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NEW CANADIAN MOSES.

Described by Dr. Nils C. Kindberg, Linköping, Sweden, 1889.

(Communicated by Prof. John Macoun, M.A., F.L.S., F.R.S.C.)

Diceranum rugosum, Kindb. N. sp.

Leaves very undulate, acute, from the middle dentate at the papillose borders; cells not rarely porose, the upper short, the others long and narrow, except the hyaline alar and the pale-yellow basal ones; costa narrow, subpercurrent, dentate at the back from the middle. Barren. Allied to D. Shraderi.—In damp woods near Halifax, Nova Scotia (June 21st, 1883). J. Macoun, Coll.

—Var. rugulosum, Kindb. N. v.

Differs in the leaves, being slightly undulate, subobtuse, canalicate; the alar cells pale brown, the costa less dentate. Capsule oblique, evidently furrowed in a dry state.—In the Big Swamp, Murray, Northumberland Co., Ont. (October 10th, 1878.) J. Macoun, Coll.

Diceranum Drummondii, Bland, v. trachyneuron, Kindb. N. v.

Stems shorter than type. Leaves smaller, narrower and looser, more densely and evidently serrate on the borders, subuliform-cuspidate; alar cells yellow; costa not excurrent, rough also below the middle and upwards.—Cedar swamps at the base of the Oak Hills, Hastings Co., Ont. (August, 24th, 1876.) J. Macoun, Coll.

Desmatodon cernuus, Bruch & Schimp. var. xanthopus, Kindb. N. var.

Leaves less chlorophyllous than the type, costa virescent. Capsule larger; teeth more united; pedicel yellow.—On the banks of Boggy Creek, Manitoba, where the “Carleton trail” crossed it (August 10th, 1872) John Macoun, Coll.

Encalypta rhabdocarpa, Schwager. var. leiomitra, Kindb. N. v.

Calytra smooth; peristomial teeth blunt; spores larger, about 0.05 mm.; costa vanishing at the apex of the leaves.—On rocks along the Clearwater River, Athabasca, Lat. 57° (July 11th, 1888.) J. M. Macoun, Coll.
Physcomitrium strangulatum, Kindb. N. sp.
Differs from *P. pyriforme* in the leaves being shorter, obovate-lingulate, more or less acuminated, often serrate below the middle; costa longer, subpercurrent; capsule (unripe) larger, constricted under the orifice; calyptra longer; lid without a beak; pedicel flexuous or curved.
—In a ditch, Port Dover, Ont. John Dearness, Coll.

Webera fontana, Kindb. N. sp.
Allied to *W. albicans*, but quite green, leaves not decurrent, more denticulate, at least to the middle. Barren.—In wet springy places at Canaan Forks, Queen's Co., New Brunswick (November, 1889). J. Moser, Coll.

Bryum pendulum, Schimp. × cylindricum, Kindb. N. Subsp.
Capsule narrow, cylindric-oblong; lid deplanate; spores small, scarcely 0.22 mm. long; flowers dioecious; stem-leaves ovate; costa red, short-excurrent.—On wet rocks, Kananaskis Falls, Rocky Mountains (June 23rd, 1886). J. Macoun, Coll.

Thelia compacta, Kindb N. sp.
Stems closely creeping. Tufts green, very dense and thick. Branches erect, terete, obtuse and unilateral. Leaves cochleariform, rotundate-obtuse and short-apiculate, very scabrous at the back, with simple incurved papilliferous ciliate; borders spinulose-dentate or fimbriate-ciliate; ciliate long, curved up and dentate; costa obsolete or very short. Perichetial leaves oblong-lanceolate, narrowly-acuminate, fimbriate. Capsule pale-brown, ovate-cylindrical; teeth subulate, short and broad, horizontally divaricate when moist, distantly articulate, dusky, the top article cleft; basilar membrane short, scarcely ½ the length of the teeth, without segments; operculum conic obtuse, not curved, ½ the length of the capsule; pedicel smooth scarcely 1 cm. long. Differs from *Thelia hirtella* in the longer branches, the larger and more pellucid leaves, the greater leaf-cells and the longer, thicker capsule, also in the peristome.
—Abundant on the stems of young maples in the central counties of Ontario. Fruiting abundantly in Seymour, Northumberland Co., and forming thick girdles about four feet from the ground. John Macoun, Coll.
Loskea nervosa, Myrin, var flagelliform, Kindb, N. var.
Stem furnished with numerous flagelliform branchlets; leaves small.—On trees in McKay’s woods near Ottawa (Oct. 24th, 1885). J. Macoun, Coll.

Thuidium lignicola, Kindb. N. sp.
Monœcious. Tufts yellowish or bright green. Stems simply pinnate with few rhizoids and short, scarcely ramose, paraphyllia; branches close, distichous, attenuate, flexuous or slightly recurved. Stems-leaves from the broad cordate base attenuate to a long, often curved, point, faintly striate, reflexed on the borders; branch-leaves shorter, acuminate; all denticulate from the middle upward and papillose at the back or on both sides; cells obscure and rounded; costa vanishing in or below the apex. Capsule cylindical, arcuate and light brown; teeth pale; ciliate long, perfect; annulus double; lid conical. Differs from T. Blandovii in the shorter articulations of the leaf-cells, the smaller capsule and the shorter paraphyllia.—On rotten logs along the base of the Porcupine Mountains, Manitoba (July 29th, 1881). John Macoun, Coll.

Cylindrothecium cladorrhizans (Hedw) Sulliv. Non Schimp.
This species differs from the European Cylindrothecium Schleicheri Bruch, & Schimp, principally in the easily detached annulus of the capsule (Demeter Revue Bryol, 1885, No. 6).—On rotten logs and on stones and roots of trees in woods; Ontario. Common at Ottawa.

Stem irregularly divided; branches simple and elongate. Leaves glossy, ovate, blunt or short-acute, striate, decurrent, indistinctly denticulate above or from the middle; cells dilatate, principally the lower and the uppermost, the alar and basilar finally orange-reddish, the alar rarely greater; costa short and simple.—On a horse trough at Canaan Forks, Queen’s Co., New Brunswick (October, 1889). J. Moser, Coll.

Brachythecium cyrtophyllum, Kindb. N. sp.
Habit of a small form of B. albicans. Plants cespitose, green and faintly glossy. Stems irregularly divided, not creeping; branchlets
filiform sub-obtuse. Leaves small, close, loosely appressed when dry, open-erect when moistened, ovate-acute or short acuminate, not sulcate or decurrent, serrulate at least above the middle; borders recurved below the middle; areolation loose; upper cells narrowly rhomboidal, inner sublinear; alar quadrate somewhat numerous, chlorophyllose; costa stout reaching to \( \frac{2}{3} \). Perigonal leaves ecostate. Dioecious.—On elm logs in thick woods, Brighton, Northumberland Co., Ontario (October 6th, 1888). J. Macoun, Coll.

Isothecium (?) Dawsonii, Kindb. N. sp.

Tufts soft, bright green, intricate. Stems slender, filiform, irregularly branching, sparingly radiculose; branches short, flexuous or incurved. Leaves small, spreading, loose or not crowded, ovate-oblong, cuspidate or filiform-acuminate, at the base slightly reflexed on the borders, denticulate above, pellucid but sometimes faintly papillose; most of the cells narrow-lanceolate, the basal and marginal quadrate-oblong; costa none or very short and simple. Capsule oblong, pale brown, not striate; lid obliquely short beaked; annulus large, pedicel smooth, bright red-yellow, \( \frac{1}{2} \) cm. long. Dioecious. Habit of Pylaisia velutina.—On the base of trees in woods, Jupiter River, Anticosti (August 26th, 1883). J. Macoun, Coll.

Rhyncostegium (?) aneuron, Kindb. N. sp.

Tufts dense, green and glossy. Leaves distichous, crowded and patent, flat, ovate-oblong, acute or short-acuminate, striate, entire or denticulate above the middle, decurrent; cells very long and narrow, the alar large, hyaline and subquadrate; costa none or obsolete. Capsule cylindric-obovate, horizontally curved; teeth yellow; pedicel smooth, 2 cm. long; lid unknown. Probably dioecious.—This species could possibly be referred to Plagiothecium. On dead wood in Dow’s Swamp, near Ottawa (October 17th, 1884). J. Macoun, Coll.

Amblystegium speciophyllum, Kindb. N. sp.

Plants loosely caespitose, dark green. Stems capillary, irregularly ramulose, not or sparingly radiculose. Leaves small, long-distant, spreading, subcordate or oval oblong, blunt or sub-acute, entire or denticulate, late; cells short; costa sub-percurrent, broad, sometimes very distinct.

*Amblystegium tenuifolium*, Kindb. N. sp.

Plants loosely coherent, green; stems capillary, irregularly ramulose. Leaves small, far apart, spreading, very narrow, ovate-lanceolate acute, often denticulate; cells dilated but elongate; costa more or less distinct. Barren. Habit of *Amblystegium Sprucei*—On the borders of a pond near London, Ont. (June, 1889). John Dearness, Coll.

*Hypnum* (Harpidium) Moseri, Kindb. N. sp.

Differing from *H. uncinatum* in the leaves not being striate, but sometimes recurved at the base; costa faint, often failing; differing from all other *Harpidium* in the stem being densely radiculose.—On the base and trunks of poplar trees in woods at Canaan Forks, Queen’s Co., New Brunswick (December 30th, 1889). J. Moser, Coll.