

Supplementary Materials

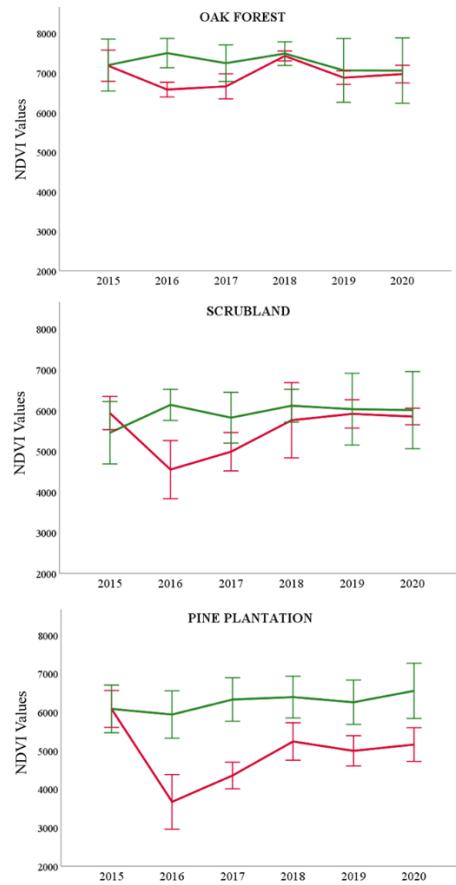


Figure S1. Temporal variation of NDVI values in burnt (red) and unburnt (green) transects along the chronosequence (2016-2020) plus the reference year prior to the fire (2015), at each category of vegetation type. For each year, the average value \pm standard deviation (whiskers) is given.



Figure S2. Photographs of reptile species found only in unburnt transects: *Natrix astreptophora* [a] and *Vipera latastei* [b]; and not found in unburnt forest transects: *Psammadromus occidentalis* [c] and *Timon lepidus* [d].

Table S1. Total amount of reptile species found by vegetation type in burnt and unburnt transects in Gata valley from 2016 to 2020. In bold, species only detected either in burnt (BU) or unburnt (UN) transects within each vegetation type.

			OAK FOREST			PINE PLANTATION		SCRUBLAND	
			EST		BU UN	BU UN		BU UN	BU UN
1	ACA_ERY	<i>Acanthodactylus erythrurus</i>	2	5			3	17	
2	BLA_CIN	<i>Blanus cinereus</i>	1	6	9			1	2
3	CHA_BED	<i>Chalcides bedriagai</i>	2	12	1		1	6	
4	MAL_MON	<i>Malpolon monspessulanus</i>	3	1				2	5
5	NAT_AST	<i>Natrix astreptophora</i>			1	2			
6	POD	<i>Podarcis</i> sp.	6	2					1
7	PSA_ALG	<i>Psammodromus algirus</i>	119	185			112	43	4
8	PSA_OCC	<i>Psammodromus occidentalis</i>				72			54
9	TAR_MAU	<i>Tarentola mauritanica</i>	1			3	1		
10	TIM_LEP	<i>Timon lepidus</i>	1			1		3	
11	VIP_LAT	<i>Vipera latastei</i>				1	1		11
12	ZAN_SCA	<i>Zamenis scalaris</i>	1	4				1	

Table S2. Temporal variation in the occurrence of reptile species according to the three vegetation types in Gata valley. The presence of a species in each type of transect is marked with an X and those detected for the first time are highlighted in bold. The columns on the left indicate the burnt transects, and on the right the unburnt transects. The last row indicates the total number of species found. The acronyms of the species are indicated in Table S1.

	OAK FOREST					OAK FOREST					
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
ACA_ERY						X		X			ACA_ERY
BLA_CIN						X		X			BLA_CIN
CHA_BED	X	X	X			X	X	X	X		CHA_BED
MAL_MON					X					X	MAL_MON
NAT_AST							X				NAT_AST
POD	X			X	X					X	POD
PSA_ALG			X	X	X	X	X	X	X	X	PSA_ALG
PSA_OCC	X	X									PSA_OCC
TAR_MAU	X										TAR_MAU
TIM_LEP	X		X								TIM_LEP
VIP_LAT											VIP_LAT
ZAN_SCA			X		X		X		X		ZAN_SCA
	4	3	3	2	5	3	4	3	4	5	

PINE PLANTATION										
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
ACA_ERY					X					ACA_ERY
BLA_CIN								X		BLA_CIN
CHA_BED	X		X						X	CHA_BED
MAL_MON	X			X	X					MAL_MON
NAT_AST									X	NAT_AST
POD										POD
PSA_ALG				X	X				X	PSA_ALG
PSA_OCC				X	X				X	PSA_OCC
TAR_MAU	X		X	X		X	X	X		TAR_MAU
TIM_LEP		X		X				X		TIM_LEP
VIP_LAT					X				X	VIP_LAT
ZAN_SCA										ZAN_SCA
	3	2	2	5	3	1	1	3	2	2

SCRUBLAND										
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
ACA_ERY		X	X	X				X		ACA_ERY
BLA_CIN		X								BLA_CIN
CHA_BED		X	X							CHA_BED
MAL_MON	X		X			X			X	MAL_MON
NAT_AST						X			X	NAT_AST
POD										POD
PSA_ALG	X		X	X		X	X	X	X	PSA_ALG
PSA_OCC					X		X	X	X	PSA_OCC
TAR_MAU										TAR_MAU
TIM_LEP	X		X		X		X			TIM_LEP
VIP_LAT								X	X	VIP_LAT
ZAN_SCA			X							ZAN_SCA
	3	7	3	3	2	4	4	3	3	4

Table S3. Model ranking of the variables that best explain lizard abundance per transect and year in Gata valley. Lizard sampling was conducted in burnt and unburnt plots for five years after the fire. The ranking was based on AICc values and only models with $\Delta \text{AICc} < 2$ are considered. Each row represents a model, and includes a description of the parameters and the variables used. Best model ($\Delta \text{AIC} < 2$ and higher R^2) is shaded.

Mode	Eleva-tion	Fire	NDVI. E	Veg.typ e	Fire:ND VI.E	NDVI.E: Veg.type	R ²	df	AIC	Δ AIC	weigh t
303		+	5.0219	+	+	+	0.625	8	593.7	0.000	0.207
304	-0.0001		4.9478	+	+	+	0.624	9	595.5	1.777	0.085
271		+	3.8633	+		+	0.610	7	595.6	1.845	0.082

Table S4. Model ranking of the variables that best explain reptile diversity (Shannon index) per transect and year at Gata valley. Reptile sampling was conducted in burnt and unburnt plots for five years after the fire. The ranking was based on AICc values and only models with Δ AICc < 2 are considered. Each row represents a model, and includes a description of the parameters and the variables used. Best model (Δ AIC < 2 and higher R²) is shaded.

Model	Eleva-tion	Fire	NDVI.E	Veg.type	Fire: Veg.type	R ²	df	AIC	Δ AIC	weight
9				+		0.083	4	721.0	0.000	0.175
11		+		+		0.089	5	722.3	1.251	0.094
13			-3.8130	+		0.088	5	722.4	1.349	0.089
75		+		+	+	0.120	7	722.5	1.446	0.085
10	0.0014			+		0.084	5	722.9	1.852	0.069

Table S5. Model ranking of the variables that best explain reptile species richness per transect and year in Gata valley. Reptile sampling was conducted in burnt and unburnt plots for five years after the fire. The ranking was based on AICc values and only models with Δ AICc < 2 are considered. Each row represents a model, and includes a description of the parameters and the variables used. Best model (Δ AIC < 2 and higher R²) is shaded.

Model	Elevation	Fire	NDVI.E	Veg.type	R ²	df	AIC	Δ AIC	weight
2	0.0007				0.033	2	307.9	0.000	0.154
9				+	0.045	3	308.4	0.573	0.116
10	0.0005			+	0.059	4	308.9	0.994	0.094
1					0.000	1	309.5	1.636	0.068
4	0.0008	+			0.035	3	309.6	1.707	0.065
6	0.0007		-0.1032		0.033	3	309.8	1.963	0.058