

MYCOLOGICAL NOTES 13: POTENTIAL FUNGAL 'NEW ORGANISMS'

Jerry Cooper, July 2012.

Anybody who studies speciose and/or cryptic and poorly known organism groups like fungi or insects will often come across collections they consider to represent undescribed species or new records of species described elsewhere. Current New Zealand legislation requires us, as individuals, to act on that information. "Passive Surveillance" by the New Zealand public is an essential part of our biosecurity system.

The New Zealand Biosecurity Act 1993 Section 44: General duty to inform

Every person is under a duty to inform the Ministry, as soon as practicable in the circumstances, of the presence of what appears to be an organism not normally seen or otherwise detected in New Zealand

Obviously the intent of this act is to provide a means of detecting incursions into New Zealand early enough to enable an effective response, if the organism warrants it. In addition, and perhaps incidentally, it provides a mechanism for detecting established but previously unnoticed organisms whose population is increasing, e.g. exotic plants in the process of becoming problem weeds. So, what observations should trigger a report? The problem with this piece of legislation is the wording 'not normally seen'. I imagine the intent was 'not normally seen by the general public'. Perhaps it would be better to say 'not normally seen by the general public and usually excluding organisms identified by specialists as being previously unreported in New Zealand but considered to be of no biosecurity concern'. Even with that wording there is the potential for critical organisms to go unreported. Whose responsibility is it to decide what is new and what is not, or what is important, and what not? It is certainly not the public. It seems we have no choice but to adopt the precautionary principle and report everything we can. However, then we potentially overload the biosecurity agency with the need to provide resources for assessing all such reports, most of which will be inconsequential. There are some obvious and important pieces of information which biosecurity investigators need to know, and often a specialist submitting a record will have that information, or at least will be able to make informed judgements. That information is of clear benefit to those charged with assessing risk and priorities. It is also exactly the same information an official biosecurity surveillance team would need to consider. There needs to be an improved and practical reporting process for those of us who professionally, or privately, are likely to encounter 'new organisms'?

For example, apart from basic collection/observation details there are questions like:

- Is the organism known (or likely) to be indigenous, or is it known (or likely) to have been introduced?
- If it is an introduction then is it likely to have been recent?
- Where is the voucher material?
- What certainty do you place on your identification?
- What is the known or estimated distribution?
- Is the organism a known pathogen or potentially belong to a group containing known pathogens? Or is it a known saprophyte or commensal of no concern?
- Is the record associated with any disease symptoms in living or compromised host material? Or was it associated with decay of already dead material.
- Was it detected because its presence was obvious and/or causing concern?
- Was its detection incidental or was it part of a systematic survey?
- Is this the first NZ record of an organism described elsewhere? Or is it an undescribed or unidentified organism?
- Is it unidentified? i.e. you don't have the resource or knowledge to confirm its status as species already described.
- If it is undescribed, at species level, then what confidence do you place on your higher level of identification?
- If you consider it to be undescribed then will it be published?
- Is the organism in a group known to be taxonomically difficult or uncertain?

In discussing the issue I have heard the opinion there is no point reporting undescribed or unidentified organisms. However, they are often '*not normally seen or otherwise detected*', and therefore fall within reporting requirements. On the other hand, undescribed species can actually be quite well known and/or represent an endemic or indigenous taxon of no biosecurity concern. Also, should unidentified (at species level) collections be excluded from reporting? In my opinion if somebody has made an effort to identify something, and failed, then perhaps that itself is sufficient justification to report. I have come to the conclusion the practical approach is to report anything '*new*', because we are legally obliged to do so, whilst at the same time indicating opinion on the status of the organism as a threat. That is my contribution to the bulleted list above. It is for others to make decisions based on that information.

The following is the continuation of a series of reports flagging the potential occurrence of '*organism not normally seen*'. My previous two reports to the Ministry were on 9/8/2011 and 15/8/2010 (and several before that date). The current report covers 78 taxa seen during 2011/2012. Currently the only advertised mechanism for 'Passive Surveillance' reporting on the website of the Ministry of Primary Industries is a [telephone hotline](#). Whilst a hotline is appropriate for reports by the general public, it is not appropriate for the type of report I outline here. Perhaps we need an improved system for reporting if we really want to encourage and support a more efficient system for passive surveillance?

In previous reports I included collections identified to species level which did not have previous documented New Zealand records. I also included a small number of collections which I could not identify to species level but which might be of potential concern (known pathogenic genera). In this report I am also including records of collections presumed to be undescribed and which may, or may not be introductions to New Zealand, and which may or may not be of biosecurity concern.

The records are often the result of non-systematic collecting, often supported by records from the Fungal Foray of New Zealand. A considerable number of records are the result of targeted collecting on *Sophora* (Kowhai) and other leguminous shrubs. This targeted collecting is to support a forthcoming publication on *Sophora* and its associated organisms, and supporting potential research on the impacts of land-use change on the biodiversity associated with iconic species in agricultural landscapes. Some are the result of targeted collecting for a taxonomic revision of the genera *Russula* and *Lactarius* in New Zealand.

The report consists of summaries of my collection/identification notes. All material and full associated data is deposited in the PDD national fungarium and available online (<http://nzfungi2.landcareresearch.co.nz>).

Disclaimer: For each record I state my opinion on the threat posed by the organism, either as a pathogen or invader of natural ecosystems. The comments result from my own experience and knowledge of the organisms and related species.

Agrocybe putaminum

JAC11686, on/with *Cordyline australis*, soil, riverbank, Site: Christchurch, Centaurus Road,, 2482799E, 5738336N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 14/01/2011, Herb.: PDD 96108.

Notes: New record for New Zealand. In restoration site amongst cabbage tree leaves and near tea tree. First described in 1913 from France, then reported in 1958 in Netherlands. It then exploded across Italy, Denmark and the UK. First reported in UK in 1986 and spread rapidly on wood chips. Reported from California and probably there since 2000 (http://www.fungimag.com/winter-08-articles/3_Else.pdf). This is a classic 'wood chip' species and has spread around the world into the new niche provided by recent practice of chipping woody debris in urban areas. In New Zealand it has been present since at least 2004 in Auckland where it was misidentified as *A. sororia*. There are now a number of records of its occurrence. It is of no known economic or biodiversity concern (whilst it confines itself to wood-chips).

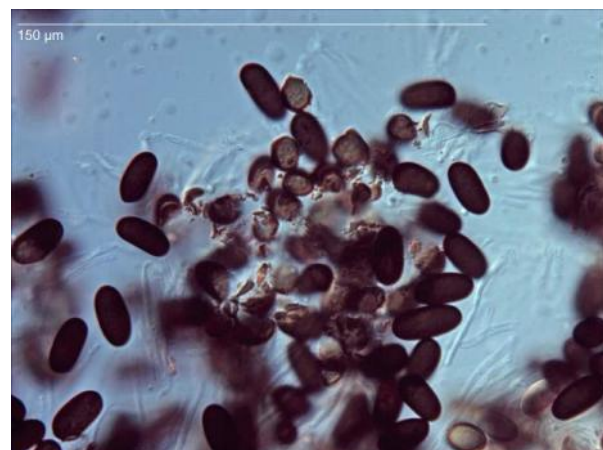
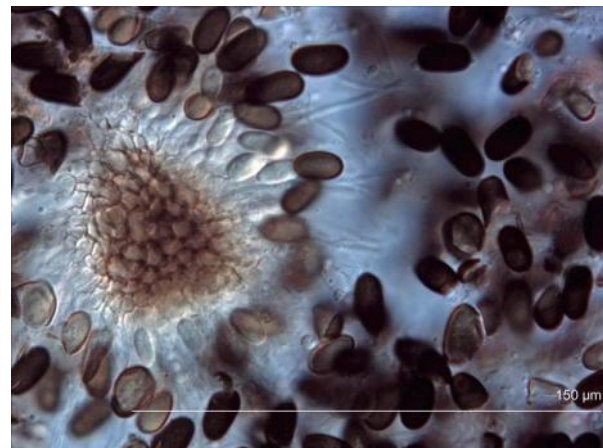
***Aplosporella* sp.**

JAC12418, Anamorph, on/with *Sophora prostrata*, dead attached twigs, Site: Canterbury, Lake Aviemore, Deep Stream, 1389900E, 5052800N, Mackenzie, Col.: P. Heenan, Det.: J.A. Cooper, 27/04/2012, Herb.: PDD 96659.

Notes: From *Sophora* survey. Probably undescribed and common. This taxon is clearly *Diplodia*-like and probably *Botryosphaeria* related (e.g. *Bagnisiella*). *Aplosporella* species have also been associated with *Rhytidhysterium* which is common on *Sophora* but that probably has a *Diplodia* anamorph. Significance unknown.

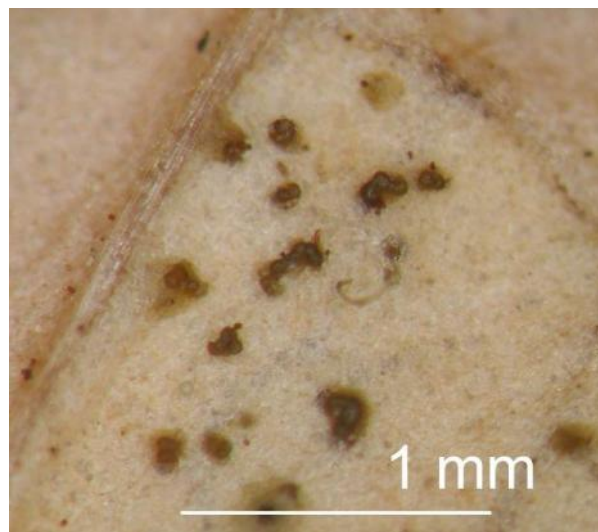
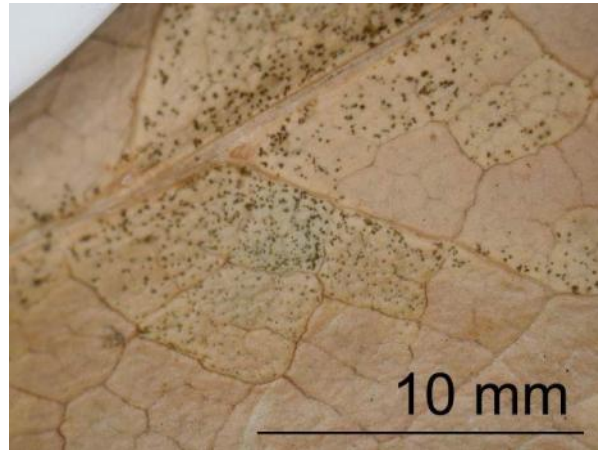
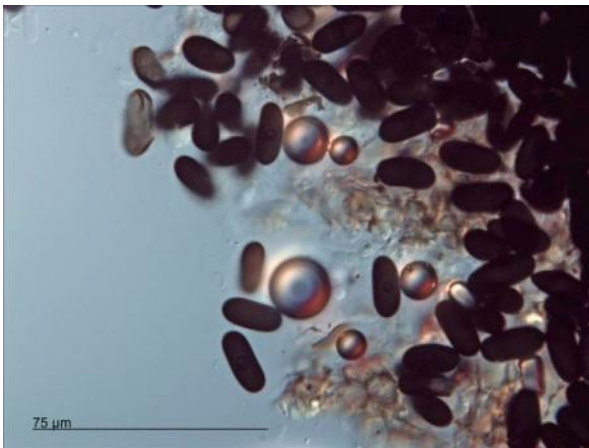
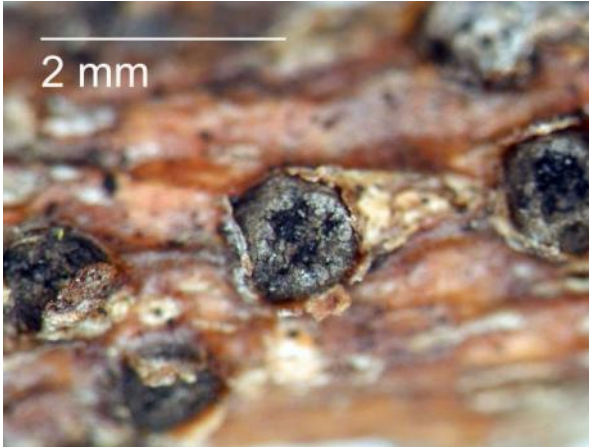


Caption:sliced conidiomata



***Aplosporella* sp.**

JAC12436, Anamorph, on/with *Sophora longicarinata*, dead attached twigs, Site: Waima River, Blue Mountain, 1683000E, 5363400N, Kaikoura, Col.: P. Heenan, Det.: J.A. Cooper, 18/04/2012, Herb.: PDD 96513.

***Ascochyta* sp.**

JAC12391, on/with *Myoporum laetum*, living leaves, Site: Halswell, Quarry, 2476075E, 5733894N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 08/04/2012, Herb.: PDD 96487.

Notes: Undescribed. Forms extensive, hypophyllous colonies on brown attached leaves. Attempt to culture produced a black-yeast, discarded. Significance unknown but unlikely to be a concern.

Boletopsis nothofagi

JAC12000, on/with *Nothofagus fusca*, soil, Site: West Bay, St Arnaud, 1586280E, 5372097N, Buller, Col.: S. Kerr, Det.: P. Leonard, 11/05/2010, Herb.: PDD 96012.

Notes: A newly described species known from two sites in New Zealand. It is ectomycorrhizal with *Nothofagus*. This is the first species recognised in the genus in the southern hemisphere. It is now listed as Nationally Critical in the DOC threatened classification scheme.



***Clitopilus* sp. 'Okuti Valley (PDD87290)'**

JAC11684, rock with algae, Mixed indigenous scrub, Site: Christchurch, Watling Track, Port Hills, 2480565E, 5731453N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 11/01/2011, Herb.: PDD 96106.

Notes: An undescribed species, now with several records, probably previously incorrectly recorded by Greta Stevenson under the name *Cheimonophyllum candissimum*, although that species is also genuinely present in New Zealand. The species is possibly a basidiolichen. Of no concern.



***Coniothyrium* sp.**

JAC11645, Anamorph, on/with *Sophora microphylla*, attached seed pods, Urban roadside, Site: Christchurch, Fifeild Terrace, 2482458E, 5739143N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 04/09/2010, Herb.: PDD 96076.

Notes: From *Sophora* survey. Probably undescribed and certainly widespread. Possibly close to Crous' *Prosopidicola mexicana* on *Prosopidis* pods in South Africa. Culture to ICMP 5/11/2010. Significance unknown but unlikely to be of concern.



***Coniothyrium* sp.**

JAC11673, Anamorph, on/with *sophora godleyi*, dead attached twig, Urban park, Site: Feilding, Kowhai Park, 1817613E, 5543836N, Wanganui, Col.: P.B. Heenan, Det.: J.A. Cooper, 02/12/2010, Herb.: PDD 96099.

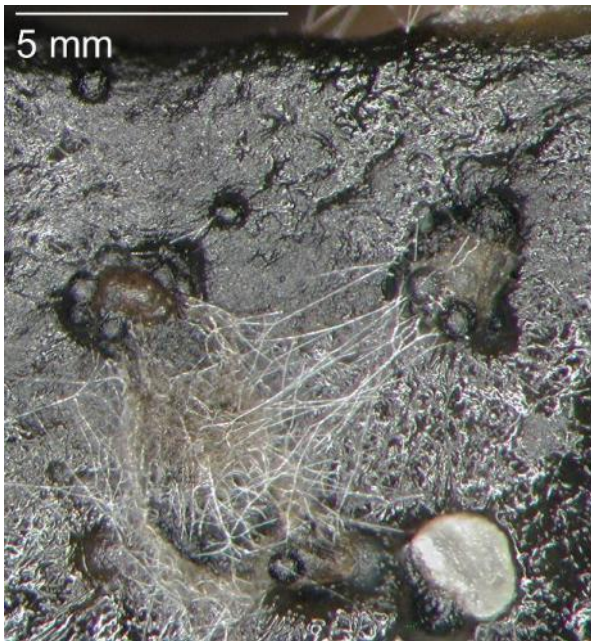
***Coniothyrium* sp.**

JAC11646, Anamorph, on/with *Sophora microphylla*, attached seed pods, Urban park, Site: Christchurch, Halswell Quarry,, 2476258E, 5734401N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 04/09/2010, Herb.: PDD 96077.

Corollospora angusta

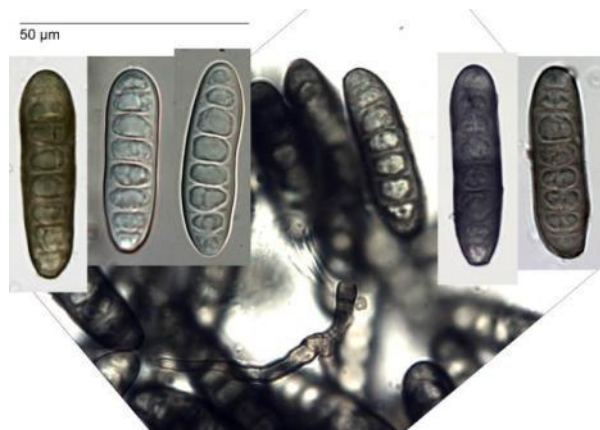
JAC12397, on/with *Carpophyllum*, incubated dead seaweed, Beach, Site: Port Hills, Taylor's Mistake, 2492068E, 5735889N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 18/03/2012, Herb.: PDD 96495.

Notes: A marine species on decaying seaweeds. Of no concern

***Coryneum* JAC11981**

JAC11981, Anamorph, on/with *Sophora microphylla*, dead attached twigs, Site: Lincoln township, 1558456E, 5167992N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 04/07/2011, Herb.: PDD 96236.

Notes: From Sophora survey. An undescribed and widespread species. Of no concern.

***Coryneum* JAC11981**

JAC12031, Anamorph, on/with *Sophora microphylla*, twigs, Garden, Site: Upper Hutt, Twin Lakes Road, 2689799E, 6011173N, Wellington, Col.: P.B. Heenan, Det.: J.A. Cooper, 20/07/2011, Herb.: PDD 96280.



Caption:from conidiomata in culture

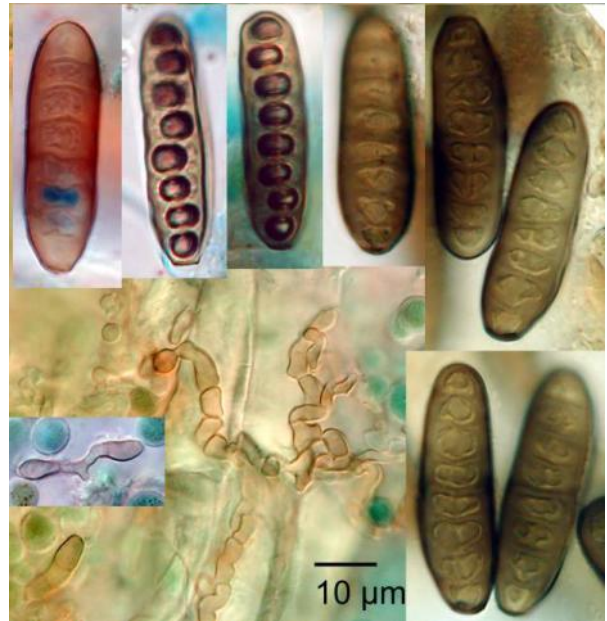
Coryneum JAC11981

JAC11674, Anamorph, on/with *sophora godleyi*, dead attached twig, Urban park, Site: Feilding, Kowhai Park, 1817613E, 5543836N, Wanganui, Col.: P.B. Heenan, Det.: J.A. Cooper, 02/12/2010.



Coryneum JAC11981

JAC11626, Anamorph, on/with *sophora godleyi*, live attached branch, Site: Lincoln, CASC, 2467910E, 5729545N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 27/07/2010, Herb.: PDD 96062.

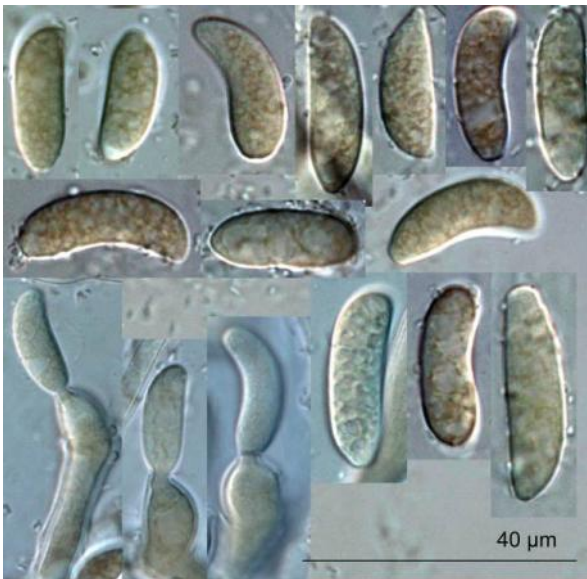


Cryptosporiopsis sp.

JAC12367, Anamorph, on/with *Carmichaelia appressa*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96464.

Notes: *Sophora* survey. Undescribed. Genus uncertain, see also *Gloeosporidiella*, *Phlyctema* etc. Conidia large, fusarioid, and often with central bump, enteroblastic. This is very common this Kaitorete Spit collection and associated with die back of green stem. Coelo state not formed in culture, but

same conidia. Doesn't look like *C. actinidia*.
Significance unknown.



Caption:ex cult (Melzers)

Cystoderma 'Rangitaiki'

JAC12042, on/with *musci*, moss with dracophyllum,
Frost Flat, Site: Rangitaiki Reserve, 2807659E,
6246557N, Taupo, Col.: J.A. Cooper, Det.: J.A.
Cooper, 18/05/2011, Herb.: PDD 96285, OtherDB:
FUNNZ2011/808.

Notes: an alpine fungus which sequence analysis
indicates is close to one from Ecuador. Of no
concern.



Dendryphiella salina

JAC12500, Anamorph, on/with *Durvillea*, Site: Sumner Beach,
2490456E, 5737900N, Mid Canterbury, Col.: J.A. Cooper,
Det.: J.A. Cooper, 16/06/2012, Herb.: PDD 96615.

Notes: New to New Zealand. A marine species associated with
decaying seaweed. Of no concern.

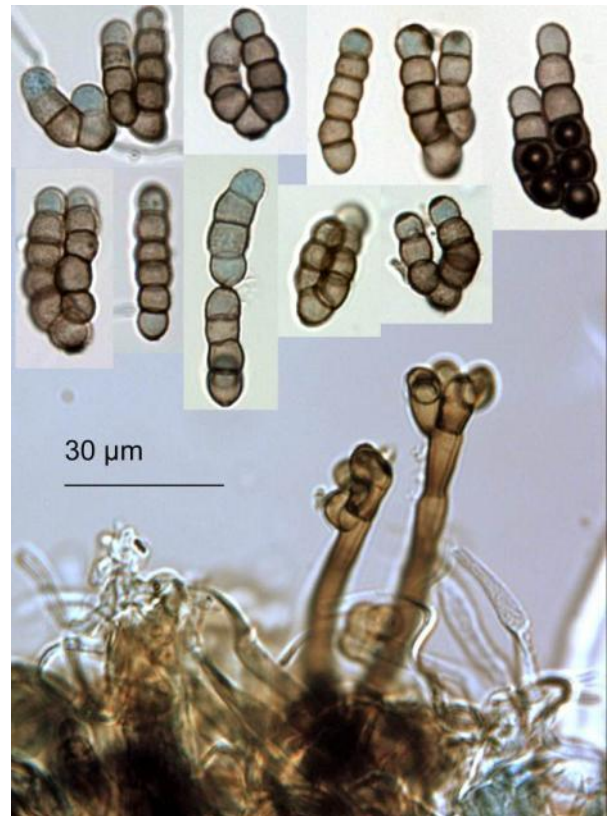
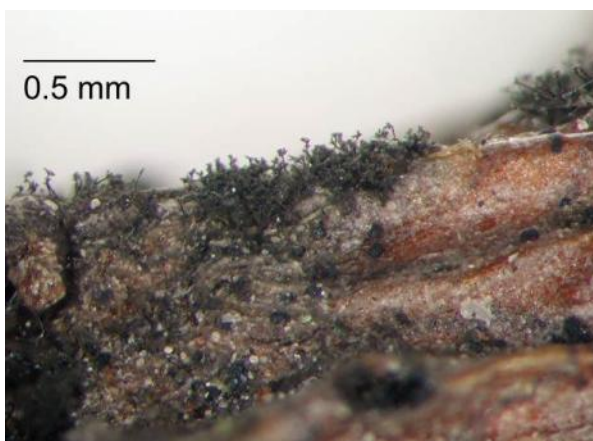




Dendryphion digitatum

JAC12030, Anamorph, on/with *Sophora microphylla*, twigs, Garden, Site: Christchurch, 53 Ravensdale Rise, Westmorland, 1568185E, 5174715N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 17/07/2011, Herb.: PDD 96279.

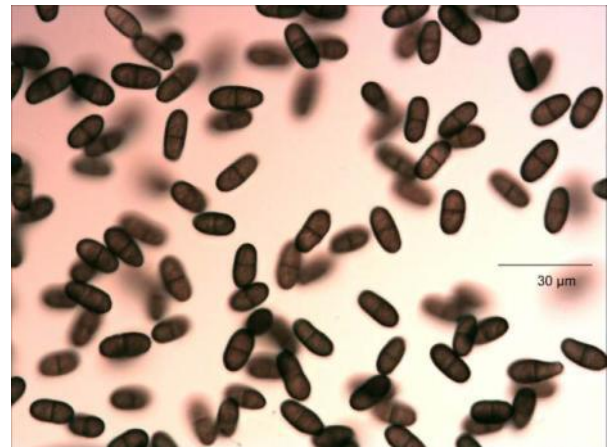
Notes: *Sophora* survey. New to New Zealand. Conidiophore unbranched until apex. Conidia minutely verrucose. sensu Ellis DH2 rather than sensu Subramanian ex Type or Bhat & Sutton.. Known from *Nothofagus* in Tiera del Fuego, Ethiopia on *Nepeta* and India on miscellaneous substrates. Differs from the type by more than 3 cells in the longer arm. DH2 has up to 7, however Subramanian in his 'Hyphomyctes' synopsis also figures it with more cells (presumably not the type). Anamorphic pleosporales. Of no significance.



Diplodia sp

JAC12359, Anamorph, on/with *Carmichaelia australis*, Site: Christchurch, Port Hills, Mt Vernon Track, 2483419E, 5736318N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 20/03/2011, Herb.: PDD 96455.

Notes: Undescribed species. Significance unknown.



Diplodia sp

JAC11619, Anamorph, on/with *Carmichaelia muritai*, live attached branch, Site: Lincoln, CASC, 2467910E, 5729545N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 05/08/2010, Herb.: PDD 95986, Genbank:JQ694104, Cult.: ICMP18556.

Notes: *Sophora* survey, probably undescribed. To ICMP 16/9/2010. No potential con-specifics in genbank. Significance unknown.



***Diplodia* sp**

JAC11624, Anamorph, on/with *Sophora chathamica*, attached branch, Garden, Site: Christchurch, 53 Ravensdale Rise, Westmorland, 1568185E, 5174715N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 25/07/2010, Herb.: PDD 95985, Genbank:JQ694108, Cult.: ICMP18560.

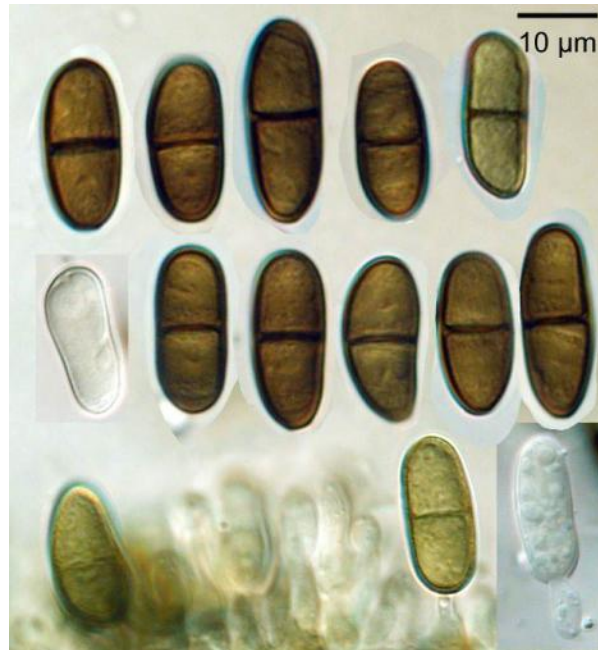
Notes: *Sophora* survey. Probably undescribed. To ICMP 16/9/2010. Sequence is same as a *Diplodia coryli* and *juglandis*, although the identity of these is questioned ... Phillips AJL, Alves A, Pennycook SR, Johnston PR, Ramaley A, Akulov A, Crous PW Resolving the phylogenetic and taxonomic status of dark-spored eleomorph genera in the Botryosphaeriaceae *Persoonia* 21, 29-55, 2008. Authentic *D. coryli* was placed in synonymy with *D. sarmentoum* by Stevens - see JAC11631. Authentic *D. juglandis* may also be there. Significance unknown.

***Diplodia* sp.**

JAC11635, Anamorph, on/with *Acer palmatum*, dead attached twigs, Garden, Site: Christchurch, 78 Opawa Rd, 2482495E, 5739595N, Mid

Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/08/2010, Herb.: PDD 95995, Genbank:JQ694113, Cult.: ICMP18633.

Notes: not *Diplodia mutila*. Sequence has no match in genbank . Significance unknown.



***Diplodia* sp**

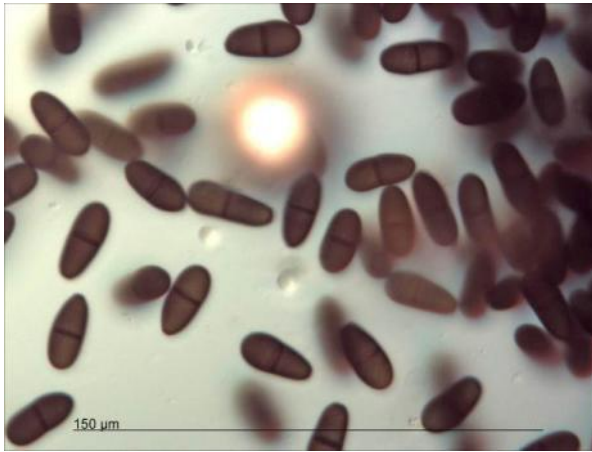
JAC11747, Anamorph, on/with *Sophora microphylla*, dead attached twigs, Site: Waiiau River, near Gabriels Gully, Hanmer-Lewis Pass state highway 7, 2486400E, 5848300N, Marlborough, Col.: P. Heenan, Det.: J.A. Cooper, 10/03/2011, Herb.: PDD 96153.

Notes: *Sophora* survey. Pycnidia adjacent to *Rhytidhysterium*, and possible anamorph. Significance unknown.



***Diplodia* sp.**

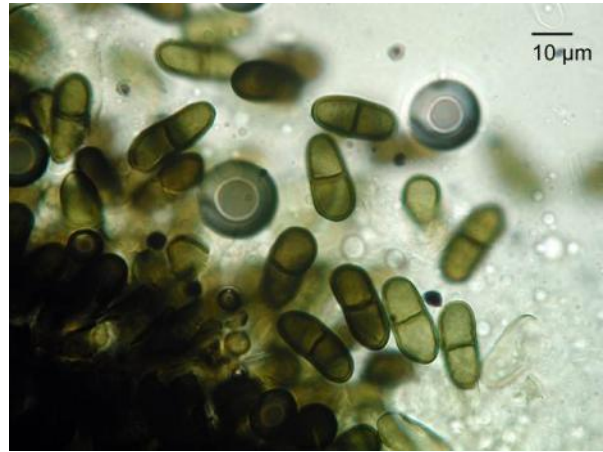
JAC12439, Anamorph, on/with *Sophora longicarinata*, dead attached twigs, Site: Waima River, Blue Mountain, 1683000E, 5363400N, Kaikoura, Col.: P. Heenan, Det.: J.A. Cooper, 18/04/2012, Herb.: PDD 96511.



Diplodia ramulicola

JAC11631, Anamorph, on/with *Euonymus japonicus*, dead attached twigs & leaves, Garden, Site: Christchurch, 78 Opawa Rd, 2482495E, 5739595N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/08/2010, Herb.: PDD 95987, Genbank:JQ694105, Cult.: ICMP18562.

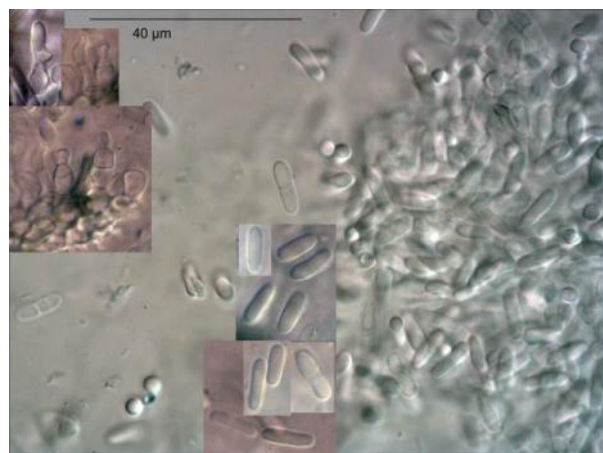
Notes: New to NZ. The ITS sequence has 100% match to *Botryosphaeria sarmentorum* and a sequence of *Diplodia acerina*. There is a chance one or both of these are synonyms of a broad host range taxon rather than misidentifications. Not easy to prove though. However I will not change the identification. If synonyms then the earliest name from these would be *Diplodia sarmentorum*, and interesting to note that Stevens, *Mycologia* v28, 1936, pp. 330-336 considered it to have a broad host range and included *D. euonymi* is synonymy. Significance unknown.



***Diplodina* sp.**

JAC12363, Anamorph, on/with *Carmichaelia appressa*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96460.

Notes: Sophora survey. Probably undescribed. immersed, 1-septate. Significance unknown.

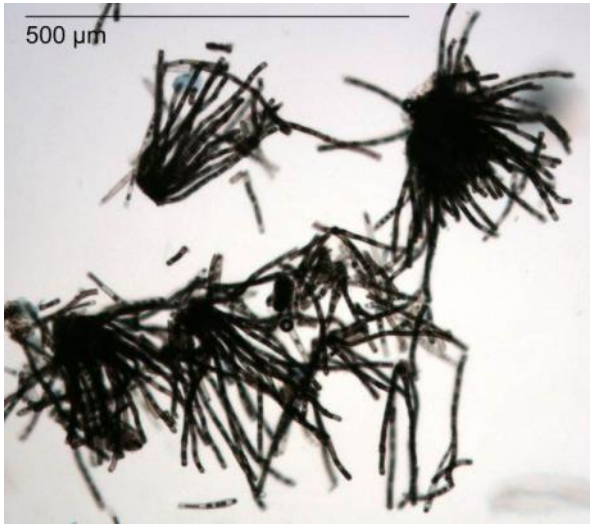


***Ellisembia* sp.**

JAC12326, Anamorph, on/with *Ripogonum scandens*, dead stem, Site: Banks Peninsula, Pigeon Bay, Hay Reserve,

2501739E, 5722680N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96560.

Notes: Probably undescribed. Not *E. bambusicola* but close. Not *E. maungatautari*. Of no concern.

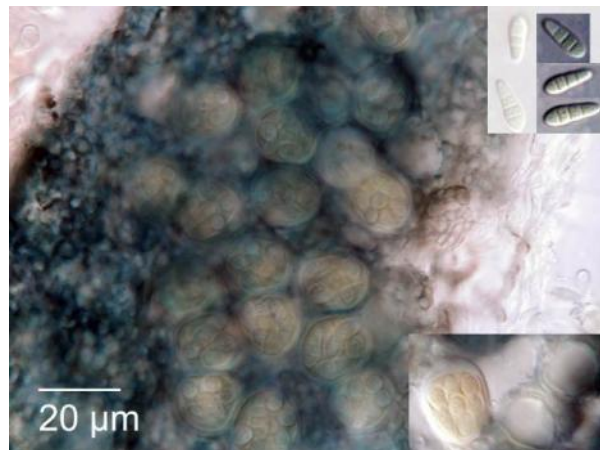


***Elsinoe* sp.**

JAC11675, on/with *sophora godleyi*, dead attached twig, Urban park, Site: Feilding, Kowhai Park, 1817613E, 5543836N, Wanganui, Col.: P.B. Heenan, Det.: J.A. Cooper, 02/12/2010, Herb.: PDD 96100.

Notes: *Sophora* survey. Certainly Myriangales if not *Elsinoe*. Stroma greenish in melzers. Spores 3-septate. A single layer of cylindrical/ellipsoid bitunicate asci seem to be adjacent directly in the stroma? There are a number of species reported on the fabaceae. *E. sesbaniae* - wrong morphology. *E. dolichi*, *E. tephrosiae*? *E. phaseoli* is symmetric with occasional longitudinal septum. *E. canavaliae* with constricted septa and

symmetrical. *E. hardenbergiae* seems close from the description, but usual with *Elsinoe* is a leaf pathogen. *Sophora fraseri* has been associated with endophytes close to *E. phaseoli* and *centrolobi*. Significance unknown.



Caption: in melzers

Galerina austrocalyptrata

JAC12052, on/with *Nothofagus fusca*, litter with moss, Site: Tree Trunk Gorge, 2751912E, 6222545N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 16/05/2011, Herb.: PDD 96293, OtherDB: FUNNZ2011/886.

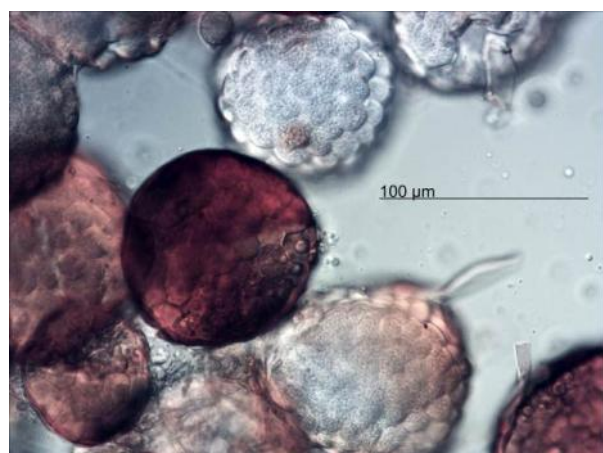
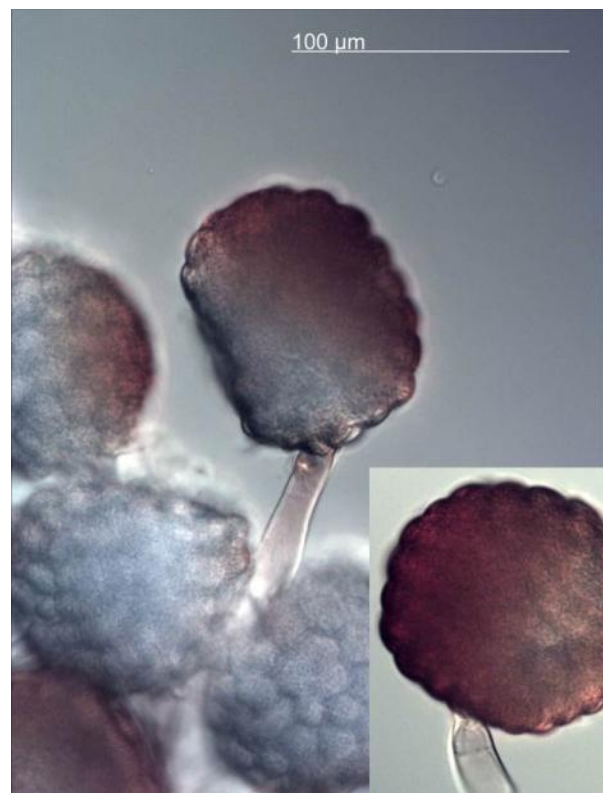
Notes: New record for NZ. A previously unrecognised indigenous species. Of no significance.



Glomus sp.

JAC12090, soil, Site: Lake Rotopounamu track, 1836500E, 5677500N, Taupo, Col.: D. Catcheside, Det.: J.A. Cooper, 16/05/2011, Herb.: PDD 96330, OtherDB: FUNNZ2011/827.

Notes: An undescribed species (possibly genus). Of no concern.

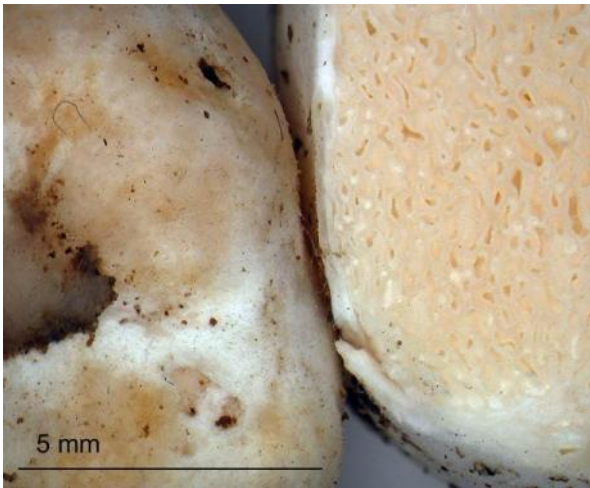
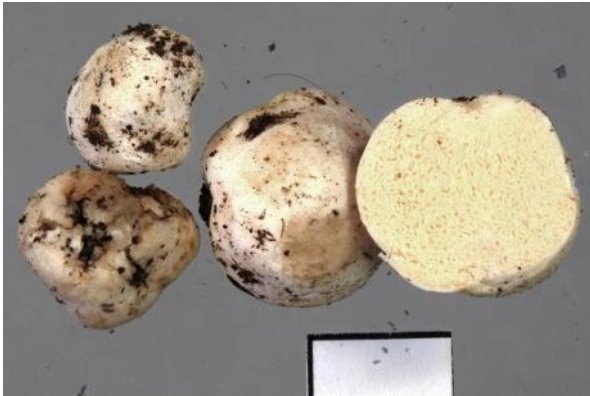


Gymnomyces jac10843

JAC12289, on/with *Kunzea ericoides*, Site: Emily Falls Track, Peel Forest, 2368475E, 2368475N, South Canterbury, Col.: 24/07/12

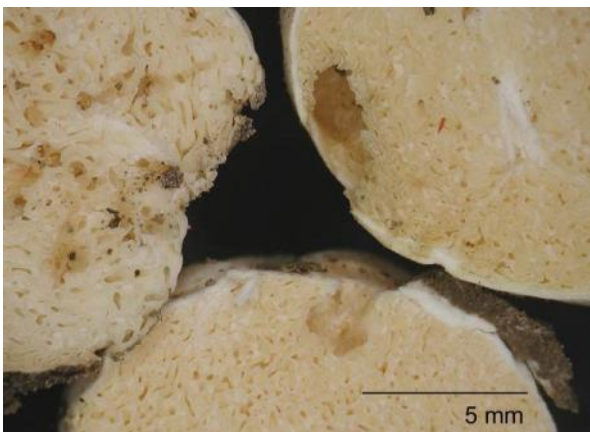
N.A. Cooper, Det.: J.A. Cooper, 03/03/2012, Herb.: PDD 96529.

Notes: An undescribed species common with tea-tree. Of no concern.



Gymnomyces JAC10843

JAC12314, on/with *Kunzea ericoides*, litter, Site: Christchurch, Port Hills, Omahu Reserve, 2479412E, 5727196N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 17/03/2012, Herb.: PDD 96423.



Gymnopilus austropicreus

JAC11813, on/with *Nothofagus menziesii*, fallen rotted log, Beech forest, Site: Lake Daniels Track, 2446858E, 5873928N, Buller, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/04/2011, Herb.: PDD 96209.

Notes New record for NZ. Previously unrecognised indigenous species. Of no concern.

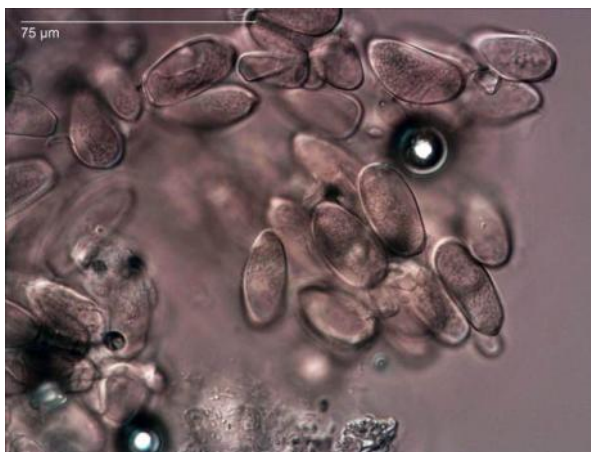


Gymnosporangium?

JAC12347, on/with *Urtica ferox*, live leaves, Lowland podocarp-broadleaved forest, Site: Banks Peninsula, Pigeon Bay, Hay Reserve, 2501739E, 5722680N, Mid Canterbury,

Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96451.

Notes: Undescribed species. This appears to be an undescribed rust on tree nettle with a very distinct morphology which does not easily place it in existing genera. It appears 'Gymnosporangium-like'. See also *Uredostilbe*, *Batistopsora*, *Corbulospora*. Material has undergone sequence analysis by Maj Pdamsee at Landcare, Auckland. Results not known. Significance unknown.



Halosigmaidea marina

JAC12356, Anamorph, on/with *Carpophyllum*, incubated dead seaweed, Beach, Site: Port Hills, Taylor's Mistake, 2492068E, 5735889N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 18/03/2012, Herb.: PDD 96453.

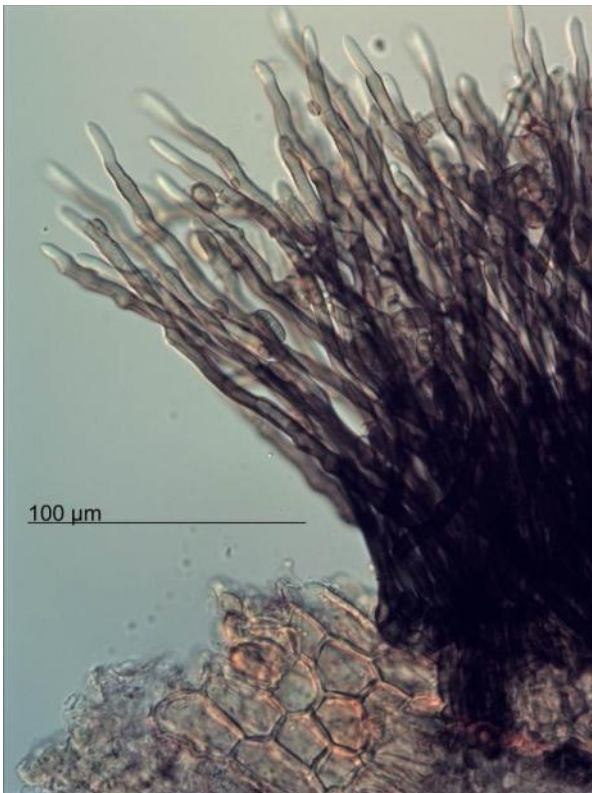
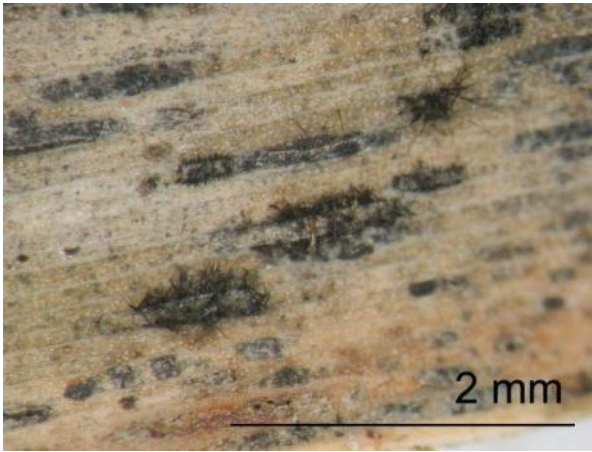
Notes: A marine species common on decaying seaweed. Of no concern.



Heterosporium sp.

JAC12413, Anamorph, on/with *Typha orientalis*, dead leaves, Wetland communities, Site: Christchurch, Travis Wetland, 2485230E, 5747005N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 14/04/2012, Herb.: PDD 96492.

Notes: Possibly undescribed. Cercosporidium in the non Passalora sense, or Cladopsorium (*Heterosporium*) c.f. *phlei*, *iridis* etc. Conidiophores mainly unbranched, geniculate sympodial, conidia 0-3 septate. length=12.5–16.4μm ($\mu=14.0$, $\sigma=1.26$), width=5.6–7.0μm ($\mu=6.3$, $\sigma=0.49$), Q=1.9–2.4μm ($\mu=2.22$, $\sigma=0.19$), n=10. Tried to isolate but standard cladopsorium came out. Significance unknown but unlikely to be of concern.



***Hohenbuehelia* sp. 'Ahuriri (PDD79837)'**

JAC11586, rotten fallen wood, Site: Christchurch, Jollie's Bush, 2488891E, 5735520N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 04/07/2010, Herb.: PDD 95974.

Notes: Undescribed species. Most species in the genus are laterally attached and pleurotoid. The presence of gloeospex cystidia almost certainly indicates this is a *Hohenbuehelia* or closely related. It has been recorded a few times. Of no significance.



***Hyalorbilia* JAC11615**

JAC11967, on/with *Sophora microphylla*, attached branch, Urban park, Site: Canterbury University, outside geography department, 2476344E, 5742575N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 22/06/2010, Herb.: PDD 96223.

Notes: *Sophora* Survey and identical to a number of previous collections. Of no significance.

Hymenopellis raphanipes

JAC11832, Garden, Site: Christchurch, Samuel Street, 2477599E, 5738012N, Mid Canterbury, Col.: H. Greenep, Det.: J.A. Cooper, 07/05/2011, Herb.: PDD 96221.

Notes: New record for New Zealand. An introduction into urban areas. Of no significance.



Lactarius c.f. pubescens

JAC11787, Doubtful record, on/with *Betula*, Urban roadside, Site: Lincoln, opposite University, 2467061E, 5729389N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 22/04/2011, Herb.: PDD 96184.

Notes: Not *L. pubescens* which is known in NZ. This is a probable US introduction with an American birch. I can find no appropriate name in the literature. Of no significance.



Lactarius hauroko ined.

JAC11816, on/with *Nothofagus menziesii*, soil, Beech forest, Site: Lyell Walkway Track, 2460860E, 5869793N, Buller, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/04/2011, Herb.: PDD 96212.

Notes: unpublished name for undescribed endemic species. Of no concern.





Lactarius pyrogalus

JAC12115, on/with *Corylus avellana*, soil, Site: Masterton, 250 Upper Manaia Road,, 2728586E, 6026146N, Wairarapa, Col.: D. Batchelor, Det.: D. Batchelor, 05/06/2011, Herb.: PDD 96354, Coll. Ref.: DB2011052.

Notes: New to NZ. Introduction from Europe with hazelnut. Of no significance.



***Leptosphaeria* sp**

JAC11644, on/with *Clematis paniculata*, dead attached twigs, Garden, Site: Christchurch, 78 Opawa Rd, 2482495E, 5739595N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/08/2010, Herb.: PDD 96075.

Notes: Probably undescribed. 5-septate (1 seen with 6) spores and with red staining wood. All the red stainers are 3-septate (*L. haematites*, *L. cruenta*, *L. rubella*, *L. rubicunda*, *L. purpurea*, *L. sanguinolenta*). *Nodulosphaeria aucta* has 6-septate spores and no red stained tissue, not superficial. *L. vitalbae* has 7-10 septa.



Leucogyrophana* c.f. *lichenicola

JAC12039, on/with *musci*, moss with dracophyllum, Frost Flat, Site: Rangitaiki Reserve, 2807658E, 6246556N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 18/05/2011, Herb.: PDD 96282, OtherDB: FUNNZ2011/740.

Notes: An undescribed alpine lichenicolous species. Of no significance.



***Leucopaxillus* JAC12080**

JAC12085, on/with *Nothofagus*, soil, Site: Kaiapo Scenic Reserve, track to Tahunatara Point, 2751912E, 6222545N, Taupo, Col.: P. Leonard, Det.: J.A. Cooper, 15/05/2011, Herb.: PDD 96325, OtherDB: FUNNZ2011/1613.



Leucopaxillus JAC12080

JAC12080, soil, Site: Kaiapo Scenic Reserve, track to Tahunatara Point, 2751912E, 6222545N, Taupo, Col.: A. Williams, Det.: J.A. Cooper, 15/05/2011, Herb.: PDD 96320, OtherDB: FUNNZ2011/1637.

Notes: An undescribed endemic species. Quite common and of no significance.



Leucopaxillus JAC12080

JAC12520, on/with *Nothofagus*, soil, Site: Lake Monowai, 1135000E, 4912600N, Fiordland, Col.: D.J. Little, Det.: J.A. Cooper, 10/05/2012, Herb.: PDD 96634, OtherDB: FUNNZ2012/1901.



Leucopaxillus JAC12080

JAC12450, on/with *Nothofagus menziesii*, Beech forest, Site: Lake Monowai, 2084152E, 5473957N, Fiordland, Col.: S.R. Pennycook, Det.: J.A. Cooper, 11/05/2012, Herb.: PDD 96571, OtherDB: FUNNZ2012/0948.



Lyophyllum sp.

JAC12092, on/with *Kunzea*, soil, Site: Waikari Scenic Reserve, 1843260E, 5678309N, Taupo, Col.: T. Garland, Det.: J.A. Cooper, 16/05/2011, Herb.: PDD 96332.

Notes: Undescribed endemic. Of no significance.



Lyophyllum sp.

JAC11814, on/with *Nothofagus menziesii*, soil, Beech forest, Site: Lake Daniels Track, 2446858E, 5873928N, Buller, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/04/2011, Herb.: PDD 96210.

Notes: Undescribed endemic. Of no significance.



Lyophyllum sp

JAC12088, on/with *Nothofagus*, soil, Site: Clements Mill Road, Cascades track (Hinemaiaia track), 2781976E, 6241385N, Taupo, Col.: P.K. Buchana, Det.: J.A. Cooper, 16/05/2011, Herb.: PDD 96328, OtherDB: FUNNZ2011/1681.

Notes: blackening



Lyophyllum sp

JAC11821, on/with *Nothofagus menziesii*, soil, Beech forest, Site: Lyell Walkway Track, 2460973E, 5870234N, Buller, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/04/2011, Herb.: PDD 96217.

Notes: Undescribed endemic. Of no significance.



Marasmiellus jac10234

JAC11753, on/with *Nothofagus fusca*, fallen twigs, Site: Christchurch, Jollie's Bush, 2488913E, 5735594N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 20/03/2011, Herb.: PDD 96159.

Notes: Undescribed. Of no significance.



Marasmiellus JAC12001

JAC12001, dead standing tree, Podocarp forest, Site: Pureora, Rimu Track, 2739762E, 6287731N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 19/05/2011, Herb.: PDD 96255, OtherDB: FUNNZ2011/832.

Notes: undescribed indigenous. Of no significance. Macroscopically appearing like *Oudemansiella/Hymenopellis* but not microscopically. Of no significance.



***Marasmiellus* JAC12001**

JAC12078, wood, Site: Waihora Lagoon track, 1832900E, 5718900N, Taupo, Col.: S. Kerr, Det.: J.A. Cooper, 15/05/2011, Herb.: PDD 96318, OtherDB: FUNNZ2011/41.

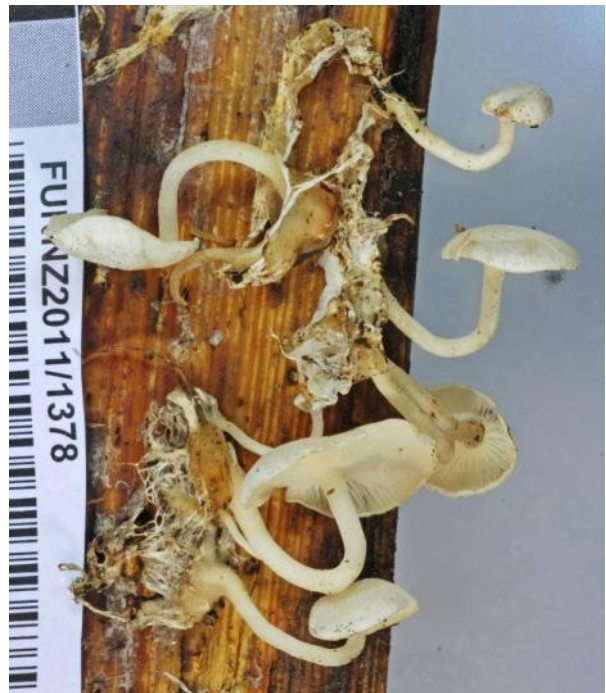


***Marasmiellus* sp. 'McCleans Island (PDD87681)'**

JAC12009, on/with *Cordyline indivisa*, dead leaf, Podocarp forest, Site: Pureora, Rimu Track, 2739763E, 6287742N, Taupo, Col.: K. Hoksbergen,

Det.: J.A. Cooper, 19/05/2011, Herb.: PDD 96262, OtherDB: FUNNZ2011/1378.

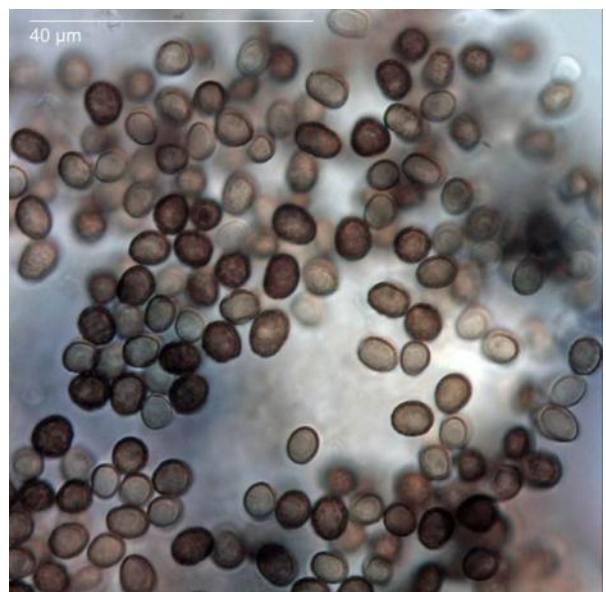
Notes: Undescribed indigenous species. Of no significance..



***Microsphaeropsis* sp.**

JAC12366, Anamorph, on/with *Carmichaelia appressa*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96463.

Notes: Sophora survey. Undescribed species. conidia minutely rough, conidiogenous cells not see. if phialidic then microsphaeropsis, if annelidic then coniothyrium. Attempt at culture produced Rhizoctonia-like state. Not deposited. Probably of no significance.

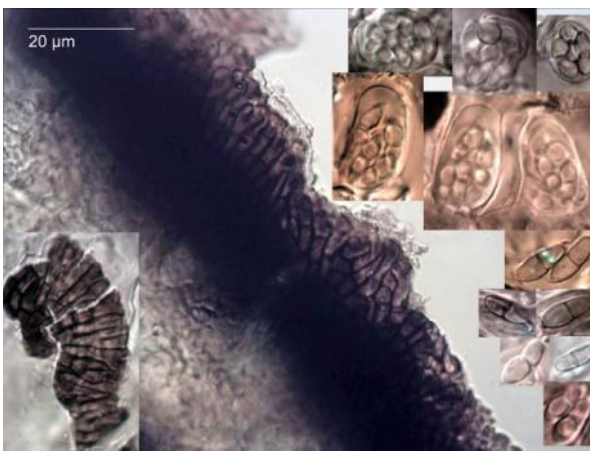




Morenoina paludosa

JAC12362, on/with *Desmoschoenus spiralis*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96562.

Notes: New record for New Zealand. Indigenous. Of no significance..



Mycena JAC11997

JAC11997, twigs, Podocarp forest, Site: Pureora, Rimu Track, 2739762E, 6287741N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 19/05/2011, Herb.: PDD 96252, OtherDB: FUNNZ2011/866.

Notes: Undescribed endemic. Of no significance.



Mycena JAC11997

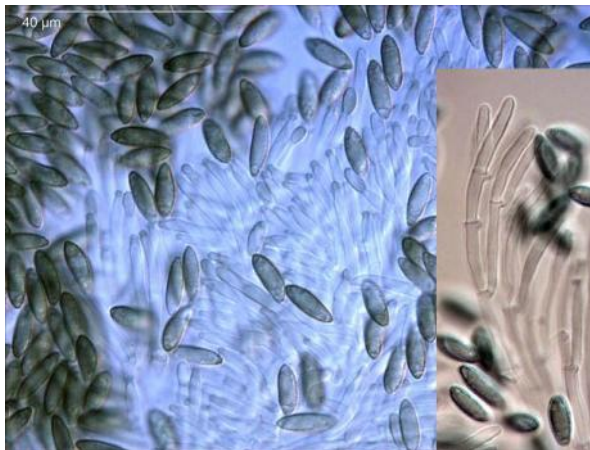
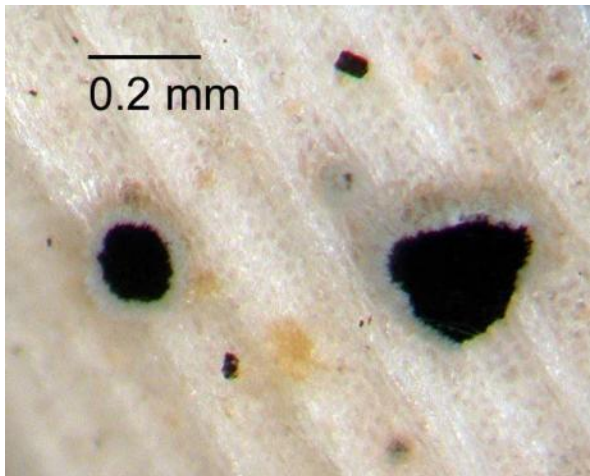
JAC12483, podocarp wood, Podocarp forest, Site: Croydon Bush, Whisky Creek Track, 2187201E, 5452594N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 08/05/2012, Herb.: PDD 96601, OtherDB: FUNNZ2012/1699.



Myrothecium sp.

JAC12364, Anamorph, on/with *Carmichaelia appressa*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96461.

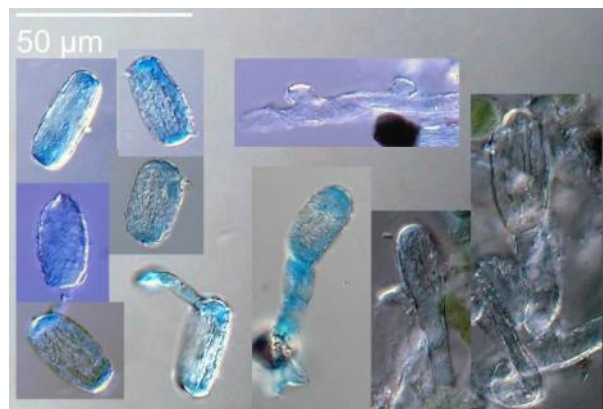
Notes: Sophora survey. Probably undescribed. Acervula with pale perimeter and a cushion of olivaceous conidia. Can't find a myrothecium with this branching pattern.



***Oidium* sp.**

JAC11677, on/with *Sophora prostrata*, live leaf, Garden, Site: Christchurch, 78 Opawa Rd, 2482495E, 5739595N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 04/12/2010, Herb.: PDD 96102.

Notes: probable undescribed powdery mildew. The teleomorph is not known although the anamorph state is long known in NZ by nurserymen (P. Heenan pers. com.). Does not appear to be an issue as a pathogen.



***Panellus* JAC10140**

JAC12008, twigs and litter, Podocarp forest, Site: Pureora, Bog Inn Track, 2739763E, 6287742N, Taupo, Col.: S.R. Pennycook, Det.: J.A. Cooper, 19/05/2011, Herb.: PDD 96261, OtherDB: FUNNZ2011/1228.

Notes: Undescribed endemic. Of no significance.



***Panellus* sp. 'Montgomery Park (PDD87050)'**

JAC12288, attached dead twig, Site: Emily Falls Track, Peel Forest, 2368475E, 2368475N, South Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 03/03/2012, Herb.: PDD 96528.

Notes: Undescribed endemic. Of no significance



***Panellus* sp. 'Montgomery Park (PDD87050)'**

JAC11990, dead decorticate twig, Podocarp forest, Site: Pureora, Rimu Track, 2739764E, 6287742N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 19/05/2011, Herb.: PDD 96245, OtherDB: FUNNZ2011/824.



***Paxillus* sp.**

JAC12332, on/with *Populus*, soil, Site: Banks Peninsula, Pigeon Bay, Hay Reserve, 2501859E, 5722540N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96431.

Notes: An introduction which is not *Paxillus involutus*. May possibly jump hosts.

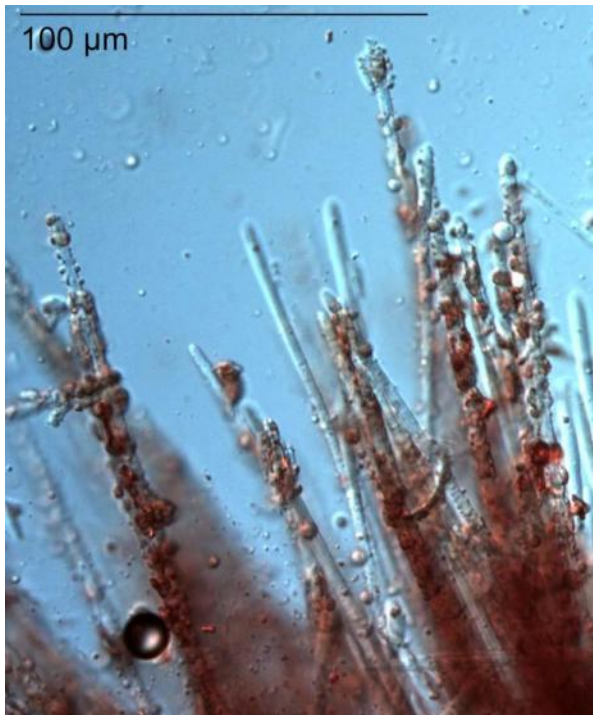


***Lachnum* 'toetoe'**

JAC12400, on/with *Cortaderia richardii*, dead leaves, Wetland communities, Site: Christchurch, Travis Wetland, 2485230E, 5747005N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 14/04/2012, Herb.: PDD 96504.

Notes: Undescribed indigenous taxon, known from two of my collections, but others in PDD. Of no significance, but pretty.





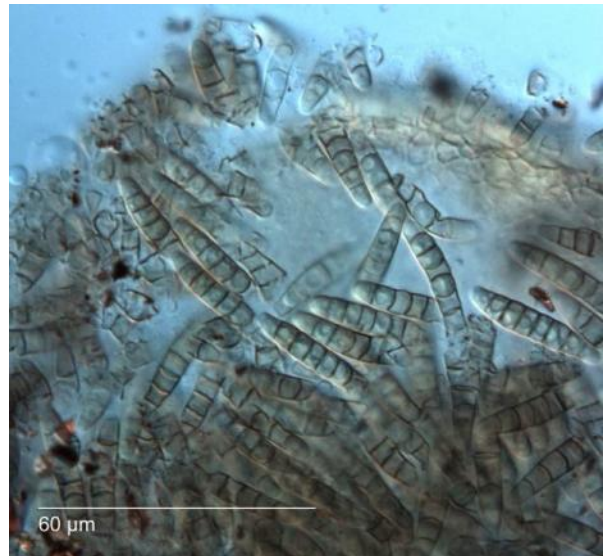
Caption:hairs



***Phaeostagonospora* sp.**

JAC12365, Anamorph, on/with *Carmichaelia appressa*, dead stems, Sand-dune communities, Site: Kaitorete Spit, 2480816E, 5708935N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96462.

Notes: Sophora survey. Associated with die-back areas of stems adjacent green stems. Significance unknown.



Pholiota jac1101

JAC12015, on/with *musci*, moss with dracophyllum, Frost Flat, Site: Rangitaiki Reserve, 2807658E, 6246556N, Taupo, Col.: J.A. Cooper, Det.: J.A. Cooper, 18/05/2011, Herb.: PDD 96267, OtherDB: FUNNZ2011/173.

Notes: Endemic undescribed species. Common No significance.

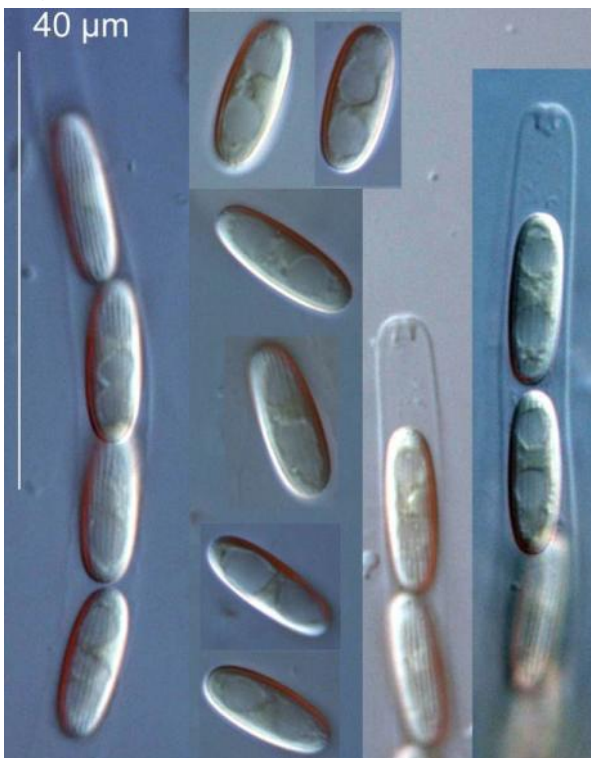




Phomatospora arenaria

JAC12428, Teleomorph, on/with *Ammophila arenaria*, dead leaves, sand dunes, Site: Barracouta Point, 2144505E, 5396947N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/05/2012, Herb.: PDD 96526, OtherDB: FUNNZ2012/5004.

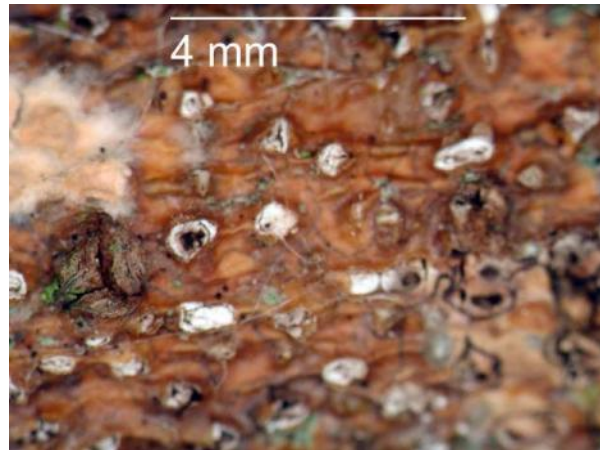
Notes: New record for New Zealand. Of no significance.



Phomopsis JAC11969

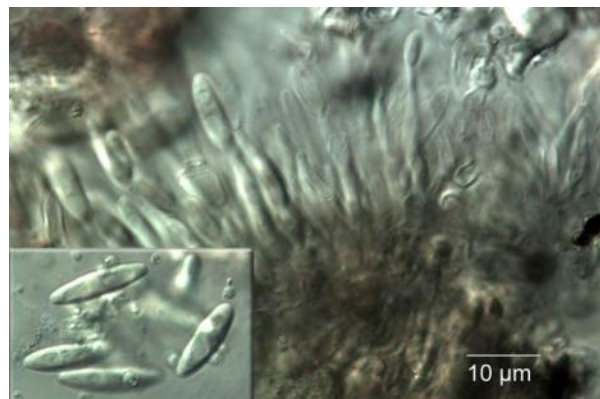
JAC12437, Anamorph, on/with *Sophora longicarinata*, dead attached twigs, Site: Waima River, Blue Mountain, 1683000E, 5363400N, Kaikoura, Col.: P. Heenan, Det.: J.A. Cooper, 18/04/2012, Herb.: PDD 96514.

Notes: Sophora survey. Not *P. sophorae*. Present also on live green material. Significance unknown.



Phomopsis JAC11969

JAC11969, Anamorph, on/with *Sophora microphylla*, dead branch, Site: Rakaia Gorge bridge, 2401534E, 5742484N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 08/06/2011, Herb.: PDD 96225.

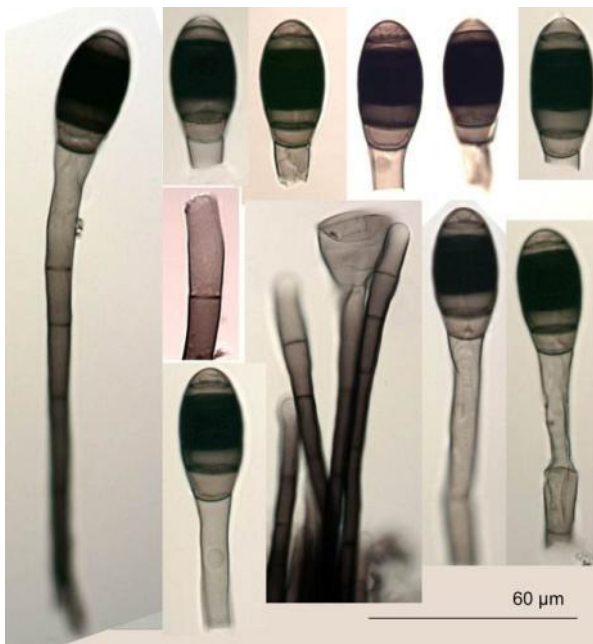
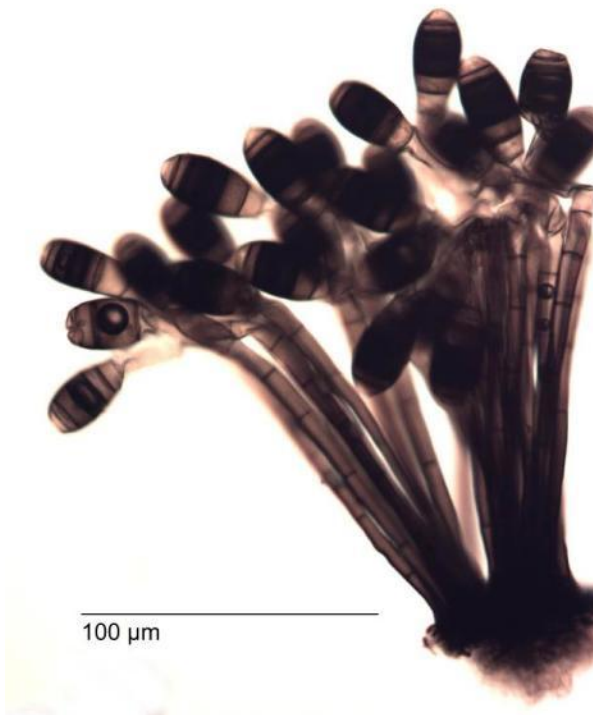


Phragmocephala elliptica

JAC12294, Anamorph, on/with *Aciphylla*, dead leaf, Site: Tasman Valley Road, 2281500E, 5719447N, Mackenzie, Col.:

J.A. Cooper, Det.: J.A. Cooper, 02/03/2012, Herb.: PDD 96534.

Notes: new record for New Zealand. Of no significance.



Phyllosticta coprosmae

JAC12394, Anamorph, on/with *Coprosma robusta*, live leaves, Site: Governor's Bay, seafront track, 2481851E, 5731041N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 08/04/2012, Herb.: PDD 96588.

Notes: New record for NZ. The common purple blotches on upper surface of leaf and necrotic patches with immersed pycnidia below. Perhaps a bit small for McAlpine's species from Australia but appropriate to adopt this name until proven otherwise. The name doesn't seem to have been used since McAlpine's record. Not a *Phyllosticta* in the modern sense. Of no apparent significance.

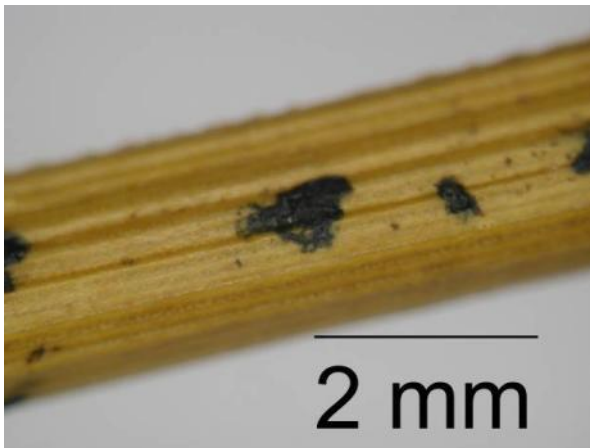
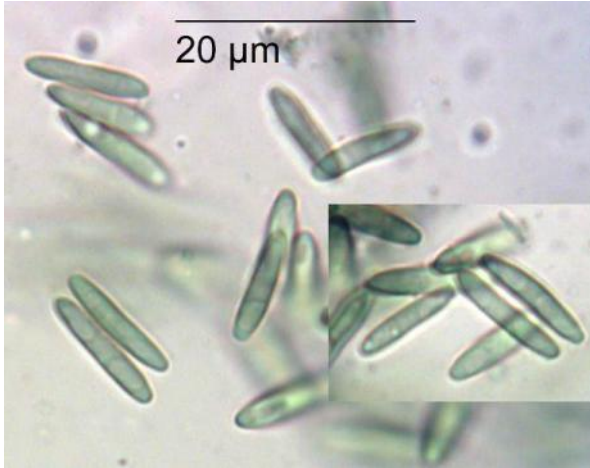


Pirostoma JAC12456

JAC12456, Anamorph, on/with *Ficinia spiralis*, dead seed heads, sand dunes, Site: Barracouta Point, 2144505E, 24/07/12

5396947N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/05/2012, Herb.: PDD 96576, OtherDB: FUNNZ2012/1861.

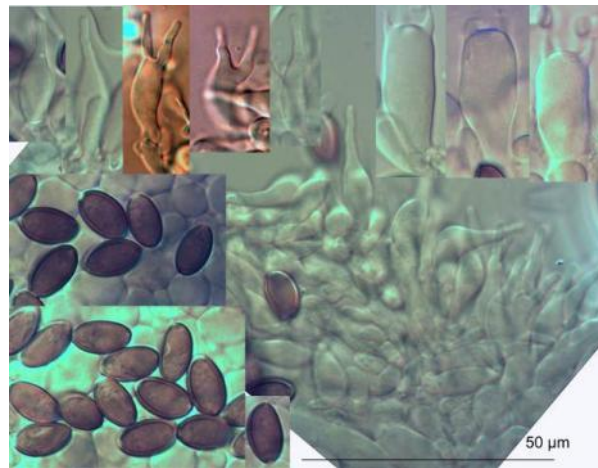
Notes: Undescribed endemic. Is most certainly related to *P. viridisporum* on *Phormium* but with longer narrower conidia. Of no probable significance.



Psilocybe fimetaria

JAC12448, on/with *bos taurus*, dung, Coastal grassland, Site: Barracouta Point, 2145169E, 5396645N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/05/2012, Herb.: PDD 96569, OtherDB: FUNNZ2012/1795.

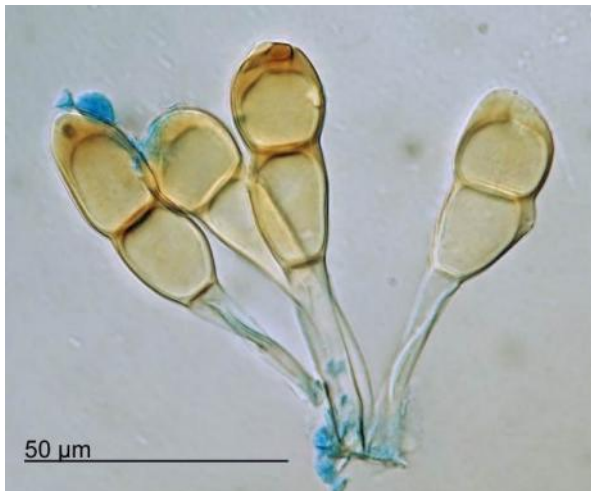
Notes: Previously misidentified as *P. coprophila* (now *Deconica coprophila*)



Puccinia cnici-oleracei

JAC11681, on/with *Achillea millefolium*, live leaf, riverbank, Site: Christchurch, Hansen Park, 2482999E, 5738841N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/01/2011, Herb.: TRAN:PDD 101043.

Notes: New record for NZ. I could find only one plant infected in the area, despite there being lots of yarrow. Hypophyllous. No sign of it being leptosporic. Possibly reported previously to MAF. Potential for cross infection onto related endemics – *Leptinella* etc. Significance unknown.



Resupinatus subapplicatus

JAC12465, Site: Forest Hill Reserve, 2157780E, 5432107N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 08/05/2012, Herb.: PDD 96584, OtherDB: FUNNZ2012/1735.

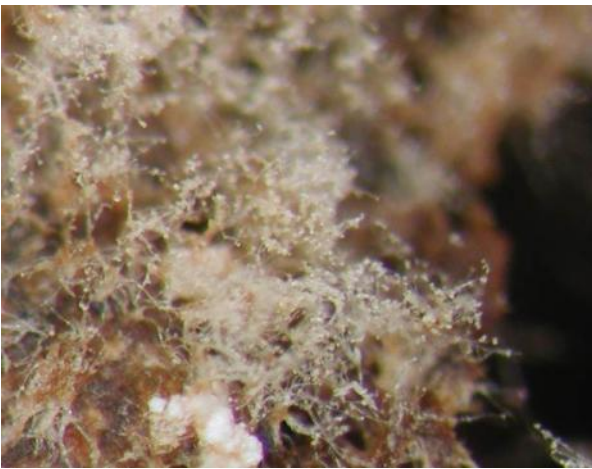
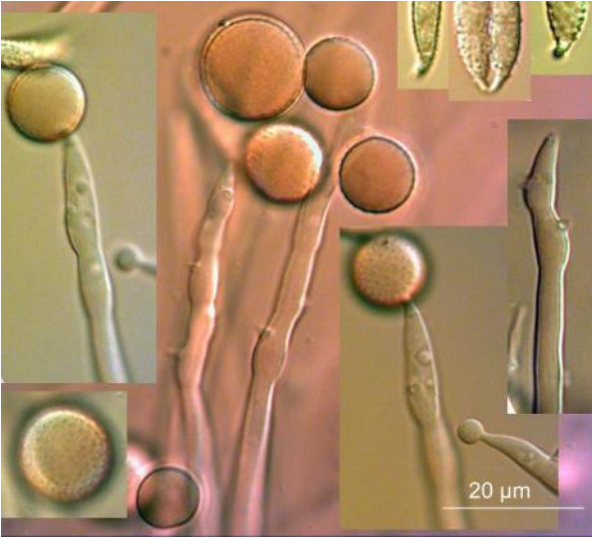
Notes: Newly recognised name for material previously misidentified as *R. applicatus*. Of no significance.



Rhinotrichella globulifera

JAC12472, Anamorph, on/with *Hypomyces*, dead bracket parasite, Beech forest, Site: Lake Monowai, 2084152E, 5473957N, Fiordland, Col.: J.A. Cooper, Det.: J.A. Cooper, 11/05/2012, Herb.: PDD 96590, OtherDB: FUNNZ2012/1975b.

Notes: New record for New Zealand. Hyperparasitic on *Hypomyces*. Of no significance.



***Russula acrolamellata* var. *nothofagi* Cooper & Leonard ined**

JAC11707, on/with *Nothofagus*, Site: Oxford, Glen Tui, 2450251E, 5777234N, North Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 31/01/2011, Herb.: PDD 96119.

Notes: Undescribed and as yet unpublished endemic. Of no significance.



***Russula austrofoetida* Leonard & Cooper ined.**

JAC11702, on/with *Nothofagus fusca*, soil, Site: Akaraoa, Hinewai Reserve, 2511350E, 5710638N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/01/2011, Herb.: PDD 96006, Genbank: not deposited.

Notes: : Undescribed and as yet unpublished endemic. Of no significance.



Russula grisea

JAC11831, on/with *Quercus robur*, Urban park, Site: Lincoln, Liffey, 2468480E, 5729812N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 05/05/2011, Herb.: PDD 96220.

Notes: New record for New Zealand. An introduction with European trees. Of no significance.



Russula laccata

JAC12422, on/with *Salix fragilis*, soil, riparian, Site: Lindis Pass Road, Lindis River, 2233731E, 5595279N, Central Otago, Col.: J.A. Cooper, Det.: J.A. Cooper, 12/05/2010, Herb.: PDD 96519.

Notes: New record for New Zealand. Introduced with European willows. Now widespread. Of no significance (except it probably helps willows spread).

***Russula hinewaiensis* Cooper & Leonard ined**

JAC12176, on/with *Nothofagus menziesii*, Site: Fiordland, Lake Manowai, Col.: P.L. Leonard, Det.: P.L. Leonard, 16/02/2009, Herb.: LOAN:PL:PDD 101461, Coll. Ref.: PL34209, Genbank: not deposited.

Notes: Undescribed and as yet unpublished endemic. Of no significance.

***Russula horopito* Cooper & Leonard ined.**

JAC12133, on/with *Nothofagus menziesii*, Site: Kepler Track, Col.: P. Leonard, Det.: P. Leonard, 15/02/2009, Herb.: LOAN:PL:PDD 101425, Coll. Ref.: PL10209, Genbank: not deposited.

Notes: Undescribed and as yet unpublished endemic. Of no significance.

Russula ionochlora

JAC11808, on/with *Cedrus libani*, Urban roadside, Site: Lincoln, CASC, roadside, 2467736E, 5729495N, Mid Canterbury, Col.: J.A. Cooper, Det.: P. Leonard, 27/04/2011, Herb.: PDD 96205.

Notes: New record for New Zealand. Introduced with European trees. Of no significance.



***Russula mcnabbii* Cooper & Leonard ined.**

JAC11721, on/with *Kunzea ericoides*, Leptospermum scrub, Site: Hapuku River mouth, 2571177E, 5875595N, Kaikoura, Col.: J.A. Cooper, Det.: J.A. Cooper, 26/02/2011, Herb.: PDD 96129, Genbank: not deposited.

Notes: Undescribed and as yet unpublished endemic. Of no significance.



***Russula pirispora* Leonard & Cooper ined.**

JAC12136, on/with *Nothofagus menziesii*, Site: Fiordland, Col.: P. Leonard, Det.: P. Leonard, 31/01/2011, Herb.: LOAN:PL:PDD 101430, Coll. Ref.: PL104111, Genbank: not deposited.

Notes: Notes: Undescribed and as yet unpublished endemic. Of no significance.

***Russula riwakaensis* Leonard & Cooper ined.**

JAC12149, on/with *Nothofagus fusca*, Site: Abel Tasman NP, Caanan, Col.: P. Leonard, Det.: P. Leonard, 14/02/2006, Herb.: LOAN:PL:PDD 101437, Coll. Ref.: PL22206, Genbank: not deposited.

Notes: Undescribed and as yet unpublished endemic. Of no significance

***Russula wilsonii* Cooper & Leonard ined.**

JAC11695, on/with *Kunzea ericoides*, soil, Site: Akaraoa, Hinewai Reserve, 2511227E, 5710621N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 29/01/2011, Herb.: PDD 96004, Genbank: not deposited.

Notes: Undescribed and as yet unpublished endemic. Of no significance.

***Stachybotrys* sp.**

JAC12429, on/with *Aciphylla*, dead leaves, Site: Croydon Bush, Whisky Creek Track, 2187827E, 5453123N, Southland, Col.: J.A. Cooper, Det.: J.A.

Cooper, 08/05/2012, Herb.: PDD 96628, OtherDB: FUNNZ2012/5003.

Notes: Probable undescribed species. Significance unknown..

***Stilbospora* sp.**

JAC11629, Anamorph, on/with *Sophora*, dead attached twig, Urban park, Site: Christchurch, Hansen Park, 1572770E, 5176953N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/08/2010, Herb.: PDD 95994, Cult.: ICMP.

Notes: *Sophora* survey. Undescribed species. Conidia hyaline while attached. Genus seems to be just a 3-septate 'Diplodia'? c.f. *Hendersonula*. From the original poor drawing this could quite easily be *Hendersonia* (*Sporocadus*) *sophorae*. See also *Macrodiplodiopsis* which is distoseptate and with a mucilaginous sheath, and *Neohendersonia* which is vari-coloured. NB ICMP isolate may possibly be a co-located contaminant. Significance unknown.



***Teichospora* sp.**

JAC11970, Teleomorph, on/with *Sophora microphylla*, dead branch, Site: Rakaia Gorge bridge, 2401534E, 5742484N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 08/06/2011, Herb.: PDD 96226.

Notes: *Sophora* survey. Undescribed species. Perhaps a *Decaisiella*, but both genera just guesses. 8-spored. Significance unknown.

***Stilbospora* sp.**

JAC12165, Anamorph, on/with *Sophora*, dead attached twig, Urban park, Site: Christchurch, Hansen Park, 1572770E, 5176953N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 12/09/2011, Herb.: PDD 96358.

***Stropharia* sp. 'Kennedy's Bush (PDD79791)'**

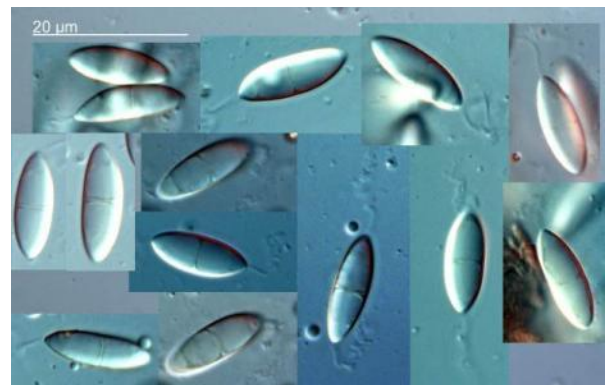
JAC12349, soil, Lowland podocarp-broadleaved forest, Site: Banks Peninsula, Pigeon Bay, Hay Reserve, 2501739E, 5722680N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/03/2012, Herb.: PDD 96446.

Notes: undescribed indigenous species. Of no significance.

***Tiarospora perforans***

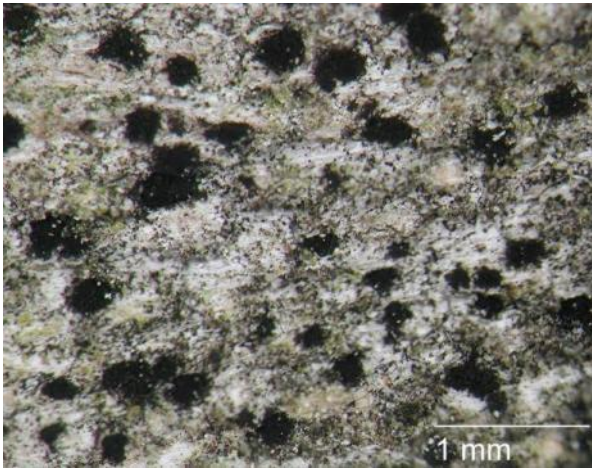
JAC12427, Anamorph, on/with *Ammophila arenaria*, dead leaves, sand dunes, Site: Barracouta Point, 2144523E, 5396804N, Southland, Col.: J.A. Cooper, Det.: J.A. Cooper, 10/05/2012, Herb.: PDD 96525, OtherDB: FUNNZ2012/5005.

Notes: Probable exotic. Of no significance.

***Trimmatsostroma cordae***

JAC11968, Anamorph, on/with *Sophora microphylla*, dead branch, Site: Rakaia Gorge bridge, 2401534E, 5742484N, Mid Canterbury, Col.: P.B. Heenan, Det.: J.A. Cooper, 08/06/2011, Herb.: PDD 96224.

Notes: *Sophora* survey. New record for New Zealand. Of no significance..



***Trullula* sp.**

JAC11608, Anamorph, on/with *Sophora prostrata*, attached twigs, Garden, Site: Christchurch, 78 Opawa Rd, 2482495E, 5739595N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 24/07/2010, Herb.: PDD 96052.

Notes: *Sophora* survey. Undescribed species. Of no significance.

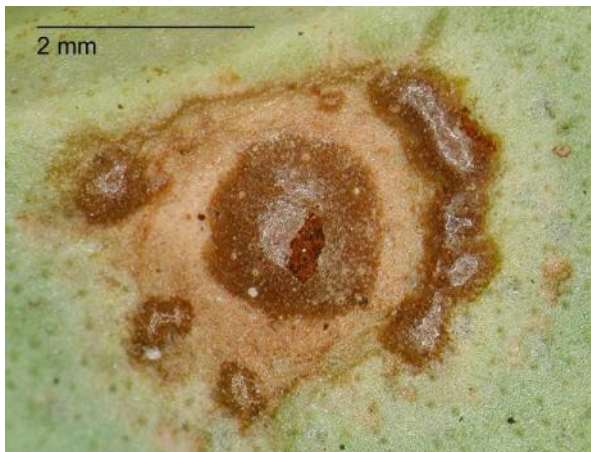


Uredo myopori

JAC12392, II, on/with *Myoporum laetum*, living leaves, Site: Halswell, Quarry, 2476075E, 5733894N, Mid Canterbury, Col.: J.A. Cooper, Det.: J.A. Cooper, 08/04/2012, Herb.: PDD 96485.

Notes: New record for New Zealand. Infections hypophyllous. These are uredinia so this is not *Aecidium myopori*. 3 equatorial pores. length=32.7–36.4μm (μ =33.9, σ =1.55), width=20.7–25.6μm (μ =23.4, σ =1.81), Q=1.3–1.8μm (μ =1.46, σ =0.18), n=7. *Uredo myopori* fits the description but only known from a few collections on Mauna Kea, Hawaii. Host is presumably native Ngaio, occurrence in recent native planting restoration site. Differences *M. laeta* black buds and leaves dotted with glands, *M. insulare* green sticky leaf buds. This specimen has black sticky buds! The few infected trees showed a significant infection and leaf fall. Probably worth

further investigation concerning confirmation of identity and significance.



Volvariella volvacea

JAC12235, composting wood chips, Urban park,
Site: Christchurch, Hagley Park, 2478831E,
5741588N, Mid Canterbury, Col.: J.A. Cooper,
Det.: J.A. Cooper, 21/11/2011, Herb.: PDD 96362.

Notes: Confirmation record of this being present in New Zealand (a commercial edible species – the paddy straw mushroom). Growing in a small clump on compost that was very warm to the touch - actively composting. Apparently mycelium dies below 7C. I can imagine request for importation of living strains of this species for commercial cultivation. Of no concern.

