



**Dynamical behavior of a fractional-order
eco-epidemiological model with modified
Leslie-Gower Holling-type II schemes**

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Abstract. In this paper, we introduce a fractional-order eco-epidemiological model with modified Leslie-Gower Holling-type II schemes. We show the solutions of the model are non-negative, and also give a detailed local asymptotical stability analysis of the biologically feasible equilibria. Numerical simulations are presented to illustrate the results.

Keywords: fractional order, eco-epidemiology, local stability

MSC numbers: 92D30, 26A33

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