

Rpackage for the automatic estimation of the parameters of the Von Bertalanffy fish growth model

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Abstract

This is the abstract.

Introduction

This package was created as part of the training course “Good practices for reproducible research in digital ecology” co-organized by the Cesab of the FRB and the GDR EcoStat. It uses the model de Bertalanffy (1938).

Material and methods

Datasource. The data used comes from the website <https://www.fishbase.in/home.htm>.

Statistical methods. The Growth model of Von Bertalanffy is

$$Linf.(1 - \exp^{-K*(a-t_0)})$$

with Linf = maximum size, a = fish age, K and t0 are fixed parameters.

Model was adjusted using the method described by Rafail (1973).

Results

Discussion

Working with others on a project is much more complicated than working alone, but much faster.

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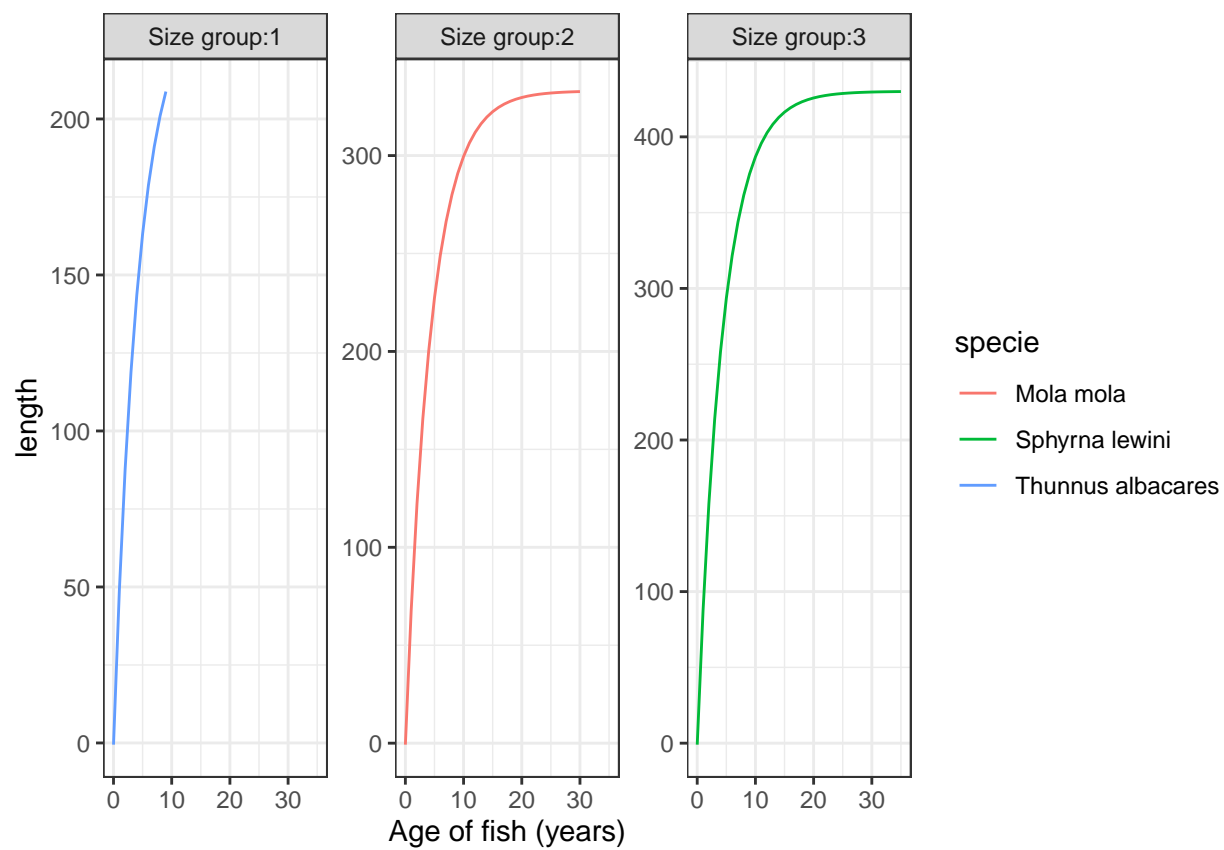


Figure 1: Figure 1. Growth curve obtained with the Growth model of Von Bertalanffy

References

- Bertalanffy, L. von, 1938. A quantitative theory of organic growth (inquiries on growth laws ii). *Human Biology* 10, 181–213.
- Rafail, S.Z., 1973. A simple and precise method for fitting a von Bertalanffy growth curve. *Marine Biology* 19, 354–358. doi:10.1007/BF00348907