Nutritional Potential and Traditional Uses of High Altitude Wild Edible Plants in Eastern Himalayas, India

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Abstract : The food security issues and its relevance in High Mountain regions of the world have been often neglected. Wild edible plants have been playing a major role in livelihood security among the tribal Communities of East Himalayan Region of the world since time immemorial. The Eastern Himalayan Region of India is one of the mega diverse regions of world and rated as top 12th Global Biodiversity Hotspots by IUCN and recognized as one of the 200 significant eco-regions of the Globe. The region supports one of the world's richest alpine floras and about one-third of them are endemic to the region. There are at least 7,500 flowering plants, 700 orchids, 58 bamboo species, 64 citrus species, 28 conifers, 500 mosses, 700 ferns and 728 lichens. The region is the home of more than three hundred different ethnic communities having diverse knowledge on traditional uses of flora and fauna as food, medicine and beverages. Monpa, Memba and Khamba are among the local communities residing in high altitude region of Eastern Himalaya with rich traditional knowledge related to utilization of wild edible plants. The Monpas, Memba and Khamba are the followers Mahayana sect of Himalayan Buddhism and they are mostly agrarian by primary occupation and also heavily relaying on wild edible plants for their livelihood security during famine since millennia. In the present study, we have reported traditional uses of 40 wild edible plant species and out of which 6 species were analysed at biochemical level for nutrients contents and free radical scavenging activities. The results have shown significant free radical scavenging (antioxidant) activity and nutritional potential of the selected 6 wild edible plants used by the local communities of Eastern Himalayan Region of India.

Keywords : East Himalaya, local community, wild edible plants, nutrition, food security
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