

## PopSim – Fish Population Simulation

A simulation that implements one proposed by Schnute and Richards (1995).

The model presented here comes from Schnute and Richards (1995) with an additional growth function that defines the weight  $w_a$  of a fish at age  $a$ . Consequently, the simulation can display results in either numbers or biomass.

Using colour codes, the model emphasizes the role of random large recruitments in determining the results. The current simulation supports only a fishing mortality that starts at 0 and typically goes up and down (mortality limits are adjustable in the GUI).

A fixed simulation is represented in various graphs until the **Recalculate** button is clicked. We encourage users to explore simulation results by varying model parameters, looking at various graphs, and performing recalculations. The user can also make a history file that displays various interesting scenarios, particularly with different  $M$  values.

A future version will contain more complete documentation.

### Acknowledgements

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### Reference

Schnute, J.T. and Richards, L.J. 1995. The influence of error on population estimates from catch-age models. Canadian Journal of Fisheries and Aquatic Sciences 52: 2063-2077.