The Natural News

Central North Field Naturalists Inc.

No. 53 - December 2012

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OWL'S STORY

by John Wilson

Peter and I are often asked how old our Owl is, and to the best of our knowledge the little speckled grey Southern Boobook that lives in our carport is now twelve years old. He's looking exceptionally well for his age, thank you.

It has never seemed right to call Owl by any other name, because that would seem improper, even disrespectful.

On the day we first met there was a great commotion of alarm calls from a dozen or more small birds - Eastern Spinebills, thornbills, Silvereyes, robins and Yellow-throated Honeyeaters - all diving in and out of a patch of thick bush half way up the hill away from the house. It sounded like world war three breaking out!

Owl

Sometimes the various little birds that live around our bush home on Kelcey Tier band together like this to chase away a snake they spot sneaking up too close. A year or so previously, for instance, we had been alerted by a similar cacophony and obliged to turn on the garden hose to defend the nestlings of a pair of Eastern Spinebills from a large black snake. The reptile had wrapped its tail tightly around a branch of a blackwood tree about eight or nine feet up above the ground, and it was reaching down to the nest perched on the very tip of the leafy branch in a slow swaying motion, its tongue flickering. When I turned on the hose and the cold spray hit the scene, the would-be reptilian robber shot off like a bolt of black lightning straight up the creek. "Crack", it went! In its wake were three featherless chicks - wet, dishevelled and grounded. Amidst all the commotion, the chicks had bravely jumped from what would have been, for them, a not inconsiderable height, and they were now sitting around on the ground looking stunned and embarrassingly naked. Peter quickly wrapped them in one of his old woolly singlets and popped them in amongst the ferns growing near the back door, and there, for more than a week or so, the parent birds came and went, oblivious to us and the dog, diligently feeding and coaxing their young to adulthood.

So naturally, when I heard this second commotion happening, I was thinking the snake was back.

I went up the hill to investigate, and there on the ground was Owl. All feathers and exceedingly irate, he was much too young to fly more than a few feet at a time, and in the midst of these dive-bombing agitated little birds, he was trying very hard to look dignified and to catch some sleep. But the noisy little birds wouldn't let him rest. So the dog and I spent all afternoon sitting on the ground half way up the hill, reassuring the little fluffy owl all the while and enabling him to sleep, diligently keeping

his pesky tormenters at bay with an occasional "shush" and a wave of the hand. Then in the morning there he was in the carport. He'd followed me home, and he wasn't going away any time soon.

That was twelve years ago.

It may sound a bit odd, but Peter and I talk with Owl every day, and this would appear to be all that he ever expects from us. Over the years, he's been formally introduced to many of our visitors, including friends from Japan who bow with great reverence, as owls are the harbingers of ancestral spirits. In return, we've come to know a lot about Owl. For instance, we know that he is a serial monogamist, having had a succession of 'flighty' lady friends, all of them bigger and bossier than he is. Some days, his lady friend-of-the-season perches warily in the carport too, but mostly she inhabits the deep hollow of the old gum tree on the other side of the house. Only on cold wet windy days does he retire to her abode. At all other times, his masculine independence is resolute.

Despite living apart, Owl's parenting skills are impeccable. At certain times of the owl breeding cycle, he gathers his adolescent brood consisting of one, two or three fluffy mini-versions of himself on the little wooden platforms we built for him at both ends of the carport. For a few precious weeks, they jostle for space and issue soft "tick, tick" noises at us whenever we go past. At night, Owl teaches his youngsters how to hunt for themselves, swooping low in the corridors created by roads or along the nearby creek bed. Then as his progeny grow fat on moths, mice and other morsels, he starts losing weight and begins to look tired, frazzled and worse for wear.

Eventually, the young owls leave home and make their way into the surrounding bush.

We have lost count of how many of his offspring Owl has raised in our carport, but we do know that whenever he calls out on quiet nights - "Hoo-oo-wit!", there are half a dozen or more answering calls that echo out of the darkness from further up the hill, or down the creek and along the edge of the wooded tier.

Owl must feel very pleased.

Insects of Tasmania Website

https://sites.google.com/site/insectsoftasmania/home

This new website was developed by Tony Daley and Kristi Ellingsen who became "digital friends" through their shared interest in observing and photographing insects.

Kristi Ellingsen is a secondary school science teacher specialising in biology. Wildlife has always been a passion, and this interest has been honed with the power of using a macro lens to see detail that is hidden to the human eye. Using increasingly cumbersome cameras Kristi has accumulated a collection of photos representing a glimpse of the biodiversity of insects in Tasmania.

Tony Daley's passion for chasing and photographing insects began with the purchase of a digital camera with decent macro capabilities in 2002. His subsequent interest in their taxonomy was fuelled by entomological studies undertaken at UTAS as part of an agricultural science course. This obsession has culminated in a large reference collection of mostly Australian insect literature.

Neither Kristi nor Tony claim to be experts but they have scoured the available literature and online resources to provide accurate information. This is an ongoing process that continues to stretch their capabilities and limited free time. They are indebted to all the entomological experts and enthusiasts who continue to help with information about the organisms. Tony and Kristi welcome any feedback.

Monitoring *Spyridium obcordatum*

by Phil Collier

Background

Spyridium obcordatum is listed as vulnerable both in Tasmania and nationally. The coastal sub-population is particularly scarce, with small numbers known mainly on private land. The only two secure coastal populations are at Hawley Nature Reserve (200-250 plants) and at a'Latrobe Council Reserve at Lot 9 Summerhill Drive, on Hawk Trap Hill.

About 20-25 years ago Dr Fiona Coates worked on five species in the *Rhamnaceae* family, including *Spyridium obcordatum*, as part of her PhD. When she visited the Hawley Nature Reserve in 2008, Dr Coates said that the plants had declined in size since her PhD research. This is clearly evident from casual observation of the plants at the "upper" site, many of which consist of interlocked dead branches with few green leaves. Dr Coates conducted experiments that confirmed her hypothesis that unprotected plants are being moderately to heavily grazed.

Proposal to Monitor

The decline in the secure population of this vulnerable threatened species at the Hawley Nature Reserve is cause for concern. It is tempting to jump to a conclusion that it is due to drought conditions that persisted in the mid 2000s, given that the poorest plants are in the most drought prone places. However, it could be due to increased browsing, other factors, or a combination of factors. Living plants on the rock plates show evidence of dying from unknown causes (many dead sticks) and suffer from significant browsing. The purpose of monitoring the populations is to shed light on possible causes of the decline. A side-effect of monitoring is likely to be an increase in plant health and seed production, which may help to recover the populations.

In August/September 2011, Phil Collier circulated a "Proposal for monitoring

Spyridium obcordatum

Spyridium obcordatum at Hawk Trap Hill, Hawley". Landowners, PWS and Latrobe Council, approved an experiment that aimed to determine reason(s) for the apparent decline in the population of *Spyridium obcordatum* at two sites on Hawk Trap Hill. In essence, the proposed monitoring involves identifying pairs of similar plants in three different micro-habitats that are described below. One plant from each pair is caged, while the other is left uncaged. The cages are designed to stop grazing by larger herbivores. Plants were to be selected and caged in 2011 and re-visited in 2012 and 2013. Five measures/observations about each plant were specified: spatial extent (3 measurements), number of flowers and perceptions of grazing (2 observations/estimates).

Progress to 2012

The experiment was conducted according to the proposal at the Latrobe Council site, but at the Hawley Nature Reserve small setbacks precluded the tracking of individual plants from 2011 to 2012 and several cages were displaced, which resulted in a loss of statistical power in the analysis of data.

Spyridium plants at the Upper and Lower sites at the Hawley Nature Reserve are on dolerite rock plates or amongst the base of *Lepidosperma viscidum* tussocks towards the edge of the rock plates. At Latrobe Council's covenanted property, plants occur on a similar rock plate,

S. obcordatum growing on rock plate

S. obcordatum growing with *L. viscidum*

S. obcordatum in *Allocasuarina* woodland

but also in *Allocasuarina verticillata* woodland. There is an overall pattern of plant condition: (1) very poor on rock plates; (2) poor amongst *Lepidosperma viscidum* tussocks; and (3) good in *Allocasuarina verticillata* woodland. Broadly speaking this trend to improved plant health follows a gradient of open shallow soil to shady deeper soil.

We focus our discussion below on the site at the Hawley Nature Reserve because this is where most CNFN members assisted with the monitoring set up in 2011. A full report about the progress of the monitoring is included on the CNFN web site, including tables of results and their significance.

Hawley Nature Reserve "Lower" population Installation of Cages, 2 October 2011

The experiment was installed at Hawley Nature Reserve on 2 October 2011 by 9 volunteers from the Central North Field Naturalists. Volunteers formed teams and took responsibility for finding pairs of similar *Spyridium obcordatum* plants. The rock plate at this site is very challenging for adequately securing cages and the volunteers devised innovative methods that they believed would be successful. Each plant was identified by flagging tape with a number written using a permanent marker pen. 22 plants were included in the experiment, with seven pairs of plants on the rock plate; while another 4 pairs of plants were growing amongst *Lepidosperma viscidum*.

Comparing measurements and observations from the plants growing on rock plate against all those growing amongst *Lepidosperma* reveals that they are about the same size in a horizontal dimension. However, plants in *Lepidosperma* are significantly higher, have more flowers and are less grazed than those growing on the rock plate. These results confirm that plants growing amongst *Lepidosperma* tussocks are generally more protected by the coarse *Lediposperma* leaves compared with those growing on the exposed rock plate.

Review, September and October 2012

A review of the experiment was timed to coincide with peak flowering which was slightly earlier in the season than the experimental set up in 2011. On 15 September 2012 four volunteers from the Central North Field Naturalists aimed to repeat the data collection from each plant marked in 2011. Unfortunately the numbers on the flagging tape had become unreadable, and in some cases the tape/marker on uncaged plants had disappeared. Additionally, three cages were displaced and for one of these it was not possible to identify the plant that had been caged in 2011.

In 2012 the volunteers (1) re-erected displaced cages; (2) found new plants to replace those that could not be identified; (3) installed aluminium tags embossed with ID numbers at all plants in our sample; (4) added a new caged-uncaged pair of plants growing in *Lepidosperma*; and (5) two plants that were uncaged in 2011 had disappeared and these were replaced by new uncaged plants.

2012 Results

On reviewing the marked plants nearly one year later, the immediate impression is that many of the caged specimens have grown extensively and support a fine display of flowers. The results at the Latrobe Council Reserve are that all characters considered are significantly different in the uncaged and caged treatments, leaving little doubt that the caging has a significant effect on plant growth after only one year. The difference in flowering is highly significant, which confirms the immediate impression of the plants. Given the small sample size, these results are particularly remarkable.

At Hawley Nature Reserve, caged plants support significantly more flowers and suffer significantly less grazing. Caged plants growing in the *Lepidosperma* have attained significantly more height than uncaged plants; presumably the tips of stems are grazed by animals when these plants are uncaged. The other dimensions of the plants are not significantly different between caged or uncaged plants, but this may be due to our inability to study the growth in plants (i.e. 2012 dimensions minus 2011 dimensions).

Hawley Nature Reserve population estimate

The 9 volunteers present on 2 October 2011 conducted two line counts of the "Lower" and "Upper" populations of *Spyridium obcordatum*. At both sites the count covered the rock plate and closely adjacent habitats, with an attempt to include any plants that had been discovered during informal searches of the sites. The volunteers formed a line at arm's length from each other and walked through the populations. As they walked, each person counted the number of plants in their swathe, noting whether plants were dead, alive or juvenile (seedlings). The total number of live plants counted, 191, is a small decrease on the most recent count of 200–250 at Hawley Nature Reserve in 2008.

Conclusion

All results confirm that caging plants of *Spyridium obcordatum* results in a perceived increase flowering coupled with a decrease in grazing over a 12 month period. The grazing result is consistent with Coates (1991). There is substantial evidence that caged plants grow to become larger than uncaged plants, except that our inability to reconcile 2011 plants with 2012 plants at Hawley Nature Reserve means that our statistical evidence is drawn mainly from the Latrobe Council site. The overall results are consistent with earlier discussion that points to grazing as a threat to *Spyridium obcordatum* populations.

With the increase in flowering from a single-year of caging of individual plants, there appears to be scope to use this technique to create a "pulse" of new seeds. Should a lack of seedling recruitment be determined to be a threat to species survival following disturbance, this may be a useful technique to use periodically and/or prior to any planned disturbance.

Anecdotally, the current population of *Spyridium obcordatum* plants at Hawley Nature Reserve are more heavily grazed than in the natural conditions that occurred in the past (Coates, pers. comm.). Given these prior observations, plants may be able to sustain increased vegetative growth and flowering in perpetuity. However, further work is required to establish whether this is the case. It may be that natural grazing assists with drought-proofing or otherwise assists the plants to survive over the longer term. Drought-proofing may become more significant in the future if higher temperatures act to exacerbate the drying effects of droughts.

Future actions

This monitoring project was proposed for a three-year initial period 2011 to 2013 (Collier 2011). This may need to be extended to 2014 at Hawley Nature Reserve to account for our inability to reconcile 2011 data with 2012 data as had been planned. At the conclusion of the current monitoring project, it is desirable to estimate population size again.

Of particular interest over the coming year of monitoring and perhaps beyond is the differential impact of caging on the three habitat types: rock plate, *Lepidosperma*, and casuarina woodland. It may be that the plants growing in *Lepidosperma* clumps are naturally more protected from grazing and form a fall-back population should grazing pressure or drought become extreme. Plants grow amongst *Lepidosperma* at both the rock plate and casuarina woodland.

It would be interesting to learn more about the life history of the plants, including their life span and levels of recruitment in different habitats and environmental conditions. A rich understanding of these effects would require an extension of monitoring over the medium term of 10+ years.

For a full account of the project check:
http://www.disjunctnaturalists.com

Above: *S. obcordatum* at the Latrobe Council site caged in 2011.

Right: Twelve months after being caged there was a noticeable increase in flowering coupled with a decrease in grazing.

Metallic or Long-legged flies - Dolichopodidae

by Sarah Lloyd

There's nothing quite like the contagious passion of a fly enthusiast! I have been sending photographs of flies to Tony Daley since meeting him at a federation of field naturalists weekend at Ben Lomond in 2011 hosted by the Launceston Field Naturalist Club. Tony is almost always able to name the flies I photograph, especially if wing venation is clearly visible, and he also supplies me with some information about their ecology and lifestyles. My attitude to flies has changed as a result. No longer do I consider flies a pesky nuisance (although some undoubtedly are) but I have come to appreciate their amazingly diverse and sometimes beautiful forms and their ecological importance.

Metallic or long-legged flies in the family Dolichopodidae (Order Diptera, sub order Brachycera) are among the easiest flies to identify because of their green or blue green shiny bodies. They are reasonably common smallish flies (body length 0.5 - 10 mm) and I usually see them resting on low vegetation. They are one of the largest fly families with 6,000 described species worldwide (I saw lots in Ecuador!) and about 405 species from 46 genera in Australia.

Before I started communicating with Tony I assumed that all the photographs I'd taken of these rather attractive insects were of the same species. But I knew I'd seen a completely different animal when a longer legged long-legged fly turned up on the wood pile in January 2012.

Tony was very excited about this fly and although he had never seen the species himself he knew all about it. He informed me that the fly was *Anachnomyia arborum*; the genus name alludes to its spidery legs and its species name to its association with trees. Tony seemed pretty certain this would be the only live document of this species.

Heteropsilopus ingenuus

Paramia dispar

unidentified small metallic fly

Despite checking the woodpile over the following days and weeks, it wasn't until an evening in late February that I saw the fly again. This time it was ovipositing into a partially rotten tree than had recently been cut down because of the potential danger it posed to our house. I saw it ovipositing into the same tree several days later.

Adult Dolichopodids are important biological controllers of some potential pest invertebrates. They first crush their small, soft bodied prey (aphids, psocids, mites, thrips and smaller flies) with their longitudinally opposed labellae (the extension of their lower lip or labium) before absorbing the bodily fluids. The larvae are maggot-like predators or scavengers.

Australia has a rich tree trunk fly fauna that is especially noticeable on smooth-barked eucalypts. (The fly I observed was on a rough barked *E. amygdalina*.) Flies use the trees as leks, running or making short flights up the vertical trunks until they reach the canopy.

(A lek is a territory that is held and defended against rivals by sexually displaying males aimed at enticing females into the lek for mating. There are usually several leks in close proximity with the dominant males taking the most central position and the one that has the greatest chance of being seen by the most females. The females check out the leks and choose a male with which to mate.)

The genera *Heteropsilopus* and *Parentia* belong to the subfamily Sciapodinae, the largest family in Australia with 253 described species. *Heteropsilopus*, which also occurs in India, probably had a widespread eastern Gondwanan distribution dating from the lower Cretaceous. Sister taxon relationships between New Zealand and Australian *Parentia* suggest a common fauna before the opening of the Tasman Sea more than 80 million years before present.

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On the fly: the interactive key to Australian Fly Families.

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Arachnomyia arborum ovipositing into black peppermint (*Eucalyptus amygdalina*).

Native orchid pollinators

by Phil Collier

Many people are aware that some species of orchids seem to have co-evolved with specific insect species, which are lured in to pollinate flowers without any reward from the orchid. For example, it is not unusual to see a large male thinnid wasp visiting the tailed spider orchid (*Caladenia caudata*) at the Henry Somerset Conservation Area. These wasps tend to wander around the flowers, perhaps searching for the female of the species that the orchid flower has imitated by a specialised scent, and long enough for photographers to click at photogenic moments. (see The Orchids of Tasmania p 68.)

Blowfly (*Calliphora vicina*) on *Prasophyllum incorrectum* with scattering of pollen underneath.

Leek orchids have a reputation for fair dealing, producing nectar and, in some species, fragrant flowers. They attract a range of pollinators as seen recently at the Campbell Town Golf Course. While we were counting this year's crop of the gaping leek orchid (*Prasophyllum incorrectum*) we saw numerous flies in attendance, a magnificent slender orange bodied wasp, and a bullant (see also The Natural News # 50). It was with great excitement that we identified the fly when we got home, only to find that it's a common blow fly!

Arguably, sun orchids use visual mimicry to lure in pollinators. Robin makes a valid point that our marshland sun orchids tend to flower when the native tufted lily (*Thelionema caespitosum*) has its similar blue flowers open in abundance. In our drier woodland I recently saw a small native bee collect a pollinum on its abdomen from the blue flower of a slender sun orchid (*Thelymitra pauciflora*) that was open on a warm morning (see p.11). The bee appeared to be somewhat disturbed and was next seen visiting the yellow flower of a native primrose (*Goodenia lanata*) trying to dislodge the pollinum. Clearly this insect was not doing the right thing by the orchid flower for two reasons! And at the speed the action happened it was never going to appear on camera.

Jack jumper on *Prasophyllum incorrectum*

Thelymitra paucifiora with only one pollinium. Some of the other pollinia are scattered around the flower.

Change at the top

At the recent AGM Jim Nelson stood down as president of the Central North Field Naturalists.

Jim was one of the founding members of the group (previously known as the Deloraine Field Naturalists) and held the position of secretary from the group's inception in 1991 until 2006 when he took on the role of President. His enthusiasm for Tasmanian flora and fauna and his tireless efforts to save his beloved crayfish both large and small have been an inspiration to the many and varied members of CNFN over those 22 years. It is undoubtedly due to Jim's persistence and dedication that the Devonport Council has recently established an *Engaeus* reserve in their municipality. The endangered *Engaeus granulatus* in the reserve were translocated from an area on Sheffield Road that recently underwent road widening and drainage. From all accounts the colony is thriving.

Thank you for your work, Jim. You have made a difference. (Jim's AGM report is on the back page)

At the AGM Phil Collier took over as President. Members will already know of Phil's work through his articles and photographs that have appeared in the Natural News. Phil is a retired academic (his last position was in Business Information Systems at The University of Melbourne) who, with his partner Robin Garnett, is very much involved in monitoring the orchids and other species at their covenanted land, Rubicon Sanctuary, near Port Sorell. Phil is known in the wider community through his authorship of the Tasmanian "Plant Identikit" series that have sold many thousand of copies in the past 20+ years and his involvement with Threatened Plants Tasmania of which he was inaugural president.

We wish all members and friends season's greetings and best wishes for 2013.

Call for contributions

We welcome contributions to The Natural News from members and non members about any aspect of the natural world. Articles should be submitted electronically to the newsletter editor (email address below) as unformatted word documents. Please reduce size of photographs to 1MB or less before emailing. (Image size can be reduced using Photoshop or Microsoft Office Picture Manager.)

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Slime Moulds at Birralee

by Sarah Lloyd

The recent attention grabbing headline: ***"Slime mold uses an externalized spatial 'memory' to navigate in complex environments"*** was about research carried out in a laboratory at the University of Sydney, where the plasmodium of *Physarum polycephalum* moved about on an algal film in a Petri dish.

'*Physarum polycephalum* is the 'lab rat' of slime moulds that is rarely encountered in the field. By contrast, there are numerous species of *Physarum* and an extraordinary array of other minute forms (most around 2 millimetres high) that are frequently encountered where suitable habitat (i.e. decaying plant material) exists.

Plasmodial slime moulds (myxomycetes) are common and widespread in terrestrial ecosystems. But despite the fact that they are known to be abundant in temperate regions of the world, and that several type specimens were collected in Tasmania, there has been very little research on slime moulds here.

I began a study of slime moulds in May 2010. The focus of the study is the post-plasmodial or reproductive stage of these remarkable organisms. These are abundant in the tall wet eucalypt forest at Black Sugarloaf, Birralee.

I am fortunate enough to live in a place where I can take daily walks to surrounding forested habitats to monitor the progress of species in the field. After the first year I thought I'd begun to get a sense of which species were common, but observations over the following two years have confused the picture. My limited experience tells me that even with daily visits to a number of sites it is too early to make assumptions about whether species are rare or common; I have observed considerable variation in the abundance of particular species from year to year.

When I began the project I photographed specimens *in situ* and only collected occasionally.

Some slime moulds such as *Trichia decipiens* resemble brightly coloured beads when immature.

As it matures *T. decipiens* darkens and is difficult to see in the forest.

This was because I thought that, like fungi, they would reappear on the same substrate the following season or seasons. I started collecting the fruiting bodies in 2011 when I realised this was not necessarily the case. (I have since observed that some species have reappeared on the same substrate in 2012 after an absence in 2011.)

Collecting slime moulds

Some immature slime moulds resemble white or brightly coloured beads and are therefore reasonably conspicuous. As they develop most darken and become almost impossible to see. (I soon learnt to place coloured tape alongside the developing slime moulds to save myself the frustration of fruitless searching.) However, most fruiting bodies are extremely small and cryptic and I find most of them when inspecting the underside of rotting logs equipped with torch and hand lens.

Collecting slime moulds can be quite difficult. Some appear on strongly decayed wood that's

This *Cribraria* species was collected from the underside of a large decaying log.

Sclerotium of *Badhamia* (note the exoskeleton emerging from the underside of the log)

either dry and crumbly or wet and dense like potters' clay; others appear on the slippery algal film that coats hard woody surfaces. Timing is critical for some species: if collected too early some fruiting bodies harden and the spores don't mature; if collected too late some species become covered in a fuzz of fungal filaments or they get washed away by rain.

Once the fruiting structures (attached to substrate) have been collected they are transported to a sunny windowsill where most dry within hours. (Slime moulds, unlike fungi whose macro features must be described soon after being collected, retain indefinitely all features necessary for identification if stored properly.) The substrate is glued to a card and placed in a small container—match boxes are ideal. They are then labelled with information including species name (if known) date, location, substrate, collector and brief description of habitat. To date I have lodged over 150 collections representing approximately 50 species with the National Herbarium of Victoria located at the Royal Botanic Gardens, Melbourne. (The Tasmanian Herbarium does not accept myxomycetes.)

Slime moulds on a dogwood log

I have been watching the species associated with a dogwood log since it first fell in 2008. (See The Natural News #44) The log was initially visited by a plethora of insects including ovipositing parasitic wasps and mating weevils. It is now in an advanced state of decay and

Badhamia sp. immature (left) and mature sporangia

Metatrichia floriformis - a common species at Binalee

dotted with tiny yellow ascomycetes and adorned with shelf and jelly fungi.

In April 2010 a large yellow plasmodium started moving about on the log. During dry weather a sclerotium (the hardened dormant structure formed from a plasmodium) appeared. When rain once again dampened the log, the plasmodium would rehydrate and start moving. (A plasmodium (pl. plasmodia) is the second feeding (or trophic) stage of a slime mould; the first feeding stage, the myxamoebae, is microscopic and functions within the substrate.)

The plasmodium was mostly visible on the shaded southern side of the log. On June 21st

2010, two months after I first saw it, a group of immature sporangia (i.e. fruiting bodies) appeared on the northern side of the log and photographs of mature sporangia were taken on June 30th. The slime mould is a *Badhamia* species, probably *utricularis*.

On April 28th 2012 I photographed three other slime moulds, *Comatricha nigra*, *Physarum viride* and a *Stemonitis* sp., within about 1 metre of each other close to the *Badhamia*. (This concentration of species is a common sight.)

In May 2012 I collected a cluster of *Badhamia* sporangia (fruiting bodies). When I returned from an overseas trip in late July 2012 there were two more clusters, one mature and one immature and more appeared in August and September. The sporangia depending (i.e. hanging) from the underside of the log had 3mm long stalks; another cluster near the upper side of the log were sessile (i.e. without stalks). On October 30th I collected another cluster of sessile sporangia presumably arising from the same plasmodium.

My field observations of the *Badhamia* mirror those of A. Lister as described in M&A. Lister cultivated the species for more than 6 years during which time four different varieties appeared, apparently from a single strain. (M&A 1969)

Knowledge of myxomycetes

The study of myxomycetes has mostly occurred in the northern hemisphere: the myxomycetes of Australia are the least studied of any region (Mitchell 1995). But even in the northern hemisphere research has not kept pace with the study of other organisms. The reasons for this are understandable. Slime moulds have dual life modes (i.e. features of both micro-organisms and fungi), they are ephemeral, appear sporadically, and are difficult to see in the field because most are extremely small—usually less than 2mm tall. Much research is done by mycologists and others who visit a locality for a limited time. They collect substrate (bark, leaf litter, herbivore dung and other organic material) that is placed in moist chamber cultures in the laboratory. Although the moist chamber culture technique requires no special equipment and is successful for many slime moulds and especially suitable for those with extremely small fruiting bodies that would be easily overlooked in the field, some groups probably never complete their life cycles in culture.

The interest in slime moulds is burgeoning. In 1984 there were believed to be 400 species worldwide, but this number has slowly risen and to date close to 1000 species have been described. In the past 30 years there have been 1200 published papers featuring regional species lists and 400 papers describing 'new' taxa, some of which are known only from the type locality. But are they 'new'? Morphological variations in slime mould fruit bodies are well documented. As the *Badhamia* species on the dogwood log described above demonstrates, even fruiting bodies presumably arising from the same plasmodium can display different characteristics depending on where they occur (the top or the underside of the substrate) or the environmental conditions at the time of fruiting. It is likely that 'new' species may in fact be different forms of already described species.

For an up-to-date account of slime mould activity at Black Sugarloaf check the disjunctnaturalist website:

http://www.disjunctnaturalists.com/slime-mould-log/index.htm

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CD Review

by Ron Nagorcka

Moggs Creek Picnic Ground recorded by Ernie Althoff (www.shamefilemusic.com $12)

On the 21st April 2004 my old friend and colleague Ernie Althoff found himself in a very rare set of circumstances – at just the right spot the Otway Ranges on Victoria's west coast on a beautiful still morning with really good microphones and a DAT recorder. His 70 minute recording of that morning is now out on CD.

In his note to me he wrote "... it's a 70 minute chunk of Otway Ranges life with NO aircraft, no cars, just the tiniest bit of human distant noise – somebody building and hammering" and (I'd add) the birds around kept being thoroughly entertaining for pretty much the whole time. There was enough variety within species and enough identifying to do, amid some fabulous surprises like the magpie which is stunning.

The recording starts at 7.55 am, and there is a fair amount of vocalising. It's autumn - so the birds are not as vocal as they are in spring. But spring recordings can be somewhat overwhelming. Maybe the only overwhelming part of this recording for me was the ever present Red Wattlebirds which have an amazing repertoire but very loud voices. It would be nice to just turn down their volume on the mixer a bit. But that's hardly the point – which (as a snapshot of a time and place) is as much ornithological as it is artistic or musical.

The birds mentioned on the sleeve notes are:

Currawong (Pied), raven (sp.?), Sulphur-crested cockatoo, Yellow-tailed Black Cockatoo, Crimson Rosella, Galah, Red Wattlebird, Yellow-faced Honeyeater, White-throated Treecreeper, Spotted Pardalote, and Eastern Yellow Robin.

Sarah and I also heard:

Grey Fantail, Thornbill sp., Eastern Spinebill, Fairy Wren, Satin Flycatcher, swallow or martin and Dusky Woodswallow.

The quality of the recording is outstanding and I really liked the idea of dividing the CD into 70 consecutive tracks - each one minute long, making it very easy to reference where certain things were heard.

A Sound Idea

A really important thing about this recording is its historical and scientific value. It's a sonic snapshot of a location to which future researchers can refer. But for this purpose it is not necessary to obtain recordings with the stunning clarity of this one. Just as a small digital camera (rather than an SLR with a top lens) can be a valuable tool for the naturalist and scientist, so can a Zoom or other small digital recorder. The results are in fact surprisingly good. And this is what motivated Sarah to start the "Sound Idea" project. (For more details or to join in see the CNFN website) It doesn't matter that she has nothing like a enough time to listen to all the material she receives as the aim is to build a large archive for future research. So for those of you already involved Sarah still wants your recordings. Best is annual data from a set location.

CNFN President's Comments 2012

The Central North Field Naturalists Inc is a group that aims to promote an appreciation of the natural world. Why? Because we feel it is important for our species to realise that we are a part of nature, so even if for no other reason than our own self interest we need to look after the natural world that supports us. Given our continuing population growth along with the growing degradation of so much of the environment in the name of progress, our aims indeed often appear to be a losing cause. Anyone who works towards looking after the environment can often feel depressed at the seeming futility of it all. However, the choice of doing nothing just because the task seems almost hopeless is not a choice for anyone who really cares. The existentialists call this futility "choosing not to choose". They point out choosing not to choose is still a choice, and in fact by doing nothing you simply add support to those who are the enemies of the things you value.

There are many ways of fighting for the environment. Some members have been involved with campaigns, along with the marches, the blockades, the rallies, as well as the endless petitions, letter writing, meetings etc that can take up a good deal of one's life. Some have worked with and supported politicians that are sympathetic to our ideals. But virtually all of us have sought through organisations such as this one to inform ourselves both intellectually and emotionally about this incredible environment that we are a part of. That environment is our fountain of strength, and we continue to nourish ourselves through its beauty and wonder.

We must also value and continue to encourage each other. Therefore, when we come together, let us look at each other with gratitude that such good hearts exist. By our presence here supporting an organisation that tries to make a difference through fostering appreciation of the natural world, we become a force to be dealt with. This group has made a difference in Tasmania, and we have things to be proud of. While it never seems to be anywhere near enough, and the environmental exploiters and vandals seem always engaged in the next outrage, we nevertheless should never lose heart, because we and people like us represent the only hope for change.

Most of us have a tendency to be cynical, because the forces against the natural world are always increasing. But since the alternative of doing nothing is simply an unthinkable alternative for people who care, at least we can spend days like today enjoying the company of fellow travellers.

We should not forget the things we have achieved. For instance, we have been involved in listings and the conservation of threatened species. We have all gained knowledge and shared it with the community. We have gained a reputation for being an organisation with integrity, and we have always stood up for what we believe in and tried to make a difference.

I therefore congratulate each and every member for their contribution, no matter how big or small. I hope the organisation can continue to nourish you by offering you opportunities for sharing our wonderful natural world.

Jim Nelson 2/12/2012

Outings

January 6th Quamby Bluff
February 3rd Iris Farm
March 3rd Penguin Shelf meet @ 9.30
April 7th Jackeys Marsh
May 4th (NB Saturday) Rubicon Sanctuary

For more details see the insert or the CNFN website: www.disjunctnaturalists.com/