




Faculty Details proforma for DU Web-site

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cc:director@ducc.du.ac.in)

Title	Professor	First Name	Prem Lal	Last Name	Uniyal	
Designation						
Address	A – 2 / 7, Maurice Nagar, University of Delhi, Delhi-110007					
Phone No Office						
Residence	011-27666108					
Mobile	9968279822					
Email	pluniyal@botany.du.ac.in , uniyalpl@rediffmail.com					
Web-Page	du.ac.in					
Educational Qualifications						
Degree	Institution				Year	
Ph.D.	Panjab University, Chandigarh				1991	
M. Sc..	HNB Garhwal University, Srinagar, Uttarakhand				1984	
B. Sc..	Gurukul Kangri University, Haridwar, Uttarakhand				1982	
Career Profile						
Organization/Institution	Designation	Duration	Role			
Department of Botany, University of Delhi, Delhi	Professor	2009-Till DATE	Teaching and Research and other academic activities			
Department of Botany, University of Delhi, Delhi	Associate Professor	2006-2009	Teaching and Research and other academic activities			
Department of Botany, University of Delhi, Delhi	Reader	2003-2006	Teaching and Research and other academic activities			
Department of Botany, University of Delhi, Delhi	Lecturer	1999-2003	Teaching and Research			
Department of Botany, University of Delhi, Delhi	CSIR Pool Scientist	1998-1999	Research			
Department of Botany, University of Delhi, Delhi	Research Associate (CAS-UGC)	1993-1998	Teaching and Research			
Department of Botany, University of Delhi, Delhi	Research Associate (CSIR Research Project)	1992-1993	Research			
Administrative Assignments						
Areas of Interest / Specialization						
Bryophytes: Biosystematics, Cytology, Ecology Pteridophytes: Developmental Biology, Reproductive Biology Gymnosperms: Population Biology and Developmental Biology Lichens: Bio-active compounds Podostemaceae: Developmental Biology, Ecology						

Subjects Taught				
Bryology, Pteridology, Gymnosperms and Developmental Biology				
M.Sc Semester -II: Plant Diversity- Developmental Biology				
M.Sc. Semester-III : Advances in Archegoniatae				
Time table of the subjects taught during the current semester				
S.No	Subject	Days	Time	Classroom
1	M. Sc Botany (i) Semester-II, Bot 201- Developmental Biology	(i)Monday; Practical	Theory: 9.40 am- 10.35 am	Theory: #37
		(ii)Thursday: Theory and Practical	Practical: 10.35am -2.15 pm	Practical:#26
		(ii) Semester –III Bot 303-Advanced in Archegoniatae	Monday: Theory & Practical Friday: Theory	Theory: 1.20pm -2.15 pm Practical: 2.15pm – 5.30 pm
(iii) Semester- IV M.Sc. Dissertation	Saturday: Discussion	Discussion: 10.00 am -1.00 pm	Room; #312	
2.	M. Phil. and Ph. D. (Course Work) (Botany) EL 1-Bryophyte diversity and Evolution	Thursday: Theory Friday : Practical	Theory: 2.00pm – 3.30 pm Practical: 2.00pm - 5.00 pm	Theory: #37 Practical: #311B
Research Guidance				
Ph.D.				
(1). 2009. Anil Kumar. Taxonomic Studies on the Grasses of Aravalli Ranges.				
(2). 2010. Sanavar. Comparative Studies on Heavy Metal Acquisition and Retention by Mosses of five different sites of India.				
(3). 2010. Praveen Kumar Sharma. Isolation, Biological Activity and Secondary metabolite Investigation of Antagonistic Bacteria.				
(4). 2010. Shantanu Suman. Mosses of Idduki district in Western Ghats.				
(5). 2011.Varnika Bhatia. Study on Molecular Approaches for Developing Aphid Resistance using Model Plant <i>Arabidopsis thaliana</i> .				
(6). 2011. H Govindaparyari. Morpho-taxonomic Studies on the Mosses of Imphal, Manipur.				
(7). 2014. M Leleeka Devi. Studies on three species of Podostemaceae with reference to Morphology, Reproductive biology, <i>In vitro</i> seed germination and Ecology.				
(8). 2015. Pratibha Kumari. Studies on Endophytic fungal Association in Bryophytes of some selected sites of Uttarakhand.				
(9). 2017. Akanksha Madan. Floral Rewards and Pollination Studies in <i>Cascabela thevetia</i> (L.) Lippold (Apocynaceae) with an Assessment of its Potential as a Food Source for Bees				
(10). 2017. Julie Thakur. Studies on the biology of two threatened species of the Himalayan Region <i>Pittosporun eriocarpum</i> Royle and <i>Crepidium acuminatum</i> (D.Don) Schlech. For developing their conservation strategies.				
(11). 2018. Akshay Mamgain. Morphological Variation and Distribution Pattern of <i>Rhododendron arboreum</i> Sm. in Uttarakhand, India.				
(12). 2019. Neha Mann. "Reproductive attributes, Population Genetic Studies and Detection of				

Cyclotides in selected species of *Viola* L. from Uttarakhand”

M.Phil

- (1). 2004. Sanavar. Morphology and Distribution of Podostemaceae in India
- (2). 2004. H Govindaparyi. An Insight to the Adaptive strategies of Bryophytes
- (3). 2004. Shantanu Suman. Bryophytes of Uttaranchal
- (4). 2005. Sunita Sharma. The Role of Bryophytes in Nutrient Cycling
- (5). 2006. M Leleeka Devi. Taxonomic Implications of Cell Pattern of Leaf and Peristome in Mosses
- (6). 2006. Amit Kumar Kaushik. Morphological studies in some members of Marchantiales (Bryophyta)
- (7). 2007. Shelly Sinha. Studies on the conducting tissue of the gametophyte in Musci in relation to growth form and habitat conditions
- (8). 2007. Anjana Singh. Studies on the conducting tissue of the gametophyte in Musci in relation to growth form and habitat conditions
- (9). 2008. Shweta Shekhar. Studies on the population variation in *Ephedra* in Himachal Pradesh
- (10). 2008. M Nivedita. Liverworts of Kedarnath Wild life Sanctuary, Western Himalaya
- (11). 2009. Jimni Singh. Systematic Studies on *Ephedra* of Ladakh Region, Jammu & Kashmir, India
- (12). 2010. Pratibha Kumari. Some Aspects of Biology of *Ephedra*
- (13). 2010. Divya Dandotiya. Status Survey of Bryophytes of India
- (14). 2011. Lebin Thomas. Advanced Studies in Gymnosperms
- (15). 2011. Devendra Kumar. Experimental Studies in *Taxus*.
- (16). 2012. Sonam Splanzim. Bryophytes of Ladakh
- (17). 2013. Nutan Singh. Studies on the diversity of mosses in North Sikkim
- (18). 2013. Priya Mishra. Studies on the morpho-anatomical variation in populations of *Taxus wallichiana* Zucc. In Western Himalaya
- (19). 2014. Manzoor Hussain. Listing of Medicinal Plant of Ladakh
- (20). 2014. Sneha Bisht. Survey of lichens of Uttarakhand.
- (21). 2015. Priti Giri. Studies on the Gametophyte development in some leptosporangiate ferns.
- (22). 2016. Parna Saha. Study of development of some fern species using *in vitro* culture methods
- (23). 2018. Himani Yadav. Studies on the gametophyte development in some homosporous ferns through *in vitro* culture.

Teaching and Research Experience : 25 Years (since 1993)

Publications Profile

Authored Book : 02
Edited Book: 01
Research Publications: 100
Review articles/ Book Chapters : 29
Popular Scientific articles: 21

Publications

Book Authored

Otaghvari AM, Yadav SR, Raina SN and **Uniyal PL**. 2015. **Vegetational Wealth of Aravalli Ranges**. Scientific Publishers (India) Jodhpur. Pp 362

Kaur I and Uniyal PL. 2019. Textbook of Gymnosperms. Daya Publishing House. New Delhi pp 165 (ISBN 978-93-5124-983-2 (PB))

Book Edited

P L Uniyal, BP Chamola and DP Semwal.2010. **The Plant Wealth of Uttarakhand Himalaya**. Jagdamba Publishing Company, New Delhi. pp 436

Research Papers

1. Kasana,S, Uniyal PL and Pandey AK .**2019**. Lactotyping of *Lipschitzia eratocarpa*(Asteraceae, Cardueae) an endemic species from Indian Himalaya. Kew Bulletin. DOI:10.1007/s12225-019-9821-6)
2. Kasana,S, Uniyal PL and Pandey AK .**2019**. Rediscovery of *Saussurea andryaloides* (Asteraceae, Cardueae) from Uttarakhand, India. *Rheedea* 29(1): 116-118
3. Goel M, Laatsch H and Uniyal PL.**2019**. Characterization of phenolic compounds from *Parmelia reticulata* Tayl. National Academy Science Letters doi.org/10.1007/s40009-019-0784-9
4. Kasana S, Uniyal PL and Pandey AK. **2019**. Rediscovery of *Saussurea andryaloides* (Asteraceae: Cardueae) from Uttarakhand, India. **Rheedea** 29(1) 116-118
5. Bhatia M, Kumar B and Uniyal PL. 2018. In vitro spore germination, gametophyte ontogeny and sporophyte regeneration in *Platyserium bifurcatum* (Cav.)C. Chr. Indian fern Journal.35: 54-66
6. Bhandari PK, Thakur J, Sharma S, and Uniyal PL. 2018. . Orchid Diversity in Basukedar region (Rudraprayag) District) of Uttarakhand. Journal of Orchid Society of India 32:73-80
7. **UNIYAL PL**, TIWARI P and CHAUDHARY E. 2018. Studies on floral sources, phenolic, flavonoid, proline contents and antioxidant capacity of honey from the Khirsoo area of Pauri, Uttarakhand, India. **Indian Journal of Agricultural Sciences** 88 (10): 00–00, October 2018 (in Press)
8. Chaudhary Ekta, Tiwari P and Uniyal PL. 2018. Morphology and pollen chemistry of several bee forage taxa of family Rosaceae from Garhwal Himalaya, Uttarakhand, India. **J Apic Sci** 62 (2) DOI:10.2478/JAS-2018-0015.
9. Sourabh P, Thakur J, Priti, Sharma P, **Uniyal PL** and Pandey AK. 2018. Habitat Distribution Modelling for Reintroduction of Endangered Medicinal Plants *Ephedra Gerardiana*, *Lilium polyphyllum*, *Crepidium acuminatum*, *Pittosporum eriocarpum* and *Skimmia anquetilla* in India. **International Journal of Ecology and Environmental Sciences** 44 (2): 207-216, 2018.
10. Singh Anjana and **Uniyal PL**. 2018. Study on the Accumulation of Heavy Metals in Some Epiphytic Mosses of Nainital City, Uttarakhand, India. **Cryptogam Biodiversity and Assessment**. 3 (1):1-6, e-ISSN : 2456-0251,
11. Ismail Zeenat, Khuroo AA, Bhat MY, Rasheed S and Uniyal PL. 2018. *Lunularia cruciata* (L.) Dumort. ex Lindb.: a new plant record for the bryoflora of Kashmir Himalaya, India. **Evansia** 35(3): 100-105.
12. Thakur J, Dwivedi MD and Uniyal PL.2018. Ultrastructural studies and molecular characterization of root-associated fungi of *Crepidium acuminatum* (D Don)Szlach. : a threatened and medicinally important taxon. **Journal of Genetics**. <https://doi.org/10.1007/s12041-018-1007-8>.
13. Mangain A. Uniyal PL. 2018. Species Distribution Modelling of *Rhododendron arboreum* Sm. – A Keystone Species, in India and Adjoining Region. **International Journal of Ecology and Environmental Sciences** 44 (3): 261-286, 2018
14. Chaudhary E, Tiwari P and Uniyal PL. 2018. Macro and Essential Trace Elements in *Apis cerana-indica* Honey from Garhwal Himalaya, India. International Journal of Plant and

- Environment 4 (1): 49-54
15. Rawat DS, Tiwari JK, Uniyal PL and Tiwari P. 2018. Assessment of fodder species in western Himalaya, Ranganga Valley, Uttarakhand, India. *International Journal of Tropical Agriculture*. 36 (1): 23-35
 16. Kasana S, Dwevedi MD and Uniyal PL. 2018. Taxonomic status of *Saussurea costus* (Falc.) Lipsch. (Asteraceae: Cardueae); a critically endangered species from Himalaya, India. *Pleione* 12(1): 81-84.
 17. Priti, Kumari P, Panwar G S and Uniyal P L. 2017. Studies on in vitro gametophyte development of *Onychium contiguum* (wall.) Hope *Indian Fern Journal* 34:117-123.
 18. Panwar GS, Srivastava SK and Uniyal PL. 2017. Callus-mediated organogenesis in *Lilium polyphyllum* D. Don ex Royle: a critically endangered Astavarga plant. *Current Science* 113 (5): 946-951
 19. Mangain M, Bhandari PK, Semwal DP and Uniyal PL. 2017. Population Assessment, Mapping and Flowering Response of *Rhododendron arboreum* Sm. – A Keystone Species in Central Himalayan Region of Uttarakhand, India. *International Journal of Ecology and Environmental Sciences* 43 (3): 205-220. ISSN: 2320-5199
 20. Singh A, Sood A, Sharma P and Uniyal PL. 2017. Assessment of accumulation of some heavy metals in mosses of Idukki district, Kerala (Western Ghats), India. *International Journal of Plant and Environment* 3(1): 15-19.
 21. Tyagi R, Singh A, Sood A and Uniyal PL. 2017. Abiotic stress responses in plants: potential targets on studying heavy metal stress tolerance in bryophytes. *International Journal of Plant and Environment* 3(1): 41-51
 22. Mann Neha, Uniyal PL and Lakhanpaul S. 2017. Studies on the phenology and breeding system in *Viola canescens* (Violaceae). *International Journal of Plant Reproductive Biology* 9(2): 125-128
 23. Tiwari P, Uniyal PL and Chaudhary E. 2017. Effect of sucrose on *in vitro* pollen germination of *Gloriosa superba* L. – a medicinal plant from the Garhwal Himalaya, India. *Environment Conservation Journal* 18(1&2): 183-187.
 24. Bhatia M, Priti, Uniyal PL and Madhusoodanan PV. 2017. Studies on the gametophyte development and reproductive behavior of *Acrostichum aureum* L. *International Journal of Plant Reproductive Biology* 9(2): 89-92
 25. Bhandari P, Mangain A and Uniyal PL. 2017. Ethnobotanical study and application of medicinal plants by the local people of Basukedar Himalaya of Rudraprayag, Uttarakhand, India. *The journal of Ethnobiology and Traditional Medicine* 128: 1305-1319
 26. Kathal R, Malhotra P, Kumar L and Uniyal PL. 2016. Phytoextraction of Pb and Ni from the Polluted Soil by *Brassica juncea* L. *Journal of Environmental & Analytical Toxicology* 6:5 DOI: 10.4172/2161-0525.1000394.
 27. Leleeka Devi M, Sanavar, Tandon R and **Uniyal PL. 2016**. Features of seeds of Podostemaceae and their survival strategy in fresh water ecosystems. **Rheedea** 26(1): 29-36.
 28. Thakur J, Dwivedi MD, Sourabh P, **Uniyal PL**, Pandey AK. **2016**. Genetic Homogeneity Revealed Using SCoT, ISSR and RAPD Markers in Micropropagated *Pittosporum ericarpum* Royle- An Endemic and Endangered Medicinal Plant. *PLOS ONE*, DOI:10.1371/Journal.one.0159050 July 19, 2016
 29. Priti, Kumari P, Srivastava R and Uniyal PL. 2016. Studies on the gametophyte development and gametangial ontogeny in *Microsorium scolopendria* (Burm. f.) Copel. *International Journal of Plant Reproductive Biology* 8(2):136-138.
 30. Madan A and Uniyal PL. 2016. Phenological Events in *Cascabela thevetia* (L) Lippold (Apocynaceae) in Delhi. *International Journal of Plant Reproductive Biology* 8(2):218
 31. L eleeka Devi M, **Uniyal PL** and Tandon R. **2016**. Studies on the morphology and *in vitro* seed germination of *Polypleurum stylosum* var *laciniata* (Podostemaceae). **Proceedings of National Academy of Sciences B Biological Sciences**, DOI 10.1007/s40011-015-0687-6

32. Sharma A, Langer A and **Uniyal PL. 2016.** A preliminary report o the mosses of Rajouri and Poonch district of Jammu & Kashmir, India. **Evansia** 33 (1) : 26-33
33. Kumari P, Chamola BP, Govindaparyari H, Gupta R and **P L Uniyal. 2015.** Studies on the diversity of soil fungi (AM) associated with bryophytes in Uttarakhand, North Western Himalaya, India. **Annals of Forestry** 23 (1):11-19
34. Panwar GS, Srivastava SK and Uniyal PL. 2015. *In vitro* propagation of *Eremostachys superba* Royle ex Benth. – an endangered, medicinal and ornamental herb of North-West Himalaya. **Medicinal Plants**, 7(4):.264-271
35. Madan A, Thakur J and **Uniyal PL. 2015.** Evolution and contribution of MADS-BOX genes in relation to floral diversity in orchids. **The Journal of Orchid Society of India** 29: 23-30
36. Srivastava R and **Uniyal PL. 2015.** Gametophyte development and reproductive behavior in *Dicksonia antarctica* Labill. **Bioinfolet** 12 (4B): 988-992.
37. Sharma P, **Uniyal PL**, Tripathi SB, Negi MS and Schwekendiek A. **2015.** AFLP based analysis of genetic diversity within Section Pseudobaccatae and Alatae of the genus *Ephedra* in Western Himalaya. **Journal of Innovative Biology** 2(4): 245-249
38. Thakur J, Madan A, Dwevedi MD and **Uniyal PL. 2015.** What drives orchids toward mycoheterotrophy? **The Journal of Orchid Society of India** 29: 55-60.
39. Sourabh P, Thakur J, **Uniyal PL** and Pandey AK. **2015.** Biology of *Lilium polyphyllum*-a threatened medicinal plant. **Medicinal Plants** 7(2): 158-165.
40. Bahuguna YM, Gairola A, **Uniyal PL** and Bhatt AB. **2016.** Moss flora of Kedarnath Wild life Sanctuary (KWLS), Garhwal Himalaya, India. **Proceeding of National Academy of Sciences, India** 86 (4): 931-943.
41. Khanduri P, Tandon R, **Uniyal PL**, Bhat V and Pandey AK. **2015.** Comparative morphology and molecular systematics of Indian Podostemaceae . **Plant Systematics and Evolution. Plant Systematics and Evolution** 310:861-882.
42. Khanduri P, Chaudhary A, **Uniyal PL** and Tandon R. **2014.** Reproductive biology of *Willisia arekaliana* (Podostemaceae).a fresh water endemic species of India. **Aquatic Botany.** 119:57-65.
43. Bahuguna YM, Sanavar, Gairola S, Semwal DP and **Uniyal PL. 2014.** Species diversity and composition of bryophytic vegetation in Garhwal Himalaya with special reference to Kedarnath wildlife sanctuary (KWLS), Uttarakhand, India. **International Journal of Ecology and Environmental Sciences** 40:75-85.
44. Shirzadian S, Darzikolaei SA and **Uniyal PL. 2014.**Seven new records of mosses in Iran. **Telopea** 17: 393-401
45. Sharma P, **Uniyal PL** and Slowik J. **2014.** Community involvement and conservation of *Taxus baccata* in Pangi Valley, Himachal Pradesh. **Natural Areas Journal** 34 (4): 470-474.
46. Govndaparyari H, Sanavar, Bahuguna YM and **Uniyal YM. 2014.** Habitat preference in pleurocarpus mosses of Imphal District Manipur, India. **Evansia** 31(3):99-108. 2014.
47. Goel M. Rani A, Dureja P and **Uniyal PL. 2014.** Investigation of allelopathic potentiality of the Himalayan lichen *Parmelia reticulata* Tayl. against *Phalaris minor* retz. **APCBEE Procedia** 9:.140-144.
48. Srivastava R and **Uniyal PL. 2014.** Developmental studies on an ornamental fern *Polystichum lentum* (D.Don) Moore. **National Academy of Science Letters.** 37(3):281-284.
49. Salimbahrami M, Otaghviri AM, Fadaie F, Kazemitabar SK, Kolbadi A and **Uniyal PL. 2014.** Studies on genetic diversity in Equisetum from Northern Iran using RAPD markers. **Bioinfolet** 11 (3 B) : 934 – 939.
50. Srivastava R and **Uniyal PL. 2014.** In Vitro developmental studies of *Chilanthus farinosa* (Forssk.) Kailf. (Pteridaceae). **Telopea** 17: 87-91.
51. Chaudhary A, Khanduri P, Tandon R, **Uniyal PL** and Mohan Ram HY. **2014.** Central cell degeneration leads to the three-celled female gametophyte in *Zeylanidium lichenoides* Engl. (Podostemaceae). **South African Journal of Botany** 91: 99-106

52. Srivastava R and **Uniyal PL**. 2014. Studies on reproductive biology of *Microsorium alternifolium* (Wild.) Copel. **International Journal of Plant Reproductive Biology** 6 (1): 15-19.
53. Madan A, **Uniyal PL** and Bhatnagar AK. 2013. Sustenance of global orchid diversity requires understanding and simultaneous conservation of pollinators. **Journal of Orchid Society of India**. 27:87-107.
54. Semwal DP, Bhatt KC, Mamgain A, **Uniyal PL** and Bahuguna YM. 2013. Role of potential ethno-medicinal resources of Kalimath Valley (District Rudraprayag) Uttarakhand, India in health care. **Medicinal Plants** 5 (4): 223-230.
55. Otaghviri AM, Salimbahrami M, Fadaie F, Kazemitabar SK & **Uniyal PL**. 2013. Morphometric study of *Equisetum* L. in Northern Iran. **Annals of Forestry** 21: 37-47
56. Srivastava R and **Uniyal PL**. 2013. *Asplenium nidus*, the bird's nest fern: Developmental studies and its conservation. **American Journal of Plant Sciences** 4 : 45-48.
57. Kukreti C, Rajwar GS and **Uniyal PL**. 2013. Effect of growth regulators on the growth and yield of *Withania somnifera* Dunal. **Medicinal Plants** 5 (2): 66-70
58. Sood A, Kalra C, Pabbi S & **Uniyal PL**. 2012. Differential responses of hydrogen peroxide, lipid peroxidation and antioxidant enzymes in *Azolla microphylla* exposed to paraquat and nitric oxide. **Biologia** 67: 1119-1128.
59. Bhatia V, Bhattacharya RC, **Uniyal PL**, Singh R and Niranjana RS. 2012. Host generated siRNAs Attenuate Protease Gene in *Myzus persicae* . **PLOS ONE** 7 (10):e46343
60. H Govindaparyi, P Kumari, YM Bahuguna and **P L Uniyal**. 2012. Evaluation of species richness of acrocarpous mosses in Imphal district, Manipur, India. **Taiwania** 57 (1): 14-26
61. Y M Bahuguna, S Gairola, D.P. Semwal, **P.L. Uniyal** and A.B. Bhatt. 2012. Soil physico-chemical characteristics of bryophytic vegetation residing Kedarnath Wildlife Sanctuary (KWLS), Garhwal Himalaya, Uttarakhand, India. **Indian Journal of Science and Technology** 5 (4): 2548-2553
62. M Goel, P K. Sharma, P. Dureja, A. Rani & **P. L. Uniyal**. 2011. Antifungal activity of extracts of the lichens *Parmelia reticulata*, *Ramalina roesleri*, *Usnea longissima* and *Stereocaulon himalayense* **Archives of Phytopathology and Plant Protection** 44 (13): 1300-1311
63. M Ghaffarian , AM Otaghviri and **P L Uniyal**.2011. Study of almond gardens for recognition of the native late flowering and resistant to spring cold genotypes in Yazd Province, Iran, **Annals of Forestry** 19 (2): 210-214
64. V Bhatia, **P L Uniyal** & R Bhattacharya 2011. Aphid resistance in Brassica Crops: Challenges, biotechnological Progress and emerging possibilities. **Biotechnology Advances**. 29: 879-888
65. A Sood, **P L Uniyal**, R Prasanna & A S Ahluwalia. 2011. Phytoremediation Potential of Aquatic Macrophyte, *Azolla*. **AMBIO- A Journal of Human Environment**. 41:122–137
66. P Kumari, AM Otaghviri, YM Bahuguna and P L Uniyal. 2011. Some ethno-medicinally important pteridophytes of India. **International Journal of Medicinal and Aromatic Plants** 1 (1): 18-22.
67. D Dandotiya, H Govindaparyi, S Suman and **P L Uniyal**. 2011. Checklist of bryophytes of India. **Archives for Bryology**. 88: 1-126
68. A. Sood, S. Pabbi , and **P L Uniyal**. 2011. Effects of Paraquat on Lipid Peroxidation and Antioxidant Enzymes in Aquatic Fern *Azolla microphylla* **Russian Journal of Plant Physiology**. 58 (4): 667–673.
69. M Goel, P Dureja, A Rani & **P L Uniyal** and H Laatsch. 2011. Isolation, characterization and antifungal activity of major constituents of the Himalayan lichen *Parmelia reticulata* Tayl. **Agricultural and Food Chemistry** 59: 2299-2307
70. P K Sharma, M Goel, P Dureja and **P.L. Uniyal**. 2010. Isolation and identification of secondary metabolites from hexane extract of culture filtrate of *Bacillus licheniformis* MTCC 7445. **Archives of Phytopathology and Plant Protection**.43 (16):1636–1642
71. P Sharma, **P L Uniyal** and O Hammer. 2010. Two new species of *Ephedra* (Ephedraceae) from

- the Western Himalayan region. **Systematic Botany** 35 (4): 730-735.
72. DP Semwal, **P L Uniyal** and AB Bhatt. **2010**. Structure, Composition and dominance-diversity relations in three forest types of a part of Kedarnath Wildlife Sanctuary, Central Himalaya. **Notulae Scientifica Biologiae** 2 (3) : 128-132
 73. S K Vats, A Singh, M Koul and **P L Uniyal**. **2010**. Study on the Metal Absorption by two Mosses in Delhi Region (India). **Journal of American Science** 6(3):176-181.
 74. P K Sharma, P Dureja, M Goel, RS Tanwar, J Halder, S Dhingra & **P L Uniyal**. **2009**. Insect Growth inhibition and antifeedant activity of Culture filtrate extracts of *Bacillus licheniformis*. **Pesticide Research Journal** 21(1): 20-26.
 75. S Sinha, H Govindaparyi, S Suman and **P L Uniyal**. **2009**. Taxonomic implication of conducting elements in the acrocarpous mosses. **Nelumbo** 51:183-190
 76. DP Semwal **P L Uniyal**, Y M Bahuguna and A B Bhatt. **2009**. Soil, nutrient storage under different forest types in a part of Central Himalaya, India. **Annals of Forestry**. 17 (1): 43 – 52
 77. Sanavar, H Govindaparyi and **P L Uniyal** **2008**. Studies on *in vitro* seed germination and origin and development prostrate plant body in *Zeylanidium lichenoides*. **Phytomorphology** 58(1&2):73-79.
 78. P Sharma and **P L Uniyal**. **2008** *Ephedra sumlingensis* Sharma & Uniyal (Ephedraceae)- a new species from Himachal Pradesh. India. **Bulletin of Botanical Survey of India** 50 (1-4): 1-6
 79. JC Ghildiyal and **P L Uniyal**. **2008**. Pattern of Bryophyte Richness in Relation to Landscape Features. **Asian Australasian J Plant Sci. Biotech.** 2 (2): 76-79.
 80. S Shirzadian and **P L Uniyal**. **2008**. Biodeteriorative impacts on bridges over Zayand-e-Rood river (Iran: Role of mosses and their control measures. **Journal of Scientific and Industrial Research** 67: 377-380
 81. R Tyagi, P Gupta & **P.L. Uniyal**. **2007**. The effect of lead and zinc concentration on growth of four species of bryophytes. **International Journal of Biological and Chemical Sciences** 1(2):128-135.
 82. **P.L. Uniyal**. **2004**. Studies on the West Himalayan Polytrichaceae (Musci). **Cytologia**. **69**:221-223.
 83. A. Gupta, S.S. Thakur, **P.L. Uniyal** & R Gupta. **2001**. A survey of bryophytes for presence of cholinesterase activity. **American Journal of Botany**. **88**:2133-2135.
 84. **P.L. Uniyal**, **2001**. Some aspects of biology of *Hydrobryopsis sessilis* (Podostemaceae). **Beitrag. Biol. Pflanzen**. **72**: 75-88.
 85. **P.L. Uniyal** & H.Y. Mohan Ram, **2001**. Morphological studies on *Willisia selaginoides* Warm.ex Willis (Podostemaceae). **Flora** **196**:370-380.
 86. **P.L. Uniyal** & S Shirzadian **2001**. Cytotaxonomic studies in West Himalayan Bryaceae (Musci). **Rostaniha** **2**: 25-36.
 87. **P.L. Uniyal**, **2000**. Cytological Observations in some Members of Pottiaceae (Musci). **Phytomorphology**. **50** : 95-102.
 88. **P.L. Uniyal**, **1999**. Studies on *Indotristicha tirunelveliana* Sharma, Karthik & Shetty (Podostemaceae): An endemic, rare and enigmatic taxon. **Flora** **194**: 169-178.
 89. **P.L. Uniyal**, **1997**. Cytomorphological studies on the Brachytheciaceae (Musci). **Phytomorphology**. **47**: 413-420.
 90. **P.L. Uniyal**, **1997**. Cytological studies on *Plagiomnium* T. Kop. (Musci) from Western Himalaya. **Acta Botanica Indica**. **25**: 37-42.
 91. **P.L. Uniyal** & H.Y Mohan Ram. **1996**. In vitro seeds germination and developmental morphology of *Dalzellia zeylanica* (Gardn.) Wight. (Podostemaceae, Tristichoideae). **Aquatic Botany**. **54**:59-71
 92. **P.L. Uniyal**, **1996**. Cytotaxonomic studies on *Mnium* Hedw. From Garhwal Himalaya. **Journal of Indian Botanical Society** **75**: 233-235.
 93. **P.L. Uniyal**, **1996**. Chromosome numbers in *Entosthodon* Schwaegr and *Physcomitrium* (Brid.) Fuernr. From the Garhwal Himalaya, **Lindbergia**, **21**: 85-89.

94. **P.L. Uniyal** & H.Y. Mohan Ram, **1994**. Karyomorphological studies in some members of Podostemaceae. **Aquatic Botany**, **47**: 85-90.
95. S.S. Kumar, **P.L. Uniyal** & P. Kaur, **1989**. Heavy metal deposition in some mosses of Garhwal Himalaya. **Yushania**, **6**: 9-14.
96. S.S. Kumar, **P.L. Uniyal** & C Sharma. **1988**. Some new reports of chromosome numbers in western Himalayan mosses. SOCGI plant chromosome number Reports VI. **Journal of Cytology & Genetics** **23**: 40-41.
97. S.S. Kumar, **P.L. Uniyal** & A. Goyal, **1988**. Additions to the moss flora of Garhwal Himalaya II. **Yushania**. **5**: 19-23.
98. S.S. Kumar, **P.L. Uniyal**, **1988**. Some new reports of chromosome numbers in western Himalayan mosses. SOCGI Plant Chromosome Number Reports VII. **Journal of Cytology & Genetics** **23**: 219-220.
99. S.S. Kumar, T. Koponen & **P.L. Uniyal**, **1987**. Some new reports of chromosome numbers in West Himalayan mosses. In: Love, IOPB Chromosome Number Reports XCVII. **Taxon** **36**: 767.

Research Papers/ Reviews / Chapters/ Monographs in edited books

1. Srivastava R and Uniyal PL. 2018. Influence of antheridiogen on the gametophyte development in *Onychium contiguum* (Wall.) Hope. In Pteridology Today: Challenges and Opportunities (Ed SC Verma, SP Khullar, A Benniamin, P Lakshminarasimhan and P Singh). Botanical Survey of India. Kolkata
2. Bahuguna YM, Govindaparyi H, Suman Shantanu and Uniyal PL. **2018**. Bryophyt diversity , utility and prospects pp128-179. In Plant Diversity in India (Eds A K Bhatnagar and R Kapoor). I K International Publishing House Pvt Ltd. New Delhi ISBN978-93-85909-69-6
3. Sharma P, Sanavar, Govindaparyi H, Kumari P and Uniyal PL. **2018**. Diversity and Developmental Biology of Gymnosperms pp 280-318. In Plant Diversity in India (Eds A K Bhatnagar and R Kapoor). I K International Publishing House Pvt Ltd. New Delhi. ISBN978-93-85909-69-6
4. Kathal R, Chaudhary V, Kumar L, Puri A, Baishya R and Uniyal PL. **2016**. Pollution status of Yamuna river , India: a national concern. International Research Journal of Environment Science **5** (12): 1-6
5. M Goel, P Dureja, A Rani and **P L Uniyal**. **2016**. Potential of lichens as biocontrol agent in agriculture, pp 193-213. In Pest Management and Agro-Techniques (Eds A Biswas, P K Bharti & A Chauhan) ISBN 978-93-5056-794-4. Discovery Publishing House Pvt. Ltd. New Delhi.
6. P Sharma and **P L Uniyal**. **2014**. Diversity and distribution, illustrating novel *Ephedra* species as prototype of evolution in Western Himalaya pp 223-248. In Biodiversity Conservation , Present Status (Editors: KRS Sambashiva Rao and Adi Lakshmi) A P State Council of Higher Education & JMJ College for Women, Tenali, Gunture, AP, India.
7. Y M Bahuguna, S Gairoa, D P Semwal, **P L Uniyal** and A B Bhat. **2014**. Bryophytes and Ecosystem. Pp 279-296. In Diversity of Lower Plants (Editors R K Gupta and Mukesh Kumar). I K International Publishing House, New Delhi.
8. Lebin Thomas and **P L Uniyal**. **2013**. An insight into the diseases of gymnosperms and pollen induced allergies. International Journal of Environmental Sciences **2**(1): 1-10.
9. P Sharma and **P L Uniyal**. **2013**. *Cedrus deodara* (Roxb.) G. Don. a possible indicator of climate change in Eastern Himalaya. In: Climate Change & Himalayan Informatics (Editors: J Sundaresan, P Gupta, KM Santosh & Ram Booj. Scientific Publishers (India). Jodhpur. Pp 163-169.
10. R Srivastava and **P L Uniyal**. **2013**. Developmental study of two species of a homosporous fern, *Lygodium*. In: Climate Change and Himalaya, Natural Hazards and Mountain Resources

(Editors: J Sundaresan, P Gupta, KM Santosh & Ram Booj. Scientific Publishers (India). Jodhpur. Pp86-93.

11. P Sharma, **P L Uniyal** and O. Hammer. **2013**. Phenotypic plasticity leading to sympatric speciation in populations of *Ephedra* in Lahul and Spiti (India). In: Climate Change and Himalaya, Natural Hazards and Mountain Resources (Editors: J Sundaresan, P Gupta, KM Santosh & Ram Booj. Scientific Publishers (India). Jodhpur. Pp 205-217.
12. P Sharma and **P L Uniyal**.**2011**. Cytotaxonomy and its Evolutionary Significance in the Evolution of Orchidaceae and Cyperaceae. In: Plant Taxonomy: Past Present and Future (ed R Gupta). The Energy and Resources Institute, New Delhi
13. DP Semwal, P Sharma, H Govindaparyari and **PL Uniyal** **2011**. Quantitative Assessment and Ethnobotanical Uses of Plants of Koti– Kanasar Forest Range (Jaunsar), Uttarakhand. Pp 103-118. In: Biodiversity: An Overview (ed Mukesh Kumar, RK Gupta and GS Paliwal), IK Publishers, New Delhi
14. S. Sharma, **PL Uniyal** and D P Semwal. **2010**. The Role of Bryophytes in Nutrient Cycling. In: Current Trends in Plant Biology (Editors PC Trivedi and SK Sopory), Pp 232-254. Aviskar Publishers, Distributers, Jaipur, India
15. Shantanu Suman, Sanavar and **P L Uniyal**. **2010**. Bryophytes of Uttarakhand. In: The Plant Wealth of Uttarakhand Himalayas (Eds PL Uniyal, BP Chamola & DP Semwal), pp 197-276. Jagdamba Publishing Company, New Delhi.
16. P Sharma, D P Semwal, **P L Uniyal**. **2010**. Gymnosperms of Uttarakhand. In: The Plant Wealth of Uttarakhand Himalaya (Eds PL Uniyal, BP Chamola & DP Semwal), pp 305-316. Jagdamba Publishing Company, New Delhi.
17. DP Semwal, YM Bahuguna and **P L Uniyal**. **2010**. Dynamics of vegetation pattern in Garhwal Himalaya. In: The Plant Wealth of Uttarakhand Himalaya (Eds PL Uniyal, BP Chamola & DP Semwal), pp 339-352. Jagdamba Publishing Company, New Delhi.
18. P Khanduri, R Tandon, **PL Uniyal**, A Sehgal & H Y Mohan Ram.**2009**. Floral Morphology of Podostemaceae: A Conspectus. In: Flower-Retrospect and Prospect (Ed Y Vimla). SR Scientific Publication, Delhi
19. **P.L Uniyal** **2007**. Cytological evolution in mosses with special reference to West Himalayan Bryopsida. In: Current Trends in Bryology (Ed V Nath & AK Asthana), pp 61-99. Bishen Singh Mahendrapal Singh, Dehra Dun India.
20. **P. L. Uniyal**. **2007**. Diversity of Bryo-vegetation in India: Its Importance and Conservation. In: Plant Diversity and Conservation (Editors JS Singh, AK Bhatnagar, & VP Singh). Satish Serial Publishing House, Delhi.
21. **P L Uniyal**, H Govindaparyari and P Gupta **2007**. Adaptive Strategies of Bryophytes. In: Biodiversity, Conservation, and Systematics” (Editor P Singh). Pp 67-91. Scientific Publisher (India), Jodhpur.
22. H Govindaparyari and **P L Uniyal**. **2006**. Studies on the Growth Forms of Bryophytes in Relation to Habitat Conditions. In: Current Concepts in Botany (Ed KG Mukerji and C Manoharachary), pp121-136. I K International, New Delhi.
23. Sanavar, **P. L Uniyal** & S Suman. **2005**. Morphology and Distribution of Podostemaceae in India. In: Frontiers in Plant Sciences (Ed KG Mukerji, KVBR Tilak, SM Reddy, LV Gangwane, P Prakash & IK Kunwar) pp809-862. I K International, Delhi.
24. **P.L. Uniyal**, **2001**. A cytotaxonomic study on the genus *Philonotis* Brid. From Garhwal Himalaya. Pp 285-295. In: **Perspectives in Indian Bryology** (Ed V. Nath & A.K Asthana), Bishan Singh Mahendra Pal Singh, Dehradun.
25. **P.L. Uniyal**, **2000**. Some Aspects of Bryophyte-Animal Associations. Pp.121-128. In: **Glimpses in Botany** (Eds K.G. Mukerji, B.P. Chamola and A.K. Sharma). APH Publishing Corporation, New Delhi
26. **P.L. Uniyal**, **1998**. Cytogenetics of Bryophytes. Pp. 125-164. In: **Topics in Bryology** (Ed. R.N. Chopra). Allied Publishers, New Delhi.

27. **P.L. Uniyal, 1991.** Cytotaxonomic studies on the Garhwal Himalayan mosses. (Thesis abstract) **Research Bulletin (Science) of Panjab University 42:** 103-105.
28. S.S. Kumar & **P.L. Uniyal, 1990.** Additions to the moss flora of Garhwal Himalaya III. Pp 367-370 In: Himalayan Botanical Researches (Ed. S.P. Khullar & M.P. Sharma), Ashish Publications, New Delhi.
29. S.S. Kumar, S. Anand & **P.L. Uniyal, 1987.** A report on the moss flora of Garhwal Himalaya- I. **Res. Bull. Panjab Univ. 38:** 39-41.

Articles in Scientific magazine

1. Dhyan A, Jindal M, Jyoti and Uniyal PL. 2018. Exploring the treasure of coniferous forest in Manila region of Uttarakhand, *Botanica* 68L 101-105
2. Chaudhary E, Tiwari P, Tiwari JK and Uniyal PL. 2018. Importance of palynological studies on the bee forage plants. *Botanica* 68: 117-123.
3. Rawat DS, Tiwari P. and Uniyal PL. 2017. Understanding Plant community structure and regeneration dynamics for conservation of Biodiversity in Uttarakhand region. *The Botanica* 67: 106-114.
4. Guglani A, Tammineni R and Uniyal P L. 2017. Excursion to Lansdowne (Uttarakhand). *The Botanica* 67: 72-76
5. Barthwal N, Ghildiyal JC and Uniyal PL. 2016. Sacred grooves for biodiversity conservation and bioprospecting . *The Botanica* 66: 27-35
6. Mann, N, Khajuria A, Uniyal P L and Lakhanpaul. 2016. *Viola canescens*: a potential medicinal herb of Himalaya. *Botanica* 66: 58-62
7. Uniyal Veena, Bhatt RP and Uniyal PL. 2015. Hair infection 'Piedras' and its remedy by the extracts of medicinal plants. *Botanica* 64 & 65: 238-242
8. Priti, Sharma P, Bahuguna and Uniyal PL. 2015. Ecotourism in Jageshwar (Uttarakhand). *Botanica* 64 & 65: 112-116
9. Bahuguna YM, Govindaparyari H, Uniyal PL and Chamola BP 2014. Role of bryophytes in ecosystem dynamics. *OAKS (ISSN 0975-5918)* 10: 61-67.
10. P Sharma and P L Uniyal. 2012. Bio-economy: Strategic communication for sustainable development in Himachal Pradesh. *Indian Journal of Science Communication* 11(2): 21-25
11. P L Uniyal. 2011. In the search of strange plants. *Botanica*. 59-61: 90-97
12. H Govindaparyari, Y M Bahuguna, D P Semwal and P L Uniyal. 2010. Plant diversity status and conservation aspects in Kanasar forest ranges, Uttarakhand. *The Botanica* 58: 29-32.
13. H Govindaparyari, D Dandotiya, D P Semwal and P L Uniyal. 2010. A need for conservation of bryophytes in North-east India. *Ecotone* 2 (2): 9-12.
14. P Sharma and P L Uniyal. 2010. Traditional knowledge and conservation of *Taxus baccata* in Sikkim Himalaya. *NeBIO* 1(1): 55-59
15. H Govindaparyari, M Leleeka, M Nivedita and P L Uniyal. 2010. Bryophytes: indicators and monitoring agents of pollution. *NeBIO* 1(1): 35-41.

16. H. Govindaparyari, M Leleeka and P L Uniyal.2009. Association of Bryophytes with diverse living organisms. *The Botanica* 57:53-58
17. A M Otaghvari and P L Uniyal. 2008. Conversion of tobacco waste into compost. *Annals of Forestry* 16 (1): 83-86.
18. H Govindapayai, AP Singh & P L Uniyal. 2006. A botanical excursion to Mukteshwar. *The Botanica* 56:133-139.
19. P.L. Uniyal, 2002. A report on the World Conference of Bryology. *Current Science*. 83 (5): 545-547.
20. P.L. Uniyal, 1999. Role of Bryophytes in Conservation of Ecosystems and Biodiversity. *The Botanica*, 48: 196-212.
21. Monika Koul, Anshul Johri & P.L. Uniyal, 1998. Kalesar Wildlife Sanctuary: Unexplored Wilderness. *The Botanica*. 47: 119-123.

Conference Organization/ Presentations (in the last three years)

1. Prabha Sharma and P L Uniyal.2018. Potential effect of disturbances on the survival of medicinal –plants and formulation of conservation and reintroduction strategies. Oral Presentation In: National Seminar on Ethnobotany and Traditional knowledge in Biodiversity Conservation.8-9 March 2018, Baba Gulam Shah Badshah University, Rajouri
2. Goel M, Dureja P, Uniyal PL, Laasch H. 2018. Lichens a potential source of antibiotic agents (OPD 6).pp34. Oral Presentation Inational Conference on Current Development and next Generation Lichenology NBRI, Lucknow. 27-28 Jan 2018
3. Madan A, Uniyal PL, and Bhatnagar AK. 2018. Local seed dispersal ability in Orchids : Population fragmentation and gene exchange future scenrios. Oral Presentation In: National conference Cum Workshop on Current trends conservation, sustainable development, biological ad social benefits of medicinally and floriculturally significant orchids and orchid show, RARC, KAU, Wayanad , March 16-18.
4. Bhandari, PK, Bhatia M, and Uniyal PL. 2017. Status of orchids in Uttarakhand. Poster In XXVII Annual Conference of Indian Association for Angiosperm Taxonomy & International Symposium on Plant Systematics, Priorities and Challenges 10-12 Nov 2017, Delhi University
5. Bhatia V, Sharma P and Uniyal P L. 2017. Assessment and Conservation of Indian Ephedra speices through DNA Barcoding: A review. Poster In XXVII Annual Conference of Indian Association for Angiosperm Taxonomy & International Symposium on Plant Systematics, Priorities and Challenges 10-12 Nov 2017. Delhi University
6. Thakur J and Uniyal PL. 2017. Study on diversity of root-associated fungi of an Orchid *Crepidium acuminatum* (D. Don) Szlach: A rare and medicinally important taxon. (Poster). In: 29th Fungal Genetics Conference. Genetics Society of America. Asilomar Conference Centre, March 14-19, 2017California.
7. Madan A, Uniyal PL, and Bhatnagar AK. 2017. Microbial diversity in Orchid nectar;trends and significance. National conference on Recent trends in biology, culture, conservation, commercialization and sustainable utilization of medicinally and floriculturally important orchids. Graphic Era University, Dehradun, March 24-26.
8. Thakur J and Uniyal PL.2016. Ecological Niche Modeling for predicting suitable habitats for an endangered orchid species: *Malaxis acuminata* D. Don in India (Poster). In: Advances in Orchid biology with focus on climate change, medicinal and floricultural plants, and sustainable economicl utilization. YSR Agricultural University, Venkataramgundam, Andhra Pradesh, February 26-28.
9. Thakur J, Uniyal PL and Pandey AK. 2016. Prediction of suitable habitats for *Skimmia*

<p><i>laureola</i> (Rutaceae): a rare medicinal plant via application of Ecological Niche Modeling. (Oral). In: Agro-technology, commerce and sustainable use of medicinal and aromatic plants, Society for conservation and resource development of medicinal plants, NAAS Complex, IARI, New Delhi, February 6-7.</p> <p>10. Madan A, Uniyal PL and Bhatnagar AK. 2016. Nectar-disc development in <i>Thunbergia grandiflora</i> (Roxb. et Rottler) Roxb.(Acanthaceae) and its implications on pollination pp24th International Congress on Sexual Plant Rep[roduction, Arizona, USA, 18-23 March.</p> <p>11. Bhatia V, Bhattacharya V and Uniyal PL. 2016. Cuticle protein gene; apotent target for control of sap-sucking aphid through RAN interference. Oral.pp 19. National Conference on Plant Science Research: Looking beyond 21st Century for Environment and Agricultural revolution. University of Delhi. 5-7 Feb .</p> <p>12. Kathal R. Malhotra P. Uniyal PL and Kumar L. 2016. Phytoextraction pf Pb and Ni from polluted soil by <i>Brassica juncea</i> L. National Conference on Plant Science Research: Looking beyond 21st Century for Environment and Agricultural revolution. University of Delhi. 5-7 Feb.</p> <p>13. Nebhnanian P et al and Uniyal PL .2016. Taxol and its potential role in health and disease. Poster.pp64. National Conference on Plant Science Research: Looking beyond 21st Century for Environment and Agricultural revolution. University of Delhi. 5-7 Feb.</p> <p>14. Chaudhary E, Tiwari P and Uniyal PL. Analysis of proline content in raw honey of <i>Apis cerana indica</i> in Khirsoo block pf Pauri District, Uttarakhand.poster pp66. National Conference on Plant Science Research: Looking beyond 21st Century for Environment and Agricultural revolution. University of Delhi. 5-7 Feb.</p> <p>15. Mann N, Priti and Uniyal PL. 2016. Distributional and reproductive variability in <i>Viola</i> members from central Himalayan region of Uttarakhand.poster pp 79. National Conference on Plant Science Research: Looking beyond 21st Century for Environment and Agricultural revolution. University of Delhi. 5-7 Feb.</p>
<p>Research Projects (Major Grants/Research Collaboration)</p> <p>Research Project: Diversity and performance of key forest tree species and bryophytes in gap and non-gap areas along an altitudinal gradient in Uttarakhand. 2018-2021. SERB. New Delhi.</p>
<p>Awards and Distinctions</p> <p>Fellow of India fern Society</p>
<p>Association With Professional Bodies</p> <ol style="list-style-type: none"> 1 International Association of Bryologists, London 2 International Society of Plant Morphologists, Delhi 3 The Indian Fern Society, Chandigarh 4 Society of Plant Reproductive Biologists, Agra 5 Indian Bryological society, Lucknow 6 Indian Phycological Society, Delhi 7 Delhi University Botanical Society, Delhi 8 Indian Botanical Society, Bareilly 9 The Orchid Society of India, Chandigarh
<p>Other Activities</p>

Signature of Faculty Member

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