

these similarities have led to a long history of taxonomic confusion. Ten of the twelve species of mojarras occurring in the western Atlantic Ocean occur regularly in the IRL, and one additional species, *Diapterus rhombeus*, has been recorded once. Ecologically and zoogeographically, IRL gerreids range from insular forms (widely distributed in high-salinity, clear-water areas) to continental forms (widely distributed in estuarine areas). The insular forms include *Eucinostomus havana*, *E. lefroyi*, and *E. jonesi* and are found most frequently near inlets and along ocean beaches in the IRL region. These species are generally common in U.S. waters only in southeast Florida and the Florida Keys. The continental species include *Eucinostomus harengulus*, *E. gula*, *Diapterus auratus*, and *D. plumieri* and are among the ecologically dominant (based on relative abundance) fishes in the IRL. *Eucinostomus gula* is abundant in the open lagoon, often near seagrass beds; *E. harengulus* and *D. auratus* are abundant in the open lagoon and common in freshwater tributaries and tidal wetlands; and *D. plumieri* is common in freshwater tributaries. These species are abundant (or at least not uncommon) in U.S. waters in southeastern Florida and along the Texas coast (*D. auratus*), from southeastern to southwestern Florida (*D. plumieri*), or from the Carolinas to Texas (*E. harengulus* and *E. gula*). *Eucinostomus melanopterus*, *E. argenteus*, and *Gerres cinereus* all have unique ecological and zoogeographic patterns that are somewhat intermediate between those of the insular and continental groups. *Eucinostomus melanopterus* is common along the southeast coast of Florida and in the western Gulf of Mexico and is also the only amphi-Atlantic gerreid. In the IRL, this species is found primarily near inlets, but in other parts of its range it has been collected in various habitats, including freshwater. *Eucinostomus argenteus* is common from the Carolinas to Texas, but appears to be a highly seasonal invader of estuaries (including the IRL): juveniles enter estuaries in late summer and early fall, but adults are generally found on the continental shelf. *Gerres cinereus* is common only in southeastern Florida and the Florida Keys. Juveniles of this species are common in mangrove creeks (or similar man-made habitats), and adults are seen frequently in sandy areas, often near coral reefs. Three major points need to be made regarding this family in particular and the biodiversity of the IRL in general. First, as a family, gerreids are among the most speciose, ecologically diverse, and abundant fishes in the IRL, and their diversity in this system is unusually high compared to that in other estuaries. Second, understanding of the ecology and diversity of this group has been hampered by taxonomic difficulties, a problem that also applies to many other groups and indicates the importance of taxonomic studies to the understanding of biodiversity. Finally, different species utilize different habitats and have different degrees of specificity in habitat preference. Therefore, diversity in this group can be affected by degradation of any of several habitats, but some species are more vulnerable than others because they have more specialized habitat requirements.—(R.E.M.) *Florida Marine Research Institute, St. Petersburg, Florida; (R.G.G.) Harbor Branch Oceanographic Institution, Fort Pierce, Florida.*

FLORIDA'S MARINE FISHERIES-INDEPENDENT MONITORING PROGRAM: A LONG-TERM ECOLOGICAL DATASET by R. H. McMichael, Jr., R. Paperno, B. J. McLaughlin and M. E. Mitchell.—Florida's Marine Fisheries-Independent Monitoring Program was established to monitor juvenile fish populations in an effort to provide long-term, reliable data that are independent of recreational and commercial fishing activities and therefore provide unbiased estimates of trends in fish stocks. We are developing a juvenile fish database that will include valuable information (timing of recruitment, distribution, and habitat use) about many important estuarine-dependent species. The juvenile fish monitoring program began sampling in Tampa Bay in 1988 and has since expanded to include Charlotte Harbor, the Indian River Lagoon, Ft. Walton Beach, and Florida Bay. Gear types now being used include seines, trawls, experimental gillnets, and dropnets. The program was recently expanded to include fisheries-independent monitoring of adult fishes. In the adult program we will initially concentrate on estimating the abundance of striped mullet and red drum. Monitoring of adult populations in a way that is independent of recreational and commercial fishing interests will enhance our ability to predict changes in these populations. The fisheries-independent monitoring programs (juvenile and adult fishes) developed by the Florida Department of Environmental Protection will provide useful a priori and a posteriori information to local, state, and federal resource managers regarding fish and macro-invertebrate biodiversity. Within the Indian River Lagoon study area, Florida's Fisheries-Independent Monitoring Program has established a stratified-random sampling design and 19 nonrandom, fixed stations in the area between 28°01' and 28°36', excluding Mosquito Lagoon. In 1993, 76 species representing 37 families were recorded during spring and fall stratified-random sampling, and 95 species representing 40 families were recorded during fixed-station sampling.—(R.H.M.) (B.J.M.) *Florida Department of Environmental Protection, Florida Marine Research Institute, 100 Eighth Avenue, S.E., St. Petersburg, Florida 33701; (R.P.) Florida Department of Environmental Protection, Florida Marine Research Institute, 1220 Prospect Ave., Suite 285, Melbourne, Florida 32901; (M.E.M.) Florida Department of Environmental Protection, Florida Marine Research Institute, 1481 A Market Circle, Port Charlotte, Florida 33953.*