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**Elizabeth L Council\*** (emartin@rsmas.miami.edu). *Modeling the Effects of Age-Specific Harvesting on Connected Subpopulations of Marine Fish Using a Discrete Age Continuous Time Approach.*

The impacts on population structure of variability in spawning behaviors and fishing mortality rates among connected subpopulations of marine fish are not well understood. This paper presents a new discrete age continuous time modeling approach for investigating these impacts on a connected two-subpopulation system of an exploited marine fish species. By comparing the solutions of this model under different age-structured fishing mortality patterns, it is possible to evaluate how these differences manifest at the population level. A derivation and analysis of the model are presented as well as an application to the ontogenetic migration of Atlantic Tarpon, *Megalops atlanticus*. (Received September 16, 2013)