

herbal drugs for many diseases. Furthermore, this review will provide knowledge on ethnomedicines and phytochemistry of those *Schefflera* species that have pharmacological potential. Above all, this review will provide baseline information for chemists, pharmacists and pharmacologists to carry out in-depth *in vitro* and *in vivo* activities for the development of novel drugs from *Schefflera* species, with lower cost and fewer side effects.

## 10.2 BOTANICAL DESCRIPTION AND TAXONOMY OF SCHEFFLERA

*Schefflera* J. R. Forst. and G. Forst. belongs to the family Araliaceae. *Schefflera* plants are a genus of plants named in honor of Jacob Christian Scheffler, an 18th-century German botanist. A number of them are popular as houseplants, including *S. arboricola*, also known as the 'dwarf umbrella tree' (Elizabeth 1969). The circumscription of the genus has varied greatly. The plants are trees, shrubs or lianas, growing 1–30 m (3 ft, 3 in–98 ft, 5 in) tall, with woody stems. They rarely have palmately compound, digitate or unifoliolate leaves. Petioles are long; the stipules usually connate within the petiole. The flowers produced by some species are small and yellow-green in color and the petals grow in long clusters of around two dozen, making a spear formation. The natural habitat of *Schefflera* plants is subtropical and they grow naturally in Southeast Australia, Latin America, Africa, Asia, Papua New Guinea and Taiwan.

In an ideal environment, they are capable of growing to heights of 40 feet. As an evergreen shrub, *Schefflera* is available all year round and the most common species are *S. actinophylla* (Umbrella plant) and *S. arboricola*. Flowers are in panicles of umbels or compound racemes, usually terminal. Fruit are sub-globose, five to six angles dry drupe. Plants in the *Schefflera* genus are green and leafy, although some species will also bear flowers. When planted outdoors, they can survive but require particular conditions replicating their original habitat. (Gamble 1919; Reyger 1766). The scientific names and the distribution of the species were confirmed with the databases of the Plant list and Missouri Botanical Garden (MOBOT) (available at <http://www.theplantlist.org>; <http://www.tropicos.org>).

A - Inflorescence; B - Leaf morphology; C - Flowers; D - Fruits; E - Habit. (<http://keyserver.lucidcentral.org>; [www.theplantlist.org](http://www.theplantlist.org))

## 10.3 ETHNOMEDICINAL USES OF SCHEFFLERA

The ethnomedicinal uses of *Schefflera* (Table 10.1) include treatment for asthma, liver diseases, rheumatism, arthritis, sprains, fracture, stomach pain, antipyretic, anti-inflammatory, analgesic, migraines and use as a general tonic (Ragasa and Lin 2005). *S. octophylla* (Lour.) Harms, a traditional Chinese herb mainly distributed in Southeast Asia, possesses antinociceptive, anti-inflammatory, anti-rheumatoid arthritis activity (Yanfen Chena et al. 2015) and can be prepared as a medicinal bath for eczema and dermatitis (Li et al. 2006).

Xi-long Zheng and Fu-wu Xing (2009) reported that alcohol decoction of the roots, stem and leaves of *S. arboricola* and *S. heptaphylla* is used for rheumatoid