

FLORA OF THE HANMER HERITAGE FOREST

ROGER KEEY

Canterbury Botanical Society, PO Box 8212, Christchurch

The Heritage Area of Hanmer Forest covers 203ha of the plantation forest of some 5500ha. This area was the original part of the forest that was established on thermal reserve land by the former Government's Forestry Department (which in 1923 became the New Zealand Forest Service), with the first plantings in 1902. Until February 2000 the land remained in Crown ownership, when it was sold to Ngai Tahu Forest Estates as part of the Treaty of Waitangi settlement process, with the forest assets (such as the trees) being leased to Carter Holt Harvey Forest Resources.

Although the area of the Heritage Forest is still subject to a Crown Covenant controlling the extent and nature of harvesting, the change in land ownership (with the consequential drawing up of a new lease) has resulted in a diminution of forest-management controls. The area is no longer actively managed for public values, with the absence of weed control and track maintenance. Modern large-scale forestry has adopted low or nil-maintenance regimes, the forest being essentially a fibre farm, with forest companies relying on clever processing after harvesting rather than any tending of their forests to obtain wood products. However, the Minister of Tourism has provided a one-off grant to Hurunui District Council for the maintenance of recreational facilities, pending the outcome of negotiations about the future of the Heritage Forest.

The Heritage Forest is unique in New Zealand as a plantation forest, being a mixed conifer-broadleaf woodland with a diverse understorey of adventive and indigenous woody species. The principal timber trees initially planted were black pines (*Pinus nigra*) and Norway spruce (*Picea abies*), with radiata pine (*Pinus radiata*) and Douglas-fir (*Pseudotsuga menziesii*) in later years. Hardwoods such as oaks (mainly *Quercus cerris* and *Q. robur*) were also grown from acorns, and the common alder (*Alnus glutinosa*) was planted in the wetter areas. Conifers such as grand fir (*Abies grandis*) appear to have arisen from windblown seed, probably from trees on Conical Hill. The understorey has developed from berried species (e.g. *Ribes sanguineum* and *Sorbus aucuparia*) in the nearby town gardens of Hanmer Springs, with the extensive sycamore (*Acer pseudoplanatus*) groves from winged seeds of trees, those in the Dog Stream Reserve being the likely source. Berried indigenous plants would have been brought by birds from the high forest on the flanks of the Hanmer Range. *Coprosma* spp. are particularly abundant, and in some areas form an almost impenetrable understorey

Some of the earliest-planted pines (*P. ponderosa* and *radiata*) have now reached about 30m in height. The Norway spruce, although some fine specimens can be seen, has fared less well, with a number of the mature trees from the 1904 planting being blown over in an autumnal gale earlier this year.

In a former article (Keey 2000), the history and general composition of this forest was described, but no species list was given. Over the weekend, 11-13 May 2001, members of the Canterbury Botanical Society visited the Heritage Area, and compiled

species lists for indigenous plants (Table 1), some bryophytes (Table 2) and naturalised adventive and planted trees and shrubs (Table 3). The Forest is also home to a number of orchids which were not visible at the time of the visit.

The various lists are tabulated below.

REFERENCE

Keey, R. B. 2000: Hanmer Forest. *Canterbury Botanical Society Journal* 34: 50–53.

TABLE 1. Indigenous Plants of the Hanmer Forest Heritage Area.
Compiled by Bryony Macmillan and Max Visch, 12 May 2001.

<i>Carex dissita</i> (damp ground)	<i>Hebe salicifolia</i>
<i>Carex maorica</i> (damp ground)	<i>Hebe traversii</i>
<i>Carex virgata</i> (damp ground)	<i>Hoheria glabrata/lyallii</i> (1)
<i>Cassinia leptophylla</i>	<i>Kunzea ericoides</i>
<i>Celmisia spectabilis</i> (1)	<i>Langenifera strangulata</i>
<i>Clematis paniculata</i> (?) (juvenile, 1)	<i>Lophomyrtus obcordata</i> (2)
<i>Coprosma ciliata</i>	<i>Melicytus alpinus</i>
<i>Coprosma x cunninghamii</i>	<i>Muehlenbeckia australis</i>
<i>Coprosma linariifolia</i>	<i>Nothofagus solandri</i> (1)
<i>Coprosma microcarpa</i>	<i>Phormium tenax</i>
<i>Coprosma rhamnoides</i>	<i>Pittosporum tenuifolium</i>
<i>Coprosma propinqua</i>	<i>Pseudopanax arboreum</i> (2)
<i>Coprosma robusta</i>	<i>Pseudowintera colorata</i> (1)
<i>Cordyline australis</i>	<i>Sophora microphylla</i> (1)
<i>Corokia cotoneaster</i>	<i>Uncinia</i> sp.
<i>Euchiton (Gnaphalium) limosum</i> (1)	
<i>Gastrodia cunninghamii</i> (1)	
<i>Griselinia littoralis</i>	

Note: Where either 1 or 2 specimens only were noted, this is indicated by a bracketed numeral.

Table 2. Bryophytes (Ferns and Fern Allies) of the Hanmer Forest Heritage Area. Compiled by Bryony Macmillan and Edith Shaw, 11-13 May 2001.

Ferns

<i>Asplenium appendiculalum</i> (<i>terrestre</i>)	spleenwort
<i>Asplenium flabellifolium</i>	
<i>Blechnum minus</i>	kiokio
<i>Blechnum novae-zelandiae</i>	
<i>Blechnum penna-marina</i>	hard fern
<i>Blechnum procerum</i>	
<i>Blechnum vulcanicum</i>	
<i>Dryopteris filix-mas</i>	(abundant adventive)
<i>Histiopteris incisa</i>	water fern
<i>Hypolepsis ambigua</i>	
<i>Hypolepsis rufobarta</i>	
<i>Microsorium pustulatum</i>	
<i>Polystichum richardii</i>	Richard's shield fern
<i>Polystichum vestitum</i>	prickly shield fern
<i>Pteridium esculentum</i>	

Mosses

(Only the commoner species noted)

<i>Acrocladium chlamydophyllum</i>
<i>Bryum billardierei</i>
<i>Camylopus introflexus</i>
<i>Dicranoloma billardierei</i>
<i>Ditrichum cylindricarpum</i>
<i>Hypnodendron arcuatum</i>
<i>Hypnum cupressiforme</i>
<i>Lembophyllum divulsum</i>
<i>Leptotheca gaudichaudii</i>
<i>Macromitrium</i> sp.
<i>Orthotrichum</i> sp.
<i>Ptychomnion aciculare</i>
<i>Sematophyllum contiguum</i>
<i>Thuidium furfurosom</i>

Liverworts

(Only a few noted)

<i>Chiloscyphus muricatus</i>
<i>Chiloscyphus</i> sp.
<i>Cuspidatula monodon</i>
<i>Plagiochila</i> sp.

Table 3. Naturalised Adventive and Planted Trees and Shrubs of the Hanmer Forest Heritage Area.
Compiled by Roger Keey, Bryony Macmillan and Max Visch, 12 May 2001.

Botanical Name	Common Name	Botanical Name	Common Name
<i>Abies grandis</i>	grand fir	<i>Pinus muricata*</i>	bishop pine
<i>Acer pseudoplatanus</i>	sycamore	<i>Pinus nigra</i> ssp. <i>nigra</i>	Austrian pine
<i>Alnus glutinosa</i>	common alder	<i>Pinus nigra</i> ssp. <i>larice</i>	Corsican pine
<i>Berberis glaucocarpa</i>	barberry		
<i>Betula pendula</i>	silver birch	<i>Pinus ponderosa</i>	western yellow pine
<i>Castanea sativa</i>	sweet chestnut	<i>Pinus radiata</i>	radiata pine
<i>Cedrus atlantica*</i>	Atlas cedar	<i>Prunus avium</i>	wild cherry
<i>Cedrus deodara*</i>	Indian cedar	<i>Prunus cerasifera</i>	cherry plum
<i>Chamaecyparis lawsonia</i>	Lawson's cypress	<i>Prunus x domestica?</i>	plum
<i>Cotoneaster glaucophylla</i>		<i>Prunus laurocerasus</i>	cherry laurel
<i>Cotoneaster simonsii</i>		<i>Prunus lusitanica</i>	
<i>Cryptomeria japonica</i>	Japanese cedar, sugi	<i>Pseudotsuga menziesii</i>	Douglas fir
		<i>Quercus cerris</i> .	Turkey oak
<i>Cupressus arizonica*</i>	Arizona cypress	<i>Quercus cerris</i> aff.	unknown, similar to Turkey oak
<i>Cupressus glabra</i> var. <i>notabilis*</i>		<i>Quercus palustris*?</i>	pin oak
<i>Cupressus lusitanica</i>	Mexican cypress* 'Golden Downs'* 'Lismore'* 'Waipoua'*	<i>Quercus robur</i>	English oak
		<i>Ribes sanguineum</i>	flowering currant
<i>Cupressus macrocarpa*</i>	macrocarpa	<i>Rosa rubiginosa</i>	sweet briar
<i>Cupressus sempervirens*</i>	bald cypress	<i>Sequoia sempervirens*</i>	coast redwood
<i>x Cupressocyparis leylandii</i>	Leyland cypress 'Castlewellan'* 'Green Spire' 'Haggerston Grey'* 'Leighton Green'* 'Naylors Blue'* 'Robinsons Gold'*	<i>Sequoiadendron giganteum*</i>	Sierra redwood
		<i>Sorbus aucuparia</i>	rowan, mountain ash
<i>Cytisus scoparius</i>	broom	<i>Taxus baccata</i>	yew
<i>Daphne laureola</i>	laurel daphne	<i>Thuya plicata*</i>	Western red cedar
<i>Eucalyptus delegatensis</i>	alpine ash	<i>Ulex europaeus</i>	gorse
<i>Euonymus europaeus</i>	spindelberry	<i>Viburnum tinus</i>	viburnum
<i>Fagus sylvatica</i>	European beech		
<i>Fraxinus excelsior</i>	common ash		
<i>Ilex aquifolium</i>	holly		
<i>Laburnum anagyroides</i>	laburnum		
<i>Larix decidua</i>	European larch		
<i>Malus x domestica</i>	apple		
<i>Picea abies</i>	Norway spruce		
<i>Picea omorika</i>	Serbian spruce		
<i>Picea sitchensis</i>	Sitka spruce		