

## Conservation and utilization of high value medicinal plants of Himalaya, India

**Tariq Husain**

CSIR-National Botanical Research Institute, India

Today, herbal 'renaissance' is happening all over the globe. The herbal products symbolise safety in contrast to the synthetics that are considered as unsafe for humans and environment. The plants has been priced for their medicinal and aromatic potential and over three-quarter of the world's population relies mainly on plants and plant extracts for their health care. India, one of the 12<sup>th</sup> megabiodiversity centres, has unmatched plant diversity due to 16 different agro-climatic forests that provide excellent microhabitats for specific species, of which *ca.* 15000-20000 plants contain good medicinal value, however 7000-7500 species are used for their medicinal potential. Herbal plants can provide biologically active lead molecules for the development of modified derivatives with enhanced activity and reduced toxicity. Number of plant drugs have been identified such as Vinblastin, Reserpine, Taxol, Quinine, Morphine, Atropine, Artemisin, Berberine, Cocain, Digitoxin, Podophyllin, Homoharringtonin, etc. for which synthetics are not available. Indian Himalayas are principal repository of medicinal plants and couple of factors including cold, moist climate and altitude provide a variety of unique ecological niches for different plant species. The whole region including eastern Himalaya is recognised as refugium of flowering plants and centre of active speciation. The population of medicinal plants in the Indian Himalaya are witnessing a speedy decline in density and diversity, thus, dwindling both in size and number. These are subject to high grazing and anthropogenic pressures. During last few decades, tremendous pressure has been put on medicinal plants across the Himalaya. The increasing demand for herbal drugs has increased pressure on plant resources for raw material. There are several reports suggesting that more than 90% of raw material for pharmaceutical companies is drawn from natural habitats in Himalayan region. Habitat protection and proper management of existing population of medicinal plants provide for better options to conserve threatened plant species.

### Biography

Tariq Husain, Senior Principal Scientist is working with Plant Diversity, Systematics and Herbarium Division, CSIR-NBRI, Lucknow, India since last more than 30 years. Through his extensive travel and field work in different phytogeographic regions of India, he has gained a firsthand knowledge of the floristic diversity of India, particularly of the Himalayan region. So far, he has published 88 research papers in peer reviewed journals, 3 books and several chapters.

[hustar\\_2000@yahoo.co.uk](mailto:hustar_2000@yahoo.co.uk) / [thusain@nbri.res.in](mailto:thusain@nbri.res.in)