH RANA

**Father's Name** Shri Tej Ram

**Date of Birth** 14<sup>th</sup> May, 1978

**Nationality** Indian

**Category** General

**Postal Address** Department of Botany,  
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**Permanent Address** Village Shangchar, P.O. Pangan,  
Tehsil Manali, District Kullu,  
Himachal Pradesh, 175 129

**Marital Status** Single

**Language** English, Hindi



## ACADEMIC QUALIFICATION

Examination Passed	Board/ University	Year	Percentage of marks	Subject (s)
High School	HPSEB, Dharamshala	1994	51.14 %	Hindi, English, Maths, Science, S. Study, Sanskrit, Drawing
10+2	HPSEB, Dharamshala	1997	61.50 %	English, Physics, Chemistry, Biology
B. Sc.	HPU, Shimla	2000	65.47 %	English, Zoology, Botany, Chemistry
M. Sc.	HNB Garhwal, University, Srinagar	2002	73.66 %	Botany
B. Ed	Jammu University	2003	65.70 %	Education
Ph.D.	Kumaun University	2008	Awarded	Botany (Biodiversity Assessment and Conservation)

**Title of Ph.D.:**

Assessment of Floristic Diversity and Prioritization of Communities for Conservation in Manali Wildlife Sanctuary of Himachal Pradesh in North Western Himalaya

**Supervisors:****1. Dr. S. S. Samant**

Scientist 'E' & Scientist In-charge  
G.B. Pant Institute of Himalayan Environment & Development, Himachal Unit, Mohal-Kullu-175  
126, Himachal Pradesh, INDIA

**2. Dr. Y. S. Rawat**

Reader,  
Department of Botany, D.S.B. Campus, Kumaun University, Nainital-263 002, Uttarakhand,  
INDIA

**JOB EXPERIENCE**

Office/Instt./ Org.	Post Held	From	To	Scale of Pay/Basic pay (Rs)
Department of Botany, Government Degree College, Kullu	Assistant Professor	June 2010	-	73100 (Category 11)

**FELLOWSHIPS/RESEARCH EXPERIENCE**

1. **Junior Researcher** in the project entitled "*Assessment of floristic diversity of the Hamta-Jagatsukh Catchments in Himachal Pradesh*" from March, 2005-August, 2005 funded by World Pheasant Association, New Delhi.
2. **Junior Research Fellow** in the project entitled "*Conservation and Sustainable Utilization of Sensitive Biodiversity Elements in Trans and North Western Himalaya*" funded by G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora from August, 2005-August, 2006.
3. **Senior Research Fellow** in the project entitled "*Conservation and Sustainable Utilization of Sensitive Biodiversity Elements in Trans and North Western Himalaya*" funded by G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora from August, 2006-July, 2007.
4. **Senior Research Fellow** in the project entitled "*Response assessment and processing of knowledge base to serve long term conservation and use of biodiversity in the Himalaya-focus on representative protected sites*" funded by G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora from August, 2007-October 2009.

5. **Research Associate** in the project entitled “Intellectual property management and transfer/commercialization of agricultural techniques (up-scaling of existing intellectual property rights i.e., Patents, through ICAR Headquarters) funded by ICAR.
6. **Young Scientist DST Fast track** for the project entitled “Spatial pattern of plant diversity and communities, and species environment relationship in the alpine ecosystem of Northwestern Himalaya” from March 2011

**Fellowship:**

<b>Office/Instt./ Org.</b>	<b>Post Held</b>	<b>From</b>	<b>To</b>	<b>Scale of Pay/Basic pay (Rs)</b>
GBPIHED, Himachal Unit	Researcher	March 2005	August 2005	`4000/-(Fixed)
-do-	JRF	August 2005	August 2006	`8000/-(Fixed)
-do-	SRF	August 2006	July 2007	`9000/-(Fixed)
-do-	SRF	August 2007	October, 2009	`14000/-(Fixed)
CPRI, Shimla	RA	February, 2010	May, 2010	`18000/-(Fixed)

**OTHER EXPERIENCES**

**Computer Experience**

- Working knowledge of computers regarding MS-Office, Internet, statistical softwares, GIS based software-Erdas and ecological packages

**Experience in Infrastructural Facility Development**

- Development of Herbal Gardens, Medicinal Plant Nurseries and Arboretum etc.

**Laboratory Experience**

- Plant sample identification
- Four year experience in soil analysis
- Treatment of seeds and cuttings for propagation
- DNA extraction and Estimation
- DNA fingerprinting (RAPD, AFLP, SSR)

**Instruments Handling**

- Double Beam Spectrophotometer

- Nitrogen analyzer (Kel Plus)
- Weather station of Campbell
- pH and EC meter
- Flame photometer
- Global Positioning System (GPS)
- Thermocycler (Polymerase Chain Reaction)
- Microcentrifuge
- Gel Electrophoresis

## Publications

### Journal

1. S. S. Samant, **Man S. Rana**, Manohar Lal and S. Pant 2007. Diversity, Distribution and Prioritization of Fodder Species for Conservation in Kullu District, Northwestern Himalaya, India. *Journal of Mountain Science* **4** (3): 259-274.
2. S. S. Samant, Shreekar Pant, **Man Singh Rana**, Manohar Lal, Ashok Singh, Aman Sharma and Sakshi Bhandari. 2007. Medicinal Plants in Himachal Pradesh, Northwestern Himalaya, India. *International Journal of Biodiversity Science and Management*, **3** (4): 234-251.
3. **Man S. Rana**, Manohar Lal, Aman Sharma and S. S. Samant. 2008. Ecological Evaluation of Orchid Diversity of Kullu District, Himachal Pradesh. *The Journal of Orchid Society of India*, **22** (1-2): 77-84.
4. **Man S. Rana** and S. S. Samant 2009. Prioritization of Habitats and Communities for Conservation in the Indian Himalayan Region: A State of the Art Approach from Manali Wildlife Sanctuary. *Current Science*, **97**(3):326-335.
5. Sakshi Bhandari, **Man S. Rana** and S.S. Samant 2009. Indigenous knowledge of the medicinal plants in Kullu Valley of Northwestern Himalaya: A case-study. *Journal of Social Anthropology*, **6**(1-2): 63-74.
6. **Man S. Rana** and S. S. Samant 2010. Threat Categorization and Conservation of Floristic Diversity in the Indian Himalayan Region: A State of Art Approach from Manali Wildlife Sanctuary. *Journal for Nature Conservation*, **18** (3): 159-168.
7. **Man S. Rana** and S. S. Samant 2011. Population Biology of *Lilium polyphyllum* D. Don ex Royle-A Critically Endangered Medicinal Plant in a Protected Area of Himachal Pradesh, Northwestern Himalaya. *Journal for Nature Conservation* **19**(3):137-142.

8. **Man S. Rana** and S. S. Samant 2011. Diversity, Indigenous uses and conservation status of Medicinal plants in Manali Wildlife Sanctuary, Northwestern Himalaya. *Indian Journal of Traditional Knowledge* 10(3): 439-459.
9. **Man S. Rana**, Manohar Lal and S. S. Samant 2011. Status and Regeneration of Himalayan Maple in Himachal Pradesh: Honing red list of plants. *Journal of Sustainable Forestry* 30: 775-789.
10. **Man S. Rana**, S. S. Samant, and Y.S. Rawat 2011. Plant communities and factors responsible for vegetation pattern in an alpine area of the Northwestern Himalaya. *Journal of Mountain Science* 8(6): 817-826.
11. **Man S. Rana**, Sakshi B. Rana and S.S. Samant 2012. Extraction utilization pattern and prioritization of fuel resources for conservation in Manali Wildlife Sanctuary Northwestern Himalaya. *Journal of Mountain Science* 9(4): 580-588.
12. Pankaj Sharma, S.S. Samant, L.M. Tewari and **Man S. Rana** 2015. Diversity, distribution and conservation of orchids in Nargu wildlife sanctuary, northwest Himalaya. *The Journal of Orchid Society of India*, 29: 15-21.

#### Proceedings and Books

1. S. S. Samant, **Man S. Rana**, Manohar Lal, Aman Sharma, Sakshi Bhandari, Shreekar Pant, Ashok Singh and Jitender S. Butola 2007. Diversity, distribution and economic important of Trees and Shrubs species in Agroforestry system of Kullu district, Northwestern Himalaya, India In proceeding, *Status and potential of agroforestry in North- Western Himalaya* 14-16 November, 2006, 34-42.
2. **Man S. Rana** and S. S. Samant 2010. Diversity and Distribution Pattern of Vascular Plants in the Manali Wildlife Sanctaury of Himachal Pradesh, North Western Himalaya. In (eds.) Tewari, L.M., Pangtey, Y.P.S. and Tewari, G. *Biodiversity potential of the Himalaya*, Gyanodaya Prakashan, Nainital, pp 87-114.
3. **Sakshi B. Rana**, M.S. Rana, and S.S. Samant 2015 *Floristic Diversity along an altitudinal gradient in the central part of HP, Northwestern Himalaya*. Biodiversity, Biotechnology and Environmental Conservation. Discovery Publication Pvt Ltd. New Delhi 110002.
4. **Sakshi B. Rana**, M. S. Rana, and S.S. Samant 2015 *Status and conservation of medicinal plants in a central part of HP, Northwestern Himalaya*. Medicinal Plants, Distribution, Utilization and Significance. Discovery Publication Pvt Ltd. New Delhi 110002.

#### Articles

1. S. S. Samant and **Man S. Rana** 2007. *Himachal Pradesh ki Jadi Bhutiyon ki Vibhidhta*. In (ed.) V. Chandan *Kullu Dussehra Smarika 2007*. Dussehra Committee, Kullu. 33-37.

2. **Man S. Rana** 2008. Sarankshit Khsheter Avum Jiav Vibhidhta Sarankshan, In (ed.) S. S. Samant *Jiav Vibhidhta Sarankshan main Janta ki Bhagidhari I*. G.B. Pant Institute of Himalayan Environment & Development, Himachal Unit, Mohal-Kullu.: 39-47
3. Sakshi Bhandari, S.S. Samant and **Man S. Rana** 2009. Mandi Zile ke Sarankshit Khsheter Avum Jiav Vibhidhta Sarankshan, In (ed.) S. S. Samant *Jiav Vibhidhta Sarankshan main Janta ki Bhagidhari II*. G.B. Pant Institute of Himalayan Environment & Development, Himachal Unit, Mohal-Kullu.: 32-45

### Abstracts

1. S. S. Samant, **Man S. Rana**, Manohar Lal, Aman Sharma and Ashok Singh. 2006. *Floristic Diversity of the Hamta-Jagatsukh Catchments in Himachal Pradesh, Northwestern Himalaya* in workshop on “Taxonomy capacity building” Organized by Punjab University, Chandigarh: **79-82**.
2. **Man S. Rana** and S. S. Samant, 2007. “*Prioritizing conservation issues for managing alpine pastures of Manali Wildlife Sanctuary in Himachal Pradesh, India: A case study of community diversity assessment*” in International Conference “Managing Alpine Future” organized by Austrian Academy of Sciences and University of Innsbruck, Austria on 15-17 October, 2007: **66-67**.
3. **Man S. Rana** and S. S. Samant, 2007. *Conservation issues for managing forests: a case study of community diversity assessment of Manali Wildlife Sanctuary in Himachal Pradesh, India* in *International Tropical Ecology Congress 2007*, seminar organized by HNB Garhwal University and International Society of Tropical Ecology at Dehradun, from December 2-5, 2007.
4. S. S. Samant, **Man S. Rana**, Manohar Lal, Aman Sharma and Ashok Singh, 2007. Assessment of possible impacts of hydroelectric project on the Forest Vegetation of Allain-Duhangan Catchments in Himachal Pradesh, India, *International Tropical Ecology Congress 2007*, seminar organized by HNB Garhwal University and International Society of Tropical Ecology at Dehradun, from December 2-5, 2007.

### TECHNICAL REPORTS

- ❖ **Man Singh**, Manohar Lal, Aman Sharma and Ashok Singh 2006. Final Technical Report on “*Studies on the Floristic Diversity of the Hamta-Jagatsukh Catchments in Himachal Pradesh*” submitted to World Pheasant Association, New Delhi.
- ❖ **Man Singh** 2007. Progress Report on “*Conservation and Sustainable Utilization of Sensitive Biodiversity Elements of the Trans and North West Himalaya*” from 2005-2007, submitted to G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora.
- ❖ **Man Singh** 2009. Annual Progress Report on “*Response assessment and processing of knowledge base to serve long term conservation and use of biodiversity in the Himalaya-focus on Nargu Wildlife*”

*Sanctuary in Himachal Pradesh*” from 2007-2009, submitted to G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora.

### TRAINING PROGRAMMES

- Participated in five day training programme entitled “*Data generation, Prioritization and Conservation of the Natural Resources including Medicinal Plants of the Indian Himalaya*” organized by GBPIHED, Himachal Unit, Mohal-Kullu from 6-10 June, 2006.
- Participated in a training programme on “*Solid waste management practices in the Mountain*” organized by GBPIHED, Himachal Unit, Mohal-Kullu and SAVE, NGO on November 30, 2006.
- Participated in a training programme on “*Remote Sensing and Geographic Information System*” organized by GBPIHED, Himachal Unit, Mohal-Kullu on May 26-27, 2008.
- Participated in a training programme on “*Short-term Statistical Training programme*” organized by G.B. Pant Institute of Himalayan Environment & Development, Kosi-Katarmal, Almora from June 23-29, 2008.
- Participated in a training workshop on “*Taxonomy Ecology and Conservation*” organized by Centre for Environment Management of Degraded Ecosystems, University of Delhi, Delhi from December 29, 2009-January 7, 2010.
- Four week “**Orientation programme**” from Academic Staff College, Himachal Pradesh University, Shimla 171005 during June 18, 2012-July 14, 2012
- Two week “**Induction Training**” from Government College of Teacher Education Dharamshala (H.P.) from December 24, 2012-January 05, 2013
- One week training programme for capacity building of RUSA coordinator at HIPA, Shimla from August 3-7, 2016

### LECTURE DELIVERED/ RESOURCE PERSON

1. Invited as Resource person to evaluate the project reports of the students at school level on “*Nature nurture for the future*” organized by District education Department, Kullu at Bajaura on 13-14<sup>th</sup> October, 2007.
2. A Lecture delivered on “*Floristic Diversity of Himachal Pradesh and Identification of Plants*” in a training programme for Forest Guards (Wildlife) organized by H.P. Forest Department, Sai Ropa, GHNP, on October 29, 2007.
3. A paper presented on “*Conservation issues for managing forests: a case study of community diversity assessment in Manali Wildlife Sanctaury of Himachal Pradesh, India*” in International Tropical

Ecology Congress 2007, organized by HNB Garhwal University and International Society of Tropical Ecology at Dehradun, from December 2-5, 2007.

4. A Lecture delivered on “*Natural Resources, Its Conservation and Development*” in a NSS Volunteer Camp organized by Govt. Senior Secondary School, Kataula at Prashar on July 09, 2008.
5. A lecture delivered on “Plant identification, quantification and status assessment” in a Seven day training programme for school children organized by SADPRAYAS, NGO, Kullu & GBPIHED, Himachal Unit, Kullu on November 7, 2009.
6. Invited as a resource person in “awareness programme for youth” organized by Nehru Youth Association, Kullu on November 10, 2009.
7. A Lecture delivered on “*Geographic information system (GIS) and role in forest management*” in training programme organized for forest officers by WWF-India, Shimla at Sundernagar on January 22, 2010.
8. Delivered a lecture on “*Biodiversity conservation, development and poverty alleviation*” On occasion of “International Biodiversity Day” celebrated by department of education in Govt. Senior, Sec. School, Mandi on May 22, 2010.
9. Delivered a lecture on “*Climate change and global warming*” on occasion of “Science Day” celebrated by Govt. Degree College, Banjar, Kullu on August 13, 2010.
10. A paper presented on ‘Extraction and status of firewood species in along an altitudinal gradient in central part of Himachal Pradesh, Northwestern Himalaya, in Swaran jayanti national Conference on Biodiversity and Sustainable Utilization of Plant Sciences from February 17-18, 2017 organised by Department of Botany, Kurukshetra University, Kurukshetra.
11. A paper presented on ‘Effect of environmental variables on life stages in Banj Oak (*Quercus leucotrichophora*) forests of the Northweterm Himalaya in national conference on Himalayan Biodiversity and Bioresource utilization on march 23, 2018 organised by Department of Biosciences, HPU shimla.

**Place:** Kullu

**Date:** September 27, 2023

**(Man S. Rana)**