

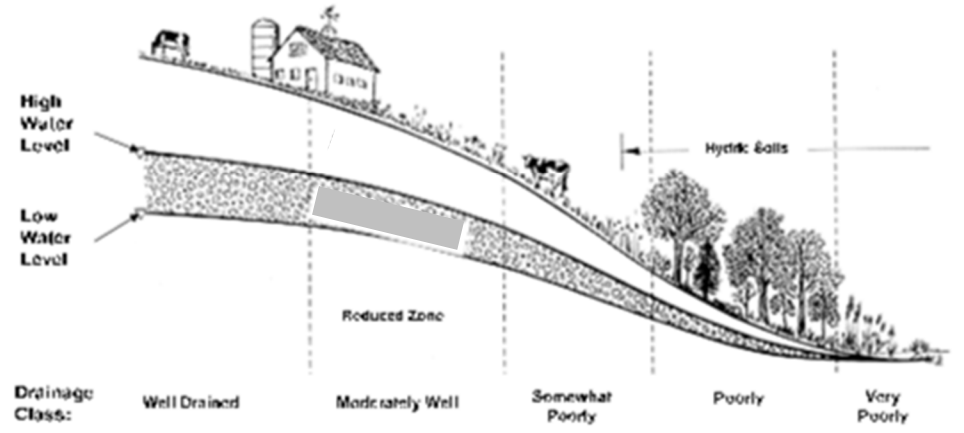
## Soil Series

There are 117 major types of soils in Connecticut identified and named. Each type (or series) is named for the geographical area where it was first described. Each soil series has specific relationships to landscapes, regional geology, and parent materials.

## Soil Catena Chart

Related soils of about the same age, derived from similar parent material and occurring under similar climatic conditions, can be arranged into a sequence of increasing wetness. This sequence is called a **soil catena**. A catena chart is useful in identifying the relationship of one series to another.

The chart uses the catena concept by matching parent material, geology, and drainage for each series mapped in the Soil Survey of the State of Connecticut. Each horizontal line in the chart represents an individual soil catena and each catena is, in turn, arranged vertically by differences in surficial deposits, lithology, and soil texture. There are 9 very poorly drained soil series formed in organic deposits and 9 subaqueous soil series that have been organized differently at the bottom of the chart.



- The diagram above shows a drainage sequence in which wetness increases at lower elevations on the landscape.
- The block diagram on the front page shows a drainage catena on till parent materials of drumlins.

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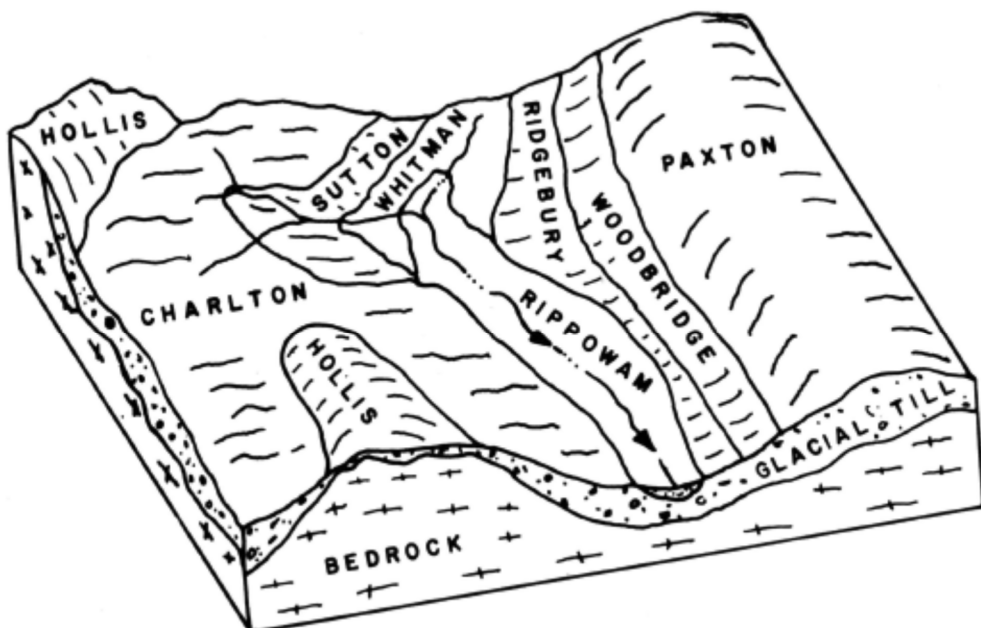
The simple yet powerful way to access and use soil data.

For natural resource information, please contact:  
 Connecticut Geological Survey, Office of Information Management  
 Connecticut Department of Energy and Environmental Protection  
 79 Elm Street, Hartford, CT 06106  
 (860) 424-3540  
 For soil survey information, technical soil services, and natural resources conservation programs, contact:  
 USDA, Natural Resources Conservation Service  
 344 Merrow Road, Suite A, Tolland, CT 06084  
 (860) 871-4011  
 www.ct.nrcs.usda.gov  
 CT DEEP and USDA-NRCS 2022 Soil Catenas of Connecticut.  
 Connecticut Geological Survey, Office of Information Management  
 Connecticut Department of Energy and Environmental Protection  
 USDA-Natural Resources Conservation Service, Tolland, Connecticut  
 information.

**Soil Survey of the State of Connecticut**  
 The Soil Survey of the State of Connecticut is a modern soil survey, uniting the separate eight county legends to a single statewide legend, incorporating current soil taxonomy and standards, addressing land use changes and urbanization, and compiled onto planimetric orthophoto base. The soils were mapped at a scale of 1:12000 with a minimum size delineation of approximately 1.5 acres. Copies of the published county soil survey reports dated prior to July 2005 are no longer the official soil survey information and should only be used as historical reference.  
**The Web Soil Survey**  
 Official digital soil survey information is located on the Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov>. It is a simple yet powerful way to access and use soil data. The site is updated and maintained online as the single authoritative source of soil survey information.

# Soil Catenas of Connecticut

*The relationships between soils, landscapes, regional geology, and parent material*



**SOIL CATENAS OF CONNECTICUT**

DEPOSIT	LITHOLOGY	TEXTURE GROUP	SOIL DRAINAGE CLASS							
			Excessively	Somewhat Excessively	Well Drained	Moderately Well	Somewhat Poorly	Poorly	Very Poorly	
GLACIAL TILL Unstratified Sand, Silt & Rock	GRANITE & SCHIST	SANDY		GLOUCESTER * WESTMINSTER #						
	SCHIST, GRANITE & GNEISS	LOAMY		* HOLLIS <sup>28</sup>	** MILLSITE #					
					** CHATFIELD					
					CHARLTON CANTON	SUTTON <sup>1</sup>		LEICESTER		
					BICE #	SCHROON #			LOONMEADOW #	
					* PAXTON + MONTAUK * SHELBORE #	* WOODBRIDGE + ASHFIELD #		* RIDGEBURY	* WHITMAN	
					* FARMINGTON					
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS	LOAMY			PYRITIES #	* HOGANSBURG #				
	RED SANDSTONE, SHALE, CONGLOMERATE & BASALT				STOCKBRIDGE NELLIS <sup>11</sup>	GEORGIA AMENIA		MUDGE POND <sup>18, 20</sup>	ALDEN <sup>19</sup>	
					* HOLYOKE <sup>29</sup>					
	BROWN MICACEOUS SCHIST				** YALESVILLE					
					CHESHIRE <sup>24, 29</sup>	WATCHAUG <sup>6</sup>				
PHYLLITE, SCHIST & SLATE				* WETHERSFIELD	* LUDLOW		* WILBRAHAM	* MENLO		
				* BRIMFIELD	BROOKFIELD **NIPMUCK					
SHALE, SANDSTONE, BASALT & CRYSTALLINE ROCKS	SILTY / SANDY			* TACONIC #	** MACOMBER #					
					* BERNARDSTON * LANESBORO #	* FULLAM #		* BRAYTON #		
					DUMMERSTON # * BROADBROOK	* RAINBOW				
				NARRAGANSETT	WAPPING					
GLACIOFLUVIAL Stratified Sand & Gravel	ACIDIC CRYSTALLINE ROCKS (granite, gneiss and schist)	SANDY & GRAVELLY	HINCKLEY <sup>17</sup> BOSCAWEN #	MERRIMAC		SUDBURY		WALPOLE MOOSILAUKE #		
		SANDY	WINDSOR			DEERFIELD			SCARBORO <sup>15, 32</sup>	
		LOAMY / SAND & GRAVEL			AGAWAM	NINIGRET				
		SILTY / SAND & GRAVEL			ENFIELD <sup>16</sup> HAVEN	TISBURY		RAYPOL		
	ACIDIC, RED SANDSTONE, SHALE, CONGLOMERATE	SANDY & GRAVELLY	MANCHESTER	HARTFORD						
		SANDY	PENWOOD							
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS	SANDY & GRAVELLY	GROTON							
		LOAMY / SAND & GRAVEL				COPAQUE	HERO		FREDON	HALSEY <sup>7</sup>
	GLACIOLACUSTRINE Stratified Sand, Silt & Clay	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	LOAMY			POLLUX	AMOSTOWN			
			SILTY				BELGRADE <sup>27</sup>		RAYNHAM <sup>31</sup>	
LOAMY / CLAYEY						ELMRIDGE <sup>13, 21</sup>		SHAKER <sup>30</sup>		
SILTY & CLAYEY						BRANCROFT <sup>9</sup> BERLIN		SCITICO <sup>26</sup>	MAYBID <sup>5, 33</sup>	
ALLUVIAL Stratified Sand & Silt	GNEISS, SCHIST, GRANITE & QUARTZITE	SANDY	SUNCOOK							
		LOAMY			ONDAWA # OCCUM <sup>4</sup>	POOTATUCK <sup>23</sup>		RUMNEY # RIPPOWAM		
	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	SILTY			HADLEY <sup>14</sup>	WINOOSKI <sup>12</sup>	BASH <sup>8, 25</sup>	LIMERICK LIM	MEDOMAK # SACO	
COASTAL	MARINE DEPOSITS	SANDY	HOOKSAN						SANDYHOOK	
HUMAN ALTERED & HUMAN TRANSPORTED	HAHT MATERIALS OVER TERRESTRIAL SOILS	LOAMY/ SANDY			VERRAZANO					

	WETLAND TYPE	FIBERS	THICKNESS	SUBSTRATE	SOIL SERIES
ORGANIC Peat & Muck	FRESHWATER (INLAND)	FEW	>51" (>130 cm)	VARIABLE	CATDEN <sup>10</sup> FREETOWN BUCKSPORT #
			16-51" (40-130 cm)	LOAMY	NATCHAUG <sup>22</sup> WONSQUEAK #
			16-51" (40-130 cm)	SANDY	TIMAKWA <sup>2</sup> PAWCATUCK
	SALT AND BRACKISH (TIDAL)	COMMON	>51" (>130 cm)	VARIABLE	WESTBROOK IPSWICH

	PARENT MATERIAL	HIGHLY FLUID SURFACE	NOT SULFIDIC	SULFIDIC
SUBAQUEOUS Salt & Brackish Waters ++	MARINE/ESTUARINE SANDS	0-4" (0-10 cm)	RHODESFOLLY	NAGUNT
		4-20" (10-50 cm)		MARSHNECK FORT NECK
	MARINE/ESTUARINE SILTS	>39" (>100 cm)		PISHAGQUA WEQUETEQUOCK
		0-4" (0-10 cm)	NAPATREE	ANGUILLA
	MARINE/SUBMERGED TERRESTRIAL	>4" (>10 cm)		BILLINGTON

**Historical Soil Series**

Since the publication of the soil surveys for all eight Connecticut counties, the classification of soils has continued to evolve. When using the historical published soil surveys, one will encounter a variety of soil series names not currently in use. These series, noted above, are referenced by number to the most current name available at the time of this publication. For example, the soil mapped as *Acton*, if classified by today's standards, may be named *Sutton*.

Charts on this page supplement all Connecticut soil surveys by referring to both current and previously used soil series names. However, since there are some major differences in map units and soil series interpretations from survey to survey, it is necessary to refer to the narrative descriptions within the appropriate archived survey to obtain complete information concerning a particular soil.

**Official Soil Series Descriptions**

More detailed information about each soil series is located on the USDA-NRCS soils webpage under Official Soil Series Descriptions (OSDs). This site is updated and maintained online as the official source of tentative and established soil series.

- + Indicates soils underlain by compact till.
  - \* Indicates shallow soils less than 20 inches (< 50 cm) to bedrock.
  - \*\* Indicates moderately deep soils 20 to 40 inches (50-100 cm) to bedrock.
  - # Indicates soils with mean annual soil temperature less than 8°C or 46.4°F (elevations of >1,300 feet/396 meters in Litchfield County) in frigid soils.
  - ++ Subaqueous soils are covered with water for more than 21 hours per day.
- 1-33 Annotations to referenced soil series no longer used in CT.

SOIL SERIES NO LONGER USED IN CONNECTICUT			
1. Acton	9. Buxton	17. Jaffrey	26. Scantic
2. Adrian	10. Carlisle	18. Kendaia	27. Scio
3. Au Gres	11. Dover	19. Lyons	28. Shapleigh
4. Bermudian	12. Eel	20. Massena	29. Sunderland
5. Biddeford	13. Elmwood	21. Melrose	30. Swanton
6. Birchwood	14. Genesse	22. Palms	31. Wallington
7. Birdsall	15. Granby	23. Poquonock	32. Wareham
8. Bowmansville	16. Hartland	25. Rowland	33. Whately

