

3 Introductory material: Ecosim

Ecosim provides a dynamic simulation capability at the ecosystem level, with key initial parameters inherited from the base Ecopath model.

This chapter contains details of the theory underpinning the function of Ecosim: [An overview of Ecosim?](#); [Ecosim basic?](#); [Vulnerabilities in Ecosim?](#); [Dealing with dynamic instability in Ecosim/Ecospace?](#); [Predicting consumption?](#); [Foraging time and predation risk?](#); [Time series fitting in Ecosim?](#); [Hints for fitting models to time series?](#); [Effect of P/B \(Z\) and vulnerability for time series fitting?](#); [Predator satiation and handling time effects?](#); [Modelling switching behaviour in Ecosim?](#); [Compensatory mechanisms?](#); [Using Ecosim to study compensation in recruitment relationships?](#); [Compensatory growth \(overall P/B\)?](#); [Compensatory natural mortality?](#); [Linking mediation and time forcing functions to trophic interaction rates?](#); [Primary production?](#); [Nutrient cycling and nutrient limitation in Ecosim?](#); [Density-dependent changes in catchability?](#); [Modelling effort dynamics?](#); [Using Ecosim for Stock Reduction Analysis?](#); [Hatchery populations in Ecosim?](#); and [Parameter sensitivity?](#).

See [Ecosim inputs?](#) and [Ecosim outputs?](#) for links to instructions for using Ecosim.