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Even though most arboreal lichens do not get their nutrition primarily from their substrata, many show decided host preferences. The need to fell one *Betula papyrifera* (this page) and one *B. alleghaniensis* (next page) for an unrelated study, permitted us to survey the lichen communities on these birch species. *Betula alleghaniensis* is known to host more lichen species than *B. papyrifera*; the reasons are many, of which the most common offered is that the less acidic bark of *B. alleghaniensis* is more user-friendly for most lichens.

Methods

A mature, healthy tree of each species was felled in a birch forest near Humber Village, NL, with a 75:25 *papyrifera:alleghaniensis* ratio. The trees, located within 300m of each other, were cut down in April, 2012, within 10 days of each other. CH and AaV collected every visible lichen species, without attempting to collect all lichens present. MV photographed the lichens, which were then identified by JM and SC. The collections are currently at the New Brunswick Museum.

Results

Forty-one collections were made, representing 18 species, 7 species from *Betula papyrifera* and 13 species from *B. alleghaniensis* (Table). We report *Usnea cornuta* on *Betula papyrifera* and *Gyalecta fagicola* on *B. alleghaniensis* as first records for the province. *Lecanora hybocarpa* has been collected in Newfoundland on spruce and birch in the Central Avalon Forests (Consortium of North American Lichen Herbaria, Wisconsin State Herbarium), but our collection is the first published record. *Pyrrhospora varians* is rarely noted, with the only published records given by the American physician John W. Eckfeldt in his 1895 listing of NL lichens (as *Biatora varians*, based on the collections of Rev. Arthur C. Waghorne, a 19th century Church of England missionary in NL).

The collections included the uncommonly reported *Evernia mesomorpha* from *Betula papyrifera* and two species from *B. alleghaniensis* with only one previous general literature reference for NL, *Scoliciosporum chlorococcum* and *Variolaria multipunctoides*.

Only two lichen species, *Hypogymnia physodes* and *Parmelia sulcata*, were common to both birch species. *Tuckermanopsis orbata*, found on *B. papyrifera*, was also collected from *B. michauxii* (reported elsewhere in this issue). Almost all the collections came from trunks or larger branches; smaller, more terminal branches in the crown did not contribute significantly to the list.

Discussion

This census of all readily visible lichen species on two trees should not be confused with a complete census

Lichens on two birch trees

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of lichens on birch in the province. We have sampled but two of our several birch species. Our 14 species on *B. alleghaniensis* represent less than 25% of all lichen species reported from that birch

species in NL. Sampling more trees from more regions will no doubt increase the number of collected species.

Although our census is limited, it does bear out the observation that *B. alleghaniensis* tends to support a greater diversity of lichens than *B. papyrifera*. Some birch lichens, though not a majority, probably occur more frequently on *B. papyrifera*.

This study illustrates the value of examining specific, narrowly defined substrata or microhabitats. Such focused surveys can yield many interesting finds, overlooked by the usual regional survey method. Two species new to the province were found in an otherwise very incomplete survey of lichens on birch. Some infrequently reported species were actually relatively common within their limited econiche. For example, with eight collections, *Pyrrhospora varians*—not reported in NL for over a century—was the most

common species collected. Furthermore, even though only one collection was made, several growths of *Lecanora hybocarpa*—reported for the first time in our province—were noted.

LICHENS ON WHITE BIRCH	
Species	n
<i>Hypogymnia physodes</i> *	4
<i>Hypogymnia tubulosa</i>	2
<i>Parmelia sulcata</i> *	2
<i>Tuckermanopsis orbata</i> **	2
<i>Bryoria furcellata</i>	1
<i>Evernia mesomorpha</i>	1
<i>Usnea cornuta</i> NEW to NL	1
LICHENS ON YELLOW BIRCH	
Species	n
<i>Pyrrhospora varians</i>	8
<i>Buellia stillingiana</i>	7
<i>Melanelixia subaurifera</i>	2
<i>Physcia aipolia</i>	2
<i>Graphis scripta</i>	1
<i>Gyalecta fagicola</i> NEW to NL	1
<i>Hypogymnia physodes</i> *	1
<i>Lecanora hybocarpa</i> NEW to NL	1
<i>Parmelia sulcata</i> *	1
<i>Platismatia glauca</i>	1
<i>Ramalina dilacerata</i>	1
<i>Scoliciosporum chlorococcum</i>	1
<i>Variolaria multipunctoides</i>	1
* Common to both <i>Betula papyrifera</i> and <i>B. alleghaniensis</i> .	
** Common to both <i>Betula papyrifera</i> and <i>B. michauxii</i> (discussed in separate report, p. 14).	

For a glossary (dictionary of lichen language) to explain terms, see Michele Piercy-Normore's *Lichen Quick Guide*, *OMPHALINA* 3(12):9, 2012.