

Curriculum Vitae

Satyam Verma, PhD

Assistant Professor

Department of Environmental Sciences,

Dr. Harisingh Gour University,

(A Central University) Sagar, MP,

India

satyamverma69@gmail.com

satyam.verma@dhsu.in

Mobile: +91 9730922903,

Research Interest

Fire Ecology, Forest Fire Management, Climate Change, Remote Sensing and GIS, Landscape Ecology, Tropical Forest Ecology, Ecological Modelling, Invasion Biology, Soil Ecology

Experience

May 2023 – Onwards

Assistant Professor

Department of Environmental Sciences,

School of Biological Sciences,

Dr. Harisingh Gour University, Sagar, MP, India

August 2022 – April 2023

Assistant Professor

Department of Environmental Sciences,

School of Engineering and Sciences,

SRM University-AP, Amaravati, Andhra Pradesh

July 2021 – July 2022

Fulbright-Kalam Climate Fellow

School of Environmental and Forest Sciences,

University of Washington, Seattle, WA, USA

June 2018 – July 2021

Project Scientist

Department of Landscape Level Planning and Management

Wildlife Institute of India, Dehradun, India

April 2017 – June 2018

Post-Doctoral Fellow

Dept. Of Botany,

Dr. Harisingh Gour University, Sagar, MP, India

Education

Aug 2011 – Jan 2017

Ph.D.

Pondicherry University

Ecology and Environmental Sciences, Pondicherry, India

Jul 2009 – Jul 2011

M.Sc.

Babasaheb Bhimrao Ambedkar University

Environmental Sciences,
Lucknow, India

Jul 2006 – Jun 2009

B.Sc.

**Lucknow Christian Degree College,
University of Lucknow, Lucknow, India**

PhD Thesis

“Effect of forest fire on tree diversity, biomass and soil properties in a tropical dry deciduous forest of Western Ghats, India”

Awards & Fellowships

March 2020 Fulbright-Kalam Climate Fellowship for Postdoctoral Research

January 2019 Elected Fellow: Fellow of Science Frontier Research Council

December 2014 Award: Best Poster Award, Tropical Ecology Congress-2014

December 2012 Scholarship: UGC-Junior Research Fellowship

June 2012 Scholarship: UGC-Junior Research Fellowship

Professional Memberships

- i. Member, International Association of Wildland Fire
- ii. Member, Indian Regional Association of Landscape Ecology
- iii. Life member of Indian Society of Geomatics

Other Information

- i. Prepared Integrated Landscape Management plan for Ken-Betwa River Linking Project
- ii. Participated in first Ist annual symposium of Indian Regional association of Landscape Ecology in Abstract Review Team
- iii. Provided inputs as resource person in Certificate course in Wildlife Management using Geospatial Technologies under the Green Skill Development Program at WII, Dehradun
- iv. Participated in three month course on Basics of Remote Sensing, GIS and GNSS from September to November 2016
- v. Participated in 6 day workshop on Species Distribution Modeling with MaxENT at ISI, Kolkata, from 9 to 14 January 2017.

Publications

- i Total Articles (Published): 22
- ii Book Chapter: 2
- iii Total Citation: 500
- iv h-Index: 11
- v i10-Index: 13

Journal Publications

1. Ray, T., Malasiya, D., Verma, A., Purswani, E., Qureshi, A., Khan, M. L., & **Verma, S.** (2023). Characterization of Spatial–Temporal Distribution of Forest Fire in Chhattisgarh, India, Using MODIS-Based Active Fire Data. **Sustainability**, 15(9), 7046. [IF – 3.889]

2. Vasudeva, V., Makwana, M., Pokhariya, K., Nazareth, O. J., Jelil, S. N., Bandyopadhyay, M., Gupta, D., **Verma, S.** & Krishnamurthy, R. (2023). Contextualising Landscape Ecology in Wildlife and Forest Conservation in India: a Review. **Current Landscape Ecology Reports**, 1-12.
3. Podschwit, H., Jolly, W., Alvarado, E., **Verma, S.**, Ponce, B., Markos, A., ... & Rodriguez-Zimmermann, D. (2022). Reliability of cross-regional applications of global fire danger models: a Peruvian case study. **Fire Ecology**, 18(1), 25. [IF – 5.364]
4. Ray, T., Khan, M. L., Qureshi, A., & **Verma, S.** (2022). MODIS-Derived Fire Characteristics and Greenhouse Gas Emissions from Cropland Residue Burning in Central India. **Sustainability**, 14(24), 16612. [IF – 3.889]
5. Ray, T.; Malasiya, D.; Verma, S.; Kumar, T.; Khan, M.L. (2022). Impact of forest fire frequency on tree biomass and carbon stocks in the tropical dry deciduous forest of Panna Tiger Reserve, Central India. **Tropical Ecology. (In Press)** [IF – 1.33]
6. Vasudeva, V.; Upgupta, S.; Singh, A.; Sherwani, N.; Dutta, S.; Rajaraman, R.; Chaudhuri, S.; **Verma, S.**; Johnson, J.A.; Krishnamurthy, R. (2022) Conservation Prioritization in a Tiger Landscape: Is Umbrella Species Enough? **Land**, 11, 371. <https://doi.org/10.3390/land11030371>. [IF – 3.905]
7. Malasiya D., Ray T., **Verma S.**, Rajpoot R., Maurya D., Kumar T., Khare P.K., Khan M.L. (2022). Effect of Forest Fire on Tree Species Diversity in the Tropical Dry Deciduous Forest of Nauradehi Wildlife Sanctuary, Madhya Pradesh, Central India. **International Journal of Ecology and Environmental Sciences**, 48 (3), 381-388
8. Purswani, E., **Verma, S.**, Jayakumar, S., Khan, M.L., Pathak, B., (2021). Examining and predicting land use change dynamics in Gandhinagar district, Gujarat, India. **Journal of Urban Management**, 11 (1) 82-96.
9. Ray, T., Malasiya, D., Rajpoot, R., **Verma, S.**, Dar, J. A., Dayanandan, A., ... & Khan, M. L. (2020). Impact of Forest Fire Frequency on Tree Diversity and Species Regeneration in Tropical Dry Deciduous Forest of Panna Tiger Reserve, Madhya Pradesh, India. **Journal of Sustainable Forestry**, 1-15. [IF – 1.425]

10. Rajpoot, R., Adhikari, D., **Verma, S.**, Saikia, P., Kumar, A., Grant, K. R., ... & Khan, M. L. (2020). Climate models predict a divergent future for the medicinal tree *Boswellia serrata* Roxb. in India. **Global Ecology and Conservation**, 23, 1-9. [IF – 3.969]
11. Raha, D., Dar, J. A., Pandey, P. K., Lone, P. A., **Verma, S.**, Khare, P. K., & Khan, M. L. (2020). Variation in tree biomass and carbon stocks in three tropical dry deciduous. **Carbon Management**, 11 (2), 109-120. [IF – 3.52]
12. Singh, A. K., Sathya, M., **Verma, S.**, & Jayakumar, S. (2020). Spatiotemporal variation of water quality index in Kanwar wetland, Begusarai, India. **Sustainable Water Resources Management**, 6, 1-8.
13. Ray, T., **Verma, S.**, Dar, J.A., Malasiya, D., Dayanadan, A., Khare, P.K., Khan, M.L. (2019). Estimation of greenhouse gas emissions from vegetation fires in Central India. **Climate Change and Environmental Sustainability**. 7 (1), 32-38.
14. **Verma, S.**, Singh, D., Singh, A.K., & Jayakumar S. (2019). Post-fire soil nutrient dynamics in a tropical dry deciduous forest of Western Ghats, India. **Forest Ecosystems**. 6 (6). [IF – 4.273]
15. Singh, A.K., Mani, S., **Verma, S.**, & Jayakumar S. (2018). Health risk assessment of heavy metals in crop grains grown on open soils of Kanwar wetland, India. **Euro-Mediterranean Journal of Environmental Intregation**. 3, 29 <https://doi.org/10.1007/s41207-018-0073-x>
16. **Verma, S.**, Dar, J.A., Malasiya, D., Khare, P.K., Dayanadan, S., Khan, M.L. (2018) A MODIS-based spatiotemporal assessment of agricultural residue burning in Madhya Pradesh, India. **Ecological Indicator**. <https://doi.org/10.1016/j.ecolind.2018.04.042>. [IF – 6.263]
17. **Verma, S.**, & Jayakumar, S. (2018). Effect of recurrent fires on soil nutrient dynamics in a tropical dry deciduous forest of Western Ghats, India. **Journal of Sustainable Forestry**, <https://doi.org/10.1080/10549811.2018.1453842>. [IF – 1.425]
18. **Verma, S.**, Singh, D., Sathya, M. & Jayakumar, S. (2017). Effect of forest fire on tree diversity and regeneration potential in a tropical dry deciduous forest of Mudumalai Tiger Reserve, Western Ghats, India. **Ecological Processes**, DOI 10.1186/s13717-017-0098-0 [IF – 4.394]
19. Singh, D., **Verma, S.**, Jayakumar, S. (2016). Tree inventory along the altitudinal gradients in Singara Range, Nilgiri Biosphere Reserve, Western Ghats, India. **Proceedings of the International Academy of Ecology and Environmental Sciences**, 6(4), 97-109.

20. **Verma, S.,** & Jayakumar, S. (2015). Post-fire regeneration dynamics of tree species in a tropical dry deciduous forest, Western Ghats, India. **Forest Ecology and Management**, 341, 75-82. [IF – 4.384]
21. **Verma, S.,** Vashum, K. T., Sathya, M. & Jayakumar, S. (2015). Monitoring changes in forest fire pattern in Mudumalai Tiger Reserve, Western Ghats India, using remote sensing and GIS. **GJSFR-H**. 15(4), 13-19.
22. **Verma, S.,** & Jayakumar, S. (2012). Impact of forest fire on physical, chemical and biological properties of soil: A Review. **Proceedings of the International Academy of Ecology and Environmental Sciences**, 2(3), 168-176.

Book Chapter

1. Singh, A.K., Sathya, M., **Verma, S.,** Kumar, A., and Jayakumar, S. (2021). Assessment of Anthropogenic Pressure and Population Attitude for the Conservation of Kanwar Wetland, Begusarai, India. **Pollutants and Water Management: Resources, Strategies and Scarcity, First Edition.** (Ed. Pardeep Singh, Rishikesh Singh, Vipin K. Singh, and Rahul Bhadouria) 2021 John Wiley & Sons Ltd. Published 2021 by John Wiley & Sons Ltd.
2. Purswani, E., Pathak, B., Kumar, D., & **Verma, S.** (2019). Land-Use Change as a Disturbance Regime. In Environmental Concerns and Sustainable Development Vol 2 (ed. Shukla, V., & Kumar, N.). **Springer Nature, Basingstoke, United Kingdom**

Conference presentation

1. Verma S., Alvarado E., Jolly M.W., Podshwit H.R., Ray T., Khan M.L. (2022). Effect of forest fire on vegetation dynamics in tropical dry deciduous forests of Central India. **Fire & Climate Conference: Impacts, Issues and Futures, Pasadena, CA, USA**
2. Verma S., Alvarado E., Jolly M.W., Podshwit H.R., Ray T., Khan M.L. (2022). Forest fires in Central India: causes, consequences, and management options. **Colorado Fulbright Scholar Enrichment Seminar, Colorado State University, Fort Collins, Colorado, USA**
3. Verma, S., Dar, J.A., & Khan, M.L. (2018). Spatiotemporal patterns of vegetation fires in Western Ghats and Central Indian Forest: A comparative analysis. **2nd International Workshop on Biodiversity and Climate Change, IIT Khargpur, India**
4. Verma, S., & Jayakumar, S. (2016). Friend or foe: Understanding ecological impacts of fire in a

tropical dry deciduous forest of Mudumalai tiger reserve, Western Ghats, India. **Student Conference on Conservation Science (SCCS) Bengaluru 2016, Indian Institute of Science, Bengaluru, India.**

5. Verma, S., & Jayakumar, S. (2014). Impact of forest fire on diversity, stand structure and regeneration of woody species in a tropical dry deciduous forest, Western Ghats, India. **Tropical Ecology Congress 2014, Jawaharlal Nehru University, New Delhi India (Received Best Paper Award)**

Reviewed Journals:

1. Nature (Nature Sustainability)
2. Ecological Indicator
3. Ecological Processes
4. Environmental Sustainability
5. Acta Ecologica Sinica
6. Microscopy Research and Technique
7. Biocatalysis and Agricultural Biotechnology

(Satyam Verma)