# LIMIT CYCLES
# IN THE HOLLING-TANNER MODEL

ARMENGOL GASULL, ROBERT E. KOOIJ AND JOAN TORREGROSA

*Abstract*

This paper deals with the following question: does the asymptotic stability of the positive equilibrium of the Holling-Tanner model imply it is also globally stable? We will show that the answer to this question is negative. The main tool we use is the computation of Poincaré-Lyapunov constants in case a weak focus occurs. In this way we are able to construct an example with two limit cycles.