1050-92-99 **Abdul-Aziz Yakubu*** (`ayakubu@howard.edu`), Mathematics Department, Howard University, Washington, DC 20059, and **Jon Conrad** and **Mary Lou Zeeman**. *Periodic Versus Constant Proportion Fish Exploitation Policies.* Preliminary report.

We use a single-species discrete-time model to demonstrate changes that introduction of the strong Allee mechanism and periodic exploitation policy have on compensatory and overcompensatory stock dynamics through comparison with corresponding models that lack such constraints. Periodic and constant exploitation policies simplify complex overcompensatory stock dynamics with or without the Allee effect. Both constant and periodic exploitation policies force a sudden collapse to extinction of fisheries systems that exhibit the Allee mechanism. However, in the absence of the Allee effect, fisheries systems decline to zero smoothly under high exploitation. Also, we will explore the impact of climate change on the extinction of exploited species. (Received February 28, 2009)