

Falls in Fitzroy, 350'; at Dulham Mills, 289'; in the counties of Renfrew, Lanark, Carlton, and Leeds, 425'; east of Montreal, near Upton Station, 257'; farther east, on the river Gouffre, near Murray Bay, 130' and 360'; on Prince Edward Island, *Tellina Grænlandica*, at a height of 50'. At the Straits of Belle Isle, Labrador, the deposits, on either side, are about 400' above the sea; at Chateau Bay, 500', probably 800' in some parts. (Packard); and at Nachvak, 1500' (R. Bell), where there are shell-beds. In Lake Champlain, the shell-beds extend to its southern extremity.

The *Leda* clays of Dawson afford species living now at depths less than 100'; the lower *Leda* clays containing *Tellina Grænlandica* and *Leda arctica*; and the upper, species that are now living in St. Lawrence Bay. Of the higher sand-beds, *Saxicava rugosa* is the common species.

The more common shells of the Montreal beds are the following (Dawson): *Saxicava arctica*, *Mya truncata*, *M. arenaria*, *Macoma fragilis*, *M. sabulosa*, *Astarte Laurentiana*, *Mytilus edulis*, *Natica clausa*, *Yoldia glacialis*, *Trophon clathratum*, *Buccinum Grænlandicum*.

Among the species at Beauport, there are the following: *Lunatia Grænlandica*, *L. heros*, *Turritella erosa*, *Scalaria Grænlandica*, *Litorina palliata*, *Serripes Grænlandicus*, *Cardium Islandicum*, *Pecten Islandicus*, *Rhynchonella psittacea*, and many others. All are cold-water species, so that the fauna is more Arctic in character than that of Montreal, corresponding with the fact that Montreal is 150 miles northwest of Beauport (Dawson).

The *Capelin* (*Mallotus villosus* Cuv., a common fish on the Labrador coast) has been found fossil on the Chaudière Lake in Canada, 183' above Lake St. Peter; on the Madawaska, 206'; at Fort Colonge Lake, 365'.

On the Bay of Fundy the shell-beds have a height of 200–225', and on the Bay of Chaleurs, 200'. The beds descend below the sea level. The *Leda* clays of the latter region contain *Leda minuta*, *L. pernula*, *Mya arenaria*, *M. truncata*, *Mytilus edulis*, *Nucula tenuis*, *Saxicava rugosa* (most common), *Macoma calcarea*, *Yoldia arctica* (*Leda truncata*), *Buccinum undatum*, *Margarita striata*, *Natica clausa*, *Serripes Grænlandicus* (abundant), and other species (Chalmers, 1885). The *Saxicava* sand in the Bay of Fundy contains *Mya arenaria* and *Macoma fusca*; but shells are rare.

On the coast of Labrador, the elevated Champlain beds contain mostly the same species, both those of the *Leda* clays, and the overlying beds. Among the species less abundant farther south, or not at all, are *Cyclocardia borealis* Con., *Astarte Banksii*, *Margarita varicosa*, *Turritella reticulata*, *T. erosa*, *Aporrhais occidentalis*, *Admete viridula*, *Bela exarata*, *B. harpularia* Adams, *B. robusta* Pack., *B. turricula*, *Fusus tornatus*, *F. Labradorensis* Pack., *Buccinum undatum*. (Packard.)

On Grinnell Land, in the Arctic seas, shell-beds resting on Miocene have an elevation of 1000', and contain the usual cold-water species, *Mya truncata*, *Saxicava rugosa*, *Cardium Islandicum*, *Astarte borealis*, *Pecten Grænlandicus*, etc. (Feilden, 1877.)

The paper on the Lake Champlain region, with a map by S. P. Baldwin, is contained in the *Amer. Geol.*, xiii., 1894. Baron de Geer (*Proc. B. N. H. Soc.*, xxv., 1892, *Amer. Geol.*, xi., 1893) gives 658' for the marine limit at St. Albans; but Baldwin concludes that the terrace at this level was that of a glacial lake.

3. *Amount of subsidence over the Western Continental border.*—In the region of Mount St. Elias, according to Russell, deposits of moraine material 4000 to 5000 feet thick occur in the Chaix Hills; and the cliffs of Pinnacle Pass, at the same height, contain shells of the Champlain species *Mya arenaria*, *Mytilus edulis*, *Leda minuta*, *Cardium Islandicum*, *Yoldia limatula*, *Thracia curta*, and others. B. Willis has reported that marine beds are found at a