

## Botanical Gardens of the Martin-Luther-University Halle-Wittenberg,

Botanical Gardens of the Martin-Luther-University Halle-Wittenberg, Botanischer Garten  
Am Kirchtor 3, 06108 Halle (Saale), Saxony-Anhalt, Germany.

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<http://www2.biologie.uni-halle.de/bot/boga/english/english.html>

The Botanical Gardens of the Martin-Luther-University Halle were visited on June 6 2007 by John Fletcher, Pam Fletcher (Crop & Food) and Dr Joerg Schubert (BAZ).

The Botanical Garden Halle keeps many important collections and among them are special systematic collections of orchids, bromeliads, carnivorous plants, grass species (especially from the tribe *Aveneae*), *Mammillaria* (Cactaceae), *Echinodorus* (Alismataceae), and *Cryptocoryne* (Araceae). A large systematic collection is also preserved for teaching purposes. Among the collections is a small New Zealand alpine collection (part of the Alpinium) and other plants. Part of the collection is errantly placed and part is kept in pots for glasshouse care over winter. The Director, Dr Matthias Hoffmann and his staff are dedicated enthusiasts who keep their plants in an immaculate environment. There are also large collections of succulent and tropical water plants dominated by a lovely 18<sup>th</sup> century observatory.



No serious diseases of concern were observed on the NZ native plants apart from some leaf spotting and mottling similar to that observed in NZ. However we were very surprised at the aggressive mollusc and slug attack on the *Carmichealia* and *Plantago*. Both animals may be of concern to native plants if they were to become established. *Arion lusitanicus* is a large animal and has moved through Europe reasonably rapidly. A pest risk assessment for MAF Biosecurity by a mollusc specialist may be appropriate.

Virus-like symptoms were observed on *Phytolacca americanum* (pokeweed) with yellow leaf ring spotting and *Scopolia carniolica* (Scopolia) with chlorotic chevrons and leaf ring spotting. Both plants were growing in the systematic collection and Dr Frank Rabenstein is to diagnose these at BAZ.

A further comment on the susceptibility of NZ native plants overseas: It seems that in N America *Gaultheria depressa* is susceptible to *Colletotrichum gloeosporioides* and researchers at BAZ need material from NZ in order to try and raise disease resistant crosses.

# Botanical Garden of the Martin-Luther-University Halle-Wittenberg



- 1 Beach and sand dune
- 2 Bog
- 3 Ponds
- O Observatory
- GT Big tropical greenhouse
- I Evergreens
- V Victoria-house
- W Greenhouse of tropical water plants
- S Sukkulents and Cacti greenhouse
- Or Orangery

**Garden location:** Botanical Gardens of the Martin-Luther-University Halle-Wittenberg, Botanischer Garten  
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Plant species	Location in garden	Insect/animal	Damage symptom (fungal, bacteria, viral)	Photo	Specimen taken/collector/Diagnosis
	<b>New Zealand alpine section growing outside</b>				
Acaena magellanica (bidibid or piripiri)			Thrips or mite damage on leaves	Y	Y - Diagnosed as red mite <i>Acari</i> spp- L Fagan
Acaena microphylla (bidibid)			OK		
Carmichaelia australis=Arenaria simpson (Maukoro Tainoka, Tawao)			OK		
Carex buchananii			Collapse – moisture cold temps	Y	
Carmichealia subulata Native broom		Yellow shelled snail	Feeding damage	Y	Not yet identified
Deyeuxia (horstoriae?)			OK		
Geranium sessiliflorum (short-flowered cranesbill)			OK not affected by nearby slugs		
Hebe buchananii		Yellow shelled snail	Present but not feeding		
Hebe armstrongii (whipcord hebe)		Yellow shelled snail	Present but not feeding		
Muehlenbeckia axillaris (creeping muehlenbeckia, creeping pohuehue)			OK		
Plant species	Location in garden	Insect/animal	Damage symptom (fungal, bacteria, viral)	Photo	Specimen taken/collector
Muehlenbeckia complexa (scrub pohuehue, small-			Bacterial leaf spot	Y	Y To Andy P for bacterial diagnosis Not yet completed

leaved pohuehue, wire vine)					
Plantago antarctica	(Australia)	Arion lusitanicus Spanish slug American slugs	Chewing damage probably slugs		
	<b>Plants in tubs in glasshouse over winter</b>				
Coprosma acerosa (pepperwood, sand coprosma)			OK		
Corynocarpus laevigatus (karaka)			OK		
Corokia cotoneaster (Korokio Korokio-t ranga Whakataka)			OK		
Dodonaea sp			OK		
Plagianthus sp.			OK		
Melicytus ramiflorus (Hinahina)			Leaf spotting	Y	2 lesions <b>Diagnosed as <i>Diplochorella colensoi</i> (formerly known as <i>D. melicyti</i>)</b> -MG Cromey
Myrsine australis (Red mapou Red matipo)			Sooty mold		
Olearia avicenniaefolia (mountain akeake)					
Sophora tetraptera (microphylla) (K whai)			Leaf mottle leaf spot		Y -FTA card
Sophora tetraptera (macrophylla)			Leaf mottle leaf spot		



## Leaf spot diagnosis

Matthew Cromeey

Specimen from Halle Botanical Gardens (June 2007, John and Pam Fletcher)

*Melicytus ramiflorus* – leaf spotting

The leaf spots are approximately 4 mm in diameter. They comprise a white centre surrounded by a dark brown margin (approximately 1 mm thick). Scattered black fruiting bodies are present within the lesions. No spores were seen within the fruiting bodies, and it is not clear whether they were pycnidia or ascocarps.

The only plant pathogen recorded in New Zealand causing similar symptoms is the ascomycete *Diplochorella colensoi* (formerly known as *D. melicyti*) (Johnson & Cannon 2004), which causes tar spot, and is common on *M. ramiflorus* in New Zealand (Dingley 1969). The fruiting structures are different to those described for the ascocarps of *D. colensoi*, but could be pycnidia of the anamorph *Dothidea colensoi*. I was unable to find any records of this fungus outside New Zealand. A positive diagnosis is not possible given the absence of spores in the fruiting bodies.

In summary, this leaf spot appears to be caused by a fungal plant pathogen (although it is possible the fungus is a secondary invader of dead tissue). It is likely to be unrecorded in New Zealand, although it is possible it is caused by *D. colensoi*, which is common in New Zealand.

### References

Dingley, J.M. 1969. Records of plant diseases in New Zealand. Wellington, Government Printer. 298pp.

Johnson P.R.; Cannon, P.F. 2004. New *Phyllachora* species from *Mysine* and *Rostkovia* from New Zealand. New Zealand Journal of Botany 42: 921 – 933.



*Melicytus ramiflorus* – leaf spotting

Specimens from Halle Botanical Gardens (June 2007, John and Pam Fletcher).



*Muehlenbeckia complexa* (scrub pohuehue, small-leaved pohuehue, wire vine) – bacterial leaf spotting symptom. Specimens given to Dr Andy Pitman for diagnosis.



*Sophora tetraptera* (microphylla) (K whai) -Leaf mottle, leaf spot, collected on FTA card.





*Carmichealia subulata* Native broom. Yellow shelled snail feeding damage







*Plantago antarctica* (Australia). Chewing damage probably slugs *Arion lusitanicus*  
Spanish slug/ American slug.







*Phytolacca americanum* - yellow leaf ring spotting. Dr Frank Rabenstein to diagnose at BAZ