

## Preliminary list of lichens from the Old Man Range, Central Otago, New Zealand: by David Galloway

Documentation of lichens on the Old Man Range, Central Otago dates from some 40 years ago when Prof. Alan Mark began his studies on the ecology and vegetation of the area, and it is thanks to Alan that the lichen mycobiota of the area is among the best known of any high-alpine site in the Southern Hemisphere. Alan's paper with his Duke University supervisor, Prof. Dwight Billings (Billings & Mark 1961) was the first to mention lichens (*Cetraria islandica* ssp. *antarctica* and *Thamnolia vermicularis*) in an ecological discussion of high-alpine vegetation, although the year previously James Murray recorded *Solorina crocea* from the Old Man Range from a Dwight Billings specimen (Murray 1960). Alan Mark and Larry Bliss published a very preliminary list of lichens from the Old Man Range (prepared by me, and containing a fair number of errors!) as part of their documentation of the high-alpine vegetation of the Central Otago mountains (Mark & Bliss 1971). This then is the modest beginning of Old Man Range lichenology, and from that time Alan has guided a succession of overseas and local lichenologists to the slopes and broad-backed summit of the range. In more or less chronological order these were: Peter James (London), David Galloway, Larry Bliss (Canada), John Child, Peter Child, Colin Meurk, Hannes Hertel (Munich), Helmut Mayrhofer (Graz), Volkmar Wirth (Stuttgart). Hannes Hertel published on saxicolous lecideoid lichens collected from the Range (Hertel 1985, 1987, 1989), and more recently Peter Johnson has collected aquatic lichens from the Range for Patrick McCarthy (Johnson & McCarthy 1997). Last summer I accompanied Ingvar Kärnefelt and Patrik Frödén (Lund) in their search for alpine Teloschistaceae. From the collections and observations of all of these (many of their collections are housed in OTA) the following lichen list is offered as a working baseline to ongoing high-alpine lichen studies in Central Otago.

The Old Man Range is the type locality for two species: *Menegazzia castanea* (Galloway 1983) and *Verrucaria*

*austroschisticola* (McCarthy & Johnson 1995). Of note is the pronounced bipolar aspect of the lichen mycobiota from the exposed summit (Galloway & Aptroot 1995; Galloway et al. 1998). It was fitting that our visit on 16 April 2000 was again guided by Alan. He can be justly proud that his devotion and enthusiasm over the years have led to the lichen mycobiota of the Old Man Range being so well known today.

In the list [\*] refers to lichenicolous fungi, and [?] indicates a taxon known from other Central Otago mountains and likely to occur on the Old Man Range. 220 taxa from 87 genera are here recorded. It is hoped that this list will stimulate further lichen work on the Range and we will update the list from time to time as additional novelties are reported. Further information on many of the lichens mentioned in the list may be found in Galloway (1985). A supplement to this work (describing all taxa not mentioned in the 1985 lichen flora) is in preparation and is to be published in 2002.

## References

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## The List

<i>Acarospora schleicheri</i>	<i>C. ustulata</i>	<i>Lepraria neglecta</i>
<i>Alectoria nigricans</i>	<i>Coccocarpia palmicola</i>	? <i>Leproloma</i>
<i>Arthrorhaphis alpina</i>	<i>Collema duriezii</i>	<i>membranaceum</i>
<i>A. citrinella</i>	<i>Cystocoleus ebeneus</i>	? <i>L. vouauxii</i>
<i>Aspicilia cinerea</i>	<i>Degelia neozelandica</i>	<i>Leptogium lacerooides</i>
<i>Bartlettia fragilis</i>	<i>Dermatocarpon luridum</i>	<i>L. menziesii</i>
<i>Bellemerea alpina</i>	<i>Dibaeis arcuata</i>	<i>L. propaguliferum</i>
<i>Brigantiaea fuscolutea</i>	<i>Diploschistes muscorum</i> ssp.	<i>L. victorianum</i>
<i>Bryoria austromontana</i>	<i>bartlettii</i>	<i>Megaspora verrucosa</i>
? <i>Buellia dunedina</i>	<i>D. ocellatus</i>	<i>Menegazzia aeneofusa</i>
? <i>B. griseovirens</i>	<i>Flavoparmelia haysomii</i>	<i>M. castanea</i>
<i>B. insignis</i>	<i>Haematomma alpinum</i>	<i>M. globulifera</i>
<i>Bunodophoron ramuliferum</i>	<i>Hypogymnia lugubris</i>	<i>M. inflata</i>
<i>Caloplaca amylicata</i>	<i>H. kosciuskoensis</i>	<i>M. testacea</i>
? <i>C. biatorina</i>	<i>H. lugubris</i> var. <i>compactior</i>	<i>M. ultralucens</i>
<i>C. cerina</i>	<i>H. lugubris</i> var. <i>sublugubris</i>	<i>Micarea</i>
<i>C. cinnamomea</i>	<i>H. subphysodes</i>	<i>austroternaria</i>
<i>C. lutea</i>	<i>Hypotrachyna sinuosa</i>	<i>M. isabellina</i>
<i>C. murrayi</i> ined.	<i>Immersaria athroocarpa</i>	? <i>Miriquidica</i>
<i>C. olivaceobrunnea</i>	? <i>Ionaspis lacustris</i>	<i>nigroleprosa</i>
<i>C. tornensis</i>	<i>Labyrinthina implexa</i>	? <i>Neofuscelia adpicta</i>
<i>Candelaria concolor</i>	? <i>Lecanora bicincta</i>	? <i>N. brattii</i>
<i>Candelariella coralliza</i>	<i>L. cavicola</i>	? <i>N. depsidella</i>
<i>C. vitellina</i>	<i>L. dispersa</i>	? <i>N. glabrans</i>
? <i>Carbonea vitellinaria</i>	<i>L. epibryon</i> ssp. <i>broccha</i>	? <i>N. imitatrix</i>
<i>C. vorticosa</i>	<i>L. epibryon</i> ssp. <i>xanthophora</i>	? <i>N. martinii</i>
<i>Catapyrenium cinereum</i>	<i>L. farinacea</i>	? <i>N. peloloba</i>
* <i>Cercidospora trypteliza</i>	<i>L. galactiniza</i>	? <i>N. pictada</i>
<i>Cetraria aculeata</i>	<i>L. parmelinoides</i>	? <i>N. squamans</i>
<i>C. islandica</i> ssp. <i>antarctica</i>	<i>L. polytropa</i>	? <i>N. squamariatella</i>
<i>Cetrariella delisei</i>	<i>L. rupicola</i>	? <i>N. stgyioides</i>
<i>Cladia aggregata</i>	<i>L. swartzii</i>	<i>N. subhosseana</i>
<i>Cladina confusa</i>	<i>Lecidea atromorio</i>	<i>N. petriseda</i>
<i>C. mitis</i>	<i>L. endochlora</i>	? <i>N. verrucella</i>
<i>Cladonia aueri</i>	<i>L. fuscoatrula</i>	<i>Neuropogon</i>
<i>C. bimberiensis</i>	<i>L. lapicida</i> var. <i>lapicida</i>	<i>acromelanus</i>
<i>C. capitellata</i>	<i>L. lapicida</i> var. <i>pantherina</i>	<i>N. antarcticus</i>
<i>C. cervicornis</i>	<i>L. hygomma</i>	<i>N. ciliatus</i>
? <i>C. ecmocyna</i>	<i>Lecidella</i> cf. <i>euphorea</i>	<i>N. subcapillaris</i>
<i>C. fimbriata</i>	<i>L. schistiseda</i>	<i>Omphalina ericetorum</i>
<i>C. gracilis</i> ssp. <i>tenerreima</i>	<i>L. sublapicida</i>	<i>Ochrolechia parella</i>
<i>C. scabriuscula</i>	? <i>L. wulfenii</i>	<i>O. xanthostoma</i>
<i>C. southlandica</i>	? <i>Lecidoma demissum</i>	<i>Pannaria hookeri</i>

<i>Paraporphidia</i>	<i>Pseudocyphellartia corbettii</i>	<i>Staurothele fissa</i>
<i>leptocarpa</i>	<i>P. degelii</i>	<i>Steinera sorediata</i>
<i>Parmelia saxatilis</i>	<i>P. glabra</i>	<i>Stereocaulon caespitosum</i>
<i>P. signifera</i>	<i>P. maculata</i>	<i>S. gregarium</i>
<i>P. sulcata</i>	<i>P. pickeringii</i>	<i>S. ramulosum</i>
<i>Peltigera didactyla</i>	<i>Psoroma buchanani</i>	<i>Sticta martinii</i>
<i>P. dolichorhiza</i>	<i>P. fruticulosum</i>	<i>Teloschistes fasciculatus</i>
? <i>P. lepidophora</i>	<i>P. hirsutulum</i>	<i>T. velifer</i>
? <i>P. malacea</i>	<i>P. hypnorum</i>	<i>Tephromela atra</i>
<i>P. neopolydactyla</i>	<i>P. hypnorum</i> var. <i>paleaceum</i>	<i>Thamnolia vermicularis</i>
<i>P. rufescens</i>	<i>P. rubromarginatum</i>	<i>Toninia bullata</i>
? <i>P. ulcerata</i>	<i>Punctelia subrudecta</i>	<i>Trapelia coarctata</i>
<i>Pertusaria dactylina</i>	<i>Pyrrhospora laeta</i>	<i>Umbilicaria cylindrica</i>
<i>P. gymnospora</i>	<i>Ramalina fimbriata</i>	? <i>U. cinereorufescens</i>
? <i>P. leucodes</i>	<i>R. glaucescens</i>	<i>U. decussata</i>
? <i>P. lophocarpa</i>	<i>Ramboldia petraeoides</i>	<i>U. hyperborea</i>
<i>P. otagoana</i>	<i>Rhizocarpon geographicum</i>	<i>U. nylanderiana</i>
<i>P. subverrucosa</i>	<i>R. grande</i>	<i>U. polyphylla</i>
<i>Physcia adscendens</i>	<i>R. superficiale</i>	<i>U. subglabra</i>
<i>P. caesia</i>	* <i>Rimularia insularis</i>	<i>U. umbilicarioides</i>
? <i>P. dubia</i>	<i>R. psephota</i>	<i>U. vellea</i>
<i>P. tribacia</i>	<i>Rinodina cf archaea</i>	<i>U. zahlbruckneri</i>
<i>Placopsis clavifera</i>	<i>R. conradii</i>	<i>Usnea contexta</i>
<i>P. lateritioides</i>	<i>R. olivaceobrunnea</i>	<i>U. torulosa</i>
<i>P. perrugosa</i>	<i>R. thiomela</i>	<i>Verrucaria amnica</i>
<i>P. trachyderma</i>	? <i>Siphula complanata</i>	<i>V. austroschisticola</i>
? <i>Poeltiara</i>	<i>S. decumbens</i>	<i>V. margacea</i>
<i>corralensis</i>	<i>S. dissoluta</i>	<i>V. rheitrophila</i>
? <i>Poeltidea perusta</i>	? <i>S. elixii</i>	<i>Xanthoparmelia mexicana</i>
<i>Porpidia crustulata</i>	? <i>S. fastigiata</i>	<i>X. mougeotina</i>
<i>P. macrocarpa</i>	<i>S. foliacea</i>	<i>X. scabrosa</i>
<i>Protoparmelia badia</i>	<i>S. fragilis</i>	<i>X. subnuda</i>
<i>Pseudephebe</i>	<i>Solorina crocea</i>	<i>X. tasmanica</i>
<i>minuscula</i>	<i>Sporastatia testudinea</i>	<i>Xanthoria elegans</i>
<i>P. pubescens</i>		<i>X. novozelandica</i>

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