

De Ross, Andre M. 2014. *Modeling Population Dynamics*. OnLine text. 222 pp.

[https://staff.fnwi.uva.nl/a.m.deroos/downloads/pdf\\_readers/syllabus.pdf](https://staff.fnwi.uva.nl/a.m.deroos/downloads/pdf_readers/syllabus.pdf) . Accessed 1 April 2023.

From the Introduction to the text, “This course is intended as an introduction to the formulation, analysis and application of mathematical models that describe the dynamics of biological populations. It starts at a very basic level, probably repeating some material that is also part of an introductory ecology course. Nonetheless, I think this rehearsal is necessary and useful, while it allows me to emphasize some theoretical aspects that are certainly not part of an introductory ecology course.”

“My intention is to emphasize more the biological and the conceptual aspects of the theory in that I devote quite some attention to the formulation of models (the model building stage) and the interpretation of the mathematical analysis in terms of biological conclusions”

Many models are developed and the emphasis is on qualitative analysis, e.g., equilibrium and stability. There are lots of references to papers with data, but there is not data used in the modeling here. There is a whole chapter of exercises and answers, pp. 147 – 174.

Keywords: text, population, growth, competition, systems, predator prey, equilibrium, stability, bifurcation