
**Inferences on glacial flow from till clast dispersal,
Coldstream area, New Brunswick**

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Dispersal patterns for till clasts from the Coldstream map area (NTS 21 J/06), New Brunswick, are compared to source outcrops and used to confirm main ice-flow directions across the 1070 km² area. Seven major lithologies are identified for clasts collected at 2 km intervals from 274 sample sites. These results demonstrate that glacial transport was mainly southward and southeastward during the last major glaciation of the area, comparable to the few striae known from the map area.

In general, till clasts were derived from local bedrock sources. The lengths of dispersal trains vary from 1 to 10 km. Sedimentary clasts form dispersal trains that are limited to 1 to 4 km in length extending southeastward of their source outcrop. Dispersal trains for granitic clasts extend over distances of 10 km in length southward and southeastward. Small bulls eye dispersal patterns occur for some resistant lithologies in areas devoid of that rock type. These anomalous occurrences may be due to previously unknown outcrops of that rock type, or derivation from underlying conglomerate units.

Generally the size of the dispersal train is larger for resistant lithologies and shorter for less resistant rock types. This suggests that glaciation was likely a highly erosive and dynamic event throughout much of the study area. However, the local preservation of older unconsolidated deposits indicates that glacial erosion was not ubiquitous, but rather variable and selective.