Training School

Environmental Effectiveness of Woodland Measures for Reducing Agricultural Diffuse Pollution to Water – Evidence, SWAT Modelling and Decision Support Tools

23-26 October 2018, Vairão, Porto, Portugal

Programme

Day 1 | Oct 23th

8h45-9h15: Registration

9h15-9h30: Welcome message by CIBIO-InBIO board
[Auditório]
9h30-9h45: Logistics for the Training School
Cláudia Carvalho-Santos [Auditório]

9h45-10h30: Biodiversty, ecosystem function, ecosystem services
João Honrado [Auditório]

10h30-11h00: Coffee-break

11h00-11h45: Water economics, schemes and decision-making tools
Paola Ovando [Auditório]

11h45-12h45: Cost-Efficiency of woodland measures
Paola Ovando [Auditório]

12h45-14h00: Lunch

14h00-15h00: Woodland for water measures and introduction to PESFOR-W COST Action.
Tom Nisbet [Sala 2]

15h00-16:00: Review from STSM COST Action works – look-up tables for environmental effectiveness
Tom Nisbet [Sala 2]

16h00-16h30: Coffee-break

16h30-17h45: Poster session with 5 min. presentation by each participant.
 [Sala 2]

Day 2 | Oct 24th

9h-10h30: Hydrology - theory and general concepts; Freshwater and pollution - sources and pathways of diffuse water pollutants
Kristina Potocki [Sala 2]

10h30-11h00: Coffee-break

11h00-11h50: Hydrology and forests – approaches to modelling (statistical and process-based)
Kristina Potocki [Sala 2]

11h50-12h45: FARMSCOPER Tool (Theoretical)
Richard Gooday [Sala 2]

12h45-14h00: Lunch

14h00-16h00: FARMSCOPER Tool (Practical session)
Richard Gooday [Sala 2]

16h00-16h30: Coffee-break

16h30-17h45: FARMSCOPER Tool (Practical session)
Richard Gooday [Sala 2]

Day 3 | Oct 25th

9h-10h30: SWAT – Introduction to main concepts and QSWAT
Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

10h30-11h00: Coffee-break

11h00-11h50: SWAT – Data acquisition
Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

11h50-12h45: SWAT – Calibration and Validation, SWAT-CUP
Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

12h45-14h00: Lunch

14h00-16h00: SWAT – Data analysis and installation of the software
Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

16h00-16h30: Coffee-break

16h30-17h30: Spatial targeting of woodlands measures, design and guidance
Tom Nisbet [Sala 2]

18h30: Visit the city center of Vila do Conde and Social Diner.

Day 4 | Oct 26th

9h-10h30: Assessing land cover and climate change impacts on hydrological services provision using SWAT: insights from three watersheds in Portugal
Cláudia Carvalho-Santos [Sala 2]

10h30-11h00: Coffee-break

11h00-11h45: SWAT – examples with a case-study (PRACTICAL)
 Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

11h45-12h45: SWAT – example with a case-study (PRACTICAL)
 Leonard Jannin and Cláudia Carvalho-Santos [Sala 2]

12h45-14h00: Lunch

14h00-14h30:
[Sala 2]

14h30-15h30: Training School evaluation and closing session
 [Sala 2]

15h30-16h00: Coffee-break

16h00-17h00: Participation in the weekly CIBIO seminars, organized by the PESFOR-W Training School.
Leonard Jannin - Using models to understand nutrients transfer in hydrosystems [Auditório]

Trainers:

Cláudia Carvalho-Santos (Local Organizer) – CIBIO-InBIO, University of Porto, Portugal
Email: c.carvalho.santos@cibio.up.pt

As both geographer and ecologist, Cláudia is interested in exploring the human relations with the environment and biodiversity for building sustainable options for land management decisions. In particular, she is interested in exploring the consequences of different land-use options and future climate conditions on the hydrological services provision. She is also interested in making Earth Observation products usable for monitoring ecosystem functions and services, especially related to water. Currently, Cláudia is a Post-Doc Researcher in the H2020 Project ECOPOTENTIAL – improving future provision of ecosystem benefits through earth observations. She is one of the Portuguese MC Members in the COST action PESFOR-W Payments for Ecosystem Services (Forests for Water).

Paola Ovando - James Hutton Institute, Aberdeen, Scotland
Email: paola.ovandopol@hutton.ac.uk

Leonard Jannin – cEc3, University of Lisbon, Portugal
Email: l.bernardjannin@gmail.com

Tom Nisbet - Forestry Commission, United Kingdom
Email: tom.nisbet@forestry.gsi.gov.uk

Kristina Potočki - Water Research Department, Faculty of Civil Engineering, University of Zagreb, Croatia
Email: kpotocki@grad.hr

Kristina is interested in multidisciplinary research that includes water related topics: from water resources management, forestry to the potential effects of flood events to the structures. Her main research expertise relates to the application of time series analysis and black-box models in hydrology. Currently, she works as assistant professor and teaches undergraduate and graduate courses in hydrology, fluid mechanics and hydraulic engineering. Additionally, she is currently included as researcher in FP7 Marie Curie project "BRIDGE SMS - Intelligent Bridge Assessment Maintenance and Management System" and as MC Member in COST Action "Payments for Ecosystem Services (Forests for Water)".

Richard Gooday – ADAS, Wolverhampton, United Kingdom
Email: richard.gooday@adas.co.uk

Richard is an environmental modeller, who has worked at ADAS for over 10 years creating and applying diffuse agricultural pollution models to support the development and appraisal of government agricultural policy. Richard

built the Farmscoper tool, which allows the cost-effectiveness assessment of diffuse agricultural pollution mitigation methods on multiple pollutants and is now widely used by government and industry in the UK. He has studied the evidence on effectiveness and uptake of many different mitigation methods and policy mechanisms and understands the various agricultural and environmental datasets which are available to support the application of models - and how this information can be supplemented through surveys and stakeholder engagement.

Speakers:

João Honrado - Faculty of Sciences and CIBIO-InBIO, University of Porto, Portugal