Global attractivity and persistence in a discrete population model

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We study the attractivity properties of equilibrium points of the scalar delay difference equation $x_{n+1} - x_n = -\alpha x_n + pf(x_{n-k})$ which arises in many contexts in the ecology. New sufficient conditions for the global stability of a unique positive steady state are obtained. These conditions contain some earlier results as particular cases. Some persistence results for this equation are also proved. © 2000 OPA (Overseas Publishers Association) N.V. Published by license under the Gordon and Breach Science Publishers imprint.