

Electronic Supplementary Material

Paula S. and Pausas J.G. 2011. Root traits explain different foraging strategies between resprouting life histories. *Oecologia* 165:321-331

Table S1 Species included in the study, indicating their resprouting ability, family, adult plant height, seed mass (mean±SD), leaf phenology (D: drought semi-deciduous; E: evergreen; G: Green-stemmed), seed origin and provider (B: local seed bank; C: commercial collector; A: harvested by the authors), the method used to scarify seeds (A: acid; B: boiling water; I: incision; N: none; S: sand-paper) and the number of seedlings used for biomass allocation and root traits (including depth). For two species, the number of seedlings used to analyse branching-related traits (including first order branches length) and external link morphology is shown in brackets

Species	Family	Plant Height (m)*	Seed Mass (mg)	Leaf phenology*	Seed origin (provider)	Scarification method	N ^{er} of seedlings	
							Biomass allocation	Roots traits
Resprouters								
<i>Pistacia lentiscus</i> L.	<i>Anacardiaceae</i>	2-4	15.8±0.63	E	E Spain: Serra Calderona (B)	N	11	7
<i>Spartium junceum</i> L.	<i>Fabaceae</i>	1-3	11.7±0.72	G	S Spain: Sierra Subbética (C)	I	14	6
<i>Retama sphaerocarpa</i> (L.) Boiss.	<i>Fabaceae</i>	0.8-2	74.2±1.51	G	E Spain: Font de la Figuera (B)	B	16	6(5)
<i>Genista scorpius</i> (L.) DC.	<i>Fabaceae</i>	1-2	6.55±0.31	G	SE Spain: Albacete (C)	A	10	7
<i>Anthyllis cytisoides</i> L.	<i>Fabaceae</i>	1.2-1.3	1.28±0.06	D	E Spain: Serra Calderona (B)	A	16	7(0)
<i>Myrtus communis</i> L.	<i>Myrtaceae</i>	1-3	4.68±0.43	E	E Spain: Serra Calderona (B)	N	12	11
<i>Phillyrea angustifolia</i> L.	<i>Oleaceae</i>	1.8-3	22.0±0.36	E	E Spain: Serra Calderona (B)	N	10	10
<i>Rhamnus alaternus</i> L.	<i>Rhamnaceae</i>	3-5	8.67±0.25	E	E Spain: Serra Calderona (B)	N	12	11
Non-resprouters								
<i>Halimium atriplicifolium</i> (Lam.) Spach.	<i>Cistaceae</i>	0.7	0.93±0.03	D	S Spain: Granada (C)	S	18	16
<i>Cistus albidus</i> L.	<i>Cistaceae</i>	0.5-1.2	0.94±0.04	D	E Spain Serra Calderona (B)	S	16	15
<i>Ulex parviflorus</i> Pourr.	<i>Fabaceae</i>	1-1.8	6.44±0.12	G	E Spain: Torremanzanera (A)	A	12	10
<i>Rosmarinus officinalis</i> L.	<i>Lamiaceae</i>	0.5-1.5	1.75	E	SE Spain: Albacete (C)	N	15	7
<i>Lavandula latifolia</i> Medicus	<i>Lamiaceae</i>	0.8	0.78±0.06	E	E Spain: cultivated (C)	N	9	9

(*) Data following:

Paula S et al. (2009) Fire-related traits for plant species of the Mediterranean Basin. *Ecology* 90:1420

Paula S. & Pausas J.G. 2009. BROT: a plant trait database for Mediterranean Basin species. Version 2009.01. URL: <http://www.uv.es/jgpausas/brot.htm>

Fig. S1 Examples of digitalized root systems of non-resprouters (a-c) and resprouters (d-f). a) *Rosmarinus officinalis*, b) *Cistus albidus*, c) *Ulex parviflorus*, d) *Retama sphaerocarpa*, e) *Phillyrea angustifolia*, and f) *Pistacia lentiscus*. Scale bar = 3 cm (except for *C. albidus*: scale bar = 6 cm)

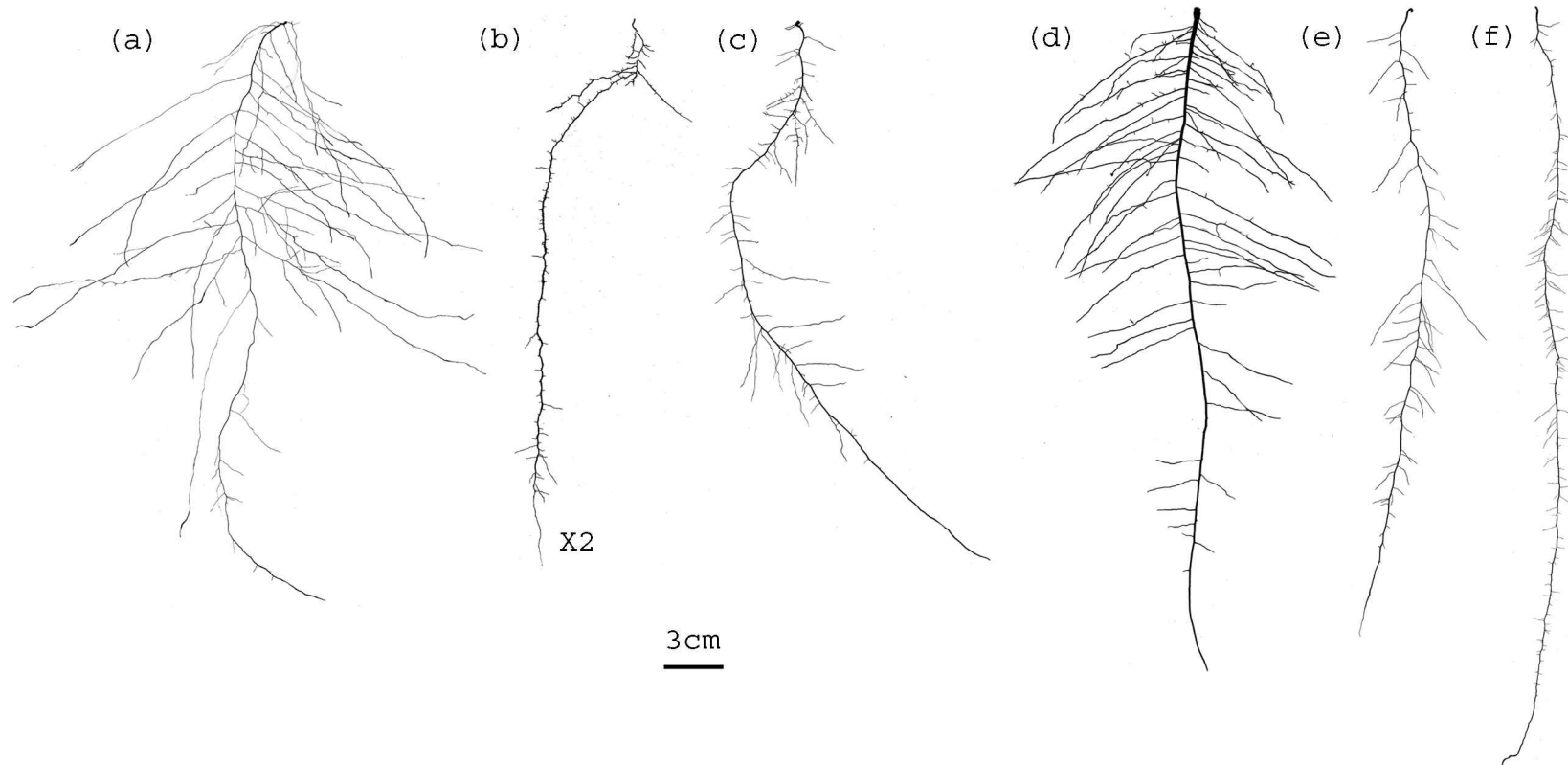


Fig. S2 Relationship between the root dry weight and morphological root traits (length, surface and average diameter) of the main axis, the lateral roots and the external links (log10-scale for both axes) for resprouting (R+, closed symbols) and non-resprouting (R-, open symbols) species. Intra-specific variability is indicated by segments emerging from each symbol (mean species value). Notice differences in the y-scale

