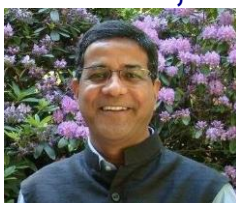


SHYAM S. PHARTYAL, Ph.D.

Associate Professor
School of Ecology & Environment Studies (SEES)
Nalanda University
Rajgir, District Nalanda, Bihar, India 803116
E-mail: shyam.phartyal@nalandauniv.edu.in
Tel: +919102995132
Webpage: <https://www.nalandauniv.edu.in/schools/sees/faculty-sees/shyam-s-phartyal/>



F-302
Nalanda University
Rajgir, District Nalanda
Bihar, India 803116
E-mail: shyamphartyal@gmail.com
Tel: +919410941154
Twitter: [@shyamphartyal](https://twitter.com/shyamphartyal)

EDUCATION

Ph. D. (Forestry)	Forest Research Institute, Dehradun, India	2001
M. Sc. (Forestry)	Kumaun University, Nainital, India	1994
B. Sc. (Biology)	Kumaun University, Nainital, India	1992

ACADEMIC APPOINTMENTS

Associate Professor (Tenure-Track)	Nalanda University, Rajgir, India School of Ecology & Environment Studies	2018-Present
Assistant Professor (Regular Position)	HNB Garhwal University, Srinagar-Garhwal, India Department of Forestry & NR	2008-2018
Lecturer (Temporary Position)	HNB Garhwal University, Srinagar-Garhwal, India Department of Forestry & Natural Resources	2005-2006

AWARD/FELLOWSHIP/RECOGNITION

Guest Topic Editor	Frontiers of Plant Science (Frontiers Publication)	2020 - present
Associate Editor	Seed Science & Technology (ISTA Publication)	2016 - present
Humboldt Renewed Res. Fellow	By Alexander von Humboldt Foundation, Germany	May. 2019-July 2019
Humboldt Experienced Res. Fellow	By Alexander von Humboldt Foundation, Germany	Nov. 2014-April 2016
German Language Fellow	By Alexander von Humboldt Foundation, Germany	Sep. 2014-Oct. 2014
JSPS Postdoctoral Fellow	By Japan Society for the Promotion of Sci., Japan	Sep. 2006-Sep 2008
CSIR-Research Associate	By Council of Scientific & Industrial Research, India	April 2003-Oct. 2005
Postdoctoral Fellow	By Govt. of Brussels Capital Region, Belgium	Nov. 2001-Oct. 2002
Doctoral & Postdoctoral Fellow	By Indian Council of Forestry Res. & Edu., India	May 1995-Oct. 2001

RESEARCH INTEREST

My core research interest includes investigating the eco-physiological life-history traits of plant species from different habitats (wetland to woodland) with different life-cycle & life-forms. More specifically, I am interested in studying the functional seed ecology & associated regenerative traits (responsible for dispersal, persistence & establishment of a plant) for biodiversity conservation, vegetation recovery & as a tool for climate change research. It helps me to understand better how environmental filters drive plant distribution & community assembly. My other research focus is on citizen science, plant-herbivore interaction & utilization of the wealth of historical records archived in herbaria & natural museums to monitor & disentangle the long-term phenological changes.

PUBLICATIONS PROFILE

CITATION INDICES	GOOGLE SCHOLAR*	SCOPUS*	RESEARCHGATE*
No. of Peer-review papers	58	45	58
Citations	1300	590	905
h-index	15	12	14
<i>i10-index</i>	21	N/A	29.55 (RG Score)

For more details click the below-mentioned links:

*Google Scholar: <https://scholar.google.co.in/citations?user=rfoUTKsAAAAJ&hl=en>

*Scopus: <https://www.scopus.com/authid/detail.uri?authorId=6602079766>

*ResearchGate: https://www.researchgate.net/profile/Shyam_Phartyal

PEER-REVIEWED RESEARCH PUBLICATIONS

1. HAMEED, A., EL-KEBLAWY, A., ALJASMI, M., GAIROLA, S., **PHARTYAL, S.S.**, MOSA, K.A., SOLIMAN, S. (2021). Seed provenance, thermoperiod, and photoperiod affect low water potential tolerance during seed germination of the multipurpose exotic tree *Prosopis juliflora*. *Journal of Arid Environments*, 195, 104627. **IF = 2.21.**
2. MENDES, G.M., SILVEIRA, F., OLIVEIRA, C.,.....**PHARTYAL, S.S.**,.....CORNELISSEN, T. (2021). How much leaf area do insects eat? A dataset of insect herbivory sampled globally with a standardized protocol. *Ecology*, 102(4), 2021, e0330, **IF = 4.70**
3. GAIROLA, S., MAHMOUD, T., SHABANA, H., ALKETBI, A., **PHARTYAL, S.S.**, GALLACHER, D. (2021) Effect of seed size on germination in three species from arid Arabian deserts. *Botany*, 99:69-74. **IF = 1.36.**
4. **PHARTYAL, S.S.**, ROSBAKH, S., POSCHLOD. P. (2020). Seed germination of mudflat species respond differently to prior exposure to hypoxic (flooding) environments. *Seed Science Research*, 30: 268-274. **IF = 1.68.**
5. BHATT, A., BHAT, N.R., **PHARTYAL, S.S.**, GALLACHER, D. (2020). Dry-storage and light exposure reduce dormancy of Arabian desert legumes more than temperature. *Seed Science & Technology*, 48:247-255. **IF = 0.66.**
6. LEMBRECHTS, J.J., AALTO, J., ASCHROFT, M.B.,.....**PHARTYAL, S.S.**.....C., NIJS, I. (2020). SoilTemp: a global database of near-surface temperature. *Global Change Biology*, 26:6616-6629. **IF = 8.56.**
7. KOUTOUAN-KONTCHOI, M.N., **PHARTYAL, S.S.**, ROSBAKH, S., KOUASSI, K., POSCHLOD. P. (2020). Seed dormancy and dormancy-breaking conditions of 12 West African woody species with high reforestation potential in the forest-savanna ecotone of Côte d'Ivoire. *Seed Science & Technology*, 48:101-116. **IF = 0.66.**
8. KONSAM, B., **PHARTYAL, S.S.**, TODARIA, N.P. (2020). Impact of forest fire on soil seed bank composition in Himalayan Chir pine forest. *Journal of Plant Ecology*, 13:177-184. **IF = 2.28.**
9. **PHARTYAL, S.S.**, ROSBAKH, S., RITZ, C., POSCHLOD. P. (2020). Ready for change: Seed traits contribute to the high adaptability of mudflat species to their unpredictable habitat. *Journal of Vegetation Science*, 31:331-342. **IF = 2.94.**
10. ROSBAKH, S., **PHARTYAL, S.S.**, POSCHLOD. P. (2020). Seed germination traits shape community assembly along a hydroperiod gradient. *Annals of Botany*, 125:67-78. **IF = 4.04.**
11. BHATT, A., BHAT, N.R., SANTO, A., **PHARTYAL, S.S.** (2019). Influence of temperature, light, and salt on the germination of *Deverra triradiata* seeds. *Seed Science & Technology*, 47:25-31. **IF = 0.66.**
12. NASERI, B., TABARI, M., ABEDI, M., **PHARTYAL, S.S.** (2019). Effect of seed moisture content and storage temperature on viability of Balkan maple (*Acer hyrcanum* Fisch & Meyer) seed. *Forest and Wood Products*, Vol. 72 (1):1-8.
13. **PHARTYAL, S.S.**, ROSBAKH, S., POSCHLOD. P. (2018). Seed germination ecology in *Trapa natans* L., a widely distributed freshwater macrophyte. *Aquatic Botany*, 147:18-23. **IF = 2.14**
14. NASERI, B., TABARI, M., **PHARTYAL, S.S.**, ABEDI, M. (2018). Deep physiological dormancy in seeds of Balkan maple (*Acer hyrcanum*): a rare tree in the Hyrcanian Mountain forest of Iran. *Seed Science & Technology*, 46:473-482. **IF = 0.66.**
15. SINGH, S.P., **PHARTYAL, S.S.**, ROSBAKH, S. (2017). Tree Seed Traits Response to Monsoon Climate and Altitude in Indian Subcontinent with Particular Reference to the Himalayas. *Ecology & Evolution*, 7(18):7408-7419. **IF = 2.58.**
16. KONSAM, B., **PHARTYAL, S.S.**, KUMAR, M., TODARIA, N.P. (2017). Life after fire for understory plant community in sub-tropical chir pine forest of Garhwal Himalaya. *Indian Forester*, 143(8): 759-766.
17. JOSHI, G., **PHARTYAL, S.S.**, ARUNKUMAR, A.N. (2017). Non-deep physiological dormancy, desiccation and low-temperature sensitivity in seeds of *Garcinia gummi-gutta* (Clusiaceae): A tropical evergreen recalcitrant species. *Tropical Ecology* Vol. 58(2):241-250. **IF = 0.89**
18. BHATT, A., **PHARTYAL, S.S.**, PHONDANI, P.C., GALLACHER, D. (2017). Role of perianth colour in germination and salinity tolerance of *Salsola vermiculata* in Arabian deserts. *Nordic Journal of Botany*, 35(5):609-617. **IF = 0.85**
19. BHATT, A., **PHARTYAL, S.S.**, NICHOLAS, A. (2017). Ecological role of distinct fruit-wing perianth color in synchronization of seed germination in *Haloxylon salicornicum*. *Plant Species Biology*, 33(2):121-133. **IF = 2.07**

20. BHATT, A., PHONDANI, P.C., PHARTYAL, S.S., SANTO, A., GALLACHER, D. (2016). Influence of aerial seed banks on germination response in three desert plant species. *Journal of Plant Ecology*, 10(6):994-1000. **IF = 2.28**
21. NASERI, B., TABARI, M., ABEDI, M., PHARTYAL, S.S. (2016). Effect of warm stratification, GA₃ and H₂O₂ on seed germination of Caucasian maple (*Acer monspessulanum* subsp. *ibericum* M.B.). *Iranian Journal of Forest*, Vol. 8, No. 1: 23-34. (Persian version with English abstract).
22. KONDO, T., NARITA, M., PHARTYAL, S.S., HIDAYATI, S.N., WALCK, J.L., BASKIN, J.M., BASKIN, C.C. (2015). Morphophysiological dormancy in seeds of *Convallaria keiskei* and a proposal to recognize two types of double dormancy in seed dormancy classification. *Seed Science Research*, 25:210-220. **IF = 1.89**
23. JOSHI, G., PHARTYAL, S.S., KHAN, M.R., ARUNKUMAR, A.N. (2015). Recalcitrant morphological traits and intermediate storage behaviour in seeds of *Mesua ferrea*, a tropical evergreen species. *Seed Science & Technology*, 43:121-126. **IF=0.66**
24. PHARTYAL, S.S., KONDO, T., FUJI, A., HIDAYATI, S.N., WALCK, J.L. (2014). A comprehensive view of epicotyl dormancy in *Viburnum furcatum*: combining field studies with laboratory studies using temperature sequences. *Seed Science Research*, 24:281-292. **IF = 1.89**
25. DHYANI, A., PHARTYAL, S.S., NAUTIYAL, B.P., NAUTIYAL, M.C. (2013). Epicotyl morphophysiological dormancy in seeds of *Lilium polyphyllum* (Liliaceae). *Journal of Bioscience*, Vol.38:13–19. **IF = 1.82**
26. PHARTYAL, S.S., KONDO, T., BASKIN, C.C., BASKIN, J.M. (2012). Seed dormancy and germination in the giant Himalayan lily: an assessment of its potential for naturalization in northern Japan. *Ecological Research*, 27:677-690. **IF = 1.55**
27. GODEFROID, S., PHARTYAL S.S., KOEDAM, N. (2011). Natural versus artificial cold-stratification: which allows better estimates of soil seed banks in a forest ecosystem? *Current Science*, Vol. 101, No. 2, pp. 215-218. **IF = 0.84**
28. PHARTYAL S.S., GODEFROID, S., KOEDAM, N. (2009). Seed development and germination eco-physiology of the invasive tree *Prunus serotina* (Rosaceae) in a temperate forest in Western Europe. *Plant Ecology*, 204:285-294. **IF = 1.79**
29. PHARTYAL, S.S., KONDO, T., BASKIN, J.M., BASKIN, C.C. (2009). Temperature requirements differ for the two stages of seed dormancy-break in *Aegopodium podagraria* (Apiaceae), a species with deep complex morphophysiological dormancy. *American Journal of Botany*, 96(6):1086–1095. **IF = 3.05**
30. PHARTYAL, S.S., KONDO, T., HOSHINO, Y., BASKIN, C.C., BASKIN, J.M. (2009). Morphological dormancy in seeds of the autumn-germinating shrub *Lonicera caerulea* var. *emphylocalyx* (Caprifoliaceae). *Plant Species Biology*, 24:20–26. **IF = 2.07**
31. THAPLIYAL, R.C., PHARTYAL, S.S., BASKIN, J.M., BASKIN, C.C. (2008): Role of mucilage in germination ecophysiology of *Dillenia indica* (Dilleniaceae) seeds. *Australian Journal of Botany*, 56: 583-589. **IF = 1.87**
32. JOSHI, G., THAPLIYAL, R.C., PHARTYAL, S.S., NAYAL, J.S. (2008). Morphological and Physiobiochemical Changes in *Dalbergia sissoo* Roxb. seed during its development. *Indian Forester*, 134: 563-573.
33. GODEFROID, S., PHARTYAL, S.S., KOEDAM, N. (2006): Depth distribution and composition of seed-banks under different planted tree layers in a managed temperate forest ecosystem. *Acta Oecologica*, 29:283-292. **IF = 1.65**
34. PHARTYAL, S.S., THAPLIYAL, R.C. (2006): Pattern of fruit and seed maturation in Himalayan maple (*Acer caesium*). *Seed Technology*, 28(1):64-70.
35. GODEFROID, S., PHARTYAL, S.S., WEYEMBERGH, G., KOEDAM, N. (2005). Ecological factors controlling the abundance of non-native invasive Black Cherry (*Prunus serotina*) in deciduous forest understory in Belgium. *Forest Ecology and Management*, 210:91-105. **IF = 3.13**
36. GINWAL, H.S., PHARTYAL, S.S., RAWAT, P.S., SRIVASTAVA, R.L. (2005): Seed source variation in morphology, germination and seedling growth of *Jatropha curcas* Linn. in Central India. *Silvae Genetica*, 54(2):76-80. **IF=0.67**
37. PHARTYAL, S.S., BASKIN, J.M., BASKIN, C.C., THAPLIYAL, R.C. (2005). Physical dormancy in seeds of *Dodonaea viscosa* (Sapindaceae) from India. *Seed Science Research*, 15:59-61. **IF = 1.89**
38. THAPLIYAL, R.C., PHARTYAL, S.S. (2005). Seed dispersal-germination syndromes of trees in a monsoonal forest in northern India. *Seed Science Research*, 15:29-42. **IF = 1.89**
39. JOSHI, G., THAPLIYAL, R.C., NAYAL, J.S., PHARTYAL, S.S. (2005). Relation of seed viability & vigour with nursery emergence

in *Dalbergia sissoo*. **Indian Forester**, **131**: 835-840.

40. ROY, S. M., THAPLIYAL, R.C., PHARTYAL, S.S. (2004). Seed source variation in cone, seed and seedling characteristics across the natural distribution of Himalayan low-level pine- *Pinus roxburghii* Sarg. **Silvae Genetica**, **53**(3):116-123. **IF=0.67**
41. THAPLIYAL, R.C., PHARTYAL, S.S., NAYAL, J.S. (2004). Germination, desiccation tolerance & storage of seed of a tropical evergreen tree - *Cryptocarya floribunda* Nees (Lauraceae). **Seed Science & Technology**, **32**: 537-545. **IF=0.66**
42. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2003). Seed dormancy in Himalayan maple (*Acer caesium*)-I: Effect of stratification & phytohormone. **Seed Science & Technology**, **31**:1-11. **IF=0.66**
43. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2003). Seed dormancy in Himalayan maple (*Acer caesium*)-II: Bioassay of inhibitors. **Seed Science & Technology**, **31**:13-20. **IF=0.66**
44. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., RAWAT, M.M.S., JOSHI, G. (2003). The influences of temperatures on seed germination rate in Himalayan elm (*Ulmus wallichiana*). **Seed Science & Technology**, **31**:83-93. **IF=0.66**
45. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2003). Storage of Himalayan maple (*Acer caesium*) seed: A threatened tree species of the Central Himalayas. **Seed Science & Technology**, **31**:149-159. **IF=0.66**
46. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2003). Seed storage physiology of Himalayan elm (*Ulmus wallichiana*): An endangered tree species of tropical highlands. **Seed Science & Technology**, **31**:651-658. **IF=0.66**
47. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2003). Assessment of viability of *Acer caesium* & *Ulmus wallichiana* seeds through the Tetrazolium test. **Seed Science & Technology**, **31**:691-700. **IF=0.66**
48. PHARTYAL, S.S., THAPLIYAL, R.C., KOEDAM, N., GODEFROID, S. (2002). *Ex-situ* conservation of rare & valuable forest tree species through seed-gene bank. **Current Science**, **Vol. 83, No. 11**, pp. 1351-1357. **IF=0.83**
49. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., RAWAT, M.M.S. (2002). Late maturation changes in sal (*Shorea robusta*) seed & their evaluation as indices for proper timing of seed collection. **J. of Tropical Forest Science**, **14**:191-197. **IF=0.61**.
50. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2002). Processing of seed to improve seed lot quality of rare & endangered tree species of Himalayan maple (*Acer caesium* Wall. Ex. Brandis) & Elm (*Ulmus wallichiana* Planchon). **Seed Science & Technology**, **30**:371-382. **IF=0.66**
51. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2002). Seed development in Himalayan elm (*Ulmus wallichiana*). **Seed Science & Technology**, **30**:575-584. **IF=0.66**
52. NAYAL, J.S., THAPLIYAL, R.C., PHARTYAL, S.S., JOSHI, G. (2002). Effect of maturation stage on longevity of neem (*Azadirachta indica* A. Juss.) seed. **Seed Science & Technology**, **30**:621-628. **IF=0.66**
53. NAYAL, J.S., THAPLIYAL, R.C., PHARTYAL, S.S., JOSHI, G. (2002). Germination & storage behaviour of seeds of *Grewia optiva* (Tiliaceae) – a sub-tropical Himalayan multipurpose evergreen tree. **Seed Science & Technology**, **30**:629-639. **IF=0.66**
54. NAYAL, J.S., THAPLIYAL, R.C., PHARTYAL, S.S., JOSHI, G. (2001). Longevity of neem (*Azadirachta indica* A. Juss.) seeds- Effect of storage containers. **Seed Science & Technology**, **29**:679-681. **IF=0.66**
55. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2001). Investigation of storage protocol of *Ulmus wallichiana* Planchon seeds: Effect of equilibrium moisture content on seed viability & vigour. **Indian Journal of Forestry**, **24**(3):284-291.
56. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S., JOSHI, G. (2001). Optimum seed germination requirements of *Ulmus wallichiana* -an endangered tropical highland tree species. In **IUFRO Joint Symposium on Tree Seed Technology, Physiology and Tropical Silviculture**, University of the Philippines, Los Bonos, Philippines, 30 Apr-3 May 2001. Page 128-137.
57. NAYAL, J.S., THAPLIYAL, R.C., RAWAT, M.M.S., PHARTYAL, S.S. (2000). Desiccation tolerance & storage behaviour of neem (*Azadirachta indica* A. Juss.) seeds. **Seed Science & Technology**, **28**:761-767. **IF=0.66**
58. PHARTYAL, S.S., THAPLIYAL, R.C., NAYAL, J.S. (1997). *Ulmus wallichiana* (Elm) - An endangered tree of economic value. **MFP News**, **VII: 4**, pp. 18-19.

POLICY DOCUMENTS

1. Our World – Our Goal: Citizen Science for the Sustainable Development Goals (One of the authors of European Union declaration on CS and SDG 2020; more information find here: <https://www.museumfuernaturkunde.berlin/en/museum/events/knowledge-change-citizen-science-sdg-conference>)

RESEARCH EXPERIENCE AND PROJECT EXECUTION

GBPNIHESD (MOEF&CC) Project

HNB Garhwal University, India, Department of Forestry & NR as a Principal Investigator
Topic: Seed dispersal and seed persistence potential of alpine plants – A case study of Tungnath Timberline.

Apr. 2017-
Mar. 2020

Humboldt Experienced Research Project

The University of Regensburg, Germany, Institute of Plant Science
Advisor: Prof. Peter Poschlod, Chair of Ecology and Conservation Biology
Topic: Seed germination ecology and storage physiology (under *ex-situ* conditions) of plants of threatened amphibious/wetland habitats - an evolutionary and conservation biological study.

Nov. 2014-
April 2016

UGC-Major Research Project

HNB Garhwal University, India, Department of Forestry & NR as a Principal Investigator
Topic: Soil seed bank and post-fire regeneration ecology of Pine forest in Garhwal Himalaya.

Feb. 2011-
Mar. 2014

JSPS Postdoctoral Research Project

Hokkaido University, Japan, Research Faculty of Agriculture
Advisor: Prof. Tetsuya Kondo, Lab. of Environ. Horticulture & Landscape Architecture
Topic: Seed germination ecophysiology of temperate plants, viz. *Cardiocrinum giganteum* (Giant Himalayan Lily), *Aegopodium podagraria*, *Convallaria keiskei*, *Lonicera caerulea*, *Viburnum dilatatum*, and *V. furcatum*.

Sep. 2006-
Sep 2008

CSIR-Research Associate Project

Forest Research Institute, Dehradun, India
Advisor: Dr. R.C. Thapliyal & Dr. H.S. Ginwal
Topic: The physiological investigation of seeds of wild medicinal plants for *ex-situ* germplasm conservation.

April 2003-
Oct. 2005

Postdoctoral Research Project

Vrije Universiteit Brussel (VUB), Belgium, Dept. of Plant Science and Nature Management
Advisor: Prof. Nico Koedam & Dr. Sandrine Godefroid
Topic: Seed germination ecology & soil seed bank of *Prunus serotina*, an invasive exotic species in the Sonian Forest of Brussels (a priority area for nature conservation at a European scale; Habitat Directive-NATURA 2000).

Nov. 2001-
Oct. 2002

Doctoral and Postdoctoral Research Project

Forest Research Institute, Dehradun, India
Advisor: Dr. R.C. Thapliyal
Topic: 1) *Screening of source variation in seed biology of Himalayan pine*, 2) *Storage of Forest Tree Seeds – ‘Developed facilities for storing seeds of rare, endangered, or otherwise valuable germplasm’*.

May 1995-
Oct. 2001

INVITED TALKS

1. ‘Humboldt@250: Remembering Alexander von Humboldt’s contribution to shaping our present-day understanding of biogeography’ at Humboldt Kolleg on ‘CLIMATE, WATER & ENVIRONMENT - LIMIT-2019’ Organized by Humboldt Club of Uttarakhand and supported by Alexander von Humboldt Foundation, Germany from Sep. 25-27, 2019, ATI, Nainital.

2. 'Seed Dormancy and Germination Ecology' at **Pre-Conference Workshop of Seed Ecology 6** organized by International Society of Seed Science (ISSS) and University of Regensburg, Germany from 26-28 July 2019.
3. 'Ecosystems and their biodiversity in the Indian Himalayan Region' at School of Forestry, University of Applied Sciences, Rottenburg, Germany, on 25 June 2019.
4. 'Biogeography of Indian Forests in Relation to Monsoon and Altitude' at **Regensburg Botanical Society (The oldest-functional Botanical Society of the World-Established in 1790)**, University of Regensburg, Germany, on January 11, 2016.
5. 'Seed Biology of Threatened Amphibious/Wetland Plants' at **The Alexander von Humboldt Foundation Network Meeting**, Julius-Maximilians-Universität, Würzburg, Germany, on November 26-28, 2014.
6. 'Seed Dormancy (A Sleeping Beauty) – Revisited' at **national Workshop on Forest Seed Science: Recent Advances and Challenges in Seed Research**, Forest Research Institute, Dehradun, India, on February 26-27, 2014.

ORAL PRESENTATION & POSTERS

#CitSciIndia2021

National conference on 'Citizen Science for Biodiversity', an online meeting held from Sep. 13–16, 2021.

- Assessment of scope and relevance of Citizen Science in Indian Higher Education Institution

9th Bonn Humboldt Award Winners' Forum

International meeting of AvH Foundation on "Frontiers in Biogeography, Ecology, Anthropology, and Evolution. Humboldt and the 'Cosmos' revisited in the 21st Century" at Hotel Bristol, Bonn, Germany, Oct. 16–20, 2019.

- Am I in the right place? Seed germination traits shape community assembly along hydroperiod gradient

Seed Ecology 6th Meeting 'Functional Seed Ecology'

International Society of Seed Science (ISSS) 6th Meeting, University of Regensburg, Germany, July 28 - Aug 02, 2019.

- *Ready for change: seed traits contribute to the high adaptability of mudflat species to their unpredicted micro-habitat.*

International Conference on Crystal Ball Vision on Science & Engineering for Societal Upliftment

Indian JSPS Alumni Association (IJAA) Conference, CSIR-NIO, Goa, India August 7-8, 2017

- *Does seed persistence potential in understory plants reduce the risk of forest fire damage? A study of Himalayan Chir Pine Forest*

Seed Ecology 5th Meeting 'Seeds in the Web of Life'

International Society of Seed Science (ISSS) 5th Meeting, Caeté (Minas Gerais), Brazil, August 21-25, 2016

- *Seed germination ecology in *Trapa natans*, a widely distributed freshwater macrophyte. (Presented by a colleague as a co-author)*
- *An unexplored side of sexual reproduction: thermal ranges of pollen germination, seed dormancy, and germination drive species distribution. (Presented by a colleague as a co-author)*

Working Meeting "Conservation strategies for seed in the context of changing environmental conditions"

Leibniz-Institute of Plant Genetics & Crop Plant Research, & University of Regensburg, Germany, April 4-5, 2016

- *Moisture and substrate type determine seed lifespan in a soil seed bank*

National Workshop on forest Seed Science: Recent Advances and Challenges in Seed Research

Forest Research Institute, Dehradun, India, February 26-27, 2014

- *Desiccation and temperature response on seed storability: a study of five medicinal tree species*

Seed Ecology 4th Meeting 'Seed & Environment'

ISSS 4th Meeting, Shenyang, China, June 22-26, 2013

- *The impact of forest fire on the soil seed bank dynamics in Himalayan Chir Pine forest*
- *Seed bank composition & density of Phumdis (floating islands) in the Keibul Lamjao National Park, North-East India.*

Seed Ecology 3rd Meeting 'Seed & Environment'

ISSS 3rd Meeting, Salt Lake City, Utah, USA, June 20-24, 2010

- Soil seed banks of *Eupatorium adenophorum* (an invasive species) and other native species under different tree canopies in central Himalayan Montane Subtropical Forest Ecosystem
- Seed Dormancy and germination ecophysiology in *Viburnum furcatum* (Caprifoliaceae) with underdeveloped embryos
- Seed dormancy of *Convallaria keiskei* and effects of light and temperature on radicle emergence.

IV National Forestry Conference

Forest Research Institute, Dehradun, India, November 9-11, 2009.

- Ecological significance of single vs. sequence of temperature regime required in seed germination research

Seed Biology Conference

ISSS 9th Conference on Seed Biology, The University of Warmia & Mazury, Olsztyn, Poland, July 6-11, 2008

- Germination phenology of *Cardiocrinum giganteum* (Liliaceae): An endemic giant Himalayan lily in the Himalayas
- Germination ecophysiology of *Lonicera caerulea* var. *emphylocalyx* (Caprifoliaceae) with underdeveloped embryo

SCIENTIFIC BLOGS

Ready for change: seed traits contribute to the high adaptability of mudflat species to their unpredictable habitat.

Blog posted on December 6, 2019, at jvsavsblog.org – Official blog of the *Journal of Vegetation Science & Applied Vegetation Science* of International Association for Vegetation Science
<https://jvsavsblog.org/2019/12/06/ready-for-change-seed-traits-contribute-to-the-high-adaptability-of-mudflat-species-to-their-unpredictable-habitat/>

GLOBAL RESEARCH NETWORK & COLLABORATIONS

SoilTemp: Towards a global database of microclimate

University of Antwerp, Belgium

Founder: Dr. Jonas Lembrechts

Objective: To build a global database of soil and near-surface temperatures, and associated species data for use in ecological modeling.

The Herbivory variability Network

Michigan State University, USA

Founder: Dr. Will Wetzel

Objective: To understand what leads some plant species to have high variability and others to have lower variability in their interactions with herbivores. This is a global network of researchers working together to understand how plant-herbivore interactions vary across the planet, ecosystems, and the plant phylogeny.

Global Herbivory and Florivory Network

Federal University of Minas Gerais, Brazil

Founder: Dr. Tatiana Cornelissen

Objective: To evaluate patterns of plant damage caused by herbivores and florivores in tropical plant species

PROFESSIONAL ACADEMIC SERVICES

Editorial position:

- Guest Research Topic Editor '*Functional Seed Ecology: from Single Traits to Plant Distribution Patterns, Community Assembly and Ecosystem Processes*' for Journal 'Frontiers of Plant Sciences' More detail <https://fro.ntiers.in/seed-ecology>
- From 2016-to date: Associate Editor "*Seed Science & Technology*" ISTA's Official Journal
- From 2009-2017: *The Scientific World Journal* (Hindawi Publication) as an Editorial Board Member
- From 2011-2014 - *International Journal of Agronomy* (Hindawi Publication) as an Editorial Board Member

Peer Reviewer: Reviewed 90 research manuscripts for >25 journals* including Annals of Botany, American J. of Botany, Australian J. of Botany, J. of Ecology, Land Degradation & Development, Plant and Soil, Plant Biology, Plant Diversity, Plant Ecology & Evolution, Plant Species Biology, Seed Science Research, Seed Science & Technology, The American Midland Naturalist, Tree-Structure and Function, (*Verify review at Publons ID: <https://publons.com/author/550963/shyam-s-phartyal#profile>)

Ph.D. Thesis Evaluation: Appointed Thesis Evaluator by the Board of Study in Plant Science, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka in 2018.

Host Researcher: Hosted Prof. Gehan Jayasuriya from the University of Peradeniya, Sri Lanka at Nalanda University from Jan to April 2019 under the Indian Science and Research Fellowship Program funded by CCSTDS, Department of Science & Tech. Govt. of India.

Media Interview: Invited to give feedback as an independent seed researcher for a news article published in Mongabay.Org Magazine (<https://news.mongabay.com/2018/09/study-sheds-light-on-how-seeds-survive-in-tropical-soils/>) about a research article “Seed Dormancy- Defense Syndromes’ published in 'Ecology' (an official journal of Ecological Society of America).

Committees: 1) Member of Scientific Organization Committee of ISSS sponsored “Seed Ecology VI Meeting’ held in Regensburg, Germany from July 28 to August 2, 2019 (<http://www.biologie.uni-regensburg.de/Seed-Ecology2019/index.html>).

2) Chairman of Evaluation Committee - Agriculture Science for MEXT Research Fellowship Program of Japan Government offered by the Embassy of Japan, New Delhi, from 2017 to 2021 (https://www.in.emb-japan.go.jp/Education/Research_Student.html).

3) Academic Council Member – Nalanda University, Rajgir, Nalanda, Bihar, India (March 2019 - To date).

4) Commission Member of IUCN - Species Survival Commission (SSC) - Seed Conservation Specialist Group 2017-2020'. For more detail visit: <https://www.iucn.org/commissions/ssc-groups/plants-fungi/plants/plants-h-z/seed-conservation>

DISSERTATION THESIS SUPERVISION

Ph.D. Thesis: 02 Awarded; **M.Sc. Dissertation Thesis:** 13 Awarded

1. *Ph.D. Supervisor of Dr. Bobbymoore Kansom titled ‘The ecological impact of fire on soil seed bank and understory vegetation in a subtropical pine forest’ awarded in 2017 by HNB Garhwal Central University, India.*
2. *Ph.D. Co-Supervisor of Dr. Bahram Naseri titled ‘Seed dormancy and storage of native maples in Caspian Forests’ awarded in 2016 by Tarbiat Modares University, Iran.*

REFERENCES

PROF. S. P. SINGH, FNA, Centre Himalayan Environment Association (CHEA), 179 Kalyan Kunj, Vasant Vihar, Dehradun, Uttarakhand 248006, INDIA. E-mail: surps@yahoo.com

PROF. (DR.) PETER POSCHLOD, Chair of Ecology and Conservation Biology, Institute of Plant Sciences, University of Regensburg, D-93040 Regensburg, GERMANY, E-mail: peter.poschlod@biologie.uni-regensburg.de

PROF. CAROL C. BASKIN, Department of Biology, University of Kentucky, Lexington, Kentucky 40506-0225, USA, E-mail: ccbask0@uky.edu

PROF. JEFFREY L. WALCK, Department of Biology, Middle Tennessee State University, Murfreesboro, Tennessee 37132, USA, E-mail: jwalck@mtsu.edu