ization of the south Florida area has resulted in a loss of vital fisheries habitat for many commercially and recreationally important fish and invertebrate species. Large-scale wetlands restoration efforts are being designed and implemented regionally to maximize habitat heterogeneity, and provide critical fish habitat. To provide diverse seagrass and mangrove habitats for larval and juvenile fish development, the designs include a network of tidal flushing channels inter-connecting low energy tidal pools, and shallow open-water areas with specific hydrological criteria. To document the efficacy of the restored habitat, fish assemblages are being monitored at a 30-ha mangrove wetlands restoration site on Key Biscayne, Florida. To date, a total of 29 fish taxa have been identified in the restored tidal pools, and the diversity of fish species has increased from five to ten species per tidal pool over the five year monitoring effort. Fish species richness has increased by four species since the baseline was established in 2000/2001, and the fisheries inventory has documented the restored areas functioning to support important fisheries species.—*[1] Miami-Dade County, Department of Environmental Resource Management, Miami, Florida, U.S.A. [2] University of Miami, Rosenstiel School of Marine and Atmospheric Science, Miami, Florida, U.S.A. [3] NOAA Fisheries, Miami, Florida, U.S.A.*

SEASONAL VARIATION IN FISH ABUNDANCE IN MANGROVE ECOSYSTEMS: COMPARING FORESTED AND UN-FORESTED HABITATS *by H.O.D. Mirera [1], J. G. Kairo [2], N. E. Kimani [2], and K. F. Waweru [1].*—The research investigated fish abundance in forested and unforested sites at Ungwana Bay, Kenya. Four forested sites having paired unforested sites were studied for comparison. Samples were collected with nets for 8 mo over two years (2003 and 2004). Mean fish abundance ranged from 6.11 fish 36 m^{-2} to 80.08 fish 36 m^{-2} in forested sites and 3.08 fish 36 m^{-2} to 125.89 fish 36 m^{-2} in unforested sites while biomass varied from 37.87 to 326.75 in forested sites and 7.88 to 303.92 in unforested ones. The results indicate a high abundance of fish in forested sites compared to unforested ones a part from site 4 where the unforested area had more fish abundance due to one big sample of *Pellona ditchella* that accounted for 73.1% of the fish in the site. A total of 35 fish species were sampled from both forested and unforested sites with 11 being exclusively forested and five unforested. There were significant differences in fish abundance and biomass with respect to substratum type indicating that the fish community preferred muddy bottom forested sites to sandy bottom forested sites. Fish abundance was significantly higher in all sites (forested and unforested) during northeastern monsoon compared to southeastern monsoon, however, the gap between the seasons was more pronounced in muddy substratum sites compared to sandy ones. The unforested sites showed significantly lower density of meiofauna in the sediments compared to forested sites, while muddy substratum sites also had significantly higher meiofauna density. The results support the hypothesis that fish visit mangrove habitats to feed and to avoid predators. They also raise the idea of substrate type as an influencing factor in fish habitat preference.—*[1] Egerton University, Department of Natural Resources, Njoro, Nakuru, Kenya. [2] Kenya Marine and Fisheries Research Institute, Mombasa, Kenya.*

NUTRIENT DYNAMICS IN A CLOSED SYSTEM WITH MANGROVE SEEDLINGS AND POECILID FISHES *by Leonardo Moroyoqui-Rojo [1], Francisco J. Flores-Verdugo [2], Diana Escobedo-Urías [1], and Maria Nancy Herrera-Moreno [1].*—Six closed recirculation systems (1000 L each) with poecilid fishes and mangrove seedlings were designed to estimate the nutrient uptake by mangroves and the survival and growth rate of poecilid fishes. Each system has a biological filter of gravel and sand, 34 mangrove seedlings (*Rhizophora mangle* and *Laguncularia racemosa*) and 200 poecilid fishes. The results show that mangroves removed 71%–94% of the dissolved inorganic nitrogen (DIN) and 36%–47% of the orto-PO_4. The systems without mangroves removed 35%–52% of DIN and 21%–25% during a cycle of 10 d. The poecilid fish survival was 100% with a good growth rate in all the systems (1 cm mo^{-1}). Even though growth rate and survival of the poecillid fishes were similar in all the systems, we consider that in a long term, the mangroves play an important role in keeping good water