WET WORKSHOP

Introduction

WET is an open source QGIS plugin aiming to provide an easy-to-use tool for user adaptation and application of state-of-the-art aquatic ecosystem models, and model-based experimentation for research and management. WET is a Python based Graphical User Interface (GUI) for operating the coupled hydrodynamic-ecosystem model GOTM-FABM-PCLake. WET can run climate and nutrient load change scenarios, and estimate how these affect an individual aquatic ecosystem. As an additional option, WET can link to the SWAT (Soil & Water Assessment Tool) watershed model. This link enables assessments of how land use change scenarios created in SWAT affect aquatic ecosystems in WET (more info on www.wet.au.dk).

Learning Objectives

During this 2-day workshop you will learn about the core concepts, and get hands on experiences with WET, including how to setup WET for a lake or reservoir study site and how to couple WET to a dedicated SWAT setup for the watershed. Based on the study site setup you will be familiarized with WET and try calibration, simulation and implement various scenarios also factoring in SWAT watershed impacts. We will introduce you to the theoretical understanding of lake modelling in the context of holistic watershed- and lake model-

ling. Our objective is to expand your "toolbox" and enable you to set up WET for your own sites of interest, while also knowing about the strengths and limitations of the core lake model you operate through WET.



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Day 1

- Introduction to the workshop
- Installation of software
- Theoretical introduction to WET and the core model behind
- Getting started with WET
- Setting up WET for a site
- Completing the first simulation
- Visualizing outputs
- Wrap-up and introduction to day 2

Day 2

- Catch-up from day 1
- Linking with SWAT and producing holistic simulations
- Introduction to implementation of observations and calibration
- Introduction to scenarios
- Interim wrap-up to tailor the next steps
- Breakout 1: continue with the study site
- Breakout 2: Bring your own site and data
- Wrap-up and next steps



Water Ecosystems Tool

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