

Proforma for information to be provided by the Teaching Staff



Name: Dr. SHIV MOHAN SINGH

Designation: Professor (BHU), and Scientist-G (DST-SERB)

Academic Qualifications:

Sr. No.	Degree	Institution	Year
1	B.Sc.	Purvanchal University	1990
2.	M.Sc.	Lucknow University	1992
3.	Ph.D.	BSIP, Lucknow University	1988

Professional Employments:

S. No.	Name of the Post	Name of the Department	Name of the Inst./Univ	Duration
6.	Scientist G	SERB	DST, Govt. of India	December 2020 (Deputation)
5.	Professor	Botany Department	Banaras Hindu University (India)	November 2020-Present
4.	Associate Professor	Botany Department	Banaras Hindu University (India)	2017-2020
3.	Scientist E	Polar Biology Laboratory	National Centre for Polar and Ocean Research, Ministry of Earth Sciences (India)	2015-2017
2.	Scientist D	Polar Biology Laboratory	National Centre for Polar and Ocean Research, MoES (India)	2010-2014
1.	Scientist C	Polar Biology Laboratory	National Centre for Antarctic and Ocean Research, DOD (India)	2003-2009
1.	Research Associate	Taxonomy & Biodiversity	CSIR-National Botanical Research Institute, Lucknow	1999-2001

Area of Specialization

Biodiversity of extreme habitats such as Glaciers, Permafrost, Lakes etc. in Arctic Antarctic and Himalaya. Deep Ocean Biosphere of Antarctica. Palaeobiology of Gondwana Supercontinent.

Contact Information:

E-mails: drshivmohansingh@gmail.com

Contact number(s): 9420767319, 8004585880

Projects Undertaken as PI/ Co PI:

- i) Singh SM (2003-2008): To establish a state of art 'Polar Biology Laboratory' at NCAOR. Funding Agency: DOD-NCAOR. Principal investigator (PI)
- ii) Singh SM (2009-2015): Polar Biodiversity: Past and Present. Funding Agency: Ministry of Earth Sciences (MoES)-NCAOR. Principal investigator.
- iii) Singh SM & Srivastava AK (2014-2017): Microbial diversity of glaciers and pit profiles of Himalaya. Funding Agency: ICAR-NBAIM. Served as Principal investigator.
- iv) Singh SM (2017-2022): Polar Biodiversity & Evolution. Funding Agency: MoES-NCAOR. Principal investigator.
- v) Singh SM & Upadhyay RS (2018-2020): Impact of climate change on Microbial communities in Ross Sea, Antarctica during the periods of Pliocene, Pleistocene, and Holocene. Funding Agency: MoES-NCAOR.

Awards/ Recognitions:

- a) *Birbal Sahni Research Fellowship* (1993-1997), awarding agency: DST-BSIP.
- b) *Merit Certificate* (2008) for establishing state of art 'Polar Biology Laboratory' at NCAOR, awarding agency: Ministry of Earth Sciences.
- c) *INSA-PAS Fellowship* (2007) at Jagiellonian University, Poland.
- d) *JSPS Fellowship* (2011) at AIST-Sapporo Japan

Additional Information/ Achievements:

- i) Member of 23rd Indian Antarctic expedition (2003-2004)
- ii) Member of Larsemann Hills Antarctica & Southern Ocean Expedition (2005-2006)
- iii) Member of 1st Indian Arctic Expedition (2007)
- iv) Member of 3rd Indian Arctic Expedition (2009)
- v) Member of 6th Indian Arctic Expedition (2012)
- vi) Observer of 7th Indian Arctic Expedition (2013)
- vii) Member of South African Antarctic Expedition (2015-2016)
- viii) Member of 374 International Ocean Discovery Programme: West Antarctic Ross Sea Ice Sheets History Expedition (2018).
- ix) Deputation abroad: NIPR-Japan, 2013 & 2014.
- x) Serving as adviser in Journal Polar Record, (Cambridge University press) and as Editor in Editorial board of Journal Advances in Polar Sciences (Polar Research Institute of China).

- xi) Patent: “A process for production of bioactive oligosaccharides from extremophilic fungus” Appl. no. 999/KOL/2013. [Mukhopadhyaya SK, Chatterjee S., Mishra A., Moumita Patra, Gauri S.S., Das S.S., Singh S.M., Dasa A.K., Ghosha A.K., Dey S. (2014)].

List of Publications:

- a) **In JOURNALS:** Research has brought out publications in area of Arctic, Antarctic, and Himalaya in journals of international repute. (Impact Factor: 90.24, H-index: 21, Citations: 1188)
1. Singh J., Singh P, Vaishnav A., Ray S., Rajput RS, Singh SM, Singh HB. (2021) Belowground fungal volatiles perception in okra (*Abelmoschus esculentus*) facilitates plant growth under biotic stress. *Microbiological Research* 246 :126721
 2. Cwanek A., Łokas E., Dinh CN, Zagórski P., Singh SM, Szufa K., Tomankiewicz E. (2021) ⁹⁰Sr level and behaviour in the terrestrial environment of Spitsbergen *Journal of Radioanalytical and Nuclear Chemistry* 327:485–494. <https://doi.org/10.1007/s10967-020-07492-z>.
 3. Singh SM, Singh SK (2020) *Bhagirathimyces* gen. nov. In: Fungal diversity notes 1151–1276: taxonomic and phylogenetic contributions on genera and species of fungal taxa. *Fungal Diversity* 100:5–277. <https://doi.org/10.1007/s13225-020-00439-5>.
 4. Singh P, Tsuji M, Singh SM, Takeuchi N. (2020) Contrasting Patterns of Microbial Communities in Glacier Cryoconite of Nepali Himalaya and Greenland, Arctic. *Sustainability* 12, 6477. <https://doi.org/10.3390/su12166477>.
 5. Staebe K, Meiklejohn KI, Singh SM, Matcher GF. (2019) Biogeography of soil bacterial populations in the Jutulssessen and Ahlmannryggen of Western Dronning Maud Land, Antarctica. *Polar Biology* 42:1445–1458, DOI 10.1007/s00300-015-1804-y. Springer, ISSN 0722-4060, 1432-2056
 6. Dhume GM, Maharana AK, Tsuji M, Srivastava A.K., Singh SM (2019) Cold tolerant endoglucanase producing ability of *Mrakia robertii* A2-3 isolated from cryoconites, Hamtha glacier, Himalaya.. *Journal of Basic Microbiology*, DOI: <https://doi.org/10.1002/jobm.201800300>, Wiley-Vch Verlag GmbH, ISSN1521-4028.
 7. Singh SM, Sharma R, Shouche. (2019) *Leucosporidium himalayensis* S.M. Singh, Roh. Sharma & Shouche, sp. nov. *Fungal Planet* 927: 423-424 PERSONIA. © Naturalis Biodiversity Centre & Westerdijk Fungal Biodiversity Institute. ISSN (Online) 1878-9080, <https://doi.org/10.3767/persoonia.2019.42.11>.
 8. Sharma R, Singh SM. Shouche. (2019) *Naganishia indica* Roh. Sharma, S.M. Singh & Shouche, sp. nov. *Fungal Planet* 933: 435-436, PERSONIA. © Naturalis Biodiversity Centre & Westerdijk Fungal Biodiversity Institute. ISSN (Online) 1878-9080.

9. Maharana AK, Singh SM (2018) A cold and organic solvent tolerant lipase produced by Antarctic strain *Rhodotorula* sp. Y-23. *Journal of Basic Microbiology* DOI:10.1002/jobm.201700638 WILEY-VCH Verlag GmbH, ISSN1521-4028.
10. Singh S.M., Kumar A., Sharma P., Mulik RU, Upadhyay A.K., Ravindra R (2017). Elemental variations in glacier cryoconites of Indian Himalaya and Spitsbergen, Arctic. *Geoscience Frontiers*, [http:// dx. doi. org/ 10. 1016 /j.gsf. 2017.01.002](http://dx.doi.org/10.1016/j.gsf.2017.01.002). ELSEVIER.
11. Singh P, Singh SM, Singh RN, Naik S, Srivastava AK, Bolter M (2017). Bacterial communities in ancient permafrost profiles of Svalbard, Arctic. *Journal of Basic Microbiology* <https://doi.org/10.1002/jobm.201700061>. WILEY-VCH Verlag GmbH, ISSN1521-4028.
12. Kapse N, Singh P., Roy U, Singh SM, Dhakephalkar PK (2017). Insights into psychrophilic and sea ice-specific lifestyle of *Marinobacter* sp. AC-23: a genomic approach. *Genome Announcements* 5:e00134-17. [https:// doi.org/10.1128 /genomeA.00134-17](https://doi.org/10.1128/genomeA.00134-17). ASM Journal, USA IISN: 2169-8287.
13. Singh P., Kapse N, Roy U, Singh SM, Dhakephalkar PK. (2017). Draft Genome Sequence of Permafrost Bacterium *Nesterenkonia* sp. Strain PF2B19, Revealing a Cold Adaptation Strategy and Diverse Biotechnological Potential. *Genome Announcements*, [https://doi.org/10.1128/ genomeA.00133-17](https://doi.org/10.1128/genomeA.00133-17). ASM Journal, USA IISN: 2169-8287.
14. Singh P., Singh SM, Roy U. (2016) Taxonomic characterization and the bio-potential of bacteria isolated from glacier ice cores in the High Arctic. *Journal of Basic Microbiology* 55: 1–11. WILEY-VCH Verlag GmbH, ISSN1521-4028]
15. Singh P, Kapse N, Arora P, Singh SM, Dhakephalkar PK (2015). Draft genome of *Cryobacterium* sp. MLB-32, an obligate psychrophile from glacier cryoconite holes of high Arctic. *Marine Genomics* DOI: 10.1016 /j.margen. 201 5. 01. 006. ELSEVIER, ISSN: 1874-7787.
16. Singh S.M., Tsuji, M., Gawas P, Loonen MJJE, Hoshino T (2015) Bird feather fungi from Svalbard Arctic. *Polar Biology* DOI 10.1007/s00300-015-1804-y. Springer, ISSN0722-4060, 1432-2056.
17. Singh SM, Olech M, Cannone N, Convey P (2015). Contrasting patterns in lichen diversity in continental and maritime Antarctica. *Polar Science* 9: 311-318. ELSEVIER, ISSN: 1873-9652.
18. Singh SM, Naik S, Mulik RU, Sharma J, Upadhyay AK (2015). Elemental composition and bacterial occurrence in sediment samples on two sides of Brøggerhalvøya, Svalbard. *Polar Record*, DOI:10.1017/S0032247415000030. Cambridge Journal, ISSN: 0032-2474, 1475-3057.
19. Mukhopadhyaya SK, Chatterjee S., Gauria S.S., Dasa S.S., Mishra A., Moumita Patra M., Ghosha A.K., Dasa A.K., Singh S.M., Dey S (2014). Isolation and characterization

of extracellular polysaccharide Thelebolan produced by a newly isolated psychrophilic Antarctic fungus *Thelebolus*. *Carbohydrate Polymers* 104: 204–212. ELSEVIER, ISSN: 0144-8617, 1879-1344.

20. Singh P., Singh SM, Tsuji M., Prasad GS, Hoshino T (2014). *Rhodotorula svalbardensis* sp. nov., a novel yeast species isolated from cryoconite holes of Ny-Ålesund, Arctic. *Cryobiology* 68: 122-128. ELSEVIER, ISSN: 0011-2240
21. Singh P., Singh SM, Dhakephalkar P. (2013). Diversity, cold active enzymes and adaptation strategies of bacteria inhabiting glacier cryoconite holes of High Arctic. *Extremophiles*. DOI 10.1007/s00792-013-0609-6. Springer, ISSN: 1431-0651, 1433-4909.
22. Singh P., Hanada Y, Singh SM, Tsuda S (2013). Antifreeze protein activity in Arctic cryoconite bacteria. *FEMS Microbiology Letter* DOI: 10.1111/1574-6968.12345. Oxford journal, Wiley ISSN: 1574-6968.
23. Singh SM, Sharma J., Gawas-Sakhalkar P., Upadhyay AK, Mulik RU, Naik S, Bohare P., Ravindra R (2013). Elemental composition and bacterial incidence in firn-cores at Midre Lovénbreen glacier, Svalbard, Arctic. *Polar Record* doi: 10. 1017 /S003 224 741 3000533. Cambridge Journal, ISSN: 0032-2474, 1475-3057.
24. Singh P., Tsuji M., Singh SM, Roy U., Hoshino T (2013). Taxonomic characterization, adaptation strategies and biotechnological potential of cryophilic yeasts from ice cores of Midre Lovénbreen glacier, Svalbard, Arctic. *Cryobiology* 66: 167–175. ELSEVIER, ISSN: 0011-2240
25. Tsuji M., Singh S.M., Yokota Y., Kudoh S., Hoshino T (2013). Influence of Initial pH on Ethanol Production by the Antarctic Basidiomycetous Yeast *Mrakia blollopis*. *Bioscience, Biotechnology and Biochemistry* 77 (12): 2483–2485. Taylor & Francis ISSN 0916-8451, 1347-6947.
26. Singh S.M., Yadav L.S., Singh P.N., Hepat R., Sharma R., Singh SK (2013) “*Arthrinium rasikravindrii* sp. nov. from Svalbard, Norway. *Mycotaxon* 122:449–460. ISSN: 0093-4666.
27. Singh P. and Singh SM (2012). Characterization of yeast and filamentous fungi isolated from cryoconite holes of Svalbard, Arctic. *Polar Biology* 35:575–583. Springer, ISSN0722-4060, 1432-2056.
28. Singh S.M., Singh S.K., Yadav L., Singh P.N. & Ravindra R (2012). Filamentous Soil Fungi from Ny-Ålesund, Spitsbergen, and Screening for Extracellular Enzymes. *ARCTIC*, 65:35-55. Arctic Institute of North America, ISSN 0004-0843.

29. Singh SM, Sharma J, Gawas-Sakhalkar P, Upadhyay AK, Naik S, Bande D, Ravindra R. (2012) Chemical and bacteriological analysis of soil from the middle and late Weichselian from Western Spitsbergen, Arctic. *Quaternary International*, 271: 98–105. ELSEVIER, ISSN: 1040-6182.
30. Singh S.M., Singh P.N., Singh S.K. & Sharma P.K. (2012) Pigment, fatty acids and extracellular enzyme analysis, of a fungal strain *Thelebolus microsporus* from Larsemann Hills, Antarctica. *Polar Record* DOI:10.1017/S0032247412000563. Cambridge Journal, ISSN: 0032-2474, 1475-3057.
31. Shivaji S, Begum Z, Rao SSSN, Reddy PVVV, Manasa P, Sailaja B, Prathiba MS, Thamban M., Krishnan KP, Singh S M, Srinivas TNR (2012). Antarctic ice core sample: bacterial diversity and bioprospecting for cold-active enzymes from culturable bacteria. *Research in Microbiology* 164:70-82. ELSEVIER, ISSN: 0923-2508, 1769-7123.
32. Gawas-Sakhalkar Puja, Singh S.M., Naik S., Ravindra R (2012). High temperature optima phosphatases from cold-tolerant Arctic fungus, *Penicillium citrinum*. *Polar Research* 31, 11105, DOI .org /10. 3402 /polar.v31i0.11105. Norwegian Polar Institute, Norway.
33. Singh P., Singh A., D'Souza L.M., Roy U., Singh S.M. (2012) Chemical Constituents and Antioxidant activity of Arctic Mushroom *Lycoperdon molle* Pers. *Polar Research* 31, 17329, DOI: 10.3402/polar.v31i0.17329. Norwegian Polar Institute, Norway.
34. Singh S.M., Ochyra R., Pednekar S., Asthana R. and Ravindra R (2012). A Holocene moss species preserved in lake sediment core and the present moss diversity at Schirmacher Oasis, Antarctica. *Antarctic Science*, DOI: 10. 1017 /S095 4102 012 000211. Cambridge Journal, ISSN: 1365-2079, 0954-1020.
35. Singh P., Singh S.M., D'Souza L.M., Wahidullah S. (2012). Phytochemical profiles and antioxidant potential of four Arctic vascular plants from Svalbard. *Polar Biology* 35: 1825-1836. Springer, ISSN 0722-4060, 1432-2056.
36. Singh S.M., Sharma J., Gawas P., Upadhyay A.K., Pednekar S.M, Ravindra R. (2012). Atmospheric deposition studies of heavy metals in Arctic by comparative analysis of lichens and cryoconite. *Environmental Monitoring and Assessment*, 185(2):1367-76. Springer, ISSN: 0167-6369, 1573-2959.
37. Gawas-Sakhalkar P. & Singh S.M. (2011) Fungal community associated with Arctic moss, *Tetraplodon mimoides* and its rhizosphere: bioprospecting for production of industrially useful enzymes. *Current Science* 100 (11):1701-1705. ISSN 0011-3891.
38. Srinivas TNR, Singh SM, Pradhan S, Pratibha MS, Kishore KH, Singh AK, Begum Z, Prabakaran SR, Reddy GSN, Shivaji S (2011). Comparison of bacterial diversity in proglacial soil from Kafni Glacier, Himalayan mountain ranges, India, with the bacterial diversity of other glaciers in the world. *Extremophiles* DOI 10.1007/s00792-011-0398-8. Springer, ISSN: 1431-0651, 1433-4909.

39. Prasad S., Manasa P., Buddhi A., Singh S.M., Shivaji S (2011). Illustrating microbial antagonistic interaction networks in a psychrophilic environment. *FEMS Microbiology Ecology*. DOI: 10.1111/j.1574-6941.2011.01171.x. Wiley ISSN: 0168-6496, 1574-6941
40. Singh S.M., Yadav L., Singh S.K., Singh P., Singh P.N. & Ravindra R (2011). Phosphate solubilizing ability of Arctic *Aspergillus niger* strains. *Polar Research* 30, 7283, DOI: 10.3402/polar.v30i0.7283. Norwegian Polar Institute, Norway.
41. Singh S.M., Singh P., Ravindra R. (2011). Screening of Antioxidant Potential from Arctic Lichens. *Polar Biology* DOI 10.1007/s00300-011-1027-. Springer, ISSN 0722-4060, 1432-2056.
42. Shekh M.R., Singh P., Singh S.M. & Roy U. (2010). Antifungal activity of Arctic and Antarctic bacterial isolates. *Polar Biology* 34: 139-143. DOI:10.1007/s00300-010-0854-4. Springer, ISSN 0722-4060, 1432-2056.
43. Verleyen E., Hodgson D.A., Sabbe K., Cremer H., Emslie S.D., Gibson J., Hall B., Imura S., Kudoh S., Marshall G.J., McMinn A., Melles M., Newman L., Roberts D., Roberts S.J., Singh S.M., Sterken M., Tavernier I., Verkulich S., Van de Vyver E., Nieuwenhuyze W.V., Wagner B. & Vyverman W. (2010). Post-glacial regional climate variability along the East Antarctic coastal margin evidence from shallow marine and coastal terrestrial records. *Earth-Science Reviews*, 199-212. ELSEVIER, ISSN: 0012-8252.
44. Reddy P.V.V., Rao S. S. S.N., Pratibha M.S., Sailaja B., Kavya B., Manorama R.R., Singh S.M., Srinivas T.N.R. & Shivaji S (2009). Bacterial diversity and bioprospecting for cold-active enzymes from culturable bacteria associated with sediment from a melt water stream of Midtre Lovénbreen glacier, an Arctic glacier. *Research in Microbiology* 8: 538-546. ELSEVIER, ISSN: 0923-2508, 1769-7123.
45. Srinivas T.N.R., Rao S.S.S.N., Reddy P.V.V., Pratibha M.S., Sailaja B., Kavya B., Kishore K.H., Begum Z., Singh S.M. & Shivaji S (2009). Bacterial Diversity and Bioprospecting for Cold-Active Lipases, Amylases and Proteases, from Culturable Bacteria of Kongsfjorden and Ny-Alesund, Svalbard, Arctic. *Current Microbiology*, 59 (5): 537-547. Springer, ISSN : 0343-8651, 1432-0991.
46. Krishnan K.P., Sinha R.K., Krishna K., Nair S., Singh S.M (2009). Microbially mediated redox transformation of manganese (II) along with some other trace elements: A study from Antarctic lakes. *Polar Biology*. 32: 1765-1778. Springer, ISSN 0722-4060, 1432-2056.
47. Shekh R., Upadhyay K., Singh S.M., Roy U. (2009). Inhibition of *Candida albicans* and two selected Gram-Negative Pathogens by Polar *Enterococcus faecalis* and *Carnobacterium* sp. *Research Journal of Microbiology* 4 (3) 138-142.

48. Ochyra R., Singh S.M. & Bednarek-Ochyra H. (2009) *Meesia hexasticha* (Funck) Bruch. In TL Blockeel, ed. New national and regional bryophyte records, 20. *Journal of Bryology* 31: 56. British Bryological Society, ISSN: 0373-6687, 1743-2820.
49. Singh S.M., Singh P., Thajuddin N (2008). Biodiversity and distribution of Cyanobacteria at Dronning Maud Land, East Antarctica. *Acta Botanica Malacitana* 33: 17-28. España ISSN : 0210-9506.
50. Ochyra R., Singh S.M. (2008). Three remarkable moss records from Dronning Maud Land, Continental Antarctica. *Nova Hedwigia* 86 (3-4):497-506. ISSN 0029-5035, e-ISSN 2363-7188.
51. Singh S.M., Sharma J, Singh P, Ravindra R (2008). Plant community and Nutrient status of the soils of Schirmacher Oasis, East Antarctica. *Chinese Journal of Polar Sciences* 19 (1):63-76.
52. Malia S.D. & Singh S.M. (2008). Herbaceous flora of District Mainpuri, Uttar Pradesh, India. *Journal of Economic and Taxonomic Botany* 32 (1): 220-266.
53. Singh S.M., Nayaka S., Upreti D.K. (2007) Lichen communities in Larsemann Hills, East Antarctica. *Current Science* 93 (12): 1670-1672. ISSN 0011-3891
54. Singh S.M. & Husain T. (2007). SEM studies of the leaf epidermis in Indian species of the family Berberidaceae. *Journal of Economic and Taxonomic Botany* 31 (4): 818-841.
55. Singh S.M., Puja G., Bhat D.J. (2006). Psychrophilic fungi from Schirmacher Oasis of East Antarctica. *Current Science* 90 (1): 1388-1392. ISSN 0011-3891
56. Malia S.D. & Singh S.M. (2004) Diversity of Aquatic and Wetland Macrophyte Vegetation in Uttar Pradesh, India. *Journal of Economic and Taxonomic Botany* 28 (4): 935-975
57. Singh S.M., Tiwari A.K. (2004). Deep lake sampling in Antarctica using Helicopters. *Current Science*, 87 (4): 420. ISSN 0011-3891.
58. Singh S.M. (2003). Morphological, Anatomical and Chemical studies of taxonomy of *Euphorbia* Linn. *Geophytology* 33 (1&2): 57-65.
59. Sahai K. & Singh S.M. (2001). Macro-and Micro-morphological features of seeds in six genera of the tribe Phaseoleae (Sub family Papilionoideae) *Phytomorphology* 51 (2):191-197.
60. Singh S.M., Banerji R. & Rao R.R. (2001). Anatomy and Chemistry of the Cuticular membranes of *Berberis lycium* Complex. *Biological Memoir* 27 (2):89-95.
61. Phatak S., Nayaka S., Upreti D.K., Singh S.M. & Samuel C. (2004). Preliminary observations on lichen flora of Cotigao wildlife Sanctuary Goa, India. *Phytomorphology* 4: 104-106.
62. Singh S.M. (2002) Seeds, Fructifications, Bracts & Calamitalean axes from the Karanpura and Bokaro group of Coalfields. *Palaeobotanist* 51: 73-79.

63. Singh S.M. (2002). Observations on the genus *Gangamopteris*. *Geophytology* 30 (1&2): 43-45.
64. Singh S.M. (2001). *Neomariopteris lobifolia* from Barakar Formation, India. *Biological Memoirs* 27 (2): 64-66.
65. Singh S.M. & Maheshwari H.K. (2000). On the species of genus *Glossopteris* from Barakar Formation of Karanpura and Bokaro Coalfields. *Palaeobotanist* 49 (2): 409-441.
66. Singh S.M. (2000). Taxonomy and diversity of genus *Glossopteris*. *Palaeobotanist* 49 (2): 333-352.
67. Singh S.M. (1999). On the genus *Pantophyllum*, *Euryphyllum* and *Kawizophyllum* from Karanpura and Bokaro Coalfields, India. *Palaeobotanist* 49 (1): 31-424.
68. Bajpai U. & Singh S.M. (1999) On an enigmatic fossil plant from the Early Permian of South Karanpura Coalfield, India. *Palaeobotanist* 48(2): 137-140.
69. Maheshwari H.K. & Singh S.M. (1999). On the genus *Pantophyllum* Rigby (1984) *Palaeobotanist* 48(3): 211-216.
70. Singh S.M. (1999). *Glossopteris* flora of Karanpura and Bokaro Coalfields. *Geophytology* 29 (1&2): 69-80.

(b) Monograph/Book

1. Olech M. & Singh S.M., (2010). *Lichens and Lichenicolous Fungi of Schirmacher Oasis, Antarctica*. National Centre for Antarctic and Ocean Research, India. NISCAIR, New Delhi. Monograph, ISBN 978-81-906526-3-6.

c.) Chapters in Books

1. Singh S.M., Adhapure N, & Sharma R. (2019). Diversity and Bioprospecting of yeasts from extreme Environments In: T. Satyanarayana et al. (eds.), *Advancing Frontiers in Mycology & Mycotechnology*. DOI.org/10.1007/978-981-13-9349-5_5, Springer Nature Singapore Pte Ltd.
2. Singh S.M. & Nayaka S. (2017) Contribution to the Floral Diversity of Schirmacher Oasis and Larsemann Hills, Antarctica. *Proc Indian National Science Academy*, DOI: 10.16943/ptinsa/2017/48957. p. 1-13.
2. Singh S.M. & Ravindra R. (2013). Impact of climate change on Lichen & Moss communities in Ny-Ålesund, Arctic: some preliminary observations In: Sinha R. and Ravindra R., “Earth System Processes and Disaster management”, DOI 10.1007/978-3-642-28845-6_7, Springer-Verlag Berlin Heidelberg, pp 93-100.
3. Singh S.M., Nayaka S. & Upreti D.K. (2013). Contribution to the Lichen flora of Schirmacher Oasis and Larsemann Hills, Antarctica. *Studies in Biological Sciences and Human Physiology-three decades of Indian Scientific Activities in Antarctica*. NCAOR publication, ISBN: 978-81-906526-8-1. pp. 139-155.

4. Singh S.M., Elster J., Sharma P.K., Kumaran KPN & Ravindra R. (2010). Biomarkers and their application in palaeoecological study of lake ecosystem of Schirmacher oasis, Antarctica. In Scientific report of XXIIIrd Indian Scientific Expedition to Antarctica, MoES Technical publication 21:213-228.
5. Singh S.M. & Elster J. (2007). Cyanobacteria in Antarctic lake environments: A mini-review In *Cellular Origins, Life in Extreme Habitats And Astrobiology*, Vol. 11. Seckbach, J. (ed.) 303-320. © 2007 Springer.
6. Singh S.M., Tiwari A.K. & Pandey P.C. (2005). Biodiversity: Past, Present and Future. In: *P.K. Banmeru and V.R. Mishra (eds.) Biodiversity of Lonar Crater. Anamaya Publishers, New Delhi, India.* pp1-15.
7. Tiwari A.K., Singh S.M. & Pandey P.C. (2004). Invasive Alien Species: Threat to Antarctic Biodiversity and Control Mechanism. In: L.C. Rai and J.P. Gaur (eds.) *Invasive Alien Species and Biodiversity in India.* pp160-168.

d.) Chapters in Proceedings

1. McKay, R.M., De Santis, L., Kulhanek, D.K., Ash, J.L., Beny, F., Browne, I.M., Cortese, G., Cordeiro de Sousa, I.M., Dodd, J.P., Esper, O.M., Gales, J.A., Harwood, D.M., Ishino, S., Keisling, B.A., Kim, S., Kim, S., Laberg, J.S., Leckie, R.M., Müller, J., Patterson, M.O., Romans, B.W., Romero, O.E., Sangiorgi, F., Seki, O., Shevenell, A.E., **Singh, S.M.**, Sugisaki, S.T., van de Flierdt, T., van Peer, T.E., Xiao, W., and Xiong, Z., 2019. **Expedition 374 summary.** In McKay, R.M., De Santis, L., Kulhanek, D.K., and the Expedition 374 Scientists, *Ross Sea West Antarctic Ice Sheet His-tory. Proceedings of the International Ocean Discovery Program, 374*: College Station, TX (International Ocean Discovery Program). <https://doi.org/10.14379/iodp.374.101.2019>.
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Date: 22/02/2021
Place: BHU, Varanasi

Signature
smsingh