

## 10.1 INTRODUCTION

The angiosperm family Araliaceae presently comprises roughly 1600 species, over half of which can be traced to a single genus, *Schefflera*, whose circumscription has been broadened substantially over the past three decades (Plunkett et al. 2005). In recent decades, *Schefflera* J. R. Forst. and G. Forst. have been re-circumscribed to incorporate several formerly separate genera, making it the largest and most widely-ranging genus of Araliaceae family, with over 1100 formally accepted species and several hundred more awaiting description (Wang et al. 2013).

*Schefflera* is a large genus with over 650 species of polygamous or dioecious trees, tall shrubs or climbers distributed in tropical and subtropical regions (Deepa and Nalini 2014). The recognition of these clades is based on molecular data, but they match the informal sub-generic groupings proposed by Frodin (Plunkett et al. 2005) more closely on the basis of morphology and geography. *Schefflera* ranges nearly throughout the more humid tropical and subtropical parts of the world (save for the Mascarenes or Pacific Islands east and north of Samoa), with some taxa occurring in warm-temperate areas, but at lower elevations in the warmest regions, the genus is poorly represented or absent. The plants range from terrestrial to epiphytic dwarf shrubs, to tall trees and large woody climbers and are generally characterised by their unarmed woody habit; digitate, compound leaves with sheathing petiolar bases often arranged in palmoid rosettes; terminal (or pseudo lateral) panicle or compound umbellate inflorescences bearing umbellules, heads, racemes or spicules; and more or less fleshy fruits topped by sometimes broadly lobed or toothed calyx-rim, a disk and (1-)2-32(-100) free or united styles or sessile stigmas. Most species are more or less homoblastic; with the exception of some such as *S. heptaphylla* and *S. morototoni*; marked heteroblasty is limited to a few insular groups or island representatives of otherwise continental groups, such as the Sri Lankan *S. heterobotrya* (Frodin et al. 2010).

Since the 1980s, this genus has attracted more attention for phytochemical studies. Guo et al. (2005) reviewed the chemical composition of *Schefflera* and the emergence of a large number of chemical constituents and pharmacological activity were reported. Recently, from the genus-isolated 199 compounds (most of which are pentacyclic triterpenoids and glycosides, in addition to some long-chain compounds, steroids and sesquiterpenes) organic acids have been reported (Wang et al. 2013). The genus has relatively few reports of pharmacological activity, mainly in the analgesic anti-inflammatory, antitumor, antibacterial, antiviral, receptor binding activity, anti-allergic, anti-malarial and other aspects. Currently, the possible toxicity of synthetic drugs has been criticized. Thus, the interest in natural drugs, especially of plant origin, has greatly increased in recent years (Jayaprakash and Rao 2000). Hence, searching for alternative and effective medicines from plants against different diseases has become an important concern all over the world. Synthetic drugs cause side effects and are also costly for the poor communities of the developing world. Furthermore, the drug may be associated with adverse effects, including hypersensitivity and immune suppression (Bridge and Zhao 2012).

Therefore, this review was designed with the aim to compile the available fragmented literature on *Schefflera* species and suggest measures on newer and safer