



The Arabian Sea Expedition, now five years past its field observations, is at a stage when some of its dominant themes can be summarized. Of the large range of possible topics, five are considered here: (1) Is the Arabian Sea a source or sink for carbon dioxide?; (2) Is the Arabian Sea Mother Nature's iron experiment?; (3) Do grazing zooplankton control carbon flux to the seabed?; (4) Does the paleoceanographic record help us predict the ocean's response to climate change?; and (5) What are the predominant physical processes of the Arabian Sea? A short history of each issue and results from the field work of 1994-1996 are presented.

Hyun-Sook Kim, Charles N. Flagg and Stephan D. Howden -- Northern Arabian Sea variability from TOPEX/Poseidon altimetry data: an extension of the US JGOFS/ONR shipboard ADCP study -- 1069-1096

Deanna Wilson-Diaz, Arthur J. Mariano, Robert H. Evans and Mark E. Luther -- A principal component analysis of sea-surface temperature in the Arabian Sea -- 1097-1114

S. Prasanna Kumar et al. -- Physical forcing of biological productivity in the Northern Arabian Sea during the Northeast Monsoon -- 1115-1126

Richard T. Barber et al. -- Primary productivity and its regulation in the Arabian Sea during 1995 -- 1127-1172

Raymond N. Sambrotto -- Nitrogen production in the northern Arabian Sea during the Spring Intermonsoon and Southwest Monsoon seasons -- 1173-1198

Mary-Lynn Dickson et al. -- Production and respiration rates in the Arabian Sea during the 1995 Northeast and Southwest Monsoons -- 1199-1230

Alexi Shalapyonok, Robert J. Olson and Ludmila S. Shalapyonok -- Arabian Sea phytoplankton during Southwest and Northeast Monsoons 1995: composition, size structure and biomass from individual cell properties measured by flow cytometry -- 1231-1261

Nelson D. Sherry and A. Michelle Wood -- Phycoerythrin-containing picocyanobacteria in the Arabian Sea in February 1995: - diel patterns, spatial variability, and growth rates -- 1263-1283

C.S. Kinkade, J. Marra, T.D. Dickey and R. Weller -- An annual cycle of phytoplankton biomass in the Arabian Sea, 1994-1995, as determined by moored optical sensors -- 1285-1301

H.W. Ducklow et al. -- Heterotrophic bacterioplankton in the Arabian Sea: Basin-wide response to year-round high primary productivity -- 1303-1323

R.E. Pieper, D.E. McGehee, C.F. Greenlaw and D.V. Holliday -- Acoustically measured seasonal patterns of Zooplankton in the Arabian Sea -- 1325-1343

M. Madhupratap, T.C. Gopalakrishnan, P. Haridas and K.K.C. Nair -- Mesozooplankton biomass, composition and distribution in the Arabian Sea during the Fall Intermonsoon: implications of oxygen gradients -- 1345-1368

Mari Butler, Stephen M. Bollens, Brenda Burkhalter, Laurence P. Madin and Erich Horgan -- Mesopelagic fishes of the Arabian Sea: distribution, abundance and diet of *Chauliodus pammelas*, *Chauliodus sloani*, *Stomias affinis*, and *Stomias nebulosus* -- 1369-1383

Sharon L. Smith -- Understanding the Arabian Sea: Reflections on the 1994-1996 Arabian Sea Expedition -- 1385-1402