

LEUCOBRYACEAE	<i>Leucobryum javense</i>			+	
NECKERACEAE	<i>Pendulothecium punctatum</i>			+	
ORTHOTRICHACEAE	<i>Macrocoma tenue</i>	1871		+	AK 10959
	<i>Macromitrium gracile</i>			+	
	<i>Macromitrium prorepens</i>	1979		+	AK 318287
	<i>Zygodon ?menziesii</i>			+	
POTTIACEAE	<i>Syntrichia papillosa</i>			+	
	<i>Tortula truncata</i> *		+		
	<i>Trichostomum ?sciophilum</i>		+	+	
	<i>Weissia controversa</i> var. <i>gymnostoma</i>	1979			AK 324884
PTYCHOMNIACEAE	<i>Ptychomnion aciculare</i>	1979		+	AK 324323
	<i>Tetraphidopsis pusilla</i>			+	
RACOPILACEAE	<i>Racopilum robustum</i>	1979			AK 359808
	<i>Racopilum strumiferum</i>	1979		+	AK 324318
RHIZOGONIACEAE	<i>Hymenodon pillifer</i>	1979			AK 324883
SEMATOPHYLLACEAE	<i>Rhaphidorrhynchium amoenum</i>	1979		+	AK 324322
THUIDIACEAE	<i>Thuidiopsis furfurosa</i>	1979			AK 324320
	<i>Thuidiopsis sparsa</i>			+	
TOTALS:	Both sites collectively: 46		8	43	

BioBlitz 2015: List of liverworts from Kepa Bush, Auckland

J. E. Braggins

The list of 26 liverwort species (see Table) is based on collections from 1979 by M.R. Idoine, and 2015 by JEB, P. de Lange, D. Blanchon and J. Salter collections. For a general introduction to the area and to the event see Cameron (2015).

There seem to be two cohorts of species in the collections. The main group are species on bark or soil, mostly bark, from relatively dry sites e.g. the species of *Frullania*, *Metzgeria furcata*, and Lejeuneaceae. The other group are associated with damper habitats notably *Trichocolea*, *Plagiochila*, *Symphyogyna*, etc.

Metzgeria furcata is perhaps the commonest liverwort in the reserve, clothing many tree trunks in the upper part of the reserve, and even on old tyres

in the privet 'forest' between the paddock and the estuary (Figs. 1 & 2). The tiny species in the Lejeuneaceae are not uncommon but are difficult to locate and tend to be under represented in collections. On the basis of knowledge of other local areas, further collecting should reveal more species as the collecting efforts during BioBlitz were unfortunately restricted by personal circumstances.

In general, the collections reflect habitats that often dry out and the species are mostly fairly common in the Auckland area. Perhaps the most unusual find is the *Trichocolea hatcheri* which is not a particularly common liverwort. The large *Plagiochila obscura* present here is also present at Dingle Dell (Wilcox et al. 2013) as well as being common on Rangitoto Island (Braggins 2007) .



Fig. 1. Discarded tyres under privet canopy, between Pourewa Reserve paddocks and estuary; an unusual habitat for a liverwort. Photo: Joshua Salter, 20 Mar 2015.



Fig. 2. *Metzgeria* sp. growing vigorously on discarded tyres, Pourewa reserve (detail of Fig. 1). Photo: Joshua Salter, 20 Mar 2015.

References

- Braggins, J.E. 2007: Liverworts and hornworts. *In*: Wilcox, M.D. (ed.) Natural History of Rangitoto Island. *Auckland Botanical Society Bulletin* 27: 127–134.
- Cameron, E.K. 2015: BioBlitz 2015: Pourewa Reserve and Kepa Bush, 27–28 Mar 2015, Auckland – general introduction and vascular plants. *Auckland Botanical Society Journal* 70: 109–129.
- Wilcox, M.; Cameron, E.; Braggins, J.; Beever, J.; Blanchon, D.; Kooperberg, R.; Shirley, C. 2013: Flora of Dingle Dell Reserve, St Heliers. *Auckland Botanical Society Journal* 68: 118–132.

Species	Notes	Herbarium voucher
<i>Archilejeunea olivacea</i>	Medium-sized plants on bark; may form obvious patches	AK 357098
<i>Bazzania tayloriana</i>	A medium-sized liverwort with a blueish tinge, usually on tree bases or soil	AK 357392
<i>Chiloscyphus lentus</i>	Small, delicate leafy, bilobed leaves, on bark, or dead bark low on trees, especially kanuka	AK 329322, 357015
<i>Chiloscyphus semiteres</i> var. <i>semiteres</i>	Small, soft, curved over, unlobed leaves, on soil, usually in open rather dry sites	AK 300847
<i>Cololejeunea minutissima</i>	A minute epiphyte usually on bark; may be found in exposed sites	AK 357108
<i>Frullania pentapleura</i>	Epiphyte on trees; small, unlobed leaves with lobules; perianth smooth and 5 ribbed	AK 357020, 357086
<i>Frullania rostellata</i>	A common bark epiphyte in Auckland; the perianths are distinctive, being covered with short projections	AK 357390
<i>Frullania rostrata</i>	Tiny epiphytic plants on fairly exposed bark	AK 255796, 255799, 357106
<i>Heteroscyphus supinus</i>	Medium, firm, unlobed leaves; on trackside clay banks in shade	AK 330090, 330091
<i>Heteroscyphus triacanthus</i>	Trace only, in with AK 328127, medium in size, delicate, triple lobed leaves, in damp dark places, usually on clay soil	
<i>Lejeunea hodgsoniana</i>	Tiny, round unlobed leaves; plant forms small patches on bark	AK 357083
<i>Lejeunea</i> sp. aff. <i>flava</i>	Tiny unlobed leaves, rather pale green; common on tree trunks; about 4x size of <i>Metalejeunea</i>	AK 357016, 357097
<i>Lopholejeunea</i> sp.	Small, brownish green unlobed leaves and underleaves, in patches, on bark of trunks	AK 357017
<i>Marsupidium knightii</i>	Medium, many toothed leaves, in patches at base of trees in damper shaded places	AK 317121

<i>Megaceros</i> sp.	Medium-sized, thalloid, very dark green, firm thallus; only in damp dark areas	AK 328127
<i>Metalejeunea cucullata</i>	Tiny, unlobed leaves, creeping amongst other epiphytic liverworts	AK 356816, 357018
<i>Metzgeria furcata</i>	Small, no leaves, thallus only, in patches; very common on a range of tree trunks	AK 320753, 320804, 357021
<i>Metzgeria leptoneura</i>	Small, no leaves, thallus only; on shaded bark	AK 357084
<i>Plagiochila obscura</i> (= <i>P. arbuscula</i> var. <i>arbuscular</i>)	Large, toothed leaves, multibranched, plants low on tree trunks in damp areas	AK 316692, 357096
<i>Porella</i> sp. aff. <i>elegantula</i>	Medium, unlobed leaves, large underleaves and lobules, brownish green; epiphyte on trunks and branches usually well off ground	AK 357019
<i>Reboulia hemisphaerica</i>	Large, thalloid plant (no leaves), thallus firm; on soil often in fairly seasonally dry sites	AK 312061
<i>Siphonolejeunea nudipes</i>	A tiny epiphyte with relatively long leaves; common on trunks	AK 357107
<i>Symphogyna tenuinervis</i>	Medium, thalloid, thallus thin; usually on shaded damp clay banks	AK 319711
<i>Telaranea herzogii</i>	A tiny delicate plant usually on rotting wood, or tree or tree fern bases in damp places	AK 357110
<i>Thysananthus anguiformis</i>	Medium-sized liverwort on bark; may form patches; easily confused with <i>Archilejeunea</i>	AK357105
<i>Trichocolea hatcheri</i>	Forms a small multi-branched fluffy mat on damp soil or rock, usually near streams	AK 357085

BioBlitz 2015: Pourewa Reserve and Kepa Bush, Auckland – Algae

Mike Wilcox

This BioBlitz was organised by the Auckland Museum. Headquarters for the event was set up on the Ngati Whatua Orakei Trust's land below Kepa Road in Orakei, formerly owned by the Auckland Council. Algae were searched for in three habitats (a) horse troughs, (b) forest and freshwater creeks (Kepa Bush Reserve), and (c) the mangrove-lined shores of Pourewa Creek, which flows into the Waitemata Harbour. For a general introduction to the area and to the event see Cameron (2015).

Yellow-green algae (Xanthophyceae)

Vaucheria cf. *conifera*

This was plentiful on damp, shaded clay or mudstone on the northern bank of Pourewa Creek, at the upper tidal level. Sterile. Specimen: AK 357821 (*MW 6028*).

Brown algae (Phaeophyceae)

Hormosira banksii

The main occurrence of this free-living form was on the northern side of Pourewa Creek, on mud at the

back of mangroves, directly below the BioBlitz marquee. Specimen: AK 357820 (*MW 6036*)

Diatoms (Bacillariophyceae)

Melosira nummuloides

Epiphytic on *Bostrychia simpliciuscula*, attached to dying-off stems of the sedge *Bolboschoenus medianus*, Pourewa Creek, below Kepa Bush Reserve. Specimen: microphoto only.

Green algae (Chlorophyta)

Cephaleuros lagerheimii

Plentiful as a parasite on the leaves of mahoe (*Melicytus ramiflorus*) in Kepa Bush Reserve. Specimen: *MW 6034*.

Oedogonium sp.

This was the only strictly freshwater alga recorded. It formed a submerged green scum in a horse trough near the BioBlitz marquee. Specimen: AK 357827 (*MW 6033*).