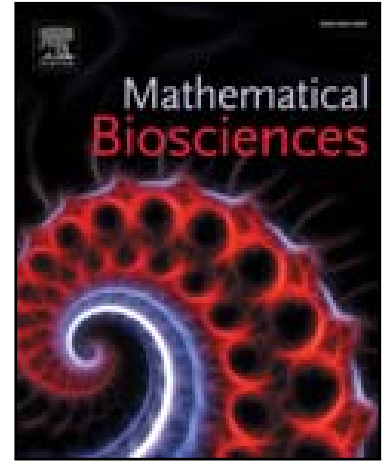


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Refuge-Mediated Predator-Prey Dynamics and Biomass Pyramids

Hao Wang, Silogini Thanarajah, Philippe Gaudreau

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Highlights

- Develop a mathematical model describing the predator-prey interactions when prey have access to a refuge.
- Investigate the effects of the prey refuge on the predator-prey dynamics and the occurrence of an inverted biomass pyramid.
- Study the impacts of fishing efforts and predator migrations on the predator-prey dynamics and the existence of an inverted biomass pyramid.
- Stability and bifurcation analysis
- Numerical test and sensitivity analysis for the predator-prey cycle in the refuge case.
- Observe that high fishing pressure or strong predator migration will change an inverted biomass pyramid into a regular biomass pyramid.

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