

**METAMORPHIC ROCKS IN VERMONT --- FIELD TRIP**  
GL 201 Bedrock Geology of Vermont

*Stops*

1. Moretown Formation in long road-cut on U.S. 2, a few miles west of Montpelier. Find three rock types; describe and sketch on handout.
2. Stowe Formation, greenstone road-cut on VT 100, 4.5 miles south of Middlesex
3. Stowe/Ottawquechee Formation, Verde Antique quarry, north of Rochester
4. Mt. Holly Complex (Precambrian basement) in Brandon Gap, on VT 73. Note augen gneiss and boudinage.

***Writeup***

*Text*

Introduction:

the purpose is to compare different degrees of metamorphism in some Vermont rocks, and to discuss possible protoliths. Give locations of sites visited.

Data:

descriptions of each of the rocks; note color, texture, mineralogy, and structural features (with appropriate sketches). Note age and metamorphic grade of rocks at each location.

Interpretations:

- (i) meaning of different metamorphic character in the outcrops (low, medium or high grade, degree of deformation, tectonic environments of metamorphism)
- (ii) protoliths of the metamorphic rocks, environments of formation of protoliths

*Illustrations*

- general geologic map of Vermont
- road-cut, US route 2, stop 1
- sketches of structural features seen in outcrop at stops 2 & 4 (if visited); label for orientation (up, north) and scale.
- ACF diagram showing mineral assemblages for stops 2 and 3.