



## Self-Guided Tour

### *Rutherford Conservatory*

## Rhododendron Species Botanical Garden

Welcome to the Rutherford Conservatory. This 5000 sq. foot conservatory was specifically designed to grow and display tropical rhododendrons (often called Vireya rhododendrons) along with a selection of the rare and interesting plants that grow with them in the remote mountains of Borneo, New Guinea and other regions of southeastern Asia.

Approximately one-third (about 300) of the total species of *Rhododendron* known to occur in the wild are considered vireya rhododendrons. Due to their tropical origins, these species are sensitive to cold temperatures and so cannot be grown outside in our climate. In addition to the vireya species, there are many other rhododendrons that are found at low elevations or in southern latitudes that will not survive outdoors even in the relatively mild climate of the maritime Pacific Northwest.

You may notice as you enter the Conservatory (especially when it is cold outside) that it is not as hot and steamy as you would expect upon entering a “tropical greenhouse”. This may seem counterintuitive since we are growing plants that are actually from the tropics. However, the rhododendrons and other plants growing in the conservatory are almost always found growing high in the tropical mountains where the temperatures remain relatively cool year-round. These high mountains regularly experience cold temperatures but do not experience the hot and muggy temperatures you would typically associate with a tropical climate. In summary, we have designed this building to maintain temperatures that do not fall below freezing in the winter while providing the cooling necessary in the summer months to mimic the natural conditions experienced by these plants in their native habitats.

To begin your tour, please enter the Conservatory from the direction of the Garden Shop. Once inside, proceed forward to a planting of several vireya *Rhododendron* species chosen to highlight the incredible diversity of this remarkable group of plants as well as their beautiful flowers and unusual foliage. One of these is ***Rhododendron taxifolium* (#1)**, a very unique species with distinctly “un-rhododendron-like” narrow, dark green and shiny, yew-like foliage. The small, funnel-shaped flowers are pure white and borne profusely throughout much of the year. It is a recent introduction into cultivation from its only known native locale on a single mountaintop on the island of Luzon in the Philippines. It is considered an extremely endangered species due to human activities and may now be extinct in the wild. Fortunately, it is well established in cultivation. Its companion here is ***R. rubineiflorum* (#2)**, a very dwarf species native to the high mountains of Papua New Guinea that has a “groundcover-like” habit due to its underground runners. Another one of its delightful features is the almost year-round production of small but bright red, broadly bell-shaped flowers nestled among the tiny, glossy leaves.

Another distinct vireya rhododendron is the stunning ***R. himantodes* (#3)**. This species from Borneo features unusually narrow, needle-like leaves with a very dwarf, tree-like habit. The very narrow leaves of this species are notable for their dense coating of silver and brown scales, the large brown scales obvious to the naked eye. In addition, the flower buds and subsequent pure white flowers are densely coated with golden-brown scales – a stunning, though very small-scale, bit of eye-candy.

As you continue along the path notice on your right the mass planting of the superb ***R. stenophyllum* (#4)**, another relatively small-growing plant with incredibly long and narrow leaves. The flowers of this species, which is native to the high mountains of Borneo, are almost as noteworthy as the foliage. For close to half of the year, from early winter to late spring, the dark shiny red buds open to clusters of two or three, bright orange, perfectly bell-shaped flowers – a striking combination.

Across the path on your left is a small shaded “grotto-like” cliff planted with many specimens of ***Oreocharis auricula* (#5)** - a relative of the African Violet with similar evergreen foliage but with narrow and tubular purple flowers. This species is native to the mountains of southern China where it grows on shaded, mossy cliffs. Many other plants of the African Violet family (Gesneriaceae) are featured in the Conservatory including members of the genera *Briggsia*, *Chirita* and *Aeschynanthus*.

On top of the tall rock column next to the miniature grotto is a specimen of ***Agapetes serpens* (#6)** which is closely related to the common blueberry. The species of *Agapetes* differ from blueberries in their longer, tubular flowers but produce the same “blueberry” fruits. *Agapetes* grow high up in the tops of trees in the wild (“epiphytically”) as do most of the rhododendrons and orchids growing in the Conservatory. Because of their arboreal habitats in the wild, these species are adapted to surviving with a very little soil and a small root system which is how a plant as large as the one on display here can survive sitting on the top of a

rock! There are several other species of *Agapetes* growing in the Conservatory and the RSBG is well known as having the finest collection in North America of this rarely grown, but strikingly beautiful genus.

Continue along the path and note the broad-leaved evergreen tree on your right. This is ***Gordonia yunnanensis* (#7)** a large tree found growing in the mountains of southern China that is closely related to the common camellia. It is attractive throughout the year due to its glossy, leathery leaves but really puts on a display when its huge white flowers appear in late winter. These have a large mass of golden stamens in their center and have been compared to “massive fried eggs” but in reality look very much like a giant-flowered white camellia.

Just ahead and across the path from the *Gordonia* is an artificial tree-trunk manufactured with moss and bark that has been wrapped around one of support beams in the center of the Conservatory. This man-made habitat mimics the epiphytic (literally “growing upon plants”) nature of the plants we are cultivating. In areas of the world with the right climatic conditions, many plants have evolved to grow on the trunks of trees or high up in their branches. All of the plants growing on our “pseudo-tree” (rhododendrons, ferns, agapetes, orchids, etc.) are those that are naturally found in such habitats in the wild.

On your left are three specimens of a rhododendron with what some would argue are the most amazing flowers of any of the almost 1000 species known to occur in the wild. This is ***R. dalhousiae* var. *rhabdotum* (#8)**, a species that flowers in early July which is native to low elevation forests in the eastern Himalaya Mountains. The highly unusual flowers are shaped like a trumpet lily and almost five inches long. Their most striking feature is the deep red stripe that runs down each lobe of the pure white blossoms providing a very unique and beautiful display at a time of year when few other species are in flower.

Ahead on your right near the back door is a young specimen of what could eventually form a 100 foot high tree if we had a tall enough Conservatory! This is ***Rhododendron protistum* (#9)** one of the largest and tallest of all *Rhododendron* species. The leaves of this giant tree can be almost two feet in length and the deep rose flowers are equally magnificent when they appear in late winter. This endangered species is native to the remote and rugged mountains along the China/Burma frontier.

Just ahead on your left is a small area displaying plants from one of the rarest habitats on the planet - the **cloud forests of northern Vietnam (#10)**. Several of the plants in this area are epiphytic blueberries which are often found growing in the tops of trees alongside the rhododendrons which are also on display. The large plant near the stream is ***Schefflera macrophylla* (#11)**, a small tree from Vietnam with absolutely massive leaves. The undersides of the leaves and the stems are coated with a dense red-brown layer of hairs which adds to the ornamental appeal of this stunning foliage plant. This youngster is only a few years old and is just getting started. One of the most unusual rhododendrons from this remote and scarcely explored region is the remarkable ***R. rushforthii* (#12)**. This recently discovered species has small, deep yellow flowers that are highlighted by the striking metallic-blue coloration of the foliage, quite different from any other rhododendron.

Cross the bridge and note the **Tasmanian Tree Fern (#13)** on your right (*Dicksonia antarctica*). This species is perhaps the hardiest of all tree ferns but is still susceptible to damage from the occasional freezing blasts of deep cold that penetrate our generally mild climate. The fibrous trunks of this species and most other tree ferns are excellent places to grow orchids, small vireya rhododendrons and even other ferns!

Continue back toward the entrance and note the three specimens of ***Rhododendron nuttallii* (#14)**. This majestic species from the China/Burma frontier has it all, great flowers, great foliage and beautiful shiny, peeling bark. The highly fragrant flowers (late spring) can be up to six inches long and are among the largest in the genus. They emerge deep creamy-yellow before fading to white with a strong golden-yellow flush in the throat, often with pink or purple highlights. In addition, the new foliage emerges bright fuchsia-purple offset with sparkling silvery scales.

The development and construction of the Rutherford Conservatory has been one of the single greatest accomplishments in the history of the Rhododendron Species Foundation. Not only are we finally fulfilling our Mission Statement as a Living Museum for the display and cultivation of (all) *Rhododendron* Species, but we now have an area with beautiful flowers every day of the year - an area that is protected and heated, full of color and life into which people can retreat during the long, cold and wet winters of the Pacific Northwest. We finally have an area for people to congregate, a lovely and welcoming garden setting for meetings and festive events, a place for people to relax and a focal point for education. Thank you Mr. Fran Rutherford!

Thank you for visiting our garden and collection. Your admission fees and purchases help to fund our efforts in conserving the rapidly disappearing flora of the tropical rainforests.