



Kidney ferns (*Trichomanes reniforme*).
Photo: D Gregorie

Fragrant fern (*Phymatosorus diversifolium*).
Photo: D Gregorie

***Blechnum discolor*, or the crown fern.**
Photo: D Gregorie



The delicate world of ferns

by David Gregorie*

*Society member and press officer for Conservation New Zealand

New Zealand is a great place for ferns. Our mild, damp climate suits them perfectly.

You will find them almost everywhere — in forest clearings, along the banks of streams, perched high in the forks of trees, or hiding in the undergrowth. Most ferns prefer damp places away from direct sunlight but some species can live in the open.

Altogether we have 152 different species of fern and 19 species of closely-related plants known as “fern allies”, mostly lycopods.

Ferns are a very ancient family, far older than any of our forest trees and garden plants. Lycopods are older still.

Millions of years ago when the coal we burn today was being formed in the swamps of the carboniferous era, lycopods were woody trees. But the dozen or so species of lycopodium found in New Zealand today are low creeping plants that are hardly ever more than 50cm high. Some grow in swamps, others hang from

the trunks and branches of trees.

Probably our best known fern is the ponga (*Cyanthea dealbata*), because this is the famous “silver fern” used as our national emblem on All Black jerseys. But there are many other types of fern that are both interesting and attractive.

Our tallest tree fern is the black mamaku (*Cyanthea medullaris*), which can grow up to 15m high. Both it and the ponga are common.

Blechnum ferns, which are common in most forest areas, have two different types of fronds each with a different job. The fertile fronds are narrow and brown and specialise in reproduction, while the more normal-looking fronds make the plant's food from air and water by photosynthesis.

Another interesting type of fern is the “hen and chicken fern”, one of the spleenwort family. It has baby fern plants growing on the upper surface of its fronds. These will drop off and grow into clones, or “look-alikes”, of their parent plant.