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Nianpeng Li, Department of Mathematics, Washington, DC 20059, and **Abdul-Aziz Yakubu*** (ayakubu@howard.edu), Mathematics Department, Washington, DC 20059. *A Juvenile-Adult Discrete-Time Model Of Exploited Fishery Systems*. Preliminary report.

Previous mathematical modeling of the population dynamics of Georges Bank Atlantic cod fishery employed discrete-time models with no age-structure. These models predict that at recent harvest rates (from 1975-2007), constant and periodic proportion harvesting policies may fail to prevent a collapse of the cod fishery. In this talk, we use an age-structured model to show that at the recent harvesting levels, the cod fishery is sustainable under a constant proportion harvesting policy. (Received September 21, 2010)