LANDSCAPE METRICS AND ECOSYSTEM SERVICES: testing the relation between structure and functions – application to Alentejo Central, Portugal

TERESA BATISTA

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ABSTRACT

Landscape metrics measure landscape structure and composition. But can they help to measure ecosystem functions and services?

Ecosystem functions can be defined as the interaction between biophysical and biochemical properties and processes in an ecological system. Ecosystem services concept is generally centered in human needs and can be understood as those benefits obtained from nature that satisfy human requirements, in spite of simultaneously fulfil other species needs. These includes air and water purification, generation of soils and their fertility, waste decomposition, pollination, seeds dispersal, control of pests and diseases, biodiversity maintenance, protection of coastal shores, climate stabilization, and others. In this paper we relate landscape metrics with three of these ecosystem services: water infiltration, carbon sequestration and biodiversity. The results help to better understand the value of landscape metrics in predicting landscape ecological functions and services.