Large-scale interdisciplinary efforts aimed at studying the cycling and fluxes of carbon in the northwest Atlantic continental margin, specifically in the Middle Atlantic Bight (MAB), have been ongoing for approximately the last 20 years through a variety of different programs (including the earlier "Shelf Edge Exchange Programs" (SEEP) I and II). The Ocean Margins Program (OMP) was elaborated to evaluate all the major pools, biogeochemical transformations, and fluxes of carbon (and associated biogenic elements) in its various forms more fully than any previous program conducted in continental shelf and slope waters and sediments in this region. The field effort embraced four major components: (1) whole-shelf and upper slope “surveys” extending from Cape Cod to Cape Hatteras, intended to evaluate the major inventories, sources, and sinks of organic and inorganic carbon pools, (2) hydrographic surveys and the deployment, maintenance and retrieval of an array of between 23 and 26 highly instrumented (including both hydrographic and chemical sensors) moorings, distributed between the mouth of Chesapeake Bay and Cape Hatteras, (3) intensive “process-based studies” focusing on microbial food-web structure and function, primarily in the southern part of the MAB between Chesapeake Bay and Cape Hatteras, in the region of the moored array, and (4) outer shelf and slope sediment biogeochemical and benthic flux studies, also in the southern part of the study area.

James E. Bauer -- Biogeochemistry and cycling of carbon in the northwest Atlantic continental margin: findings of the Ocean Margins Program -- 4271-4272

P. G. Verity, J. E. Bauer, C. N. Flagg, D. J. DeMaster and D. J. Repeta -- The Ocean Margins Program: an interdisciplinary study of carbon sources, transformations, and sinks in a temperate continental margin system -- 4273-4295

Charles N. Flagg, Leonard J. Pietrafesa and Georges L. Weatherly -- Springtime hydrography of the southern Middle Atlantic Bight and the onset of seasonal stratification -- 4297-4329

L. J. Pietrafesa, C. N. Flagg, L. Xie, G. L. Weatherly and J. M. Morrison -- The winter/spring 1996 OMP current, meteorological, sea state and coastal sea level fields -- 4331-4354

M. D. DeGrandpre, G. J. Olbu, C. M. Beatty and T. R. Hammar -- Air–sea CO2 fluxes on the US Middle Atlantic Bight -- 4355-4367

Penny Vlahos, Robert F. Chen and Daniel J. Repeta -- Dissolved organic carbon in the Mid-Atlantic Bight -- 4369-4385

James E. Bauer, Ellen R. M. Druffel, David M. Wolgast and Sheila Griffin -- Temporal and regional variability in sources and cycling of DOC and POC in the northwest Atlantic continental shelf and slope -- 4387-4419
Lihini I. Aluwihare, Daniel J. Repeta and Robert F. Chen -- Chemical composition and cycling of dissolved organic matter in the Mid-Atlantic Bight -- 4421-4437

R. F. Chen, Y. Zhang, P. Vlahos and S. M. Rudnick -- The fluorescence of dissolved organic matter in the Mid-Atlantic Bight -- 4439-4459

Charles S. Hopkinson, Jr., Joseph J. Vallino and Amy Nolin -- Decomposition of dissolved organic matter from the continental margin -- 4461-4478

Steven E. Lohrenz, Donald G. Redalje, Peter G. Verity, Charles N. Flagg and Kenneth V. Matulewski -- Primary production on the continental shelf off Cape Hatteras, North Carolina -- 4479-4509

D. G. Redalje, S. E. Lohrenz, P. G. Verity and C. N. Flagg -- Phytoplankton dynamics within a discrete water mass off Cape Hatteras, North Carolina: the Lagrangian experiment -- 4511-4531

G.-A. Paffenhöfer and C. N. Flagg -- Interannual variability of metazooplankton biomass in ocean margins: late winter vs. summer -- 4533-4552

P. G. Verity, D. G. Redalje, S. R. Lohrenz, C. Flagg and R. Hristov -- Coupling between primary production and pelagic consumption in temperate ocean margin pelagic ecosystems -- 4553-4569

Evelyn B. Sherr, Barry F. Sherr and Peter G. Verity -- Distribution and relation of total bacteria, active bacteria, bacterivory, and volume of organic detritus in Atlantic continental shelf waters off Cape Hatteras, NC, USA -- 4571-4585

L. Mayer, L. Benninger, M. Bock, D. DeMaster, Q. Roberts and C. Martens -- Mineral associations and nutritional quality of organic matter in shelf and upper slope sediments off Cape Hatteras, USA: a case of unusually high loadings -- 4587-4597

J. Y. Aller, R. C. Aller and M. A. Green -- Benthic faunal assemblages and carbon supply along the continental shelf/shelf break-slope off Cape Hatteras, North Carolina -- 4599-4625

M. A. Green, R. C. Aller, J. K. Cochran, C. Lee and J. Y. Aller -- Bioturbation in shelf/slope sediments off Cape Hatteras, North Carolina: the use of 234Th, Chl-a, and Br- to evaluate rates of particle and solute transport -- 4627-4644

Marc J. Alperin, Ismail B. Suayah, Larry K. Benninger and Christopher S. Martens -- Modern organic carbon burial fluxes, recent sedimentation rates, and particle mixing rates from the upper continental slope near Cape Hatteras, North Carolina (USA) -- 4645-4665
