

Dr. Nayan Sahu

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Specialization area: Vegetation structure and composition, Forest Understory Ecophysiology, Forest Microclimate, Ecosystem fluxes in tropical and alpine ecosystems.

Professional and Academic details:

- Assistant Professor (August 2017- Present)
- Teaching Experience: Aug. 2017– continuing at UG and PG levels.
- Ph.D. in Botany (CSIR-National Botanical Research Institute, Lucknow)
- MSc. in Botany (University of Lucknow, Lucknow)
- UGC-CSIR NET in year 2012
- Projects: 01 (UGC- BSR) Ongoing

Awards/Fellowships:

- National Post-Doctoral Fellow Award (**NPDF**) from DST, Gov. of India
- UGC DS Kothari Post Doctorate Fellow (**UGC DSK PDF**) Award, from UGC, New Delhi
- CSIR-Senior Research Fellow Award (**CSIR-SRF**) 2012 from Council of Scientific and Industrial Research, New Delhi.
- Invited Lecture on Ecological modelling and Instrumentation in International Workshop on Biodiversity and Climate Change (BDCC) at IIT Kharagpur, 2018.
- Received Best Appreciation Award in International Workshop on Biodiversity and Climate Change (BDCC) at IIT Kharagpur, 2018.
- Best Poster presentation award in National Symposium on Current Status and New horizons of Ecological Sciences and Environmental Biotechnology (ESEB-13) at BHU, Varanasi, March 2013.

Selected publications

1. **Sahu N**, Singh SN, Singh P, Mishra S, Karakoti N, Bajpai R, Behera SK, Nayaka S, Upreti DK (2019) Microclimatic variations and their effects on photosynthetic efficiencies and lichen species distribution along elevational gradients in Garhwal Himalayas. **Biodivers Conserv** 28: 1953–1976. doi:10.1007/s10531-019-01782-z (Impact factor 3.142)
2. Dubey AK, Kumar N, Kumar A, Ansari MA, Ranjan R, Gautam A, Meenakshi, **Sahu N**, Pandey V, Behera SK, Mallick S, Pande V, Sanyal I (2019) Over-expression of CarMT gene modulates the physiological performance and antioxidant defense system to provide tolerance against drought stress in *Arabidopsis thaliana* L. **Ecotoxicol Environ Saf** 171:54-65. doi:10.1016/j.ecoenv.2018.12.050 (Impact factor: 4.52)
3. Tripathi P, Behera MD, Behera SK, **Sahu N** (2020) Investigating the contribution of climate variables to estimates of net primary productivity in a tropical deciduous forest in India. **Environ Monit Assess** 191:798. doi:10.1007/s10661-019-7684-9 (Impact factor 1.98)
4. Kumar N, Dubey AK, Upadhyay AK, Gautam A, Ranjan R, Srikishna S, **Sahu N**, Behera SK, Mallick S (2017) GABA accretion reduces Lsi-1 and Lsi-2 gene expressions and modulates physiological responses in *Oryza sativa* to provide tolerance towards arsenic. **Scientific Reports** 7 (1):8786. doi:10.1038/s41598-017-09428-2 (Impact factor:4.122)
5. Behera SK, **Sahu N**, Mishra A, Bargali SS, Behera MD, Tuli R (2017) Aboveground biomass and carbon stock assessment in Indian tropical deciduous forest and relationship with stand structural attributes. **Ecological Engineering** 99: 513–524 (Impact factor: 4.122)
6. Pandey VC, **Sahu N**, Behera SK, Singh N (2016) Carbon sequestration in fly ash dumps: Comparative assessment of three plant association. **Ecological Engineering** 95:198–205. (Impact factor: 3.023)
7. Kumar N, Dubey AK, Jaiswal PK, **Sahu N**, Behera SK, Tripathi RD, Mallick S (2016) Selenite supplementation reduces arsenate uptake greater than phosphate but compromises the phosphate level and physiological performance in hydroponically grown *Oryza sativa*. **Environ Toxicol Chem.** 35:163–172 (Impact factor: 3.179)
8. Dubey AK, Kumar N, **Sahu N**, Verma PK, Chakrabarty D, Behera SK, Mallick S (2016) Response of two rice cultivars differing in their sensitivity towards arsenic, differs in their expression of glutaredoxin and glutathione S transferase genes and antioxidant usage. **Ecotoxicology and Environmental Safety** 124: 393–405 (Impact factor: 3.974)
9. Pandey AK, Majumder B, Keski-Saari S, Kontunen-Soppela S, Mishra A, **Sahu N**, Pandey V, Oksanen E (2015) Searching for common responsive parameters for ozone tolerance in 18 rice cultivars in India: Results from ethylene diurea studies. **Science of the Total Environment** 532: 230–238. (Impact factor: 4.610)
10. Behera SK, Mishra AK, **Sahu N**, Kumar A, Singh N, Kumar A, Bajpai O, Chaudhary LB, Khare PB, Tuli R (2012) The study of microclimate in response to different plant community association in tropical moist deciduous forest from northern India. **Biodivers Conserv** 21:1159-1176 (Impact factor 3.142)