

Sharp's Bush and Spragg's Bush Reserves, 20 July 2002

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It was easy to find the Botanical Society meeting place: cars parked precariously on the side of Mountain Road, and about 35 people greeting each other. And there was Jessica in the red hat, explaining to us about the peculiar habits of mosses/bryophytes. Sharp's Bush, where we met, has the types of moss which prefer a dryish environment, and there were fewer species there, whereas Spragg's Bush, being 220 m higher (just off the Scenic Drive) experiences more mists and is home to a greater variety. Reference to the species list should confirm this.

After we had spent an hour or more checking about a dozen Sharp's Bush mosses, and getting used to the details of their differences, we moved up to the Spragg's Bush carpark, where we were joined by more woolly-hatted botanists. Jessica had made identification easier for us by preparing clear diagrams of a few of the species: umbrella mosses and four which typically grow on tree ferns; she also provided clear labels along the path. She told us a little of the history of Spragg's Bush reserve: this was gifted to the community by her great grandfather in 1924. It seemed entirely appropriate that her career should have become involved with the flora which are so richly represented in this piece of bush. We moved very slowly along the track, taking advantage of the fact that mosses do best in the more intense light environment on the track margins. So slowly in fact that we created some sort of Bot Soc record, arriving at the Beaver bach for lunch at 2 p.m.

Another kingdom well represented in the reserve was that of the fungi; we were impressed by their variety of colours and shapes (see species list) – impressed too by the knowledge that some of the party were able to share

with us. So how much of a coincidence is it that Jessica's husband Ross is a career mycologist?

Back at the bach we were fed and watered and had an opportunity to look at the finer detail of the mosses under magnification; this gave us a better opportunity to appreciate their beauty and diversity. If only I could remember their names!

Vegetation

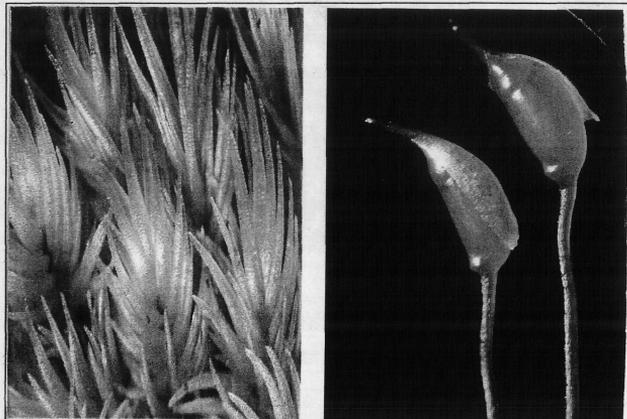
Sharp's Bush consists of relatively young regenerating manuka (*Leptospermum scoparium*) forest with emergent kanuka (*Kunzea ericoides*) and occasional kauri (*Agathis australis*) and rimu (*Dacrydium cupressinum*) poles. The understorey has hangehange (*Geniostoma rupestre* var. *ligustrifolium*), mapou (*Myrsine australis*), mahoe (*Melicactus ramiflorus*), heketara (*Olearia rani*), karamu (*Coprosma robusta*), Kirk's daisy (*Brachyglottis kirkii*, or is it *Senecio kirkii?*) and ponga. The ground tier is well established, with kiokio (*Blechnum novaezelandiae*), maukurangi (miniature tree fern, *B. fraseri*) and tupari maunga (*Gahnia xanthocarpa*) being particularly common. Puakarimu (*Lycopodium deuterodensum*) is a common scrambler on the forest floor. There is a ridge of kauri-tanekaha-rimu-kanuka forest.

Spragg's Bush consists of a low forest of wheki (*Dicksonia squarrosa*), kanono (*Coprosma grandifolia*), mahoe, mapou, pate (*Schefflera digitata*) and toro (*Myrsine salicina*). Emergents are kanuka, kohuhu (*Pittosporum tenuifolium*), rimu, miro (*Prumnopitys ferruginea*) and some impressive large kauri. Kiekie (*Freyinetia banksii*) is dominant in the understorey and ground tiers, forming a dense cover and climbing into

the canopy. Other common species found in the ground tier are tupari maunga, maukurangi, piupiu (crown fern, *Blechnum discolor*) and bush rice-grass (*Microlaena avenacea*).

Fungi species commonly seen in both reserves were *Ramariopsis* spp. on track margins and many species of brightly coloured wax gills (*Gliophorus*, *Humidicutis* and *Hygrocybe* spp.) amongst leaf litter. Toropapa (*Alseuosmia macrophylla*) was in flower in Spragg's Bush and *Nertera dichondraefolia* was in berry in both reserves.

These photos are part of publicity for these reserves; you are urged to invest in a set.



Species List

Mosses compiled by Jessica Beever; fungi compiled by Clive Shirley and Peter White



Ramariopsis antillarum

<i>Leptostomum macrocarpum</i>		x
<i>Leucobryum candidum</i>	x	x
<i>Lopidium concinnum</i>		x
<i>Macromitrium gracile</i>		x
<i>M. longipes</i>		x
<i>M. ?submucronifolium</i>		x
<i>M. sp.</i>	x	
<i>Mittenia plumula</i>		x
<i>Orthorrhynchium elegans</i>		x
<i>Pendulothecium auriculatum</i>		x
<i>P. oblongifolium</i>		x
<i>Pogonatum subulatum</i>		x
<i>Pseudoscleropodium purum</i> *	x	
<i>Ptychomnion aciculare</i>	x	x
<i>Pyrrhobryum bifarium</i>		x
<i>Racomitrium strumiferum</i>		x
<i>Rhizogonium distichum</i>		x

Legend: * = exotic

Species	Sharp's Bush	Spragg's Bush
Mosses		x
<i>Achrophyllum dentatum</i>		x
<i>A. quadrifarium</i>		x
<i>Breutelia pendula</i>		x
<i>Bryum billardierei</i>		x
<i>B. microerythrocarpum</i>		x
<i>Calomnion complanatum</i>		x
<i>Calyptrochaete brownii</i>		x
<i>C. cristata</i>		x
<i>Camptochaete arbuscula</i>		x
<i>C. ramulosa</i>		x
<i>Campylopus clavatus</i>		x
<i>C. introflexus</i>		x
<i>C. pyriformis</i>	x	
<i>Catharomnion ciliatum</i>		x
<i>Cladomnion ericoides</i>		x
<i>Craphaea dilatata</i>		x
<i>Ctenidium pubescens</i>		x
<i>Cyathophorum bulbosum</i>		x
<i>Cyrtopus setosus</i>		x
<i>Dicranum calycinum</i>		x
? <i>Dicranella jamesonii</i>		x
<i>Dicranoloma billardierei</i>	x	
<i>D. fasciatum</i>		x
<i>D. menziesii</i>		x
<i>Distichophyllum crispulum</i>		x
<i>D. pulchellum</i>		x
<i>Echinodium umbrosum</i>		x
<i>Eurhynchium hians</i>		x
<i>Fissidens curvatus</i>		x
<i>F. pallidus</i>	x	x
<i>F. taxifolius</i>		x
<i>F. tenellus</i> var. <i>australiensis</i>		x
<i>F. tenellus</i> var. <i>tenellus</i>		x
<i>Holomitrium perichaetiale</i>		x
<i>Hymenodon pilifer</i>		x
<i>Hydrodendron arcuatum</i> , umbrella moss		x
<i>H. colensoi</i> , umbrella moss	x	x
<i>H. comatum</i> , umbrella moss	x	x
<i>H. menziesii</i> , umbrella moss		x
<i>Hypnum chrysogaster</i>	x	x
<i>Hypopterygium rotulatum</i>		x



Kauri

<i>R. novae-hollandiae</i>	x	x
<i>Rhynchostegium tenuifolium</i>		x
<i>Sematophyllum amoenum</i>		x
<i>Stokesiella praelonga</i>		x
<i>Tayloria caliphylla</i>	x	
<i>Thuidium furfurosum</i>	x	x
<i>Tortella knightii</i>		x

<i>Trachyloma planifolium</i>		x
<i>Weymouthia cochlearifolia</i>		x
<i>Wijikia extenuata</i>		x
<i>Zygodon intermedius</i>		x
Fungi		
<i>Amanita nothofagi</i>	x	
<i>Auricularia polytricha</i> , ear fungus/wood ears	x	
<i>Biscogniauxia capnodes</i> var. <i>rumpens</i> , a charcoal black crust or sheet on wood		x
<i>Calocera</i> sp., creamy or pale pointed horns on wood		x
<i>Chlorociboria aeruginascens</i> , verdigris stud fungus	x	
<i>Clavaria sulcata</i> , fairy clubs, flame fungus		x
<i>Conchomyces bursaeformis</i>		x
<i>Crinipellis procera</i> , horsehair		x
<i>Crucibulum laeve</i> , birdsnest fungus	x	x
<i>Entelloma</i> sp. (unidentified)	x	x
<i>Favolaschia calocera</i> , orange pore fungus *	x	
<i>Galerina patagonica</i>	x	
<i>Ganoderma</i> aff. <i>applanatum</i>	x	
<i>G. australe</i> , perennial bracket fungus, artist's conk		x
<i>Gliophorus lilacipes</i> , wax gill		x.

<i>G. luteoglutinosus</i> , wax gill		x
<i>G. subheteromorphus</i> , wax gill		x
<i>G. viridis</i> , wax gill		x
<i>Glomus</i> sp.		x
<i>Humidicutis conspicua</i> , wax gill		x
<i>Hydnum crocidens</i> var. <i>?crocidens</i>	x	
<i>Hygrocybe blanda</i> , wax gill	x	
<i>H. firma</i> , wax gill	x	x
<i>H. julietae</i> , orange wax gill	x	x
<i>H. rubrocarnosa</i> , red wax gill		x
<i>Hypocrea</i> sp.		x
<i>Hypholoma fasciculare</i> , sulphur tuft		x
<i>Laccaria ohienis</i> var. <i>paraphysata</i>	x	
<i>Nidula niveotomentosa</i> , woolly birdnest		x
<i>Ramariopsis</i> sp., a white club fungus	x	x
<i>Ramariopsis ?antiitarum</i> , a yellow club fungus	x	x
<i>Russula acrolamellata</i> , a yellow-brown russula	x	x
<i>Scutellinia ?colensoi</i> , eyelash elf cup		x
<i>Stereopsis hiscens</i>		x
<i>Tramella ?fuciformis</i>		x
<i>Weraroa novaezealandiae</i> , a white pouch fungus on wood		x
<i>Weraroa virescens</i> , pale blue pouch fungus		x



The puzzle of wild London plane trees (*Platanus X acerifolia*) in downtown Auckland

Jon Sullivan, Ewen Cameron, Tristan Armstrong & Brian Murray

London plane trees (*Platanus X acerifolia* (Aiton) Willd., Platanaceae, synonyms *P. hybrida*, *P. hispanica*, and *P. orientalis* var. *acerifolia*) are popular ornamental trees conspicuous along the street sides of many temperate cities, including Auckland. Their popularity in cities is due in part to their ability to grow well in paved streets, and their observed high tolerance of atmospheric impurities and diseases (Hora 1981, Huxley et al. 1992). Many different cultivars are available in New Zealand, which are readily propagated from cuttings (Sheat 1991).

The first wild plane seedling in New Zealand was collected by Alan Esler on Auckland City's waterfront, on 27 Jan 1981 (specimens AK 153932 & CHR 371206)(Webb et. al 1988, 1989). Since then, plane tree seedlings have occasionally been found around the Auckland central district area. There is also one record of plane tree seedlings appearing on Motutapu Island, near an adult London plane tree (specimen AK 245956, collected by S. Wotherspoon). These seedlings were puzzling, as our understanding was that the London plane tree is an infertile hybrid garden

product with no wild populations. Are these Auckland seedlings offspring of just London plane trees, or are they the result of crosses with a true species in the Platanaceae planted more recently in the area?

Before we address this puzzle, we should first summarise what is known of the origins and fertility of the London plane tree. It is widely accepted that the London plane tree is a hybrid between the previously isolated American sycamore (*Platanus occidentalis* L.) and the Oriental plane tree (*Platanus orientalis* L.)(Huxley et al. 1992). These two species were first brought together in Western Europe ornamental plantings, evidence suggesting an origin in Spain or Southern France early in the 17th century 1650, with a later transfer to England (Everett 1981). The London plane tree is intermediate in characteristics between the American sycamore and the Oriental plane tree (Everett 1981), and hybrids have also been artificially created between these species (Bean et al. 1980). The London plane tree is observed to be more disease resistant than *P. occidentalis* and faster growing than