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# ABSTRACTS OF PAPERS NOT RECEIVED

## THE PRESENTATION AND MAINTAINANCE OF LARGE RHODODENDRON COLLECTIONS

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Large collections of Rhododendrons pose many problems for the landscape designer and their successful presentation will depend upon many factors. After soil type the most important single consideration is the climate and this will dictate other factors such as site arrangement or rearrangement. The possibility of modifying the climate by planting suitable shelter belts will also be discussed. Comparisons will be made of the effectiveness or restrictions imposed by using hybrids or natural species in displays; this will affect the choice of plants used and also associated plantings. Maintaining the collection with appropriate weed-control, irrigation and pruning will be discussed and the importance of labelling and efficient card-indexing will be emphasized.

## OBSERVATIONS ON THE FLORAL ECOLOGY OF THE GENUS RHODODENDRON SECTION VIREYA IN PAPUA NEW GUINEA

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The genus Rhododendron is one of the most successful groups of plants within the montane regions of New Guinea. There are over 160 species and all but 2 are endemic to the island. Many of these species are capable of forming hybrids when they are artificially crossed with one another, yet they rarely do so in nature. This suggests that these species are reproductively isolated in the wild, but the nature of these barriers was not known prior to these studies. Extensive fieldwork and experimental evidence indicate that the New Guinea rhododendrons are isolated from one another by spatial, temporal and ethological barriers. All of these reduce the amount of gene flow between sympatric species to a certain extent, but the most effective of these appears to be ethological isolation. A number of distinct blossom classes have evolved within the genus *Rhododendron* in New Guinea. These blossom classes represent major adaptive shifts toward different classes of pollinators. As a result, sympatric species which belong to different blossom classes are reproductively isolated in nature primarily at the level of the pollinator. It is suggested that the floral diversification which has occurred among the New Guinea rhododendrons has allowed the genus to exploit a much wider range of niches in terms of potential pollinators and that this has contributed significantly to the evolutionary success of the group throughout the montane regions of the island.