

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:

- i. [An Overview of Ecosim](#)
- ii. [Ecosim Basics](#)
- iii. [Vulnerabilities in Ecosim](#)
- iv. [Dealing with Dynamic Instability in Ecosim and Ecospace](#)
- v. [EwEugPredictingConsumption](#)
- vi. [EwEugForagingTimeAndPredationRisk](#)
- vii. [EwEugTimeSeriesFittingInEcosimEvaluatingFisheriesAndEnvironmentalEffects](#)
- viii. [EwEugHintsForFittingModelsToTimeSeriesReferenceData](#)
- ix. [EwEugEffectsOfPbZandVulnerabilityForTimeSeriesFitting](#)
- x. [EwEugPredatorSatiationAndHandlingTimeEffects](#)
- xi. [EwEugModellingSwitchingBehaviourInEcosim](#)
- xii. [EwEugCompensatoryMechanisms](#)
- xiii. [EwEugUsingEcosimToStudyCompensationInRecruitmentRelationships](#)
- xiv. [EwEugCompensatoryGrowth](#)
- xv. [EwEugCompensatoryNaturalMortality](#)
- xvi. [EwEugLinkingMediationAndTimeForcingFunctionsToTrophicInteractionRates](#)
- xvii. [EwEugPrimaryProduction](#)
- xviii. [EwEugNutrientCyclingAndNutrientLimitationInEcosim](#)
- xix. [EwEugDensityDependentChangesInCatchability](#)
- xx. [EwEugModellingEffortDynamics](#)
- xxi. [EwEugUsingEcosimForStockReductionAnalysis](#)
- xxii. [EwEugHatcheryPopulationsInEcosim](#)
- xxiii. [EwEugParameterSensitivity](#)

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