

“Research of HARC – 2020-2021 and 2021-2022”

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HARC is dedicated to the field of research since the inception. HARC (High Altitude Research Centre) caters several activities for the development of researches.

Its functions focusing on the development of State researches and addressing the research issues of the State as a whole.

The report is articulated into the different sections referring their publications:

Fiscal Year 2020-2021

i. Rediscovery and New record of Sikkim

- **Pradhan, D.K.** 2021. Recollection of *Galeola falconeri* Hook. f (Orchidaceae) from Sikkim after 123 year. *Pleione* 15(2): 179-189. 2021.
- **Pradhan, D.K.** 2021. Occurrence of *Allium chinense* G. Don (Amaryllidaceae) in Sikkim Himalaya. *Pleione* 15(3): 479-482. 2021.
- **Pradhan, D.K., Ghosh, J., Lepcha, N., Nandi, A., Banerjee, D., Midday, M., Naskar, S. and D. Maity .** 2020. New ethnomedicinal information from Lepcha community of Dzongu, Sikkim. *Exploratory Animal And Medical Research* 10(2): 217-220.

ii. Enumeration of Flora

- **Pradhan, D.K.** 2021. Enumeration of Poaceae specimens of Edinburgh expedition to Northern Sikkim deposited at Sikkim State Forest Herbarium (SSFH). *Pleione* 15(1): 45 - 49.
- **Pradhan, D.K.** 2020. Enumeration of specimens from Edinburgh Expedition to Northern Sikkim deposited at Sikkim State Forest Herbarium-Part I. *Pleione* 14(2): 202-215.
- **Pradhan, D.K.** 2021. Additional information on the fern-diversity of Sikkim state, India, Part II. *Science of Eastern Himalaya Journal* 1(1):45-53.
- **Lepcha, N. and Pradhan, D.K.** 2021. Additional information on the fern-diversity of Sikkim state, India-Part I. *Science of Eastern Himalaya Journal* 1(1):12-44.

iii. New Medicinal Flora

- **Pradhan, D.K.** 2021. Plants of Sikkim Himalaya used in Tibetan Medicine. *Pleione* 15(1):23-31.

iv. Socio-Cultural aspects of Sikkim

- **Pradhan, D.K.** 2021. Primitive Lepcha Language in Eastern Himalaya. *Himalayan Journal of Social Sciences and Humanities* 16:119-137 .

v. Agroforestry

- **Pradhan, D.K.** 2021. Alien Plants in the Sikkim Himalaya. *Science of Eastern Himalaya Journal* 1 (2): 49-50.
- **Pradhan, D.K.** 2021. Sidekeong Tulku And The Sikkim Agroforestry. *Science of Eastern Himalaya Journal* 1 (2): 42-48.

vi. Fauna

- **Pradhan, D.K.** 2021. *Macrosiphum fagopyri* feeding on *Fagopyrum dibotrys* in the Sikkim and Darjeeling Himalaya. *Zoo's Print* 36 (10): 50-51.
Note: New record of *Macrosiphum fagopyri* in Sikkim.
- **Pradhan, D.K.** 2019. Taxonomy and Ecology of *Bassarona Durga Durga* (Moore) from the Himalayan eco-zone of Sikkim. *Indian J. of Biological Sciences* 25: 45-50.
Note: State Butterfly of Sikkim

vii. Taxonomy

- **Pradhan, D.K.** 2021. Notes on the Typotype *Juncus tobdenii* Noltie in the Sikkim Himalaya. *Indian Forester* 147(12): 1232.

viii. Soils and Chemicals

- **Pradhan, D.K.** 2021. New active constituents in *Artemisia vulgaris* L. *Science of Eastern Himalaya Journal* 1(1):83-86.
- **Pradhan, D.K.** 2021. Study of soil nutrient in the naturally growing area of *Galeola falconi*. *Science of Eastern Himalaya Journal* 1 (2): 49-50.

Fiscal Year 2021-2022

i. New record of Sikkim

- **Pradhan, D.K.** 2022. New Record of *Octolasion cyaneum* in Sikkim, India. *Zoo's Print* 37(6): 10-11.
- **Pradhan, D.K.** 2022. The Bhutan True Scorpion in the Sikkim Himalaya. *Zoo's Print* 37(5): 24.
- **Pradhan, D.K., Pradhan, A. & Lama, R.** 2022. The invasive Giant African Snail in Sikkim Himalaya. *Zoo's Print* 37 (7): 9-10.

- ii. **Enumeration of Flora**
 - Pradhan, D.K. 2022. Do Invasive Species have the Medicinal Potential? *Indian Forester* 148 (1): 60-63.
 - Pradhan, D.K. 2022. In: Trends in Biogeography (Eastern Himalaya and North Bengal). *Phytogeography of Saxifragaceae and Crassulaceae in the Sub-Alpine and Alpine Sikkim Himalaya*. Rajesh Publications, New Delhi.
 - Pradhan, D.K. 2022. Vegetation matrix of Gurudongmar Wetland Complex of Sikkim. Species. (In Press).
- iii. **New Medicinal Flora**
 - Pradhan, D.K. 2022. Uses of *Schizandra elongate* and *Viscum articulatum* for bone healing. *JMR (In Press)*..
- iv. **Socio-Cultural aspects of Sikkim**
 - Pradhan, D.K, Lepcha, N. and Lama, R. 2022. Traditional Lepcha Hats In Sikkim Himalaya. *Himalayan J. Soc. Sci. & Humanities* 16: 119-137.
 - Pradhan, D.K. Lepcha, N. and Thapa, K.K. 2022. In: Trends in Biogeography (Eastern Himalaya and North Bengal). *Checklist of Lepcha Clans and their Extinct Clans Shuzamyong Pucho and Chunglem Pucho*. Rajesh Publications, New Delhi.
 - Pradhan, D.K. and Lama, R. 2022. Impacts on Livelihood in Tribal Villages of Sikkim. *J. Mountain Res.* 17(1): 175-181.
- v. **Fauna**
 - Pradhan, D.K, Lepcha, N. and Lama, R. 2022. Biodynamism By Migratory And Resident Birds In The Sikkim Himalaya. *Zoo Print* (in Press).
- vi. **Taxonomy**
 - Pradhan, D.K. 2022. Diversity in the species of *Panax* in Sikkim Himalaya. *Species* 23(72): 347-354.
- vii. ***Ophiocordyceps sinensis***
 - Biswa, V. , Ali, R. Pradhan, D.K., Boro , N., Baro, T., Das, D., Subba, R., Das, P. and Das, S. 2021. Molecular characterization, microscopic characteristics, and phylogenetic analysis of *Ophiocordyceps sinensis* from Sikkim, India. *Indian journal of hill farming* . 34:268-271.
- viii. **Wild cultivars**
 - Pradhan, D.K. 2022. The potential of domestication through human controlled culture of some plants' species from wild habitats of the state of Sikkim, India. *Indian Journal of Biological Science*. (In Press).