

Oceanography – Sea Surface Temperature

Data Source(s): Dr. Grant Law, Center for Coastal Margin Observation and Prediction, Oregon Health and Science University. The data were originally compiled and interpolated with an OAX5 optimal-analysis application from CDT casts. These casts came from Hydrobase, National Marine Fisheries Services, Fisheries and Ocean Canada, and an archive of South-Atlantic Bight hydrographic data assembled by Brian Blanton at UNC.

Scale: 1 kilometer

Years: 1980-2007

Product Details: These data help describe the physical environment of the sea surface. Average sea surface temperature is displayed in degrees Celsius. Sea surface temperatures were extracted from three dimensional climatologies representing 28 years from 1980 - 2007, averaged, and interpolated with ordinary kriging to produce a smooth surface for each season

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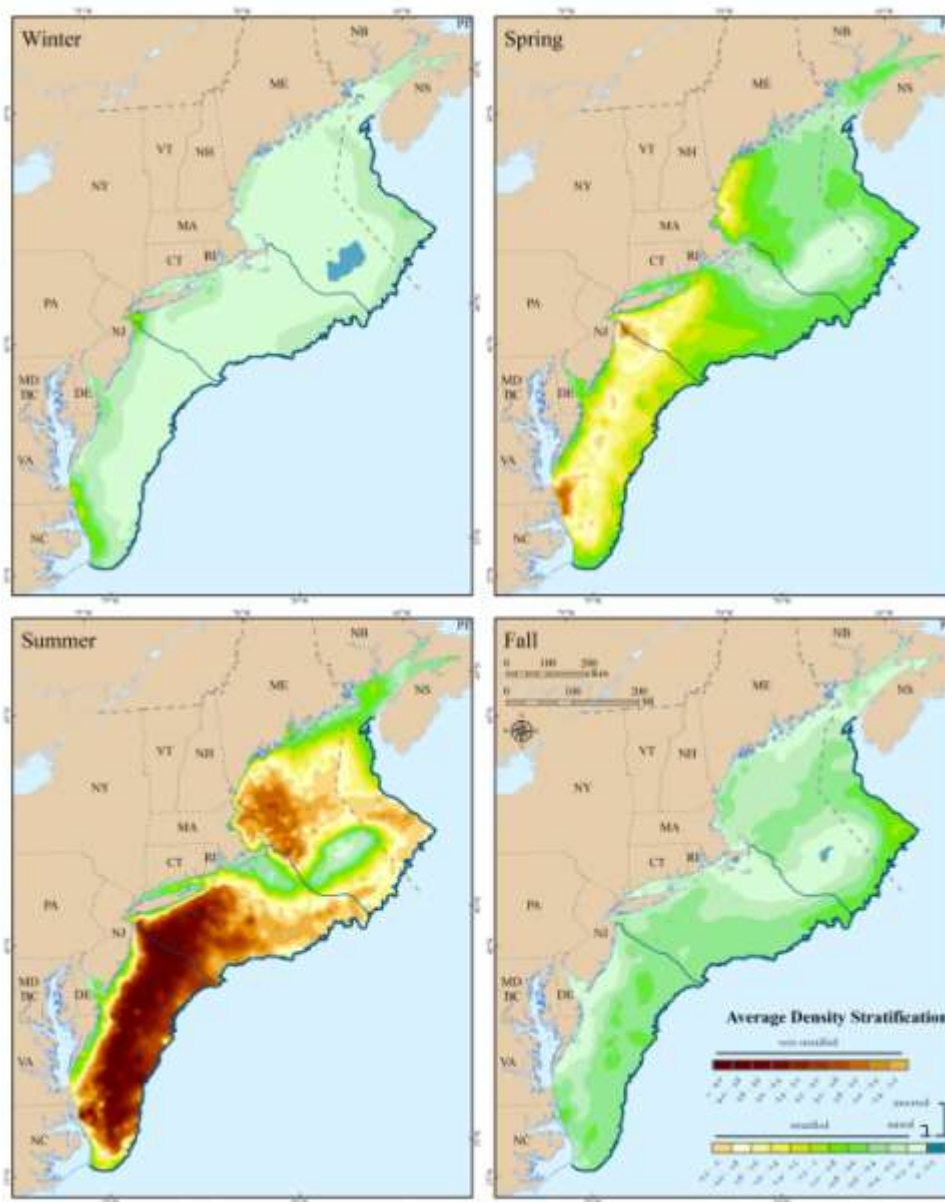
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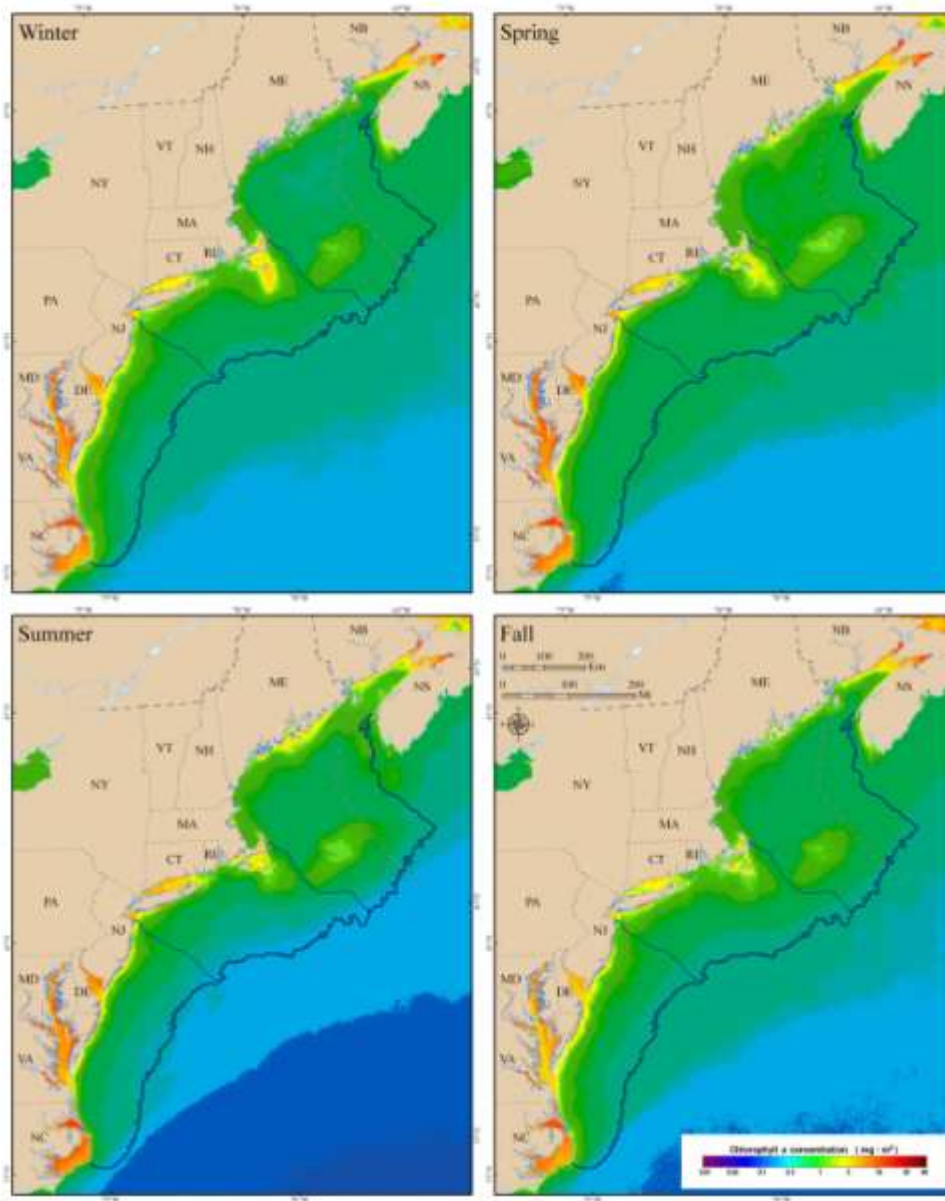
Scale: 1 km

Years: 1980-2007

Product Details: These data help describe the physical environment of the water column near the surface. These data help to understand the seasonal patterns of mixing and stratification that help to determine areas of high productivity and benthic-pelagic coupling.

Stratification was calculated by subtracting the density at 50 meters from the surface density. Stratification values were extracted from three dimensional climatologies representing 28 years from 1980 - 2007, averaged, and interpolated with ordinary kriging to produce a smooth surface.





Oceanography – Chlorophyll a

Data Source(s): NASA SeaWiFS

Link to Data Source(s): <http://oceancolor.gsfc.nasa.gov/>

Scale: 1.1 km resolution

Years: 1998-2007

Product Details: The chlorophyll a data was grouped by season for all years to give a general picture of chlorophyll trends throughout the year. The satellite images are from the SeaWiFS sensor obtained from NASA, and have a 1.1 km nominal resolution. These data were processed at the Ocean Process Analysis Laboratory at the University of New Hampshire (Dr. Tim Moore) and a coastal correction was applied for the region.

Oceanography – Zooplankton

Data Source(s): NMFS-COPEPOD

Link to Data Source(s): www.st.nmfs.noaa.gov/plankton

Scale: Point data at various levels of resolution due to position recording technologies

Years: 1977-2001

Product Details: Zooplankton biomass data were obtained from the COPEPOD database (NOAA) for 1977-2007. The sampling stations are indicated as black points on the map. Data were grouped into 1977-1979, 1980s, 1990s, and 2000-2001. The samples did not include inshore bays or sounds. Voronoi polygons were constructed around the location of each sample point and the value of each point was assigned to each polygon. Voronoi polygons are created so that every location within a polygon is closer to the sample point in that polygon than any other sample point, so that the data were accurately represented. Zooplankton counts were displayed as follows: very high (greater than 1 ml/m³; red), high (0.5-1 ml/m³; pink); moderate (0.2-0.5 ml/m³; yellow), low (0.1-0.2 ml/m³; light blue) or very low (less than 0.1 ml/m³; dark blue). Note that limited winter sampling took place in the Gulf of Maine and Southern New England subregions in 2000-2001.

