

FNCV FUNGI GROUP FORAY

15 July 2007

Ned's Gully, Cathedral Range State Park

GPS reading at car park: 37 21 26 S, 145 45 08 E; altitude 318 metres

Ned's Gully had experienced a lot of rain in the weeks before our foray, and we found many interesting fungi - in total 105 species and 10 Fungimap targets.

Surprisingly we found only two *Hygrocybes* this year (both unidentified), and only a few coral fungi. Why this should be so is a mystery. Last August we found 11 colourful *Hygrocybe* species, so perhaps we were a little early. On the other hand, the colder, wetter weather may have been a factor.

One fascinating find was *Sphaerobolus stellatus* growing on a very wet and slimy log. My attention was first drawn to the 'bleaching' patches along the length of the fallen log. Close examination with a hand lens revealed tiny pale orange cup-shaped fruitbodies (roughly 1 – 2 mm in diameter) with a star-like rim to the cup, imbedded in a slimy mass. Also visible were small white bladders that appeared to be emerging from some of the cups.

This species has a most unusual method of dispersing its spores. The single brown spore capsule (i.e. the peridiole), which can be seen in the bottom of the star-cup, sits on a white membrane that suddenly and rapidly turns inside out to shoot the peridiole high into the air. The white 'balloons' we saw in some of the cups were the everted membranes after they had shot their load. It is reported that this fungus can project its spore parcels up to 6 metres away. Hence the common names 'cannon fungus' or 'sphere thrower'. It is not clear what triggers these 'catapults' although moisture and light are apparently necessary. Unfortunately (or should that be fortunately) we were not exposed to any 'cannon' shots.

The fascinating story does not end there however, as the sticky peridioles are very durable and cannot be broken down merely by wind and rain. The glebal mass containing the spores must be eaten and digested by herbivores before the spores will germinate.

The tiny light brown Bird's Nest fungus, *Nidula niveotomentosa*, was also found on a twig on the ground. It appears as a pale cylindrical cup (approx 5 mm diameter) covered with white hairs on the outside. The parallel sides of the cup distinguish this species from *N. emodensis*, which has a v-shaped cup. Like *Sphaerobolus*, the bird's nest contains several brown 'eggs' (i.e. peridioles). However, in this case, it is rain droplets splashing into the cup that disperse the peridioles. The outer wall of the 'eggs' then decay (or are eaten by insects, etc) to expose the spores.

Nidula niveotomentosa and *Sphaerobolus stellatus* are members of the group called Nidulariales, or 'Bird's Nest' fungi. Nidulariales are in turn included in the Gasteromycetes or 'stomach fungi', which includes earthstars, puffballs, stinkhorns and truffles. In Gasteromycetes, the spores are produced inside the fruit body (i.e. not on gills or pores) and are not forcibly discharged, but depend on wind, rain and animals to disperse and break down the spore mass. Despite these common characteristics, modern taxonomic analysis has shown that the Gasteromycetes are not closely related to one another at all, and the group does not indicate a common evolutionary history.

If you want to read more about *Nidula niveotomentosa* or *Sphaerobolus stellatus* check out Tom Volk's website http://botit.botany.wisc.edu/toms_fungi/jul2005.html or read 'Mushrooms Demystified' by David Arora.

The uncommon *Clitopilus hobsonii* was again found on the same tree stump as last year, as was the unusual purple ascomycete we have dubbed the 'Purple Nail'.

Please remember that new people are always welcome on our forays - you don't need to know anything about fungi. Each foray is led by experienced guides who are keen to share their knowledge.

Thanks again to Virgil Hubregtse for taking the field notes.
A full list of species (with notes) found on this foray is available on request.

Paul George

FNCV FUNGI GROUP FORAY 15 July 2007

Ned's Gully, Cathedral Range State Park

Vegetation: Open eucalypt forest, mossy gullies

GPS reading at carpark: 37 21 26 S, 145 45 08 E ; altitude 318 metres

No = sequential numbering of species as they were found; **S** = specimens taken for further examination; **C** = Collection taken; **T** = Fungimap Target species

See **Fungi down under p.** = Fungi down under: the Fungimap guide to Australian fungi / by Pat Grey and Ed Grey. 2005

See **Fuhrer 05, no photo** = A field guide to Australian fungi / by Bruce Fuhrer. 2005

See **McCann p. and photo position** = Australian fungi illustrated / by I. R. McCann. 2003

See **CD = Fungi Group Forays 2005 CD-ROM**

| | | | | | |
|-----|---|---------|------------------------------|--|---------------------------------|
| 61 | | Gill | Agaricus sp. | Cap large, brown and very scaly; stipe creamy white; annulus upturned, with zone of brown where spores have fallen | Ground under Prickly Currant |
| 82 | | Gill | Amanita aff. grisella | Young fruit-bodies, hemispherical, covered in a yellowish mealy layer, which when rubbed off reveals grey surface underneath. Cf. Fuhrer 05, #9 | Ground under eucalypts |
| 52 | T | Gill | Amanita xanthocephala | See <i>Fungi Down Under</i> p. 21; Fuhrer 05, #16; McCann p. 9 top right | Ground under eucalypts |
| 21 | | Bracket | Antrodiella zonata | See Fuhrer 05, #381 | Dead wood |
| 3 | | Asco | Asco 'Purple Nail' | Pink/plum disc 10mm diameter, upper and lower surface smooth. Stipe 15-35 mm penetrated into a crack in the wood, leaving just the disc exposed. Spores hyaline to slightly greenish, long ellipsoidal, smooth with two droplets; mean = 17.6 * 5.2 µm; L:B = 3.4, n = 12. 8 spores per ascus. | Dead wood, wet, mossy and slimy |
| 35 | | Disc | Ascomycete | Tiny yellow discs with black stipes | Dead twig on ground |
| 67 | | Cup | Bisporella citrina group | See CD; Fuhrer 05, #470; McCann p. 112 top right | Dead wood |
| 60 | | Jelly | Calocera sp. | Cf. Fuhrer #450 | Log |
| 2 | | Jelly | ?Calocera sp. | Small, yellow, almost oblong fruit-bodies on narrow short stipes | Dead wood |
| 100 | | Disc | Cheilymenia coprinaria group | See CD; Fuhrer #473 as C. raripila; cf. McCann p. 115 bottom right | Dung |
| 88 | | Disc | Chlorociboria aeruginascens | See CD; Fuhrer 05, #474 | Dead wood |
| 73 | | Coral | Clavaria miniata group | No colour zones on fruit-bodies. See CD | Ground |
| 94 | | Coral | Clavicornia piperata | See Fuhrer 05 #307 | Dead wood |

| | | | | | |
|----|-----------|-------|-------------------------------------|---|--|
| 34 | | Coral | Clavicornia sp. | Pale buff; very similar to <i>C. piperata</i> , but smaller and very fine | Dead wood |
| 86 | | Coral | Clavulina sp.? | Buff-coloured, branched | Ground |
| 18 | | Coral | Clavulina? sp. | Pale greyish brown | Ground |
| 14 | | Gill | Clitocybe clitocyboides | See CD; Fuhrer 05 #31 | Ground |
| 22 | | Gill | 'Clitocybe-like' fungus | Cap light greyish brown, hygrophanous; centrally depressed, c. 20 mm diameter; gills and stipe pallid | Eucalypt trunk |
| 5 | C1 | Gill | Clitopilus hobsonii | Small white gilled fan, gills white with pink tinge. This was on the same tree stump as where it was observed last year. | Dead wood |
| 13 | C2 | Gill | Clitopilus hobsonii | See No. 5. (Second collection made) | Dead wood |
| 19 | | Gill | Collybia eucalyptorum | See Fuhrer 05, #36 | Eucalypt log |
| 90 | | Gill | Conocybe filaris | See Fuhrer 05, #38 | Ground (over buried wood) |
| 51 | | Gill | Coprinellus (Coprinus) disseminatus | See CD; Fuhrer 05, #40; McCann p. 12 top left | Dead wood |
| 1 | | Disc | Cordierites frondosa | Small (less than 10 mm), leathery, black and concave, some with wavy edges, slightly wrinkled or crepe surface. In tight groups | Dead wood |
| 43 | T | Club | Cordyceps hawkesii | See Fungi Down Under p. 105; Fuhrer 05, #481 | Ground |
| 58 | | Gill | Cortinarius ?abnormis | Cap yellow-brown with yellowish margin. Cf. Fuhrer 05 #46 | Ground under eucalypts |
| 50 | | Gill | Cortinarius archeri | See CD; Fuhrer 05, #48; McCann p. 15 top | Ground under eucalypts |
| 70 | | Gill | Cortinarius sinapicolor | See CD; Fuhrer 05, #56; McCann p. 17 top | Ground under eucalypts and Prickly Currant |
| 54 | | Gill | Crepidotus variabilis | See CD; Fuhrer 05, #66; McCann p. 27 top left | Dead twig |
| 47 | | Gill | Crepidotus sp. | Small white gilled brackets with brown spores | Mossy tree trunk |
| 56 | C3 | Gill | Crepidotus sp. | Yellow brackets with yellow gills | Tree trunk |
| 49 | | Disc | Cudoniella pezizoidea | See Fuhrer 05, #484; McCann p. 113 top right | Dead twig on ground |
| 29 | T | | Dermocybe austroveneta | Green skinhead See Fungi Down Under p. 34, Fuhrer 05, #72 | Soil |
| 10 | T | Gill | Dermocybe splendida | See Fungi Down Under ; Fuhrer 05, #77 | Ground under eucalypt |
| 87 | | Gill | Entoloma aromaticum | Cap light brown with darker central umbo; stipe brown; fruity odour | Ground |
| 78 | | Gill | Entoloma sp. | Cap 25 mm across, pale brown with darker centre, and about 6 dark lines radiating from centre, dividing the cap into more or less equal sections; gills pale; stipe brown | Ground |

| | | | | | |
|----|---|------------|----------------------------|--|------------------------------------|
| 85 | | Gill | Entoloma sp. | Cap biscuit-coloured with darker centre; gills pale; stipe brown | Ground |
| 26 | | Jelly | Exidia glandulosa | See McCann p. 91 top right | Dead wood |
| 46 | | Bolete | Fistulinella mollis | See Fuhrer 05, #291; McCann p. 64 top | Ground |
| 36 | | Gill | Flammulina velutipes | See Fuhrer 05, #90; McCann p. 45 bottom | Wood |
| 83 | | Gill | Galerina hypnorum group | See CD; Fuhrer 05, #91; McCann p. 23 top right | Mossy log |
| 57 | | Gill | Galerina patagonica | See Fuhrer 05 #92 (i.e. 93) | Dead wood |
| 8 | | Earth star | Geastrum indicum | See CD, Fuhrer 05, #334 | Soil |
| 11 | | Bracket | Gloeophyllum saepiarium | See Fuhrer #393 | Horizontal treated pine fence post |
| 66 | | Crust | Gloeoporus taxicola | See Fuhrer 05, #432 | Log |
| 6 | | Gill | Gymnopilus allantopus | See Fuhrer 05, #95 | Dead wood |
| 71 | | Jelly | Heterotextus peziziformis | Golden jelly bells See CD, Fuhrer #451 | Twig on ground |
| 74 | | Gill | Hygrocybe sp. | Cap creamy white with brownish depressed centre; gills and stipe pallid | Ground |
| 93 | | Gill | Hygrocybe sp. | Cap c. 20 mm across, red; gills creamy yellow; stipe yellow | Ground |
| 96 | | Shelf | Hyphodontia flavipora | Patches of vertical pale orange tubes with tooth-like appearance. See CD | Dead wood |
| 7 | | Gill | Hypholoma fasciculare | See CD; Fuhrer 05, #137 | Dead wood |
| 32 | | Crust | Hypocrea sulphurea | See CD; Fuhrer 05, # 497 | |
| 15 | | Gill | Laccaria sp. | Cap brown; gills pinkish brown; stipe reddish brown | Ground |
| 53 | | Gill | Laccaria sp. | Cap reddish brown; pale gills | Ground |
| 80 | | Gill | Lactarius eucalypti | See CD; Fuhrer 05, #150 | At base of eucalypt trunk |
| 76 | | Bracket | Laetiporus portentosus | See CD; Fuhrer 05, #406 | Fallen on ground from dead tree |
| 81 | | Gill | Lepiota sp.? | Cap c. 25 mm across, planate, pale, covered in greyish-brown scales; gills white, free; stipe has an annulus about halfway down. Cf. Fuhrer 05, #160 | Ground |
| 30 | T | Coral | Macrotyphula juncea | See Fungi Down Under p. 80; Fuhrer 05, #312 | |
| 27 | | Gill | Marasmiellus affixus | See CD; Fuhrer 05, #176 | Dead twig |
| 23 | | Gill | Marasmius alveolaris | See Fuhrer 05, #179 | Fallen eucalypt branch |
| 75 | | Gill | Marasmius crinisequi group | 'Horsehair Marasmius' See CD | Leaf litter |
| 38 | | Gill | Melanopus hepatochrous | See Fuhrer 05, #185 | Fallen franch |

| | | | | | |
|-----|---|-------------|--|---|--------------------------------|
| 24 | | Gill | <i>Mycena cystidiosa</i> | See CD; Fuhrer 05, #194; McCann p. 53 bottom right | Leaf litter |
| 20 | | Gill | <i>Mycena kuurkacea</i> | See CD; Fuhrer 05, #199 | Bark on eucalypt trunk |
| 97 | | | <i>Mycena subgalericulata</i> | See Fuhrer 05, #209. Spores c. 9-11x7 microns, ellipsoidal, smooth, hyaline; basidia 4-spored, c. 35x12 microns; sterigmata robust, c. 8-9 microns; cheilocystidia large, some more than 100 microns, abundant. | Bark of eucalypt trunk |
| 63 | | Gill | <i>Mycena</i> sp. | Cap similar in size and shape to <i>M. mulawaestris</i> , but light brown with darker centre; gills white with no dark edge. Growing in a cluster | Log |
| 31 | | Gill | <i>Mycena</i> sp. | Tiny white fruit-bodies with a white 'collar' at the base of the stem | Bark |
| 33 | | Gill | <i>Mycena</i> sp. | Caps tiny, pale brown; gills white; growing in a cluster | Log |
| 55 | | Gill | <i>Mycena</i> sp. | Fruit-bodies tiny, pallid and slimy | Bark |
| 59 | | Gill | <i>Mycena</i> sp. | Caps conic, black to brown; gills white | Log |
| 105 | | Gill | <i>Mycena</i> sp. | Caps small, pale pink, conic/convex; growing in a cluster | Eucalypt trunk |
| 91 | | Bird's nest | <i>Nidula niveotomentosa</i> | Tiny light brown Bird's-nest fungus, cylindrical in shape, the outside covered with hairs; margin off-white, hairy. The parallel sides of the cup distinguish it from <i>N. emodensis</i> , which has a v-shaped cup. | Dead wood |
| 72 | | Gill | <i>Panaeolus</i> sp. | Cap conic to bell-shaped, black, on tall dark stipe | Wombat dung |
| 98 | | | <i>Peziza thozetii</i> | See Fuhrer 05; # Spores c. 10x24 microns, ellipsoidal, finely warty with conical ornamentation at each end. | Ground |
| 65 | | Gill | <i>Pleurotopsis (Panellus) longinqua</i> | See CD, Fuhrer #239 | Log |
| 17 | | Leather | <i>Podoscypha petalodes</i> | See CD, Fuhrer #436 | Eucalypt roots |
| 39 | | Polypore | <i>Polyporus melanopus</i> | Orange on top; pale underneath; black stipe | Dead wood |
| 103 | | | <i>Phellinus</i> sp. | Dark hoof-shaped brackets | Eucalypt trunk |
| 102 | T | | <i>Poronia erici</i> | See <i>Fungi Down Under</i> p. 113; Fuhrer 05, #525 | Dung |
| 16 | | Bracket | <i>Postia pelliculosa</i> | Bracket with a dense layer of reddish brown coarse hair on the upper surface. See Fuhrer 05, #418 | Dead peppermint (eucalypt) log |
| 99 | | | <i>Psathyrella</i> aff. <i>pennata</i> | See Fuhrer 05, #246 | Ground (over buried wood?) |
| 45 | | Gill | <i>Psilocybe subaeruginosa</i> | See CD; Fuhrer 05, #247; McCann p. 39 bottom left | In leaf litter on ground |
| 79 | | Coral | <i>Ramaria lorithamnus</i> | See CD; Fuhrer 05, #326 | Ground |
| 84 | | Coral | <i>Ramaria</i> sp. | Pale yellow, blunt divided terminals, branches growing from one stem | Ground |
| 89 | | Coral | <i>Ramariopsis crocea</i> | Orange, small with fine pointed terminals, branched from stipe. See Fuhrer 05, #315 | Soil |

| | | | | | |
|-----|---|-------------|---|---|---|
| 44 | | Gill | Rickenella fibula | See CD; Fuhrer 05, #250; McCann p. 58 bottom | Moss |
| 104 | | Gill | Russula purpureoflava | Purple cap; yellow gills; pink stipe. See CD; Fuhrer 05, #259 (with white stipe) | Ground |
| 9 | | Bracket | Ryvardenia campyla | Very old specimen. See CD; Fuhrer 05, #421 | Dead wood |
| 37 | T | Gill | Schizophyllum commune | See Fungi Down Under p. 57; Fuhrer 05, #261 | Dead wood |
| 4 | | Earthball | Scleroderma sp. | Yellow-skinned earthball | Ground |
| 95 | | Slime mould | Slime mould | Black 'fish eggs' | Dead wood |
| 64 | | | Sphaerobolus stellatus | See CD; Fuhrer 05, #343 | Log |
| 62 | | Leather | Stereum hirsutum | See Fuhrer 05, #439; McCann p. 83 bottom right | Mossy tree trunk |
| 25 | | Leather | Stereum illudens | See Fuhrer 05, #440 | |
| 41 | T | Leather | Stereum ostrea | See Fungi Down Under p. 79; Fuhrer 05, #442 | Dead wood |
| 68 | | Gill | Stropharia semiglobata | See CD; Fuhrer 05, #264 | Dung |
| 101 | | | Tremella fimbriata | See Fuhrer 05, #456 | Dead wood |
| 28 | T | Jelly | Tremella fuciformis | See Fungi Down Under p. 83; Fuhrer 05, #457 | Dead wood |
| 12 | | Crust | Trichoderma viride | Greenish crust in small patches. This is the asexual phase (anamorph) of a Hypocrea species. | Dead wood |
| 92 | | Gill | Tricholoma terreum | Cap light brown, paler at margin; margin upturned in places; gills creamy, well spaced; stipe white | Ground |
| 42 | | Gill | Tricholoma sp. | Grey with a fibrillose stipe | Ground |
| 48 | 7 | Gill | Unidentified | Light pinkish brown fungus with planate cap 60 mm across; gills slightly decurrent; stipe pallid | Ground under Prickly Currant |
| 69 | T | Gill | Xerula australis (Oudemansiella radicata) | See Fungi Down Under p. 54; Fuhrer 05, #274; McCann p. 59 Bottom right | Ground under Prickly Currant and other shrubs |
| 40 | | Truffle | Zelleromyces sp. | See Fuhrer 05, #371 | Ground |