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SOME CLADONIAE FROM THE VALLEY OF THE CAP CHAT RIVER AND VICINITY, GASPÉ PENINSULA, QUEBEC

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(Plate 199)

THE following list includes species of lichens of the genus *Cladonia*, collected by the writer during July and August, 1928, in the valley of the Cap Chat River and on Mt. Logan, a nearby peak of the Shickshock Mts., in Matane County, Province of Quebec, near the north shore of the Gaspé Peninsula. Although many of the species mentioned will be found in the list of lichens of the Gaspé Peninsula published by Dr. C. W. Dodge,¹ they have not been omitted, as the present list supplies new forms and stations.

SPECIES COLLECTED (those previously listed by Dr. Dodge indicated by an asterisk):

*CLADONIA RANGIFERINA (L.) Web., valley of the Cap Chat River; summit of Mt. Logan.

*C. IMPEXA Harm. var. LAXIUSCULA Del., valley of the Cap Chat River.

C. MITIS Sandst. Forma PROSTRATA Sandst., valley of the Cap Chat River; summit of Mt. Logan.

*C. BACILLARIS (Ach.) Nyl., valley of the Cap Chat River.

*C. DEFORMIS Hoffm., valley of the Cap Chat River; summit of Mt. Logan. Forma EXTENSA (Hoffm.) Wainio, summit of Mt. Logan. Forma CRENULATA Ach., valley of the Cap Chat River.

*C. CRISTATELLA Tuck. Forma BEAUVOISII (Del.) Wainio, valley of the Cap Chat River; summit of Mt. Logan. Forma VESTITA Tuck., valley of the Cap Chat River. Forma OCHROCARPA Tuck., valley of Cap Chat River.

¹ Dodge, RHODORA, Vol. 28 (1926) pp. 156-161, 205-207, 225-232.

**C. COCCIFERA* (L.) Zopf., summit of Mt. Logan; valley of the Cap Chat River. Var. *STEMMATINA* Ach., summit of Mt. Logan.

**C. PLEUROTA* (Floerke) Schaer., summit of Mt. Logan; valley of the Cap Chat River. Mod. *DECORATA* Wainio, summit of Mt. Logan.

**C. DIGITATA* Schaer., valley of the Cap Chat River. Var. *GLABRATA* (Del.) Wainio, valley of the Cap Chat River.

**C. UNCIALIS* (L.) Web., summit of Mt. Logan.

C. AMAUROCRAEA (Floerke) Schaer., summit of Mt. Logan. Forma *OXYCERAS* (Ach.) Wainio, summit of Mt. Logan.

C. FURCATA (Huds.) Schrad., summit of Mt. Logan. Var. *RACEMOSA* (Hoffm.) Floerke, summit of Mt. Logan.

**C. SCABRIUSCULA* (Del.) Leight. Forma *SURRECTA* Floerke, valley of the Cap Chat River.

C. MULTIFORMIS Merrill, summit of Mt. Logan.

**C. CRISPATA* (Ach.) Flot., summit of Mt. Logan. Forma *DILATERATA* (Schaer.) Malbr., valley of the Cap Chat River. Forma *VIRGATA* (Ach.) Wainio, valley of the Cap Chat River. Forma *KAIRAMOI* Wainio, valley of the Cap Chat River.

**C. SQUAMOSA* (Scop.) Hoffm., valley of the Cap Chat River; summit of Mt. Logan. Forma *DENTICOLLIS* (Hoffm.) Floerke, summit of Mt. Logan.

**C. CENOTEA* (Ach.) Schaer. var. *CROSSOTA* (Ach.) Nyl., summit of Mt. Logan.

C. INVISA Robbins, n. sp., valley of the Cap Chat River.

C. CARIOSIA (Ach.) Spreng. Forma *CRIBROSA* (Wallr.) Wainio, valley of the Cap Chat River. Forma *CORTICATA* Wainio, valley of the Cap Chat River.

C. ACUMINATA (Ach.) Wainio, valley of the Cap Chat River; summit of Mt. Logan.

**C. GRACILIS* (L.) Willd. var. *DILATATA* (Hoffm.) Wainio, valley of the Cap Chat River. Forma *ANTHOCEPHALA* Sandst., valley of the Cap Chat River. Forma *MESOTHETA* Wallr., valley of the Cap Chat River. Var. *CHORDALIS* (Floerke) Schaer., valley of the Cap Chat River. Var. *CHORDALIS-ASPERSA* Floerke, valley of the Cap Chat River.

**C. CORNUTA* (L.) Schaer., summit of Mt. Logan.

**C. VERTICILLATA* (Hoffm.) Schaer., valley of the Cap Chat River. Var. *EVOLUTA* (Th.) Fr., valley of the Cap Chat River. Forma *PHYLLOPHORA* (Ehrh.) Flot., valley of the Cap Chat River.

**C. DEGENERANS* (Floerke) Spreng. Forma *PHYLLOPHORA* (Ehrh.) Flot., valley of the Cap Chat River.

**C. CHLOROPHAEA* (Floerke) Spreng., valley of the Cap Chat River; summit of Mt. Logan.

C. conista (Ach.) Robbins, n. comb.,¹ valley of the Cap Chat River.

¹ *Cenomyce fimbriata* β. *conista* Ach. Syn. Lich. 257. 1814. *Cladonia fimbriata* f. *conista* Nyl. Addit. Lich. Boliv. 370. 1862.

**C. FIMBRIATA* (L.) Fr. Forma *SIMPLEX* (Weis.) Flot., valley of the Cap Chat River; summit of Mt. Logan.

C. NEMOXYNA (Ach.) Zopf., valley of the Cap Chat River; summit of Mt. Logan.

**C. CONIOCRAEA* (Floerke) Sandst., valley of the Cap Chat River; summit Mt. Logan. Forma *CERATODES* (Flk.) Wainio, valley of the Cap Chat River. Forma *TRUNCATA* (Flk.) Wainio, valley of the Cap Chat River. Forma *PYCNOTHELIZA* (Nyl.) Wainio, valley of the Cap Chat River.

**C. CORNUTORADIATA* (Coem.) Wainio, valley Cap Chat River. Forma *SUBULATA* (L.) Wainio, valley of the Cap Chat River.

C. BORBONICA (Del.) Nyl., valley of the Cap Chat River.

The bulk of the foregoing species need but little comment, being, for the most part, well known inhabitants of the colder or temperate regions of the British Isles, Europe, Siberia, Greenland, Labrador, Canada, and, in some cases, South America and Australia—nearly or quite cosmopolitan. An exception is the well known North American endemic, *C. cristatella* Tuck. A few, however, deserve further mention.

A hitherto unknown form, found by C. A. Robbins in the material collected, was named by him *C. invisa*. The description is as follows.

*CLADONIA invis*a,¹ Robbins, sp. nov., primary squamules small to medium size, thickish, rounded, becoming more or less lobate-divided, glaucescent above, white beneath, KOH+; podetia stout, short—5 mm. tall (taller?), corticate, usually naked and semipellucid above, divided into short obtuse branches, always terminated by comparatively large brownish or darker apothecia KOH+. Suggestive of *C. caespiticia* (without caespitose habit, podetia stouter, better developed, with thicker and more rounded squamules), or a dwarf *C. cariosa* (without characteristic reaction). TYPE growing with *C. bacillaris* (Ach.) Nyl. from base of tree, valley of the Cap Chat River, Matane County, QUEBEC.

This same locality yielded also *Cladonia digitata* var. *glabrata* (Del.) Wainio (FIG. 2) a species rare in both Europe and America, collected by Wainio in² Finland and also found in France³. *Cladonia acuminata* (Ach.) Nyl. (FIG. 3) was discovered growing in an extensive colony (twenty or more square feet) with other lichens, as *Stereocaulon tomentosum* Fr. and a species of moss, *Rhacomitrium canescens* (Timm.) Brid. The colony occupied part of a gravelly beach obviously

¹ Deposited in the Farlow Herbarium, Harvard University.

² Wainio, E. A., *Monographia Cladoniarum Universalis*. Helsingfors, Vol. I, p. 133.

³ Found also in Alaska by L. J. Palmer (Herb. G. K. Merrill).

flooded at times of high water. Wainio¹ gives the range of this lichen as follows, stating that it is imperfectly understood: Finland, Russian Lapland, mountains of Scotland, and Ireland, Switzerland, Tirol, Siberia, Port Clarence, on Behring Strait, and Kerguelen Island.² It is clearly an inhabitant of subarctic, subantarctic, alpine and subalpine regions.

Among other species found in the Cap Chat Valley, *Cladonia borbonica* (Del.) Nyl. and *Cladonia conista* (Ach.) Robbins deserve mention. Wainio³ gives the distribution of the former as Australia, Java, and the Islands of Bourbon (Reunion), Mauritius and Madagascar, with stations at Orizaba, Mexico, Cuba, Dominica, St. Vincent, Minas Geraes, Brazil. It is found also in Costa Rica, Florida, Alabama, and Vermont with a station in the Hawaiian Islands.⁴

On the summit of Mt. Logan a collection was made of a single podetium (FIG. 1) quite unique in conformation, and, so far as known, not duplicated. The description is briefly as follows:

Primary thallus wanting; podetium unbranched, 2.3 cm. tall, actual diameter 2 mm., but increased to 8 mm. by a thick growth of large digitate squamules which completely envelope it; abruptly scyphiform at the summit, cup 1.5 cm. in diameter, squamulose on both outer and inner surfaces; nearly sterile but with indications of young red apothecia on periphery, KOH+.

This specimen was classified by Robbins as a foliose and aberrant form of *C. pleurota* (Floerk.) Schaer.

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FARLOW HERBARIUM,
Harvard University.

EXPLANATION OF PLATE 199

FIG. 1, foliose form of *CLADONIA PLEUROTA* from summit of Mt. Logan, Quebec; FIG. 2, *C. DIGITATA*, var. *GLABRATA* from Matane County, Quebec; FIG. 3, *C. ACUMINATA* from Matane County, Quebec.

¹ Ibid., Vol. 2, p. 77.

² See Hooker, J. D., *Botany of Kerguelen Island*. Royal Soc. London. Phil. Trans. Vol. 168 (extra vol.). 1897. pp. 46-52.

³ Wainio, E. A. *Mono. Clad. Univ.*, Vol. 2, p. 344.

⁴ Stations recorded from specimens in Farlow Herbarium, Harvard University.