da Silveira Costa, Michel Iskin
Harvesting induced fluctuations: insights from a threshold management policy. (English)
Zbl 1106.92069

Summary: It is shown that in a deterministic context, a threshold policy can induce cyclic behavior in an otherwise exploited stable population. These dynamics ensue as a result of the combination of the degree of harvesting pressure and more protective threshold densities. Virtual equilibrium in variable structure systems plays a determinant role in this dynamical outcome.

MSC:

92D40	Ecology
91B76	Environmental economics (natural resource models, harvesting, pollution, etc.)
93C95	Application models in control theory
39A11	Stability of difference equations (MSC2000)

Cited in **19** Documents

Keywords:

harvesting; threshold management policy; virtual equilibrium; Ricker model

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