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International Conference on
Plant Physiology & Pathology
June 09-10, 2016 Dallas, USA

Evaluation of the nutritional potential and GC-MS analysis of *Acmella paniculata* (Wall. ex DC.) R.K. Jansen from Arunachal Pradesh (Eastern Himalayas)

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Acmella paniculata (Wall. ex DC.) R.K. Jansen (syn. *Spilanthes paniculata* DC.) a food plant of Arunachal Pradesh, belonging to the family Compositae (Asteraceae) is reported to be used frequently as food and medicinal agent by various indigenous communities of Arunachal Pradesh and many other parts of the world. It has been used in ancient system of medicine for the treatment of a number of diseases viz. toothache, rheumatism, fever, skin diseases, purgation, urinary tract infection, pulverization of kidney and gall stones, remedy for stammering in children. The evaluation of nutrient composition of the leaves showed that it is highly rich in nutrients and therefore good for human consumption for the maintenance of health and vitality. Nutritional potential of *Acmella paniculata* was carried out from 8 distant locations of Arunachal Pradesh. Proximate analysis such as moisture, organic matter, crude protein, crude lipid and ash percent was carried out for the selected plant. Some mineral ions like calcium (Ca), sodium (Na), potassium (K) and phosphorus (P) was calculated for the plant. Proximate analysis showed that the plant is having high levels of organic matter and protein. However, the plant did not show significant levels of lipid content. Among the mineral ions Ca was found to be highest in the plant. Phosphorus (P) level was comparatively lower followed by potassium (K) and sodium (Na) showed the least percentage among all minerals. Preliminary phytochemical screening through different solvents inferred that methanol fraction showed maximum presence of alkaloids and other secondary metabolites like steroids, proteins and polyphenols. Further GC-MS studies of the methanolic fraction of *Acmella paniculata* (Wall. ex DC.) R.K. Jansen identified the compounds based on direct comparison of the retention times and mass spectral data with those for standard compounds indicates the plant to be a source of phytochemical importance. The plant may be considered as a potential source for formulation of useful drugs for targeting different diseases.

Biography

Pallabi Kalita Hui has completed her PhD from the Department of Molecular Biology and Biotechnology at Tezpur University, Napaam, Tezpur, Assam, India. She completed her Post-doctoral studies from the Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, India and Department of Crystallography and Biophysics, University of Madras, India, sponsored by CPEB-II, UGC, New Delhi, India. Currently, she is working as an Assistant Professor at the Department of Biotechnology and Chemical Engineering, National Institute of Technology (NIT), Yupia, Arunachal Pradesh, India. She has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of internationally reputed journals. Her area of specialization is Drug Discovery and Nutritional Biochemistry.

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