Fungal Network of New Zealand (FUNNZ) 2024 Foray brief summary on finds on Marlborough District Council (MDC) land

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The foray was centred in Havelock and took place on the week of Monday 19th May 2024. We appreciate the permission that MDC granted to collect on their land and reserves. This enables the option of any finds from these locations being acquisition for processing and long term storage at the national herbarium / fungarium at Landcare. Thus enabling current and future generations of scientists to study the fungi.

All the finds were uploaded to <u>inaturalist</u> as part of the <u>FUNNZ project</u>. It was planned that a project was setup to capture the observations on MDC land. However <u>the project</u> captured all the 2024 finds instead. Although it would seem intuitive that the observations on MDC could be collated in inaturalist into a project, it didn't seem possible due to the complexities of the task.

Therefore the observations were manually collated the observations into the attached table. The spreadsheet has also been emailed so easy sorting if required. The points that may be of interested points are highlighted below:

The total number of observations, including lichens was 77. It is difficult to estimate the total number of species, since with fungi getting to genus is often the level of identification possible without microscopic work by a knowledgable person. There was a mixture of indigenous and exotic species reflecting the modified and indigenous environments.

In general the landscape was dry, which is becoming somewhat expected. Seems that a region that has an upcoming foray has a dry summer and autumn! Thus most collecting occurred back from the coast, close to forested waterways and valleys. Which resulted in not many collections from MDC land, as these lands were often close to the water or smaller tree-ed areas so not retained moisture.

However the walkway at the back of Havelock going up to the Havelock Waterfall was a productive walk for fungal observations.

It is difficult to know what MDC would find most interesting across all 76 observations, so hopefully the following highlights are of interest. To put the numbers below into context there are currently ~270 000 fungi observations (including lichens) on inaturalist.



<u>Tricholoma scalpturatum</u> was <u>recorded</u> at Spring Creek Kahikatea Reserve. This is an exotic fungi that is mycorrhizal (symbiotic) with poplar. This made the fifth observation on inaturalist in New Zealand.

<u>Tricholoma terreum</u> a visually very similar species that associates with pine has nearly 400 observations which shows how rare T scalpturatum is.



What was thought to be the first record of an Australian Cortinarius (webcap) species in New Zealand. This purple and yellow species was associated with eucalyptus outside the Havelock waste transfer station. Being a distinctive colour it was easy to compare to other Australian Cortinarius species found in New Zealand and none had purple — yellow colors. However DNA testing showed that this species had been recorded before in the Nelson-Marlborough area but had not yellow present.

Given the Western knowledge of

Australian fungi, it could be that this species has not been named or recorded in Australia. It is not one that is is in the common Australian guidebooks, nor on Australia's inaturalist in the named observations.



Three observations of the 'rooting' fungi from the <u>Oudemansiella</u> genus. Fungi don't have roots as such, being completely different ecology. But these fungi seem to originate their fruiting bodies from roots or other woody material underground in the soil. Compared to the typical presentation where the fruiting bodies start on the surface or just below their substrate (eg soil or wood). Thus there is a substantial 'root' that is below the fungi.

Unfortunately unless one ID's the fungi before picking, one doesn't know to dig as deeply as possible (often the root goes below the depth of a pocket knife blade), then the majority of the 'root' is left in the ground. So hence only one observation shows the root, and this left the majority in the ground. And even if one is aware and attempts to remove as much of the 'root' as possible it is very difficult to get any length of the 'root' still attached.

Thus the picture of the left only shows a small amount of 'root' starting where the stem changes from white to black, and then it continues down for a cm or two before it was cut.

These three observations make up approximately 1.5% of all these rooting fungi observations. So not rare, but hardly common, so interesting that so many were found in Havelock, one being on the Havelock foreshore and other two back on the bush-town interface.



Tiny <u>Hymenotorrendiella</u> fruiting on a eucalyptus leaf in Havelock. These are fundamentally different from gilled fungi (Phylum Ascomycota) in the spores are ejected out of tubes, instead of being attached to the ends of 'clubs' (basidia)

There are only 30 observations of the genus in New Zealand and if these are *H. eucalypti* as suggested they likely are, this will only be the second inaturalist observation of this species.



An observation was made of the New Zealand indigenous fungi *Leratiomyces erythrocephalus* which instead of having a cap with gills, has a ball for a cap a the spores located within this ball.

The photo to the left is not from the Havelock foray but illustrates the species well. Photo credit Christian Schwarz

There was also a rust fungi <u>Mikronegeria fuchsiae</u> infecting NZ fuchsia and a jelly fungi <u>Tremella fuciformis</u>, so named as they look and feel like a lump of jelly.

Lastly this compilation exercise also highlighted a challenge with data entry of the observations. The idea behind inaturalist is that you drop a pin as close to the find location as possible, including an error for how wide a circle the find was located in. Since unless a gps / phone with gps is used to mark the exact spot, when in a forest environment it is impossible to locate the exact location. What this has resulted in is a few attendees dropping a pin into Havelock with a very large error. Which means superficially it appears that observations were occur in Havelock urban area, so in public spaces / MDC land, which in fact there were not. So the data collation was not as straight forward as expected. This is helpful otherwise we would have not been aware this was happening and going forward we will endeavour to have clearer instructions on how to enter the observations.

Table 1: Finds recorded on MDC land, by alphabetical order:

Name	Location	Link		
Amanita pekeoides	Momorangi Bay	https://inaturalist.nz/observations/215424054		
Armillaria novae-zelandiae	Havelock	https://inaturalist.nz/observations/216203613		
Auricularia cornea	Spring Creek	https://inaturalist.nz/observations/215997108		
Auricularia cornea	Havelock	https://inaturalist.nz/observations/216191760		
Bolbitius titubans	Spring Creek	https://inaturalist.nz/observations/216078975		
Cerrena zonata	Havelock	https://inaturalist.nz/observations/216197518		
Chalciporus piperatus	Havelock	https://inaturalist.nz/observations/215632078		
Clavulina	Havelock	https://inaturalist.nz/observations/216055216		
Coltricia	Havelock	https://inaturalist.nz/observations/216207801		
Coprinellus	Havelock	https://inaturalist.nz/observations/216191099		
Coprinopsis	Spring Creek	https://inaturalist.nz/observations/216040919		
Cortinarius	Havelock	https://inaturalist.nz/observations/216226671		
<u>Cortinarius</u>	Havelock	https://inaturalist.nz/observations/216054859		
<u>Cortinarius</u>	Havelock	https://inaturalist.nz/observations/215638703		
Cortinarius castoreus	Havelock	https://inaturalist.nz/observations/215671000		
Cortinarius castoreus	Havelock	https://inaturalist.nz/observations/215637623		
<u>Crepidotus</u>	Havelock	https://inaturalist.nz/observations/216202239		
Cruentomycena viscidocruenta	Havelock	https://inaturalist.nz/observations/215609711		
<u>Dacrymyces</u>	Havelock	https://inaturalist.nz/observations/216200393		
<u>Daldinia</u>	Havelock	https://inaturalist.nz/observations/215194577		
<u>Entoloma</u>	Havelock	https://inaturalist.nz/observations/216067942		
Family Hygrophoraceae	Anakiwa	https://inaturalist.nz/observations/215663318		
Family Nidulariaceae	Havelock	https://inaturalist.nz/observations/216053325		
Favolaschia claudopus	Spring Creek	https://inaturalist.nz/observations/215992079		
Favolaschia claudopus	Havelock	https://inaturalist.nz/observations/216197904		
<u>Galerina</u>	Havelock	https://inaturalist.nz/observations/215612487		
<u>Ganoderma</u>	Havelock	https://inaturalist.nz/observations/215636416		
Genus Coprinopsis	Spring Creek	https://inaturalist.nz/observations/216075764		
<u>Hymenotorrendiella</u>	Havelock	https://inaturalist.nz/observations/215639958		
<u>Hypholoma</u>	Havelock	https://inaturalist.nz/observations/215672047		
Hypholoma australianum	Havelock	https://inaturalist.nz/observations/215645093		
Hypholoma brunneum	Havelock	https://inaturalist.nz/observations/216205916		
Kingdom Fungi	Havelock	https://inaturalist.nz/observations/215639691		
<u>Laccaria</u>	Havelock	https://inaturalist.nz/observations/215637663		
<u>Laccaria</u>	Havelock	https://inaturalist.nz/observations/215639831		
Leccinum scabrum	Wakamarina Rd	https://inaturalist.nz/observations/215407928		
<u>Leratiomyces</u> <u>erythrocephalus</u>	Havelock	https://inaturalist.nz/observations/215638851		

Leucoagaricus	Havelock	https://inaturalist.nz/observations/215627852		
Mikronegeria fuchsiae	Havelock	https://inaturalist.nz/observations/216194684		
Mycena	Havelock	https://inaturalist.nz/observations/215611940		
Mycena	Havelock	https://inaturalist.nz/observations/215631508		
Mycena	Havelock	https://inaturalist.nz/observations/215671747		
Mycena	Havelock	https://inaturalist.nz/observations/216205308		
Mycena interrupta	Havelock	https://inaturalist.nz/observations/215671358		
Mycena interrupta	Havelock	https://inaturalist.nz/observations/215643883		
Order Agaricales	Spring Creek	https://inaturalist.nz/observations/215996932		
Order Agaricales	Spring Creek	https://inaturalist.nz/observations/216078403		
Order Agaricales	Spring Creek	https://inaturalist.nz/observations/216075218		
Order Agaricales	Havelock	https://inaturalist.nz/observations/215617902		
Order Agaricales	Havelock	https://inaturalist.nz/observations/215641236		
Order Agaricales	Havelock	https://inaturalist.nz/observations/216198415		
Order Agaricales	Wakamarina Rd	https://inaturalist.nz/observations/215408054		
Order Agaricales	Taylor River Reserve	https://inaturalist.nz/observations/215843575		
Order Hypocreales	Havelock	https://inaturalist.nz/observations/215633043		
Order Polyporales	Spring Creek	https://inaturalist.nz/observations/215997485		
<u>Oudemansiella</u>	Havelock	https://inaturalist.nz/observations/216429521		
<u>Oudemansiella</u>	Havelock	https://inaturalist.nz/observations/215590978		
<u>Oudemansiella</u>	Havelock	https://inaturalist.nz/observations/215633296		
<u>Pholiota</u>	Momorangi Bay	https://inaturalist.nz/observations/215421303		
Pluteus readiarum	Havelock	https://inaturalist.nz/observations/215609806		
<u>Psathyrella</u>	Havelock	https://inaturalist.nz/observations/215430571		
<u>Russula</u>	Havelock	https://inaturalist.nz/observations/215670823		
Stereum ostrea	Havelock	https://inaturalist.nz/observations/215418977		
<u>Stropharia</u>	Havelock	https://inaturalist.nz/observations/216247919		
Suborder Marasmiineae	Spring Creek	https://inaturalist.nz/observations/215992321		
Subphylum Pezizomycotina	Havelock	https://inaturalist.nz/observations/215595546		
Suillus lakei	Picton	https://inaturalist.nz/observations/216960860		
Suillus luteus	Havelock	https://inaturalist.nz/observations/216428580		
Suillus pungens	Havelock	https://inaturalist.nz/observations/215628737		
Tremella fuciformis	Havelock	https://inaturalist.nz/observations/216204481		
Tricholoma scalpturatum	Spring Creek	https://inaturalist.nz/observations/216960859		
<u>Tricholoma terreum</u>	Havelock	https://inaturalist.nz/observations/215632540		
<u>Tylopilus</u>	Anakiwa	https://inaturalist.nz/observations/216224462		
Tylopilus brunneus	Havelock	https://inaturalist.nz/observations/215629981		
<u>Xanthoria</u>	Spring Creek	https://inaturalist.nz/observations/216713124		
Xanthoria parietina	Spring Creek	https://inaturalist.nz/observations/215991719		