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Rhouma. The dynamics of Pielou's equation under the effect of harvesting. Preliminary report.

In this talk, we discuss the dynamics of Pielou's equation $x_{n+1} = \frac{K\mu x_n}{K+(\mu-1)x_{n-t}} - h(x_n, \dots, x_{n-t}).$

When t = 0, we obtain the Beverton-Holt model, and some results concerning periodic harvesting in periodically fluctuating environment will be given. When t = 1, we discuss some characteristics of persistent solutions and the persistent set, particularly when $h(x_n, \ldots, x_{n-t})$ is constant or proportional to x_n, x_{n-1} . Also, some comparison between the various scenarios will be given. (Received September 03, 2010)