



AGE-DEPENDENT MODEL FOR POPULATION DYNAMICS OF POLYPS, ONE LIFE STAGE OF JELLYFISH

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Abstract. It is known that the life cycle of jellyfishes is rather complicated and a morphology called polyps appears in the life cycle. In this paper we focus on the population dynamics by an asexual reproduction of the polyps. The dynamics is given as an age-dependent differential equation model. The purpose of this paper is to establish existence and uniqueness of a solution to the model by the standard fixed point argument. Moreover, we show numerical results and observe growth rates of the population.

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