TEMPORAL PATTERNS OF MOVEMENT OF REEF ZOOPLANKTON

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Reef zooplankton were intensively sampled for six days from the NULS-1 hydrolab facility at St. Croix. Samples were collected every two hours from demersal zooplankton traps, diver pushed zooplankton nets and surface zooplankton net tows. While copepods and other crustaceans are most abundant, eleven phyla are represented in the samples. Although one pulse of zooplankton into the water column occurs during the hour following sunset, there is considerable upward movement by many groups throughout the night and most groups show an increase in migratory movement shortly before dawn. Not all zooplankton exhibit the same diel migratory patterns; for example, the dominant cyclopoid copepod migrates most from midnight to before sunrise, whereas a common harpacticoid copepod moves upward most immediately following sunset. The mean size of zooplankton captured in the demersal traps during the day is less than at night. The vertical movement of some species can be followed through time by subsequent collections by zooplankton nets at different water depths.