

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This map set contains unpublished maps, cross-sections, and related information archived by the State Geological and Natural History Survey of Connecticut as part of the Survey Library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

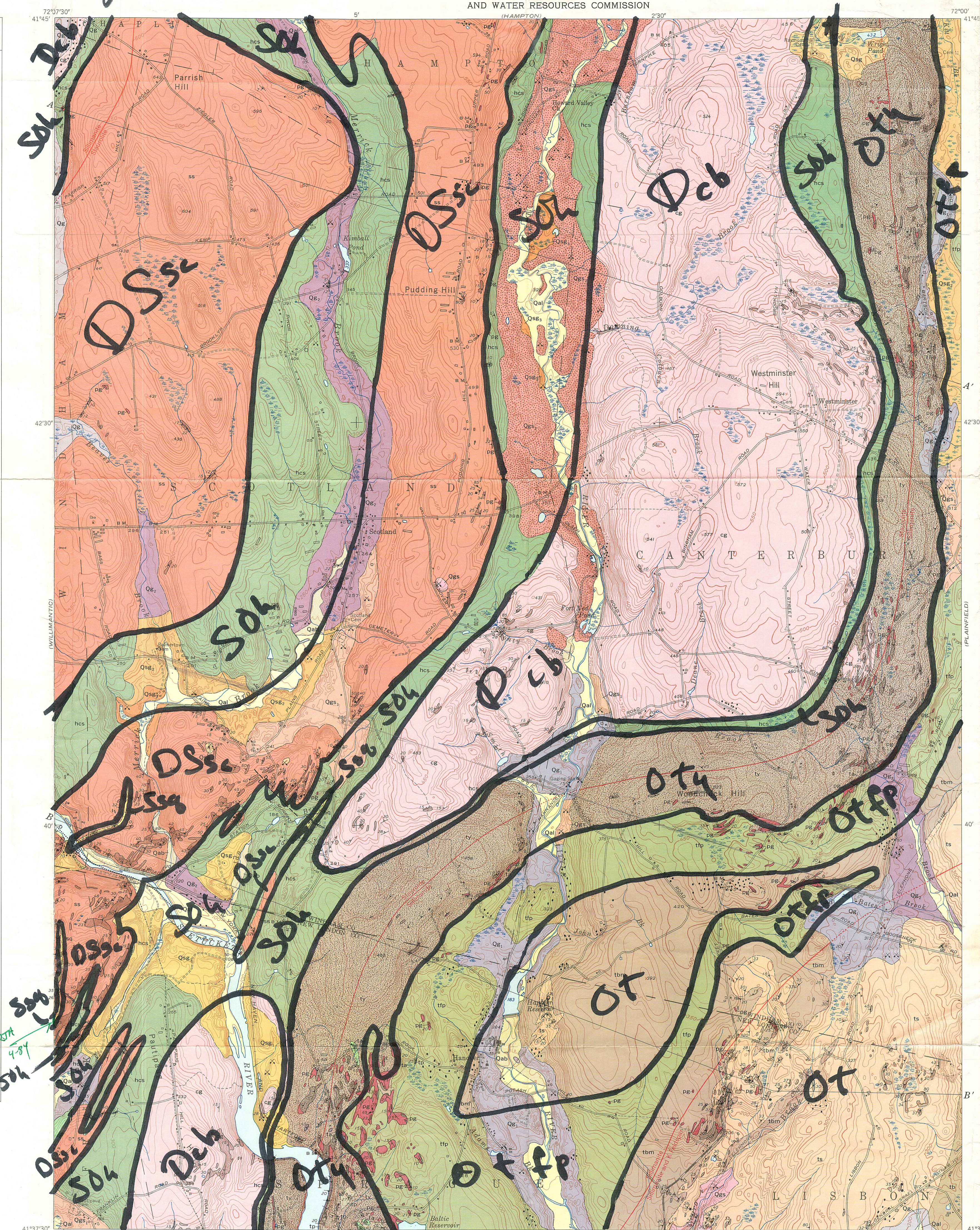
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EXPLANATION

| FORMATION AND MEMBER  | LITHOLOGY                     | THICKNESS IN FEET | DESCRIPTION  |
|-----------------------|-------------------------------|-------------------|--|
| Scotland Schist       | Top not present in quadrangle | 5<br>600          | Oligoclase-kyanite-staurolite-garnet-biotite-muscovite-quartz schist; minor tourmaline and opaque minerals; medium to fine-grained, medium gray. Coarse muscovite plates commonly are credited to give prominent lamination. Yellow iron-stained quartz pebbles are common.  |
| Hebron Formation      |                               | 500-8000?         | Basal 5 to 20 feet interlayered muscovite schist (as above) and fine-grained garnet-muscovite-biotite-quartz-oligoclase schist.  |
| Canterbury Gneiss     |                               | 1800              | Interlayered calcite-biotite-thornblende-andesine-quartz schist; biotite-thornblende-andesine-quartz schist; oligoclase-biotite-hornblende-quartz-andesine granites with minor biotite-muscovite-quartz schist; minor epidote, tourmaline, schorl; fine-grained, dark gray, overlying gray-light to dark greenish gray in layers 1 to 2 inches thick. Quartzite with minor biotite, actinolite, andesite, and aoidic; coarse-grained, white, massive.  |
| Yantic Member         |                               | 1000              | Aplite sills, 1 to 3 inches thick, common near eastern margin. Hebron Formation (as above). Muscovite-biotite-oligoclase-quartz schist; minor garnet (locally prominent), epidote, and potassium feldspar; fine-grained, medium gray, porphyroblasts of coarse plagioclase. Minor pods of staurolite-kyanite-biotite-garnet-muscovite-biotite-oligoclase-quartz schist; medium-grained, medium gray, commonly iron stained; as much as 15 feet thick. Near base, pods of biotite-quartz-epidote-andesine to labradorite-hornblende amphibole, medium-grained, dark gray, layered to massive, as much as 15 feet thick. |
| Fly Pond Member       |                               | 600               | Epidote-dioptase-biotite-hornblende-quartz-andesine gneiss, rare pods of sillimanite-biotite-oligoclase-quartz schist; minor sphene, potassium feldspar, and rutile; medium-grained, light to medium gray, thinly layered to massive.  |
| Tatnic Hill Formation |                               | 4800?             | Muscovite-biotite-oligoclase-quartz schist; minor garnet, epidote, and potassium feldspar; medium-grained, dark gray; porphyroblasts of coarse plagioclase common, especially near top.  |
| Sillimanite gneiss    |                               |                   | Garnet-sillimanite-muscovite-biotite-oligoclase-quartz gneiss interlayered with and gradational into biotite-muscovite schist (above) and biotite gneiss (below); medium-grained, medium to dark gray and greenish gray. Sillimanite commonly altered to sericite; dark green sericite pods stand out on weathered surface.  |
| Biotite gneiss        |                               |                   | Garnet-biotite-quartz-andesine gneiss; minor potassium feldspar and muscovite; medium-grained, dark gray; porphyroblasts of plagioclase and garnet common. (Unit not exposed in quadrangle, but boundary projected in from south and east).  |



**EXPLANATION**

Darker tones of respective colors indicate bedrock outcrops of the unit. Small outcrops on which the attitude of bedding, foliation, etc., is recorded are indicated only by the symbol.

**CONTACT**

Dashed where approximately located; short dashed where inverted (bedrock); or gradational (surface); dotted where concealed.

**Staurolite**  
Sillimanite  
Mineral isograd in pelitic rocks  
Dotted where concealed

**Alluvium**  
Qal, sand and silt generally mixed with organic matter, deposited on flood plains of modern streams; includes some mud and peat accumulated in meadows.  
Qab, sand generally mixed with organic matter and small boulders and cobbles, usually along steeper reaches of streams.

**Sand and gravel deposits**  
Materials deposited by glacial melt-water streams. Relative ages of sand and gravel deposits within a single valley are indicated by numerical subscripts. Oldest deposit has the lowest number. Numbers do not indicate correlation between valleys. Subscripts are omitted in valleys in which deposits are all of same age. More than one letter symbol may appear in deposits of a single age.  
Qsg, sand, with beds of gravel; consists chiefly of sand in some low lying areas.  
Qgs, bedded sand containing minor amounts of gravel, overlain by a thin cap of poorly stratified bouldery gravel.  
Qg, chiefly poorly stratified bouldery gravel with fine sand to small pebbles in the matrix; contains small amounts of interbedded sand, usually 10 feet or more of gravel exposed. Base of gravel unexposed.

**Note:** Till is not shown on map, but covers most areas where bedrock geology alone is shown.

**IGNEOUS ROCKS**

Pegmatitic and granitic sills and dikes  
Sills and dikes of coarse to fine-grained rock varying in composition from granite to quartz diorite. Range in thickness from a few inches to tens of feet; in general only those thicker than 10 feet are shown on the map. Most are foliated, but some are non-foliated especially those cutting the Canterbury Gneiss. Locally they have converted schist of the Yantic Member of the Tatnic Hill Formation to migmatite.

**Canterbury Gneiss**

**METAMORPHIC ROCKS**

Scotland Schist  
ss, quartzite

Hebron Formation  
hcs, quartzite

Tatnic Hill Formation  
ts, Yantic Member  
tbn, sillimanite schist  
tbp, Fly Pond Member  
tbs, biotite-muscovite schist  
ts, sillimanite gneiss  
tb, biotite gneiss

**QUATERNARY**

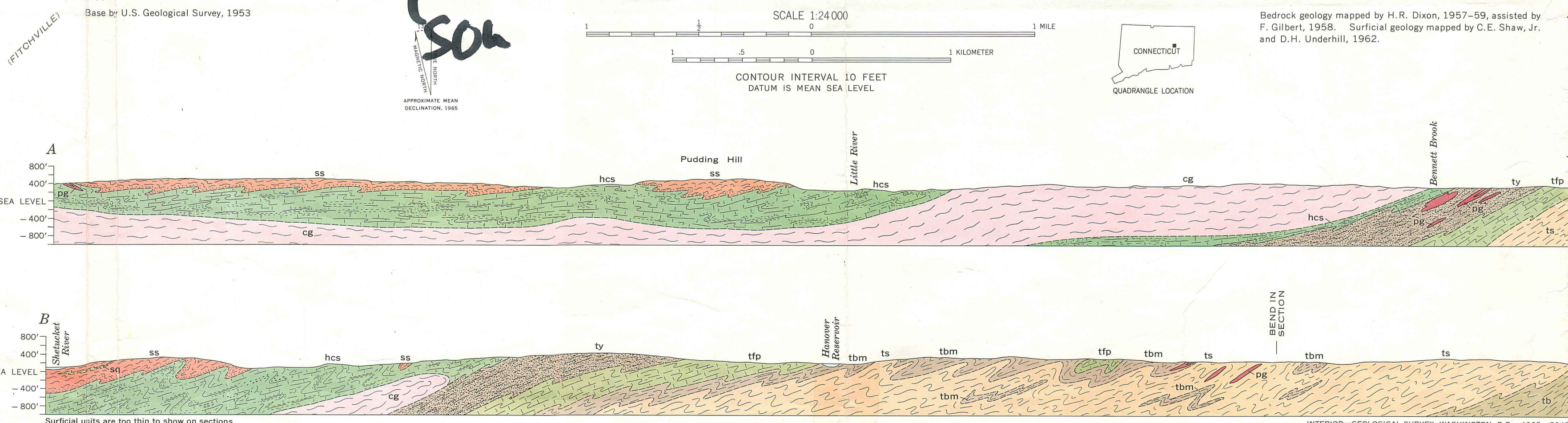
Horizontal beds  
Inclined Horizontal Vertical  
Strike and dip of parallel bedding and foliation  
Tick indicates direction of top of the beds  
Strike and dip of foliation and bedding where nonparallel in dip  
Strike and dip of foliation in igneous rocks  
Mineral lamination  
Crinkle and fold axis lamination  
Showing direction and plunge of lamination. Commonly used in combination with bedding and foliation symbols, or fold symbols

Minor folds  
Showing direction and plunge of the axis and strike and dip of axial plane. Map sense of folds shown where determined

Locations where boulder concentrations of one rock type were used in delineation of contacts

Pit or cut in surficial material

Accumulations of boulders; relative abundance indicated by density of dots



GEOLOGIC MAP OF THE SCOTLAND QUADRANGLE, CONNECTICUT  
By  
H. Roberta Dixon and Charles E. Shaw, Jr.  
1965

**EXPLANATION**

Dcb - Canterbury gneiss  
DSsc - Scotland fm.  
SSq - Quartzite in Scotland formation  
SOh - Hebron fm.  
Oty - Yantic member of Tatnic Hill fm.  
OTfp - Fly Pond member of Tatnic Hill fm.  
OT - Tatnic Hill formation