

# PACIFIC SCIENCE

A QUARTERLY DEVOTED TO THE BIOLOGICAL AND  
PHYSICAL SCIENCES OF THE PACIFIC REGION

Volume 49

October 1995

Number 4

Scientific Studies of the Ala Wai Canal, an Artificial Tropical  
Estuary in Honolulu, Hawai'i

Edited by Craig R. Glenn and Gary M. McMurtry

## CONTENTS

- Scientific Studies and History of the Ala Wai Canal, an Artificial  
Tropical Estuary in Honolulu  
*Craig R. Glenn and Gary M. McMurtry* 307
- The 1991–1992 NSF Young Scholars Program at the University of  
Hawai'i: Science and Engineering Studies of the Ala Wai Canal, an  
Urban Estuary in Honolulu  
*Patrica Fryer* 319
- Net Phytoplankton of the Ala Wai Canal, O'ahu, Hawai'i  
*Kevin S. Beach, Robert Harris, Michelle Holsomback, Melissa  
Rabago, and Celia M. Smith* 332
- Foraminiferal Ecology, Ala Wai Canal, Hawai'i  
*Johanna M. Resig, Kristine Ming, and Scott Miyake* 341
- Geochemistry, Mineralogy, and Stable Isotopic Results from Ala  
Wai Estuarine Sediments: Records of Hypereutrophication and  
Abiotic Whitings  
*C. R. Glenn, S. Rajan, G. M. McMurtry, and J. Benaman* 367
- Mineral Assemblages of the Sediments of the Ala Wai Canal and  
Its Drainage Basins, O'ahu, Hawai'i  
*Pow-Foong Fan, Roanna Ng, and Deanna Remular* 400

(continued on following page)

## CONTENTS (*continued*)

Modeling Sediment Accumulation and Soil Erosion with $^{137}\text{Cs}$ and $^{210}\text{Pb}$ in the Ala Wai Canal and Central Honolulu Watershed, Hawai'i <i>Gary M. McMurtry, Anond Snidvongs, and Craig R. Glenn</i>	412
Heavy Metal Anomalies in Coastal Sediments of O'ahu, Hawai'i <i>Gary M. McMurtry, John C. Wiltshire, and James P. Kauahikaua</i>	452
Records of Lead and Other Heavy Metal Inputs to Sediments of the Ala Wai Canal, O'ahu, Hawai'i <i>Eric H. De Carlo and Khalil J. Spencer</i>	471
Isotopic Clues to Sources of Natural and Anthropogenic Lead in Sediments and Soils from O'ahu, Hawai'i <i>Khalil J. Spencer, Eric H. De Carlo, and Gary M. McMurtry</i>	492
Mercury Accumulation in Sediments of the Ala Wai Canal and in Soils and Stream Sediments of the Central Honolulu Watershed <i>Laurence M. Raine, Barbara Z. Siegel, and Gary M. McMurtry</i>	511
Index to Volume 49	526

*Previous issue published July 1995*