PUBLICATIONS*

2024

Zeng, X., and Coauthors (**Thamban, M.**), 2024: Global Precipitation Experiment - A New World Climate Research Programme Lighthouse Activity. ***Bulletin of the American Meteorological Society***, https://doi.org/10.1175/BAMS-D-23-0242.1 (**IF – 8.0**)

Oulkar, S.N., Sharma, P., Laha, S., Pratap B., Thamban, M. (2024).Temporal variability in air temperature lapse rates across the glacierised terrain of the Chandra basin, western Himalaya. ***Theoretical and Applied Climatology*** https://doi.org/10.1007/s00704-024-05003-8 (**IF – 3.4**)

Sanyal, A., Antony, R., Samui, G. **Thamban, M.** (2024). Autotrophy to Heterotrophy: Shift in Bacterial Functions during the Melt Season in Antarctic Cryoconite Holes. ***Journal of Microbiology*** https://doi.org/10.1007/s12275-024-00140-1 (**IF – 3.0**)

Antony, R., Mongad, D., Sanyal, A., Dhotre, D. and **Thamban, M**. (2024). Holed up, but thriving: Impact of multitrophic cryoconite communities on glacier elemental cycles. ***Science of the Total Environment***, 933, 173187. https://doi.org/10.1016/j.scitotenv.2024.173187 (**IF – 9.8**)

Simon, S., Turner, J., **Thamban, M.**, Wille, J. D., & Deb, P. (2024). Spatiotemporal variability of extreme precipitation events and associated atmospheric processes over Dronning Maud Land, East Antarctica. ***Journal of Geophysical Research: Atmospheres***, 129, e2023JD038993. https://doi.org/10.1029/2023JD038993 (**IF – 4.4**)

Jena, B., Kshitija, S., Bajish, C. C., Turner, J., Holmes, C., Wilkinson, J., Mohan, R., **Thamban. M.** (2024). Evolution of Antarctic sea ice ahead of the record low annual maximum extent in September 2023. ***Geophysical Research Letters***, 51, e2023GL107561. https://doi.org/10.1029/2023GL107561 (**IF – 5.2**)

Samui, G., Sanyal, A., Antony, R., Laluraj, C.M., Thamban, M. (2024). Contribution of cryoconite holes in the supraglacial discharge of bioavailable iron in Larsemann Hills, East Antarctica. ***Polar Science***, 40, 101052. https://doi.org/10.1016/j.polar.2024.101052 (**IF – 1.8**)

Vadakkepuliyambatta, S., Roy, P., Ingole, B. S., Raju, K. A. K. Kurian, J. P., and **Thamban M.** (2024). Potential of deep-sea mineral resources for the blue economy ***Current Science***, 126 (2): 192-199 (**IF – 1.17**)

2023

Tarique, M., Rahaman, W., Lathika, N., Prabhat, P., **Thamban, M.**, and Misra, S. (2023). Enhanced CO2 Degassing From the Tropical Indian Ocean During Cold Climatic Events of the Last Glacial Cycle. ***Paleoceanography and Paleoclimatology***, 38, e2022PA004570. https://doi.org/10.1029/2022PA004570 (**IF – 3.99**)

Rahaman, W., Lathika, N., Prabhat, P., Tarique, M., Arya, K.S., Mishra, R., **Thamban, M.** (2023). Eolian versus fluvial supply to the northern Arabian Sea during the Holocene based on Nd isotope and geochemical records. ***Geoscience Frontiers***, 2023, 14(5): 101618. https://doi.org/10.1016/j.gsf.2023.101618 (**IF – 8.90**)

Cavitte, M.G.P., Goosse, H., Matsuoka, K., Wauthy, S., Goel, V., Dey, R., Pratap, B., Van Liefferinge, B., **Thamban, M.**, Tison, J-L. (2023) Investigating the spatial representativeness of East Antarctic ice cores: A comparison of ice core and radar-derived surface mass balance over coastal ice rises and Dome Fuji. ***The Cryosphere*** 17: 11, 4779-4795 (2023). https://doi.org/10.5194/tc-17-4779-2023 (**IF – 5.81**)

Thamban, M. and Antony, R. (2023). Melting glaciers unlock hidden contaminants. ***Current Science***, 124 (8): 883-884 (**IF – 1.17**)

Pratap, B., Sharma, P., Patel, L. K., Singh, A. T., Oulkar, S. N., **Thamban, M.** (2023). Differential surface melting of a debris-covered glacier and its geomorphological

control — A case study from Batal Glacier, western Himalaya. ***Geomorphology***, 431, 108686, https://doi.org/10.1016/j.geomorph.2023.108686 (**IF – 4.41**).

Laha, S. and Banerjee, A. and Singh, A. and Sharma, P. and **Thamban, M.** (2023). Climate sensitivity of the summer runoff of two glacierised Himalayan catchments with contrasting climate. ***Hydrology and Earth System Sciences***, 27, 627—645. https://hess.copernicus.org/articles/27/627/2023/ (**IF – 5.75**)

2022

Prabhat, P., Rahaman, W., Lathika, N., Tarique, M., Mishra, R. and **Thamban, M**. (2022) Modern-like deep water circulation in Indian Ocean caused by Central American Seaway closure. ***Nature Communications*** 13, 7561 (2022). https://doi.org/10.1038/s41467-022-35145-0 (**IF – 17.69**)

Oulkar S.N., **Thamban M.**, Sharma P., Pratap B., Singh A.T., Patel L.K., Pramanik A. and Ravichandran M. (2022). Energy fluxes, mass balance, and climate sensitivity of the Sutri Dhaka Glacier in the western Himalaya. ***Frontiers in Earth Science*** 10:949735. https://doi.org/10.3389/feart.2022.949735 (**IF – 3.34**)

Dey R., **Thamban M.**, Laluraj C.M., Mahalinganathan K., Redkar B.L., Kumar S., Matsuoka K. (2022). Application of visual stratigraphy from line-scan images to constrain chronology and melt features of a firn core from coastal Antarctica. ***Journal of Glaciology*** 1–12. https://doi.org/10.1017/jog.2022.59 (**IF – 4.28**)

Ejaz T., Rahaman W., Laluraj C.M., Mahalinganathan K. and **Thamban M.** (2022). Rapid Warming Over East Antarctica Since the 1940s Caused by Increasing Influence of El Niño Southern Oscillation and Southern Annular Mode. ***Frontiers in Earth Science*** 10:799613. https://doi.org/10.3389/feart.2022.799613 (**IF – 3.34**)

Patel, A., Goswami, A., Dharpure, J.K., Sharma, P., Patel, L.K., **Thamban, M.** (2022). Monitoring glacier characteristics and their mass balance using a multi-dimensional approach over the glaciers of the Chandra basin, western Himalaya. ***Hydrological Sciences Journal***, https://doi.org/10.1080/02626667.2022.2027950 (**IF – 3.94**)

Patel, L.K., Sharma, P., Singh, A. T., Pratap, B., Oulkar, S., **Thamban, M.** (2022). Spatial surface velocity pattern in the glaciers of Chandra Basin, western Himalaya. ***Geocarto International***, https://doi.org/10.1080/10106049.2021.1920627 (**IF – 3.45**)

2021

Ejaz, T., Rahaman, W., Laluraj, C. M., Mahalinganathan, K. and **Thamban, M.** (2021). Sea ice variability and trends in the Western Indian Ocean sector of Antarctica during the past two centuries and its response to climatic modes. ***Journal of Geophysical Research: Atmospheres***, 126, e2020JD033943, https://doi.org/10.1029/2020JD033943 (**IF – 5.22**)

Patel, L.K., Sharma, P., Singh, A., Oulkar, S., Pratap, B. **Thamban, M.** (2021) Influence of Supraglacial Debris Thickness on Thermal Resistance of the Glaciers of Chandra Basin, Western Himalaya. ***Frontiers in Earth Science***, https://doi.org/10.3389/feart.2021.706312 (**IF – 3.23**)

Kulkarni, A. V., Shirsat, T. S., Kulkarni, A., Negi, H.S., Bahuguna, I.M., **Thamban, M.** (2021). State of Himalayan cryosphere and implications for water security. ***Water Security***, 14: 100101, https://doi.org/10.1016/j.wasec.2021.100101

Patel, L.K., Sharma, A., Sharma, P., Singh, A., **Thamban, M.** (2021). Glacier area changes and its relation to climatological trends over Western Himalaya between 1971 and 2018. ***Journal of Earth System Science*** 130, 217 (2021). https://doi.org/10.1007/s12040-021-01720-0 (**IF – 1.91**).

Pratap, B., Dey, R., Matsuoka, K., Moholdt, G., Lindbäck, K., Goel, V., Laluraj, C. M., and **Thamban, M.** (2021): Three-decade spatial patterns in surface mass balance of the Nivlisen Ice Shelf, central Dronning Maud Land, East Antarctica, ***Journal of Glaciology***, 1-13, *https://doi.org/10.1017/jog.2021.93* (**IF – 4.28**).

*updated in June 2024

Dasgupta, B., Ajay, A., Kumar, A., **Thamban, M.**, and Sanyal, P. (2021). Isoscape of surface runoff in high mountain catchments: an alternate model for meteoric water characterization and its implications. ***Journal of Geophysical Research: Atmospheres***, 126, https://doi.org/10.1029/2020JD033950 (**IF – 5.22**)

Tarique, M., Rahaman, W., Fousiya A A., Lathika, N., **Thamban, M.**, Achyuthan, H., and Misra, S. (2021). Surface pH record (1990-2013) of the Arabian Sea from boron isotopes of Lakshadweep corals – trend, variability and control. ***Journal of Geophysical Research: Biogeosciences***, 126, e2020JG006122. https://doi.org/10.1029/2020JG006122 (**IF – 4.43**)

Kumar, V., Tiwari, M., Prakash, P., Mohan, R., and **Thamban, M.** (2021). SST Changes in the Indian Sector of the Southern Ocean and their teleconnection with the Indian Monsoon during the Last Glacial Period. ***Paleoceanography and Paleoclimatology***, 36, https://doi.org/10.1029/2020PA004139 (**IF – 3.99**)

Thakur, R. C., Arun, B. S., Gogoi, M. M., **Thamban, M.**, Thayyen, R. J., Redkar, B. L., & Babu, S. S. (2021). Multi-layer distribution of black carbon and inorganic ions in the snow-packs of western Himalayas and snow albedo forcing. ***Atmospheric Environment,*** https://doi.org/10.1016/j.atmosenv.2021.118564 (**IF – 4.04**)

Patel, A., Goswami, A., Dharpure, J.K., **Thamban, M.**, Kulkarni, A.V., Sharma, P. (2021). Regional mass variations and its sensitivity to climate drivers over glaciers of Karakoram and Himalayas, ***GIScience & Remote Sensing***, https://doi.org/10.1080/15481603.2021.1930730 (**IF – 5.96**)

Nagar, S., Antony, R., **Thamban, M.** (2021). Extracellular polymeric substances in Antarctic environments: A review of their ecological roles and impact on glacier biogeochemical cycles. ***Polar Science***, https://doi.org/10.1016/j.polar.2021.100686 (**IF – 1.39**)

Singh, A. T., Laluraj, C.M., Sharma, P., Redkar, B.L., Patel, L.K., Pratap, B. Oulkar, S., **Thamban, M.** (2021). Hydrograph apportionment of the Chandra River draining from a semi-arid region of the Upper Indus Basin, western Himalaya, ***Science of The Total Environment***, 780, https://doi.org/10.1016/j.scitotenv.2021.146500 (**IF – 6.55**)

Lathika, N., Rahaman, W. Tarique, M., Gandhi, N., Kumar, A., **Thamban, M.** (2021). Deep water circulation in the Arabian Sea during the last glacial cycle: Implications for paleo-redox condition, carbon sink and atmospheric CO2 variability. ***Quaternary Science Reviews***, 257, 106853, https://doi.org/10.1016/j.quascirev.2021.106853 **(IF – 4.11)**

Patel, A., Goswami, A., Dharpure, J.K., **Thamban, M.**, Sharma, P., Kulkarni, A.V., Oulkar, S. (2021). Estimation of mass and energy balance of glaciers using a distributed energy balance model over the Chandra River basin (Western Himalaya), ***Hydrological Processes***, https://doi.org/10.1002/hyp.14058 **(IF – 3.26)**

2020

Sanyal, A., Antony, R., Ganesan, P., **Thamban, M.** (2020). Metabolic activity and bioweathering properties of yeasts isolated from different supraglacial environments of Antarctica and Himalaya. ***Antonie van Leeuwenhoek*** *Journal of Microbiology*, 113, 2243–2258 https://doi.org/10.1007/s10482-020-01496-1 (**IF –2.67**).

Samui, G. D., Antony, R., **Thamban, M.** (2020). Fate of dissolved organic carbon and nutrients in Antarctic surface environments during summer**.** ***Journal of Geophysical Research (Biogeosciences)*** 125, e2020JG005958. https://doi.org/10.1029/2020JG005958 (**IF –3.82**).

Singh, A. T., Sharma, P., Sharma, C., Laluraj, C. M., Patel, L. K., B. Pratap, Oulkar, S. and **Thamban, M.** (2020). Water discharge and Suspended Sediment dynamics in the

Chandra River, western Himalaya. ***Journal of Earth System Science***, *129, 206* https://doi.org/10.1007/s12040-020-01455-4 (**IF – 1.42**).

Rahaman, W., Smik, W., Köseoglu˘, D, Lathika, N., Tarique, M., **Thamban, M.**, Haywood, A., Belt, S. T., and Knies, J. (2020). Reduced Arctic sea ice extent during the mid-Pliocene Warm Period concurrent with increased Atlantic-climate regime. ***Earth and Planetary Science Letters***, 550: 116535 https://doi.org/10.1016/j.epsl.2020.116535 **(IF: 4.82).**

Laluraj, C.M., Rahaman, W., **Thamban, M.** and Srivastava, R. (2020). Enhanced dust influx to South Atlantic sector of Antarctica during the late-20th Century: Causes and contribution to radiative forcing. ***Journal of Geophysical Research (Atmospheres)***, 125, e2019JD030675 https://doi.org/10.1029/2019JD030675 (**IF – 4.26**).

Ghadi, P., Nair, A., Crosta, X., Mohan, R., Manoj, M C., **Thamban, M.** (2020). Antarctic sea-ice and palaeoproductivity variation over the last 156,000 years in the Indian sector of Southern Ocean. ***Marine Micropaleontology*** 160: 101894 https://doi.org/10.1016/j.marmicro.2020.101894 **(IF – 2.73)**

Thamban, M., Rahaman, W., Laluraj, C.M. (2020). Millennial to quasi-decadal variability in Antarctic climate system as evidenced from high-resolution ice core records. ***Current Science*** 119(2): 255-264 **(IF – 0.76)**.

Patel, A., Goswami, A., Dharpure, J.K., **Thamban, M.**, (2020). Rainfall variability over the Indus, Ganga, and Brahmaputra river basins: A spatio-temporal characterisation, ***Quaternary International***, doi: https://doi.org/10.1016/ j.quaint.2020.06.010. **(IF – 2.47)**

Nair, A., Ghadi, P., Mohan, R., Manoj, M.C. Crosta, X., Shukla, S. K., **Thamban, M.** (2020), Glacial-interglacial flux and size variability of Fragilariopsis kerguelensis and Thalassiosira lentiginosa from the Indian sector of the Southern Ocean, ***Deep Sea Research*** Part II: Topical Studies in Oceanography, 104746, https://doi.org/10.1016/j.dsr2.2020.104746 (**IF –2.70**).

Sharma P., Patel L.K., Singh A.T., **Thamban M.**, Ravindra R. (2020). Glacier Response to Climate in Arctic and Himalaya during last seventeen years, In: *Climate Change and the White World (Eds. P. S. Geol et al.)*, ***Springer***, pp. 139-156

Thamban, M. (2020). Palaeoclimatic records from Antarctica and Southern Ocean. ***Episodes*** 43(1): 575-585 (**IF- 1.71**).

Dharpure, J. K., Goswami, A., Patel, A., Kulkarni, A. V., **Thamban, M.** (2020). Drought characterization using the Combined Terrestrial Evapotranspiration Index over the Indus, Ganga and Brahmaputra river basins, **Geocarto International**, DOI: 10.1080/10106049.2020.1756462 **(IF – 3.79)**

2019

Lindbäck, K., Moholdt, G., Nicholls, K. W., Hattermann, T., Pratap, B., **Thamban, M.**, and Matsuoka, K. (2019): Spatial and temporal variations in basal melting at Nivlisen ice shelf, East Antarctica, derived from phase-sensitive radars, ***The Cryosphere***, 13, 2579–2595, 2019 https://doi.org/10.5194/tc-13-2579-2019 (**IF - 4.79**).

Nair, A., Mohan, R., Crosta, X., Manoj, M C., **Thamban, M.**, Marieu, V. (2019). Southern Ocean sea ice and frontal changes during the late Quaternary and their linkages to Asian summer monsoon. ***Quaternary Science Reviews,*** 213: 93-104. (**IF- 4.57**)

Patel, L. K., Sharma, P., **Thamban, M.** (2019). Spatio-temporal variability of snow water equivalent over the Vestre Broggerbreen and Feiringbreen glaciers, Ny-Ålesund, Svalbard. ***Journal of Earth System Science***, 128: 183 (**IF – 1.42**).

Pratap, B., Sharma, P., Patel, L. K., Singh, A. T., Gaddam, V. K., Oulkar S. M. and **Thamban, M.** (2019). Reconciling High Glacier Surface Melting in Summer with Air

Temperature in the Semi-Arid zone of Western Himalaya. ***Water***, 11, 1561; doi:10.3390/w11081561, (**IF – 2.54***).*

Rahaman, W., Chatterjee, S., Ejaz, T., **Thamban, M**. (2019). Increased influence of ENSO on Antarctic temperature since the Industrial Era. ***Scientific Reports,*** *9:6006* | https://doi.org/10.1038/s41598-019-42499-x. (**IF - 4.53**)

Singh, A. T., W. Rahaman, Sharma, P., Laluraj, C. M., Patel, L. K., B. Pratap, V. K. Gaddam and Thamban, M. (2019). Moisture Sources for Precipitation and Hydrograph Components of the Sutri Dhaka Glacier Basin, Western Himalaya. ***Water***, 11, 2242; doi:10.3390/w11112242 (***IF – 2.54****)*

Subha-Anand, S., Rahaman, W., Lathika, N., **Thamban, M.**, Patil, S. and Mohan, R. (2019). Trace elements and Sr-Nd isotope compositions of surface sediments in the Indian Ocean: An evaluation of sources and processes for sediment transport and dispersal. ***Geochemistry, Geophysics, Geosystems***, 19, 2179–2193. (**IF – 2.98**)

Thakur, R.C., and **Thamban, M.** (2019). Influence of gaseous and particulate species on neutralization processes of polar aerosol and snow — A case study from Ny-Ålesund. ***Journal of Environmental Sciences***, 76: 12-25. (**IF- 3.56**)

Turner, J., Phillips, T., **Thamban, M.**, Rahaman, W., Marshall, G. J., Wille, J. D., et al (2019). The dominant role of extreme precipitation events in Antarctic snowfall variability. ***Geophysical Research Letters****, 46,* 3502–3511. https://doi.org/10.1029/2018GL081517 (**IF- 4.58**)

2018

Samui, G. D., Antony, R., **Thamban, M.** (2018). Chemical characteristics of hydrologically distinct cryoconite holes in coastal Antarctica. ***Annals of Glaciology***, 59: 69-76. (**IF- 3.20**)

Antony, R.**,** Willoughby, A.S., Grannas, A.M., Catanzano, V., Sleighter, R.L., **Thamban, M.** and Hatcher, P.G. (2018). Photo-biochemical transformation of dissolved organic matter on the surface of the coastal East Antarctic ice sheet. ***Biogeochemistry,*** 141:229. https://doi.org/10.1007/s10533-018-0516-0 (**IF- 3.41**)

Kessarkar, P. M., Naqvi, S. W. A., **Thamban, M**., Fernandes, L. L., Siebert, C., Rao, V. P., Kawahata, H., Ittekkot, V. and Frank, M. (2018). Variations in Denitrification and Ventilation Within the Arabian Sea Oxygen Minimum Zone During the Holocene. ***Geochemistry, Geophysics, Geosystems***, 19, 2179–2193 (**IF – 2.98**)

Sanyal, A., Antony, R., Samui, G. D., **Thamban, M.** (2018). Microbial communities and their potential for degradation of dissolved organic carbon in cryoconite hole environments of Himalaya and Antarctic. ***Microbiological Research***, https://doi.org/10.1016/ j.micres.2018.01.004 **(IF – 3.70)**

Patel, L. K., Sharma, P., Fathima, T.N., **Thamban, M.** (2018). Geospatial observations of topographical control over the glacier retreat, Miyar basin, Western Himalaya, India. ***Environmental Earth Sciences***, 77:190. https://doi.org/10.1007/s12665-018-7379-5 (**IF – 1.87**)

2017

Singh, A. T., Laluraj, C. M., Sharma, P., Patel, L. K., and **Thamban, M.** (2017). Export fluxes of geochemical solutes in the meltwater stream of Sutri Dhaka Glacier, Chandra basin, Western Himalaya. ***Environmental Monitoring and Assessment***, 189:555, DOI: 10.1007/s10661-017-6268-9 (**IF – 1.96**)

PAGES 2k Consortium (2017). A global multiproxy database for temperature reconstructions of the Common Era. ***Scientific Data***, vol. 4, doi:10.1038/sdata.2017.88 (**IF – 5.31**)

*updated in June 2024

Samui, G. D., Antony, R., Mahalinganathan, K., **Thamban, M.** (2017). Spatial variability and possible sources of Acetate and Formate in the surface snow of East Antarctica. ***Journal of Environmental Sciences***. 57: 258 - 269 (**IF- 3.56**)

Antony, R., Willoughby, A.S., Grannas, A.M., Catanzano, V.,Sleighter, R.L., **Thamban, M.**, Hatcher, P.G. and Shanta Nair (2017). Molecular insights on dissolved organic matter transformation by supraglacial microbial communities. ***Environmental Science and Technology***, DOI: 10.1021/acs.est.6b05780 (**IF- 7.15**)

Patel, L. K., Sharma, P., Laluraj, C. M., **Thamban, M.,** Singh, A. T. and Ravindra, R. (2017). A geospatial analysis of Samudra Tapu and Gepang Gath glacial lakes in the Chandra basin, Western Himalaya. ***Natural Hazards***, doi:10.1007/s11069-017-2743-4 (**IF- 2.32**)

Khan, A.A., Pant, N.C., Sarkar, A., Tandon, S.K., **Thamban, M.**, Mahalinganathan, K. (2017). The Himalayan cryosphere: A critical assessment and evaluation of glacial melt fraction in the Bhagirathi basin. ***Geoscience Frontiers***, 8: 107-115, 10.1016/j.gsf.2015.12.009 (**IF – 4.20**).

2016

Thamban, M. Laluraj, C.M. and R. Mohan (2016). Antarctic palaeoclimate variability on millennial, centennial and decadal time scales. ***Proc Indian Natn Sci Acad.,*** 82, No. 3, pp. 685-694.

Antony, R., Sanyal, A., Kapse, N., Dhakephalkar, P. K., **Thamban, M.** and Nair, S. (2016). Microbial communities associated with Antarctic snow pack and their biogeochemical implications. **Microbiological Research**, 192, 192–202. (**IF – 3.70**)

Patel, L. K., Sharma, P., **Thamban, M.**, A. T. Singh, R. Ravindra (2016) Debris control on the glacier thinning-a case study of Batal glacier, Lahaul-Spiti, Himachal Pradesh. ***Arabian Journal of Geosciences***, 9: 309, DOI 10.1007/s12517-016-2362-5 (**IF – 1.14**)

Mahalinganathan, K. and **Thamban, M.** (2016). Potential genesis and implications of calcium nitrate in Antarctic snow. ***The Cryosphere,*** 10, 825–836, doi:10.5194/tc-10-825-2016. (**IF - 4.79**)

Rahaman, W., **Thamban, M.** and Laluraj, C.M. (2016). Twentieth Century sea ice variability in the Weddell Sea and its effect on moisture transport: Evidence from a coastal East Antarctic ice core record. ***The Holocene***, DOI: 10.1177/0959683615609749 (**IF – 2.55**)

2015

Sharma, P., Patel, L. K., R. Ravindra A. T. Singh, K. Mahalinganathan, **Thamban, M.**, (2015). Role of debris cover to control specific ablation of adjoining Batal and Sutri Dhaka glaciers in Chandra Basin (Himachal Pradesh) during peak ablation season. ***Journal of Earth System Science*** 125: 459-473

Nair, A., Mohan, R., Manoj, M.C. and **Thamban, M.** (2015). Glacial-interglacial variability in diatom abundance and valve size: implications for Southern Ocean paleoceanography. ***Paleoceanography***, DOI: 10.1002/2014PA002680

Manoj, M.C., and **Thamban, M.** (2015). Shifting frontal regimes and its influence on bioproductivity variations during the late Quaternary in the Indian sector of Southern Ocean. ***Deep Sea Research II***, 118: 261-274.

2014

*updated in June 2024

Antony, R., Grannas, A.M., Willoughby, A.S., Sleighter, R.L., **Thamban, M.**, Hatcher, P.G. (2014). Origin and Sources of Dissolved Organic Matter in Snow on the East Antarctic Ice Sheet. ***Environmental Science and Technology***, 48 (11): 6151–6159.

Laluraj, C.M., **Thamban, M.** and Satheesan K. (2014). Dust and associated geochemical fluxes in an ice core from the coastal East Antarctica and its linkages with Southern hemisphere climate variability. **Atmospheric Environment**, 90: 23-32.

Thakur, R. C. and **Thamban, M.** (2014). Latitudinal and size segregated compositional variability of aerosols over the Indian and Southern Ocean during 2010 austral summer. **Aerosol and Air Quality Research**, 14: 220–236.

2013

PAGES 2k Consortium (**Thamban, M.**), 2013. Continental-scale temperature variability during the last two millennia, **Nature Geoscience,** DOI: 10.1038/NGEO1797.

Manoj, M.C., **Thamban, M.**, A. Sahana, R. Mohan and K. Mahender (2013). Provenance and temporal variability of ice rafted debris in the Indian sector of the Southern Ocean during the last 22000 years. **Journal of Earth System Science,** 122: 491-501**.**

2012

Thamban, M. and Roseline C. Thakur (2012). Trace metal chemistry of surface snow from Ingrid Christensen Coast, East Antarctica - Spatial variability and possible anthropogenic contributions. **Environmental Monitoring and Assessment**, DOI: 10.1007/s10661-012-2764-0.

Thamban M., Naik, S. S., Laluraj, C. M., Chaturvedi, A., Ravindra, R., (2012). Antarctic climate variability during the past few centuries based on ice core records from coastal Dronning Maud Land and its implications on the recent warming. In: R. Sinha and R. Ravindra, "*Earth System Processes and Disaster Management*", Society of Earth Scientists Series, **Springer, 2013, XII, 239 p**.

Sruthi, K.V., **Thamban, M.**, Manoj, M.C. and C.M. Laluraj (2012). Association of trace elements with various geochemical phases in the Indian Sector of Southern Ocean during past 22,000 years and its palaeoceanographic implications. **Current Science**, 103: 803-809.

Mahalinganathan, K., **Thamban, M.**, Laluraj, C.M., Redkar, B.L. (2012). Relation between surface topography and sea-salt snow chemistry from Princess Elizabeth Land, East Antarctica. **The Cryosphere**, 6, 505–515**.**

Antony, R., K.P. Krishnan, Laluraj, C. M., **Thamban M.**, Dhakephalkar, P.K., Engineer, A. S. and Shivaji, S. (2012), Diversity and physiology of culturable bacteria associated with a coastal Antarctic ice core, **Microbiological Research** doi:10.1016/j.micres.2012.03.003**.**

Thamban M., Naik, S. S., Laluraj, C. M., and Ravindra R. (2012). High resolution reconstructions of recent warming using instrumental and ice core records from coastal Antarctica. ***Mausam***, 62: 665-672.

2011

Manoj, M.C., **Thamban, M.**, N. Basavaiah, R. Mohan (2011). Evidence for climatic and oceanographic controls on terrigenous sediment supply to the Indian Ocean sector of the Southern Ocean over the past 63,000 years. **Geo-Marine Letters**, DOI 10.1007/s00367-011-0267-6**.**

*updated in June 2024

Antony, R., K. Mahalinganathan, K.P. Krishnan, and **Thamban M.** (2011), Microbial preference for different size classes of organic carbon: A study from Antarctic snow, ***Environmental Monitoring and Assessment*** DOI 10.1007/s10661-011-2391-1.

Antony, R., K. Mahalinganathan, **Thamban, M.** and S. Nair (2011), Organic carbon in Antarctic snow: spatial trends and possible sources, ***Environmental Science & Technology***, 45 (23), pp 9944–9950, DOI: 10.1021/es203512t.

Thamban M., Laluraj, C. M., Naik, S. S., Chaturvedi, A. (2011). Reconstruction of Antarctic climate change using ice core proxy records from the coastal Dronning Maud Land, East Antarctica. ***Journal of Geological Society of India***, 78: 19-29.

Laluraj, C.M., **Thamban, M.**, S.S. Naik, B.L. Redkar, A. Chaturvedi and R. Ravindra. (2011). Nitrate records of a shallow ice core from East Antarctica: atmospheric processes, preservation and climatic implications. ***The Holocene***, 21: 351-356.

Marshall, G.J., Battista, S., Naik, S.S., and **Thamban, M.** (2011). Analysis of a regional change in the sign of the SAM-temperature relationship in Antarctica. ***Climate Dynamics***, 36 (1-2). 277-287.

Tiwari, M., Mohan, R., **Thamban, M.**, Naik, S., & Sudhakar, M. (2011). Effect of varying frontal systems on stable oxygen and carbon isotopic compositions of modern planktic foraminifera of Southern Ocean. ***Current Science***, 100(6), 881-887.

2010

Thamban, M., C. M. Laluraj, K. Mahalinganathan, B. L. Redkar, S. S. Naik and P. K. Shrivastava (2010). Glacio-chemistry of surface snow from the Ingrid Christensen Coast, East Antarctica, and its environmental implications. ***Antarctic Science***, 22(4), 435–441

Naik, S. S. **Thamban, M.**, Laluraj, C.M., Redkar, B.L. and Chaturvedi, A. (2010). A century of climate variability in the central Dronning Maud Land, East Antarctica and its relation to Southern Annular Mode and El Niño Southern Oscillation. ***Journal of Geophysical Research (Atmospheres)***, 115, D16102, doi:10.1029/2009JD013268.

Antony, R., **Thamban, M.**, K.P. Krishnan, K. Mahalinganathan (2010). Is cloud seeding in coastal Antarctica linked to biogenic bromine and nitrate variability in snow? ***Environmental Research Letters***, 5: 014009, doi:10.1088/1748-9326/5/1/014009

Naik, S.S., **Thamban, M.**, Rajakumar, A., Laluraj, C.M., and Chaturvedi, A. (2010). Influence of climatic teleconnections on the temporal isotopic variability as recorded in a firn core from the central Dronning Maud Land, East Antarctica. ***Journal of Earth System Science***, Vol. 119, Pages: 41-49.

Rao, V. P., Kessarkar, P., **Thamban, M.** and Patil, S.K. (2010). Palaeoclimatic and diagenetic history of the late Quaternary sediments in a core from the southeastern Arabian Sea: geochemical and magnetic signals. ***Journal of Oceanography***. Vol. 66, 133-146

2009

Antony, R., K.P. Krishnan, Sabu Thomas, Wilson Peter Abraham and **Thamban M.** (2009). Phenotypic and molecular identification of *Cellulosimicrobium cellulans* isolated from Antarctic snow. ***Antonie van Leeuwenhoek*** *International Journal of General and Molecular Microbiology* Volume 96, Issue 4, Page 627.

Singhvi, A.K., K. Roopakumar, **Thamban, M.** and others (2009). Instrumental, terrestrial and marine records of the climate of South Asia during the Holocene: Present status,

unresolved problems and societal aspects". In: "*Global Environmental Changes in South Asia: A Regional Perspective*", SAS RAP Volume *SCOPE/ START*, Chapter No. 3, pp. 54-129.

Laluraj, C.M., Krishnan, K. P., **Thamban, M.**, Mohan, R., Naik, S. S., D'Souza, W., R. Ravindra and A. Chaturvedi. (2009). Origin and characterisation of microparticles in an ice core from the Central Dronning Maud Land, East Antarctica. ***Environmental Monitoring and Assessment***: DOI 10.1007/s10661-008-0212-y.

2008 - 1995

Mohan, Rahul., Lina P. Mergulhao,M V S Guptha, A.Rajakumar, **Thamban, M.**, Anilkumar, N., Sudhakar, M., Ravindra, R. (2008). Ecology of coccolithophores in the Indian sector of the Southern Ocean. ***Marine Micropaleontology***: Volume 67, Pages 30-45, doi:10.1016/j.marmicro.2007.08.005.

Thamban, M., Kawahata, H., Rao, V.P. (2007). Indian Summer Monsoon Variability during the Holocene as Recorded in Sediments of the Arabian Sea: Timing and Implications. ***Journal of Oceanography***: 2007, vol. 63, no6, pp. 1009-1020.

Thamban, M., Chaturvedi, A. Rajakumar, A. Naik, S.S. D'Souza, W. Singh, A. Rajan, S. Ravindra, R. (2006). Aerosol perturbations related to volcanic eruptions during the past few centuries as recorded in an ice core from the Central Dronning Maud Land, Antarctica. ***Current Science***, vol. 91, no9, pp. 1200-1207.

Thamban, M., Naik S. S., Mohan R., Rajakumar A., Basavaiah, N., D'Souza Witty, Kerkar, S., Subramaniam, M. M., Sudhakar, M., Pandey, P. C. (2005). Changes in the source and transport mechanism of terrigenous input to the Indian sector of Southern Ocean during the late Quaternary and its palaeoceanographic implications. ***Journal of Earth System Science***, Vol. 114, no5, pp. 443-452.

Thamban, M. and V. P. Rao (2005). Clay minerals as palaeomonsoon proxies: Evaluation and relevance to the late Quaternary records from SE Arabian Sea. NCAOR Special Publication, "Antarctic Geoscience, Ocean –Atmosphere interaction and Palaeoclimatology" (Editors: P. C. Pandey and S. Rajan), Pages: 198-215.

Thamban, M., V.P. Rao, R.R. Schneider (2002). Reconstruction of late Quaternary monsoon oscillations based on clay mineral proxies using sediment cores from the western margin of India. **Marine Geology**, Vol. 186, Pages: 527-539.

V. P. Rao, A. Michard, S. W. A. Naqvi, M. E. Boettcher, R. Krishnaswamy, **Thamban, M.**, R. Natarajan, D.V. Borole (2002). Quaternary phosphorites off southeast coast of India. ***Chemical Geology***, Vol. 182, Pages: 483-502

Thamban, M., V. P. Rao, R.R. Schneider and P.M. Grootes (2001). Glacial to Holocene fluctuations in hydrography and productivity along the southwestern continental margin of India. ***Palaeogeography, Palaeoclimatology, Palaeoecology***, Vol. 165, Pages: 113-127.

Thamban, M. and V. P. Rao (2001). New stable isotope records of sediment cores from the SE Arabian Sea- inferences on the variations in monsoon regime during the late Quaternary. ***Current Science***, Vol. 80, Pages: 1432-1436.

Thamban, M. and V.P. Rao. (2000). Distribution and composition of verdine and glaucony facies from the sediments of the western continental margin of India. SEPM Special Publication No.66, "*Marine Authigenesis: From Global to Microbial*" [Editors: Glenn, C. R., Lucas, J. And Prévöt, L.], Year: 2000, Pages: 233-244 Society for Sedimentary Geology (SEPM), Tulsa, U.S.A.

*updated in June 2024

Thamban M., V.P. Rao and S. V. Raju (1997). Controls on organic carbon distribution in the sediment cores from the eastern Arabian Sea. ***Geo-Marine Letters***, Vol. 17 (3), Pages: 20-27.

Rao, V. P. and **Thamban M.** (1997). Dune associated calcretes, rhizoliths and palaeosols from the western continental shelf of India. ***Journal of Geological Society of India***, Vol. 49, Pages: 297-306.

Thamban M., K. Reghunadh and K. Sajan (1996). Distribution of Organic matter, Iron and Manganese in the estuarine clay of mangrove sediments, Tellicherry, Kerala. ***Journal of Geological Society of India***, Vol. 48, Pages: 183-188.

Rao, V. P., **Thamban M.** and M. Lamboy (1995). Verdine and glaucony facies from surficial sediments of the eastern continental margin of India. ***Marine Geology***, Vol. 127, Pages: 105-113.

***

*updated in June 2024