



Bathymetry

Data Source(s): TNC, compiled from NOAA Coastal Relief Model, NOAA Bathymetric & Fishing Maps and USGS Gulf of Maine 15' Bathymetry

Link to Data Source(s):

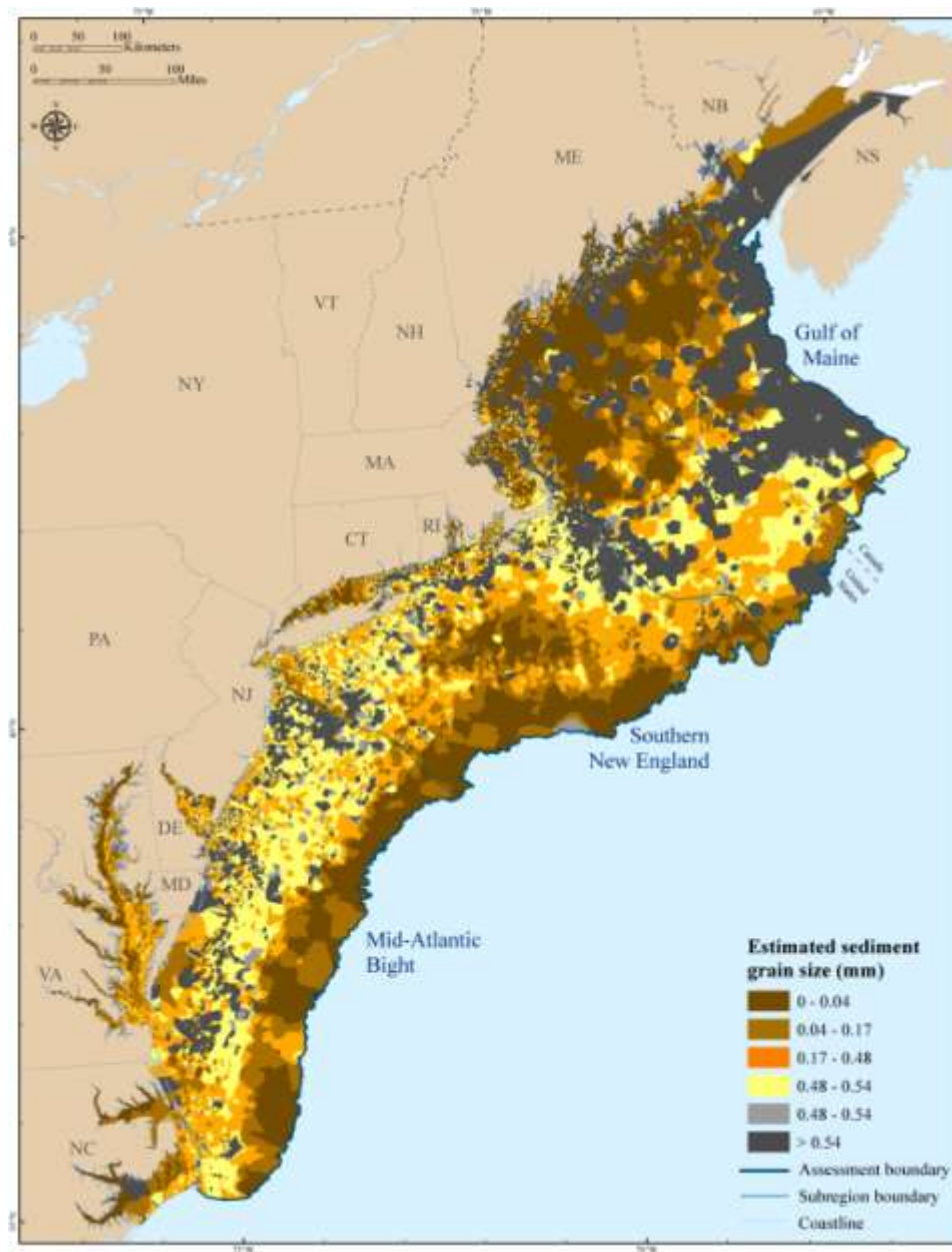
<http://www.ngdc.noaa.gov/mgg/coastal/crm.html>

http://www.ngdc.noaa.gov/mgg/bathymetry/maps/nos_intro.html

<http://coastalmap.marine.usgs.gov/regional/contusa/eastcoast/gome/region/data.html>

Scale: 83 m resolution (350 m Canada)

Product Details: We compiled bathymetry from several sources. US waters are mapped in NOS Bathymetric & Fishing Maps (BFM) and NOAA/NGDC Coastal Relief Model (CRM), which are two representations of the same soundings. BFM maps were produced from 1965 to 1975 by cartographers skillfully interpreting the shape of the seafloor between survey points; the CRM was generated in 1998 using mathematical algorithms to interpret depths. The BFM maps give a more credible version of the continental slope, but these scanned paper maps simply contain colored contour lines, not numeric depth values. The CRM is a GIS-format raster, containing depth values in its cells that can be manipulated to describe and map the shape of the seafloor. The Canadian portion of the ecoregion, north of the Hague Line into the Bay of Fundy, is covered by USGS' Gulf of Maine 15' Bathymetry (GOM15).



Sediment Grain Size

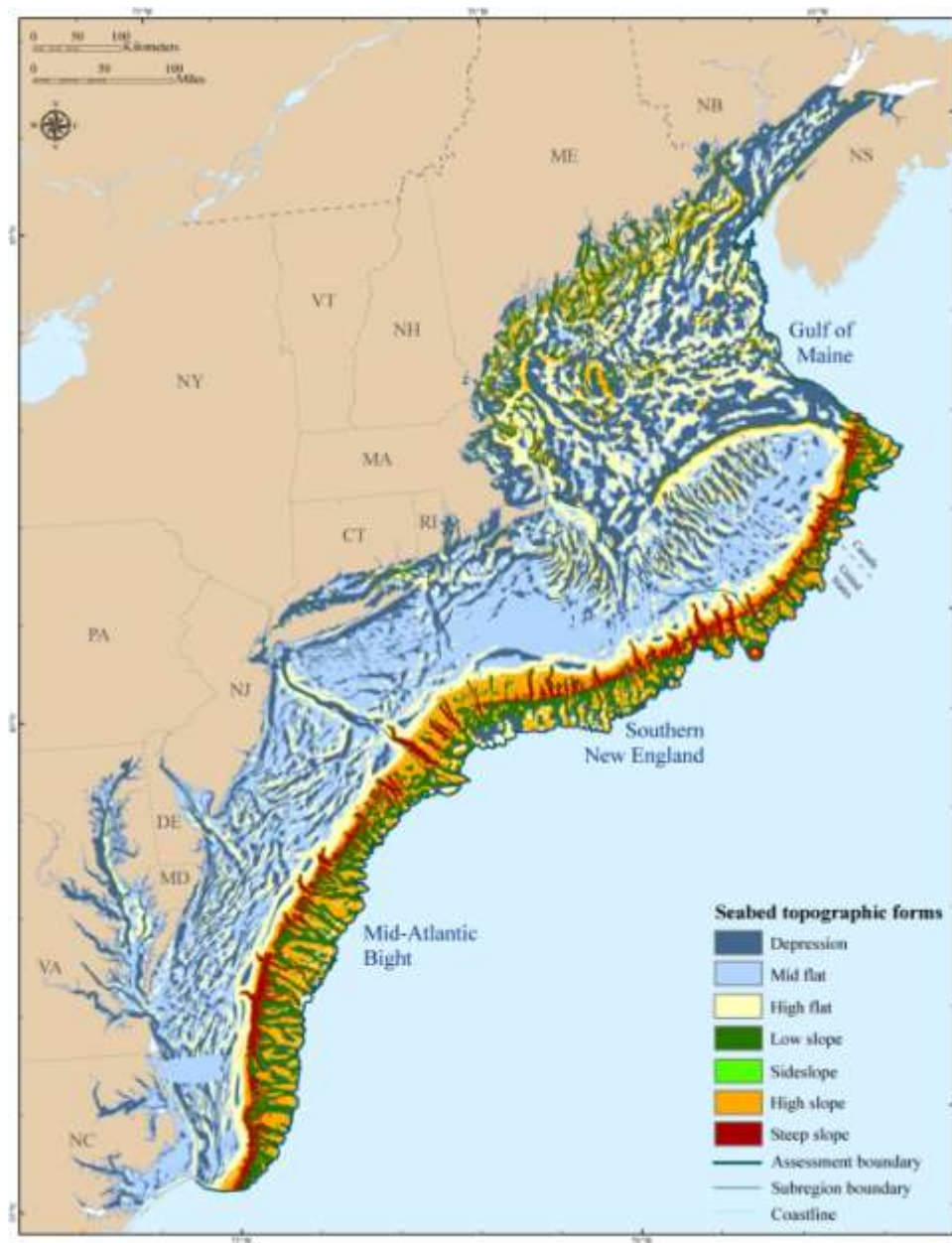
Data Source(s): USGS usSEABED

Link to Data Source(s): <http://walrus.wr.usgs.gov/usseabed/>

Scale: Polygon layer interpolated from point data, point data has various levels of accuracy depending on year and method of recording location

Year(s): 1960's through 2000 (usSEABED for the Northwest Atlantic Ecoregion contains over 150 data sources)

Product Details: usSEABED's averaged grain-size for each sample produced a robust interpretation of sediment texture, showing local variation as well as large-scale patterns. The point samples were interpolated using the Kriging interpolation method in ArcGIS to create surfaces representing the area between sample points at a cell size of 500 meters. We classified grain-size according to organisms' preferences, and assigned names to these classes based on the Wentworth (1922) scheme. To accommodate the various preferences of characteristic organism groups, the classes varied slightly in the three subregions of our study area.



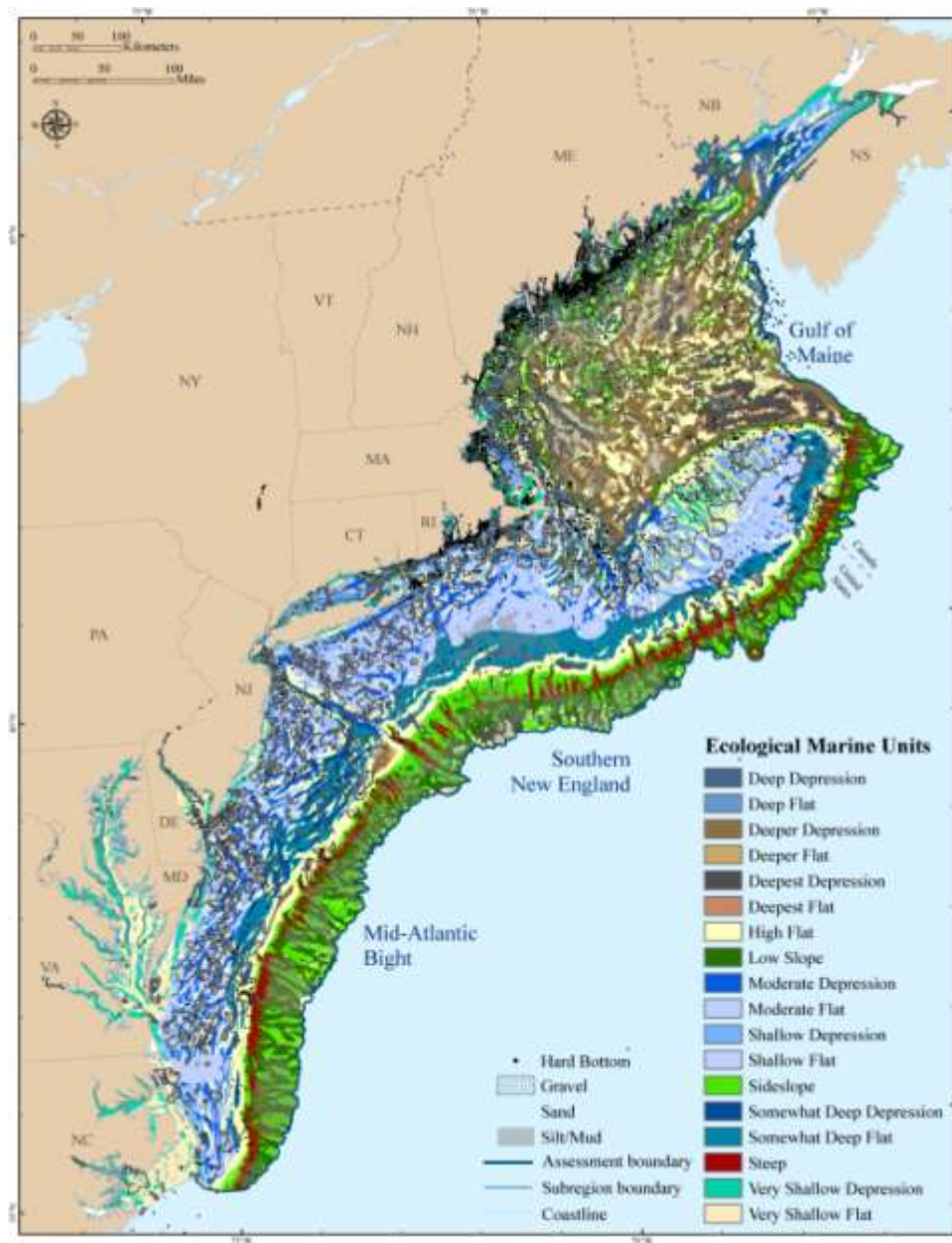
Seabed Forms

Data Source(s): Derived but The Nature Conservancy from bathymetry data

Scale: 83 meter resolution

Year(s): n/a

Product Details: Seabed forms classify seafloor topography into discrete units. Derived from The Nature Conservancy's derived digital bathymetry, seabed forms can be described by a combination of just two variables: seabed position and slope. Seabed position (also referred to as topographic position or slope position) describes the topography of the area surrounding a particular cell. We based our seabed position calculations on Fels and Zobel's (1995) method, which evaluates the elevation differences between the model cell and the surrounding cells within a specified distance.



Ecological Marine Units (EMUs)

Data Source(s): Derived by The Nature Conservancy from bathymetry, sediment grain size, and seabed forms.

Scale: 83 meter resolution

Year(s): n/a

Product Details: Ecological Marine Units (EMUs) are the three-way combination of physical variables - depth, sediment grain size, and seabed forms. The breaks in bathymetry and substrate grain size are based on the ecological thresholds revealed by the benthic organism relationships.