## PROFILE OF SCIENTIST/RESEARCH WORKER

Name:	•	DR. SANDIP KUMAR BEHERA
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Qualification	:	Ph.D. in Life Sciences
Area(s) of	:	Taxonomy, Reproductive Biology and tissue culture of
Specialization		Pteridophytes, Plant Physiology & Biochemistry
Occupation/Designation	:	Technical Officer
Major Activities	:	Plant collection, identification, <i>ex- situ</i> conservation, studies on reproductive biology, tissue culture, and phytoremediation etc.
Awards/Recognitions		
Brief Summary of Pteridological Research		I am actively engaged in different aspects of research in Pteridophytes like collection of germplasms, its identification and documentation, studies on reproductive biology, cytology, tissue culture, bioprospection and conservation. So far, I worked in different research projects funded by different funding agencies and have collected more than 1000 pteridophytes from Kumaon Himalayas, Pachmarhi Biosphere and other phytogeographical regions of India. After identifying and processing the herbaria of these plants, I deposited in the Pteridophytes herbarium of NBRI. I have studied and also been studying the reproductive biology of different RET species like Cythea spinulosa Wall ex Hook., Microsorium punctatum (L.) Copel and Dipteris wallichii (R. Br. ex Hook. et Grev.) T. Moore etc. to know the causes of threatness in nature and the probable mode of their conservation. I collected many live plants of ferns and its allies from the nature and planted in the fern house of NBRI for the ex- situ conservation and of course to enrich the fernery. I am also looking after conservation

of all the ferns and fern-allies of the fern house along with different RET species like *Psilotum nudum* (L.) P. Beauv., *Doryopteris ludens* (Wall. *Ex* Hook.) J. Sm., *Microsorium punctatum* (L.) Copel. I identified many old specimens collected by earlier workers and processed to make herbaria for their proper accession and documentation in the NBRI Herbarium. In the mean time I am also doing the cataloguing of the Pteridophyte herbaria already accessioned. I have also standardized the protocols of tissue culture for the micropropagation of some ferns.

Recently, study was undertaken by me with collaboration with other groups to compare chromium accumulation in two ferns (*Adiantum capillus-veneris* Linn. and *Microsorium punctatum* (Linn.) Copel) and the role of antioxidants were also investigated towards metal tolerance in order to assess the use of ferns in **phytomediation/phytostabilization**.

I have also been working on **cytology** of some ferns to identify the species and also know the ploidy complexities in some ferns. I am well versed with the nomencultural rules as per the ICBN, techniques of making herbaria. We reported three species new to Pachmarhi Biosphere Resrve, M. P. I published many research articles in different International and National journals of repute in the above areas.

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