

ISSN 1925-II



MPHALINA is the lackadaisical newsletter of Foray Newfoundland & Labrador. There is no schedule of publications, no promise to appear again. Its primary purpose is to serve as a conduit of information to registrants to the upcoming foray and secondarily as a communications tool with members.

The content is neither discussed nor approved by the Board of Directors. Therefore, opinions expressed do not represent the views of the Board, the Corporation, the partners, the sponsors, or the members. Uncredited opinions are solely those of the Editor.

Please address comments, complaints and contributions to Andrus Voitk, the self-appointed Editor:

foray AT nlmushrooms.ca



is an amateur, volunteer-run, community, not-for-profit organization with a mission to organize enjoyable and informative amateur mushroom forays in Newfoundland and Labrador and disseminate the knowledge gained.

Webpage: www.nlmushrooms.ca

COVER

This issue's cover picture shows what is likely *Gamundia leucophylla*. The reason to feature an out-of-focus mushroom in a common lichen is to tell the interesting and serendipitous story of its identification. After the foray we had arranged to meet Tuula, Kare and Aava to go collecting along the trail to Stuckless Pond in Gros Morne National Park. We were a bit early, so while waiting, we looked around the parking lot. Among common lawn mushrooms we saw these small brown things growing in a patch of the *Peltigera*. *Peltigera* is a common lichen in our area, and for a while we have been examining these patches, hoping to find Arrhenia peltigerina, an uncommon omphalinoid known to be associated with that lichen. Since these mushrooms did not resemble Arrhenia peltigerina, we ignored the Peltigera as a red herring and thought the mushrooms were some kind of small *Entoloma* (*Leptonia*). This did not fit when the sporeprint turned out white. The mushroom did not quite fit with *Tephrocybe* or *Omphalina/Arrhenia*, either. Although I thought the lichen association was fortuitous, I sent the picture to **Teuvo Ahti**, a Finnish lichenologist. He, in turn showed it to another Finnish mycologist, **Harri Harmaja**. On the basis of the picture, Harri suggested *Gamundia* leucophylla, one of two or three small mushrooms known to grow with/on/among Peltigera. Although the mushroom has not been examined microscopically, its macroscopic appearance is an exact match for the only picture we could find on the web < http://users.skynet.be/jjw.myco.mons/Gamundia leucophylla 1.html >, even though that picture has no lichen evident. This very uncommon mushroom has alternated between the genera Fayodia and Gamundia, both genera of small omphalinoid mushrooms growing in association with lichens and mosses.

The photo is by Maria Voitk. Yes, we have focussed photos as well, but this is the only one showing the mushrooms *in situ*. No amount of clear detail will replace the satisfaction of seeing them among the *Peltigera*, which is why this picture was chosen, rather than technically better pictures. Not everybody's choice, but everybody is not the Editor.

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Message from the Editor

Foray on Facebook

Foray Newfoundland & Labrador has found a place on Facebook. The page is administered by Nathan Wareham, who is putting up pictures that participants kindly sent in on CD. This is quite a job, so it may take a day or two, before all pictures are there. Please pay a visit at http://www.facebook.com/home.php or http://www.facebook.com/profile.php?id=100001744686549 and pass it on to friends. Keep checking back to see what has been posted and submit any of your favourite pictures. If members find Facebook a pleasant medium for exchange of mushroom and foray lore, Nathan is prepared to manage the page for our members. Many thanks, Nathan.

Species count finished

The other major news is that the species count is finished. This year's list is available for download from our website <nlmushrooms.ca>. The cumulative list should be updated very soon as well; additions are still reviewed by our mycological consultant, Dave Malloch.

Oh, sorry, how many species? Well, we identified 249 species, added 56 new species to our cumulative list, bringing it up to 1,058. For more on this, what it means, what we learned and what we experienced, you'll have to wait for the Report. Marian tells us that the Report is all ready to go, only waiting for one last bit, before being released. She would not finger the tardy party, but whoever you are, please give your words a final polish and get them to Marian, so we can get the Report out to our partners and, of course, to you, the participants.

Vello Soots Memorial Foray

On the next page you will see, reprinted with permission, the front page of **Mycelium**, newsletter of the Mycological Society of Toronto, whose annual foray this year was a memorial to its long-time President. Those of you who have been with us for several years will remember Vello from his many appear-

ances as a faculty member. Vello was a mushroom enthusiast through and through, with a nose for identification and a love for sharing his knowledge; his Tables sessions were a real treat. Before our first Foray in 2003, we knew nothing about running a foray, and asked Vello what to do for several months running. He gave advice unstintingly and finished off by coming here with Pat to make sure we followed it correctly. They kept coming back to make sure we did not forget and founded our traditional "Toronto contingent". Our foray owes its beginning to Vello.

The lead article in the same **Mycelium** is a report from Umberto Pasquale to the Toronto club about foraging with the Vikings. You'll have to wait for our Report to read it in full, but my favourite part described how the wind blew the entire content of Linda's collecting basket across the barrens!

Mushrooms in the press!

The next page is a reprint, again with kind permission, of the **Northern Pen**, where keen reporter Juris Graney writes about the foray with a lovely photo display. The Graneys are a great addition to the GNP. Sorry to compress it to fit our page size. If you still need proof that mushrooms are becoming more popular in our province, read the story in the **Downhomer**, reprinted with permission, written by our member Jim Cornish. Jim has not made it to a foray yet, but plans on coming for sure next year. Considering the attractive publicity given by Jim and Juris, it is likely that so will many other people. Therefore, be ready next year and get your registration in early!

As always, do not forget the **Photo Contest**. We have not seen *Marasmius oreades* at all this year. Perhaps you have been luckier? I know both meadow and horse mushrooms fruit in St. John's—some might still be good right about now. And, of course, do not forget **Foray 2011**. Visit our website in the new year to see what is happening.

Happy mushrooming!

andrus



MYCELIUM

Ammillaria malla

Volume 36 No. 4 • October — December 2010

The Newsletter of the Mycological Society of Toronto

Vello Soots Memorial Cain Foray

The Cain Foray has been an annual event for the MST since 1975. Vello Soots, our past president, was the principal organizer of the Foray from 1988 until his death last year. Thus, it was a fitting tribute to dedicate this year's Foray to his memory.

The Foray attracted a bumper crop of mycologists: Dr. David Malloch from New Brunswick, Walter Sturgeon from Ohio, and Dr. Richard Summerbell, Dr. Linda Kohn and our scientific advisor Dr. James Scott, all of Toronto.

Our weekend began with a Friday night reception in the lounge of the Tally-Ho Inn with wine and munchies. Over sixty attendees mingled and chose from among nine forays offered for Saturday.



Drs. James Scott and Linda Kohn around the microscopes discussing spore morphology.

Saturday afternoon, Linda and Umberto Pascali led a team in the kitchen preparing mushrooms a mushroom cook-up. This year's treats included *Laetiporus sulphureus*, *Grifola frondosa*, *Hypomyces lactifluorum*, *Lactarius deterrimus*, *Hydnum repandum*, *Cantharellus tubaeformis*, *Armillaria mellea*, *Hericium coralloides*, and *Lycoperdon*. All present raised their wine glasses in toast to Linda and Umberto.

Saturday evening, Dr. David Malloch spoke on the mushrooms of the boreal forest. He explained the



MST President, Pat Burchell, and MST members share the excitement over the bounty from this year's Cain Foray

symbiotic relationship between mushrooms and trees in the soils of the boreal forest. He illustrated his talk with a wonderful collection of photographs.

The success of our forays is certainly dependent on rain. This year we were blessed with double the rainfall of last year. I think all participants of this year's foray will agree that the number and size of specimens found far exceeded last year. While the number of species found is still being tallied, it is estimated that it will also exceed last year.

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diatus. ANDUS VOITK PHOTO

The question was simple

The question was simple emough.

"What exactly are we looking for?" I asked Andus Voitk, the leader of amateur mushroom club Foray Newfoundland and Labrador, as we trudged along parallel to Cremaillere Cove Road just outside of Goose Gove.

His head was down, eyes scanning, his thoughts buried in the thick bog along with our boots. "Gyrofleavs brevibasidiatus," he said in a loud authoritative voice. "Right," I said, quietly cursing

"Gyroflexus brevibasidiatus," he said in a loud authoritative voice.
"Right," I said, quietly cursing my broken pen and a lack of confidence writing Latin.
"Does it have a normal name?" I asked.
"Only normal mushrooms have normal names," he replied.
It was then I knew I was in the company of a man who loves mushrooms. A fungi fanataic if you will.
What we were searching for was a rare tiny mushroom found mostly in the arctic region but also uncovered in three areas during a long weekend of fungi foraging on the Northern Peninsula, but the said of the s It is where the Pen caught up with

ım. I had arrived just minutes after ocal Brad Johannessen had

I had arrived just minutes after local Brad Johannessen had stopped to have a chat.

"Excellent," Mr Voitk said after introductions were over, "another two sets of eyes, come on, let's go."

Mr Voitk has travelled to St. Anthony 23 times in 10 years from his home in Corner Brook, "although only three of those times it was as sunny as this," he tells me.

times it was as sunny as this," he tells me.

It is safe to say that Mr Voitk is mad about mycology — or the branch of biology concerned with the study of fung.

As we trudged about the heavy bog heads down searching through the sphagnum, Mr Voitk spoke of his quest to photograph-Gyroflexusbrevibasidiatus, a yellow capped mushroom about the size of a thumbtack.

Thave seen it once in my life

size of a thumbtack.

If have seen it once in my life time, he said, and I took the worst possible photo of it, it was just terrible.

"That's what makes it so frustrating If I had seen one and never photographed it I could leave that, but seeing one and taking such a rubbish photo, well it just drives me mad."

It seems musbrooms can turn a man med.

"What's this one, Mr Sold is just a jon, and the sold is larger sample to Mr Yotik.

"This what makes it so frustrating If I had seen one and never photographed it I could be more than the mean and the mean and







shine."

Ms Murrin said the weekend had produced some fantastic samples of mushroom magic but warned that anyone considering picking wild mushrooms should do their research.

The thing about mushrooms is that most of the time, there isn't a cure-all answer to which ones are poisonous and which ones arent', she said

Take the destroying angel for instance. It looks gorgeous

Take the destroying angel for instance. It looks gorgeous and it looks edible but they among the most toxic mushrooms known.

And for the record, on Tuesday, Mr Voitk emailed through a photo he managed to snap of the elusive-Gyroflexus brevibasdiatus.

"Several collections of this very licensyman species came in from

uncommon species came in from many of our trails, indicating that

many of our trails, indicating that it is very common on the Northern Peninsula," he said in his email.
"Driving home on Monday we stopped at random roadside bogs. The last ones were found near Tuckamore Lodge. South of that we did not find any, suggesting that this is a northern species and that the Northern Peninsula is the southern limit of its range.

that the Northern Peninsula is the southern limit of its range.

"Thus, we are dealing with a late season mushroom that is quite common in its range and habitat, but uncommon in mushroom books because the authors of same are uncommon to nonexistent in its range and habitat, at least at the time of its fruiting."

His quest for photographic excellence is officially over — for now.

The fungi display at the College of the North Atlantic in St Anthony had more than a 100 different varieties of mushrooms on display. were displayed for partici-pants to study and use in teaching sessions, and on Sunday more than 100 scientifically identified

It seems mushrooms can turn a

species of local mushrooms were on display at the College of the North Atlantic St Anthony cam-

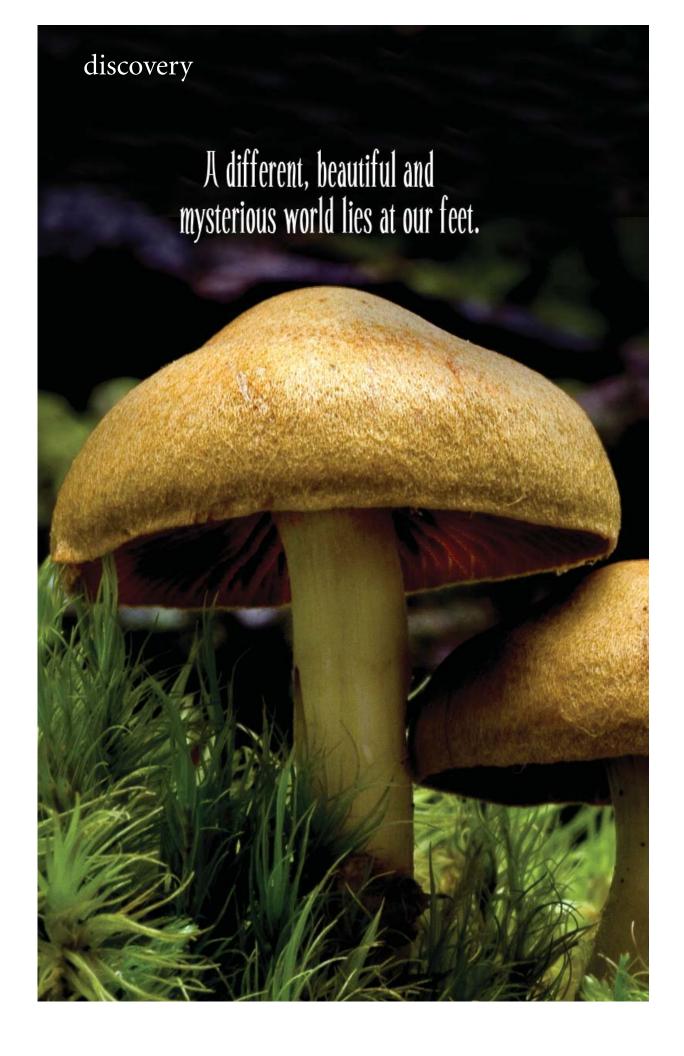
Amid all the joking, there was some serious fungi business on the Northern Peninsula last weekend as the amateur mushroom club's annual foray brought 73 mushroom enthusiasts to collect and study local mushrooms. North Atlantic St. Anthony Cam-pus.

St John's mycologist Faye Mur-rin said the weekend had been a huge success despite the weather.

"Most mushroom enthusiasts don't mind when it's raining" she The group included invited experts from all over the world to help identify the mushrooms colsaid.
"But look at today [Sunday],

cted.
Once identified, mushrooms
Once identified, mushrooms
Once identified, mushrooms
Once identified, mushrooms

jgraney@northernpen.ca



Mustroom

Mag Photos and story by Jim Cornish

fall sets in, the leaves are changing colour, the days are growing shorter and the air is turning cold and damp. In fields and gardens and on lawns, trees, logs and stumps, mushrooms large and small, edible and poisonous, grotesque and beautiful are making a sudden, yet brief, appearance. With the exception of a few avid collectors eager for a side dish of fresh wild mushrooms, most people give these late bloomers little more than a passing glance.



This one is found on lawns and fairways. Cromatus means "hair," hence their common names: Shaggy Mane or Lawyer's Wig. Since its cap extends to the ground and its gills are tightly packed, the mushroom has to self-digest to release spores. Insert: the same mushrooms five days later.



An inky cap mushroom like the Shaggy Mane, this one grows in grassy fields near ponds. It is toxic when eaten within a few hours of drinking alcohol, hence its common name: Tippler's Bane.



Armillatus means "armbanded," a reference to a series of orange-brown rings around its stalk. It is commonly called the Banded Cort. It grows in association with birch trees and is very frequently found in Newfoundland.

Our disinterest in mushrooms is surprising given we have used them for millennia. Evidence of prehistoric use was discovered in 1991, when the remains of a man frozen some 5,000 years ago were found in a retreating glacier in the Italian Alps. An analysis of his belongings revealed two varieties of mushroom – one probably used as tinder to start a fire, and another likely used to treat stomach parasites.

In ancient times, mushrooms were considered food for the gods and kings. During WWII, Russian peasants ate them to avoid starvation. Today, collecting mushrooms for food is a family outing in much of Asia and eastern Europe, and from an early age children are taught which ones are edible.

The shunning of mushrooms began in western Europe during the early Middle Ages. Pagan Anglo-Saxons believed mushrooms were supernatural, linking them to elves, fairies, leprechauns and the underworld, and using them in religious rites and magic shows. Once pagans converted to Christianity, the mushroom was demonized by the church, probably to keep new converts from slipping back to old beliefs and practices. Centuries later, descendants of these western Europeans emigrated to the New World and brought their mycophobia with them. Aversions to wild mushrooms linger in Newfoundland and Labrador today, probably as a result of our upbringing (we are generally not wild mushroom eaters), old wives' tales and misunderstandings about mushrooms.

What are Mushrooms?

Mushrooms are a small part of something much larger and well hidden. They are the fruiting buds of fungi networks of cobweb-like fibres,

collectively called mycelia, that tunnel through organic matter on, above and below ground.

Although fungi share plant habitats, they are not plants; they lack roots, leaves and flowers. Fungi also lack chlorophyll and cannot produce food through photosynthesis. Instead, they acquire nutrients by secreting special enzymes to digest chitin (insect exoskeletons), keratin (skin, hair, horn and feathers), cellulose (most plant debris) and lignin (wood). This act defines their vital role in nature: to decompose and recycle organic matter.

Forest fungi secure nutrients by partnering with trees. Their mycelia either penetrate or commingle with root hairs, then trade nutrients they have digested for carbohydrates produced by the tree. Without this mutually beneficial relationship, called symbiosis, neither the tree nor the fungi can survive. Some fungi, though, are nasty feeders. They are parasitic and produce pathogens that infect and kill living organisms, even insects and other fungi.

Fungi are classified separately from plants and animals in a third kingdom called Eumycota. There are about 100,000 described mushrooms in this kingdom but mycologists, scientists who study mushrooms, believe there could be a million or more, most of which are microscopic and likely to remain anonymous. Of the described species, only about 1,000 are edible. The remaining are poisonous, capable of making people mildly or violently ill. Some are even lethal, causing death within minutes of a single bite.

Often, there is nothing obvious to distinguish the edibles from the poisonous. If you plan to collect them, bring along someone knowledgeable and follow the rule: when in doubt, toss the mushroom out.



This gelatinous mushroom is commonly called Orange Jelly. Its convoluted lobes seem to ooze from the bark and butt ends of dead conifer logs and stumps. It is often confused with Witches Butter, which only grows on hardwoods. It is visible anytime from spring to late fall.



Newfoundlanders call these "horse farts." Lacking gills, the spores are stored in a pear-shaped (pyriforme) body. When mature, disturbed puffballs will send a puff of spores jetting through a hole at the top.



Here is an example of a bolete – a toadstool-shaped mushroom that has a spongelike tissue filled with tubes instead of gills to hold spores. This species grows from dead wood and spruce and birch trees, and is a favourite of slugs.



Commonly called the Red Banded Polypore, pinicola means "inhabiting pines" and these can be seen growing out of the base of trees and logs of the pinus family, such as fir and spruce. Formitopis is derived from the word "fomes" meaning warmth, a reference to their use as tinder.



The inverted bowl-shaped cap will flatten as the mushroom matures, revealing its white gills. Also a favourite of slugs, insects and squirrels, it's hard to find one that doesn't have feeding marks. Be careful when handling these. A little pressure will snap their brittle stems and caps.



These vary greatly in size and shape, and grow singly or in clusters. They are collectively called Honey Mushrooms for their colour and nutty, sweet flavour. Proper identification is crucial, as they have several poisonous look-alikes.

Reproduction

Fungal reproduction is very complex some varieties. poorly understood. Put simply, most fungi reproduce by spores. Produced sexually and asexually, each microscopic spore has either a male or a female cell inside a protective coating. When the mushroom is mature, millions of spores are catapulted from its gills and fall to the ground or travel on air currents. The few that survive to germinate create a hyphae – a single, long microscopic fibre. After encountering a compatible fibre of the same species, the two fuse and grow into new hyphae, which digests organic material as it branches outward. When enough hyphae amass, a new mycelia (fungus) is formed. The cycle is complete when the right conditions stimulate the fungus to produce buds that grow rapidly and emerge from the substrate to form mushrooms.

Identification

In the world of mushrooms, appearances are often deceiving. Consequently, identification is usually difficult, often technical and sometimes impossible. Guidebooks, while helpful, contain just a small percentage of the hundreds of mushrooms likely to inhabit a region. Unless it has a telltale feature or matches the guidebook photo exactly, naming a mushroom to the species is nearly impossible without training, experience and a microscope.

Mushrooms can, however, be easily grouped. The familiar capped varieties can be divided into three groups based on the nature of the underside of their caps – gilled, toothed or pored. Most pored ones are called boletes. Equally easy to group are the cup, coral and jelly fungi. They look just like their names suggest. The woody conk and

bracket-like perennials growing out of trees and logs form another group called polypores. While they vary in size, shape and colour, they are all pored underneath.

NL Mushrooms

Andrus Voitk knows a lot about mushrooms in his region. Since 2003, he has led Foray Newfoundland and Labrador members on mushroom hunts across the island and through southern Labrador. He estimates that there are 2,000-8,000 species of mushroom in this province, fewer than the 10,000 found on the adjacent mainland because we have fewer plants.

Each year, Foray members find about 200 species, "60 per cent of which were not found the year before and 35 per cent that were not found on any previous foray," says Voitk.

As for edibles, he says we have

about 100 varieties, only six of which can be collected in any quantities, the chanterelles being the most plentiful. He believes there are about an equal number of poisonous mushrooms, six of which are lethal. His pocket-sized book, *A Little Illustrated Book of Common Mushrooms of Newfoundland and Labrador*, is written for the "neophyte amateur" and contains photographs and short descriptions of 300 common species.

Enjoy the Magic

Appreciating fungi requires more than a passing glance. When out walking this fall, keep your head down. If you spot a mushroom, stop, get close to the earth and discover something truly magical at your feet.

For tips on photographing mushrooms in nature, visit DownhomeLife.com and click on "September Hot Links."

www.downhomelife.com September 2010 **55**

Rules: Foray Newfoundland and Labrador Mushroom Photo Contest 2010-2011

Photo specifications

- 1. Photos should be colour, digital, and high resolution (minimum of 300dpi), with the featured mushroom clearly identifiable.
- 2. Photos must be taken in NL by the person submitting the photo.
- 3. Photographs should be restricted to those species on the list to the right.

Who can enter and how often?

- 1. Contest is open to all Foray Newfoundland and Labrador members.
- 2. Members may submit as many entries as they wish; there is no limit.

Conditions of entry

1. Foray Newfoundland and Labrador will be granted the right to use all submissions in the production of posters, or other educational or promotional material. Photographers will be given credit for each use of their photo, but no fees or royalty will be paid. Photographers retain copyright of their photo.

Deadline

- 1. August 15, 2011
- 2. Winners to be announced at the 2011 Foray, in September.

How to enter?

- Send photos to Laura Park at <laura.park@dfo-mpo.gc.ca>.
- 2. A small jpeg (800X600 for horizontal and 600X800 for vertical view) should be submitted by email initially, but the full sized version of the file (TIFF or uncompressed jpeg) of selected photos will be required prior to the final announcements.
- 3. Photos should be accompanied by the name and contact information of the photographer, the name of the featured mushroom and location of the featured mushroom. Contestants' names will be withheld from judges.

NOTE: We need more submissions of the species listed in PINK, and have NONE of those underlined.

LIST OF ELIGIBLE MUSHROOMS

- 1. Cantharellus cibarius (Yellow chanterelle)
- 2. Craterellus tubaeformis (Yellow legs,

Winter chanterelle)

- 3. Coprinus comatus (Shaggy mane)
- 4. Lycoperdon perlatum (Common puffball)
- 5. Lycoperdon pyriforme (Pear-shaped puffball)
- 6. Marasmius oreades (Fairy ring mushroom)
- 7. Russula paludosa (Swamp russula)
- 8. Armillaria ostoyae (Honey mushroom)
- 9. Agaricus campestris (Meadow mushroom)
- 10. Agaricus arvensis (Horse mushroom)
- 11. Lactarius thyinos (often known as "Lactarius deliciosus")
- 12. Lactarius deterrimus (also often known as "Lactarius deliciosus")
- 13. Hydnum umbilicatum (Sweet tooth)
- 14. *Hydnum repandum* (Hedge hog mushroom)
- 15. Boletus edulis (King bolete)
- 16. Leccinum vulpinum (including L. atrostipitatum, L. aurantiacum and other red-capped relatives). REMOVED FROM LIST
- 17. *Leccinum holopus* (sometimes known as "*L. niveum*").
- 18. Leccinum scabrum (Birch bolete)
- 19. Suillus luteus (Slippery Jack)
- 20. Catathelasma ventricosa (Fat cat)
- 21. *Hypomyces lactifluorum* (Lobster mushroom)
- 22. Morchella esculenta (Black morel)
- 23. *Tricholoma magnivelare* (Pine mushroom, White matsutake)
- 24. *Clavulina cristata* (Crested coral)
- 25. Clavulina cinerea (Ashy Coral)



Terra Nova National Park

Headquarters: *Terra Nova Hospitality Home* **September 9-11, 2011**

GUEST FACULTY*

Teuvo Ahti
Stephen Clayden
Renée Lebeuf
Raymond McNeil
Faye Murrin
Todd Osmundson
André Paul
Roger Smith
Andy Taylor
Greg Thorn
Zheng Wang

*tentative at time of publication

Please check our website in the Spring, 2011, for Information & Registration Forms:

<www.nlmushrooms.ca>