



**Manchester
Metropolitan
University**

Arnau, E and Boix, C and Symeonakis, Ilias and Calvo, A (2019) *Soil surface spatial heterogeneity along hillslopes under inspection: a 1D approach.* [UNSPECIFIED]

Downloaded from: <http://e-space.mmu.ac.uk/622321/>

Please cite the published version

<http://e-space.mmu.ac.uk>

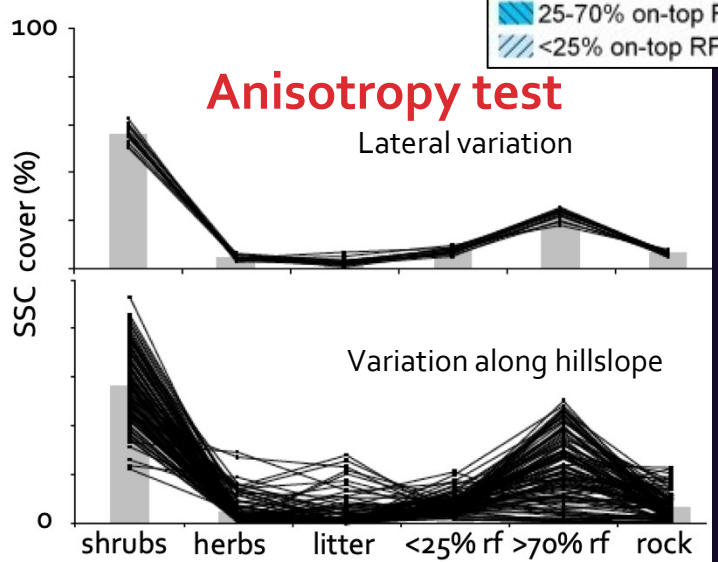
Soil surface spatial heterogeneity along hillslopes under inspection: a 1D approach

Eva Arnau-Rosalén¹; Carolina Boix-Fayos²; Elias Symeonakis³; Adolfo Calvo-Cases¹
¹Department of Geography, Universitat de València, Spain
²Centro de Edafología y Biología Aplicada del Segura, Murcia, Spain
³School of Science & Environment, Manchester Metropolitan University, UK

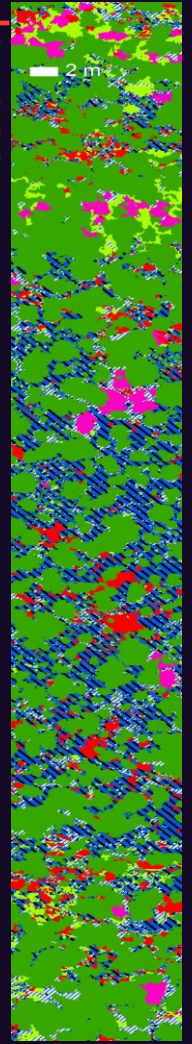
SOIL SURFACE COMPONENTS RATIONALE (SSC)

Vegetated Domain		Non-Vegetated Domain	
Herbaceous Veget.	Died plants	>70%	On-top Rock Frag.
... dominant species		Bare soil	25-70%
Shrub Vegetation	Litter	(y/n physical crust)	< 25%
... dominant species		>70%	Embedded Rock Frag.
Arboreal Vegetation	Dry... plants remains	Bare soil	25-70%
... dominant species		(y/n physical crust)	< 25%
Biological Soil Crusts (BSC)		Rock Outcrops	

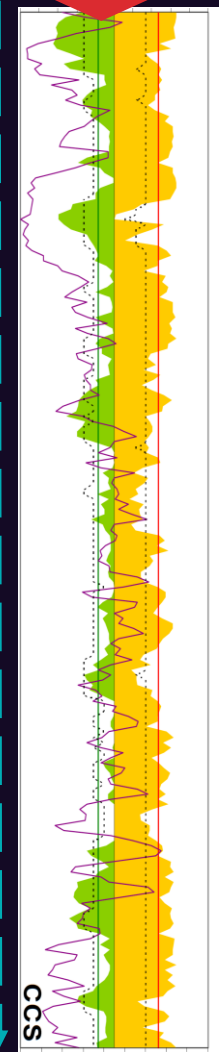
<ul style="list-style-type: none"> Litter Brachyp. retusum Stipa tenacissima Shrubs Pinus halepensis 	<ul style="list-style-type: none"> Rock outcrops >70% embd. RF 25-70% embd. RF <25% embd. RF >70% on-top RF 25-70% on-top RF <25% on-top RF
---	--



SSC map

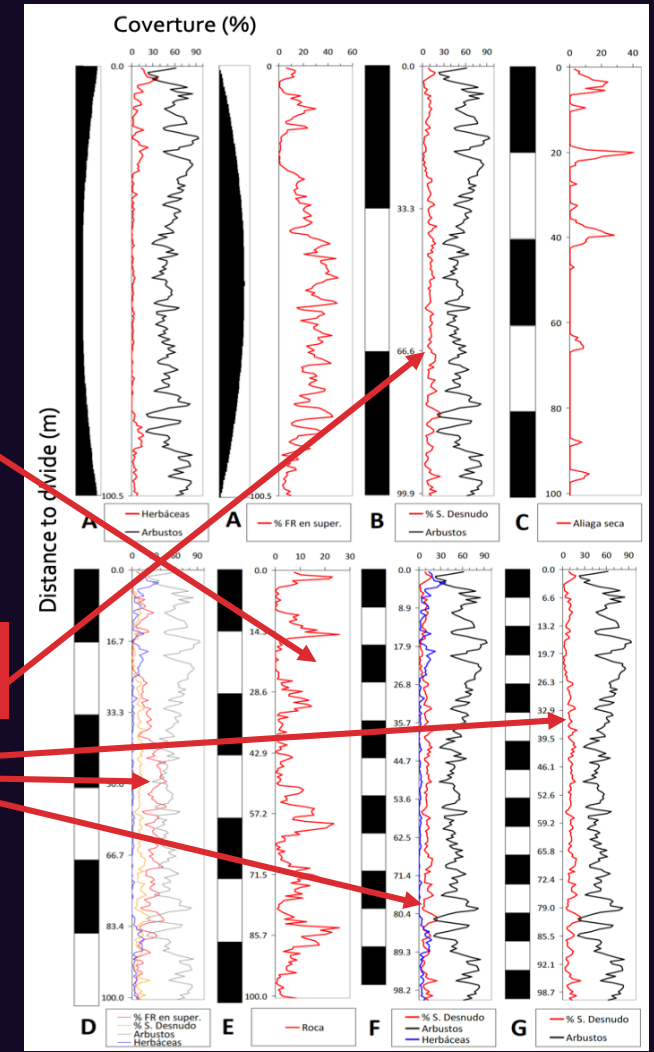
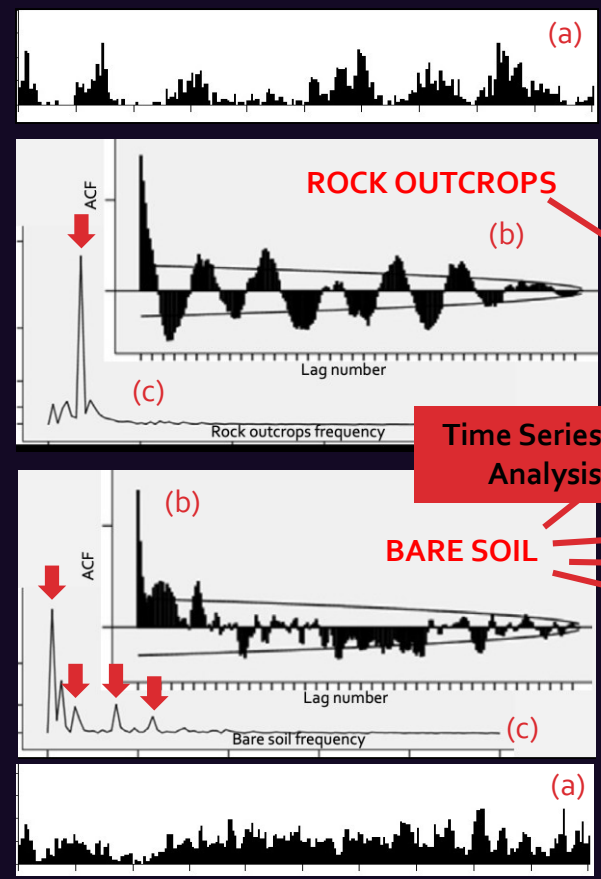


HETEROGENEOUS?
= COMPOSITION



biotic & abiotic SSC
Simpson diversity Index
distribution

RANDOM / PATTERNED?
= CONFIGURATION



PATTERNED at multi-scale
 Coverte (%) for each SSC along **HIERARCHICAL**
 the hillslope by periodicity degrees, showing **LEVELS**
 the SSC occurrence and association.
 (modified from Arnau, 2015)