



Cefic LRI's ECO 19 Final meeting

9-10/02, Como, Italy

Main discussion themes

Introduction

We identify 5 themes around which we want to structure the discussions on the second day of the workshop. These are listed below. All of these issues are relevant to the three topics covered by the Chimera project, being exposure assessment, effect assessment, and risk assessment. Our objective is to discuss these 5 themes from these three different perspectives.

The 5 main discussion themes

1. **Simplicity vs. realism:** Where do we draw the line? Model users often want sufficiently simple models so that they can be easily communicated and yield predictions that can be readily interpreted. However, at the same time, many want models to be as realistic as possible so that they can be used to manage inherently complex natural ecosystems. So, there is a trade-off to be considered and we want to reflect on how to identify the level of desired complexity, and where it is most likely located for exposure, effect and risk assessment.
2. **Model testing:** is it feasible anyway? Within the project, we have attempted to test various sub-models as thoroughly as possible, but still various limitations have emerged. For example, testing predictions of bioavailable concentrations in a variety of environmental scenarios, of population dynamics for species with long life cycles (multiple weeks/months), or of communities with multiple interacting species, is more easily said than done.
3. **Applicability vs. specificity:** Can we want it all? Models that are easily applied typically have few free parameters but therefore are less useful to tackle specific environmental scenarios. Is it possible to use different models to assess exposure, effects, and risk at different spatiotemporal resolutions?
4. **Linking up different model types:** What information should be passed on? The information exchange among models in the Chimera project suffices to assess exposure, effects, and risk across a set of scenarios. Do we expect that the type of information to be exchanged will differ when expanding the range of scenarios or when considering alternative environments (e.g. terrestrial systems)? Or will the same type of information be exchanged regardless of the model application?
5. **Interactions:** How do themes 1-4 interact? Clearly, overlap exist among themes 1-4. For example, simple models will typically have fewer parameters, and are therefore more easily applied, than more complex models. What interactions do we foresee and what are their implications for exposure, effects, and risk assessment?