Mt. Crescent Quadrangle, New Hampshire - Bedrock Geology

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INTRODUCTION

The bedrock geology of the Mt. Crescent (formerly Mount Noyes) area, MT 7.5’ quadrangle has been compiled at a scale of 1:24,000 during the Spring of 2017 and 2018. The work was done in cooperation with Bates College Department of Geology and the New Hampshire Geological Survey and supported, in part, by the United States Geological Survey’s StateMap program. The latter is a joint program of the New Hampshire Geological Survey and the U.S. Geological Survey with the purpose of producing geologic maps in support of the education and research programs of the participating universities and in support of the state geology program of the New Hampshire Geological Survey. Financed support was provided by the American Geological Institute through the cooperation program of the American Geological Institute and the American Geophysical Union. The project was under the overall supervision of Frederick H. Chambers, Jr., State Geologist of New Hampshire.

The map data sheet was prepared under the direction of J. Dykstra Eusden, Jr., Thore K. Merrill, and Kurt A. Niiler. These authors have worked on the Mt. Crescent project during the Fall of 2016, the Spring of 2017, and prior to that in the Spring of 2017. The work was done in cooperation with the U.S. Geological Survey’s StateMap Program. The quadrangle lies along the eastern edge of the Bronson Hill Belt and is dominated by two principal rock units, 1) Ordovician, is much younger at 417.0 ± 15 Ma. 2) Late Ordovician weakly to non-foliated coarse and fine syenite (Ocs and Oms); 3) a variety of gray (Oobg) and a regional compilation that includes the area was completed for the New Hampshire Bedrock geologic map (Lyons et al. 1997). Bates geology majors Kurt Niiler (~18) and later sampled for zircons using the fission-track technique technique. Overall the structures support a Devonian Acadian or Neoacadian timing of deformation for the dome with subsequent shearing, followed by Jurassic and Taconian age. The map was done with the aid of the National Center for Geographic Information and Analysis, University of Maine, Orono, Maine. This project was supported, in part, by the American Geological Institute through the cooperation program of the American Geological Institute and the American Geophysical Union. The project was under the overall supervision of Frederick H. Chambers, Jr., State Geologist of New Hampshire.

BEDROCK GEOLOGY OF THE MT. CRESCENT, NH 7.5’ QUADRANGLE

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