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Supplementary Material

**How important is fire-induced disturbance in the maintenance of a threatened perennial forb,
Solanum papaverifolium?**

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Table S1: Summary of fixed effects from the poisson mixed-effects models for number of flowers among new recruits and surviving stems.

Recruits	Estimate (log link)	Z value	P value
Intercept (Burnt)	-0.126	0.562	0.823
Treatment (Unburnt)	2.123	1.738	0.222
Log(Height)	0.278	0.179	0.122
Treatment (Unburnt): Log(Height)	-0.622	0.497	0.210
Surviving stems	Estimate (log link)	Z value	P value
Intercept (Burnt)	-0.980	1.056	0.353
Treatment (Unburnt)	2.314	4.304	0.591
Log(Height)	0.532	0.347	0.126
Treatment (Unburnt): Log(Height)	-0.666	1.124	0.554

Table S2: Demographical response of threatened interstitial species to fire in grassland environments

Scientific name and reference	Grassland type and habit	Type of regeneration	Responses					Factors influencing outcome
			Survival	Recruitment	Flowering	Fruiting	Seeds	
<i>Trioncinia retroflexa</i> (Fensham et al., 2002)	Semi-arid tropical Perennial forb	Carrot-like rootstock	NA	Decrease and later no effect	Increase and later no effect	NA	NA	Rainfall
<i>Brachypodium retusum</i> (Vidaller et al., 2019)	Mediterranean steppe Perennial grass	Rhizomes and seeds	NA	Increase	Increase	NA	Increase	Summer season
<i>Vernonia flexuosa</i> (Fidelis et al., 2010)	Campos grasslands Perennial forb	Vegetative (buds)	Decrease	Increase	Decrease	NA	NA	NA
<i>Polygala lewtonii</i> (Weekley and Menges, 2012)	Sandhills Perennial forb	Seeds	Increase	Increase	Increase	NA	NA	NA
<i>Echinacea angustifolia</i> (Nordstrom et al., 2021)	Old-growth grassland Perennial forb	Seeds	Increase	Increase	Increase	NA	NA	Seasonality
<i>Astragalus michauxii</i> (Wall et al., 2012)	Pine-wiregrass ecosystem Perennial forb	Seeds	Decrease	NA	Decrease	Decrease	NA	Drought
<i>Asclepias meadii</i> (Bowles et al., 1998)	Tall grass prairie Perennial forb	Vegetative and seeds	Neutral	NA	Increase	Decrease	NA	Rainfall
<i>Lomatium bradshawii</i> (Kaye et al., 1994)	Temperate prairies Perennial forb	Seeds	Increase	Increase	NA	Increase	NA	NA
<i>Ipomopsis aggregata</i> (Paige, 1992)	Temperate prairies Perennial forb	Rosettes and seeds	Decrease	Increase	Decrease	NA	No effect	Production of clonally derived rosette
<i>Silene spaldingii</i> (Lesica, 1999)	Temperate prairies Perennial forb	Seeds	Neutral	Increase	Increase	NA	NA	Removal of litter
<i>Silene regia</i> (Menges and Dolan, 1998)	Temperate prairies Perennial forb	Seeds and vegetative	Increase	Increase	Increase	NA	Increase	Environmental conditions