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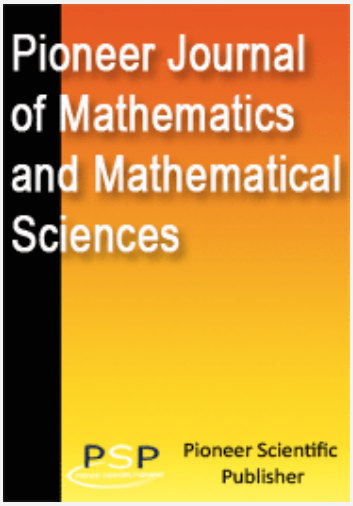

PROJECTING THE AFRICAN MALE ELEPHANT AT AMBOSELI NATIONAL PARK

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Abstract

This paper uses the Leslie population projection matrix that factors the current population of the African male elephant to predict its population several years into the future amidst factors that threaten its very existence. We use fertility rates, survival rates and base populations of the species as variables in the matrix. Amongst the factors that threaten to extinction its survival at Amboseli National Park, is illegal poaching in search of Ivory and prolonged extreme weather conditions that characterize this ecosystem. Using Matlab software, the Eigen system of the resulting projection matrix is used to analyze the male Elephant population at Amboseli National Park, Kenya.

Keywords and phrases: Leslie projection matrix, male African Elephant, Amboseli national park, mortality rates, fertility rates, fecundity and survival probabilities.