

# Tutorial: Enhanced Fish Price & Variable Costs Sub-models

This tutorial is freely available at the SEAwise Github page of Task 2.2 under [https://github.com/ices-tools-dev/SEAwise\\_T2.2](https://github.com/ices-tools-dev/SEAwise_T2.2), while the development version is maintained at [https://coispa.github.io/Fish-price-and-variable-costs/Enhanced\\_fishprice\\_fuelcosts\\_submodels.html](https://coispa.github.io/Fish-price-and-variable-costs/Enhanced_fishprice_fuelcosts_submodels.html).

This tutorial illustrates the use of two scripts, available on at the SEAwise Github page of Task 2.2 under [https://github.com/ices-tools-dev/SEAwise\\_T2.2](https://github.com/ices-tools-dev/SEAwise_T2.2):

- price\_sub\_models\_Adriatic\_Ionian.r
- VC\_sub\_models\_Adriatic\_Ionian.r

On the SEAwise Github a dummy dataset is provided and the results shown in the tutorial are from the Adriatic and Western Ionian Sea Case Study. In the tutorial 5 models for fish price and one for variable costs are included for illustrative purposes. The extended equations tested in SEAwise can be found in Deliverable 2.2 (Bitetto et al., 2023, [https://data.dtu.dk/articles/online\\_resource/SEAwise\\_report\\_on\\_Carbon\\_footprint\\_economic\\_and\\_social\\_impacts\\_of\\_management\\_strategies/25012085](https://data.dtu.dk/articles/online_resource/SEAwise_report_on_Carbon_footprint_economic_and_social_impacts_of_management_strategies/25012085)). The scripts can be easily generalised to include more sub-models.

The scripts facilitate the identification of enhanced sub-models for fish price and variable costs and estimate the corresponding coefficients to be used to parameterize the bioeconomic models (e.g. FLBEIA and BEMTOOL).

The quarto link is available at: [https://coispa.github.io/Fish-price-and-variable-costs/Enhanced\\_fishprice\\_fuelcosts\\_submodels.html](https://coispa.github.io/Fish-price-and-variable-costs/Enhanced_fishprice_fuelcosts_submodels.html) and on the SEAwise Github: [https://github.com/ices-tools-dev/SEAwise\\_T2.2](https://github.com/ices-tools-dev/SEAwise_T2.2).