

# Newfoundland birch and its fungi

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**Of all the dwarf birches in the world, surely the Newfoundland birch, shown in the title banner, is the prettiest.** It is found in wet parts of bogs and fens along the coast of Newfoundland and Labrador. In addition, it is known from Ungava Bay in Québec, Cape Breton Island in Nova Scotia, New Brunswick, and from the French islands of Saint-Pierre-et-Miquélon. The common name, logical given its primary distribution in our province, comes from the pen of the legendary Harvard botanist Merritt Lyndon Fernald (1873-1950).

Its story begins with André Michaux (1746-1802), the King's Botanist of France, sent to America when France still had a king. He described much Canadian flora in his book, "Flora Boreali-Americana", including five species of North American birch. Among these he listed *Betula nana*, a wetland dwarf birch from Ungava Bay, using the name for the similar common dwarf birch in Europe. In Paris, the French botanist Édouard Spach (1801-1879) examined Michaux's specimen, as well as other specimens from Newfoundland, and concluded that these were a new species, distinct from *B. nana*. He reported the species in 1841, naming it in honour of Michaux as *Betula michauxii*. When Fernald found a different dwarf birch in Newfoundland, he compared it with existing descriptions, and concluded that this species had not been described previously. Specifically, the description did not fit with Michaux's description of the specimen from Ungava Bay. Thinking Ungava Bay had one species (now named *B. michauxii*) and Newfoundland another, in 1945 Fernald named the Newfoundland species *Betula terrae-novae*. Subsequently it came to light that the species from Ungava Bay and Newfoundland were the same. The confusion had been created by Michaux, who did not describe the Ungava Bay specimen based

<i>Lecanora symmicta</i>	18
<i>Lecanora pulicaris</i>	12
<i>Parmeliopsis capitata</i>	10
<i>Tuckermanopsis orbata</i>	8
<i>Vulpicida pinastri</i>	5
<i>Pyrenomyces, unidentified</i>	3



on the findings, but assuming it to be the *B. nana* of Europe, reproduced the description for the European species. Once Fernald learned of this, he published a retraction with explanation, reinstating Spach's name as correct for the coastal wetland dwarf birch found in Newfoundland and Labrador (and a smattering of other places). Thus, the scientific name linking this beautiful little birch to our Island lasted only five years. But the common name has stuck: Newfoundland birch. The photos on this page by Maria Voitek illustrate the male (above) and female (below) catkins of Newfoundland birch. The fungi found on the tree are shown on the next two pages.

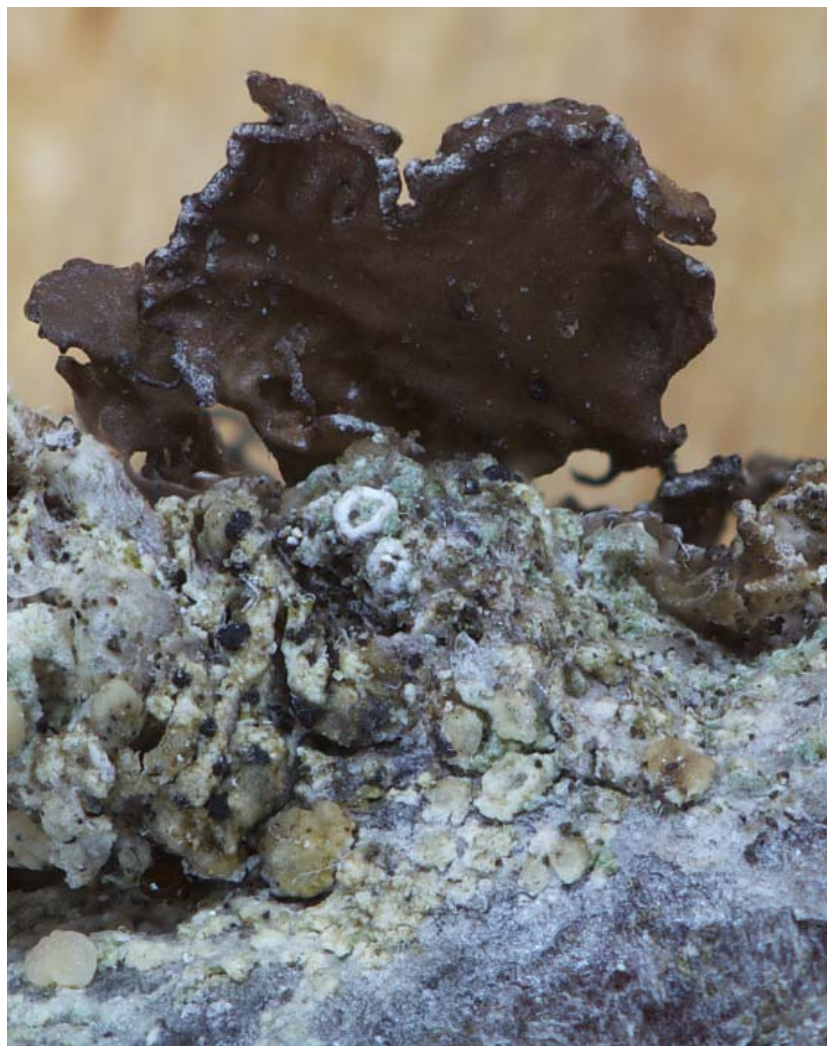
We are involved in a limited mycological all-taxa census of fungi on *Betula papyrifera* and *B. alleghaniensis*. It occurred to us that perhaps it would be interesting to add a quick survey of the fungi associated with our own Newfoundland birch. Two live plants and a bagful of dead branches were collected in Gillam's Bog (above Gillams, NL, on the North Shore of the Humber Arm) on June 2, 2012. A powerful magnifying loupe was required to examine the plants, because everything was so small: the "trunk" of the largest "tree" was 6 mm in diameter, and many branches were under 2.

Fifty-six collections yielded five lichen species and three pyrenomyces. For the more prevalent species, once several collections had been made, additional material was not collected, so that these are proportionately underestimated. Table 1 shows the material collected and its frequency. Like their host, the fungi were markedly scaled down in size, and macrophotography was required to record the images. The pyrenomyces were not sufficiently developed to be identified. Identification of the lichens also presented challenges, some specimens requiring several attempts, with new material, before a positive identification could be made. Of the five species identified, only *Tuckermanopsis orbata* was also found on our big birch (2 collections on *B. papyrifera*).

Finding a mushroom is not a random event, for as the poet said, no fungus is an island. This knowledge guides the circumspect recorder of diversity to survey specialized habitats. As you see, even a superficial survey of our very own dwarf birch produced an interesting list, including some lichens seldom recorded, but seemingly very common on this substratum.









## Lichens of Newfoundland birch

### Previous page

Left upper: *Parmeliopsis capitata*.

Left lower: *Vulpicida pinastri*. This beautiful lichen, the fox killer, was described by Mac Pitcher on these pages in greater detail in *OMPHALINA* 2(7):13, 2011.

Right upper & lower: *Tuckermanopsis orbata*. Broken isidia (the granules round the sides of the thalli—“leaves”) and one apothecium is seen. A good time to refresh your lichen language, perhaps even print out Michele Piercey-Normore’s two pages in *OMPHALINA* 3(12):8-9, 2012, as a handy reference-reminder for the future.

All three of these leafy (foliose) lichens are quite common in our province, found as much larger exemplars on many substrata. On the small Newfoundland birch only the first is relatively common; all are appropriately scaled down in size.

### This page

Right upper: *Lecanora pulicaris*. The dark hymenium is visible in one apothecium only; in others it has been eaten by an unknown lichenophage, leaving empty cups. The crustose thallus is the smooth, thin, shiny, silvery blue layer.

Right lower: *Lecanora symmicta*. Apothecia are more cushion-like and vary in colour from straw, through yellowish tan, dusky olive, brown, to almost black. Compared to *L. pulicaris*, its crustose thallus is a bit thicker, more granular and has a greenish colour. Note small *Tuckermanopsis orbata* at the bottom.

Now that you know these two species, go back to the previous page. Three of the four pictures also show either or both. Identify them! Uncommonly reported, they are truly ubiquitous on this host.

Below: macro view of two of our unidentified pyrenomycetes, their ostia just discernible.

