

1133-92-259

Sergei S. Pilyugin* (pilyugin@ufl.edu), Department of Mathematics, University of Florida, Gainesville, FL 32611, and **Jan Medlock** and **Patrick De Leenheer**. *The effectiveness of marine protected areas for fish populations with varying mobility.*

Marine protected areas (MPAs) are regions in the ocean where fishing is restricted or prohibited. It is expected that upon establishment of MPA, the ratio of fish densities inside and outside of MPA (the local ratio) must decrease with fish mobility as diffusive coupling typically tends to equalize the density gradients, but there exists a body of experimental evidence to the contrary. In this talk, I will discuss the interplay between various factors and types of species mobility that affect the local effect. (Received July 28, 2017)