

Field Trip to Smith's Bush, Otatau, South Auckland, 18 July 2020

P. (Tricia) A. Aspin

Participants: Jenny Andrew, Tricia Aspin (leader), Maureen Burke, Bev and Geoff Davidson, Neil Davies, Frances Duff, Kseniia Goluban, Ben Goodwin, Richard Hursthouse, Wendy John, Christine Major, Peter Moosberger, Joshua Salter, Gwennyth Smith (landowner), Madana Vilde, Jack Warden. All photos taken on 18 July 2020 by Bev Davidson (BD), Neil Davies (ND), Joshua Salter (JS)

Originally planned for April but cancelled thanks to Covid 19, this field trip was able to take place three months later. After a week of inclement weather, good fortune saw us enjoying a fine, dry day and able to lunch in the sunshine.

Smith's Bush is on part of the dairy farm owned by Barrie and Gwennyth Smith near the small village of Otatau. It lies on the edge of where the land rises up to a broad ridge from the large flat peatlands known locally as the "Otatau Swamp". The property was originally owned by Tricia's ancestors before being purchased by the Smiths in the early 1980s. The bush is just over 7 ha and has been fenced off from livestock for well over 30 years. A farm race splits it into two sections with the northern side mainly a flat area with a shallow gully leading partway up from pastureland (Figs. 1, 2). It is taraire-broadleaf-dominant with a good mix of tall, straight-trunked podocarps.

A feature previously noted is that the mature trees are generally taller than those of further north in the Awhitu Ecological District, probably due to better soils and less exposure to the westerly coastal winds (Aspin 2008: 142–143). Several small-leaved shrub species are common in the understorey and young nikau (*Rhopalostylis sapida*) abound. Over the years the Smiths have endeavoured to control weedy species which have taken hold around the perimeter and along the edge of the race where there is a good light source, they include: privet (*Ligustrum lucidum*), tobacco weed (*Solanum mauritianum*), barberry (*Berberis glaucocarpa*) and elaeagnus (*Elaeagnus x reflexa*). It can be a difficult task once fenced from livestock, and birds bring in a constant seed supply. These woody species are not a problem within the bush area but tradescantia (*Tradescantia fluminensis*) is rampant especially in the northern section.

We parked in a paddock with much evidence of being recently grazed by dairy cows as part of the farm's wintering system, and had a good overview of the bush area and central race. The general plan was to go partway up the race and then cover the northern portion first before following the top edge

back around to the race to meet for lunch. As the area is small most could explore at will, then meet up at the small gully before climbing up to follow the northern boundary back around. The afternoon would be spent in the smaller southern-facing portion. The short walk down the farm race (Fig. 3) took us to the bush where botanising began in earnest.

From the entrance immediately we were able to see some of the large podocarps which feature here. A large kahikatea (*Dacrycarpus dacrydioides*) grows on the south side and a good-sized matai (*Prumnopitys taxifolia*) as well as rimu (*Dacrydium cupressinum*) on the north side (Fig. 2). Here too Gwennyth was delighted to point out a lemonwood or tarata (*Pittosporum eugenoides*) seedling approximately one metre high. This will have come from the large parent tree previously recorded in 2006 (Aspin 2008: 188).

Making our way up the race we observed many young tree ferns and several smaller species along the bank including *Adiantum hispidulum*, *Blechnum filiforme*, *Blechnum chambersii* and *Doodia australis* (Fig. 4). Joshua and Ben noted *Veronica plebeia* and *Euchiton japonicus* among the taraire (*Beilschmiedia tarairi*) litter. On reaching the flat area a sapling kawaka (*Libocedrus plumosa*) was noted on the south side and then attention turned to a fruiting *Passiflora tetrandra* vine on the north side (Fig. 5). It was interesting to note that the fruits were all partially hollowed out on the other side, probably by birds. This vine was scrambling on a fine specimen of *Melicope simplex*, itself displaying a few remaining seed capsules.

We entered the bush proper and made our way through the less dense areas of young nikau (Fig. 6). Occasional markers showed the way of the local school's cross country trail. Many canopy species were so tall that sometimes we had to search for windfall to positively identify them. Totara (*Podocarpus totara*) was frequent. We noted puriri (*Vitex lucens*) and kohekohe (*Dysoxylum spectabile*) in flower and found that some puriri saplings could have easily been confused with those of kohekohe at first glance. Among the taraire and tawa (*B. tawa*), mamangi (*Coprosma arborea*) and white maire (*Nestegis lanceolata*) were noted. A piece of windfall with many unripe green drupes indicated that the maire was heavily fruiting. *Microsorium scandens* was frequent climbing taraire (Fig. 7). Joshua noted that the trunks often had "sort of rings" on the bark. Tricia did not find this unusual as she recalls this as just being a feature of the many taraire of her

childhood in the area. As well as the vines of *Passiflora tetrandra* and *Metrosideros perforata*, many cable-like thick stems of *Parsonsia heterophylla* hung from high in the canopy and seedlings of the latter were copious with leaves ranging from small and round to long and narrow, sometimes with fiddle-shaped lobes. Here also, Joshua noted the large furrowed woody root of a broadleaf (*Griselinia lucida*) (Fig. 8). The epiphytic orchid *Earina mucronata* was occasional and several small-leaved understorey shrubs were noticeable, including *Coprosma rhamnoides*, *C. spathulata*, *Melicope simplex*, and *Melicytus micranthus*. Occasional seedlings of *Streblus heterophyllus* were obvious with distinct fiddle-shaped juvenile foliage. Frances noted a *Melicope ternata* sapling. Although not previously recorded in this piece of bush, Tricia was able to say that it is present several hundred metres away to the south (AK 301639). Frances also found a single specimen of *Mida salicifolia* making this the most southerly noting of this species in the Awhitu Ecological District.

We gathered at the fence line bordering the small swampy gully area. Cattle have access partway and trampling has thinned the carpet of tradescantia. Old horse-drawn farm equipment abandoned under the trees many years ago (probably from Tricia's grandfather's days) was the subject of interest for some (Fig. 9). Several pukatea (*Laurelia novae-zelandiae*) and a large rimu occur here, with buttressed root systems having become elevated as the original swamp level dropped following drainage of the area (Fig. 10). The exposed roots provided a pretty picture with reflections in a small pond (Fig. 11). A bit further up in the gully, back through the fence, was an exceptionally large kahikatea. From here we climbed up on to the ridge. A large puriri with many new sprouts at the base leans back over the gully side and karaka (*Corynocarpus laevigatus*) has seeded prolifically forming a dense grove of saplings up on the flat (Fig. 12).

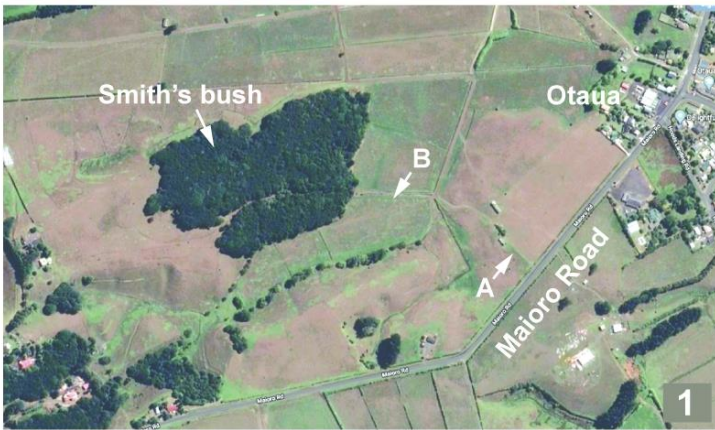
Most of the taraire along the northern fence line, being open to drying winds, showed the effects of the drought and appeared almost ghostly. Just out of the fenced area were more taraire, tawa and

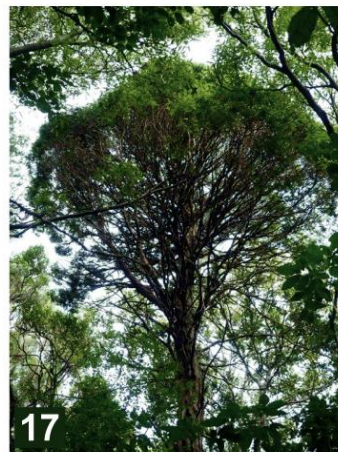
another tall white maire. It was commented that one rarely sees sapling taraire and as we made our way around the western boundary we noted one about one metre tall struggling to survive. A storage bin (mysterious for some because of Greek inscriptions) and a mustelid trap were noted in the thick carpet of tradescantia (Fig. 13). These bins (three in total) were made by a family member to provide food for released young pheasants and are designed as a self-feed system. The birds, during rearing, have learned that pecking at the spring-loaded mechanism at the base releases pellets.

We gathered at the western end of the race to sit in the sun for lunch (Fig. 14). A tall nikau with a burden of *Astelia hastata* intermingled with *Asplenium polyodon* was the subject of interest. Ben collected a piece of foliage from a lemonwood sapling and we compared the leaves with those from Tricia's nursery-grown garden one. It was noticeable that the locally naturally-occurring specimen had much wider, flatter, paler and less-wavy edges (Fig. 15).

After lunch we went into the southern part; flat near the race and then sloping down to the pastureland. The main aim in this section was to view the mature kawaka and then take up the challenge to relocate the parent lemonwood. Gwenyth and Tricia had failed to find it during a quick visit prior to the field trip. Similar species occur, but with kawakawa (*Macropiper exelsum*) more frequent than on the northern side. As with those to the north, several of the taraire and rimu showed signs of stress from the drought, with considerable browning of foliage. Midway along is the kawaka, a splendid tree and the better of the two recorded for the Awhitu District (Aspin 2008:180) (Figs. 16, 17). In a lighter area near the race, seedlings had been previously noted but none were evident today. However, it was good to note that two of the dwarf cabbage trees (*Cordyline pumilio*) have survived, and cutty grass (*Gahnia lacera*) (confirmed by Geoff) was added to the list. Along here too were occasional clumps of *Carex banksiana*. There is much less tradescantia in this

Figs. 1–11: 1. Smith's Bush viewed from above showing north and south sections split by farm race. A: Cars parked here. B: Farm race across the flats. Screen-shot from Google Earth, modified by Josh Salter on 02 July 2020. 2. Eastern entrance showing: dominant broad-leaved trees, taraire and puriri with emergent rewarewa; and the podocarps rimu and kahikatea to the left with rimu and matai to the right. Photo: JS. 3. A short walk down the farm race takes us to the bush edge. Photo: ND. 4. Frances and Richard check the bank providing a habitat for bryophytes and several ferns. Photo: ND. 5. *Passiflora tetrandra* in fruit, scrambling over *Melicope simplex* on north side of race. Photo: BD. 6. Much of the area has a dense understorey of young nikau. Photo: JS. 7. Taraire bark in Smith's Bush often displays "rings" and this tree also provides a foothold for *Microsorium scandens*. Photo: JS. 8. The furrowed bark of the root of the woody epiphyte *Griselinia lucida* which has descended from high in the taraire canopy. Photo: JS. 9. Abandoned well before the Smiths' time is old horse-drawn farm machinery at the entrance to the small gully. Photo: JS. 10. Pukatea and rimu (behind) with exposed roots probably due to the ground shrinking as the flats were drained. Photo: BD. 11. The buttressed roots of pukatea and reflections in a small pool. Photo: JS.





Figs. 12–23: **12.** A thick grove of sapling karaka on the north-western side of the bush. Photo: JS. **13.** Kseniia and Wendy check out the pheasant feeding station and stoat trap in the thick carpet of tradescantia at the western end of the bush. Photo: JS. **14.** Lunch in the sun at the western end of the bush. Photo: JS. **15.** Foliage comparison of *Pittosporum eugenioides*. Wider, less wavy-leaved Smith's bush specimen (left) and Tricia's nursery-grown specimen of unknown provenance (right). Photo: JS. **16.** The shaggy bark on the lower trunk of the kawaka tree. Photo: JS. **17.** The umbrella-like crown of the kawaka emerges from high in the canopy. Photo: BD. **18.** *Blechnum filiforme*, a ground cover in parts of the southern section. Photo: JS. **19.** On the southern slope Peter holds the foliage of a sapling *Melicope simplex* x *M. ternata*. Photo: JS. **20.** Some *Melicope simplex* x *M. ternata* leaves were ternate and some were simple. Photo: JS. **21.** The decaying log; all that is left of the parent lemonwood tree. Photo: JS. **22.** The climbing rata, *Metrosideros fulgens*, meets its match in the unwanted embrace of a double-trunked taraire. Photo: JS. **23.** Gwenyth and Tricia, with Smith's bush beyond. Photo: JS.

section and it was pleasing to note that *Blechnum filiforme* is often the groundcarpeting species (Fig. 18). Along the slope Frances noted a sapling of the hybrid *Melicope simplex* x *M. ternata*, so tall that Peter had to hold it down for a photo (Figs. 19, 20).

The challenge now was to locate the parent lemonwood tree. Gwenyth and Tricia knew where it should have been but to those of us up front it remained elusive until Geoff and Ben announced they were afraid that they had found it. We gathered around a decaying log on which the remaining bark had convinced Geoff and Ben that it was consistent with that of the species. On the trunk, at about where DBH once was, an approximate measurement of 0.5 m was gauged, a dislodged side branch was noted, and the stepping out of the length to around 16 m confirmed that this log was the tree photographed and measured in September 2006 (Aspin 2008: 188) (Fig. 21). It had been good to find that several seedlings were now present throughout the bush. A large red rata vine (*Metrosideros fulgens*) was nearby on taraire and Joshua noted one

that had made a bad move (Fig. 22). Young rata foliage was also on the bush floor and *Peperomia urvilleana* was observed with the comment that it is usually epiphytic. Previously Gwenyth and Tricia had noted several others to be terrestrial in the north-eastern section.

As we vacated the bush a raucous cacophony of myna birds bid us farewell on the short walk back along the farm race to complete the day. Birds noted on the day were eastern rosella, fantail, harrier hawk, Indian myna, tui, waxeye.

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Joshua thanks Gwenyth and Tricia for nurturing this lovely bush reserve (Fig. 23).

Reference

Aspin, P. A. 2008: *Maio to Manukau Heads*. Tricia Aspin, Waiuku.

Appendix. Native vascular plants of Smith's Bush, Otatau.

Based on a list by P. A. Aspin, G. Smith 14 Sept 2006.

ABS = species added during Auckland Botanical Society field trip 18 July 2020

Ferns				
<i>Adiantum cunninghamii</i>	common maidenhair		<i>Cyathea dealbata</i>	ponga, silverfern
<i>Adiantum hispidulum</i>	rosy maidenhair		<i>Cyathea medullaris</i>	mamaku, black tree fern
<i>Arthropteris tenella</i>		ABS	<i>Deparia petersenii</i>	
<i>Asplenium bulbiferum</i>	manamana, hen and chickens fern		<i>Doodia australis</i>	pukupuku, rasp fern
<i>Asplenium flaccidum</i>	makawe o raukatauri, hanging spleenwort		<i>Lastreopsis glabella</i>	smooth shield fern
<i>Asplenium oblongifolium</i>	huruhuruwhenua, shining spleenwort		<i>Lastreopsis microsora</i>	
<i>Asplenium polyodon</i>	petako, sickle spleenwort		<i>Microsorium pustulatum</i>	kowaowao, hound's tongue
<i>Blechnum chambersii</i>		ABS	<i>Microsorium scandens</i>	mokimoki, fragrant fern
<i>Blechnum filiforme</i>	thread fern		<i>Pteridium esculentum</i>	rahurahu, bracken
			<i>Pteris macilenta</i>	sweet fern
			<i>Pteris tremula</i>	shaking brake
			<i>Pyrrosia elaeagnifolia</i>	leatherleaf fern

Gymnosperms					
<i>Dacrycarpus dacrydioides</i>	kahikatea			<i>Melicope ternata</i>	wharangi ABS
<i>Dacrydium cupressinum</i>	rimu			<i>Melicytus micranthus</i>	small-leaved mahoe
<i>Libocedrus plumosa</i>	kawaka			<i>Melicytus ramiflorus</i>	mahoe, whiteywood
<i>Phyllocladus trichomanoides</i>	tanekaha			<i>Metrosideros fulgens</i>	aka kura, red rata ABS
<i>Podocarpus totara</i>	totara			<i>Metrosideros perforata</i>	aka, small white rata
<i>Prumnopitys taxifolia</i>	matai			<i>Mida salicifolia</i>	maire-taiki ABS
<i>Prumnopitys ferruginea</i>	miro			<i>Muehlenbeckia australis</i>	bush pohuehue
				<i>Muehlenbeckia complexa</i>	pohuehue (on barberry, NE edge)
				<i>Myrsine australis</i>	mapou, red matipo
				<i>Nestegis lanceolata</i>	white maire
				<i>Parsonsia heterophylla</i>	kaihua, NZ jasmine
				<i>Passiflora tetrandra</i>	kohia, native passionfruit
				<i>Peperomia urvilleana</i>	wharanui, peperomia
				<i>Pittosporum eugenioides</i>	tarata, lemonwood
				<i>Pittosporum tenuifolium</i>	kohuhu
				<i>Pseudopanax crassifolius</i>	horoeaka, lancewood
				<i>Pseudopanax lessonii</i>	houpara ABS
				<i>Pseudopanax crassifolius</i> x <i>P. lessonii</i>	ABS
				<i>Senecio hispidulus</i>	fireweed ABS
				<i>Streblus heterophyllus</i>	ABS
				<i>Veronica plebeia</i>	ABS
				<i>Vitex lucens</i>	puriri
Dicotyledons				Monocotyledons	
<i>Alectryon excelsus</i>	titoki			<i>Carex banksiana</i>	
<i>Beilschmiedia tarairi</i>	taraire			<i>Carex solandri</i>	
<i>Beilschmiedia tawa</i>	tawa			<i>Carex uncinata</i>	hook sedge
<i>Brachyglottis repanda</i>	rangiora			<i>Astelia hastata</i>	kahakaha, perching lily
<i>Carmichaelia australis</i>	native broom			<i>Cordyline australis</i>	ti kouka, cabbage tree
<i>Clematis paniculata</i>	puawanga, clematis			<i>Cordyline pumilio</i>	ti rauriki, dwarf cabbage tree
<i>Coprosma arborea</i>	mamangi			<i>Earina mucronata</i>	
<i>Coprosma areolata</i>				<i>Gahnia lacera</i>	cutty grass ABS
<i>Coprosma lucida</i>	shiny karamu			<i>Microlaena stipoides</i>	patiti, meadow rice grass
<i>Coprosma rhamnoides</i>				<i>Oplismenus hirtellus</i>	panic grass
<i>Coprosma robusta</i>	karamu	ABS		<i>Pterostylis banksii</i>	tutukiwi
<i>Coprosma spathulata</i>				<i>Rhopalostylis sapida</i>	nikau
<i>Coprosma rigida</i>				<i>Ripogonum scandens</i>	kareao, supplejack
<i>Corynocarpus laevigatus</i>	karaka				
<i>Dysoxylum spectabile</i>	kohekohe				
<i>Geniostoma ligustrifolium</i>	hangehange				
<i>Geranium homeanum</i>		ABS			
<i>Griselinia lucida</i>	broadleaf	ABS			
<i>Haloragis erecta</i>	toatoa, shrubby haloragis	ABS			
<i>Hedycarya arborea</i>	porokaiwhiri, pigeonwood				
<i>Knightia excelsa</i>	rewarewa				
<i>Kunzea robusta</i>	kanuka (southern end)				
<i>Laurelia novae-zelandiae</i>	pukatea				
<i>Leucopogon fasciculatus</i>	mingimingi, soft-leaved mingimingi				
<i>Piper exelsum</i>	kawakawa				
<i>Melicope simplex</i>					
<i>Melicope simplex</i> x <i>M. ternata</i>		ABS			