

A checklist of the bryophytes of the Pelorus Bridge Scenic Reserve,
Marlborough

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A bryological foray, organized under the auspices of Botany Division, DSIR, was held between 23 September - 2 October 1983 at the Pelorus Bridge Scenic Reserve in western Marlborough. Twenty-seven amateur and professional botanists attended. The purpose of the foray was to facilitate the exchange of knowledge concerning bryophytes, rather than the accumulation of an exhaustive catalogue of the species within the Reserve. Nevertheless, the aggregation of many collectors at a single locality yielded a substantial sampling of the bryophytes of the Reserve; the list following includes 134 mosses, 85 hepatics, and 4 hornworts. Some of the determinations presented in this list, particularly for hepatics, are tentative. Despite this, we believe that the list will be of some value to collectors working in the Marlborough region. With diligent collecting, we have no doubt that this list could be expanded.

Pelorus Bridge Scenic Reserve is located on the main highway between Nelson and Blenheim, 55 km north-west of Blenheim, at 41°18'S, 173°34'E. The Reserve encloses 1008 hectares, ranges in elevation from less than 30 m to 564 m above sea level, and incorporates outstanding examples of lowland forest. The lower terraces are dominated by rimu and kahikatea with tree-ferns (especially *Cyathea dealbata*) conspicuous in the lower strata. The upper river terraces and mid-elevation slopes are covered by a mosaic of forest communities, with an overstory of scattered large podocarps and a main canopy of such species as tawa (here approaching its southern limit), kamahi, black beech, and mahoe. At higher elevations this mixed podocarp-broadleaved forest gives way to beech forest consisting mainly of hard beech, but including black and red beech and scattered rimu. An informative, popular account of the vegetation of the Reserve is provided by G.C. Kelly (undated).

The Reserve has a rich bryophyte flora, although in general bryophytes are not as conspicuous a component of the vegetation as they are in areas of higher rainfall. Among the hepatics, many taxa which are common in New Zealand rainforests are conspicuously absent - e.g. *Schistochilae*, *Trichocoleae*, larger species of *Lepidozia*, and *Plagiochila gigantea*.

While more of these taxa may eventually be located in damp, sheltered habitats in the Reserve, the general bryological impression is of a forest subject to occasional drought. The more common species of hepatics within the Reserve, belonging to such groups as *Lepidolaena*, *Frullania*, and *Lejeunea sensu lato*, are ones capable of surviving drought.

Within the Reserve bryophytes were collected primarily at the following localities : the vicinity of the suspension footbridge over the Rai River, in the vicinity of the track leading from the highway bridge to the suspension bridge, on the "Falls Track" between the highway and Elvy Stream, and along the "Trig K Track". Two species (*Pseudoscleropodium purum*, *Triquetrella papillata*), collected from roadside areas adjacent to the Reserve, are included. No attempt has been made to incorporate older reports, although Sainsbury (1955) recorded some species from Pelorus Bridge (e.g. *Ephemeropsis trentepohlioides*) which are not recorded here. Some species are included on the basis of collections made by the first author during a preliminary trip to the Reserve on 1-3 September 1982.

The first author is primarily responsible for the moss list, while the second author is primarily responsible for the hepatics and hornworts. Jessica Beever collected and determined a large number of moss specimens, referring some to the first author for confirmation. Many moss specimens are cited, with thanks, on her authority. Patrick Brownsey and Philippa Horn submitted specimens for examination by the first author, and thus made the list more complete; their help is gratefully acknowledged. We thank the Commissioner of Crown Lands (Ian Mitchell; Blenheim) for permission to collect within the Reserve, as well as Morris and Margaret James for "on site" assistance. Margaret Bulfin and Susan Noseworthy provided invaluable assistance with the organization of the foray. Voucher specimens for each species are cited by accession numbers in AKU, CHR, or WELT, except for a few cases in which only a sight record (indicated by an asterisk) was obtained. Three species of hepatics and three of hornworts are cited on the authority of Ella Campbell. Of these, the authors have not seen material; these species are indicated by a double asterisk (**).

Literature

- Kelly, G.C. undated. Pelorus Bridge Scenic Reserve. 6pp. Department of Lands and Survey.
- Sainsbury, G.O.K. 1955. A Handbook of the New Zealand Mosses. Bulletin of the Royal Society of New Zealand 5: 1-490.

Mosses

Polytrichaceae

<i>Atrichum androgynum</i>	AKU 68040; WELT M6890
<i>Pogonatum subulatum</i>	CHR 104352
<i>Polytrichadelphus magellanicus</i>	WELT M6965
<i>Polytrichum juniperinum</i>	WELT M6966

Fissidentaceae

<i>Fissidens anisophyllus</i>	WELT M6924
<i>F. asplenioides</i>	AKU 67961; CHR 104355, 104366,
<i>F. dealbatus</i>	AKU 68503
<i>F. leptocladus</i>	CHR 104033, 104057
<i>F. oblongifolius</i>	AKU 68502
<i>F. cf. pallidus</i>	CHR 104300
<i>F. pungens</i>	CHR 104368
* <i>F. rigidulus</i>	
<i>F. tenellus</i>	AKU 68494
<i>F. vittatus</i>	AKU 68380

Grimmiaceae

<i>Racomitrium crispulum</i>	AKU 67973; CHR 104281
<i>Schistidium apocarpum</i>	AKU 67967; CHR 104301

Ditrichaceae

<i>Ceratodon purpureus</i>	AKU 67970; WELT M6909
<i>Chrysoblastella chilensis</i>	CHR 104283
<i>Ditrichum cylindricarpum</i>	AKU 67999; CHR 104367
<i>D. difficile</i>	CHR 104358
<i>Pleuridium subulatum</i>	CHR 104058; WELT M6963

Dicranaceae

<i>Campylopus clavatus</i>	WELT M6904
<i>C. introflexus</i>	CHR 104359, 104361
<i>C. pyriformis</i>	AKU 68500
<i>Dicranoloma billardieri</i>	WELT M6914
<i>D. dicarpum</i>	CHR 104025; WELT M6916
<i>D. fasciatum</i>	AKU 68137; CHR 104068
* <i>D. menziesii</i>	AKU 68001, 68009, 68049
<i>D. plurisetum</i>	CHR 104282
<i>D. setosum</i>	CHR 104026, 104346
<i>Holomitrium perichaetiale</i>	CHR 104304

Leucobryaceae

**Leucobryum candidum*

Dicnemonaceae

<i>Dicnemon calycinum</i>	AKU 68046; WELT M6913
<i>Eucamptodon inflatus</i>	CHR 104410
<i>Mesotus celatus</i>	AKU 68505

Pottiaceae

? <i>Molendoa</i> sp.	CHR 104375
<i>Tortella knightii</i>	CHR 104380
<i>Trichostomum</i> cf. <i>brachydontium</i>	WELT M6986
<i>Tridontium tasmanicum</i>	CHR 104064; WELT M6983
<i>Triquetrella papillata</i>	WELT M6984
<i>Weissia controversa</i>	AKU 68497; WELT M6985
<i>W. rutilans</i>	WELT M6986

Orthotrichaceae

<i>Macrocoma tenue</i>	CHR 104067; WELT M6956
<i>Macromitrium gracile</i>	CHR 104287, 104339
<i>M. helmsii</i>	CHR 104379
<i>M. ligulaefolium</i>	WELT M7116, M6954
<i>M. longipes</i>	CHR 104309
<i>M. microstomum</i>	AKU 68490; WELT M6950, M6953
<i>M. prorepens</i>	AKU 67964; CHR 104291, 104306
<i>Zygodon intermedius</i>	AKU 68101; CHR 104340, 104376

Gigaspermaceae

Gigaspermum repens AKU 68379

Funariaceae

Funaria glabra AKU 68078; CHR 104018; WELT M6928

*F. hygrometrica

Bryaceae

Bryum aff. capillare CHR 104307

B. billardieri var. billardieri WELT M6897

B. billardieri var. platyloma WELT M6898

*B. dichotomum

*B. campylothecium

B. blandum WELT M6899

Leptostomum inclinans WELT M6946

Orthodontium lineare AKU 68365; CHR 104029; WELT M6903

Mniaceae

Mnium rostratum AKU 68084; WELT 6957

Aulacomniaceae

Leptotheca gaudichaudii AKU 67996; WELT M6947, M6948

Mitteniaceae

Mittenia plumula AKU 68108, 68506

Calomniaceae

Calomnion laetum CHR 104295

Rhizogoniaceae

Cryptopodium bartramioides CHR 104688

Rhizogonium bifarium CHR 104060

R. distichum CHR 104062; WELT M6974

R. mnioides AKU 68039; CHR 104296, 104344

R. novae-hollandiae AKU 68498; CHR 104028

Bartramiaceae

Bartramia papillata AKU 68488; WELT M6891

Breutelia pendula AKU 67985; CHR 104372

Philonotis scabrifolia AKU 67986; WELT M6961

P. tenuis CHR 104382

Hypnodendraceae

<i>Braithwaitea sulcata</i>	CHR 104019
<i>Hypnodendron arcuatum</i>	CHR 104302, 104341
<i>H. comatum</i>	CHR 104342
<i>H. comosum</i>	AKU 68093
<i>H. kerrii</i>	CHR 104293, 104298
<i>H. marginatum</i>	CHR 104031, 104378

Racopilaceae

<i>Racopilum strumiferum</i>	AKU 68147; WELT M6973
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Cryphaeaceae

<i>Cryphaea dilatata</i>	AKU 68128; CHR 104374
<i>C. tenella</i>	CHR 104061

Ptychomniaceae

<i>Cladomnion ericoides</i>	WELT M6910
* <i>Ptychomnion aciculare</i>	
<i>Glyphothecium sciuroides</i>	CHR 104286, 104334
<i>Tetraphidopsis pusilla</i>	WELT M6978

Lepyrodontaceae

<i>Lepyrodon australis</i>	AKU 68067; CHR 104070
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Pterobryaceae

<i>Trachyloma diversinerve</i>	CHR 104066
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Meteoriaceae

<i>Papillaria amblyacis</i>	AKU 67797; CHR 104356
<i>P. crocea</i>	CHR 104035, 104037; WELT M6960
<i>P. flavo-limbata</i>	AKU 68017; CHR 104027, 104032
<i>Weymouthia cochlearifolia</i>	AKU 68045; WELT M6987
<i>W. mollis</i>	AKU 68026

Phyllogoniaceae

<i>Orthorrhynchium elegans</i>	CHR 104022, 104285
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Neckeraceae

<i>Homalia falcifolia</i>	CHR 104284, 104370
<i>H. punctata</i>	CHR 104020
<i>Porotrichum oblongifolium</i>	AKU 68131; CHR 104386
<i>Thamnobryum pandum</i>	CHR 104502

Echinodiaceae

*Echinodium hispidum

E. umbrosum CHR 104311

Lembophyllaceae

Camptochaete arbuscula CHR 104371

C. gracilis CHR 104023, 104317, 104322

C. pulvinata AKU 68005; CHR 104289

Hookeriaceae

Acrophyllum dentatum CHR 104360

A. quadrifarium CHR 104318

Distichophyllum pulchellum CHR 104320, 104321

Eriopus cristatus WELT M6922

Hypopterygiaceae

Cyathophorum bulbosum AKU 67977

Hymenodon pilifer CHR 104036

Hypopterygium filiculaeforme CHR 104312, 104369

H. rotulatum *sensu lato* WELT M6944

H. setigerum AKU 68496; M6945

Lopidium concinnum CHR 104315

Thuidiaceae

Thuidium furfurosum CHR 104316

T. laeviusculum AKU 68044; CHR 104345

Leskeaceae

Pseudoleskea imbricata AKU 68381

Amblystegiaceae

Acrocladium chlamydophyllum AKU 67991, 68492

Amblystegium serpens CHR 104313

*Calliergonella cuspidata

Cratoneuropsis relaxa WELT M6911

Drepanocladus aduncus AKU 68098

Brachytheciaceae

Brachythecium plumosum	AKU 68070; CHR 104290, 104303
B. rutabulum	AKU 68127; CHR 104365
Eurhynchium asperipes	AKU 67979
E. praelongum	CHR 104383, 104501
Pseudoscleropodium purum	WELT M6969
Rhynchostegium tenuifolium	CHR 104024, 104056

Plagiotheciaceae

Catagonium politum	AKU 68086; WELT M6907, M6908
Plagiothecium denticulatum	CHR 104377

Sematophyllaceae

Sematophyllum amoenum	CHR 104294, 104314
Wijkia extenuata	AKU 67974

Hypnaceae

Hypnum chrysogaster	AKU 68016, 68499
H. cupressiforme	AKU 68145

Hepatics

Herbertaceae

Triandrophyllum subtrifidum	AKU 67990
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Isotachidaceae

Isotachis montana	AKU 67989
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Ptilidiaceae

Mastigophora flagellifera	CHR 104381
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Trichocoleaceae

Trichocolea rigida	AKU 68103, 67988
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Lepidolaenaceae

Lepidolaena clavigera	AKU 67978, 68025, 68061
L. hodgsoniae	AKU 68028
L. palpebrifolia	AKU 67981
L. taylorii	AKU 67994, 68063, 68118

Lepidoziaceae

Bazzania ? convexa	AKU 68359; CHR 104323
**B. involuta	
Kurzia sp.	AKU 68007, 68034, 68358
Lepidozia glaucescens	AKU 68100
L. microphylla	AKU 68099
L. sp.	AKU 68042, 68354
Telaranea gottscheana	CHR 104362
T. sp.	AKU 68077

Jungermanniaceae

Jamesoniella tasmanica	AKU 68081
Jungermannia ? inundata	AKU 68079; CHR 104326
J. sp.	AKU 68140; CHR 10497
Cuspidatula monodon	AKU 68030, 68043; CHR 104280

Balantiopsidaceae

Balantiopsis ? diplophylla	AKU 68069
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Lophocoleaceae

Chiloscyphus ? billardieri	AKU 67955, 68024
**C. coalitus	
C. normalis	AKU 68126
C. ? triacanthus	AKU 68038; CHR 104357
C. sp. A	AKU 68358
C. sp. B	AKU 68139
Lophocolea echinella	AKU 67969
L. ? lenta	AKU 68104
L. leucophylla	AKU 67984, 68071
L. muricata	AKU 68134
L. ? novae zelandiae	AKU 67960
L. sp.	AKU 68002, 67997

Plagiochilaceae

Plagiochila annotina	AKU 68091
P. fruticella	AKU 68018, 68097; CHR 104353
P. lyallii	AKU 68013
P. obscura	AKU 68102, 68116; CHR 104308
P. pleurota	AKU 68096
*P. radiculosa	
P. retrospectans	AKU 68004
P. rutlandii	AKU 68087, 68090
P. stevensoniana	AKU 68124

Acrobolbaceae

Acrobolbus bisetulus	AKU 68105
Marsupidium epiphytum	AKU 68120
M. knightii	AKU 68035, 68048; CHR 104333
M. ? perpusillum	AKU 68004
Tylimanthus tenellus	CHR 104324

Cephaloziellaceae

Cephaloziella ? exiliflora	AKU 68064, 68362
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Radulaceae

Radula ? buccinifera	AKU 67980, 67995, 68083 -
R. grandis	AKU 67950, 68021
R. ? physoloba	AKU 68053
R. ? uvifera	AKU 68146, 68363

Porellaceae

Porella elegantula	AKU 67963, 68057, 68114
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Jubulaceae

Cheilolejeunea sp.	AKU 68010, 68027, 68232
Cololejeunea sp.	AKU 68236
Drepanolejeunea sp.	AKU 68066, 68239, 68122
Frullania fugax	AKU 68058
F. hampeana	AKU 67951, 68068, 68011
F. incumbens	AKU 68148
F. patula	AKU 67971
F. pentapleura	AKU 68056
F. rostrata	AKU 68003, 68012, 68076
F. squarrosula	AKU 68014, 68231
Lejeunea flava	AKU 67998, 68019, 68132
L. ? tumida	AKU 67946, 68020
L. <i>sensu lato</i> sp. A	AKU 68125
L. <i>sensu lato</i> sp. B	AKU 68080
Lopholejeunea sp.	AKU 68051
Microlejeunea sp.	AKU 68052, 68234, 68348
Siphonolejeunea ? nudipes	AKU 68065
Thysananthus anguiformis	AKU 68006, 68151, 68360

Fossombroniaceae

Fossombronia sp.	AKU 68107, 68150
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Hymenophytaceae

Pallavicinia ? xiphoides	AKU 68085
Symphyogyna hymenophyllum	AKU 68029
S. ? prolifer	AKU 68030
S. subsimplex	AKU 68358

Aneuraceae

**Aneura alterniloba

A. sp. A	AKU 68579
A. sp. B	AKU 68580
Riccardia (subg. Riccardia) sp. A	AKU 68588, 68578

Metzgeriaceae

Metzgeria sp.

AKU 67927

Monocleaceae

*Monoclea forsteri

Rebouliaaceae

Asterella tenera

CHR 104288

Lunulariaceae

*Lunularia cruciata

Marchantiaceae

*Marchantia foliacea

Hornworts

Anthocerotaceae

Anthoceros sp.

AKU 68581

**Dendroceros allisonii

**Megaceros arachnoideus

**M. flagellaris