

EwE 6.6 beta notes

20 November 2018

This document lists important new capabilities of the Ecopath with Ecosim software in the next instalment of EwE, version 6.6, available for beta testing in fall 2018.

For a full list of changes, please refer to the [EwE change log](#). For a list of known issues with the software, please refer to the [EwE bug tracking system](#).

The most important few features in EwE 6.6 are:

Contaminant tracing

Ecotracer, the contaminant-tracing module of EwE, has been extensively debugged and was partially rewritten. The user interface has not changed significantly. The following paper described and utilized the new Ecotracer:

Walters, W.J., and Christensen, V. (2018). Ecotracer: analyzing concentration of contaminants and radioisotopes in an aquatic spatial-dynamic food web model. *Journal of Environmental Radioactivity* 181, 118–127.

Advection

The Ecospace advection model has been replaced; it never really worked in EwE versions 6 up to now. You can either enter in monthly winds from which currents will be calculated, or you can directly enter monthly current patterns. Monthly current patterns are stored with the scenario in the EwE model database.

The spatial temporal framework (available through projects) can drive current patterns, too.

Spatial temporal forcing

The spatial-temporal data framework can drive additional Ecospace layers, such as habitat maps, MPA maps, and advection currents.

Flow diagrams

The Ecopath flow diagram now includes display of fleets, and the layout of a diagram is stored in the EwE model. This means that you will no longer lose the layout of your diagrams.

Plug-ins

A range of new plug-ins has been added to EwE 6.6, such as Merge and split groups (Geomar, Germany), Management Strategy Evaluation (Cefas, UK), Ecosampler (EII, Spain), Ecospace transect extraction (Cefas, UK), and MPA dynamics (UBC, Canada). All plug-ins install their documentation alongside the EwE User Guide.

Other additions

- EwE models can be exported to .eiixml format from the File menu. XML based model data is useful for running EwE on machines and operating systems where Access is not available. Note that EwE treats XML models as read-only; models will have to be built and fine-tuned using the regular Access-based model files, and should only be exported to XML when finished.
- Pedigree definitions can be imported from other EwE models.

- Ecosim allows forcing of 'other mortality rates' (M0) through forcing functions.
- Monte Carlo can now save its data in different formats. Rather than only storing results in one massive CSV file, users can opt to store results in one CSV file per result. This new format is easier to read and explore in Excel, and is easier to process through scripts, but fills up your hard drive faster with smaller files.
- The 'Change shape' interface to change the contours of forcing and mediation functions has been overhauled, and new shape types can be added through plug-ins.
- Network Analysis no longer immediately runs when launched, preventing unwanted lock-ups for models with complicated diet matrices. The Network Analysis time-out period can now be set from the generic EwE options user interface, too.
- More EwE components have been made compliant with the Auto-save system, which facilitates output collection and running parameter uncertainty assessments through Ecosampler.
- Discard rate and discard mortality rates forcing in Ecosim, and model fitting to discards and landings time series.
- One can now define which fraction of a stanza life stage spawns, and the approximate stanza spawning age is now shown in the Edit Stanza graph.
- A wide range of small tweaks have been made to existing user interfaces to make things flow a bit more smoothly. Among others:
 - The fishing effort / mortality sketch panel in Run Ecosim is hidden by default but can be revealed if needed.
 - Run Ecospace opens with Graph view by default (instead of map view) to ensure quick run times.
 - Ecospace external data connections user interfaces have been debugged and streamlined. Ecospace layer styles can be obtained from other layers, or can be exported and imported between scenarios and EwE models.
 - User interfaces to configure environmental responses in Ecosim and Ecospace have been simplified.
 - Ecospace layer data drag-and-drop
 - Import and export Ecospace layer styles between layers, and across models (plug-in)
 - For a complete list of changes, please refer to the [EwE change log](#).

Known issues

Please refer to the [EwE bug tracking system](#) to see which issues have been reported but that yet have not been addressed.

The EwE user guide is still hopelessly outdated, but we started a project to rewrite the user guide following the Primer with Permanova model. The new manual will be issued as separate chapters, where science and software usage instructions are clearly separated.

Acknowledgements

EwE 6.6 has been developed through user support and co-development contracts with many institutes, thank you all for supporting the EwE approach.

Development of EwE is coordinated through Ecopath International Initiative Research Association (EII) in Barcelona, Spain.

Be involved

EwE is entirely developed through its user community. As we have not a drop of core funding, we need your involvement for EwE to continue and grow. This means a few different things:

- **If you find a bug, please let us know.** Even if we cannot promise that we will fix it right away (we may need funding), it is essential that known issues are known by the community
- **If you have a great idea for new functionality, let us know. If you have means to fund the development of the new features, even better.** Let us build the new functionality with the EwE core team, and after you have published the new work, changes to EwE are released to the community with a new version of the software.
- **If you have questions about EwE, try our online resources** such as Facebook or the EwE users forum. We encourage you also to provide help to others.
- **If you need expert help applying EwE to a project, consider taking out a support contract.** One-on-one helps you making the best use of EwE, and helps the EwE approach in return.
- **If you need training, let us know.** Several institutes connected to the Ecopath Research and Development Consortium (and beyond) organize courses, and we are always happy to discuss organizing specific courses on demand.

Contact information

Software development and bugs:	Dev team email EwE bug tracking website Co-development website Development website
User support and training:	User support email User support website
EwE community:	Ecopath website Ecopath users forum Ecopath on Facebook