

Monocots (15 + 6)

<i>Aira caryophyllea</i> *	o	
<i>Bromus willdenowii</i> *	o	
<i>Carex flagellifera</i>	l	growing with <i>C. testacea</i>
<i>Carex testacea</i>	lc	AK 171175
<i>Cordyline australis</i>	s	a single tree, S islet
<i>Cortaderia splendens</i>	o	S islet
<i>Cyperus ustulatus</i>	o	sedgeland in seepages and on rock faces
<i>Dianella nigra</i>	l	only by S summit
<i>Dichelachne crinita</i>	o	
<i>Elymus multiflorus</i>	o	
<i>Isolepis cernua</i>	lc	
<i>Ficinia nodosa</i>	o	
<i>Lachnagrostis littoralis</i>	o	on exposed eastern slopes, S islet. AK 171070 & 171204
<i>Microlaena stipoides</i>	l	single small sward, N islet
<i>Oplismenus hirtellus</i>	lc	only by N summit. AK 171067
<i>Paspalum dilatatum</i> *	o	
<i>Phormium tenax</i>	o	
<i>Rytidosperma unarede</i>	o	AK 171033 & 278506
<i>Sporobolus africanus</i> *	o	
<i>Vulpia bromoides</i> *	x	AK 171203
<i>Vulpia myuros</i> var. <i>megalura</i> *	x	amongst low taupata, S islet. AK 171071

Historical Reprint

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Some living fossils

By Kathleen Wood

Among the most remarkable of our native plants are some which have been described as living fossils, for somehow they have survived from ancient times and no clue in fossil records has been left to prove their origin.

One of these is the fernlike *Tmesipteris tannensis*, a distant relative of the club mosses, which commonly grows on the trunks of tree ferns. Rather like the English butcher's broom, it has thick, triangular leaves and hard little two-lobed spore capsules.

Rarer than this is a rootless plant called *Psilotum nudum* (sorry, no common name) which is one of the plant wonders of Rangitoto Island. There it grows from crevices in the lava rock, a broomlike shrub up to 18 inches high, with triangular stems and scale-like leaves. In the axils of the branches are knobby spore cases and the whole plant is greenish yellow.

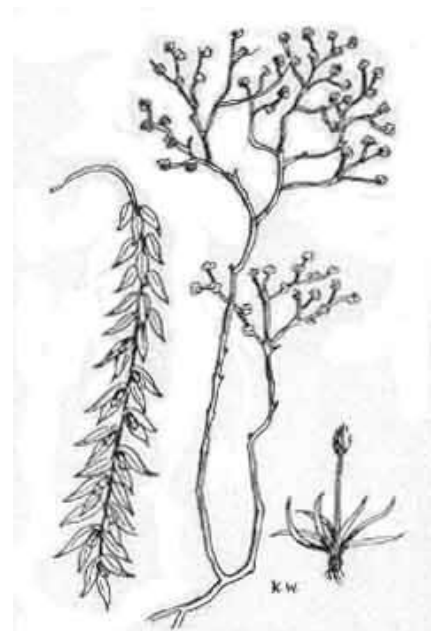
Sometimes these strange plants are found among lava rocks in Mt Eden gardens and stunted specimens at Waimangu Valley in Roturua.

Simplest and perhaps rarest of all is the

diminutive *Phylloglossum drummondii*, a large name for a tiny plant. It is tuberous, growing only one or two inches high and has a tuft of fleshy leaves from which rises a single spore-bearing spike which turns yellow when ripe. An annual, it appears in April and dies down again in the spring.

The most remarkable thing about it is its very simplicity which excites great wonder in the botanical world where it is described as "a permanently embryonic form of lycopod".

When I first saw this nondescript little item it was growing near a cemetery. Liking the poorest of soils, it was in this instance found in the white gumlands clay at Waikumete, but sad to relate the growth of the cemetery has now ousted this rare little plant. Knowing that it was doomed I once tried to rescue some by digging up a patch and inserting it in the only place I had available, on a bank of red clay. The plants in the sod appeared annually for about four years, then as the trace elements which they preferred were leached out they disappeared.



Tmesipteris tannensis, *Psilotum nudum* and *Phylloglossum drummondii*.

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