Fuchsia excorticata

The tallest *Fuchsia* in the world – a New Zealand endemic

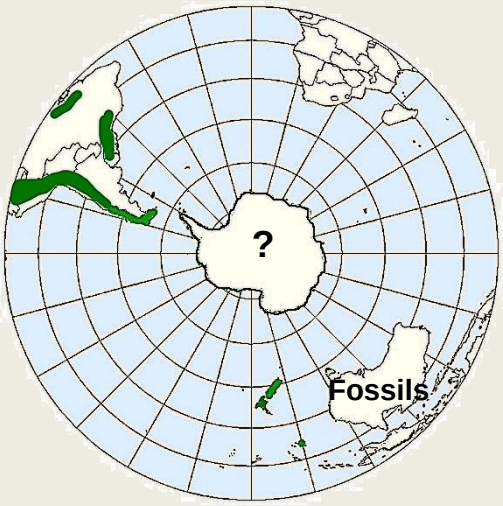
New Zealand's *Fuchsia excorticata,* Kōtukutuku, is unique, the only tree species in the genus. It is widespread throughout most of the north and south islands of New Zealand, and is found not only on Stewart Island just to the south of Invercargill, but also much further south on the sub-Antarctic Auckland Islands. Like *Fuchsia magellanica* of southern Chile, evergreen *F. excorticata* progressively becomes semi-deciduous to deciduous in colder environments.

The trees are spectacularly beautiful in native forests, remarkably distinctive for their reddish-brown peeling bark. The flower colour changes from purple and green to deep crimson as the flower matures. The pollen is bright blue, a rare commodity in flowers. The trees produce two different forms of flower, one a hermaphrodite (produces both male and female reproductive organs), the other female. These are never found on the same tree but in the same vicinity. Later development of female flowers enables cross pollination to give genetic variability. However, the hermaphrodite mechanism is believed to improve thet chances of colonisation of isolated islands. The fruit is an edible berry.

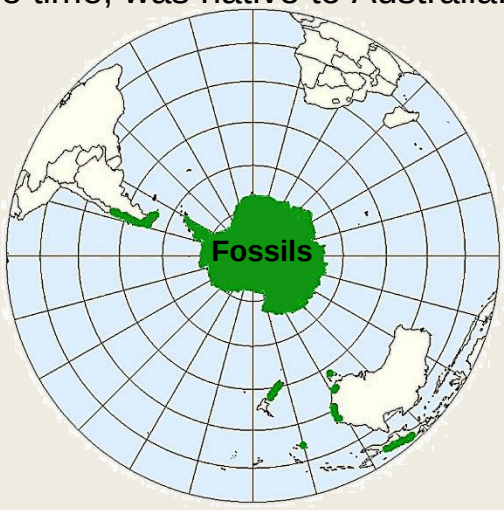
The genus *Fuchsia* poses an interesting biogeographic puzzle. World-wide, there are about 107 species of *Fuchsia*. Three species (*F. excorticata*, *F. perscandens*, *F. procumbens* and one natural hybrid, *F.* x *colensoi,* are endemic to New Zealand, but most are native to South America, Central America, and even as far north as Mexico. There is one species in Tahiti. However, Late Oligocene to Early Miocene fossil pollen (*Diporites aspis*) that corresponds to present day *Fuchsia*, has been found in Australia, from Victoria's Otway Basin to Queensland's offshore Capricorn Basin. It has been suggested that *Fuchsia* grew in association with *Nothofagus* and podocarp-dominated forests that occurred across South America, Antarctica, New Zealand and Australia. At that time, mesic forests were widespread across Australia, but *Fuchsia* appears to have disappeared from Australia in the late Miocene, possibly because of increasing aridity. It is now suggested that *Fuchsia* reached Tahiti relatively recently by long distance dispersal from New Zealand.

Green & purple flowers and crimson flowers, on *Fuchsia excorticata*

So how amazing is that, *Fuchsia* at one time, was native to Australia!



Distribution of *Fuchsia* in South America and New Zealand, fossils in Australia.



Distribution of *Nothofagus* in South America, Australia, New Zealand, New Caledonia and New Guinea, fossils in Antarctica.

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Fuchsia Research International: Known Locations of *Fuchsia* Habitats:

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