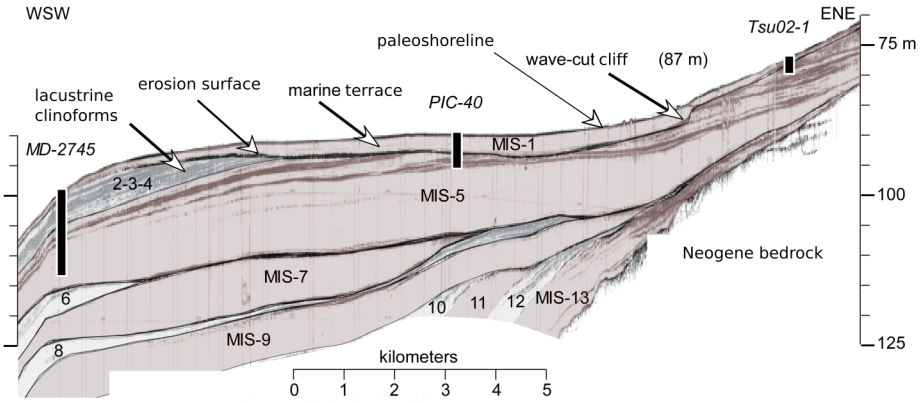
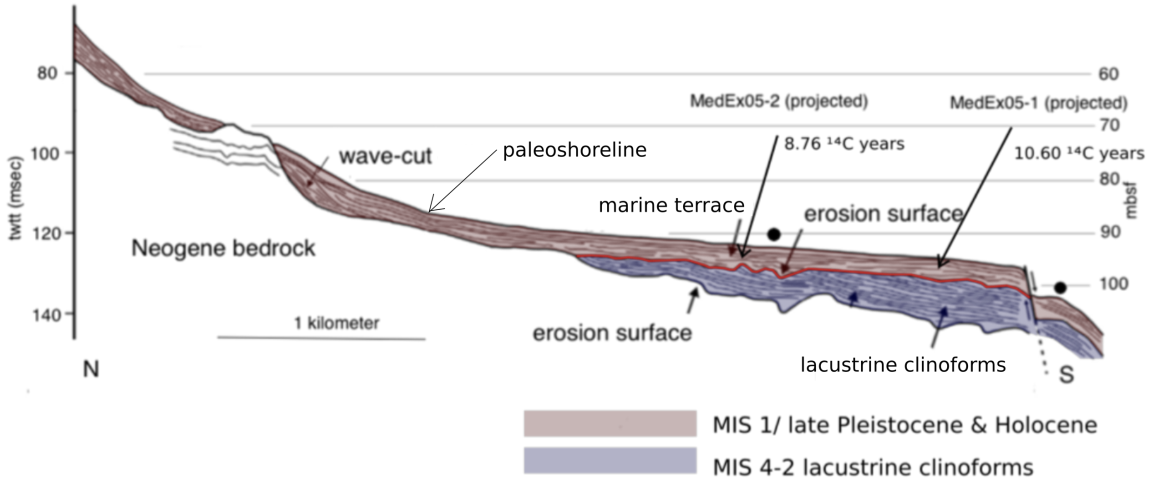
SM 1: Data for the Sea of Marmara $^{87}Sr/^{86}Sr$ measurements for cores MD04-2426, MD04-2430, ITU C1, and ITU C10 cores as a function of tuned calendar age (years B.P.)

SM 2:



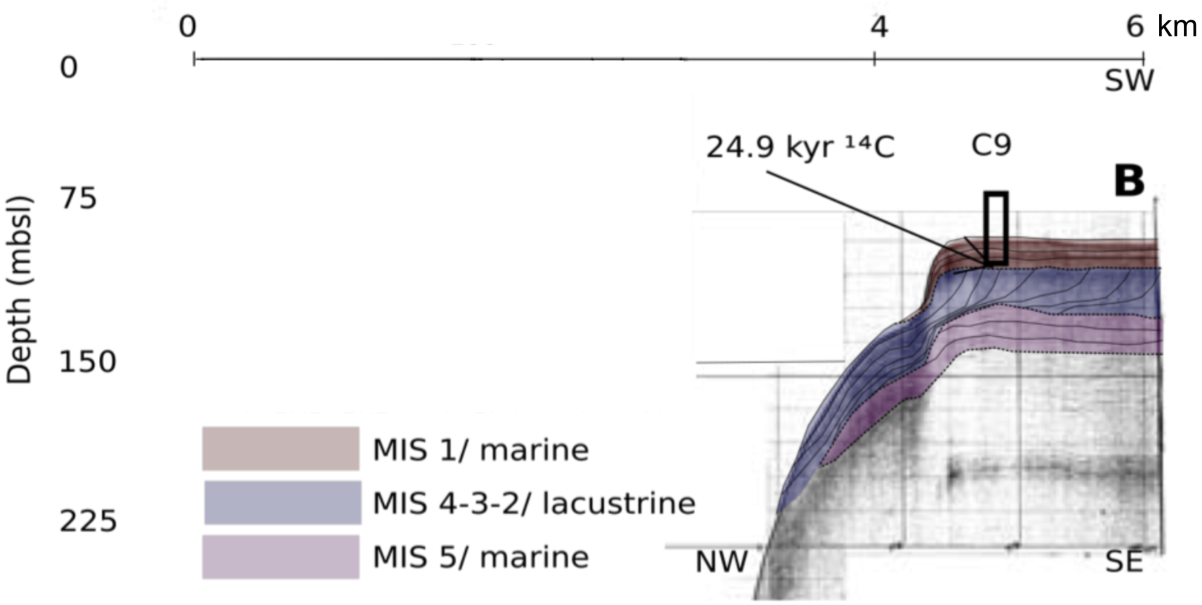
SM 2. Reflection profile across the outer shelf of the Marmara Sea seaward of the Prince Islands. This figure is composite from earlier work, combining a seismic image with that of the cores that sampled the foresets in its locality (Gökaşan et al. 2010). Marine isotope stage 1 to 13 are indicated with odd-numbered highstand deposits colored red and even-numbered lowstand deposits in blue. Sediments belonging to stages 1 through 5 have been sampled in cores projected upon the seismic profile. MIS 2-3-4 is documented to be lacustrine (Gökaşan et al. 2010). Here, one additionally observes a wave-cut terrace adjacent to a cliff at -87 m shaped during the MIS 3 & 2 lowstand. Offlap breaks occur between 95 and 125 mbsl, similar to their elevations on the Black Sea shelf (Hiscott et al. 2002).

SM 3:



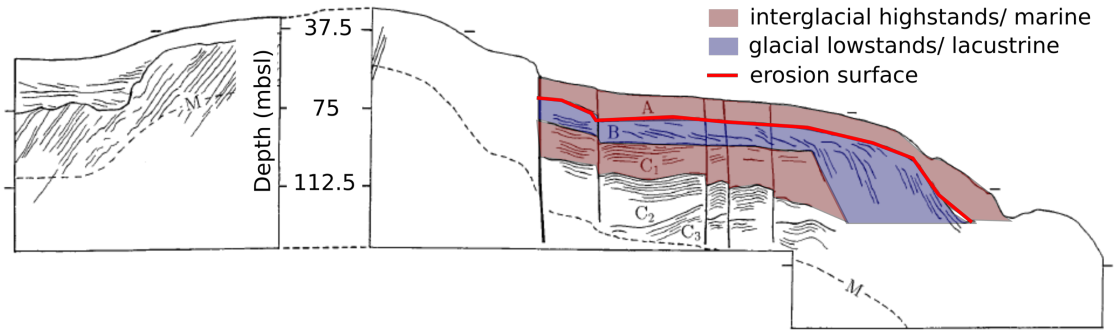
SM 3. Refection profile crossing the Çekmeke shelf break in the Sea of Marmara. This figure is an adaptation from a previously published seismic image (Karakilcik et al. 2014). We add our interpretation of the seismic image, that of the distinction between those foresets belonging to the late Pleistocene and the Holocene (i.e., after marine connection with the Mediterranean Sea / external global ocean) and those to the MIS 2-4 periods (i.e., when the Black Sea-Lake and Marmara Sea-Lake were outflowing to the Mediterranean Sea / external global ocean). MIS / 1 late Pleistocene and Holocene foresets are indicated in red and MIS 4-2 lacustrine clinoforms are indicated in blue. We also add the projection of cores MedEx05-2 and MedEx05-1 onto the seismic profile. Sediments of these cores are dated to Holocene (i.e., after the connection with the Mediterranean Sea / external global ocean)[41]. A wave-cut terrace and cliff base at 87 mbsl is present at the same elevation as the one seaward of the Prince Islands (i.e., SU Fig. 2).

SM 4:



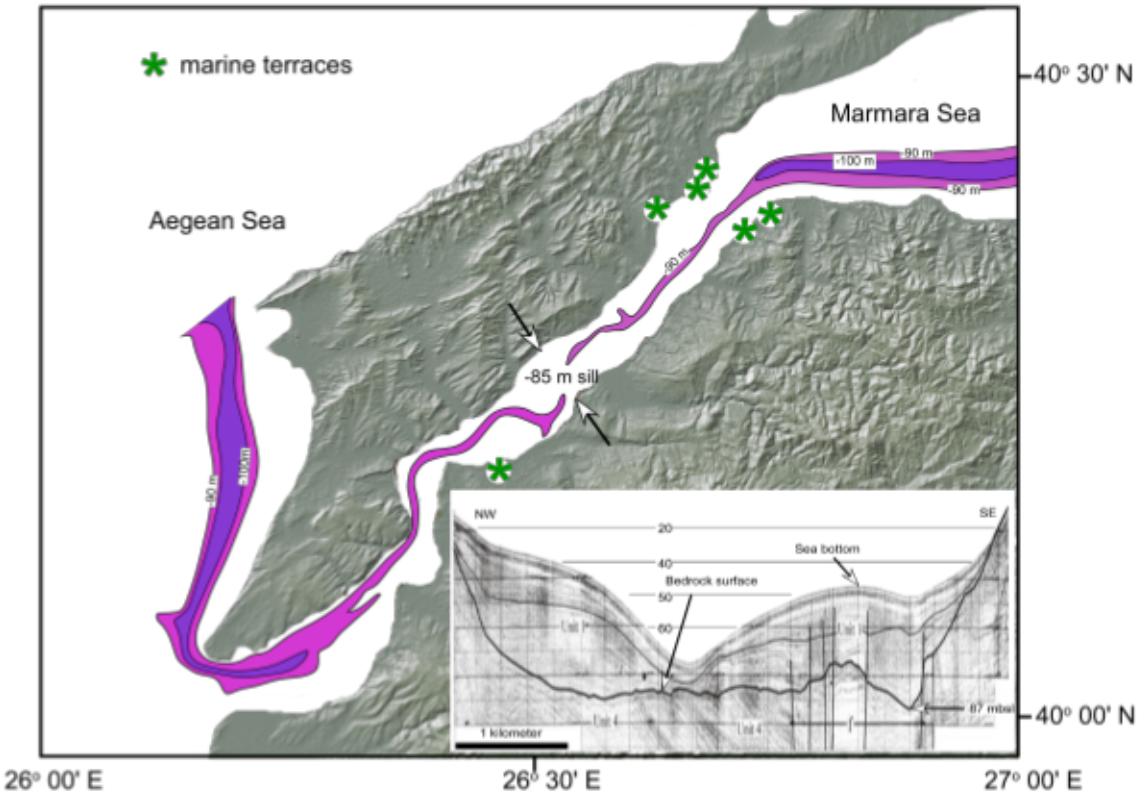
SM 4. Reflection profile crossing the shelf break on the northwest margin of the Sea of Marmara. This figure is adapted from an earlier published seismic profile (Ergin et al. 2007). It displays three sequences: (1) MIS 1 conformable highstand deposits (red), MIS 3 and 2 seaward prograding clinoforms with foresets and bottomsets (blue), and prior conformable highstand deposits belonging to what must have been MIS 5 (pink). Core C-9 dated the distal foresets to 24.9 ^{14}C ka years BP. It follows that all of the sediment belonging to foresets seaward must have been older (i.e., MIS 3-4).

SM 5:



SM 5. Reflection profile MAR-51, located to the west of İmrali Island. The figure is adapted from a previously published seismic profile (Smith et al. 1995). The top and bottom conformable highstand deposits belong to post-connection MIS1 and earlier MIS 5 and indicated in red. The sandwiched seaward prograding clinoforms (blue) with foresets and bottomsets must belong to MIS 2-3-4. The erosion surface truncates the lacustrine clinoforms.

SM 6:



SM 6. Contours showing the elevation of the bedrock surface of the Dardanelles Strait. This figure is an adaptation from an earlier published seismic image (Gökaşan et al. 2010). The bedrock surface beneath the Dardanelles Strait has been investigated in detail with >50 reflection profiles oriented normal and along the oath of the strait[43]. Elevation contours derived from a digital elevation model reveal a sill mid-way through the strait at an elevation of 85 mbsl. The reflection profile places the sill at 85 mbsl. The sediment above the bedrock surface (thick black line) is of post-glacial age (i.e., have accumulated since the post-glacial reconnection of the Marmara Sea to the Mediterranean Sea / external global ocean and are dated at 14.7 ka BP and younger (Vidal et al. 2010)). Green astericks are sites where the Marmara Formation of MIS 5 age is exposed[37] on the banks of the strait, a few meters above the modern shore. We form the composite of the two observations and data, adding the location and observation of MIS 5 deposits to the seismic image.

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