

The Natural News

Central North Field Naturalists Inc.

No. 67 ~ September 2017



THE CNFN HERBARIUM

NEWFOUNDLAND ~ JIM NELSON

MYXOMYCETES IN THE TREEFERNS ~ SARAH LLOYD

DRAINED SWAMP? ~ RON NAGORCKA

The CNFN Herbarium

These images of plants are from the CNFN herbarium compiled between 1997 and 1999 by botanist Tony Aliano. Tony knew very little about the Tasmanian flora when he first joined the field nats. And although he hadn't been a taxonomist, before long he could identify most species he encountered and was especially interested in identifying the 'little treasures'.

Tony's enthusiasm was infectious. His collecting adventures often coincided with field nats trips, especially those overnight excursions to botanical hotspots. In those days there was a cabin associated with the Winifred Curtis Reserve at Scamander, the Burnie Field Nats had a shack in the Rocky Cape NP and there was hoon-free camping at Waterhouse. On these occasions a small group of members spent afternoons or evenings with microscopes and *The Student's Flora of Tasmania* keying out plants, usually with guidance from Jim Nelson. We learnt a lot!

The herbarium occupies 30 folders of A4 pages arranged by family. Each page is in a protective plastic sleeve and the folders are in large plastic containers safe from invertebrates.

Front cover: *Huperzia varia* collected from the Gog Range on 26 October 1997.



Deloraine Field Naturalists Group Inc.	
Family:	GLEICHENIACEAE
Genus / species:	GLEICHENIA ALPINA
Date:	26-10-97
Collector:	T.A.
Location:	GOG RANGE



Delorsaine Field Naturalists Group Inc.

Family:

ASTERACEAE

Genus / species: BRACTEACOMA SUBULNATA

Date: 8-1-98

Collector: T.A.

Location: LAKE LEA



Delaware Field Naturalists Group Inc.

Family: APIACEAE

Genus / species: TRACHYMENE HUMILIS

Date: 12-1-98 Collector: J.A. Location: LAGG LGA



Central North Field Naturalists Inc.

Family: APIACEAE

Genus/species: ERYNGIUM VESICULOSUM

Date: 7-1-99 Collector: J.A. Location: GAGEZ NORTHERN PLAIN



 Central North Field Naturalists Inc.

Family: ASTERACEAE

Genus/species: BIDARDIA LINEARIS

Date: 25-11-18 Collector: J.M. Location: UNION BRIDGE



 Dyerlane Field Naturalists Group Inc.

Family: JUNCEAE

Genus / species: LUZULA AUSTRALASICA
SSP. AUSTRALASICA

Date: 31-1-18 Collector: T.A. Location: MT ROAD

Newfoundland

Jim Nelson

Newfoundland is a large island Province off the east coast of Canada. A recent visit there during the northern summer proved to be both interesting and enjoyable. Only a small portion of the island can be seen within a week, but it has inspired a wish to return for a more extensive visit.

The combined Province of Newfoundland and Labrador is larger than Japan, and the Newfoundland half of the province is the 15th largest island in the world. At latitude 47° north, and about an hour's flight from the mainland, there are similarities with Tasmania. However, the differences in natural history present a stark contrast.

Immediately upon setting out driving across the countryside, we encountered the ubiquitous Moose. There are estimates of up to 150 000 of these large mammals wandering

around the island, and they pose a serious danger to drivers. We saw several carcasses on the side of the roads that gave us caution. I was surprised to learn that they had been introduced to Newfoundland.

One of our hopes was to see Puffins, and once we reached the northern coast, our wish was granted. The province has North America's three largest breeding colonies and it is estimated that there are 260 000 pairs in colonies around the island, with several good locations for observing them with binoculars without disturbance. Their large orange, yellow and blue-grey bills are quite colourful.

We also began to see icebergs when we reached the coast. These were fascinating floating "natural sculptures" in an infinite variety of shapes.

Logging has been extensively carried out in



Puffins at Elliston, Newfoundland. Photo: Paul Gorbould. Creative Commons.

Newfoundland. There didn't seem to be much evidence of re-planting, and natural regrowth appeared to be patchy and slow. The main tree species were a fir, two different spruces, a birch and an aspen. In a similar sad situation to what appeared to have been the "seemingly endless" resource of codfish, many logged areas of the countryside look to be a scrubby remnant of what were once significant forest areas. Perhaps there were some plantations or regenerated areas, but we failed to see them. Maybe we were just not in the right areas?

There is a large national park located on the western side of the island but we didn't get that far in the week we had. Next time I would head straight to that area. We did manage to visit a small National Park that gave us some idea of what once covered much of the island. Industrial logging has a lot to answer for around the globe, I feel.

Newfoundland is about an hour's direct flight from Toronto, Canada. It is a big island, and I would certainly like to return to see the western area.



Four moose were introduced to Newfoundland in 1904. There are now approximately 150 000 animals on the island.



Atlantic Puffin, one of four species of Puffin.



One of the many icebergs off the coast of Newfoundland. Photo: Jim Nelson.

Myxomycetes in the Treeferns

Text and images Sarah Lloyd

Treeferns (*Dicksonia antarctica*) are common in Tasmania in the rainforest, wet eucalypt forests and in sheltered gullies in drier forests. They sometimes attain great heights of around 12 metres but at Black Sugarloaf they are between one to two metres tall and therefore an ideal height to inspect.

Over the decades leaves, twigs and branches fall from the forest canopy and accumulate among the fronds—a favourite niche of some litter-dwelling species. A few days after rain between May and July, plasmodia creep through the fallen litter and up the living and dead fronds, eventually to form fruiting bodies. It is not uncommon to find several different species on the same leaves or twigs.

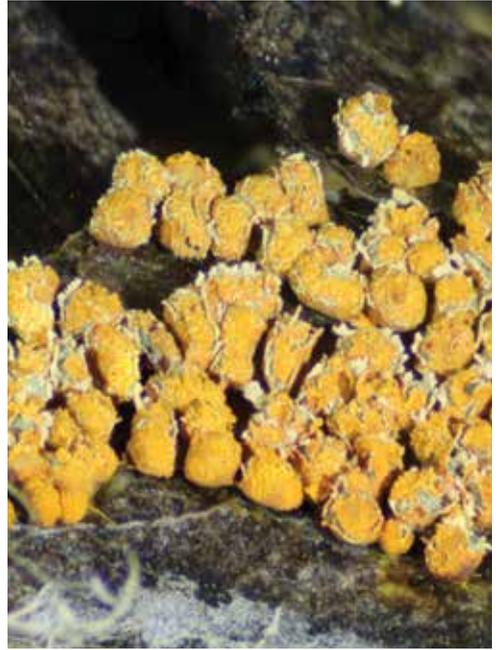
Interestingly, some treeferns have numerous species, while others alongside have none. For instance, on May 24 2017 I saw masses of

Craterium minutum. Like many slime moulds, its sporangia were evenly spaced with 1-1.5 mm between each one, and after some rough measurements, we estimated that there were more than 3 500 sporangia. Judging by their colour, I reckon they appeared in three flushes: 1100 appeared a day or so before May 24; the May 24 flush had about 1250 sporangia; and a fresh flush of about 1050 appeared on 26 May.

On May 26 I collected *Didymium clavus* and *D. squamulosum* from the same treefern, and noticed some immature fruiting bodies among the fresh flush of *Craterium*. These turned out to be *D. melanospermum*, an uncommon species here. A few weeks later *Physarum bitectum* and *Physarum bivalve*—both additions to my species list—appeared in another treefern. In early July *Physarum contextum* appeared on litter in two treeferns about 10 meters apart.



We estimated that there were over 3 500 sporangia of *Craterium minutum* on litter in a treefern.



Physarum bitectum (left) and *Physarum contextum* collected from leaves and twigs that had accumulated among the fronds of a treefern.



Physarum bivalve on leaf litter—a new record for Black Sugarloaf.

Lamprodermas

The most productive ferns are those under a canopy of eucalypts, blackwood (*Acacia melanoxylon*) and dogwood (*Pomaderris apetala*) whose leaves, sticks and bark accumulate among the fronds and remain wet for months. These ferns grow on a damp, shaded hillside so a strong light is essential when searching for them. The treeferns in the paperbark (*Melaleuca ericifolia*) swamp forest are not as productive, possibly because the site is more exposed; paperbarks don't regularly shed limbs; and their tiny leaves don't become sodden like those of the dogwood.

These litter-dwelling species also appear—sometimes in large masses—on litter that accumulates on old stumps and logs. It is likely they also occur in the thick layer of litter on the forest floor. However, to find such a concentrated source of these species in the treeferns saves much back-breaking crawling around on the ground.

Lamproderma species favour a completely different habitat to the litter dwellers and appear instead on large, rotting logs and stumps covered in mosses, leafy liverworts and lichens.

L. muscorum has been common in 2017. During May and June I watched developing sporangia on three logs about 100-200 meters apart. They first appeared as a white amorphous jelly that oozed through the moss. Before long the sporangia began to take shape: their stalks started to lengthen and small groups of white spherical 'beads' gradually turned pink. When fully mature the sporangia are dark and almost impossible to see without a strong torch and an inkling of their whereabouts. Once dry their full glory is displayed in their intensely iridescent peridium with its blue and purple reflections. Several such pulses of activity took place on the same log—and other logs and stumps—over subsequent weeks and months.

<https://wordpress.com/post/sarahlloydmyxos.wordpress.com/1178>

<https://sarahlloydmyxos.wordpress.com/2017/05/26/myxomycetes-in-the-treeferns/>



Lamproderma muscorum



Lamproderma echinulatum started to appear several months after *L. muscorum*.

Drained swamp?

Ron Nagorcka

Most regular walks attendees will be familiar with our “swamp” on Black Sugarloaf. (I place the word in inverted commas because the Forest Practices Authority once dismissed our claim about another such area on Black Sugarloaf describing it instead as a “putative swamp”). The area is dominated by very tall black gum (*Eucalyptus ovata*), Paperbark (*Melaleuca ericifolia*) and unusually tall Scented Paperbark (*M. squarrosa*); contains relict rainforest species such as Sassafras (*Atherosperma moschatum*) and the endemic Heartberry (*Aristotelia pedunculata*); and includes a permanent spring which has (so far) been a reliable source of water—even at the height of the Millennium drought.

However, the drought had some quite distinct effects on this particular ecosystem. Of most practical concern to us was that the channel leading to the waterhole from which we took our regular water supply dried up completely and necessitated a whole new arrangement of pipes and a pump closer to the spring itself. The channel has hardly

flowed since—even last winter—suggesting a complete change in the local hydrology. On an encouraging note though, the new polypipe connection has been chewed through twice by a Tasmanian Devil or Devils – a nuisance I’m happy to cope with!

Most of the vegetation survived the drought, but one strong indication of the extreme dry was the death of a whole patch of soft treefern (*Blechnum nudum*) “trees”. At about 0.5 m high these ferns had obviously been around for some time.

Two species of *Engeaus* occur in the swamp: *E. disjuncticus* and *E. nulliporius*. By the end of the drought *E. disjuncticus* had completely disappeared from the area near the channel where they had been most abundant. In fact until early this year, there was hardly any sign of this species anywhere and we were concerned that it may have disappeared entirely from the area. However, more recently there has been some evidence of their survival - especially closer to the spring itself.



Engeaus disjuncticus was found deeply embedded in the sodden roots of a cutting grass (*Gahnia grandis*) that Ron was removing. Photo: S. Lloyd.

CNFN Walks Program October 2017 - January 2018

Bring lunch, water and clothes for all weather

Sunday, 8th October (NB 2nd Sunday of the month) Explore Linda Barker's property on the banks of the Rubicon Estuary at Harford. Points of interest for the day include viewing shore-birds on the rising tide and looking for *Engaeus* burrows and orchids. Meet at the turn-off to Narawntapu National Park from the Frankford Highway at 9.45 am or follow Linda's detailed directions to her house, which will be circulated in the September E-Newsletter. The walk will start at Linda's house at 10.00 am. Attendance: Patricia Ellison, 6428 2062; 0437 282 073

Sunday, 5th November Birds, Water and a Little Geology around Launceston. In the morning we will be in Norwood on the NE outskirts of the City. Meet at 10.00 am at the car park at Queechy Lake from where we will take the short drive to Punchbowl Reserve for a toilet stop and walk to the Natural Fissure. We will then return to Queechy Lake for a birdwatching session until lunch time. In the afternoon, there will be optional visits to McDonald's Farm and the Tamar Island Wetlands. Please check the October E-Newsletter for detailed directions for the day and information on the birds we hope to see. Or contact either of the walk leaders: Erika Cox (6343 2097; 0409 746 322) or Patricia Ellison (6428 2062; 0437 282 073; pellison@iinet.net.au).

Sun 3rd December Walk to Anniversary Bay, Rocky Cape National Park. Start at 10:00am from the Boat Ramp at the western end of Sisters Beach. Follow the signs to "Boat Ramp", where we shall meet in the large car park. The walk takes at least 2.5 hours, in a circuit past Wet Cave, up through high coastal heath, down to a sand and cobble beach, then back up along the grassy headlands. If the weather is inclement, it can be quite exposed, so come prepared. Reasonable fitness to climb some steepish hills and walk 7km on variable surfaces is required. If the weather is fine we should see a range of coastal vegetation, heath, grassland and coastal birds, and some delightful coastal scenery. This walk is a repeat of the previous, except in a different season, (Leader: Ian Ferris)

Sunday January 7, 2018 Blue Peaks to Rocking Rock

A moderate grade in the alpine area, 1.5 km each way, approximately 4 hours return. The first part of this walk has been affected by the 2015 bushfires, the remainder has not so we will have the opportunity to compare the two areas, and see how the burnt areas are regenerating. There will be wildflowers at their peak with bird and insect life. Meet at the Lake Mackenzie car park at 10 a.m., and please come prepared for alpine conditions – possible rain, cold, even snow. (Leader: Sue Gebicki)

N.B. Deadline for next newsletter is November 30

President: Patricia Ellison / 6428 2062 / pellison@iinet.net.au

Secretary: Peter Lawrence / 0400457039 / disjunctnaturalists@gmail.com

Treasurer: Martha McQueen / 63932121 / martha.mcqueen@iinet.net.au

The Natural News editor: Sarah Lloyd / 63961380 / sarahlloyd@iprimus.com.au

Patron: Dr Peter McQuillan