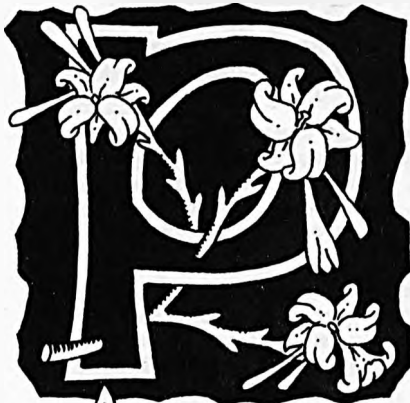


# A Phytogeography of Middle-earth



Professor Tolkien's interest in Natural History was well represented amongst the wealth of detail in his works and it is the intention of this article to explore a particular aspect of what could well be termed the "Natural History of Middle-earth".

Middle-earth was basically a mediaeval world in which plants sometimes assumed roles in excess of their more usual ones as primary producers, raw materials and healing herbs. Hence the Ents or tree-folk. The concept of motile trees is not one entirely absent from our own culture, for was it not the omen of a moving forest which foretold the downfall of Macbeth?

Discussion of the various vegetational aspects of Middle-earth is severely limited by the source material available - that contained in the Hobbit and in Lord of the Rings. Nevertheless, the information recorded gives an interesting insight into the vegetation of this vast region.

In the North, the gently undulating land of the Shire has long been cultivated by its inhabitants, the Hobbits. Cabbages, carrots, potatoes, apples and corn were widely grown, and the peaty area of the Marish was especially noted for its turnips and mushrooms. Vines flourished in the comparatively mild climate of the Southfarthing. The inhabitants were keen gardeners and it is recorded that cultivated plant varieties included snapdragons, sunflowers and nasturtiums (no doubt reflecting the Hobbits' love of bright colours).

Perhaps the best known cultivated plant of the Shire is the Pipeweed (galenas in the noble tongue). It is believed that the plant was brought from Oversea and introduced to Middle-earth by the men of Westemnesse (hence the plants' common name of 'Westmansweed'), via the seaports of Gondor. Here, in a comparatively mild climate the plant grows abundantly and more luxuriantly than its northern counterparts (though its true use has lapsed and it is valued only for its fragrant flowers). Spread of the plant northwards was probably along the Anduin River, and semi-naturalised populations are still known from the southern slopes of Bree Hill. The first recorded Shire grower was Tobold Hornblower of Longbottom, Southfarthing (1070 SR), who developed two of the three best known varieties:



SL.

Longbottom Leaf, Old Toby and Southern Star. It is never found growing wild in the North.

Although little direct information survives with respect to the flowering plants of the Shire, a certain amount can be drawn (by inference) from the profusion of botanical family names, e.g. Rushlight, Goatleaf, Heather-toes, Appledore, Thistlewool, Ferny, Butterbur, Mugwort; and place names: Rushy (Buckland), Thistlebrook, Willowbottom and the 'Ivy Bush' Inn.

The vegetation to the west of the Last Bridge (i.e. in the lee of the North and South Downs, and the Weather Hills), suggests rain shadow conditions - stunted trees and bushes in dense patches, with wide barren spaces in between; grasses are scanty, coarse and grey coloured; the leaves of the trees faded and falling.

The Brandywine River, marking the eastern border of the Shire, is bordered by willows, alders and reeds; with hazel brakes on rising slopes above giving way to a more general ash, elm and oak woodland - the main type in the Shire. Eastwards, beyond Buckland, lies the Old Forest, composed of densely packed oak and ash on the lower ground, with thinner strands of pine and firs on the uplands. Here several interesting points have been noted. Firstly, the effects of burning are displayed within the western border of the forest, where regenerative growth of rough grasses, hemlock, wood parsley, fireweed, nettles and thistles has developed. Secondly, the borders of the River Withywindle (which drains this woodland catchment) are recorded as being flanked by tall and luxuriant grass/weed communities (probably as a result of the high nutrient status of the inflowing tributaries - the waters of the river are said to be, on occasions, "brown" with suspended sediment). The Withywindle, as suggested by its name ('withy' the osier willow, from 'withig' the Old English for willow) is lined thickly with willow trees. Additional plants associated with this river include a variety of white water lily (on the calmer stretches), and flag iris, forget-me-not and rushes on the wet stream borders.

East of the Old Forest lie the Barrow Downs, treeless, and clad in a short springy turf. Beyond again, lies Chetwood (probably of ash and oak, merging into alder, rush and reed as Midgewater Marsh is approached) and the Weather Hills. Here, in a thicket to the south of the Great East Road, was found the healing herb Athelas (Kingsfoil in the Common Speech, asá aranion in the Valinorean). It is believed to have been introduced by the men of Westerosse, and would probably have spread by the same route as galenas. Once widespread, it is now not generally known in the North, and remains elsewhere in woodland habitats as a probable relic of settlement. Sweetly pungent when crushed, its properties are now virtually forgotten except in Gondor, where it is used to sweeten the air, lighten the spirits and as an infusion for headaches.

Beyond the Hoarwell River, the ground begins to rise on the approach to the western

foothills of the Misty Mountains. This region is deeply dissected, with cliff woodland, fir and pine forests. The footslopes of the Misty Mountains bear a mixed covering of heather and bilberry, with small patches of hazel.

The deep mountain valleys, of which the Bruinen (containing Rivendell) is a good example, display marked altitudinal zonation - high heather moor gives way to pine forest, with mixed beech and oak woodland becoming more important towards the valley floor.

On the far eastern side of the Misty Mountains lies a rugged upland area with low shrubs, hawthorn, blackberry brambles, sorrel and wild strawberries. The presence also of thyme, sage, marjoram and yellow rockrose would tend to argue that the underlying rock is calcareous. Beyond this, on the vast screes of the footslope occur pines, mixed with bracken lower down and eventually merging into pine/larch/fir woodland.

The vegetation of the Eastern Lowland (bisected by the River Anduin) opens out into an oak/elm park grassland grazed by horses - a northern extension of the grasslands characteristic of the Plains of Rohan.

The occupants of this eastern lowland (lying between the Misty Mountains in the west and Mirkwood in the east) use hawthorns for hedging and oaks as windbreaks; several varieties of clover are grown for honey production.

Mirkwood is probably chiefly composed of oak, with beech on the eastern border, and a dark variety of (tightly packed) fir in the south. The outermost trees bear ivy and lichen growths, but inside the dense canopy excludes sunlight and the forest floor bears only fungi and pale unpleasantly scented (and therefore probably fly-pollinated) herbs. The fauna includes melanistic forms of moths, bats and squirrels; albino deer; whilst Black Emperor butterflies and small spiders are abundant in the sunlit upper tree canopy.

East again, beyond Mirkwood, is the inland Sea of Rhûn; the shores of which are famed for their grapes.



Returning to the lands on the western side of the Misty Mountains: south of Rivendell lies the ancient province of Eregion, now called Hollin (this, incidentally, is an archaic name for holly still widely used in Scotland). It was once inhabited by Elves, and the sentinel hollies flanking the Gates of Moria were tokens of these people.

Once more upon the eastern side of the Misty Mountains, beyond the Eastgate of Moria, lies an area of upland whin and heather scrub. Burial mounds (beside the path from Dairill Dale) are surmounted by birch and fir trees.

Northwards lie the Gladden Fields - a



marshy area at the confluence of the Gladden and Anduin rivers. It is recorded that the flag iris is common here, and consequently interesting to note that the word 'gladdon' (pronounced glaed'n and of obscure origin, according to the Oxford English Dictionary) means 'iris'.

Southwards, in the deep-valled confluence of the Silverlode and Nimrodel rivers, the vegetation is of stunted fir trees, hartatongue, and whortleberry shrubs. Below the confluence, however, lies the woodland realm of Lothlorien. It is unusual, being composed entirely of one kind of tree, the mallorn, which occurs nowhere else in Middle-earth (except for a single tree in Hobbiton, a village of the Shire). The branches of these trees grow nearly straight out from the grey trunks, thence sweeping gracefully upward. At the top the main stem divides repeatedly, so that the tree is crowned by many boughs. The leaves turn gold in autumn, but are retained until spring when new leaves and yellow blossoms are produced.

Two comparatively rare flowering plants are restricted to the grassy glades of Lothlorien: the golden-yellow elanor ('sun-star') and the slender-stalked, pale-flowered (white or green) niphredil. Both are winter flowering.

The eastern limit of Lothlorien is marked by the Anduin River; southwards lie the Brown Lands (on the eastern bank), with the Plains of Rohan and the Forest of Fangorn on the western bank.

The grasslands of Rohan are deep and luxuriant, and support large herds of horses. Were it not for the presence of a major river (the 'Amazon' of Middle-earth, to quote Robert C. Reynolds'), however, they would approximate to the Prairie lands of North America, or the Steppes of Russia. Along the river course occur reed 'forests', occasional willow clumps, and in more quietly moving waters cresses and other water plants. Sedges often form the intermediate vegetation between true riverine and grassland types.

On the eastern bank the Brown Lands give way to rough country bordering on the Emyn Muil, beyond which lie Rauros Falls with the sluggish fens of the Dead Marshes and Nindalf (or Wetwang) at their foot. The rugged country adjacent to the Emyn Muil is covered with brakes of hawthorn and sloe, tangled with bramble and creepers; ivy covers bare rock faces. The higher ridges, closer to the Emyn Muil, are crowned with wind-writhen firs.

Fangorn is considered to be ancient, contemporary with Mirkwood; both being remnants of a vast forest which once covered most of Middle-earth. Tree clearance and burning during the early stages of man's spread may account for such vast open tracts as Rohan and Wilderland. Legend claims that the Brown Lands were once the gardens of the Entwives (female tree folk hailed as teachers of the agricultural craft), filled with sloe, wild cherry and apple trees. The Entwives left, and the remaining Ents (sentient tree folk) were to be found in Fangorn forest,

where they herded semi-sentient trees (or Huorns). Ents vary and can be likened to the various tree types: beech, oak, chestnut, ash, fir, rowan and linden.

The Entmoot at Derndingle (southern Fangorn), is described as being surrounded by a hedge of evergreen shrubs, branched at root level and densely clad in dark, glossy leaves (likened to thornless holly). Stiff, upright flower spikes bear large shiny olive-coloured buds. This description comes rather close to that of the rhododendron, a genus native to the Himalayas. Evergreen trees with glossy leaves are also mentioned as forming the gateway to Wellinghall, the resting place of Treebeard (foremost of the Ents).

The Entwash River (rising in Fangorn Forest) is bordered by reedbeds; whilst willows fringe the otherwise grass-banked stream issuing from Eodoras.

South of Fangorn, at the extremity of the Misty Mountain range, lies the natural rock-fortress of Isengard. Here, scattered birches on the lower slopes give way to occasional gaunt pine trees. Isengard itself consists of a broad mountain-ringed bowl, and during peaceful times was well known for its ornamental gardens, avenues and groves of fruit trees. These were razed and the surrounding farmlands abandoned during the War of the Ring. Widespread felling and burning of trees, and the neglect of farmland, resulted in a reversion to scrubland and impenetrable bramble thickets.

South of Isengard lies Helms Deep (a limestone gorge backed by an extensive cave system), at the northern tip of the White Mountain chain. Beyond, the lower mountain slopes exhibit upland and dale topography, the uplands being heather-clad and the intervening dales bearing bracken and occasional hawthorn bushes.

Southwards again lies Eodoras, site of an extremely localised rarity, simbelmynë. This small, white-flowered plant blooms all year round and flourishes on the sheltered western faces of grave mounds (hence the common name of 'Evermind'). In the hills above, pine gives way to fir with increasing height. South-east of Eodoras, the oaks of Fírien Wood skirt the White Mountains; whilst Druadan Forest is composed of pinés.

At the south-east extremity of the White Mountains, to the east of Anduin, lies Mordor. Ringed on three sides by mountains (Ash Mountains to the north, and the Mountains of Shadow to the west and south) this represents an inland drainage system, in which there is a severe rain shadow effect.

To the north-west is the Emyn Muil, exposed to the full effects of searing easterly winds (warmed and dried during their passage over the interior continental Plain of Rhûn). Stunted and gnarled birch and fir trees are recorded here. The Dead Marshes lie at the eastern edge of this upland block, fringed by mosses and reeds.

Ithilien (the Garden of Gondor), flanking the western edge of the Ephel Duath, is possibly one of the most interesting areas florally in Middle-earth. Shielded from the east by the Ephel Duath

(1) Reynolds, Robert C. 'The Geomorphology of Middle-earth' Swansea Geographer 12, 1974 pp.67-71.

and from the north by the Eryn Muil, it lies open to the moist southern sea winds which similarly affect the lower vales of the Anduin in Gondor.

The approach to Ithilien from the north, over the foothills of the Ephel Duath, passes through a tumbled heathland of ling, broom and cornel, with occasional knots of tall pines (reminiscent, it is said, of the Northfarthing uplands of the Shire). Southwards, the 'fragrance of the air increases' and the vegetation changes, with small groups of resinous trees appearing (cedar, cypress and larch are recorded), and shrub and herb-filled glades in between. This sheltered tract of land contains a varied assemblage of species, including tamarisk; terebinth; olive; bay; juniper; myrtle; thyme (both cushion and creeping forms); sage (blue, red and pale green flowered varieties); marjoram; and parsley. Rocky outcrops bear saxifrages and stonecrops, whilst primeroles (primula) and anemones bloom amongst the filbert brakes (a 'filbert' is the nut of a cultivated hazel, ripe about St. Philiberts Day; Oxford English Dictionary). Asphodel and various other lily varieties are recorded, together with rose-brambles; and iris and waterlilies in a small stone-lined pool. A recently burnt patch supported briar, eglantine and trailing clematis. 'Eglantine' is probably sweet-briar (Oxford English Dictionary).



Further southwards, box and ilex are mentioned (approaching Minas Morgul) with, amongst lawns of grass, celandine and anemone (though the description of white and blue flower colours and folded leaves suggests these are oxalis rather than anemones), and masses of woodland hyacinth (bluebell) leaves.

There exists a close parallel between this floral assemblage and that of Mediterranean type vegetation. The Ithilien species list contains many plants occurring in Maquis<sup>2</sup>: olive, myrtle, lentisk, rosemary, terebinth, lavender and juniper; and Garrigue<sup>2</sup>: thyme, rosemary, sage, lavender, crocus, grape hyacinth and garlic; as well as elements of the cypress woods of Crete, Rhodes and Cyprus, and the laurel woods of Greece, Crete and the Balkans. The quoted 'fragrance of the air' agrees well, for in the heat of the day many Mediterranean plants exude aromatic resins or oils from their leaves.

It would seem then that the very moderate seasonal changes in this sheltered area has rendered the deciduous habit unnecessary, and ever-green woodlands have developed. Hence the "ever-green woods of Ithilien" (LoTR II.4.V).

If this is the case, then the trees referred to as 'ilex' may be quercus ilex, the holm oak (another important feature of Mediterranean vege-

tation, where it occurs in association with viburnum, honeysuckle and clematis, juniper, lentisk, rosemary and lavender).

With increasing altitude this varied assemblage gives way to gorse, whortleberry and hawthorn; the latter and bramble gradually assuming greater importance.

The lower vales of Anduin, which constitute the coastal plains of Gondor, are influenced by a similarly mild climate (but are somewhat less sheltered than Ithilien). Here, in the province of Lossarnach, lies the vale of Imlath Melui, locally famed for its wild roses. Lebennin (an eastern province of Gondor) is noted for the occurrence of two golden-petalled spring flowers, alfirin and mallos. The names are of Sindarin origin and translate as '(only-too) mortal growing thing' and 'snow gold' respectively.

Written sources reveal little about the vegetation of Mordor. The interior was almost certainly a desert, the saline Sea of Nurnen in its midst. What plant life there was clung to the western margin of Mordor, surviving in the deep east-west ghylls of the Morgai Ridge. Here grew low scrubby trees, grey tussock grasses, withered mosses and tangled, long-thorned brambles.

Review of the climatic and vegetational information contained in the Lord of the Rings reveals an interesting zonation.

In the far north of Middle-earth lies the ice-bound Bay of Forochel, on the shores of which dwell the Lossoth. Further south, the oak, hazel, ash and elm woodlands of the Shire would tend to suggest a Cool Temperate climatic regime. The presence of a northern limit to the distribution of several species is recorded: there are no elms to be found on, or north of, the North Downs (Northfarthing of Shire); and galenas fails in the north.

Further evidence for a north-south climatic gradient is to be found in the annals of the Company of the Ring. Whilst in Hollin, Gandalf states that it..."will get warmer as we move south", and Aragorn remarks that snow..."seldom falls heavily this far south" (LoTR I.2.III). Similarly, upon arrival of the Company in the Brown Lands, Frodo remarks that he imagined..."as one journeyed south it got warmer..until winter was left behind forever"; Striders reply was that the Company was yet..."far from the sea..here (the) world is cold until the sudden spring" (LoTR I.2.IX).



(2) Polunin, O. & Huxley, A. Flowers of the Mediterranean. Chatto and Windus, London, 1974.

The vast grassland plains of Rohan (although well-watered by the River Anduin), are reminiscent of the prairies of North America and the steppes of Russia.

South of the White Mountains lies the warm, fertile coastal plain of Gondor (tempered by the moist southerly sea breezes), and the land of Ithilien, with its evergreen Mediterranean type flora. The effects of the rain shadow (in the lee of the Ephel Duath and Ered Lithui) are shown dramatically, since Mordor and Ithilien are on the same latitude.

Maps of Middle-earth show South Gondor as a 'debateable and desert land', and although it is not possible to state that a tropical zone definitely lay beyond this, quotations from the records of the Company tend to support the proposed zonation. During the assault on the walls of Helms Deep, "the Orcs sprang up them (the scaling ladders) like apes in the dark forests of the South" (LoTR II.3.VII); during the debate at Mordor Gate as to which road should be followed, Gollum says of the lands far south..."yellow face (the sun) is very hot there and there are are seldom any clouds and the men...have dark faces". Sam Ganges's poem 'Oliphaunt' tells of "southern sunlands" and their inhabitants, the "swertings" (a corruption of 'swart' or 'swarthy', meaning 'dark') (LoTR II.4.III).



## wanderlust

Pathways weave by dale and hill  
All unknown,  
Ancient highways wander still  
Overgrown.

Once a pilgrim trod this land  
Eyes aflame,  
Treasures yielded to his hand  
Where he came.

Songs he sang and tales he told  
Stirring mind,  
Magic and enchanted gold  
Yet to find.

Into mist his feet are fled  
Long ago.  
Who will follow where he led?  
I will go.

Christine Davidson