

GEOLOGIC AGE		AREA	Upper Missisquoi Valley and vicinity, Vermont (this report)	Hyde Park quadrangle, Vermont (Albee, 1957)	Memphremagog quadrangle and southeastern portion of the Irasburg quadrangle, Vermont (Doll, 1951)	Southwestern part of the eastern townships of Quebec (Cooke, 1950, 1951; Cady, in press; Cady and Chidester, 1957)	Mansonville, Quebec (Ambrose, 1942)	Lake Memphremagog area, Quebec (Clark, 1934, 1936)	
PERMIAN	Late(?)	Lamprophyre	Lamprophyre	(Mafic dike, unreported)	Camptonite dikes	Alkalic dikes	Dikes of Monteregean affinities		
DEVONIAN	Middle or Late	Eltey Mountain granite		Granite platons, sills, and dikes; pegmatites	Granites	Granite (reported)	Stanstead granite		
	Strong folding								
SILURIAN	Early	(Not in map area, but nearby to east in conformable succession)	(Not in map area, but nearby to east in conformable succession)	Westmore formation <sup>1</sup>	Glenbrooke group	Limestone	Quartzite and slate	(West) Sargent Bay limestone	(East) Tomifobia slates and limestones <sup>5</sup>
	Late(?)			Barton River formation <sup>2</sup>			St. Francis group		
	Middle	Northfield slate	Ayers Cliff formation <sup>3,4</sup>	(Covered)		Shale, limestone, conglomerate		Glenbrooke shale	(Covered)
	Early	Shaw Mountain formation	Northfield slate <sup>4</sup>				Argillite	Peasley Pond sandstone and conglomerate	
Very gentle folding or warping									
ORDOVICIAN	Late	Metagabbro	(Metagabbro, unreported)	Mafic intrusive rocks of Bolton igneous group and reported associated granites	Quartz diorite (reported) Gabbro	Quartz diorite (reported) Gabbro	Metagabbro <sup>6</sup>		
		Ultramafic rocks	Serpentinite, talc-carbonate rock, and steatite	(Not in map area but nearby to west)	Peridotite (and pyroxenite?)	Serpentine (also peridotite and dunite)	Metaperidotite <sup>6</sup>		
	Middle	Coburn Hill volcanic mbr. Moretown formation	Moretown formation	Greenstone Bolton igneous group	Bolton group	Slate	Metabasalt <sup>6</sup>		
	Early	Umbrella Hill formation Greenstone Carbonaceous	Umbrella Hill formation	Cram Hill formation	Beauceville group <sup>7</sup>	Volcanic rocks	Magog slates		
CAMBRIAN	Late(?)	Stowe formation	Stowe formation	Cgl		some quartzite	SW Mansonville slates	NE Bunker slates (Not exposed)	
	Middle	Ottauquechee formation	Ottauquechee formation			Quartzite, some slate			
	Early	Jay Peak formation Belvidere Mtn amphibolite Amphibolite	Camels Hump group	(Not in map area, but nearby to west, where conformably beneath)	Caldwell group	Sutton group	Sutton schists		
	CAMBRIAN(?)	Hazens Notch formation (West) Amphibolite							
Strong folding									
PRECAMBRIAN	(?)	Exposed beneath the Camels Hump group in Lincoln township, west-central Vermont, not exposed north of Lincoln							

Note: Stratigraphic reassignments of formations listed under author's references are based on the present authors' interpretations; "reported" means the authors believe presence of unit is doubtful; "unreported" means authors believe unit is present though not noted in the published reference.

<sup>1</sup> Westmore formation is the equivalent of the Gile Mountain formation of central and southern Vermont.

<sup>2</sup> Barton River formation is at least in part synonymous with the Waits River formation of central and southern Vermont.

<sup>3</sup> Ayers Cliff formation is questionably synonymous with the lower part of the Waits River formation.

<sup>4</sup> Shaw Mountain formation, Northfield slate, and Ayers Cliff formation were originally assigned by Doll to the Ordovician; he now considers them of post-Ordovician age (oral communication, 1959).

<sup>5</sup> Tomifobia slates and limestones were assigned by Clark (and by others) to the Ordovician and were considered equivalent to the Magog slates.

<sup>6</sup> Assigned by Clark to the "Bolton igneous series" of Late Ordovician or post-Ordovician age.

<sup>7</sup> Bolton group was assigned by Cooke to the "Devonian or later"; he considered it to overlie the Glenbrooke group, which contains Devonian fossils.

## CORRELATION OF THE ROCK FORMATIONS OF NORTH-CENTRAL VERMONT AND ADJACENT QUEBEC