

Supplementary file

Distinct Susceptibility Patterns of Active and Relict Landslides Reveal Distinct Triggers: A Case in Northwestern Turkey

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Table S1. List of lithologies used in the model. For simplicity we merged rocks with similar characteristics [1].

Name	Abbreviation
Basalt	BSL
Carbonate rocks and clastic rocks in places; Carbonate and clastic rocks;	CCR
Carbonate and clastic rocks (continental in places); Clastic and carbonate rocks.	CCRVRP
	CCRF
Clastic and carbonate rocks (blocks and volcanic rocks in places)	ContCR
Clastic and carbonate rocks (flysch)	DRR
Coninental clastic rocks;	DT
Clastic rocks;	GRN
Clastic rocks, carbonate rocks in places;	
Clastic rocks (continental in places);	LLMS
Continental clastic rocks.	
	MMR
Dacite, rhyolite, rhyodacite	
	ML
Diorite, tonalite	
	NL
Granitoids	
	OM
Lacustrine limestone, marn, shale	
	PL
Metaclastic and metacarbonate rocks	PR
Metaultrabasic rocks	UP
Neritic limestone	UGMSMMA
Ophiolitic melange	UBUR
Pelagic limestone	UCCR
	AND
Pyroclastic rocks	
	SPM
Undifferentiated andesite, pyroclastics etc;	SCT
Pillow lava and sedimentary rocks	UVR
	BSL
	CCR
Undifferentiated gneiss, metagranite, schist, marble, amphibolite etc;	
Undifferentiated gneiss, migmatite, metagranite, schist, amphibolite etc.	CCRVRP

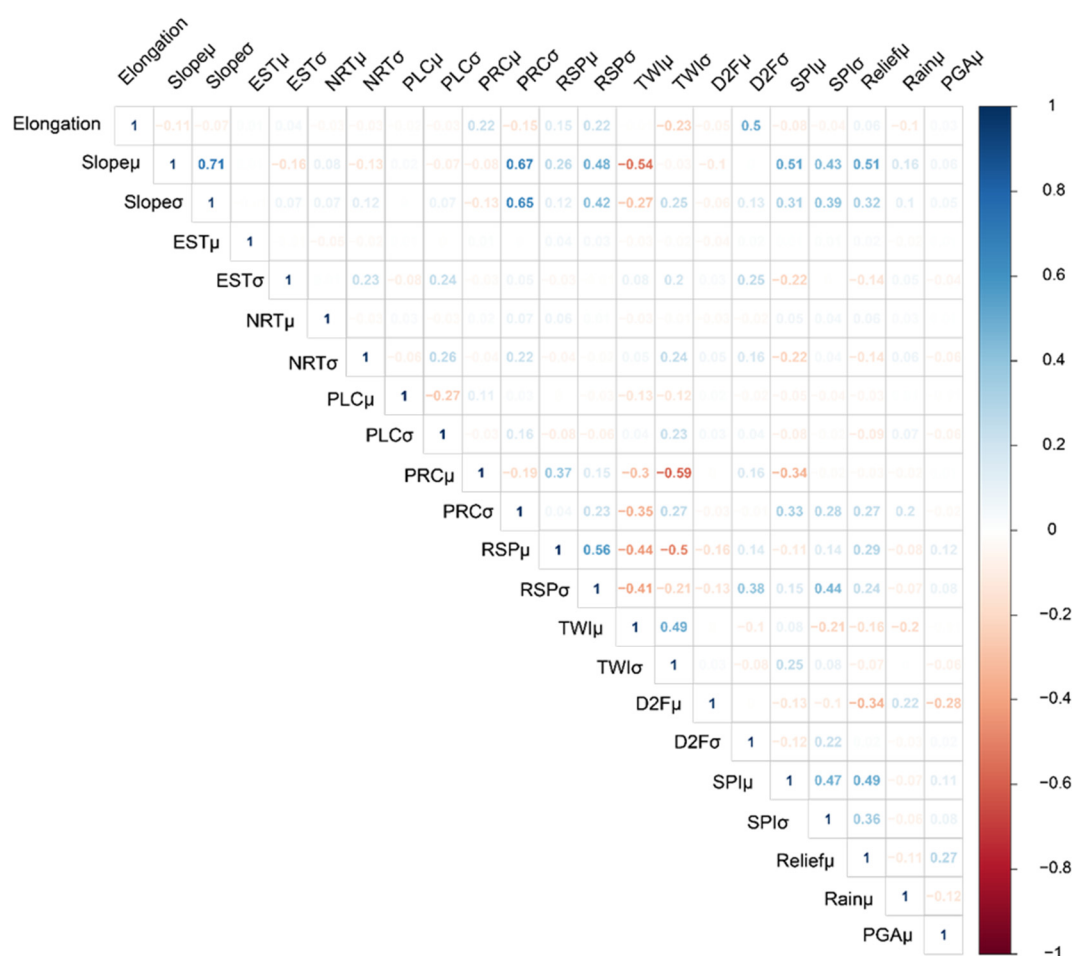


Figure S1. Collinearity between the variables used in the model. Note that multicollinearity is a potential problem when the coefficient is greater than 0.75, and a problem when it is greater than 0.9 [2,3].

Lithological responses showed some divergences. For instance, Granitoids (GRN) display a negative correlation for active landslides. This is a reasonable result, given that the inventory is based on slides and shallow failures. Moreover, for the inactive landslide, a positive value indicates that the lithogenic characteristics help the stabilisation.

Also, Carbonate rocks and clastic rocks in places, Carbonate and clastic rocks, Carbonate, and clastic rocks (continental in places) (ContCR), and Clastic and carbonate rocks (CCR), which we decided to merge for convenience, having the same mechanical behaviour, showed a strong positive effect for active landslides, whereas less positivity is observed in inactive phenomena.

Then, Ophiolitic Melange (OM), Pelagic limestones (PL), Neritic limestones (NL), and Schist (SCT), phyllite, marble, meta basic rocks and Marble showed a positive correlation for both the landslide classes.

As in the case of geomorphological covariates, we discarded the lithological units for which there were no significant effects, namely Andesite, Basaltic and Diorite, and Tonalite lithological units.

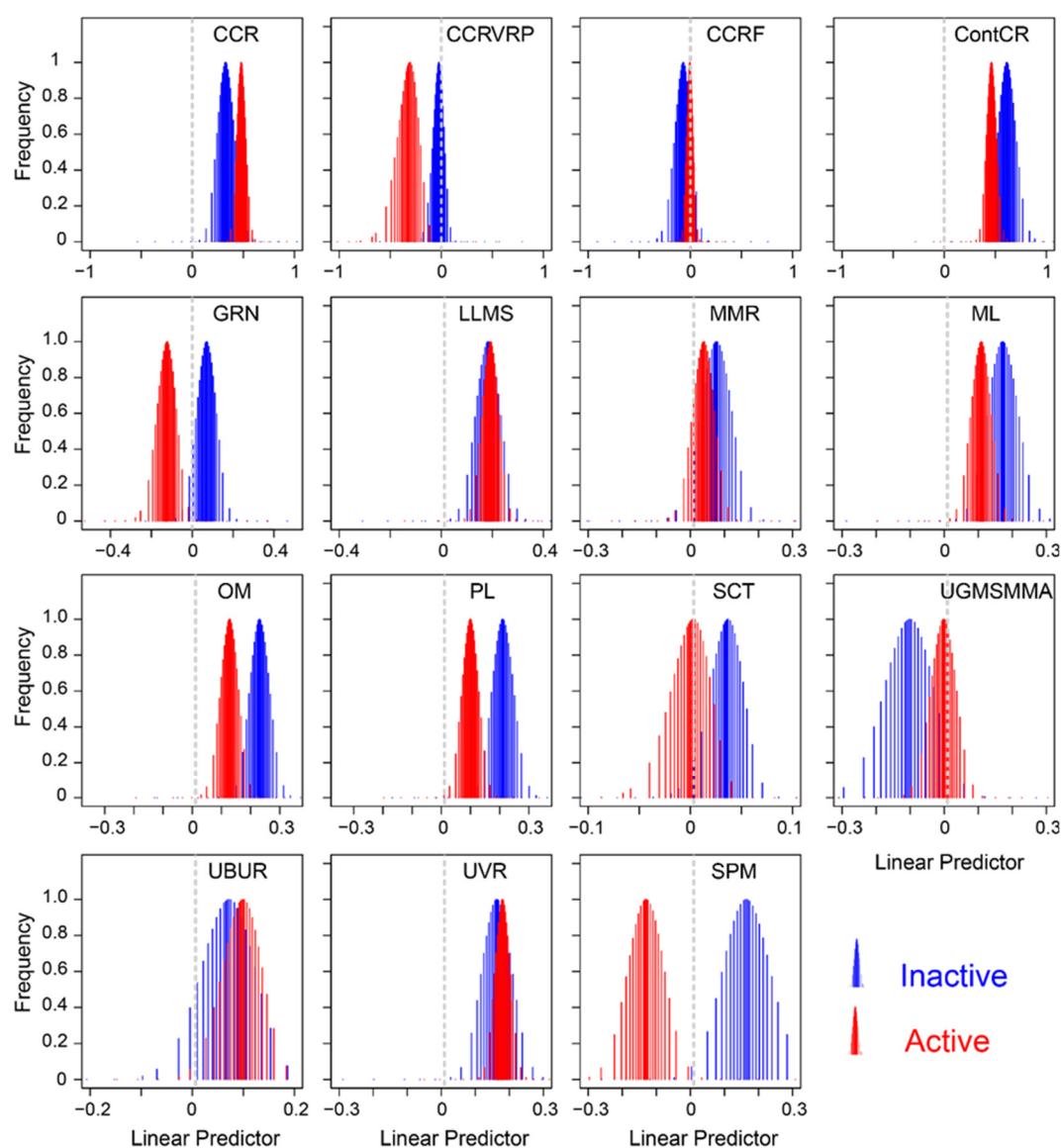


Figure S2. Fixed effects expressed as marginal distributions for each lithological unit.

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