

SESSION DESCRIPTION

ID O4

Title of session:

Mapping ecosystem services for spatial planning

Hosts:

	Title	Name	Organisation	E-mail
Host:	Dr	Felix Eigenbrod	University of Southampton	f.eigenbrod@soton.ac.uk

Abstract:

While there has been enormous progress in recent years in mapping ecosystem services, the uptake of such maps by decision makers for use for spatial planning remains very limited. In this session, speakers will present on work related to advancing the uptake of recent ecosystem service mapping efforts by policy makers.

Proposed Format (duration, methods, (technical) requirements):

A series of 10 minute talks (with 2 minutes for questions)

Session program

Date of session: Tuesday, September 20, 2016

Time of session: 16:00 – 17:30

Speakers:

Time	First name	Name	Organization	Title of presentation
16:00	Ken	Ohno	Mie University	Trying to map ecosystem services at Mie prefecture in Japan
16:12	Ioannis	Vogiatzakis	Open University of Cyprus	Modelling Ecosystem Services in Cyprus
16:24	Anneloes	van Noordt	Spatial Development Department Flanders	Flemish spatial policy and ecosystem services: the case of the metropolitan core area
16:36	Grazia	Zulian	European Commission, Environment (ENV)	Downscaling recreation, pollination and air quality regulation models of EU-ESTIMAP to local scale.

Type of submission: Abstract (voluntary contribution)

O4. Mapping ecosystem services for spatial planning

Modelling Ecosystem Services in Cyprus

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Despite the progress made at European level, Cyprus efforts on ES assessment are lagging behind. Drawing from the experience gained at European level on ES assessment, the paper presents the first mapping attempt of key ecosystem services on the island using the evidence currently available. We employed InVEST suite of models, which are based on the geospatial modeling of the biophysical processes and landcover as well as other ancillary information, to map a) habitat quality b) pollination c) carbon sequestration and d) recreation for the whole island. Habitat quality was evaluated spatially on the basis of origin of anthropogenic impacts, habitat sensitivity, the spatial range of impact and protection status if any. We assessed pollination services on the basis of (known) pollinators presence depending on nesting and food (flowering) presence in every land cover type and as a function of species flight distance. Carbon sequestration was assessed on the basis of storage capacity of every land cover type for four carbon pools: above and below ground biomass, soil and dead organic matter based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Recreation was assessed on the basis of visitation rate of the study area. We used as a surrogate for daily visits the number of photo user days as derived from the photo-sharing website flicker per calendar day to extract a mean annual number of photo-days and we evaluate the relation between landcover and visitation rate. We discuss the opportunities and challenges of the approaches with emphasis the Mediterranean Ecosystems. We call for the need to adopt a unifying conceptual and operational framework to illustrate the key components of ecosystems types on the island and show their interactions with drivers and pressures.

Keywords: carbon sequestration, habitat quality, InVEST, pollination, recreation