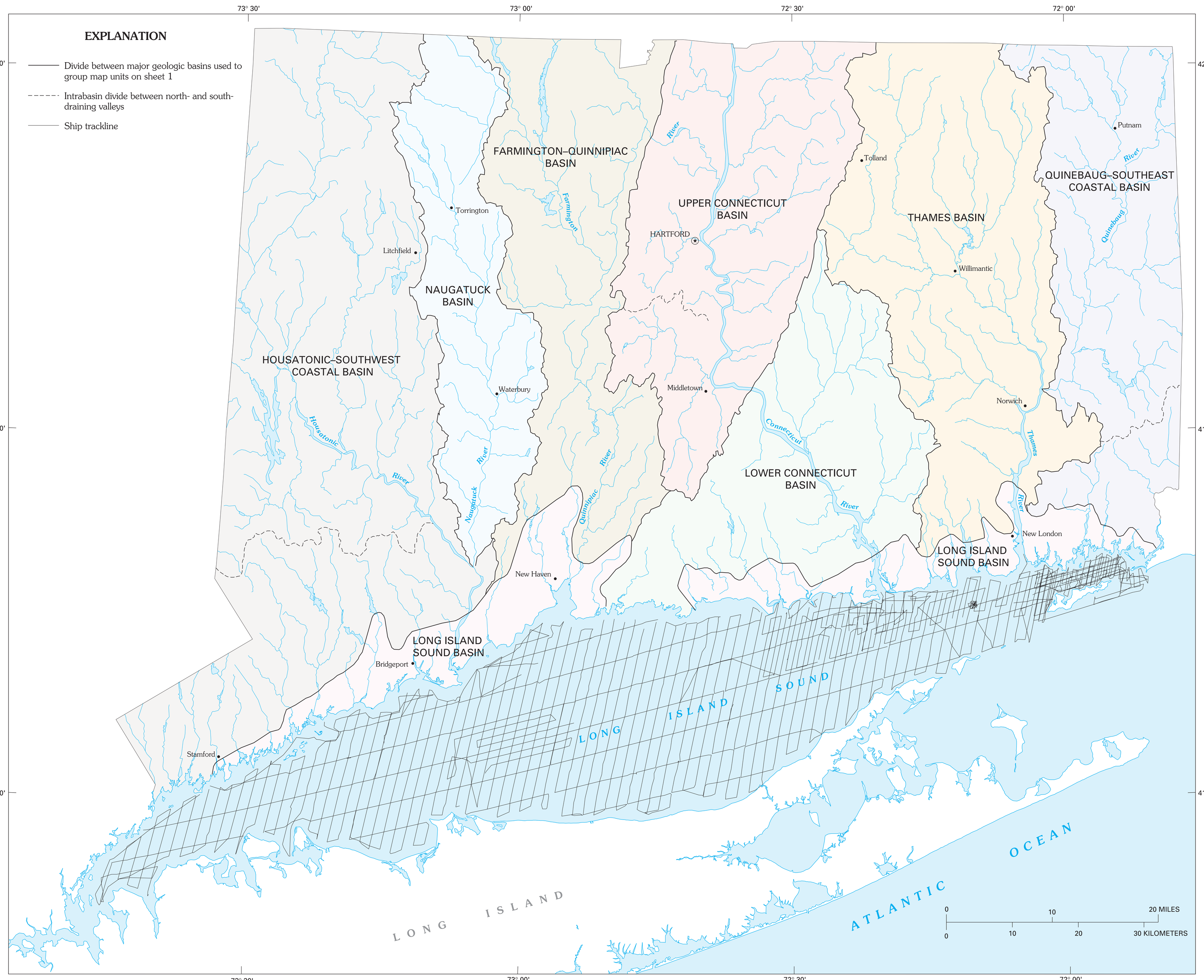


Figure 1.—Geologic basins in Connecticut and ship tracklines along which seismic-reflection profiles were collected in Long Island Sound. In the Description of Map Units (see accompanying text), glacial meltwater deposits are grouped according to the geologic basin in which they occur. Geologic units in Long Island Sound were mapped using the seismic-reflection data.

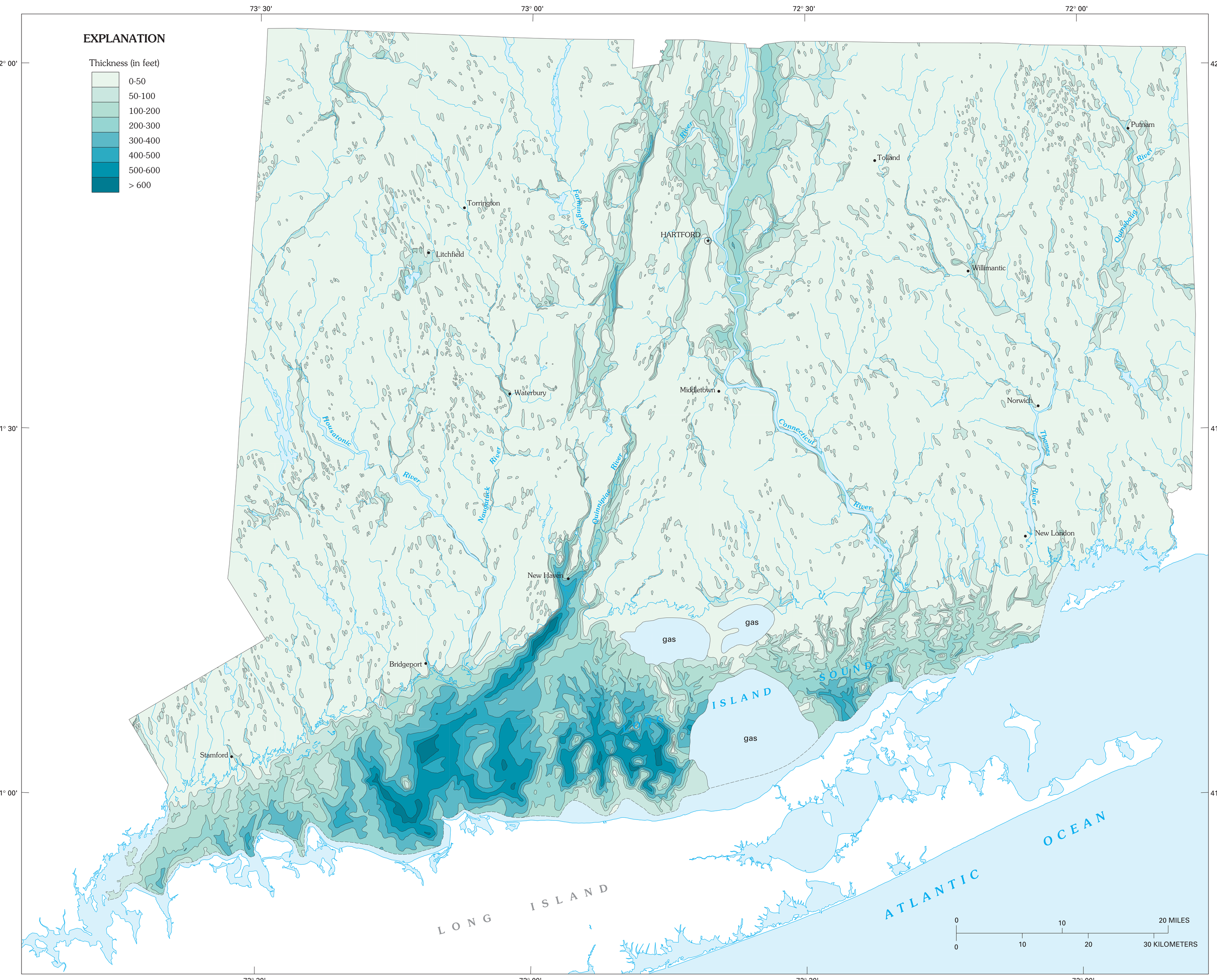
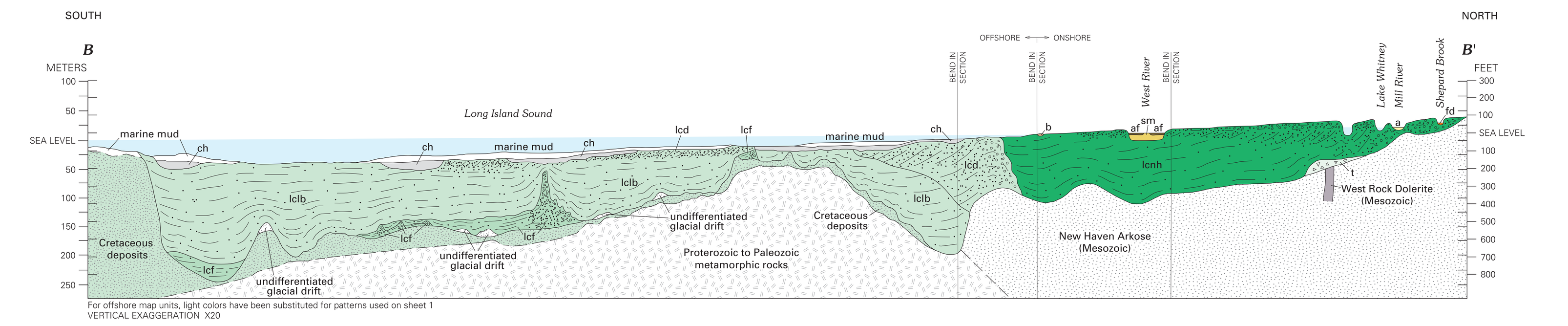
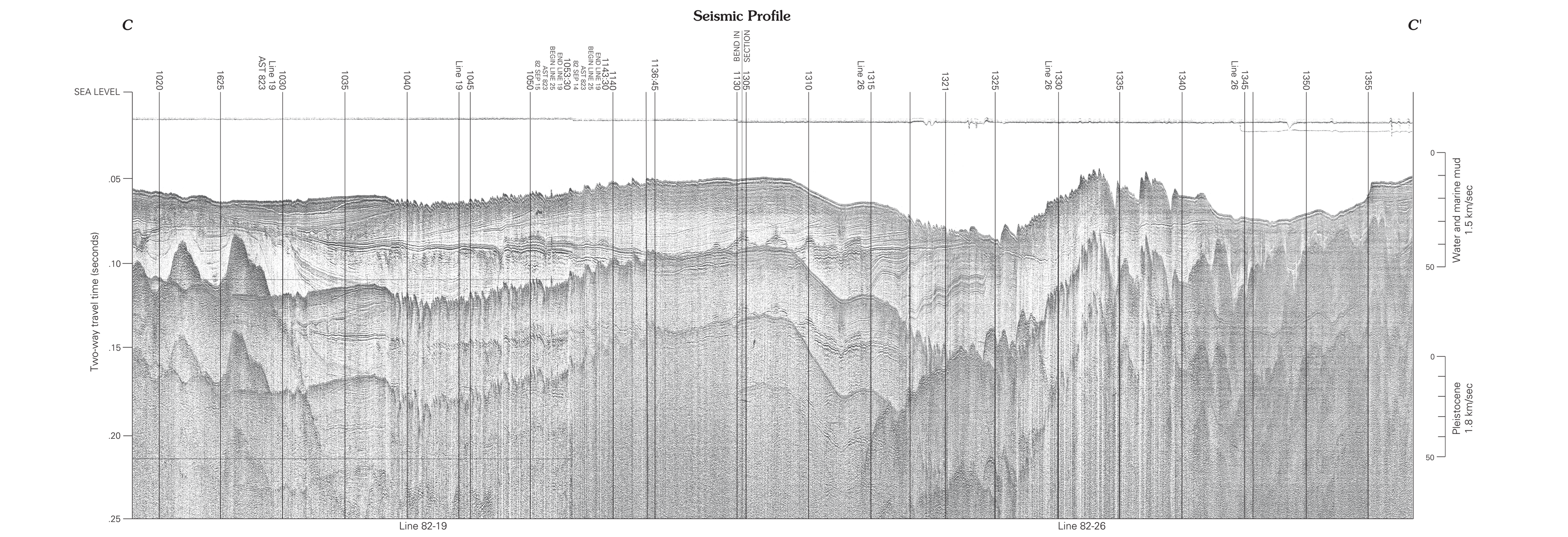
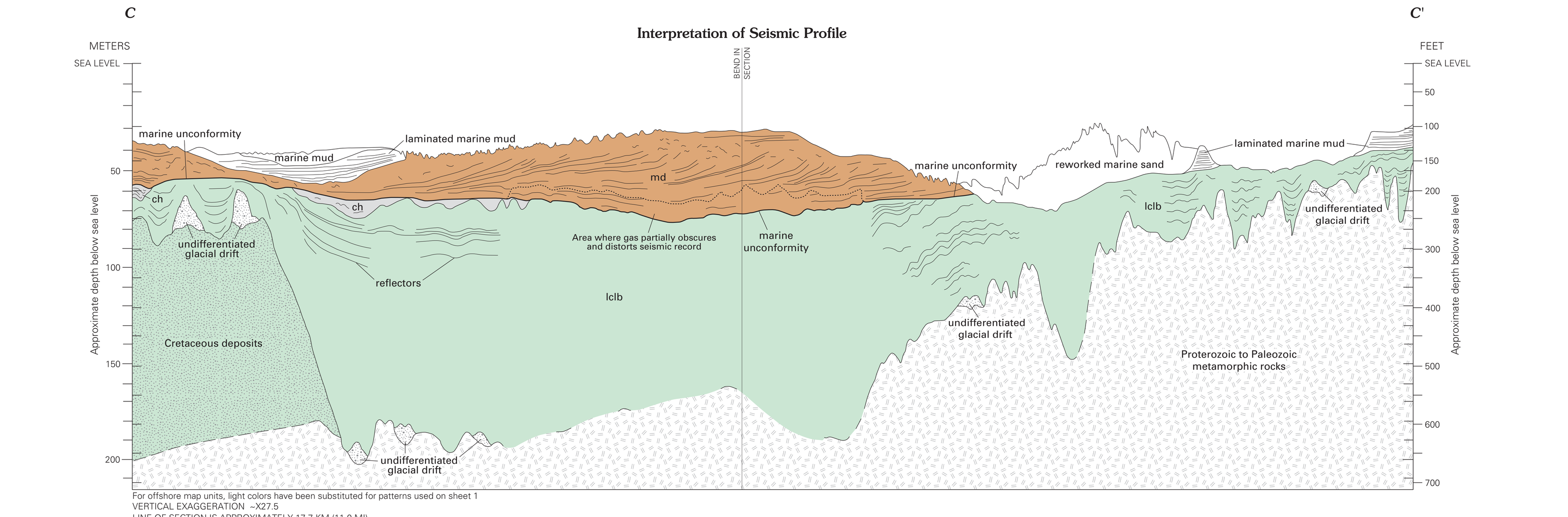


Figure 2.—Map showing thickness of glacial sediments in Connecticut and Long Island Sound basin. In areas labeled as gas in Long Island Sound, the base of the glacial sediments is obscured; therefore, the total thickness could not be measured.







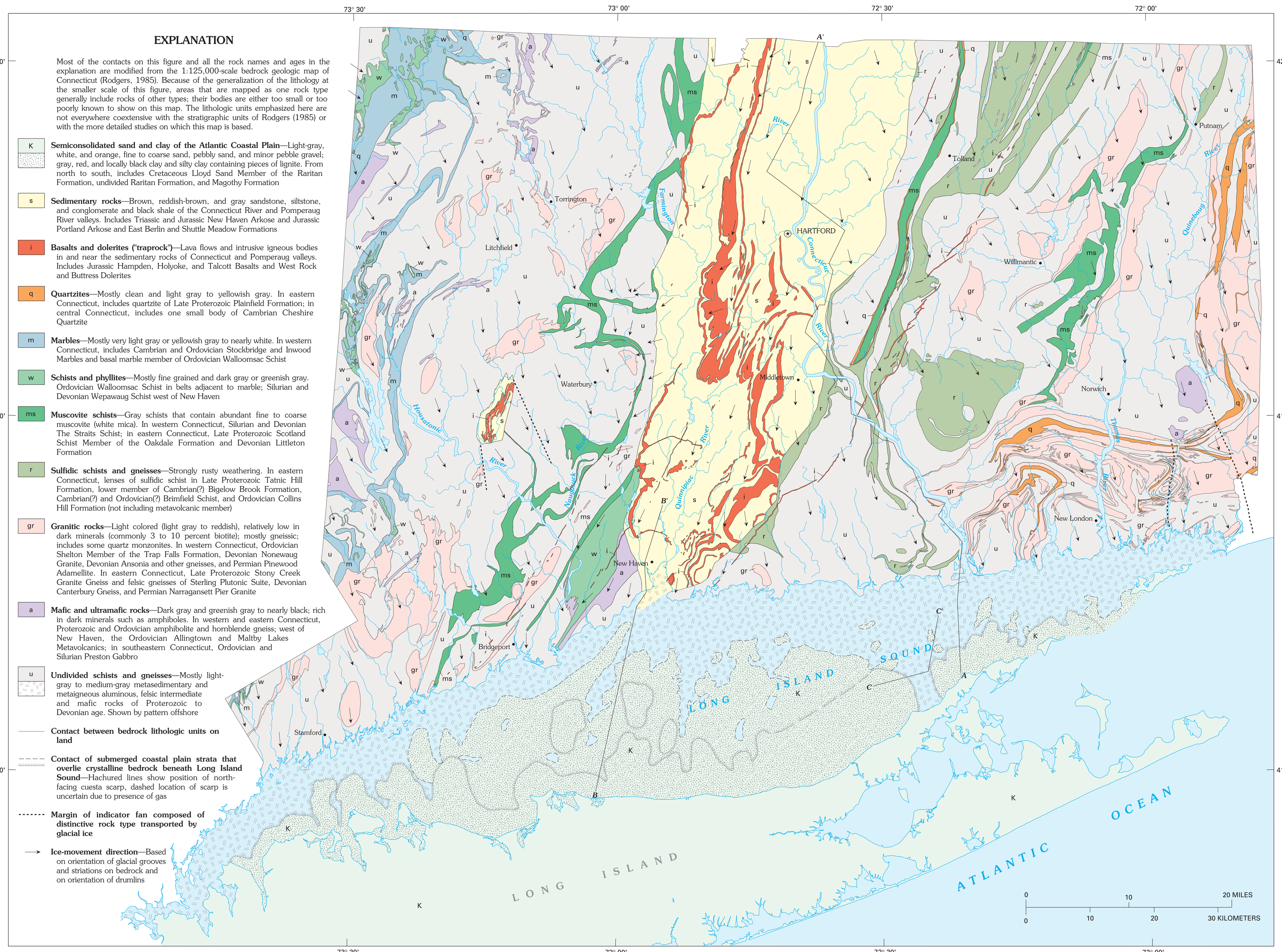


Figure 3.—Generalized bedrock lithologic map of Connecticut and Long Island Sound Basin. The color and composition of glacial deposits is a result of the lithologic characteristics of subjacent and northerly adjacent rock types. Arrows indicate the direction of ice movement across the State. (See discussion of mineral composition of glacial deposits in text.)

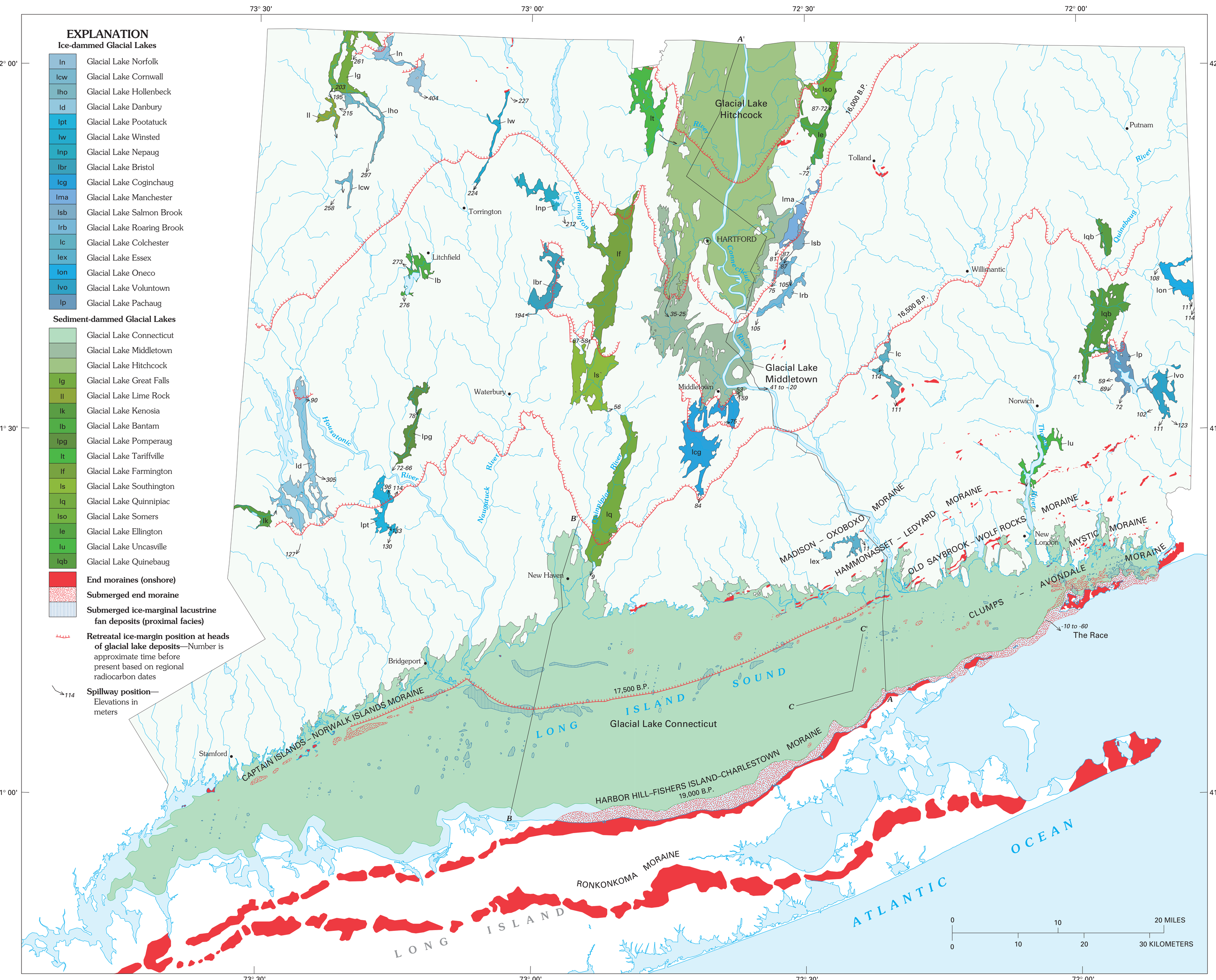


Figure 4.—Major glacial lakes in Connecticut and selected ice-margin positions during late Wisconsinan deglaciation. See discussion of glacial-lake history in accompanying text. The distribution of the Ronkonkoma moraine is from Fuller (1914).

Ice-marginal delta deposits of glacial Lake Pachaug (unit lp), Hopeville, Conn. Note topset-foreset contact between flat-lying gravel beds and dipping sand beds. Photograph by Byron D. Stone.

Ice-marginal delta deposits of glacial Lake Southington (unit ls) Cheshire, Conn. Note crosscutting foreset lobes. Sediment was derived from reddish-brown Mesozoic bedrock in the Central Lowland. Photograph by Byron D. Stone.

Stream terrace sand (unit st) overlying varved silt and clay, lake-bottom deposits of glacial Lake Hitchcock (unit lhlb), East Hartford, Conn. Photograph by Janet Radway Stone.

Typical exposure of thin till overlying metamorphic bedrock in the Eastern and Western Highlands. Exposure is in Deep River, Conn. Photograph by Janet Radway Stone.

A particularly stony example of reddish-brown till derived from Mesozoic bedrock in the Central Lowland. Exposure is in the side of a drumlin (unit tt) in Middletown, Conn. Photograph by Byron D. Stone.

Underwater exposure of varved silt and clay deposited in glacial Lake Connecticut. The lake-bottom deposits (unit lclb) are exposed in a scour depression off Millstone Point in eastern Long Island Sound. Photograph by Jim Foertch (Millstone Environmental Laboratory).

Glacial striations and grooves that trend south-southwest on Mesozoic sedimentary bedrock surface. Exposure is in East Haven, Conn. Photograph by Ralph S. Lewis.

A bouldery section of the Ledyard portion of the Hammonasset-Ledyard moraine (unit hlm), Ledyard Glacial Park, Ledyard, Conn. Note black dog for scale. Photograph by Mary DiGiacomo-Cohen.

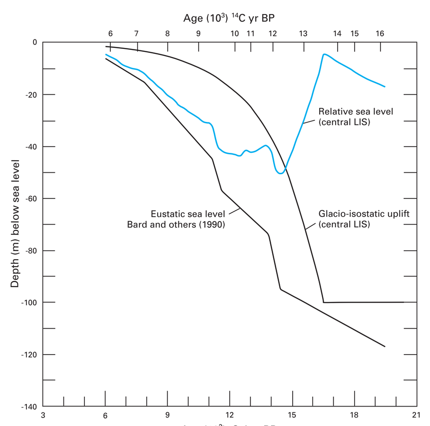
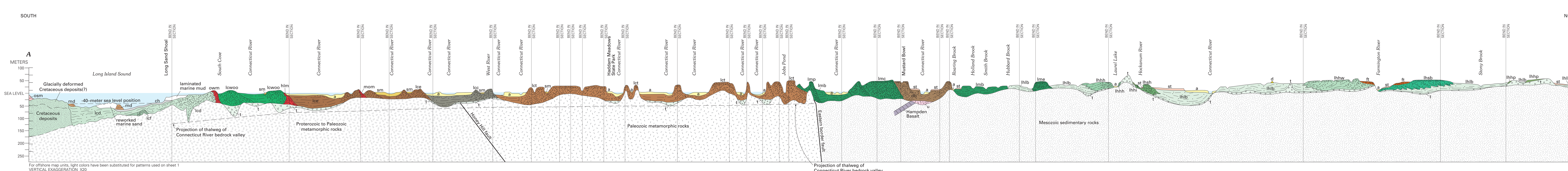


Figure 5.—Relative sea-level curve for central Long Island Sound (LIS) generated using the Barbados eustatic sea-level curve of Bard and others (1990, 1993) and reasonable estimates of the amount, duration, and recovery of glacio-isostatic depression in the region. The Barbados sea-level curve is shown using U-Th ages which are believed to more closely represent calendar years than ^{14}C ages. Calibrated time-scale from Stuiver and Reimer (1993, CALIB version 4.4). The following assumptions were made in constructing the glacio-isostatic uplift curve: (1) glacio-isostatic uplift began shortly before 16,500 calandar years ago; this timing is based on a radiocarbon date of 13,540±90 years BP (before present) that records the initiation of glacial Lake Hitchcock drainage (see discussion in text); (2) the maximum depression in central Long Island Sound was about 100 m; and (3) the exponential curve of glacio-isostatic uplift was calculated using a half-life of 1,750 years. The relative sea-level curve was generated by adding the amount of the depression to the altitude of eustatic sea-level at each point in time.



QUATERNARY GEOLOGIC MAP OF CONNECTICUT AND LONG ISLAND SOUND BASIN

By

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