

LIST OF PUBLICATIONS

Faculty: Dr Deep Raj

Department of Environmental Sciences

JOURNAL PUBLICATIONS

Dr Deep Raj - "Microplastics in Indian aquatic systems and its effects on plants, aquatic organisms and humans, and its methods of remediation" in Chemistry and Ecology (Q2 Journal, IF 2.5)

Singh, S., Maiti, S.K. and **Raj, D.**, 2023. An approach to quantify heavy metals and their source apportionment in coal mine soil: a study through PMF model. *Environmental Monitoring and Assessment*, 195(2), 306.

Kumar, A., **Raj, D.**, Maiti, S.K., Maleva, M. and Borisova, G., 2022. Soil Pollution and Plant Efficiency Indices for Phytoremediation of Heavy Metal (loid) s: *Two-Decade Study* (2002–2021). *Metals*, 12(8), 1330.

Raj, D., Kumar, A. and Maiti, S.K., 2022. Health Risk Assessment of Children Exposed to the Soil Containing Potentially Toxic Elements: A Case Study from Coal Mining Areas. *Metals*, 12(11), 1795.

Raj, D. and Maiti, S.K., 2020. Risk assessment of potentially toxic elements in soils and vegetables around coal-fired thermal power plant: a case study of Dhanbad, India. *Environmental Monitoring and Assessment*, 192(11), pp.1-18.

Raj, D., Kumar, A. and Maiti, S.K., 2020. Mercury remediation potential of Brassica juncea (L.) Czern. for clean-up of flyash contaminated sites. *Chemosphere*, 248, p.125857.

Raj, D. and Maiti, S.K., 2020. Sources, bioaccumulation, health risks and remediation of potentially toxic metal (loid) s (As, Cd, Cr, Pb and Hg): an epitomised review. *Environmental monitoring and assessment*, 192(2), pp.1-20.

Raj, D., Kumar, A. and Maiti, S.K., 2020. Brassica juncea (L.) Czern.(Indian mustard): a putative plant species to facilitate the phytoremediation of mercury contaminated soils. *International Journal of Phytoremediation*, 22(7), pp.733-744.

Ghosh, S.P., **Raj, D.** and Maiti, S.K., 2020. Risks assessment of heavy metal pollution in roadside soil and vegetation of national highway crossing through industrial area. *Environmental Processes*, 7(4), pp.1197-1220.

Raj, D., Kumar, A. and Maiti, S.K., 2019. Evaluation of toxic metal (loid) s concentration in soils around an open-cast coal mine (Eastern India). *Environmental Earth Sciences*, 78(22), pp.1-19.

Raj, D. and Maiti, S.K., 2019. Sources, toxicity, and remediation of mercury: an essence review. *Environmental monitoring and assessment*, 191(9), pp.1-22.

Raj, D. and Maiti, S.K., 2019. Bioaccumulation of potentially toxic elements in tree and vegetable species with associated health and ecological risks: a case study from a thermal power plant, Chandrapura, India. *Rendiconti Lincei. Scienze Fisiche e Naturali*, 30(3), pp.649-665.

Raj, D., 2019. Bioaccumulation of mercury, arsenic, cadmium, and lead in plants grown on coal mine soil. *Human and Ecological Risk Assessment: An International Journal*, 25(3), pp.659-671.

Raj, D., Chowdhury, A. and Maiti, S.K., 2017. Ecological risk assessment of mercury and other heavy metals in soils of coal mining area: A case study from the eastern part of a Jharia coal field, India. *Human and Ecological Risk Assessment: An International Journal*, 23(4), pp.767-787.

BOOK CHAPTERS

Deep Raj, PS Paul and SK Maiti (2017). Chapter: Improvements in Fertility of Reclaimed Coalmine Dumps Due to Afforestation –A Case Study from North Karanpura Area, CCL, India. *Sustainable Mining Practices*. Page: 45-54, Narosa Publishing House, New Delhi. (Editors: AK Gorai and DS Nimaje).

Deep Raj and SK Maiti (2020). Chapter: Brassica juncea (L.) Czern. (Indian mustard): A potential candidate for the phytoremediation of mercury from soil. *Sustainability in Environmental Engineering and Science, Lecture Notes in Civil Engineering* 93, Page: 67-72, Springer Nature, Singapore. (Editors: S Kumar, A Kalamdhad, and MM Ghangrekar). https://doi.org/10.1007/978-981-15-6887-9_7.

SK Maiti, D Ghosh and **Deep Raj** (2021). Chapter: Phytoremediation of flyash: bioaccumulation and translocation of metals in natural colonizing vegetation on flyash lagoons. *Handbook of Flyash*. Page: 501-523, Elsevier (Editor: Kamal K Kar). <https://doi.org/10.1016/B978-0-12-817686-3.00011-6>.