

Original Articles

Dynamical Behaviors in a Two-dimensional Map

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摘要 We consider the dynamics of a two-dimensional map proposed by Maynard Smith as a population model. The existence of chaos in the sense of Marotto's theorem is first proved, and the bifurcations of periodic points are studied by analytic methods. The numerical simulations not only show the consistence with the theoretical analysis but also exhibit the complex dynamical behaviors.

关键词 [snap-back repellers](#) [chaos](#) [hopf bifurcation](#)

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