

INTRODUCTION TO DENDROBIUMS

Sections and Culture

By: Joshua Jones

Dendrobiinae and its relatives occur from India and Sri Lanka in the west to Tahiti in the east, and from Japan and Korea in the north to the south in the Stewart Island, which lies south of the most Southern islands of New Zealand. It is a diverse genus of orchids with different cultural needs. Olaf Swartz originally established the section *Dendrobium* in 1799 and since then, there appear to be about 1230 species currently valid. Many large genera, such as *Dendrobium*, have been subdivided into many sections to make it easier to deal with.



Dendrobium species are divided into six (6) main sections: *Phalaenanthe*, *Spatulata*, *Dendrobium*, *Callista*, *Latouria*, and *Formosae*. There are other sections that a few species fall into, but we will focus on the main six for now. *Dendrobiums* grow in habitats ranging from semi-desert to rainforest, in the hot steamy lowlands of Borneo, to the Himalayan foothills, which are more seasonably cooler. They also grow in the year-round, cooler and moist conditions of the Central Ranges of New Guinea, where they have been reported up to 11,400 feet in altitude.

There are many climates in which dendrobiums live and survive. They are found fringing coral beaches, in tall rainforests, mangrove swamps, rock faces, misty mountain ranges, in freshwater swamps, beside waterfalls, and on street trees in towns and cities. Some are epiphytes, where others are at home as lithophytes. Even a few grow as terrestrials, which can grow to fifteen (15) feet tall. The geographical range of the *Dendrobiinae* can be split into five major regions. These are: Mainland Asian flora, Malesian flora, Papuasain flora, Australian flora, and Pacific flora.



Den. Enobi Purple 'Splash'

The section of ***Phalaenanthe*** consists of plants that remain evergreen for years, with thin, tall pseudobulbs, terminal inflorescences, usually appearing in the autumn or twice a year. Species such as *Den. biggibum (phalaenopsis)* and *Den. williamsianum* are both good representatives of this section. Culture includes growing warm year round; 60 F nights; medium light; fertilize and water heavily when roots first appear.

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Den. antennatum

The section **Spatulata** (antelope type) consists of plants that are also evergreen for years. Most grow to be quite large, vigorous plants with long lasting flowers in summer to several times a year. Species such as *Den. antennatum* and *Den. canaliculatum* are great examples of this wonderful section. The spatulata's culture requirement is warm all year (60-65 nights, 75-90 F days); no rest period; can be kept cool in the winter if kept dry; medium to high light.

For the section **Dendrobium**, the plants are either erect (nobile type) or pendulous (semi-nobile type) with leaves all along the canes that often drop with cool, drier weather. One to five flowers form at the nodes on the leafless canes in mid-winter through early spring. *Den. friedricksianum* and *Den. anosmum* belong to this section. This section will grow in the summer; give warmth, water and fertilize heavily from when roots appear to when top leaf appears on canes. Then give high light, little or no water, no fertilizer, and cool nights (40-50 F). Just forget about them.



Den. nobile



Den. aggregatum

Callista section dendrobiums are pseudobulbous plants with pendant inflorescences. Species such as *Den. aggregatum* and *Den. chrysotoxum* are a couple examples. In the summer, give warmth (60-90 F), medium light, medium quantities of water and fertilizer. In winter, keep cool (50 F nights) medium light and just enough water to keep the pseudobulbs from shriveling up.

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Den. spectabile

Section **Latouria** examples consist of *Den. spectabile* and *Den. atrovioleaceum*. The leaves at the top of the pseudobulbs are large and leathery, with erect inflorescences and flowers that are commonly yellow-green. Grow these the same as the antelope (*spatulata*) types, but with cooler and drier conditions in the winter.

Last is the **Formosae** section, commonly referred to as the Nigrohirsutae types. These have cane like pseudobulbs with black hairs on the sheaths and the pseudobulbs often apparent, leading to the popular name nigrohirsutae. Flowers are usually white, up to 4 inches across, two to three together from near the end of the pseudobulb. These have long lasting flowers and include *Den. bellatulum* and *Den. lowii*. They should be kept intermediate to cool year round (50-60 F nights) drying them out in the winter (or as growth stops).



Den. dearei