

Some observations on the germination of *Araucaria heterophylla* (Norfolk Island pine) at South Kaipara Head

Barbara Waller

For over forty years two large Norfolk Island pines have featured prominently in my life on the South Head of the Kaipara Harbour. These trees are purported to have been planted on the Pilot Station¹ site by William Spearman Young the first European farmer at South Head (1868 -- 1881). His descendants maintain that the trees came from the Bay of Islands as a reminder of his school days in Russell where the Norfolk Island pines were a novelty. Other people believe that they were planted as harbour markers by Pilot Station staff. However there is no corroborative evidence to confirm exactly when, why and by whom these pines were planted.

The trees are growing in a very exposed, windy and dry site. Despite serious damage from two lightning strikes, one in 1961 and the other about 20 years later, both trees have recovered and are remarkably healthy. They continue to produce a large number of cones every year. Dozens of seeds are scattered² over a very wide area, considering their size and weight; they germinate where they fall in the garden, in the gravel driveway, round the edge of a hard tennis court and among the roots of the parent trees. But none have survived past the seedling stage in situ for a variety of reasons³, but many accessible seedlings have been potted up and grown on for farm plantings.

Two other trees of a similar size and age growing in

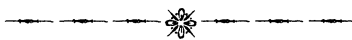
a more sheltered and less dry site a few hundred metres away also seed prolifically. Sheltered from the main blast of the winds, their seeds fall in a relatively small area round the trees in comparison to those from the house trees. Most years some germinate but only one seedling has survived to become a small tree on the edge of a creek - out of reach of sheep. Occasionally there are, what I call "mast" years, when hundreds of seeds germinate. 1993 was the last such year. Whether we have another in the foreseeable future is uncertain due to damage sustained in the 1998 easterly storms (in this an adjacent and equally old *Cupressus macrocarpa* was uprooted, shearing off about a third of the lower and oldest branches). Rats are partial to the seeds and we notice increased rat numbers during "mast" years..

When seeds are collected for planting a sample is opened to estimate viability. We only plant if most are viable and the resultant germination has been very good. 1961 was the most successful year and the seed had been planted in rows in the vegetable garden. Most germinated and once large enough were transplanted. Nearly 40 years on these trees form a splendid double row helping shelter the house from southerly winds. Occasionally these young trees have cones but to date no seedlings have been found in their vicinity.

¹ The Kaipara Harbour Pilot Station was situated on the South Head from 1864 to 1874 when it was re-sited at Pouto on the North Head of the harbour.

² Strong winds carry them into surrounding paddocks.

³ Stock grazing the adjacent paddocks, human removal and unsuitable site, e.g. under the parent trees.



History of the Fallow Deer on Awhitu Peninsula

Wayne Aspin

Ewen Cameron's article on the Flora of Taitua Forest (Cameron 2000: 91) contained a quote by W. Black on the source of fallow deer in the Awhitu area; this has led me to write the present note. The fallow deer (*Dama dama*) "originated from escaped circus deer in Waiuku in the 1930s".

The most informed source on fallow deer at Awhitu is the late Mr Norman Douglas, who made a life long study of this herd (Stace 1987): "Mr Joseph Renal purchased a buck and a doe from the Onehunga Zoo in either 1909 or 1910, and shipped them to his land on the south side of Rangiriri Creek [east of Pollok]".

The whole herd (known as the Pollok herd) was built up from these animals and in the early days grazed amongst the scrub on Rangiriri Point. When this land was developed into pasture after World War II the herd gradually moved west into the mature bush in the valleys south of Pollok settlement. From there they have spread both south and north and also into the high sand hills on the west. Until about 1992-93 this remained a closed and unique herd; then after a big drop in the value of fallow deer meat a farmer released a light-coloured English strain of fallow deer into the wild and these unfortunately have interbred with the herd already established.