

## Myrtle Rust – a blight on the landscape?

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Like a surprisingly large proportion of the population, we have been alarmed to find a new plant disease arriving on our shores, - one that seems to pose considerable risk to a number of highly regarded and popular plants. This disease is, of course, Myrtle Rust (*Austropuccinia psidii*). While this note was being drafted, news of a fresh outbreak in Taranaki (13 June) also revealed that some mature pohutukawa trees have already been removed as part of measures to combat the problem. News was later received (14 June) of a single find in Te Puke – getting rather close to home! The affected plant was a ramarama (*Lophomyrtus bullata*). Other species growing there have also been affected, we understand.

There are four major tree species, native to mainland New Zealand, in the genus *Metrosideros*, including the pohutukawa, northern rata, southern rata and Bartlett's rata. Pohutukawa (*Metrosideros excelsa*) are a noteworthy shoreline feature around some of the Rotorua lakes and, of course, along much of the Bay of Plenty coastline. Many a time the authors have tied up their boat to a pohutukawa tree on the edge of Lake Rotoiti and picnicked (afloat) under its shade and shelter. If these trees should be lost, either by slow decline due to the disease, or by physical removal, the scenic impacts will be severe, as may be the effects on shoreline stability. They are the lakeside tree par excellence. Northern rata (*M. robusta*) are another significant landscape feature around some of our lakes, together with its hybrids with the pohutukawa. The climbing ratas, such as *M. fulgens* and *M. perforata*, although less visually important, are also a significant component of the lakeside flora in some areas. Southern rata (*M. umbellata*) is not often found in the Bay of Plenty region but occurs in higher points of the Urewera Ranges. *Metrosideros kemadecensis* is an introduced commonly cultivated tree which often hybridises with *M. excelsa*. The other major tree species, Bartlett's rata (*M. bartlettii*) is confined to a few individuals in a small area in the very north of the North Island, although it will grow in other regions, including the Rotorua district.

In addition, there is another less-considered aspect to this story. pohutukawa and northern rata are major hosts to a range of epiphytic plants. These include orchids, such as *Dendrobium cunninghamii*, *Earina mucronata*, *E. autumnalis*, *Bulbophyllum pygmaeum* and *Drymoanthus adversus*; ferns such as *Asplenium flaccidum*, *A. falcatum* and *Pyrrosia eleagnifolia*, other species of *Metrosideros* such as the climbing ratas mentioned above, asteliads, lycopods, various shrubs and small trees such as *Griselinia lucida*.

If you cruise along the bush-clad shorelines of lakes such as Rotoiti, the abundance of epiphytes on older pohutukawa is immediately obvious. From personal observations of an old tree which was blown down in a storm several years ago, landing in the lake, the epiphytes linger on for several years, long after the tree has succumbed. In time the bark starts to peel off, taking the corpses of epiphytes with it. The last survivors generally seem to be *D. cunninghamii* and *Asplenium flaccidum*.

Without these splendid trees and their 'tenants' our lake shores and our coastlines will be much less distinctive.



*A pohutukawa extending out over the water at Lake Rotoiti, complete with its aerial ecosystem of shrubs, ferns, orchids etc. This tree is approximately 8 metres tall and extends out some 15 metres over the lake. A nice place to tie up to on a hot day! One of many such trees. Photo: Nick Miller*