

MATERIALS TO NORTH AMERICAN LICHEN FLORA

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ABSTRACT

In Jerzy Fabiszewski's collection of lichens from North America of 1969–1970 there are several species of the Usneaceae family. Fifteen species of *Bryoria* have been found, among others: *Bryoria fabiszewskiana* Bystr. nova species, *Br. furcellata* subsp. *hawksworthiana* Bystr. & Fabiszewski, nova subsp., *Br. trichodes* subsp. *brodoana* Bystr. & Fabiszewski, nova subsp. *Br. trichodes* subsp. *canadensis* (Mot.) Bystr. & Fabiszewski, nova comb., *Br. ambigua* (Mot.) Bystr. & Fabiszewski, nova comb., *Br. tenerrima* (Mot.) Bystr. & Fabiszewski, nova comb.

KEY WORDS: lichens, *Bryoria*, new taxa, North America.

INTRODUCTION

In the years 1969–1970 Jerzy Fabiszewski stayed in Canada as a holder of a fellowship of the National Research Council. His main goal was the phytosociological and lichenological elaboration of the East-Canadian peat-bogs. This opportunity and his numerous excursions enabled him to collect a herbarium of lichens, particularly of the family Usneaceae, in various parts of North-America. As a participant of the XI International Botanical Congress in Seattle he collected lichens in British Columbia. He also took part in the several days lichenological excursion guided by John W. Thomson, during which the participants became acquainted, among others, with the magnificent coniferous forests in the North Western Pacific region (Barbour, Billings 1988), with *Abies amabilis*, *Pseudotsuga menziesii*, *Tsuga mertensiana*, *T. heterophylla* and many other trees. Distinguished with a particular abundance of lichen flora were the, visited at that time, Olympic and Mt. Rainier National Parks. Instead, the numerous expeditions to the boreal forests in central and northern Ontario and Quebec (Grandtner 1980) allowed to collect lichens in boreal forests with *Picea mariana* and *Larix laricina*, and in the thickets with *Alnus rugosa* and *Salix* ssp. In southern Ontario and Quebec collected were the epiphytic lichens, mainly in *Abies balsamea* and *Picea glauca* forests (Mosquin et al. 1975) and on peat-bogs with *Picea mariana* and *Larix laricina*. The lists of terricolous lichens from East-Canadian peat-bogs had been published in an earlier paper (Fabiszewski 1975), whereas now we publish the interesting taxons of the genus *Bryoria*. The stimulus for this publications was undoubtedly the modern elaboration of the genus *Bryoria* by Brodo and Hawksworth (1977). The North-American coniferous forests are

distinctly more abundant with Usneaceae family than the European forests, what had been already noticed by Motyka (1964). We hope that our raport will induce further floristic and taxonomic research in that region.

RESULTS

Nodobryoria abbreviata (Müll. Arg.) Common & Brodo

Washington, Price County: Crystal Mountain, Mount Rainier area 47°20' N, 121°30' W. Subalpine ridge overlooking glacial valley of White River, 6800 to 6872 ft. Subalpine ridge flora *Abies lasiocarpa-Tsuga mertensiana* timberline region. 30 August 1969 J. Fabiszewski (Fig. 1).

Nodobryoria oregana (Tuck. Ex Nyl.) Common & Brodo
(=*Bryoria oregana* (Tuck. ex Nyl.) Brodo & Hawksw.)

British Columbia, 17 miles S of Clear Water by Highway 5, N of the Thomson River Valley. *Pseudotsuga-Populus-Betula* stand, ca 2000 ft. 3 Sept. 1969 J. Fabiszewski. Washington, Price County: Crystal Mountain, Mount Rainier area 47°20' N, 121°30' W. Subalpine ridge overlooking the glacial valley of White River, 6800 to 6872 ft. Subalpine ridge flora *Abies lasiocarpa-Tsuga mertensiana* timberline region. 30 August 1969 J. Fabiszewski.

Bryoria ambigua (Mot.) Bystr. & Fabiszewski, nova comb.

Alectoria ambigua Mot., Bryologist 67, 1 : 17, 1964 (syntypus LBL-L). *Bryoria trichodes* subsp. *americana* (Mot.) Brodo & Hawksworth, Opera Botanica 42: 96 (1977) pro parte.

Thallus spread over the base or partly pendent, up to 15 cm, long and wide, brown-grey, shiny. The twigs irregularly repeatedly ramose from the base, the angles between the twigs wide, straight or obtuse. The basal part short, blackened, pseudocyphellae numerous, of various length, fissured. *Soralia* occur sporadically. Apothecia frequent, up to 0.5 mm in diameter, geniculately set on the twig, the margin of the apothecia smooth, sporadically singular cilia occur. Cortex thick, medulla relatively dense. Cortex and medulla do not stain from K and Pd, or Pd stains medulla orange.

Distinct species, easily recognizable owing to numerous pseudocyphellae. Does not belong to *Bryoria trichodes* (Michks.) Brodo & Hawksworth.

Thallus prostratus vel subpendulus ad 15 cm longus et latus, griseo-fuscus, nitidus, rami pluries a basi irregulariter dichotome ramosus, axillis inter ramos latis vel perviis. Parte basali brevis, breviter nigrata. Pseudocyphellae numerosi, varie longes, fissuriformes. soralia minus numerosae. Apothecia semper praesentia, ca 0,5 mm in diametro, geniculato ad ramos sita, margo thallinus nitidus, rare indistincte ciliatus. Cortex crassus, filamentosus, medulla paraplectenchymatica, creberrima.

Quebec, Lac Malbaie, 2 miles from Rd 54. 47°38'15" N, 71°2'30" W, Elev. 2600 ft. *Larix laricina*, *Picea mariana*, 25 June 1970 (for. *typica* – cum apoth (Fig. 2 and Fig. 3, and for. *med.* Pd + *aurant.*). Close to River Jacques Cartier, 2 miles from Rd 57. 2600 ft. *Picea mariana*, 25 June 1970. Bog 5 miles E of Lac Joncas, *Picea mariana* stand and *Alnus rugosa* thicket, 26 June 1970 (for. *med.* Pd + *aurant.*). **Ontario**, Thunder Bay District: 40.8 miles W of Marathon, 48°47' N, 86°53' W. Elev. ca. 1000 ft. *Abies balsamea*-*Betula papyrifera* stand by Highway 17 near lake, 8 Sept. 1969 J. Fabiszewski, P. James, I. M. Brodo, (*forma typica et for. thallus capillaceus*).

Bryoria bicolor (Ehrh.) Brodo et Hawksworth

Quebec, Lac Malbaie, close to the River, 2 miles from Rd 54. 47°38'15" N, 71°2'30" W, Elev. 2600 ft. *Larix laricina*, *Picea mariana*, 25 June 1970 J. Fabiszewski.

Bryoria fabiszewskiana Bystr., *nova species*
(*Nomen in honorem Jerzy Fabiszewski dedicatum*)

Holotypus LBL-L, Locus classicus: **Ontario**, Cochrane District: Moosonee, at the mouth of the Moose River NE of Moosonee. 51°21' N, 80°30' W. Along a NW-SE transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa*-*Salix* ssp. in wet areas and finally *Larix laricina*-*Betula pumila* in the depressions, 4 July 1969 J. Fabiszewski (Fig. 4, Fig. 5 fragm. slightly enlarged).

Thallus 10-15 cm longus et latus, pendulus, juvenilis ascendens, filamentosus, stramineo-griseus, in herbario aureolo-fuscus, ad summitates obscurior, fere nigratus. Parte basali breviter nigrata. Rami pluries a basi repetitio irregulariter dichotome ramosi, supra basi et parte mediali ca. 0,2 mm in diametro, supra regulariter attenuescens, ad apices capillaceo attenuati et serpentino flexuosi, in tota longitudine teretes, non complanatus, indistincte nitidus, eramulosus, passim etiam non numerosi ramuli laterales, brevibus. Axillis inter ramos angustis.

Pseudocyphellae non numerosi, fissuriformes, passim soralis minus bene evolutis similis.

Soralia semper praesentes, juniora parva, orbiculata, cum sorediis capituliformia, adultiora plerumque ramos deformantia. Soredia farinosa.

Apothecia ignota.

Structura anatomica: Cortex 40-50 μ. crassus, intus inaequalis, filamentosus, ex hyphis conglutinatis incoloribus, medulla 180-210 μ in diametro, laxa, plerumque tantum sub cortice formata, hyphis tantum paucissimis parte centrali ramorum. Ficobiont Trebouxia, sub cortice in medulla site.

Reactiones chemicae: Soralia PFDA + *aurantiaco*. *medulla* PFDA + *lutescens*, KOH + *lutescens*, CaOCl₂-, KOH+CaOCl₂-, *cortex* PFDA et KOH + *lutescens*.

Thallus 10-15 cm long, pendent, filamentous, young deflected, straw-grey, golden-brownish in the herbarium, more obscure, nearly black at extremities. The basal part shortly blackened. The twigs above the base and in central part ca. 0.2 mm in diameter, higher – regularly attenuating, capillarilly attenuated and distinctly flexuose at extremities, cylindrical at the whole length, even in the angles of ramifications without deformations, smooth, slightly shining, at their whole length dichotomously repeatedly ramose, without lateral twigs, sporadically unnumerous short little twigs. The angles between the twigs mostly narrow.

Pseudocyphellae scarce, fissured, sometimes similar to poorly formed soralia.

Soralia always present, the younger ones tiny, circular, filled with soredia, capitate, the older ones mostly deform the twigs. Soredia farinose.

Apothecia unobserved.

Anatomic structure: Cortex 40-50 μ thick, unequal from inside, filamentous, from strongly conglutinated, colourless shreds. Medulla loose 180-220 μ in diameter, placet mostly just under the cortex, with unnumerous shreds in the central part of the twig. photobiont *Trebouxia* in medulla, just under the cortex.

Chemical properties: *Soralia* stain orange from PFDA (yellow in the beginning). Cortex and medulla turns yellow from PFDA. Cortex grows slightly yellow. Cortex and medulla KOH stains yellow. CaOCl₂-, KOH+CaOCl₂-. Does not cause brown staining of the herbarium paper.

It differs from *Bryoria capillaris* by the habit, twigs extremities and reactions with KOH and Pd. It differs from *Br. implexa* by reactions, habit, regular ramification and cylindrical twigs, lack of staining of the herbarium paper. It differs from *Bryoria haynaldii* by lack of lateral twigs and by chemical reactions.

Ontario, Cochrane District, Moosonee, at the mouth of the Moose River NE of Moosonee. 51°21' N, 80°30' W. Along a NW-SE transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa*-*Salix* ssp. in wet areas and finally *Larix laricina*-*Betula pumila* in the depressions. 4 July 1969 J. Fabiszewski.

Bryoria fremontii (Tuck.) Brodo & Hawksworth

British Columbia, 17 miles S of Clear Water by highway 5, N of the Thomson River Valley. *Pseudotsuga*-*Populus*-*Betula* stand, ca. 2000 ft. 3 Sept. 1969 J. Fabiszewski. USA, Washington, Price County: Crystal Mountain, Mount Rainier area 47°20' N, 121°30' W. Subalpine ridge overlooking glacial valley of White River, 6800 to 6872 ft. Subalpine ridge flora *Abies lasiocarpa*-*Tsuga mertensiana* timberline region. 30 August 1969 J. Fabiszewski.

Bryoria furcellata (Fr.) Brodo & HawksworthSubsp. *furcellata*Subspecies typical. *Thallus fruticulosus, erectus.*Exs.: J. Bystrek Lich. exs. 2 *Bryoria furcellata* (Fr.)

Brodo & Hawksw.

Quebec. Lac Malbaie, close to the River 2 miles from Rd 54. 47°38'15" N, 71°12'30" W, Elev., 2600 ft, *Larix laricina*, *Picea mariana*, 25, Juni 1970 J. Fabiszewski; Bog and fen 0.5 miles S Lac Barrette, about 1 mile W from Rd 54. 47°27'20" N, 71°14'30" W, J. Fabiszewski with M. Grandtner; Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26, June 1970 J. Fabiszewski.

Ontario, Cochrane District, Moosonee, *Picea mariana-Larix laricina* mire NW of railway station, 4 July 1969 J. Fabiszewski with I.M. Brodo; Moosonee, at the mouth of the Moose River NE of Moosonee, 51°21' N, 80°30' W, along a NW-SE transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa-Salix* ssp. in wet areas and finally *Larix laricina-Betula pumila* in the depressions. 4 July 1969 J. Fabiszewski; Moosonee, 51°17' N, 80°37' W, two miles of the town along a railway *Picea mariana-Larix laricina* fen and open *Sphagnum* bog, NW of railway station, 27 July 1969 (J. Bystrek, Lich. exs. 2), and 1.5 miles NW of town along NE shores of deep stream, a transect from shore of the ridge of the stream-valley, *Alnus rugosa*, *Abies balsamea*, *Populus balsamifera* stands, 3 July 1969 J. Fabiszewski. Thunder Bay District: 40.8 miles W of Marathon, 48°47' N, 86°53' W. Elev. ca 1000 ft. *Abies balsamea-Betula papyrifera* stand by Highway 17 near lake, 8 Sept. 1969 J. Fabiszewski, P. James, I.M. Brodo (Fig. 6).

Subsp. *hawksworthiana* Bystr. & Fabiszewski, nova subsp.

(Nomen in honorem D.L. Hawksworth dedicatum)

Thallus tenuissimus, prostratus vel subpendulus.

Holotypus LBL-L. **Quebec,** Lac Malbaie, close to the River Jacques, 2 miles from Rd 54. 47°38'15" N, 71°12'30" W, Elev. 2600 ft, *Larix laricina*, *Picea mariana*, 25 June 1970 J. Fabiszewski (Fig. 7).

Bryoria glabra (Mot.) Brodo & Hawksworth

Ontario, Cochrane District, Moosonee: 51°17' N, 80°37' W, 1.5 miles NW of town along NE shores of deep stream: a transect from shore of the ridge of the stream-valley: *Alnus rugosa*, *Abies balsamea*, *Populus balsamifera* stands, 3 July 1969 J. Fabiszewski. **British Columbia,** Mt Robson Prov. Park, at Yellowland Pass 1.5 miles West of Alberta Lord on Highway 5. *Picea* woodland with schistose rock outcrops. Elev. 3700 ft. 4 Sept. 1969 J. Fabiszewski.

Bryoria implexa (Hoffm.) Bystr., non Brodo & Hawksworth

In *Bryoria implexa* plants are included which stain yellow from KOH and Pd, and which do not stain from CaOCl₂ and KOH+CaOCl₂. *Thallus* stains the herbarium paper strongly brown.

Ontario, Cochrane District: Moosonee, at the mouth of the Moose River NE of Moosonee. 51°21' N, 80°30' W. Along a NW-SE. Transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa-Salix* ssp. in wet areas and finally *Larix laricina-Betula pumila* in the depressions. 4 July 1969 J. Fabiszewski. Moosonee, 51°17' N, 80°37' W, two miles of the town along a rail-

way *Picea mariana-Larix laricina* fen and open *Sphagnum* bog, NW of railway station, 27 July 1969 and 1.5 miles NW of town along NE shores of deep stream: a transect from shore of the ridge of the stream-valley: *Alnus rugosa*, *Abies balsamea*, *Populus balsamifera* stands, 3 July 1969 J. Fabiszewski. Moosonee: Charles Island, Provincial Park, 51°17' N, 80°37' W, 1.5 miles NW of town along NE shores of deep stream. A transect from shore of the ridge of the stream-valley: *Alnus rugosa* – *Abies balsamea* and *Populus balsamifera* stands. 3 July 1969 J. Fabiszewski and I.M. Brodo (Fig. 8).

Bryoria nadvornikiana (Gyél.) Brodo & Hawksworth

Quebec, on Rd to Lac Malbaie, Close to the River Jacques Cartier, 2 miles from Rd. 47°38'15" N, 71°12'30" W, Elev. 2600 ft. *Picea mariana* and *Larix laricina* Stand, 25 June 1970 J. Fabiszewski. Bog and fen 0.5 miles S Lac Barrette, about 1 mile W from Rd 54. 47°27'20" N, 71°14'30" W, J. Fabiszewski with M. Grandtner; Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26 June 1970 J. Fabiszewski. **Ontario,** Cochrane District, Moosonee, *Picea mariana-Larix laricina* mire NW of railway station, 4 July 1969 J. Fabiszewski with I.M. Brodo; Moosonee: At the mouth of the Moose River NE of Moosonee. 51°21' N, 80°30' W. Along a NW-SE. Transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa-Salix* ssp. in wet areas and finally *Larix laricina-Betula pumila* in the depressions. 4 July 1969 J. Fabiszewski (Fig. 9).

British Columbia, Price County: Crystal Mountain, Mount Rainier area 47°20' N, 121°30' W. Subalpine ridge overlooking glacial valley of White River, 6800 to 6872 ft. Subalpine ridge flora *Abies lasiocarpa-Tsuga mertensiana* timberline region. 30 August 1969 J. Fabiszewski.

Bryoria simplicior (Vain.) Brodo & Hawksworth

Not found in the typical form. The specimens examined are small plants. They distinctly differ from the type *Alectoria simplicior* Vain.

Quebec, on Rd to Lac Malbaie, close to the River Jacques Cartier, 2 miles from Rd 54. 47°38'15" N, 71°12'30" W, Elev. 2600 ft. *Picea mariana* and *Larix laricina* stand, 25 June 1970 J. Fabiszewski. **Ontario,** Cochrane District, Moosonee, *Picea mariana-Larix laricina* fen around open *Sphagnum* bog, NW of railway station, on *Larix laricina*, 4 July 1969 J. Fabiszewski (Lich. Canad. 2 *Alectoria simplicior* (Vain.) Lyng).

Bryoria tenerrima (Mot.) Bystr. & Fabiszewski

Alectoria tenerrima Mot., Bryologist, 67, 1: 37. 1964 (syn-typus LBL-L) *Bryoria lanestris* (Ach.) Brodo & Hawksworth, Opera Botanica 42: 88.1977 (pro parte).

Ontario, Cochrane District, Moosonee, *Picea mariana-Larix laricina* fen around open *Sphagnum* bog, NW of railway station, on *Larix laricina*, 23 July 1969 J. Fabiszewski. **British Columbia,** Mt Robson Prov. Park, at Yellowland Pass 1.5 miles West of Alberta Lord on Highway 5. *Picea* woodland with schistose rock outcrops. Elev. 3700 ft. 4 Sept. 1969 J. Fabiszewski.

Bryoria tenuis (Dahl) Brodo & Hawksworth

Quebec, on Rd to Lac Malbaie, Close to the River Jacques Cartier, 2 miles from Rd 54. 47°38'15" N, 71°12'30" W,



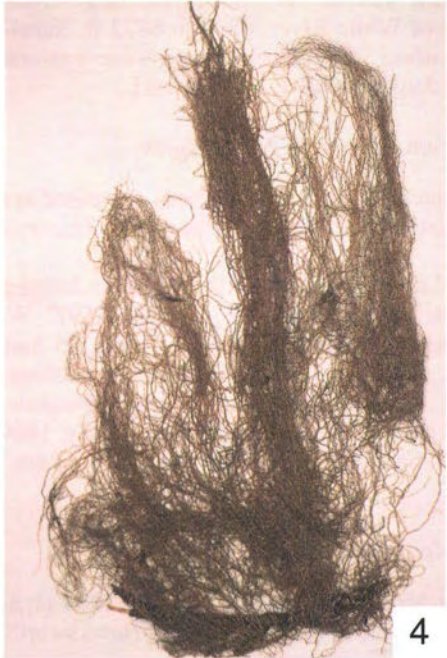
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Figs 1–6.
 Some new and rare taxa of *Bryoria*.
 1 – *Nadobryoria abbreviata* (Müll. Arg.) Common & Brodo; 2, 3 – *Bryoria ambigua* (Mot.) Bystr. & Fabiszewski; 4, 5 – *Br. fabiszewskiana* Bystr.; 6 – *Br. furcellata* (Fr.) Brodo & Hawksworth subsp. *furcellata*. Photos by Hanna Wójciak.



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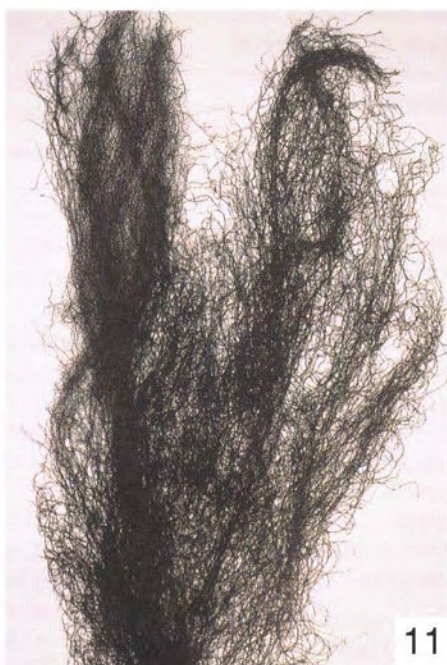
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Figs 7–12.Some new and rare taxa of *Bryoria*.

7 – *Br. furcellata* subsp. *hawksworthiana* Bystr. & Fabiszewski; 8 – *Br. implexa* (Hoffm.) Bystr. non Brodo & Hawksworth; 9 – *Br. nadvornikiana* (Gyel.) Brodo & Hawksworth; 10 – *Br. tortuosa* (Merr.) Brodo & Hawksworth; 11, 12 – *Br. trichodes* (Michx.) Brodo & Hawksworth subsp. *brodoana* Bystr. & Fabiszewski. Photos by Hanna Wójciak.

Elev. 2600 ft. *Picea mariana* and *Larix laricina* stand, 25 June 1970 J. Fabiszewski.

Bryoria tortuosa (Merr.) Brodo & Hawksworth

British Columbia, 17 miles S of Clear Water by highway 5, N of the Thomson River Valley. *Pseudotsuga-Populus-Betula* stand, ca 2000 ft. 3 Sept. 1969 J. Fabiszewski (Fig. 10). Washington, Price County: Crystal Mountain, Mount Raineir area 47°20' N, 121°30' W. Subalpine ridge overlooking glacial valley of White River, 6800 to 6872 ft. Subalpine ridge flora *Abies lasiocarpa-Tsuga mertensiana* timberline region. 30 August 1969 J. Fabiszewski.

Bryoria trichodes (Michx.) Brodo & Hawksworth

Subsp. *trichodes*

Thallus griseo-fuscus, irregulariter dichotome ramosus. Rami hic illinc paullo serpentino flexuosi, ramuli non evolutae, pseudocyphellae non evolutae. Medulla Pd + rubescens.

Thallus grey-olive, twigs serpentine like curved in places, entirely without lateral twigs, without pseudocyphellae. Medulla Pd + red.

Quebec, Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26, June 1970 J. Fabiszewski. **Ontario**, Thunder Bay District: 40.8 miles W of Marathon, 48°47' N, 86°53' W. Elev. ca. 1000 ft. *Abies balsamea-Betula papyrifera* stand by Highway, 17 near lake, 8 Sept. 1969 J. Fabiszewski. Cochrane District: Moosonee, 51°17' N, 80°37' W, 1.5 miles NW of the town along NE shores of deep stream. A transect from shore of the ridge of the stream-valley: *Alnus rugosa, Abies balsamea* and *Populus balsamifera* stands. 6 July 1969 J. Fabiszewski.

Subsp. *brodoana* Bystr. & Fabiszewski, nova subsp. (Nomen in honorem I.M. Brodo dedicatum)

Holotypus LBL-L. Locus classicus: **Quebec**, Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26 June 1970 J. Fabiszewski (Figs 11 and 12).

Thallus obscure-fuscus, filamentosus, pendulus, ca 20 cm longus. Rami pluries a basi regulariter dichotome ramosi, in parte inferiore et mediale 0.1-0.3 mm in diametro, regulariter sensim attenuescens, ad apices capillacei. Ramuli laterales non numerosi, patentes vel ± arcuato deflexi. Cortex teretes, hic illinc indistincte foveolatus. Pseudocyphellae numerosae. Soralia fissuriformia, soredia farinosa. cortex et medulla CaOCl₂, KOH+CaOCl₂, KOH et PFDA non reagens.

Thallus dark-brown, filamentous, pendent, up to 20 cm long. Twigs regularly dichotomously ramose from the base, in the lower and central part 0.1-0.3 mm in diameter, higher - gradually regularly attenuating, capillary at extremities. Cortex completely smooth, slightly foveolate in places, lateral twigs deflected or ± arcuate, unnumerous. Pseudocyphellae numerous, tiny fissured soredia, distinctly separated. Cortex and medulla do not stain from CaOCl₂, KOH+CaOCl₂, KOH and PFDA.

Quebec, Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26 June 1970 J. Fabiszewski.

Quebec, on Rd to Lac Malbaie, Close to the River Jacques Cartier, 2 miles from Rd 54. 47°38'15" N, 71°12'30" W,

Elev. 2600 ft. *Picea mariana* and *Larix laricina* Stand, 25 June 1970 J. Fabiszewski (cum *Usnea longissima* Ach.). Bog and fen 0.5 miles S Lac Barrette, about 1 mile W from Rd 54. 47°27'20" N, 71°14'30" W, J. Fabiszewski with M. Grandtner.

Ontario, Cochrane District: Moosonee, at the mouth of the Moose River NE of Moosonee. 51°21' N, 80°30' W. Along a NW-SE. Transect from shore over old "strand" lines, with *Picea glauca* and *Abies balsamea* on the ridges, *Alnus rugosa-Salix* ssp. in wet areas and finally *Larix laricina-Betula pumila* in the depressions. 4 July 1969 J. Fabiszewski. Moosonee, 51°17' N, 80°37' W, two miles of the town along a railway *Picea mariana-Larix laricina* fen and open *Sphagnum* bog, NW of railway station, 27 July 1969 and 1.5 miles NW of town along NE shores of deep stream: a transect from shore of the ridge of the stream-valley: *Alnus rugosa, Abies balsamea, Populus balsamifera* stands, 3 July 1969 J. Fabiszewski. Thunder Bay District: 40.8 miles W of Marathon, 48°47' N, 86°53' W. Elev. ca. 1000 ft. *Abies balsamea-Betula papyrifera* stand by highway 17 near lake, 8 Sept. 1969 J. Fabiszewski. **British Columbia**, 17 miles S of Clear Water by highway 5, N of the Thomson River Valley. *Pseudotsuga-Populus-Betula* stand, ca 2000 ft. 3 Sept. 1969 J. Fabiszewski.

Subsp. *canadensis* (Mot.) Bystr. & Fabiszewski, nova comb.

Alectoria canadensis Mot., Bryologist 67, 1: 35.1964 (syn-typus LBL-L), *Bryoria trichodes* (Mickx) Brodo & Hawksworth, Opera Botanica 42: 92. 1977 (pro parte).

Thallus in forma typica griseo-fuscus, pendulus, pluries a basi repetitio dichotome ramosus. Ramuli laterales non evolutae. Pseudocyphellae numerosae. Cortex KOH-, PFDA-medulla et soralia PFDA + aurantiaco.

Thallus brown-grey in the typical form, pendent or without lateral twigs, with very numerous pseudocyphellae. Cortex stains KOH-, PFDA-, medulla and soralia PFDA + orange.

Quebec, Bog to 0.5 mile E of Lac Joncas 47°15'30" W, *Picea mariana* stand and *Alnus rugosa* thicket, 26 June 1970 J. Fabiszewski.

Quebec, on Rd to Lac Malbaie, Close to the River Jacques Cartier, 2 miles from Rd 54. 47°38'15" N, 71°12'30" W, Elev. 2600 ft. *Picea mariana* and *Larix laricina* stand, 25 June 1970 J. Fabiszewski (cum *Usnea longissima* Ach.). Bog and fen 0.5 miles S Lac Barrette, about 1 mile W from Rd 54. 47°27'20" N, 71°14'30" W, J. Fabiszewski with M. Grandtner.

Ontario, Cochrane District: Moosonee, 51°17' N, 80°37' W, 1.5 miles NW of town along NE shores of deep stream: a transect from shore of the ridge of the stream-valley: *Alnus rugosa, Abies balsamea, Populus balsamifera* stands, 3 July 1969 J. Fabiszewski (*forma typica*). **British Columbia**, 17 miles S of Clear Water by Highway 5, N of the Thomson River Valley. *Pseudotsuga-Populus-Betula* stand, ca 2000 ft. 3 Sept. 1969 J. Fabiszewski. Washington, State Peninsula, Sept. 1969 J. Fabiszewski.

Subsp. *americana* (Mot.) Brodo & Hawksworth

Thallus in forma typica olivascente-fuscus, pendulus vel prostratus, juvenili ascendens, in parte basali nigratus. Rami teretes, nitidus, regulariter sensim attenuescens, ad apices capillacei, pluries a basi repetitio dichotome ramosi. Axillis inter ramos latis. Ramuli laterales numerosi, minores paten-

tes, majores \pm arcuato dependentes. *Pseudocyphellae* non evolutae. *Bryoria nadvornikiana similis*.

Thallus olive-brown in its typical form, pendent or dispersed, ascending when young, distinctly blackened in its basal part. Twigs cylindrical, shiny, repeatedly dichotomously ramose at the base, the angles between the twigs wide, lateral twigs numerous, the younger ones deflected, the older ones — arcuately pendent. Without pseudocyphellae. It is similar to *Br. nadvornikiana*. Specimens wrongly collected are hard to distinguish from *Br. nadvornikiana*.

Ontario, Cochrane District: Moosonee, 51°17' N, 80°37' W, two miles of the town along a railway *Picea mariana-Larix laricina* fen and open *Sphagnum* bog, NW of railway station, 27 July 1969 J. Fabiszewski. **British Columbia**, 17 miles S of Clear Water by Highway 5, N of the Thomson River Valley. *Pseudotsuga-Populus-Betula* stand, ca 2000 ft. 3 Sept. 1969 J. Fabiszewski.

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MATERIAŁY DO FLORY POROSTÓW PÓŁNOCNEJ AMERYKI

STRESZCZENIE

W latach 1969–1970 dr Jerzy Fabiszewski podczas pobytu w Ameryce Północnej zbierał materiały do pracy o tamtejszych torfowiskach i przy okazji zgromadził liczne gatunki porostów z rodziny Usneaceae. Kolekcję liczącą kilkaset okazów przekazał do Zakładu Systematyki Roślin UMCS w Lublinie. Wśród zgromadzonych taksonów są trzy nowe dla wiedzy: *Bryoria fabiszewskiana* Bystr., *Bryoria ambigua* (Mot.) Bystr. & Fabiszewski, *Bryoria tenerrima* (Mot.) Bystr. & Fabiszewski oraz trzy nowe podgatunki *Bryoria trichodes* subsp. *brodoana* Bystr. & Fabiszewski, *Bryoria furcellata* subsp. *hawksworthiana* Bystrek & Fabiszewski, *Bryoria trichodes* ssp. *canadensis* (Mot.) Bystr. & Fabiszewski. Materiały zielnikowe znajdują się w Zakładzie Systematyki Roślin (LBL-L).

SŁOWA KLUCZOWE: porosty, *Bryoria*, nowe taksony, Północna Ameryka.