DUNN'S BUSH - PUHOI

E.K. Cameron & S. Jones

Dunn's Bush is a privately owned podocarp-taraire forest covering 50 ha, and is situated 5 km north-west of Puhoi on the southern side of the Puhoi Ahuroa Rd on a tributary of the Puhoi River (NZMS 260 R09 544-556/216-225, 35-160 m asl). Most of the bush is in a dissected valley leading up to and including a forested ridge. The area was the largest of five forest remnants studied by Andrew Young (1988) in a recent ecological survey. The following information was compiled during four (day) trips (15.6.86 - 17.4.88), including one by ABS. The area is floristically rich with 149 native plant species being recorded in and next to the block.

The forest is on Arthur and Val Dunn's 343 ha farm and was legally protected by them in 1987 under a Queen Elizabeth II National Trust covenant (No. B.668668). Pasture surrounds the block and on the other side of the road a pine plantation has been established. Remigers Scenic Reserve of 9.3 ha (not visited by us) was given by the Dunns in 1982 to the Department of Lands and Survey; this is situated close to Dunn's Bush but not connected to it. Fencing the covenanted block was completed in June 1986 but still a few feral goats exist inside the boundary. The upper areas of the block contain regenerating forest (mainly podocarps) but the valley (taraire/ kahikatea) has never been milled.

The most widespread forest cover is taraire which dominates the valleys. Under this dense canopy the ground is rather bare and shrubs scarce. It appears to be the perfect habitat for Yoania australis, which so far is unrecorded here. A few large kahikatea grow along the stream margins, the largest measured 180.4 cm diameter at 2m (May 1988); the tree appeared to be very healthy but was hollow inside. Further down this valley the only towai (Weinmannia silvicola) tree seen, measured 51.5 cm dbh (March 1987). Towai seedlings were locally frequent on adjacent treefern trunks. Three treefern species (wheki, mamaku, Cyathea smithii) grow near the stream. Kohekohe and tawa are scattered amongst the taraire, but not large in size.

The ridges and upper boundaries are dominated by podocarps (especially totara) and apart from white maire and puriri, hardwood tree species are few. Ponga (Cyathea dealbata) is the abundant understorey plant here. Kauri is confined to a single small area on an upper ridge and tanekaha is absent.

The most unusual plant recorded was Asplenium hookerianum which north of Auckland is known in few localities. The healthy population of this small fern is on both sides of the upper ridge under totara canopy. Val Dunn has also found a separate colony of A. hookerianum on a rocky, forested peak, outside the reserved area, but still on the farm. Associated with the reserved A. hookerianum and not seen elsewhere in Dunn's Bush were two other ferns (Adiantum viridescens, Doodia media) and the shrub, Rhabdothamnus solandri.

Browsing has all but eliminated large-leafed shrubs (especially Macropiper (eliminated?), Coprosma spp. and Alseuosmia) from the forest. Now the block is fenced, seedlings of these species are locally frequent though goat browsing is still evident. The several medium-sized

northern tree rata on the mid-slope had very healthy canopies. Arthur informed us that 5 years ago their canopy was very sparse, but since poisoning in the area for possums the rata canopies have recovered quickly. A cursory comparison of understories with a smaller adjacent area of bush (without goats) which had been fenced for about 3 years was quite dramatic revealing a denser understorey of shrubs and many seedlings of canopy species.

Dunn's Bush is virtually free of weeds and the introduced plants present were mainly confined to an open grassy-gorse, north-facing area by the ridge. This area will naturally revert to forest with time. No nasty weed species were recorded in the area but constant monitoring for their appearance would be advisable.

It was fantastic to meet such enthusiastic, rural conservationists as the Dunns. We thank them for their time and knowledge they shared with us. We also thank the members on the ABS (21.3.87) and Auckland Natural History Club (17.4.88) field trips for their observations.

VASCULAR PLANTS FOR DUNN'S BUSH

* adventive species
† in bush just outside fenceline
†† in fenced remnant near reserve
# on Dunn's Farm (Young 1988)

a = abundant
c = common
f = frequent
o = occasional
l = local
r = rare

Ferns & fern allies

Adiantum fulvum
A. viridescens l AKU 20996
Anarthropteris lanceolata o
Asplenium bulbiferum ssp. bulbiferum o
A. flaccidum ssp. flaccidum f
A. hookerianum l AKU 19633
A. oblongifolium o
A. polyodon f
Blechnum chambersii l
B. filiforme o
B. fraseri o
B. membranaceum o
B. sp. "capense" l
Cyathea dealbata a
C. medullaris o
C. smithii o AKU 20340
Deparia petersenii ssp. congrua r
Dicksonia squarrosa o
Doodia media ssp. australis l
Histiopteris incisa ††
Hymenophyllum demissum o
H. dilatatum o
H. ferrugineum r
H. flabellatum l
H. revolutum o
H. sanguinolentum l
Lastreopsis glabella l
L. hispida o
L. microsora ssp. pentangularis o
Leptopteris hymenophylloides o
Lycopodium varium r
Lygodium articulatum f
Paesia scaberula l
Phymatosorus diversifolius f
P. scandens f
Pneumatopteris pennigera f
Pteridium esculentum o
Pteris tremula o
Pyrrosia serpens o
Rumohra adiantiformis o
Tmesipteris elongata ssp. elongata o
T. lanceolata o
T. sigmatifolia r
T. tannensis r
Trichomanes elongata l
T. venosum o

Gymnosperms

Agathis australis 1
Dacrycarpus dacrydioides o
Dacrydium cupressinum o
Podocarpus hallii 1
P. totara f
Prumnopitys ferruginea o
P. taxifolia r

Dicotyledons

Alectryon excelsus o
Alseuosmia macrophylla 1
Aristotelia serrata ††
Beilschmiedia tarairi a
B. tawa 1
Brachyglottis repanda r
Callitriche muelleri 1 AKU 20338
Carmichaelia aligera 1
Carpodetus serratus c
Centella uniflora o
*Cirsium vulgare f
Clematis paniculata o
*Conyza albida o
Coprosma arborea 1
C. areolata f
C. grandifolia 1
C. lucida r
C. rhamnoides o
C. robusta †
C. spathulata #
Corynocarpus laevigatus #
Dracophyllum latifolium 1
Dysoxylum spectabile c
Elaeocarpus dentatus o
Elatostema rugosa 1
Epilobium rotundifolia 1 AKU 20339
Galium propinquum 1
Geniostoma rupestre f
Gnaphalium gymnocephalum o
*G. simplicicaule o
Griselinia lucida f
Haloragis erecta †
Hebe macrocarpa 1
Hedycarya arborea o
Hoheria populnea #
Hydrocotyle dissecta 1
*Hypochoeris radicata o
Knightia excelsa o
Kunzea ericoides 1
Laurelia novae-zelandiae o
Leptospermum scoparium †
Leucopogon fasciculatus o
Litsea calicaris r
Lobelia anceps 1
*Lotus sp. o
Macropiper excelsum #
Melicytus macrophyllus o
M. ramiflorus ssp. ramiflorus o
Metrosideros diffusa f
M. excelsa x M. robusta r
M. fulgens c
M. perforata f
M. robusta o
Mida salicifolia r
Myrsine australis 1
M. salicina r
Nertera depressa o
N. dichondrifolia f
Nestegis lanceolata f
Olearia rani 1
*Physalis peruviana r
Pittosporum cornifolium o
P. tenuifolium o
*Plantago lanceolata o
*Prunella vulgaris o
Pseudognaphalium luteoalbum o
Pseudopanax arboreus 1
P. crassifolius c
P. edgerleyi r
Ranunculus reflexus 1
*R. repens o
Rhabdothamnus solandri 1
Rubus australis o
R. cissoides f
Schefflera digitata 1
*Senecio bipinnatisectus o
S. ?biserratus r
Solanum ?americanum 1
Streblus heterophyllus o
*Ulex europaeus 1c
Vitex lucens o
Weinmannia silvicola 1

Monocotyledons

Acianthus fornicatus var. sinclairii o
*Agrostis capillaris lc
*Anthoxanthum odoratum lc
Astelia solandri f
*Axonopus affinis lc
Bulbophyllum pygmaeum o
Carex dissita o
C. ochrosaccus f
Collospermum hastatum a
Cordyline australis o
C. banksii r
Corybas trilobus (M. Young pers. comm.)
*Cyperus brevifolius lc
*Dactylis glomerata l
Dendrobium cunninghamii o
Drymoanthus adversus o
Earina autumnalis r
E. mucronata c
Freycinetia banksii o
Gahnia lacera l
*Juncus effusus l
J. gregiflorus l
Libertia grandiflora lc
Microlaena avenacea o
Oplismenus imbecillis c
*Paspalum dilatatum l
Pterostylis alobula o
Rhopalostylis sapida f
Ripogonum scandens f
Rytidosperma gracile o
*R. racemosum o
R. unarede o
Schoenus maschalinus r
Scirpus reticularis lf
*Sporobolus africanus l
Uncinia uncinata o

REFERENCE

Young, A.G. 1988. The ecological significance of the edge effect in a fragmented forest landscape. Unpublished MSc thesis, University of Auckland.

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WATCHMAN ISLAND - WAITEMATA HARBOUR

E.K. Cameron

Watchman Island (NZMS 260 R11 649837) near the Waitemata Harbour Bridge is situated 0.6 km away from Home Bay, which is the closest land to the island. Watchman Island is uninvestigated land held in trust by the Crown and has underlying Maori ownership. On 8 November 1987 I dusted off the cobwebs from my surfboard and paddled out to the island, fighting a strong out-going tide.

The island is flat-topped, about 6 m asl, steep-sided (eroding) and composed of Waitemata sediments. An extensive shore platform is exposed at low tide, especially on the northern side. The flat top of the island is triangular in shape, measuring some 15x15 m. At the centre of the island there is a metal reflector 236 cm tall with 2 faces, each 115 cm wide (Harbour Board marker?). The only woody vegetation is seven pohutukawa, one in each corner and four others along the southern cliff edge. Most pohutukawa are in precarious positions. The one in the south-east corner has recently fallen down to the shore platform leaving