

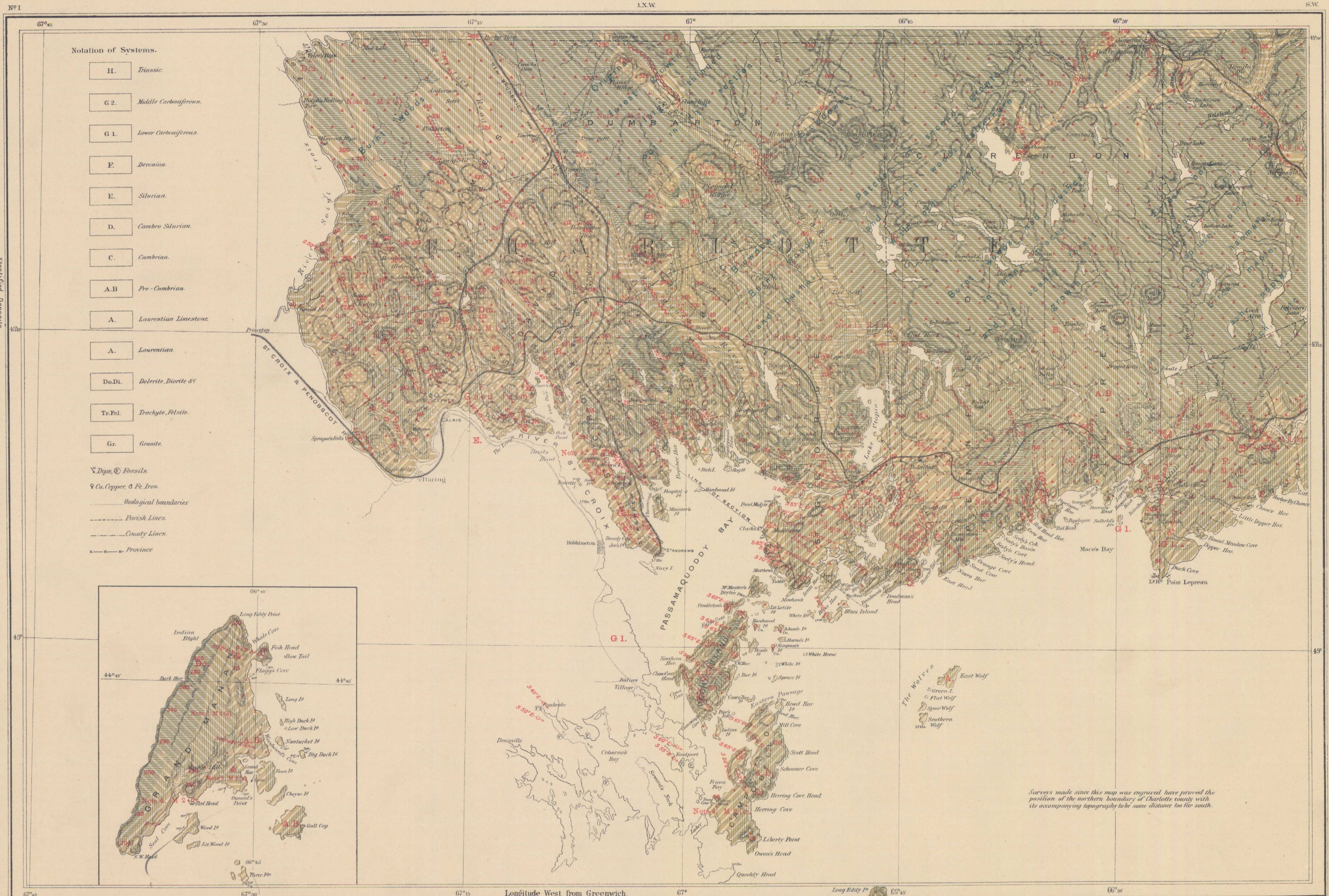
Geological Survey Department,

Canada.

HONOURABLE EDGAR DEWONEY, MINISTER.
ALFRED R. CSELWYN, C.M.G., LL.D., F.R.S., &c. DIRECTOR.
1890.

SURFACE GEOLOGY.

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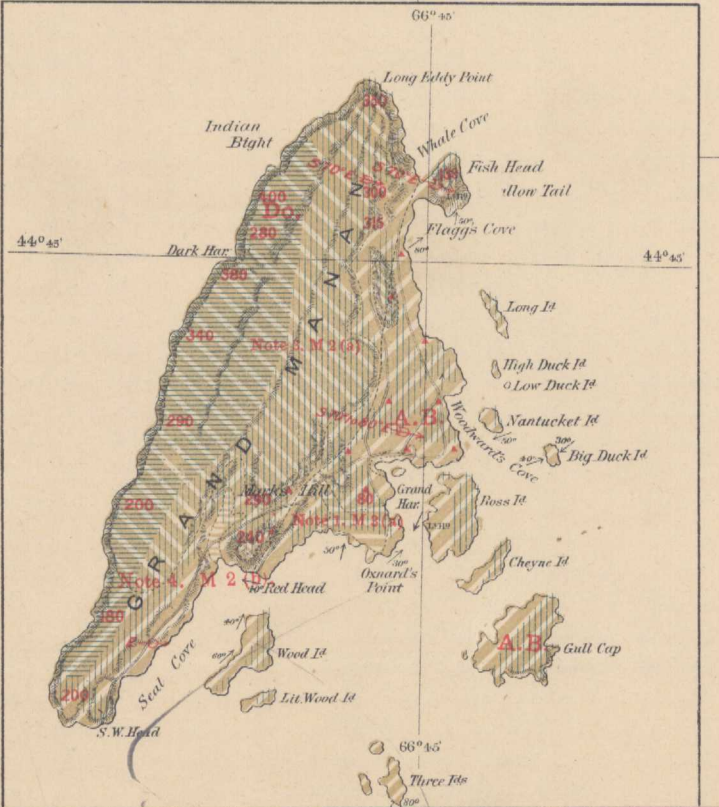
Notation and Geological Colouring.

- M 3 (a) Fresh Water
- M 3 (b) Marine
- M 2 (a) Non-fossiliferous inland deposits
- M 2 (b) Rolling Surface
- M 2 (c) Saxicava sand and Leda clay (Marine fossils)
- M 2 (d) Rolling Surface
- M 1 Boulder Clay
- M 1 Rolling Surface

Notation of Systems.

- H. Triassic
- G. 2. Middle Carboniferous
- G. 1. Lower Carboniferous
- F. Devonian
- E. Silurian
- D. Cambro-Silurian
- C. Cambrian
- A. B. Pre-Cambrian
- A. Laurentian Limestone
- A. Laurentian
- Do. Dl. Dolerite, Diorite &c
- Tr. Pol. Trachyte, Felsite
- Gr. Granite

- Dips, & Fossils
- Cu, Copper, & Fe, Iron
- Geological boundaries
- Parish Lines
- County Lines
- Province
- Boulders
- Gravel
- Kames
- Roches moutonnées
- Glacial Striae
- Old growth
- Recent growth



Compiled and drawn by R. W. Ellis, assisted by Wallace Broad, from Plans made by the Admiralty, Crown Lands and Geological Surveys. Hill features added and Shore Line Railways corrected by Robert Chalmers 1890.

The Burial Lithographic Co. Montreal.

PROVINCE OF NEW BRUNSWICK

Nat. Scale: 1:253,440
Scale 4 miles to one inch.
1 0 5 10 15 Miles
Dips, & Fe, Iron, & Cu, Copper * Mn, Manganese. Ag, Pb, Argentiferous Galena. Blue cross-bars, Gypsum, Fossils.

NOTE 1. M 3 (a)

The formations on this sheet, thus classified, consist of peat bogs and river-flats. The former are common near the coast and also in the unglaciated districts of the interior. The larger peat bogs occur on the upper part of the Digdeguash River; at Meadow Brook station, N.B. railway; north of Lynnfield; at the head of Little Popelogan River, etc. Smaller bogs are numerous everywhere in the district. Great quantities of cranberries (*Vaccinium macrocarpon*) are produced on them year after year, and they have thus become a valuable source of revenue to the owners. Except in this way, however, they have not yet been utilized in Charlotte county.

River-flats (intervals) of varied extent and fertility are met with along the chief rivers. The Magaguadavic has intervals between St. George and Upper Falls and above that. The Digdeguash and St. Croix have a similar deposits along their valleys. At Dyer's Crossing on the former river and along its valley to the north these alluviums form good soils.

NOTE 2. M 3 (b)

Salt marshes occur along the Musquash River at the eastern border of the sheet, and narrow ones were observed in other localities. Those at Musquash are dyked and yield great quantities of hay; but they are not utilized to the best advantage.

NOTE 3. M 2 (a)

The inland stratified deposits, that is, those occurring above the 230 foot contour line, are complicated under this head. Except in river valleys, where they are usually terraced, they exhibit a varied surface, the agricultural character of which is, generally speaking, inferior to that of the lower grounds. The materials composing them are frequently coarse and gritty, and the surface stony or boulder-strewed. Nevertheless, considerable areas are cleared and under cultivation, and along river valleys the soil is often of good quality. Swamps are, however, common among the rocky bouses and ledges in which peat bogs often lie.

NOTE 4. M 2 (b)

The areas occupied by deposits of this class, which lie below the 230 foot contour line, also present a surface of much unevenness, considerable portions of it being broken, hilly and boulder-strewed. The extensive gravel terraces of Bonfield, (see report p. 63 N.), also those to the east between Popelogan and New rivers, exemplify the character of the higher portions of the marine beds of this class. The district between Magaguadavic and Digdeguash rivers likewise partakes largely of a similar gravelly, stony character wherever it lies below the 230 foot level. But near the St. Croix the surface becomes rolling, and clayey and loamy deposits are more frequent. Good farms were observed in the vicinity of St. Stephen, Milltown, Oak Bay, St. Andrews, etc.

NOTE 5. M 1

Boulder-clay was observed on most of the so-called ridges north and east of St. Stephen and still farther eastward between the Digdeguash and Magaguadavic rivers and towards South Oromosto Lake. In these localities it assumes the form of wide rolling hills, the material usually consisting of compact clay over which numerous boulders are scattered. When cleared of stones these hills are found to be covered with good soil. In the districts referred to they are nearly all under cultivation and comprise some excellent farms. Boulder-clay doubtless caps many of the hills and ridges in those portions of the area still under forest, although from the nature of the country this could not be ascertained.

The elevations noted on this sheet are mostly from aneroid observations based on the levels of the Shore Line and New Brunswick railways, the datum line being mean tide level of the Bay of Fundy. The barometers were checked by those of the metrological stations at St. John and St. Andrews as often as possible. The courses of striae are, in all cases, referred to the true meridian.

Surveys made since this map was engraved have proved the position of the northern boundary of Charlotte county with its accompanying topography to be some distance too far south.

Illustrative Reports by Messrs. Bailey, Matthew & Ellis, 1871-79. Surface Geology by Robert Chalmers Part N. Annual Report, Vol. IV, 1888-89. Mineral Occurrences to 1890 by E. D. Ingham, M.E.

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