PUBLICATIONS

The research has brought out publications in area of Taxonomy of lichens, mosses, fungi and bacteria; Cold adapted enzymes; antioxidants and ecological studies of terrestrial habitats of Arctic and Antarctic.

ARCTIC

1. **Singh S.M.,** Sharma J., Gawas-Sakhalkar P., Upadhyay A.K., 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*, doi:10.1016. 03.008. **[IF: 1.768]**

2. **Singh S.M.,** Sharma J., Gawas P., Upadhyay A.K., Pedneker S.M, Ravindra R. (2012). Atmospheric deposition studies of heavy metals in Arctic by comparative analysis of lichens and cryoconite. *Environmental Monitoring and Assessment*, doi:10.1007/s10661-012-2638-5. **[IF: 1.43]**

3. **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. **[IF :1.026]**

4. Singh P. and **Singh S. M.** (2011). Characterization of yeast and filamentous fungi isolated from cryoconite holes of Svalbard, Arctic. *Polar Biology* 35:575–583. **[IF : 1.65]**

5. 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. **[IF: 1.61].**

6. 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*, DOI 10.1007/s00300-012-1225-0 **[IF: 1.65].**

7. 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, http://dx.doi.org/10.3402/polar.v31i0.11105. **[IF : 1.61]**

8. **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. **[IF : 1.61]**

9. **Singh S.M.,** Singh P. & Ravindra R. (2011). Screening of Antioxidant Potential from *Arctic* Lichens. *Polar Biology* DOI 10.1007/s00300-011-1027-9. **[IF : 1.65]**

10. 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. **[IF : 0.935]**

11. 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. **[IF 3.408].**

12. Singh S.M. & Ravindra R. (2012). 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 2013, pp 93-100.

13. 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 Lov´enbreen glacier, an Arctic glacier. *Research in Microbiology* 8: 538-546. **[IF 2.763].**

14. 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. **[IF 1.815].**

15. 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. . **[IF 1.222].**

ANTARCTIC

1. 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/S0954102012000211. (In Press). **[IF: 1.55]**

2. 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*. **[IF: 0.962]** (in press).

3. Shivaji S., Begum Z., Rao S.S.S.N., Reddy P.V.V.V, Manasa P., Sailaja B., Prathiba M. S., Thamban M., Krishnan K.P., **Singh S. M.**, Srinivas T. N. R. (2012). Antarctic ice core sample: bacterial diversity and bioprospecting for cold-active enzymes from culturable bacteria**.** *Research in Microbiology.* **[IF: 2.763]** (in press).

4. **Singh S.M.,** Pereira N. & Ravindra R. (2010) Adaptive mechanisms for stress tolerance in Antarctic plants. *Current Science*. 99 (3): 334-340. **[IF : 0.935]**

5. 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.

6. 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. **[IF : 6.59]**

7. Shekh M.R., Singh P., **Singh S.M.** & Roy U. (2010). Antifungal activity of Arctic and Antarctic bacterial isolates. *Polar Biology*. DOI: 10.1007/s00300-010-0854-4. **[IF : 1.65]**

8. **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.

9. 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. **[IF 1.659].**

10. 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.

11. Ochyra R. & **Singh S.M.** (2008). Three remarkable moss records from Dronning Maud Land, Continental Antarctica. *Nova Hedwigia*. 86 (3-4):497-506. . **[IF 0.615].**

12. **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.

13. **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.

14. **Singh S.M.**, Nayaka S. & Upreti D.K. (2007). Lichen communities in Larsemann Hills, East Antarctica. *Current Science* 93 (12): 1670-1672. **[IF : 0.935]**

15. **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*.

16. **Singh S.M.**, Puja G. & Bhat D.J. (2006). Biodiversity of Psychrophilic fungi from Schirmacher Oasis of East Antarctica. *Current Science* 90 (1): 1388-1392. **[IF : 0.935]**

17. **Singh S.M**. & Tiwari A.K. (2004). Deep lake sampling in Antarctica using Helicopters. *Current Science*, 87 (4): 420. **[IF: 0.935]**

Himalaya

1. Srinivas T.N.R., **Singh S.M**., Pradhan S., Pratibha M.S., Kishore K. H., Singh A.K., Begum Z., Prabagaran S.R., Reddy G.S.N., S. Shivaji (2011). Comparision 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. **[IF 2.94].**

Popular Scientific Articles

1. **Singh S.M.** & Singh H.B. (2003). Global Warming, Little Ice Age & Vision of Climate. *BVEAAP*, CSIR, 11 (2): 141-149.
2. Pandey P.C., **Singh S.M.** & Tiwari A.K. (2003). Antarctica: A continent of Peace & Science. *NCERT*, NCD, Smaricai pp. 80-89.
3. **Singh S.M.,** Tiwari A.K. & Pandey P.C., (2004). Approach of Science in Southern Ocean. *Samudrica* GSI Calcutta. 11: 42-44.
4. **Singh S.M.,** & Pandey P.C. (2006). Arctic: An Introduction. *Samudrica* GSI Calcutta.12: 17-20.
5. **Singh S.M.** & Ravindra R. (2008). Evolution of Photosynthesis. In *Antarctic Expedition (Silver Jubilee book)* MoES, New Delhi pp. 71-81.