Introduction to Marxan with emphasis on connectivity

May 7th-9th, 2018 – University of the Aegean, Department of Marine Sciences, University Hill – Lesvos Island, Greece

Presenters:

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Program

Day 1 – Monday, May 7th

Morning - 9h30 – 13h00

Welcome
- Introducing the lecturers, students, practical arrangements
- What to expect from the course
- Overview of the program

Lecture1 – Spatial Conservation Prioritization
- Convention on Biologic Diversity, and the Aichi Targets
- Protected areas as a conservation tool
- Systematic Conservation Planning and objectives: Representation and Persistence

Lecture 2 – Introduction to Marxan
- The Marxan objective function
- Introduction to Marxan optimization - simulating annealing

Lecture 3 – Marxan files & Exercise

- Marxan´s input and output files
- Introduction to optimization exercises

Preparing for the practical exercises

Afternoon - 14h30 - 17h30

Practical – Using Marxan Software (part I)

- Creating the planning unit file (pu.dat)
- Creating the planning unit versus species file (puvsp.dat) using distribution data of different formats.

Day 2 – Tuesday, June 8th

Morning - 9h30 – 13h00

Practical – Using Marxan Software (part II)

- Creating the species file (spec.dat)
- Creating the boundary length file (bound.dat)
- Understand and calibrate Marxan parameters

Afternoon - 14h30-17h30

Practical – Using Marxan Software (part III)

- Run Marxan using different parameters
- Display Marxan output and interpret solutions

Lecture 4 – Marxan applications in the different realms
- Terrestrial example
- Freshwater example
- Marine example

Day 3 – Wednesday, May 9th

Morning - 9h30 – 13h00

Lecture 4 – Connectivity in spatial conservation prioritization

- The importance of accounting for connectivity
- Different types of connectivity

Practical – Exercise on connectivity

- Practical exercise using different types of connectivity

Afternoon - 14h30-17h30

Lecture 5 – Application of spatial conservation prioritization with emphasis on connectivity

- Planning for freshwater ecosystems using directional connectivity and multi-zoning.
- General Discussion