

## Preface

The plant kingdom represents an extraordinary reservoir of molecules, that can be beneficial to mankind in several ways and currently there is a worldwide interest in the use of natural products, particularly plant derived products. The Western Ghats, one among 36 global biodiversity hotspots, harbors one of the finest tropical forests in the world. A recent enumeration has identified nearly 7500 flowering plants in the Western Ghats, of which more than 1250 are endemic to the region. Literature review revealed that nearly 80% of the endemic flowering plants of the region are hitherto uninvestigated for their chemical constituents, bioactivities or potential utilities. *Garcinia* species are one among such least explored group of plants, represented by 9 species and 2 varieties in the Western Ghats, of which 7 species and 2 varieties are endemic to the region. The genus *Garcinia* is important as a source of edible fruits, edible fats like kokum butter, oleoresin and coloring agents, the much valued anti-obesity phytochemical hydroxycitric acid (HCA) and other bioactive compounds like biflavonoids and xanthenes. Due to the diversity of natural products and the presence of high value compounds, several industrial sectors like pharmaceutical, nutraceutical, paint and food additives are centred around this potential group of trees. In south India, *G. gummi-gutta* and *G. indica* are cultivated for commercial extraction of a variety of products such as bioactive acids, nutraceuticals, fats and condiments.

Literature review reveals that out of the nearly 250 *Garcinia* species, 120 species have so far been investigated for their chemical constituents. *Garcinia* species are found to be rich sources of structurally diverse secondary metabolites such as xanthenes, benzophenones and biflavonoids, in addition to flavonoids, biphenyls, phloroglucinols, depsidones and triterpenoids as minor constituents. Though the Western Ghats has a rich diversity of *Garcinia* species, only a few species are exploited sustainably for their potential utilities. The rich floristic wealth can be harvested profitably by taking advantage of the developments in phytochemical analytical techniques. Phytochemistry, being an interdisciplinary subject linked to different disciplines, the present book also includes recent research activities in the fields such as botany, pharmacology and plant biotechnology of the genus. It is expected that the effort will open new vistas of knowledge and prove to be an excellent exposition of current research efforts in India in the field of Phytochemistry.

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