STOCHASTIC MODELING OF BIOLOGICAL POPULATIONS THROUGH BRANCHING MODELS. APPLICATION TO BLACK VULTURE COLONIES

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We investigate appropriate stochastic models to describe the population dynamics of some biological species. We develop a discrete-time branching model which is indexed by the time instead of the generation, as usual in branching process literature [2]. In particular, by considering approximate Bayesian computation methods, we estimate some relevant biological parameters. As illustration, we apply such a model to describe the probabilistic evolution of Black Vulture colonies in Extremadura (Spain) [1]

References

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