

Old Lyme Rodgers Bedrock Compilation Sheet (paper)

Map

NOTICE !

Bedrock quadrangle 1:24,000 scale compilation sheets for the Bedrock Geological Map of Connecticut, John Rodgers, 1985, Connecticut Geological and Natural History Survey, Department of Environmental Protection, Hartford, Connecticut, in Cooperation with the U.S. Geological Survey, 1:125,000 scale, 2 sheets. [minimum 116 paper quad compilations with mylar overlays constituting the master file set for geologic lines and units compiled to the State map, some quads have multiple sheets depicting iterations of mapping]. Compilations drafted by Nancy Davis, Craig Dietsch, and Nat Gibbons under the direction of John Rodgers.

Geologic unit designation table translates earlier map unit nomenclature to the units ultimately used in the State publication.

This map set contains unpublished maps, cross-sections, and related information archived by the State Geological and Natural History Survey of Connecticut as part of the Survey Library Collection.

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EXPLANATION

- Younger Granites
 - h: Indicates location of dikes of fine-grained granite (Westerly type).
 - (ps): Coarse-grained pink granite permatite consisting of quartz, oligoclase, microcline (partly ingraphic intergrowth with quartz), and biotite. Black Hall-type containing large biotite crystals is present in nearly all bedrock exposures in (ps) in the Lyme dome so it is not mapped separately.
- Hebron Formation
 - Greenish gray calc-silicate gneiss
- Brimfield Formation¹
 - Obm: Rust-stained myrmecitic biotite schist containing abundant garnet and/or sillimanite. Minor amphibole present.
 - Otm: Gray to rust-stained migmatitic biotite schist containing abundant garnet and/or sillimanite.
 - Otg: Light-gray biotite quartz-feldspar gneiss containing numerous thin layers of amphibole.
 - Otc: Greenish gray calc-silicate quartz-biotite gneiss.
- Tatnic Hill Formation¹
 - Ot: Undifferentiated Tatnic Hill includes all of the following units mapped separately east of the Connecticut River.
 - Otm: Gray to rust-stained migmatitic biotite schist containing abundant garnet and/or sillimanite.
 - Otg: Light-gray biotite quartz-feldspar gneiss containing numerous thin layers of amphibole.
 - Otc: Greenish gray calc-silicate quartz-biotite gneiss.
- Monson Gneiss
 - Om: Light to dark-gray, medium-grained, plagioclase-quartz-biotite-hornblende gneiss with layers of greenish-black amphibole and pink or white alaskite.
- New London Gneiss
 - nm: Medium-grained equigranular quartz-plagioclase-microcline gneisses containing evenly disseminated biotite and magnetite-ilmenite interbedded with thin layers of pink alaskite and black amphibole. Difficult to separate from layered Monson Gneiss.
- Stirling Plutonic Group
 - sga: Gray to pink foliated alaskite consisting of quartz, plagioclase, microcline, and less than 2 percent mafic minerals (biotite, hornblende, magnetite-ilmenite, and garnet). Most masses of alaskite have a biotitic facies not mapped except in area NE of Rogers Lake indicated by symbol (ps).
 - sgb: Gray to pink biotite granite gneiss characterized by patchy distribution of mafic minerals (biotite and hornblende), variable but generally coarse grain size, and variable composition.
 - sgm: Mixed granitic units poorly exposed in Lyme dome but known to consist of (sga), (sgb), and migmatitic feldspathic gneisses of the Plainfield Formation and the Mamacke Formation.
- Mamacke Formation
 - m: Gray quartz-feldspar gneiss, some containing nodules of quartz-sillimanite aggregate.
- Plainfield Formation¹
 - ps: Well bedded gray to white quartzite.
 - pt: Biotite-sillimanite schist, amphibole, garnetiferous gneiss, and gneiss containing nodules of quartz-sillimanite aggregate.
 - pe: Biotite-sillimanite schist and gneiss commonly containing nodules of quartz-sillimanite aggregate.
 - pm: Gray biotite quartz-feldspar gneiss containing many layers of schist and amphibole not mapped separately.
 - pn: Biotite-sillimanite schist and gneiss containing nodules of quartz-sillimanite aggregate.
 - m+p+sg: Area of no outcrop underlain by Plainfield Formation and possibly both Mamacke and Stirling.

Handwritten notes:

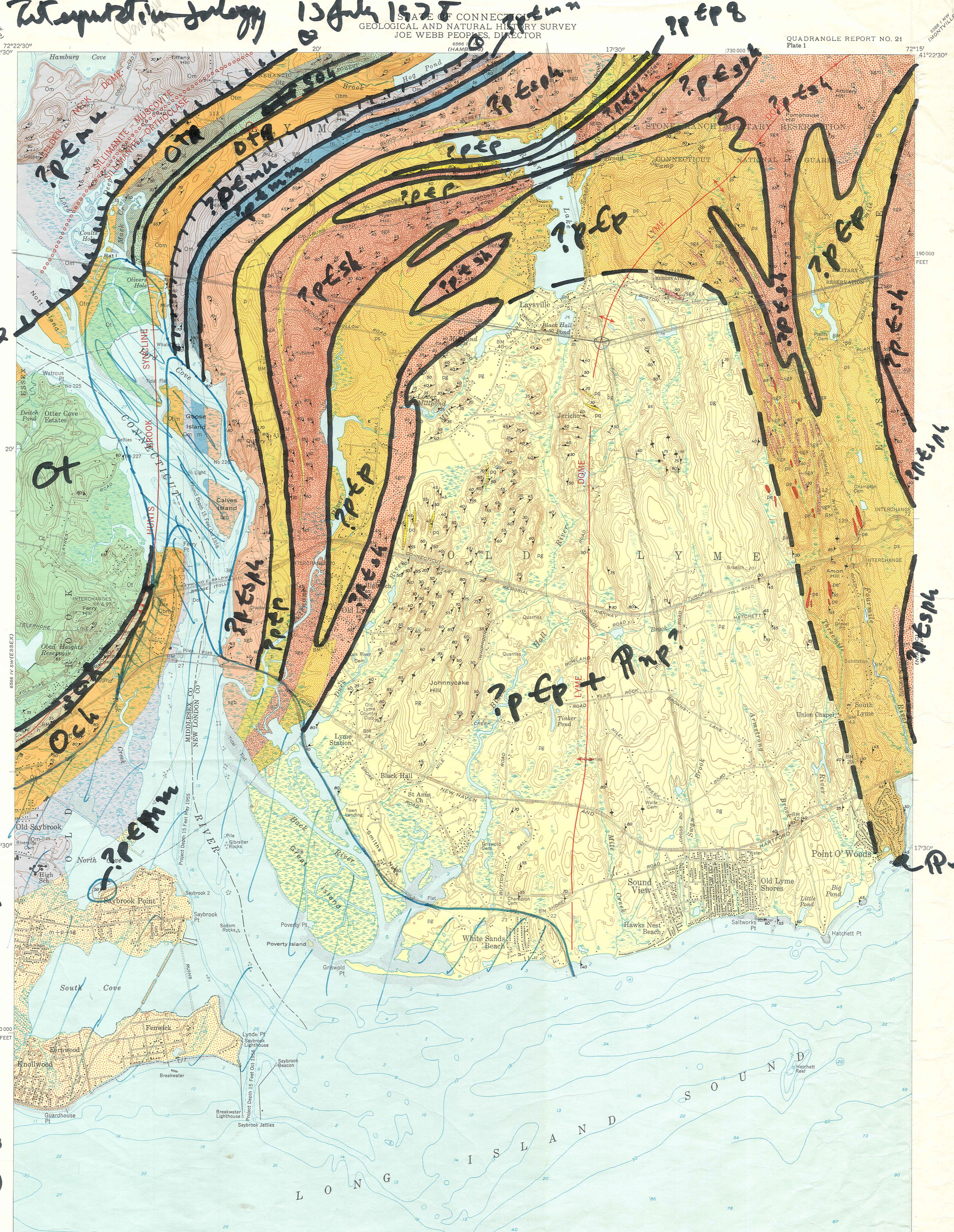
1. Brimfield Formation and Tatnic Hill Formation are defined by sedimentary facies equivalents occurring in the Lyme dome. The Lyme dome is a large, roughly circular area of high topography in the center of the map. The Brimfield Formation is mapped as a narrow zone along the western edge of the Lyme dome, and the Tatnic Hill Formation is mapped as a narrow zone along the eastern edge. The Lyme dome is composed of a variety of gneiss units, including the Monson Gneiss, New London Gneiss, and Plainfield Formation. The Lyme dome is bounded to the west by the Connecticut River and to the east by the Sound. The Lyme dome is a major geological feature of the Old Lyme area.

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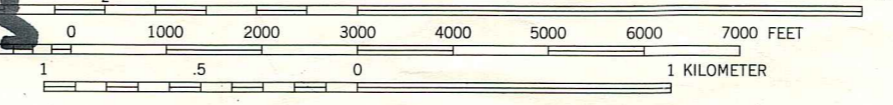
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GEOLOGIC MAP OF THE OLD LYME QUADRANGLE, CONNECTICUT

Bedrock Geology by Lawrence Lundgren, Jr., in 1961, 1964, and 1965. Assisted by Howard R. Pratt in 1961.

SCALE 1:24,000



CONTOUR INTERVAL 10 FEET. DATUM IS MEAN SEA LEVEL.

CONTOUR CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER.

SHALLOW WATER CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN HIGH WATER.

QUADRANGLE REPORT NO. 21 Plate 1

Williams & Heintz Map Corporation, Wash., D.C. 20027

OLD LYME, CONN. N4115-W7215/7.5

Bedrock unknown

100

CONNECTICUT

QUADRANGLE LOCATION

DECLINATION AT CENTER OF SHEET

1:46' 31" MILES 23.1 MILES

1:46' 31" MILES 23.1 MILES