

Coupled Population dynamics in Blowflies

Wesley Augusto Conde Godoy¹, Marcelo Nogueira Rossi²,
Hiraldio Serra³, Nelice Milena Batistelli⁴, Lucas Del Bianco Faria⁵
and Gisele Souza Rosa⁶.

The population dynamics was modelled in blowflies using density-dependent and coupled population models (Prout & McChesney, 1985, Roughgarden, 1998). Bifurcation diagrams show that *Cochliomyia macellaria* and *Lucilia eximia*, native species to America, exhibit one-point equilibrium over all migration parametric space, but *Chrysomya albiceps*, *C. putoria* and *C. megacephala*, introduced species originary from Africa and Asia, show both stable equilibrium and two-point limit cycle.

References

- [1] Prout, T. & F. McChesney, 1985, Competition among immatures affects their adult fertility: population dynamics, *Am. Natur.*, 126, 521-558.
- [2] Roughgarden, J., 1998, Primer of ecological theory. Prentice Hall, Upper Saddle River, New Jersey.

¹Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: wgodoy@ibb.unesp.br).

²Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: rossibio@hotmail.com.br).

³Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: mascariniserra@ig.com.br).

⁴Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: nebatistelli@ig.com.br).

⁵Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: lfaria@ibb.unesp.br).

⁶Departamento de Parasitologia, IB, UNESP 18618-000 Botucatu SP Brazil (e-mail: gi.sr@ig.com.br).