OUT IN THE OPEN

At this season that dainty little annual, the Jersey fern, (Gymnogramma leptophylla) may be detected shyly peeping forth from crannies and crevices of dented rocks and cliffs by the sea; nowhere have I observed it more thriving than in a little bay in Akaroa harbour. There, a mountain rill sweeping down a small wooded ravine cleft a narrow opening to the rocky shore; on the sea facings just above high-water mark, this tiny fern flourished with the utmost luxuriance; its pigmy tufts crowded into thick pale green patches. These seem to follow a soak caused by a thread-like trickle that slid over slippery rock ledges drop by drop, encouraging and feeding moss growth. Scattered about were a few stunted ngaios (Myoporum) that offered some shade and shelter; these advantages the tiny annual appeared to neglect, as it displayed its tender unevenly-divided fronds to the full light of day. But the Jersey fern, the kindly visitor for a season, soon passes away after the spore-fall or seed cast; as though this lover of sea-girt rocks and beetling craggs satisfied with providing successors for the future, like a good fairy, departed for other shores, where barren sea cliffs needed the rare charm of its soft green foliage.

In this country the phenomena of life and death are portrayed with singular sharpness in the habit of that well known British plant, the Common Buckler (Male) fern (Lastrea filix-mas). Handsome and bold in the aspect of its outlines, vigorous of growth, its rich green lance-shaped fronds stand up rather stiffly some three feet or so above its tufted scaly crown, a grand ornament amongst the varied occupants of the hardy out-door fernery. Let Spring come fairly in, the tapering fronds but yesterday proudly erect, still deeply verdant, fall flat as though struck down by force, or bashed by heavy gusts of wind. Pluck or handle a frond, the leaflets may be found fresh and green, the numberless chaffy scales not to have lost their crispness, yet on a sudden call of nature, without fading or showing any of the gradual discolouration of decay, prone lie the fronds, disclosing the young growth knuckled and crowded, just appearing and rising from the thick bed of scales that so closely invest the crown.

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PHYMATODES DIVERSIFOLIUM

by John Thompson

I am seeking information on the reasons why the fern Phymatodes diversifolium is so variable in its production of fertile fronds. Neither Allen or Crookes and Dobby mention the fact that some colonies of P. diversifolium, bear fertile fronds while others consist entirely of barren fronds.

Recently I have examined a number of colonies of this fern and report on 3 colonies in my garden, 3 in Montgomery Park, and one growing in a pot.

Here are the frond counts :-

Garden, 18 Therese Street, Christchurch:

		No.fronds:	%:
A: Flat ground under a Winter Nellis Tree			
	Fertile fronds	14	9.6
	Barren fronds	131	90.4
		145	100.0
B: Flat ground under Burbank tree			
	Fertile fronds	3	4.1
	Barren fronds	71	95.9
		74	100.0
C: Under Bon Chretien tree			
1. On flat:	Fertile fronds	0	0
	Barren fronds	143	100.0
		143	100.0
2. Climbing:	Fertile fronds	21	12.2
	Barren fronds	152	87.8
		173	100.0
D: Plant Pot	Fertile fronds	43	65.2
	Barren fronds	23	34.8
		66	100.0

Montgomery Park - Hilltop:

A: On sloping ground under trees			
	Fertile fronds	0	0
	Barren fronds	84	100.0
		84	100.0

		No.fronds:	%:
Montgomery Park - Hilltop:			
B: On large fallen dead tree			
	Fertile fronds	0	0
	Barren fronds - well over	2000	100.0
		2000	100.0
C: On smaller fallen dead tree			
	Fertile fronds	74	18.1
	Barren fronds	334	81.9
		408	100.0

The colony under the Bon Chretien Pear is partly on flat ground but some rhizomes climb up the tree for approximately one foot. It is not until the rhizomes begin to climb that they bear fertile fronds on leaders that carry up to 4 fertile fronds but do not then appear to continue growing.

The flower pot is a concrete one of 7 inches inside diameter and of a depth of $7\frac{1}{2}$ inches. It is kept in the unheated glasshouse under a bench and is given no attention other than an occasional watering. Why does this plant bear such a high percentage of fertile frounds (65.2)?

I would welcome advice on the possible causes of the variation in fertile frond numbers of this fern.

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WOAD - (ISATIS TINCTORIA)

by I.A. Clarke

With the revival of the homecrafts of spinning and weaving, there has been an increasing interest in the related craft of natural dyeing and dye plants. Blue has been one of the most difficult colours to obtain in a colour fast dye. Imported indigo powder can be used with confidence, but one of the fascinations of natural dyeing is to be able to gather the dyestuff where it is grown, and to see the whole project through to the finished product.