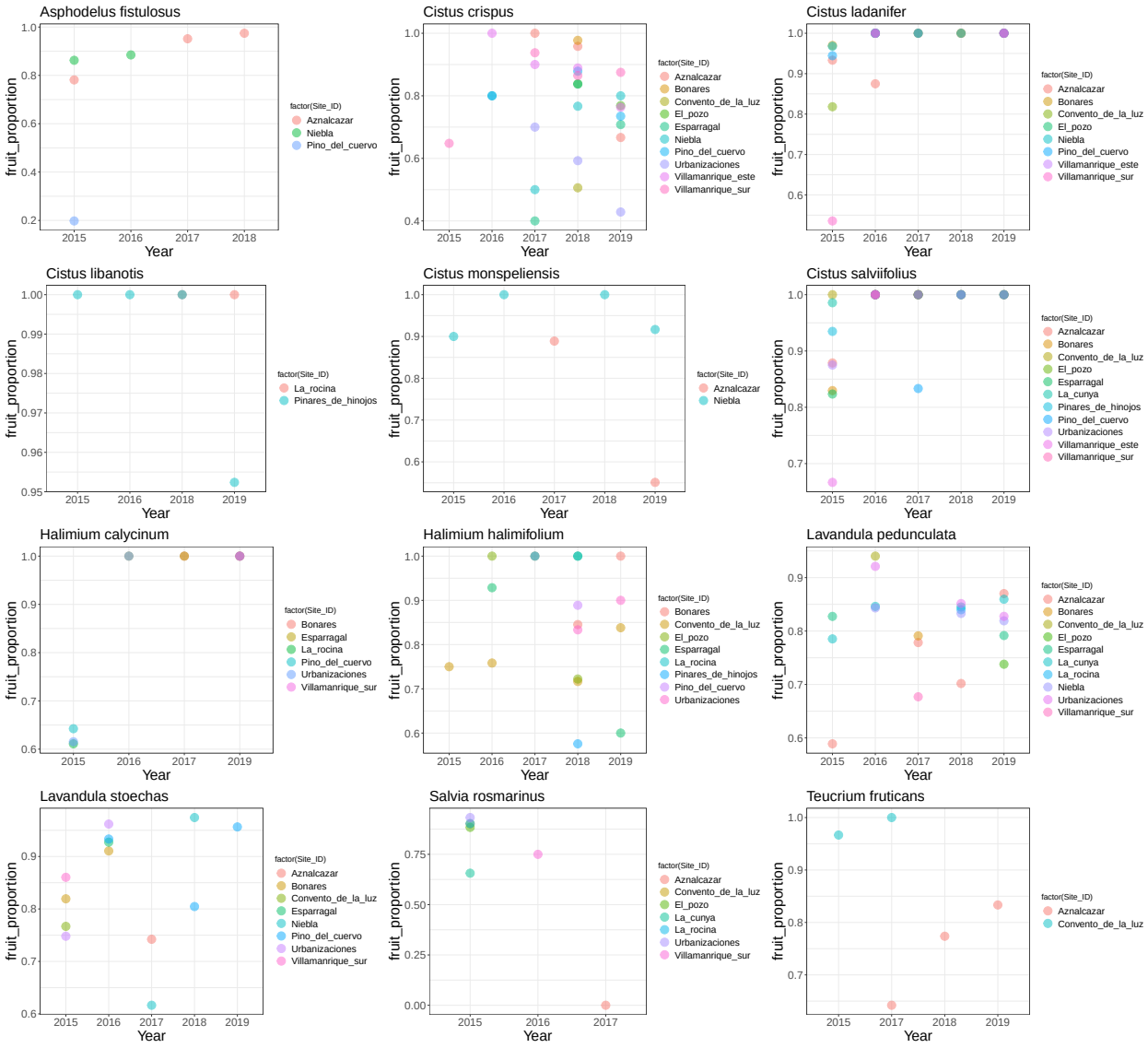
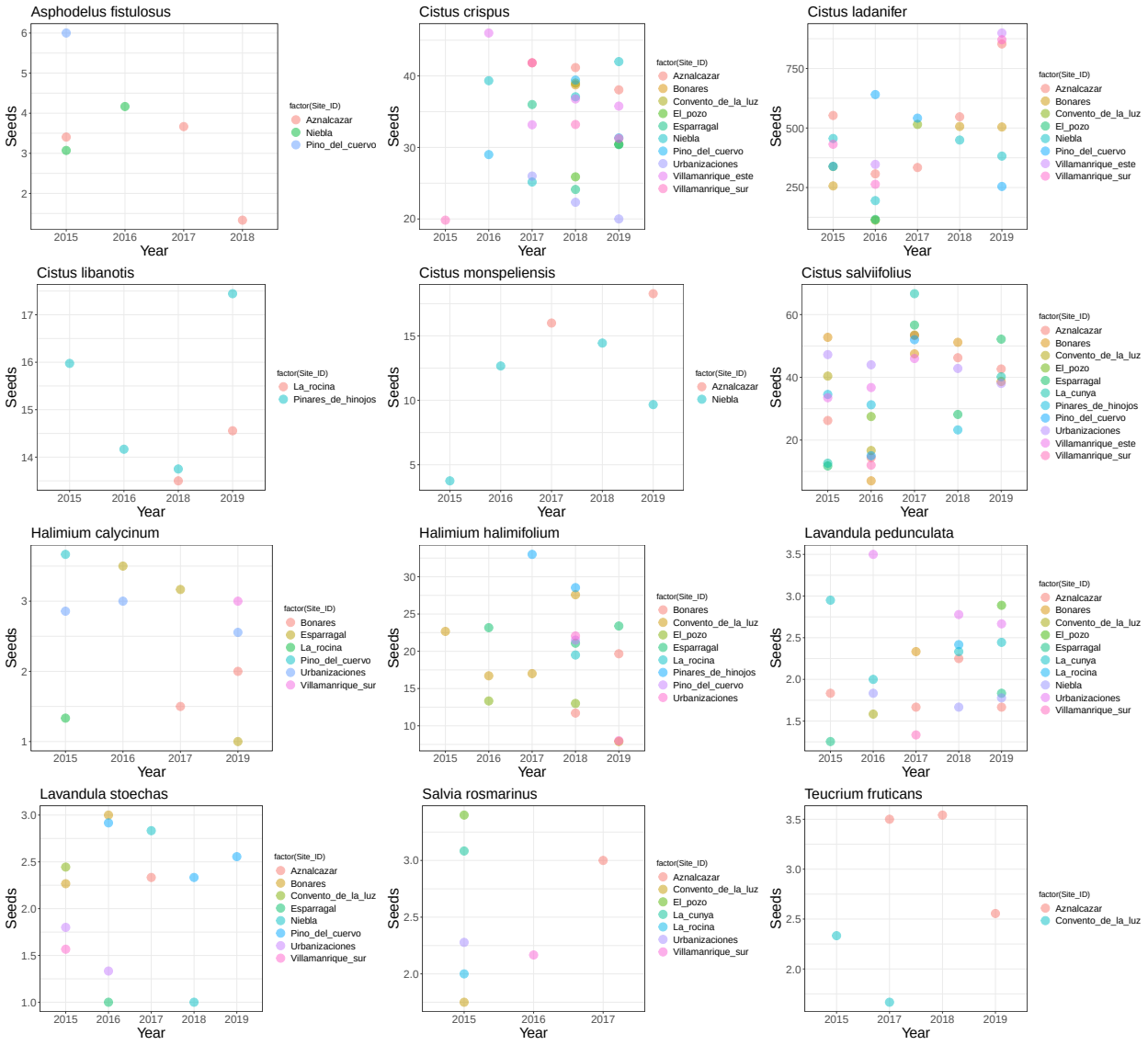
Stability

2022-07-27

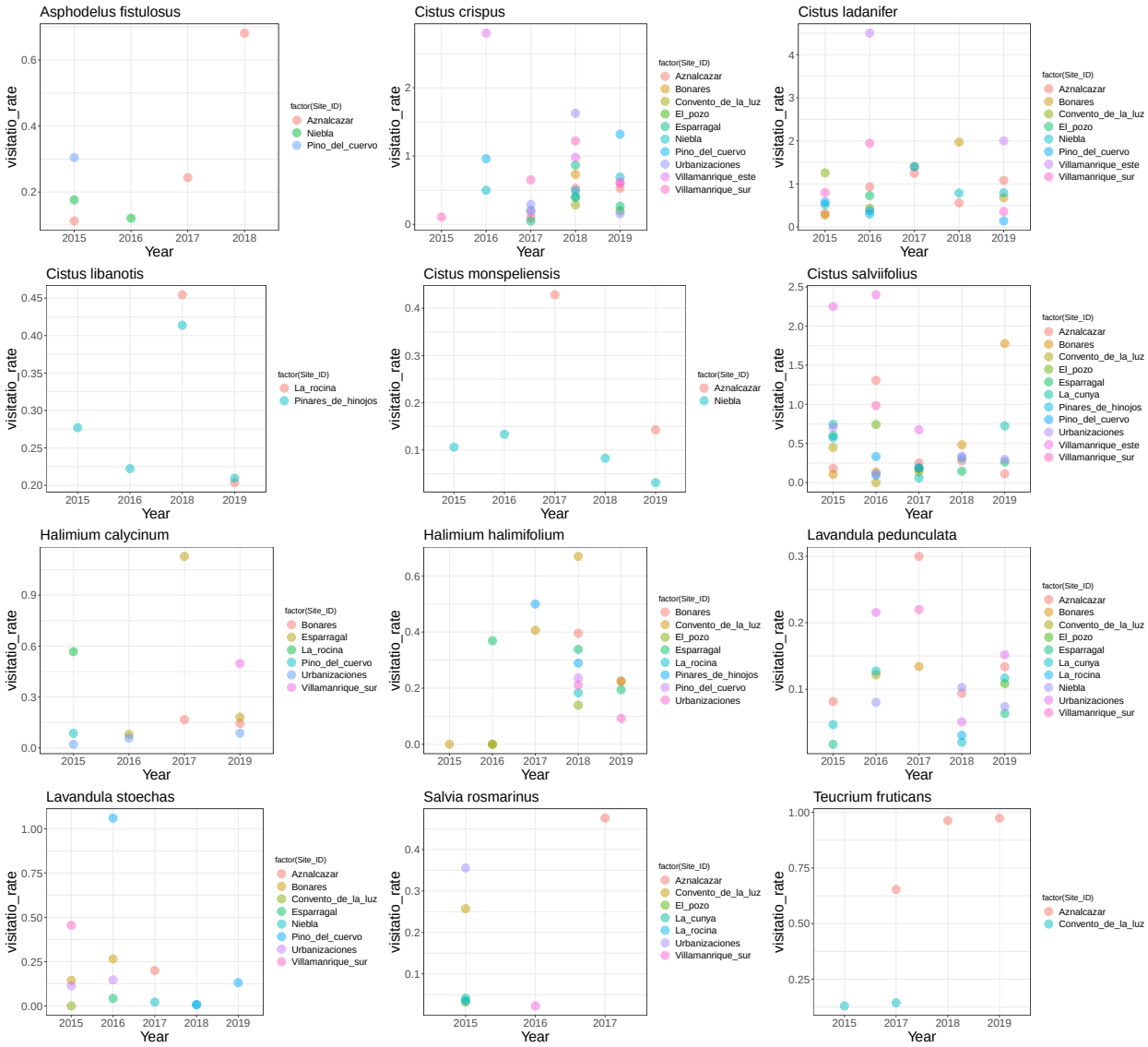
Plots of fruit proportion and year for each plant species and site



Plots of seed number and year for each plant species and site



Plots of visitation rate and year for each plant species and site



For each plant species per site, stability (inverse of the coefficient of variation) of the visitation rate of pollinators (visitation rate calculated like frequency/flower abundance) and also of the fruit proportion and the seed numbers were calculated. Pollinator richness (total and mean) was obtained and furthermore, the log of variance ratio (Lepš et al., 2018) and Loreau & Mazancourt syncrony index were calculated.

Positive values of log var ratio signify synchronization, negative values indicate compensatory dynamics (Lepš et al., 2018). Loreau & Mazancourt index is standardized between 0 (perfect asynchrony) and 1 (perfect synchrony).

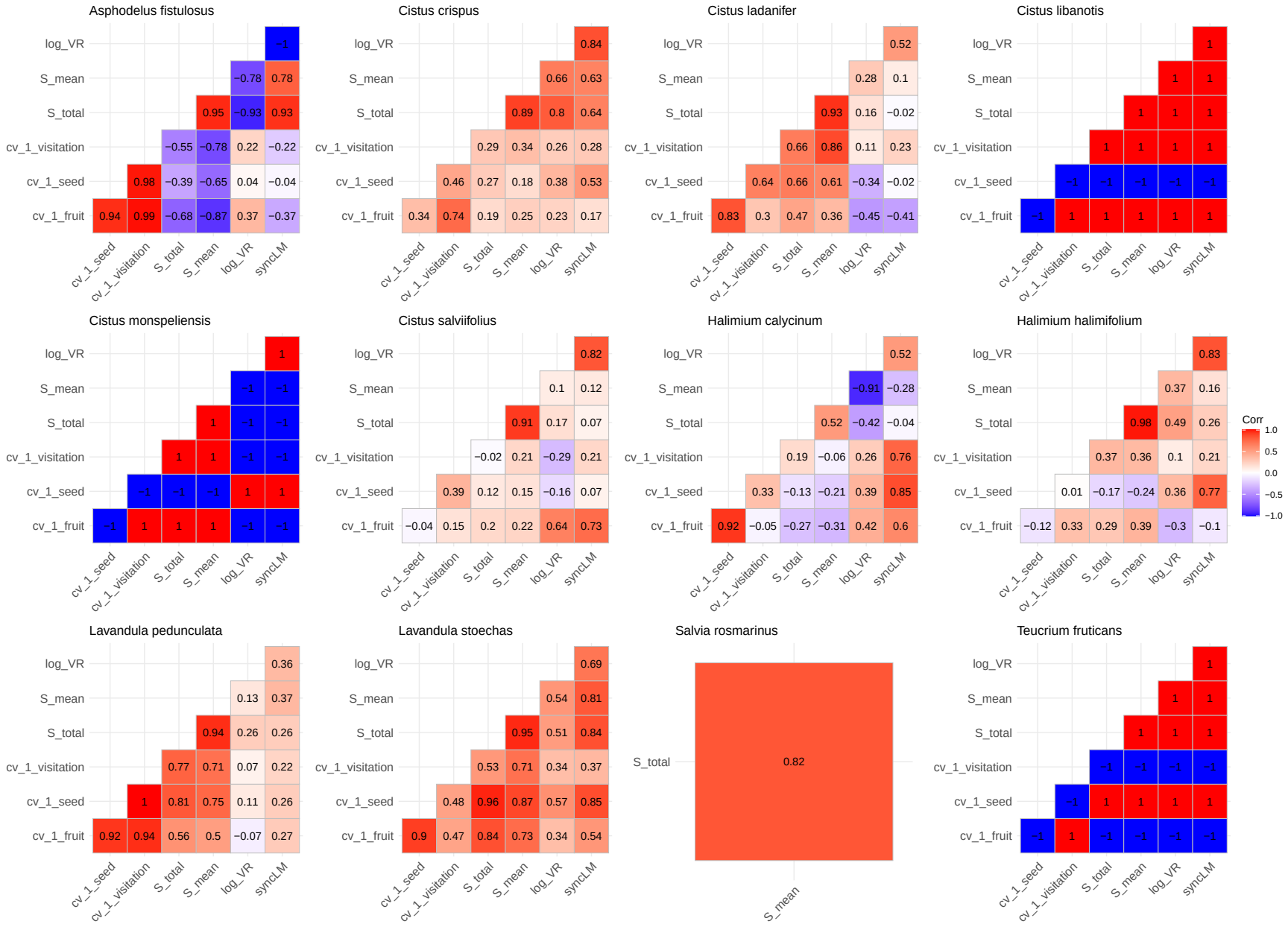
note: NA= one data per year

Plant_gen_sp	Site_ID	cv_1_fruit	cv_1_seed	cv_1_visitation	S_total	S_mean	log_VR	syncLM
Asphodelus fistulosus	Aznalcazar	8.5559	2.1917	1.1616	15	5.1667	-1.2321	0.0799
Asphodelus fistulosus	Niebla	55.6671	4.6731	3.7736	4	2.0000	-Inf	0.0000
Asphodelus fistulosus	Pino_del_cuervo	NA	NA	NA	8	4.0000	NA	NA
Cistus crispus	Aznalcazar	4.8190	20.0119	1.5352	20	6.1667	0.9197	0.4526
Cistus crispus	Bonares	NA	NA	NA	10	2.5000	NA	NA
Cistus crispus	Convento_de_la_luz	NA	NA	NA	4	2.0000	NA	NA
Cistus crispus	El_pozo	16.3280	8.7440	2.0208	15	5.0000	1.0586	0.2899
Cistus crispus	Esparragal	2.8856	5.0789	0.9322	31	9.7500	1.3225	0.4095
Cistus crispus	Niebla	4.9324	4.8314	2.2073	17	8.7500	0.5635	0.2675
Cistus crispus	Pino_del_cuervo	11.1785	6.0826	2.2325	17	6.7500	0.2285	0.2501
Cistus crispus	Urbanizaciones	4.1971	7.5309	0.8514	23	9.8333	1.5640	0.8184
Cistus crispus	Villamanrique_este	9.1615	6.7844	0.9950	25	12.3333	0.6190	0.3018
Cistus crispus	Villamanrique_sur	6.5795	3.4830	1.4137	31	11.2500	1.4654	0.3600
Cistus ladanifer	Aznalcazar	17.0519	2.3652	2.1561	27	11.0000	0.2231	0.1047
Cistus ladanifer	Bonares	56.5803	2.9434	1.1055	13	4.3333	-2.5649	0.0184
Cistus ladanifer	Convento_de_la_luz	8.9489	1.5985	1.9759	13	7.5000	0.1178	0.1699
Cistus ladanifer	El_pozo	NA	NA	NA	3	1.5000	NA	NA
Cistus ladanifer	Niebla	61.5000	3.0437	2.5189	19	9.6667	-0.1018	0.0652
Cistus ladanifer	Pino_del_cuervo	35.5000	2.4935	1.1411	12	5.1667	0.0000	0.1072
Cistus ladanifer	Villamanrique_este	Inf	1.5972	1.8385	4	4.0000	-1.0986	0.1111
Cistus ladanifer	Villamanrique_sur	3.1532	1.6655	1.2637	9	4.5000	0.5754	0.3265
Cistus libanotis	La_rocina	Inf	18.7942	1.8551	15	6.3333	-1.9459	0.0204
Cistus libanotis	Pinares_de_hinojos	41.5000	8.9856	3.0029	27	8.2500	1.3028	0.3579
Cistus monspeliensis	Aznalcazar	3.0125	10.6411	1.4132	11	4.3333	1.3471	0.6944
Cistus monspeliensis	Niebla	17.8819	2.1607	2.0344	18	9.1667	1.2098	0.3178
Cistus salviifolius	Aznalcazar	17.9953	2.3028	0.8583	23	9.6667	0.0667	0.1105
Cistus salviifolius	Bonares	12.6807	2.0828	0.7534	31	11.9167	0.2546	0.1521
Cistus salviifolius	Convento_de_la_luz	Inf	1.9740	0.8549	7	5.5000	0.7732	0.3611
Cistus salviifolius	El_pozo	NA	NA	NA	3	1.5000	NA	NA
Cistus salviifolius	Esparragal	10.8333	1.7647	1.4369	14	8.3333	0.7019	0.1704
Cistus salviifolius	La_cunya	120.6662	1.4736	1.3050	14	7.5000	1.7918	0.6391
Cistus salviifolius	Pinares_de_hinojos	25.9808	5.1085	1.3658	8	4.0000	1.2528	0.5833
Cistus salviifolius	Pino_del_cuervo	7.7782	1.2804	2.5927	3	3.0000	-1.0986	0.1111
Cistus salviifolius	Urbanizaciones	15.5000	11.2972	1.4624	12	5.0000	-0.1398	0.1380
Cistus salviifolius	Villamanrique_este	4.6188	5.9748	1.8597	11	9.0000	-1.0986	0.0502
Cistus salviifolius	Villamanrique_sur	NA	NA	NA	2	1.0000	NA	NA
Halimium calycinum	Bonares	Inf	4.9497	10.3835	6	2.6667	0.2809	1.0000
Halimium calycinum	Esparragal	Inf	1.8827	0.8015	7	5.5000	-1.7918	0.0278
Halimium calycinum	La_rocina	NA	NA	NA	3	3.0000	NA	NA
Halimium calycinum	Pino_del_cuervo	NA	NA	NA	3	1.5000	NA	NA
Halimium calycinum	Urbanizaciones	3.9260	12.3590	1.7005	4	2.0000	0.5596	0.9378
Halimium calycinum	Villamanrique_sur	NA	NA	NA	8	2.6667	NA	NA
Halimium halimifolium	Bonares	8.4309	2.7877	2.5561	14	4.7500	0.5108	0.2066
Halimium halimifolium	Convento_de_la_luz	7.1384	2.4892	0.9120	35	10.8333	1.6959	0.5913
Halimium halimifolium	El_pozo	4.3841	55.8614	0.7071	6	2.0000	1.1838	1.0000
Halimium halimifolium	Esparragal	3.9509	17.7275	3.2259	21	6.7500	0.2894	0.3763
Halimium halimifolium	La_rocina	NA	NA	NA	2	2.0000	NA	NA
Halimium halimifolium	Pinares_de_hinojos	2.6259	9.7607	2.6479	12	3.7500	1.4663	0.7511
Halimium halimifolium	Pino_del_cuervo	NA	NA	NA	5	1.6667	NA	NA
Halimium halimifolium	Urbanizaciones	18.3848	1.5120	1.7963	12	5.1667	-0.6286	0.0816
Lavandula pedunculata	Aznalcazar	6.1669	6.7342	1.5073	23	8.8333	0.6451	0.3904

Lavandula pedunculata	Bonares	NA	NA	NA	3	1.5000	NA	NA
Lavandula pedunculata	Convento_de_la_luz	NA	NA	NA	4	2.0000	NA	NA
Lavandula pedunculata	El_pozo	NA	NA	NA	6	2.0000	NA	NA
Lavandula pedunculata	Esparragal	31.9772	3.7680	1.2239	3	1.5000	-0.9163	0.2500
Lavandula pedunculata	La_cunya	25.1644	6.1782	1.4772	10	5.1667	0.4823	0.7153
Lavandula pedunculata	La_rocina	NA	NA	NA	11	2.7500	NA	NA
Lavandula pedunculata	Niebla	68.6603	20.7307	5.6340	25	8.0000	0.2296	0.0915
Lavandula pedunculata	Urbanizaciones	17.8374	6.5893	1.6767	15	7.6667	-1.3291	0.0422
Lavandula pedunculata	Villamanrique_sur	NA	NA	NA	2	2.0000	NA	NA
Lavandula stoechas	Aznalcazar	NA	NA	NA	2	2.0000	NA	NA
Lavandula stoechas	Bonares	13.4040	5.0783	2.4040	8	3.5000	-Inf	0.0000
Lavandula stoechas	Convento_de_la_luz	NA	NA	NA	0	0.0000	NA	NA
Lavandula stoechas	Esparragal	NA	NA	NA	2	1.0000	NA	NA
Lavandula stoechas	Niebla	3.1437	1.4785	1.2825	5	2.5000	-1.9459	0.0400
Lavandula stoechas	Pino_del_cuervo	10.9828	8.8375	0.6949	13	5.3333	1.3610	0.9068
Lavandula stoechas	Urbanizaciones	5.6550	4.7477	5.4540	9	5.5000	1.2730	0.5102
Lavandula stoechas	Villamanrique_sur	NA	NA	NA	4	2.0000	NA	NA
Salvia rosmarinus	Aznalcazar	NA	NA	NA	3	1.5000	NA	NA
Salvia rosmarinus	Convento_de_la_luz	NA	NA	NA	1	0.5000	NA	NA
Salvia rosmarinus	El_pozo	NA	NA	NA	2	2.0000	NA	NA
Salvia rosmarinus	La_cunya	NA	NA	NA	3	1.5000	NA	NA
Salvia rosmarinus	La_rocina	NA	NA	NA	1	1.0000	NA	NA
Salvia rosmarinus	Urbanizaciones	NA	NA	NA	6	2.0000	NA	NA
Salvia rosmarinus	Villamanrique_sur	NA	NA	NA	6	3.0000	NA	NA
Teucrium fruticans	Aznalcazar	7.6622	5.7363	4.7456	31	10.0000	0.5167	0.2935
Teucrium fruticans	Convento_de_la_luz	41.7193	4.2426	13.7054	8	8.0000	-Inf	0.0000

Correlation

	cv_1_fruit	cv_1_seed	cv_1_visitation	S_total	S_mean
cv_1_fruit	1.0000	0.1014	0.3278	0.2615	0.3131
cv_1_seed	0.1014	1.0000	0.2020	0.2327	0.1583
cv_1_visitation	0.3278	0.2020	1.0000	0.2164	0.3149
S_total	0.2615	0.2327	0.2164	1.0000	0.9097
S_mean	0.3131	0.1583	0.3149	0.9097	1.0000

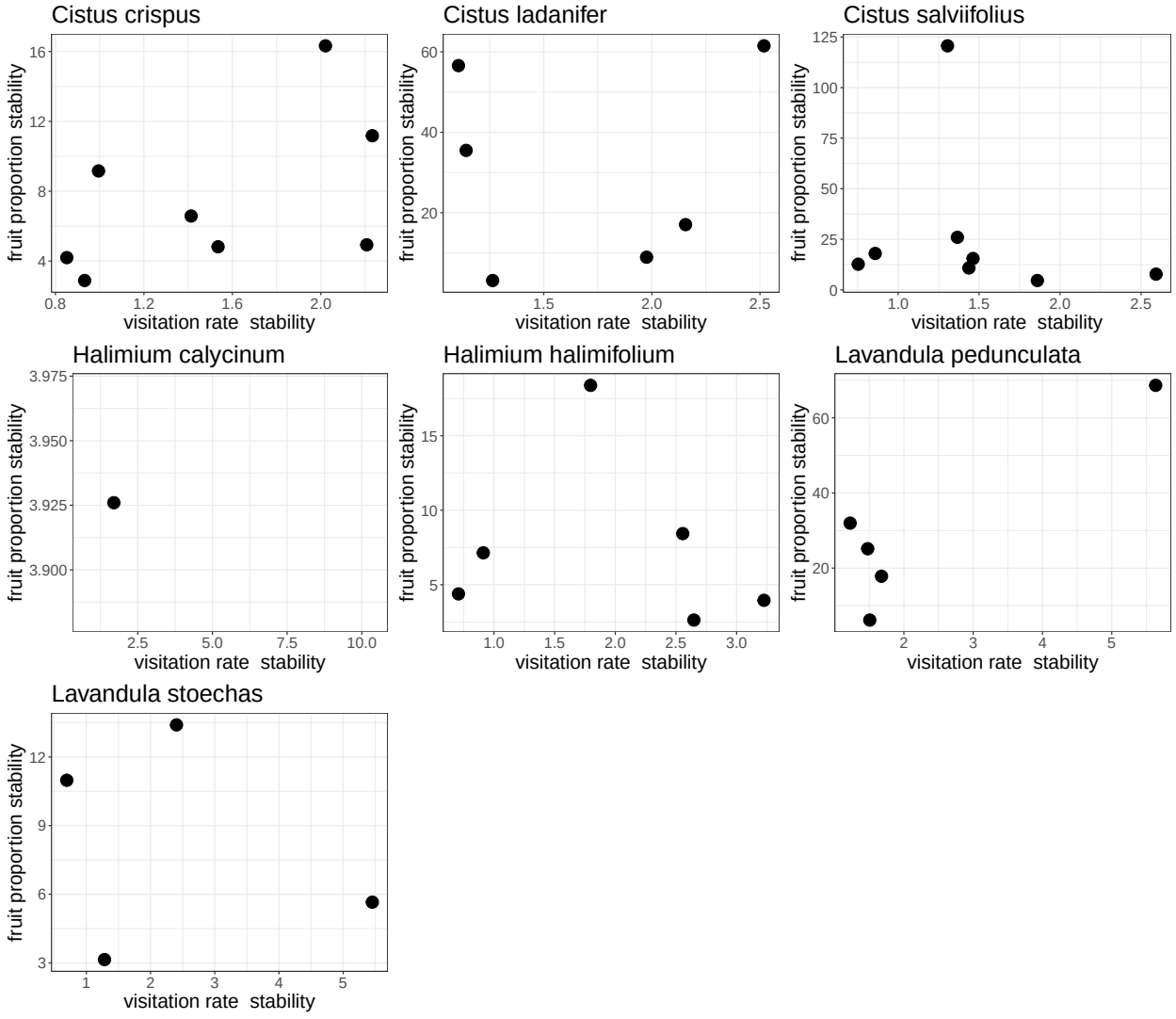

Asphodelus fistulosus
Cistus crispus
Cistus ladanifer
Cistus libanotis
Cistus monspeliensis
Cistus salviifolius
Halimium calycinum
Halimium halimifolium
Lavandula pedunculata
Lavandula stoechas
Salvia rosmarinus
Teucrium fruticans
log_VR
S_mean
S_total
cv_1_visitation
cv_1_seed
cv_1_fruit
syncLM
Corr
1.0
0.5
0.0
−0.5
−1.0
S_total
S_mean
0.82

Data with species in more than 3 sites. I removed 4 plant species (A.fistulosus, C.libanotis, c.monspeliensis, T.fructicans)

Salvia rosmarinus = only one year per site (remove)

Replace Inf and -Inf with NA

We analysed the relationship between fruit proportion stability and visitation rate stability



Halimium calycinum only one observation

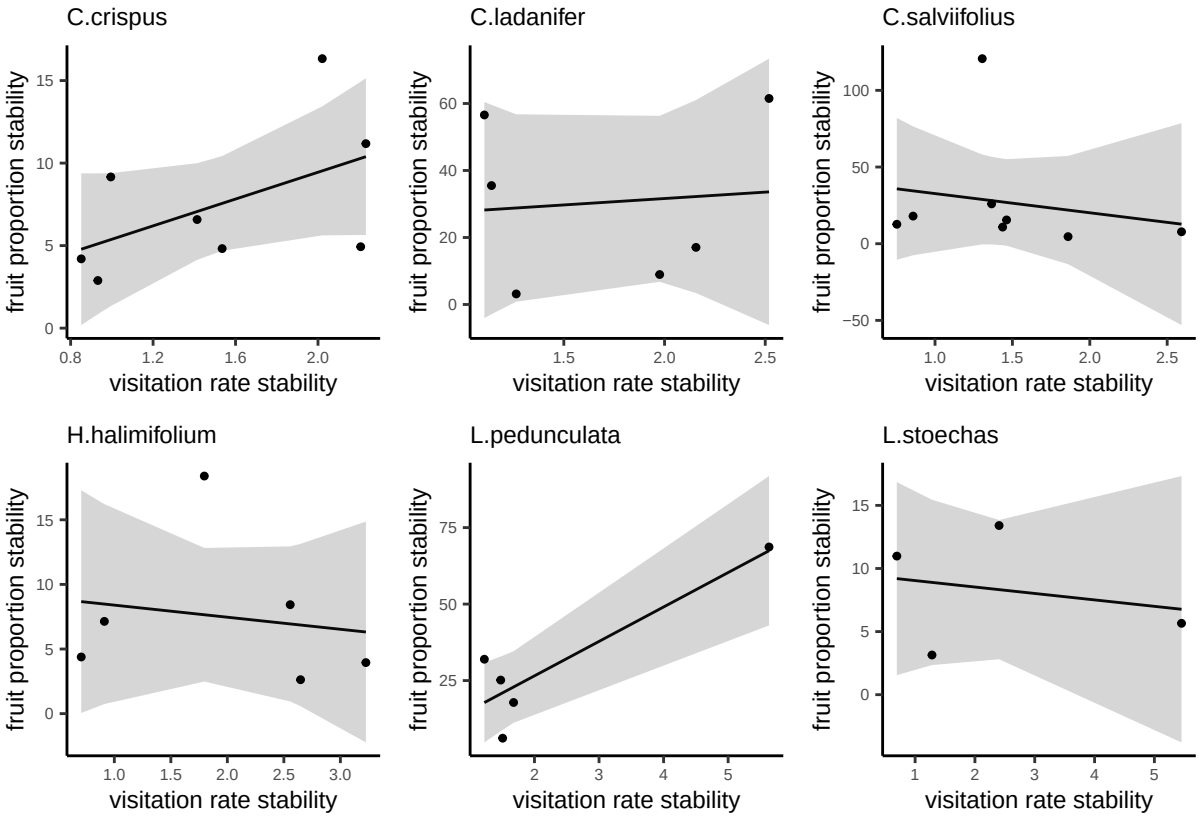
Summary of model per plant species

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	1.3233	4.4025	0.3006	0.7739
	cv_1_visitation	4.0610	2.7251	1.4902	0.1868
Cistus ladanifer	(Intercept)	23.9666	36.4338	0.6578	0.5466
	cv_1_visitation	3.8317	20.4638	0.1872	0.8606
Cistus salviifolius	(Intercept)	45.2096	41.3436	1.0935	0.3161
	cv_1_visitation	-12.5168	26.6478	-0.4697	0.6551
Halimium calycinum	(Intercept)	3.9260			
	cv_1_visitation				
Halimium halimifolium	(Intercept)	9.3305	6.1102	1.5271	0.2015
	cv_1_visitation	-0.9344	2.8031	-0.3334	0.7556
Lavandula pedunculata	(Intercept)	4.0291	9.5139	0.4235	0.7005
	cv_1_visitation	11.2562	3.3427	3.3674	**0.0435**
Lavandula stoechas	(Intercept)	9.5504	4.7042	2.0302	0.1795
	cv_1_visitation	-0.5100	1.5332	-0.3326	0.7711

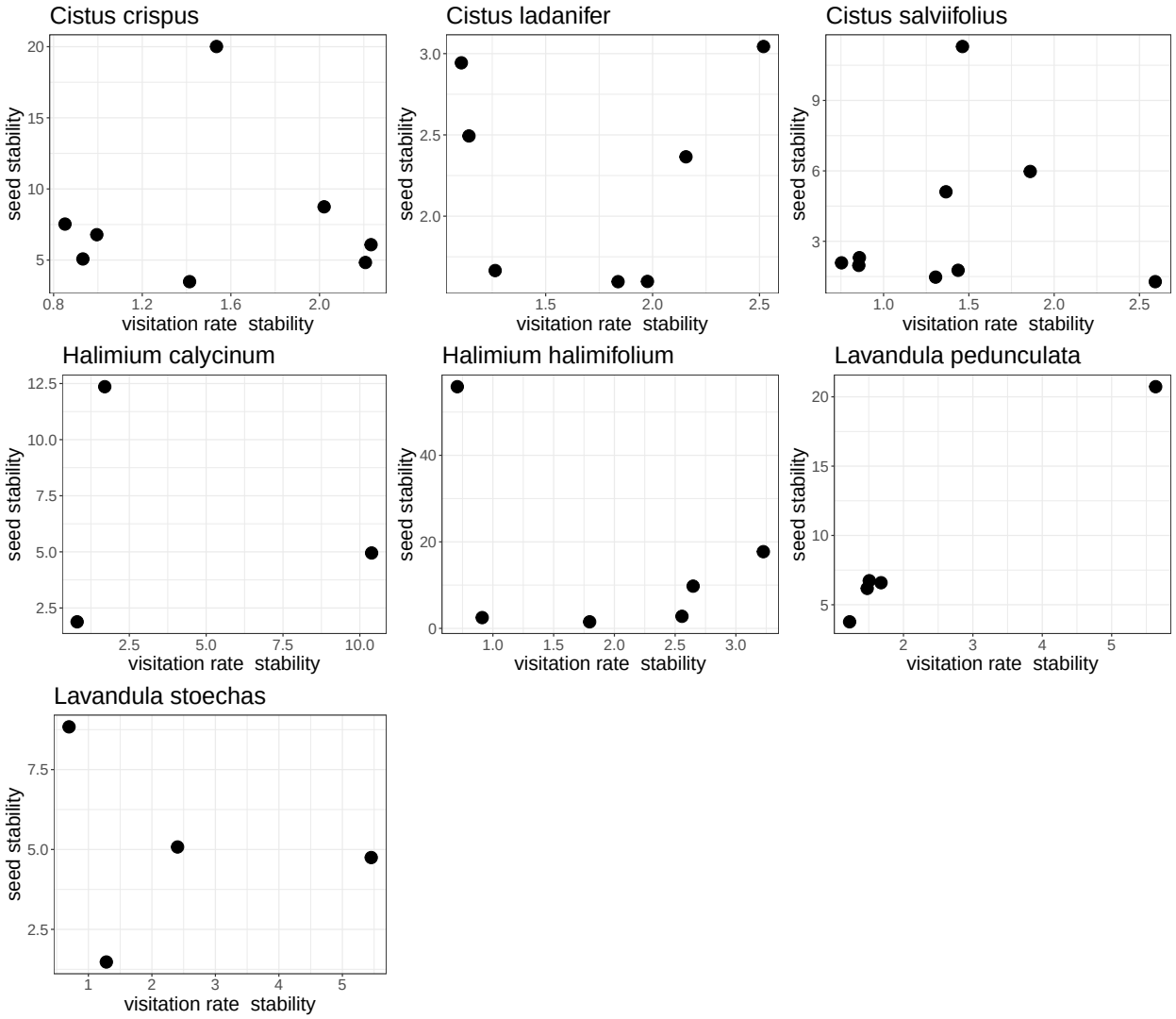
Goodness of fit measures, p-values for hypothesis tests on residuals, and model convergence information.

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.270	0.148	4.142	2.221	0.187	1	-21.571	49.141	49.380	102.950	6	8
C.ladanifer	0.009	-0.239	27.535	0.035	0.861	1	-27.190	60.380	59.755	3032.736	4	6
C.salviifolius	0.035	-0.125	40.740	0.221	0.655	1	-39.858	85.717	85.955	9958.348	6	8
H. calycinum	0.000	0.000					Inf	-Inf	-Inf	0.000	0	1
H.halimifolium	0.027	-0.216	6.346	0.111	0.756	1	-18.384	42.767	42.143	161.062	4	6
L.pedunculata	0.791	0.721	12.492	11.340	0.043	1	-18.443	42.886	41.715	468.181	3	5
L.stoechas	0.052	-0.421	5.627	0.111	0.771	1	-11.200	28.400	26.559	63.328	2	4

checking residuals, I detect problems with the homogeneity of variance for all plant species


C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
L.stoechas
fruit proportion stability
visitation rate stability

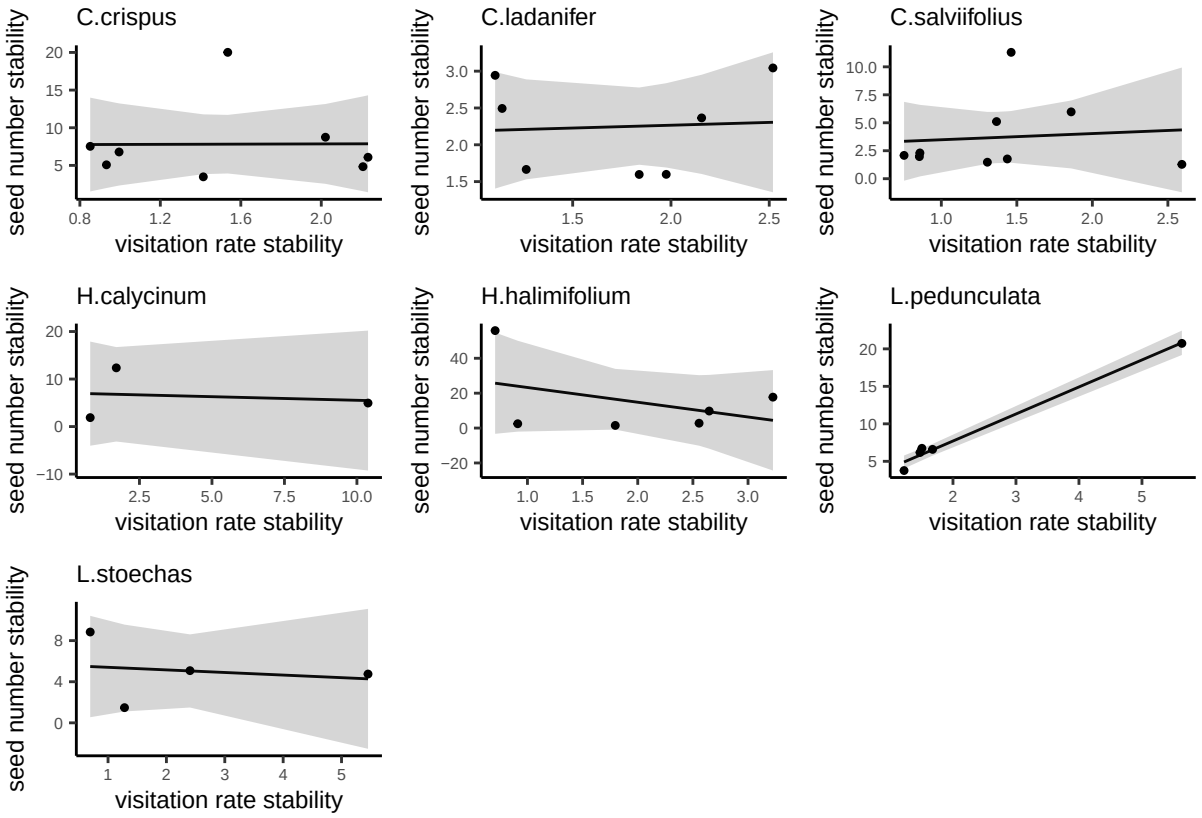
We analysed the relationship between seed number stability and visitation rate stability



Summary of model

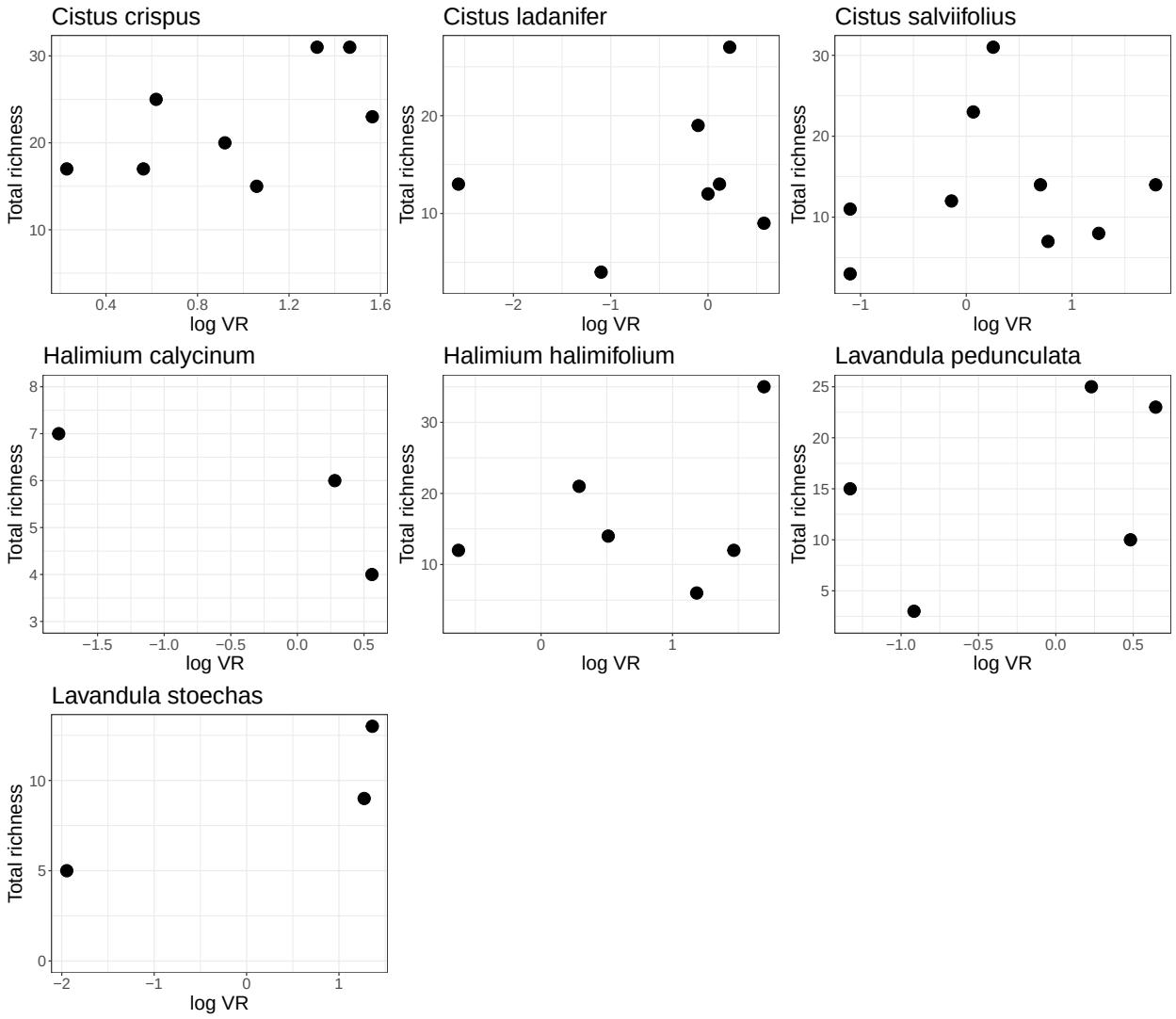
Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	7.7093	5.9637	1.2927	0.2437
	cv_1_visitation	0.0716	3.6915	0.0194	0.9852
Cistus ladanifer	(Intercept)	2.1129	0.9097	2.3226	0.0678
	cv_1_visitation	0.0764	0.5086	0.1502	0.8865
Cistus salviifolius	(Intercept)	2.9282	3.2078	0.9128	0.3917
	cv_1_visitation	0.5529	2.1525	0.2569	0.8047
Halimium calycinum	(Intercept)	7.0497	6.1315	1.1498	0.4557
	cv_1_visitation	-0.1519	1.0064	-0.1510	0.9046
Halimium halimifolium	(Intercept)	31.7071	20.5742	1.5411	0.1981
	cv_1_visitation	-8.4509	9.4385	-0.8954	0.4212
Lavandula pedunculata	(Intercept)	0.4927	0.6344	0.7767	0.4940
	cv_1_visitation	3.6059	0.2229	16.1769	**0.0005**
Lavandula stoechas	(Intercept)	5.6537	3.0339	1.8635	0.2034
	cv_1_visitation	-0.2514	0.9888	-0.2543	0.8230

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.000	-0.167	5.611	0.000	0.985	1	-23.999	53.998	54.236	188.914	6	8
C.ladanifer	0.004	-0.195	0.688	0.023	0.886	1	-6.134	18.268	18.105	2.365	5	7
C.salviifolius	0.009	-0.132	3.509	0.066	0.805	1	-22.936	51.872	52.464	86.167	7	9
H. calycinum	0.022	-0.955	7.532	0.023	0.905	1	-8.666	23.333	20.628	56.727	1	3
H.halimifolium	0.167	-0.041	21.367	0.802	0.421	1	-25.668	57.336	56.712	1826.129	4	6
L.pedunculata	0.989	0.985	0.833	261.691	0.001	1	-4.904	15.809	14.637	2.082	3	5
L.stoechas	0.031	-0.453	3.629	0.065	0.823	1	-9.445	24.891	23.050	26.341	2	4


C.crispus
C.ladanifer
C.salviifolius
H.calycinum
H.halimifolium
L.pedunculata
L.stoechas
seed number stability
visitation rate stability

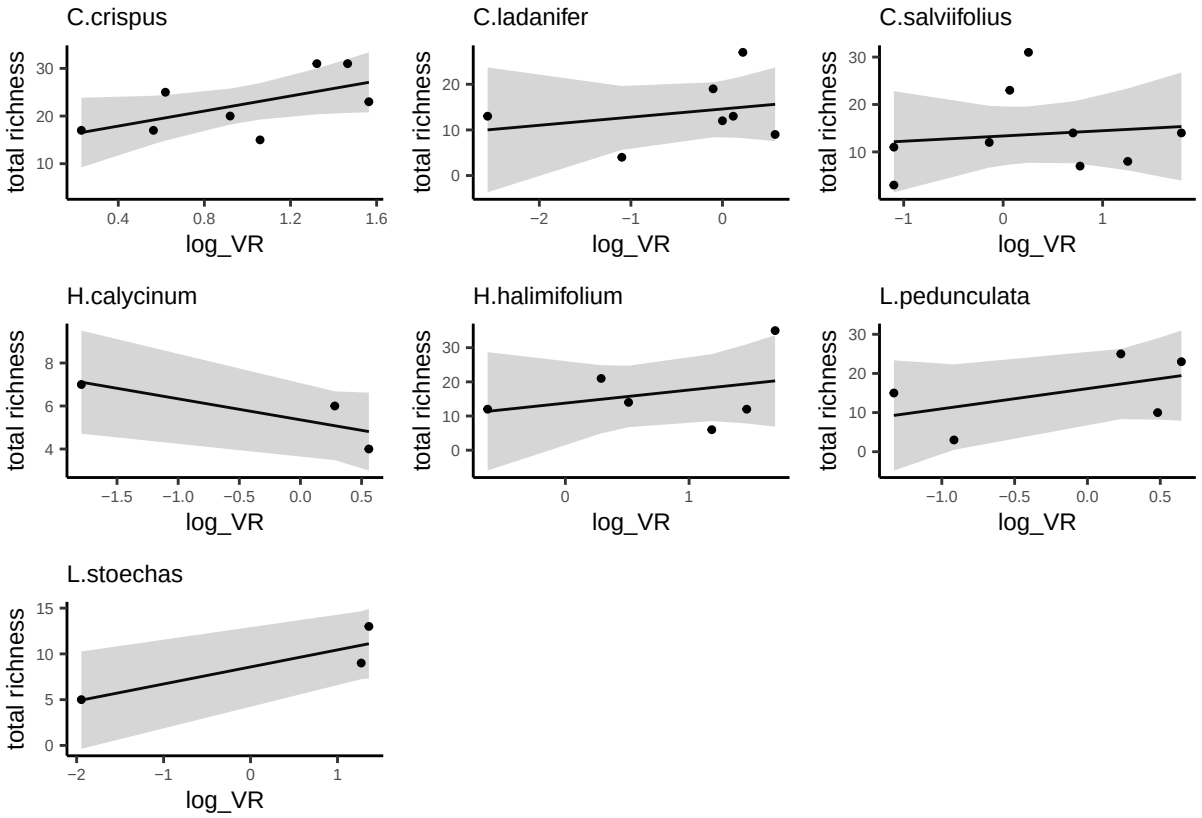
Relationship between richness-synchrony with different synchrony indice.

A- Total richness ~ log VR



Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	14.738	4.599	3.205	**0.018**
	log_VR	7.893	4.321	1.826	0.118
Cistus ladanifer	(Intercept)	14.583	3.173	4.596	**0.006**
	log_VR	1.784	2.933	0.608	0.570
Cistus salviifolius	(Intercept)	13.359	3.165	4.221	**0.004**
	log_VR	1.106	3.281	0.337	0.746
Halimium calycinum	(Intercept)	5.357	0.741	7.228	0.088
	log_VR	-0.978	0.676	-1.446	0.385
Halimium halimifolium	(Intercept)	13.778	6.065	2.272	0.086
	log_VR	3.836	5.550	0.691	0.527
Lavandula pedunculata	(Intercept)	16.115	4.178	3.857	**0.031**
	log_VR	5.149	5.136	1.002	0.390
Lavandula stoechas	(Intercept)	8.573	1.584	5.413	0.116
	log_VR	1.863	1.018	1.829	0.318

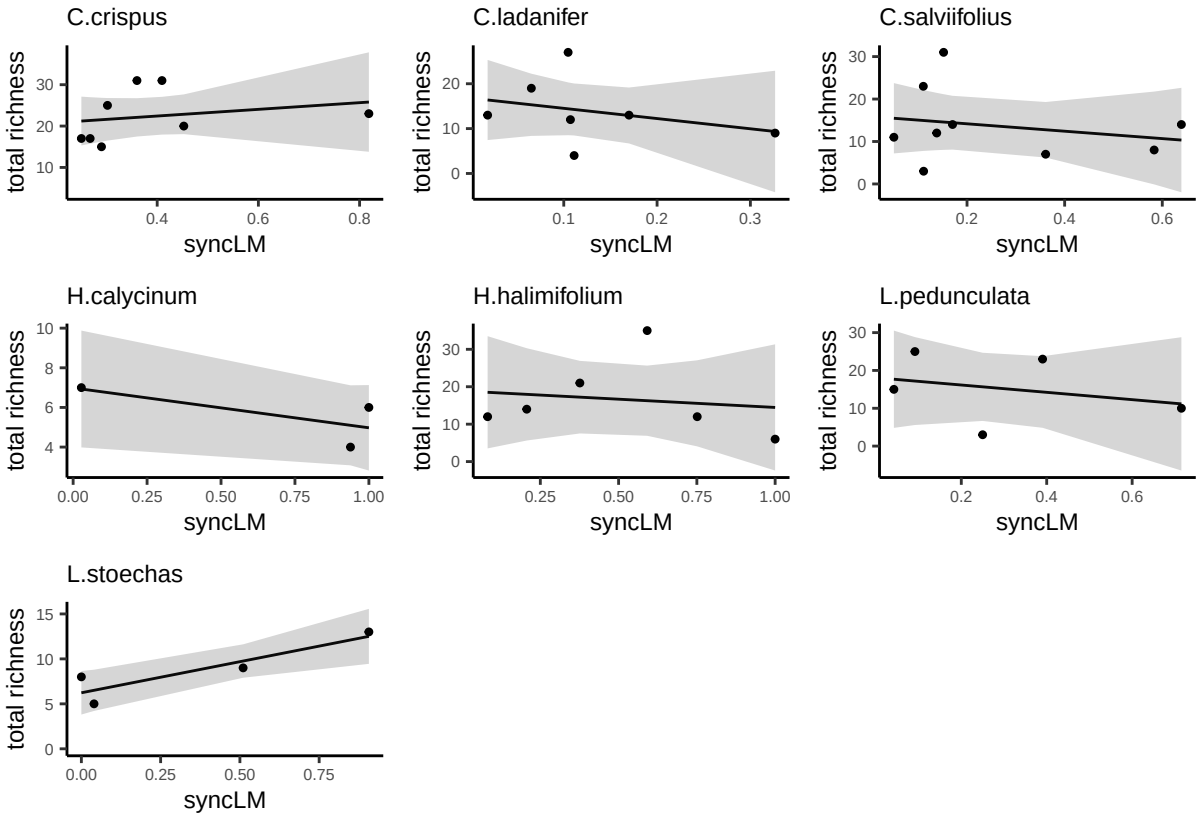
Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.357	0.250	5.416	3.336	0.118	1	-23.716	53.432	53.670	176.014	6	8
C.ladanifer	0.069	-0.117	7.778	0.370	0.570	1	-23.114	52.228	52.066	302.488	5	7
C.salviifolius	0.016	-0.125	9.092	0.114	0.746	1	-31.506	69.011	69.603	578.602	7	9
H. calycinum	0.676	0.353	1.229	2.091	0.385	1	-3.227	12.454	9.750	1.510	1	3
H.halimifolium	0.107	-0.117	10.769	0.478	0.527	1	-21.557	49.115	48.490	463.917	4	6
L.pedunculata	0.251	0.001	9.116	1.005	0.390	1	-16.868	39.735	38.564	249.290	3	5
L.stoechas	0.770	0.540	2.713	3.347	0.318	1	-5.603	17.207	14.503	7.362	1	3


C.crispus
C.ladanifer
C.salviifolius
H.calycinum
H.halimifolium
L.pedunculata
L.stoechas
total richness
log_VR

B- total richness ~ Loreau & Mazancourt syncrony index

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	19.197	5.750	3.338	**0.016**
	syncLM	8.072	13.364	0.604	0.568
Cistus ladanifer	(Intercept)	16.797	5.020	3.346	**0.020**
	syncLM	-22.790	31.763	-0.717	0.505
Cistus salviifolius	(Intercept)	15.909	4.768	3.337	**0.012**
	syncLM	-8.714	14.467	-0.602	0.566
Halimium calycinum	(Intercept)	6.986	1.548	4.512	0.139
	syncLM	-2.013	1.956	-1.029	0.491
Halimium halimifolium	(Intercept)	18.874	8.631	2.187	0.094
	syncLM	-4.404	14.572	-0.302	0.778
Lavandula pedunculata	(Intercept)	18.083	7.153	2.528	0.086
	syncLM	-9.679	18.636	-0.519	0.639
Lavandula stoechas	(Intercept)	6.228	1.235	5.044	**0.037**
	syncLM	6.922	2.372	2.919	0.100

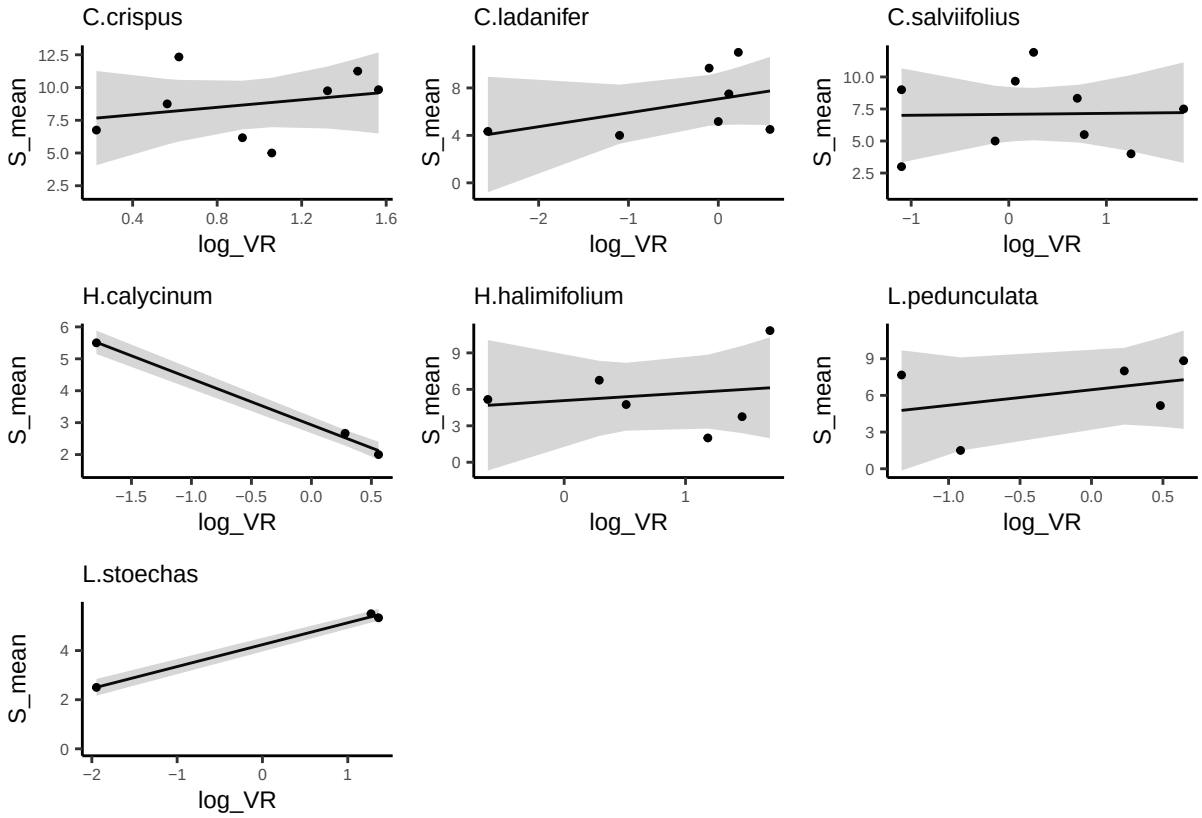
Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.057	-0.100	6.560	0.365	0.568	1	-25.248	56.497	56.735	258.176	6	8
C.ladanifer	0.093	-0.088	7.675	0.515	0.505	1	-23.021	52.041	51.879	294.532	5	7
C.salviifolius	0.049	-0.087	8.936	0.363	0.566	1	-31.351	68.702	69.293	559.027	7	9
H. calycinum	0.515	0.029	1.505	1.060	0.491	1	-3.836	13.671	10.967	2.266	1	3
H.halimifolium	0.022	-0.222	11.267	0.091	0.778	1	-21.828	49.657	49.032	507.740	4	6
L.pedunculata	0.082	-0.223	10.089	0.270	0.639	1	-17.375	40.749	39.578	305.346	3	5
L.stoechas	0.810	0.715	1.764	8.519	0.100	1	-6.561	19.122	17.281	6.227	2	4


C.crispus
C.ladanifer
C.salviifolius
H.calycinum
H.halimifolium
L.pedunculata
L.stoechas
total richness
syncLM

C- mean richness ~ log VR

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	7.339	2.267	3.238	**0.018**
	log_VR	1.437	2.130	0.675	0.525
Cistus ladanifer	(Intercept)	7.071	1.129	6.262	**0.002**
	log_VR	1.170	1.044	1.120	0.313
Cistus salviifolius	(Intercept)	7.081	1.088	6.506	**0.000**
	log_VR	0.074	1.128	0.065	0.950
Halimium calycinum	(Intercept)	2.931	0.113	25.831	**0.025**
	log_VR	-1.443	0.104	-13.933	**0.046**
Halimium halimifolium	(Intercept)	5.075	1.879	2.700	0.054
	log_VR	0.620	1.719	0.361	0.737
Lavandula pedunculata	(Intercept)	6.459	1.459	4.428	**0.021**
	log_VR	1.270	1.794	0.708	0.530
Lavandula stoechas	(Intercept)	4.240	0.101	41.879	**0.015**
	log_VR	0.892	0.065	13.712	**0.046**

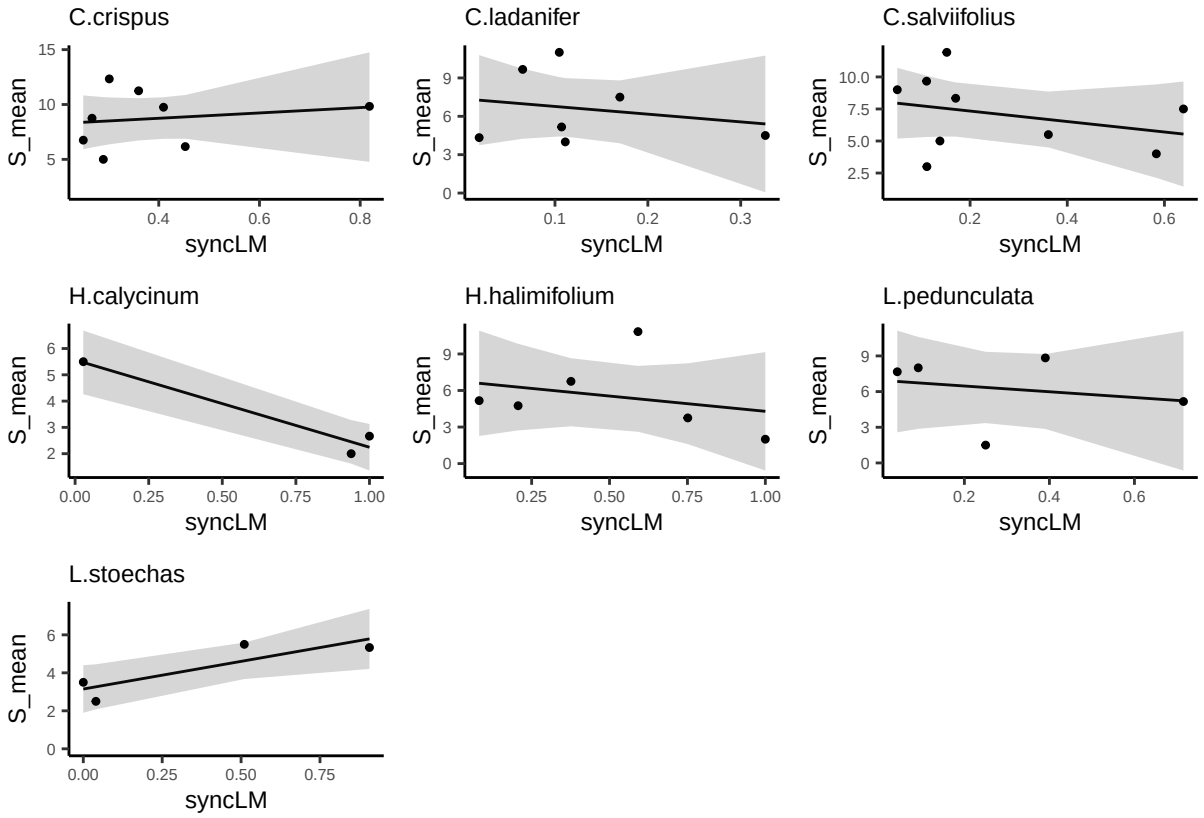
Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.070	-0.084	2.669	0.455	0.525	1	-18.056	42.111	42.349	42.754	6	8
C.ladanifer	0.201	0.041	2.768	1.255	0.313	1	-15.883	37.765	37.603	38.317	5	7
C.salviifolius	0.001	-0.142	3.127	0.004	0.950	1	-21.899	49.798	50.390	68.428	7	9
H. calycinum	0.995	0.990	0.188	194.116	0.046	1	2.403	1.195	-1.509	0.035	1	3
H.halimifolium	0.031	-0.211	3.337	0.130	0.737	1	-14.527	35.054	34.430	44.535	4	6
L.pedunculata	0.143	-0.142	3.183	0.501	0.530	1	-11.607	29.214	28.042	30.397	3	5
L.stoechas	0.995	0.989	0.173	188.007	0.046	1	2.647	0.706	-1.998	0.030	1	3


C.crispus
S_mean
log_VR
C.ladanifer
S_mean
log_VR
C.salviifolius
S_mean
log_VR
H.calycinum
S_mean
log_VR
H.halimifolium
S_mean
log_VR
L.pedunculata
S_mean
log_VR
L.stoechas
S_mean
log_VR

D- mean richness ~ Loreau & Mazancourt syncrony index

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	7.771	2.389	3.253	**0.017**
	syncLM	2.433	5.552	0.438	0.677
Cistus ladanifer	(Intercept)	7.373	1.980	3.724	**0.014**
	syncLM	-6.030	12.527	-0.481	0.651
Cistus salviifolius	(Intercept)	8.153	1.589	5.130	**0.001**
	syncLM	-4.085	4.822	-0.847	0.425
Halimium calycinum	(Intercept)	5.563	0.636	8.747	0.072
	syncLM	-3.319	0.803	-4.131	0.151
Halimium halimifolium	(Intercept)	6.797	2.489	2.731	0.052
	syncLM	-2.506	4.202	-0.596	0.583
Lavandula pedunculata	(Intercept)	6.954	2.379	2.924	0.061
	syncLM	-2.420	6.197	-0.391	0.722
Lavandula stoechas	(Intercept)	3.148	0.639	4.929	**0.039**
	syncLM	2.910	1.227	2.372	0.141

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.031	-0.130	2.725	0.192	0.677	1	-18.222	42.444	42.682	44.570	6	8
C.ladanifer	0.044	-0.147	3.027	0.232	0.651	1	-16.508	39.016	38.854	45.814	5	7
C.salviifolius	0.093	-0.037	2.979	0.718	0.425	1	-21.463	48.925	49.517	62.103	7	9
H. calycinum	0.945	0.889	0.618	17.067	0.151	1	-1.167	8.333	5.629	0.382	1	3
H.halimifolium	0.082	-0.148	3.249	0.356	0.583	1	-14.368	34.735	34.111	42.229	4	6
L.pedunculata	0.048	-0.269	3.355	0.153	0.722	1	-11.869	29.739	28.567	33.761	3	5
L.stoechas	0.738	0.607	0.913	5.628	0.141	1	-3.924	13.848	12.007	1.666	2	4

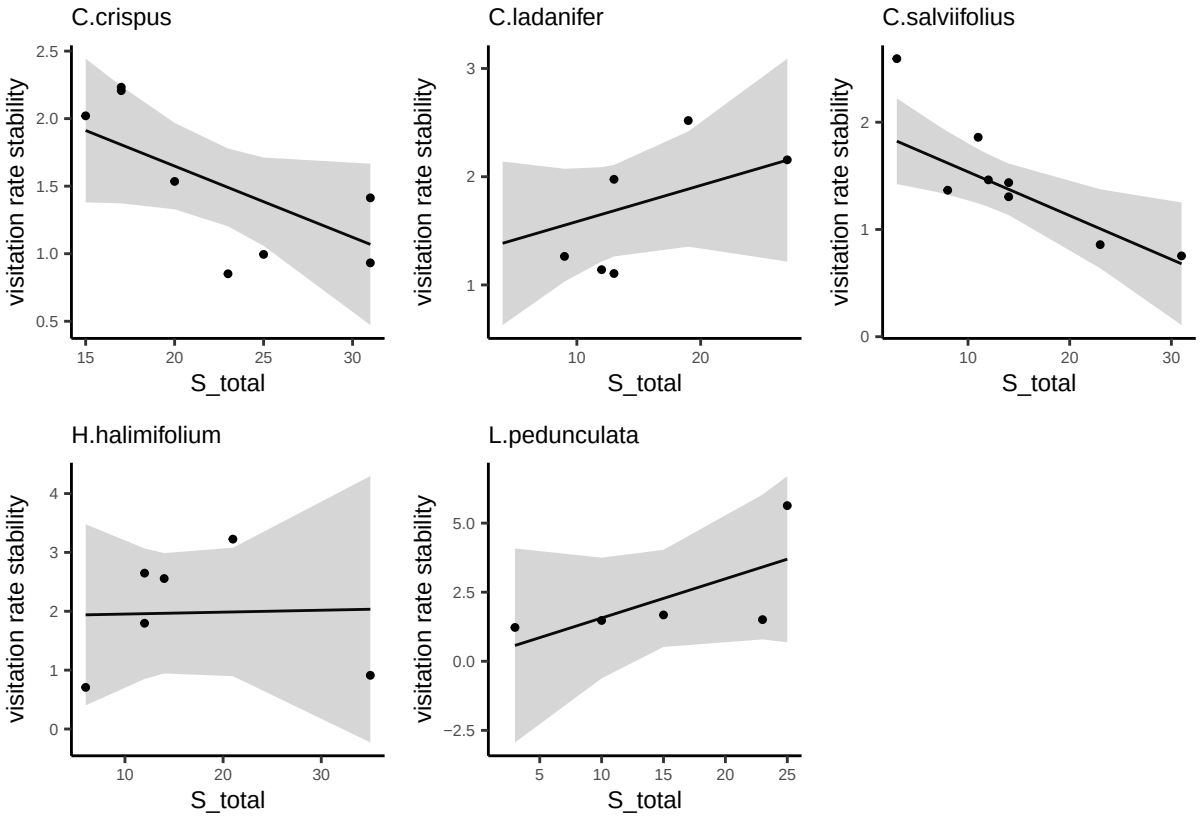

C.crispus
C.ladanifer
C.salviifolius
H.calycinum
H.halimifolium
L.pedunculata
L.stoechas
S_mean
syncLM

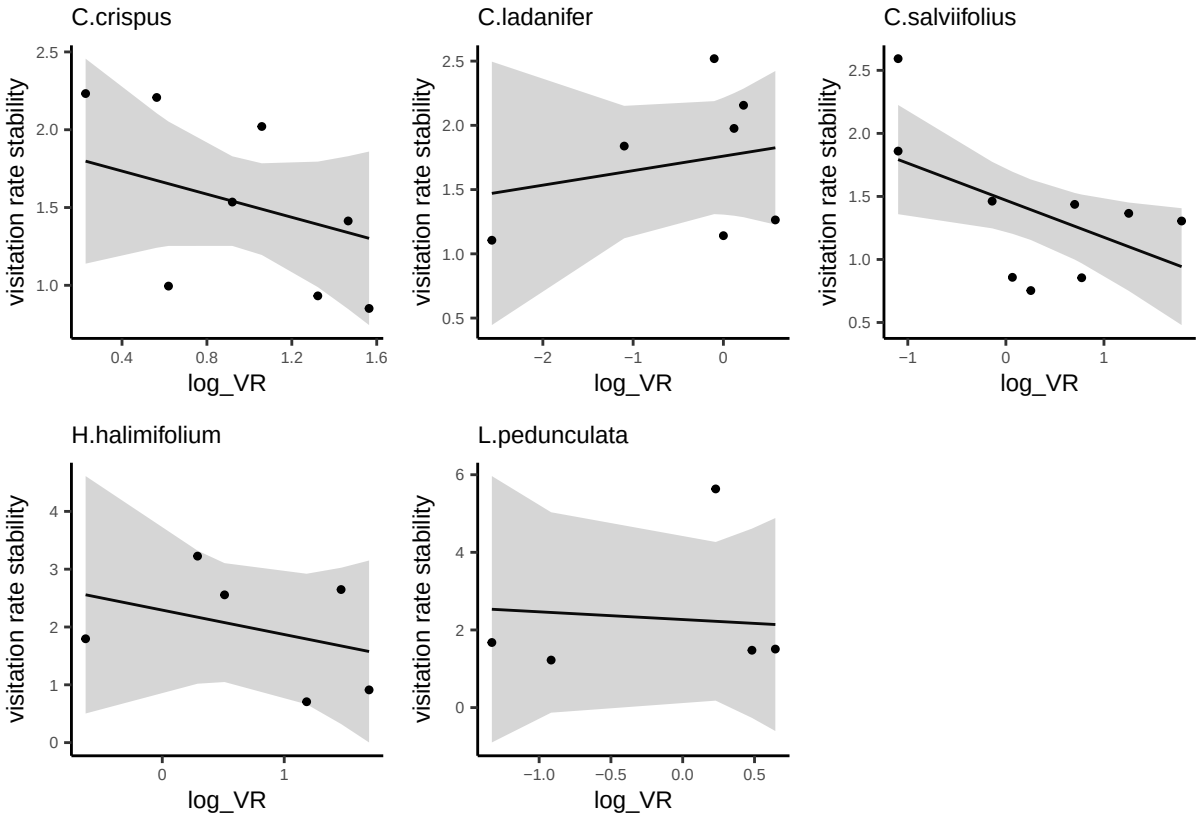
We analysed whether the visitation rate stability is affected by richness and synchrony for each plant species separately

A) total richness + log VR

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	3.062	0.576	5.317	**0.003**
	S_total	-0.053	0.031	-1.698	0.150
	log_VR	-0.371	0.410	-0.906	0.406
Cistus ladanifer	(Intercept)	1.297	0.528	2.458	0.070
	S_total	0.033	0.033	1.027	0.363
	log_VR	0.113	0.221	0.511	0.637
Cistus salviifolius	(Intercept)	2.028	0.241	8.421	**0.000**
	S_total	-0.041	0.015	-2.674	**0.037**
	log_VR	-0.294	0.134	-2.199	0.070
Halimium calycinum	(Intercept)	-23.710			
	S_total	5.345			
	log_VR	7.202			
Halimium halimifolium	(Intercept)	2.238	1.042	2.146	0.121
	S_total	0.003	0.057	0.058	0.958
	log_VR	-0.422	0.667	-0.633	0.572
Lavandula pedunculata	(Intercept)	0.110	2.245	0.049	0.965
	S_total	0.142	0.127	1.117	0.380
	log_VR	-0.199	1.306	-0.153	0.893
Lavandula stoechas	(Intercept)	13.096			
	S_total	-1.253			
	log_VR	2.852			

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.633	0.486	0.412	4.311	0.082	2	-2.375	12.749	13.067	0.848	5	8
C.ladanifer	0.299	-0.051	0.566	0.854	0.491	2	-3.990	15.980	15.764	1.282	4	7
C.salviifolius	0.695	0.594	0.367	6.846	0.028	2	-1.932	11.864	12.653	0.809	6	9
H. calycinum	1.000					2	Inf	-Inf	-Inf	0.000	0	3
H.halimifolium	0.124	-0.460	1.223	0.213	0.820	2	-7.643	23.285	22.452	4.488	3	6
L.pedunculata	0.424	-0.153	2.006	0.735	0.576	2	-8.285	24.571	23.009	8.050	2	5
L.stoechas	1.000					2	Inf	-Inf	-Inf	0.000	0	3

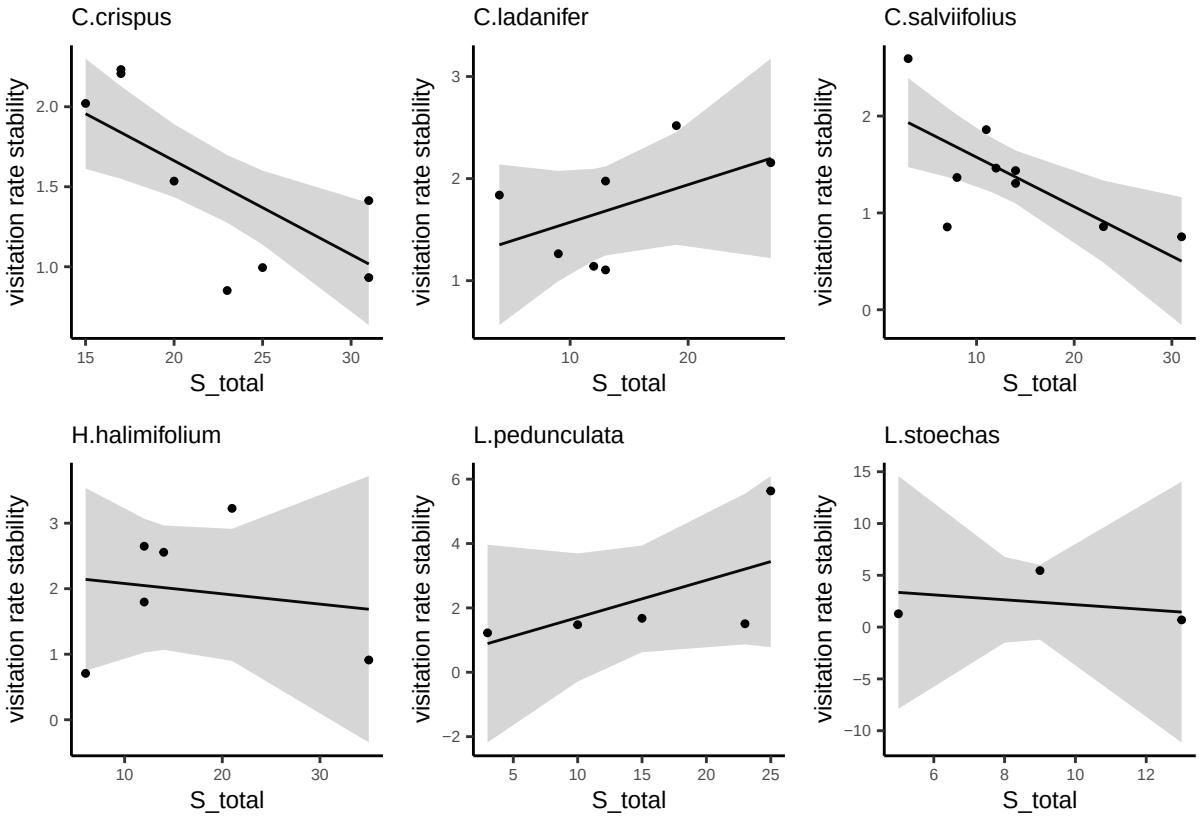

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
visitation rate stability
S_total

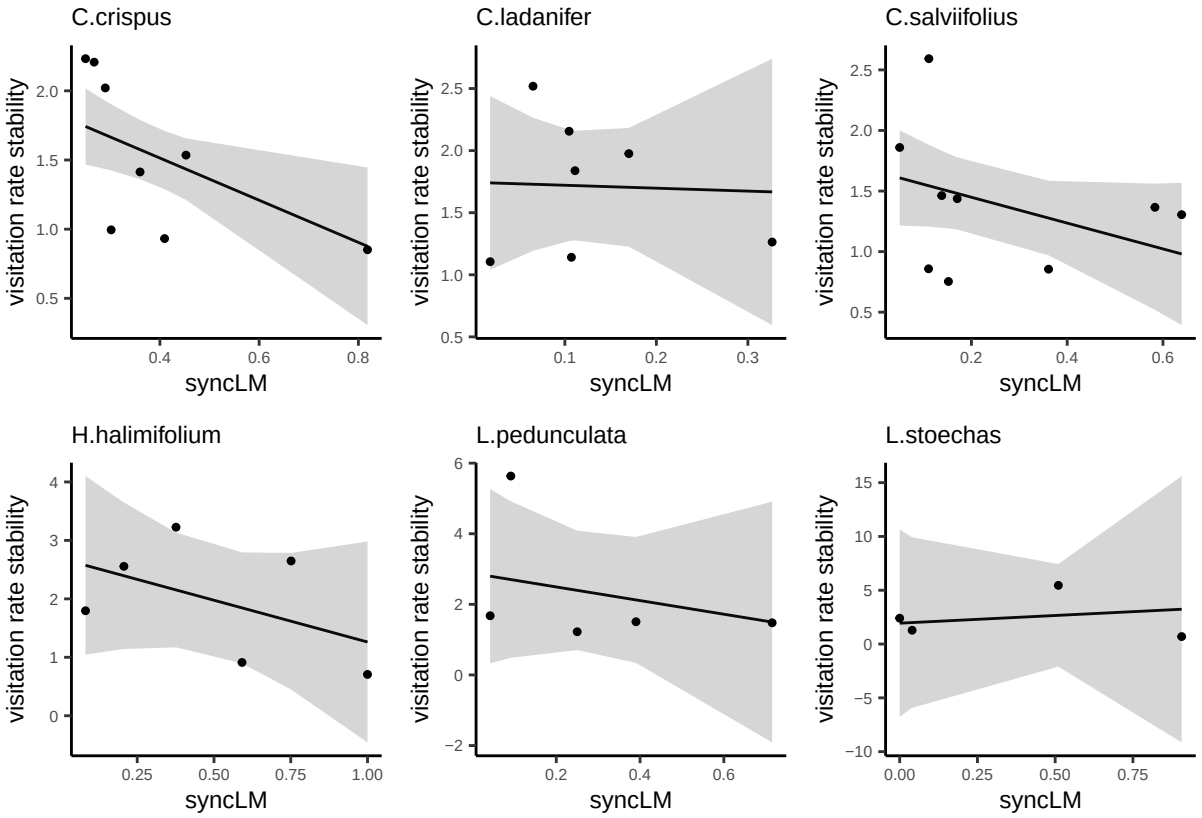

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
visitation rate stability
log_VR

B) total richness + Lorea and Mazancourt index

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	3.437	0.449	7.651	**0.001**
	S_total	-0.059	0.019	-3.110	**0.027**
	syncLM	-1.524	0.636	-2.397	0.062
Cistus ladanifer	(Intercept)	1.235	0.687	1.797	0.147
	S_total	0.037	0.034	1.083	0.340
	syncLM	-0.235	2.536	-0.093	0.931
Cistus salviifolius	(Intercept)	2.360	0.359	6.571	**0.001**
	S_total	-0.051	0.018	-2.889	**0.028**
	syncLM	-1.066	0.694	-1.534	0.176
Halimium calycinum	(Intercept)	-26.954			
	S_total	3.910			
	syncLM	13.877			
Halimium halimifolium	(Intercept)	2.952	1.293	2.282	0.107
	S_total	-0.016	0.051	-0.311	0.776
	syncLM	-1.428	1.490	-0.958	0.409
Lavandula pedunculata	(Intercept)	1.118	2.371	0.471	0.684
	S_total	0.116	0.108	1.071	0.396
	syncLM	-1.929	3.645	-0.529	0.649
Lavandula stoechas	(Intercept)	4.013	9.380	0.428	0.743
	S_total	-0.237	1.450	-0.163	0.897
	syncLM	1.426	11.155	0.128	0.919

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.801	0.722	0.303	10.072	0.018	2	0.077	7.846	8.164	0.459	5	8
C.ladanifer	0.255	-0.117	0.584	0.685	0.555	2	-4.203	16.407	16.191	1.362	4	7
C.salviifolius	0.605	0.473	0.418	4.592	0.062	2	-3.102	14.203	14.992	1.050	6	9
H. calycinum	1.000					2	Inf	-Inf	-Inf	0.000	0	3
H.halimifolium	0.240	-0.267	1.139	0.474	0.663	2	-7.217	22.435	21.602	3.895	3	6
L.pedunculata	0.489	-0.023	1.890	0.955	0.511	2	-7.987	23.973	22.411	7.143	2	5
L.stoechas	0.028	-1.916	3.619	0.014	0.986	2	-8.048	24.095	21.640	13.094	1	4

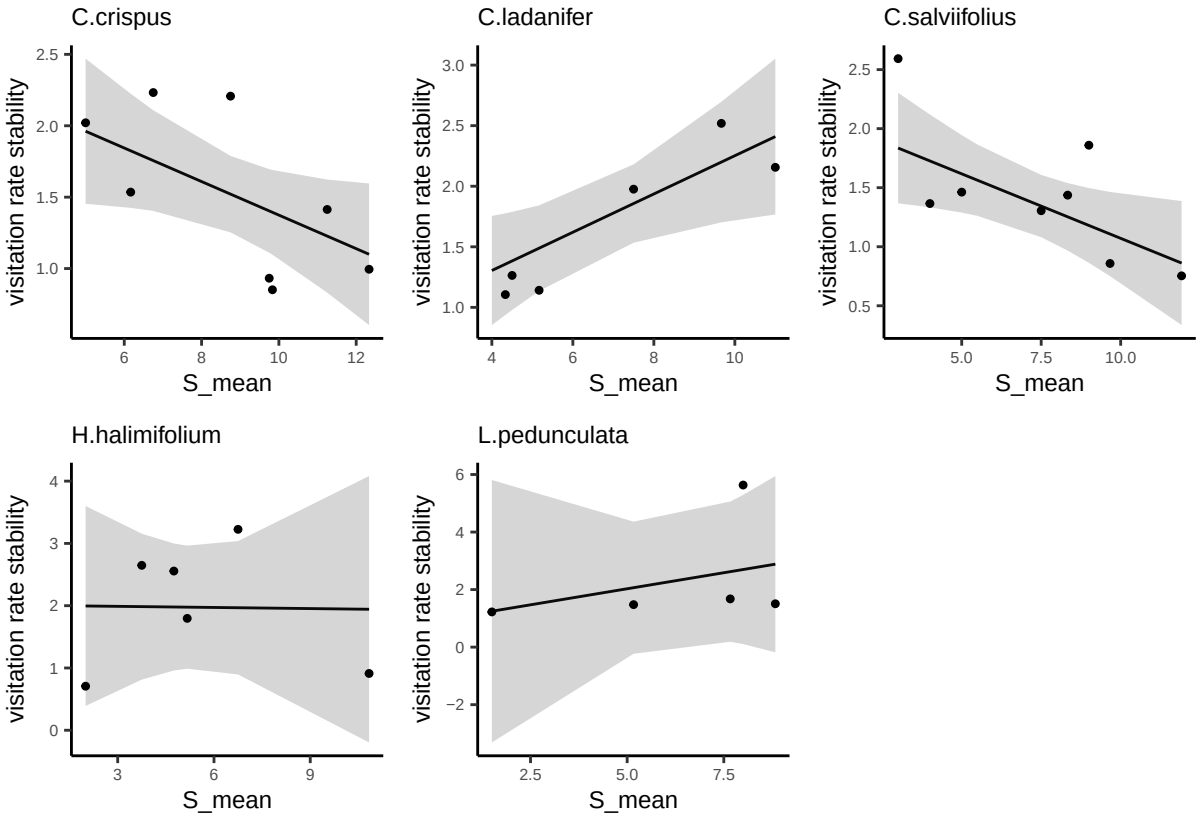

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
L.stoechas
visitation rate stability
S_total

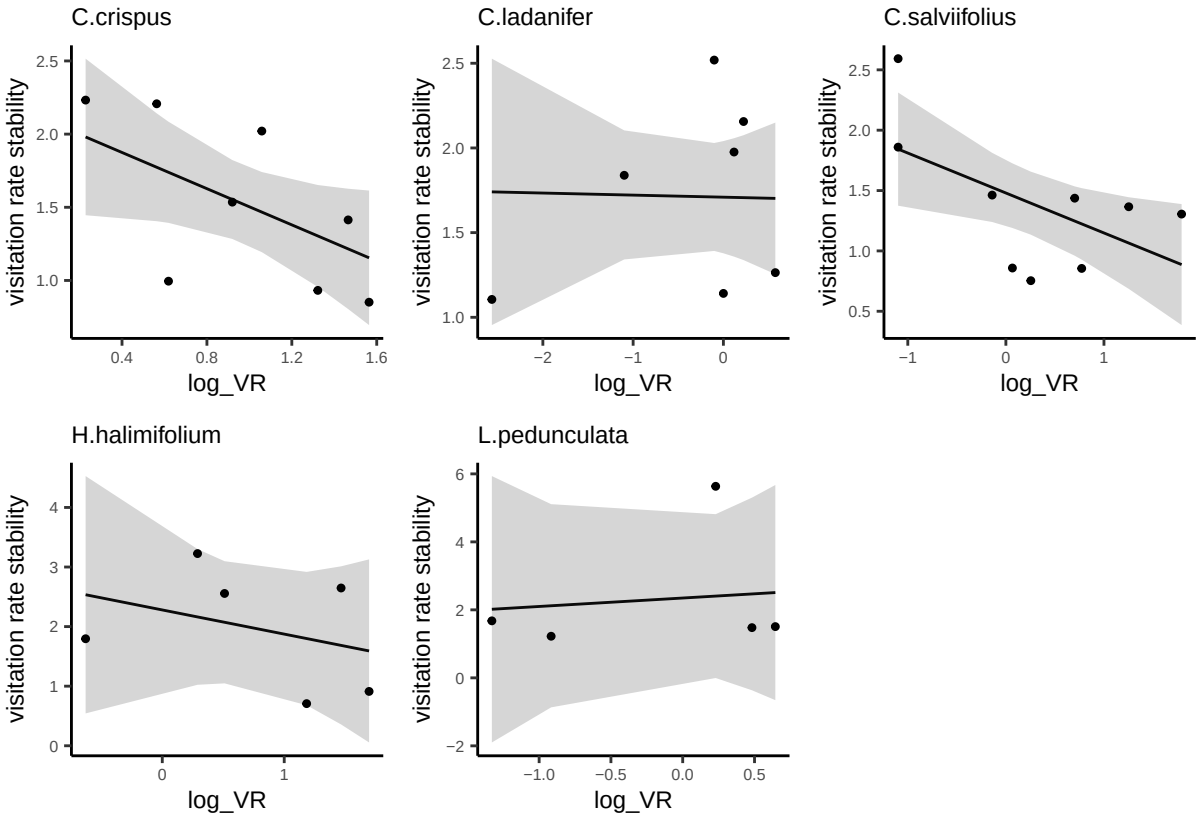

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
L.stoechas
visitation rate stability
syncLM

C) mean richness + log VR

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	3.148	0.544	5.788	**0.002**
	S_mean	-0.118	0.059	-1.989	0.103
	log_VR	-0.618	0.320	-1.934	0.111
Cistus ladanifer	(Intercept)	0.667	0.494	1.351	0.248
	S_mean	0.158	0.066	2.401	0.074
	log_VR	-0.012	0.172	-0.071	0.947
Cistus salviifolius	(Intercept)	2.256	0.369	6.109	**0.001**
	S_mean	-0.109	0.048	-2.262	0.064
	log_VR	-0.331	0.144	-2.295	0.062
Halimium calycinum	(Intercept)	-97.402			
	S_mean	34.906			
	log_VR	52.340			
Halimium halimifolium	(Intercept)	2.313	1.158	1.997	0.140
	S_mean	-0.006	0.183	-0.033	0.976
	log_VR	-0.406	0.641	-0.633	0.571
Lavandula pedunculata	(Intercept)	0.958	3.025	0.317	0.782
	S_mean	0.223	0.436	0.511	0.660
	log_VR	0.249	1.464	0.170	0.881
Lavandula stoechas	(Intercept)	-80.721			
	S_mean	19.595			
	log_VR	-16.967			

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.677	0.548	0.386	5.238	0.059	2	-1.864	11.728	12.046	0.746	5	8
C.ladanifer	0.637	0.456	0.407	3.514	0.132	2	-1.684	11.369	11.152	0.663	4	7
C.salviifolius	0.640	0.519	0.400	5.322	0.047	2	-2.689	13.377	14.166	0.958	6	9
H. calycinum	1.000					2	Inf	-Inf	-Inf	0.000	0	3
H.halimifolium	0.124	-0.461	1.224	0.211	0.821	2	-7.645	23.290	22.457	4.492	3	6
L.pedunculata	0.172	-0.656	2.405	0.208	0.828	2	-9.191	26.382	24.820	11.564	2	5
L.stoechas	1.000					2	Inf	-Inf	-Inf	0.000	0	3

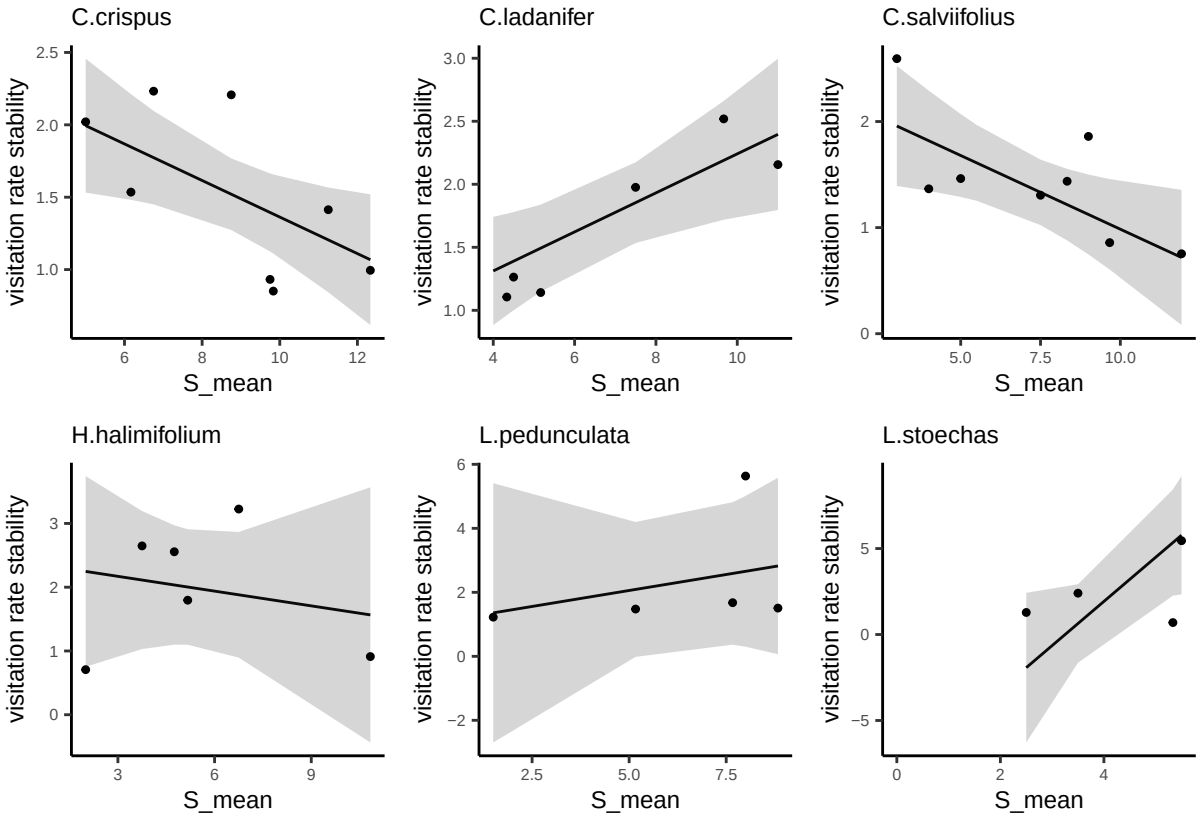

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
visitation rate stability
S_mean

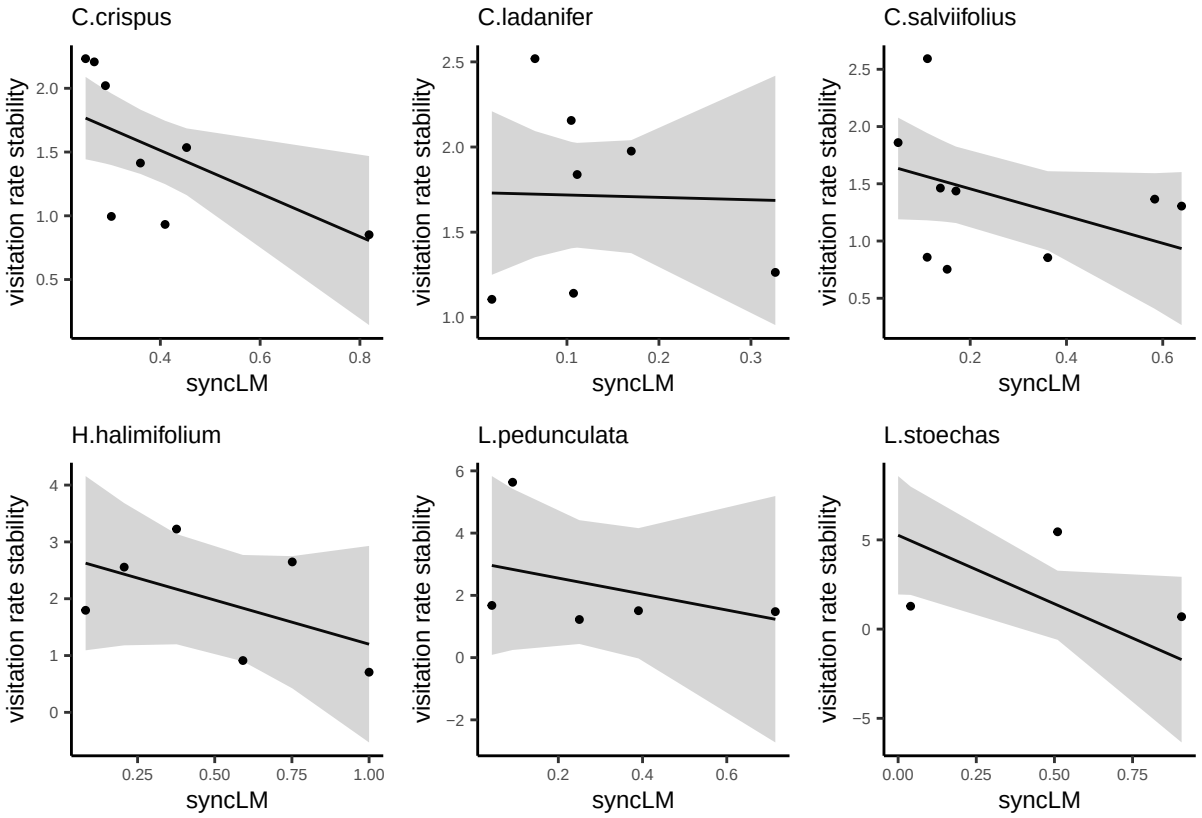

C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
visitation rate stability
log_VR

D) mean richness + Lorea & Mazancourt index

Plant_gen_sp	term	estimate	std.error	statistic	p.value
Cistus crispus	(Intercept)	3.292	0.520	6.327	**0.001**
	S_mean	-0.126	0.053	-2.362	0.065
	syncLM	-1.691	0.739	-2.288	0.071
Cistus ladanifer	(Intercept)	0.711	0.517	1.375	0.241
	S_mean	0.155	0.060	2.574	0.062
	syncLM	-0.140	1.723	-0.082	0.939
Cistus salviifolius	(Intercept)	2.681	0.544	4.929	**0.003**
	S_mean	-0.139	0.059	-2.345	0.057
	syncLM	-1.188	0.794	-1.496	0.185
Halimium calycinum	(Intercept)	-52.592			
	S_mean	9.518			
	syncLM	37.594			
Halimium halimifolium	(Intercept)	3.180	1.453	2.188	0.116
	S_mean	-0.077	0.172	-0.447	0.685
	syncLM	-1.552	1.513	-1.026	0.380
Lavandula pedunculata	(Intercept)	1.823	3.094	0.589	0.615
	S_mean	0.200	0.383	0.522	0.654
	syncLM	-2.567	4.212	-0.609	0.604
Lavandula stoechas	(Intercept)	-5.546	3.981	-1.393	0.396
	S_mean	2.567	1.216	2.112	0.281
	syncLM	-7.686	4.118	-1.866	0.313

Plant_gen_sp	r.squared	adj.r.squared	sigma	statistic	p.value	df	logLik	AIC	BIC	deviance	df.residual	nobs
C.crispus	0.724	0.614	0.357	6.561	0.040	2	-1.233	10.466	10.784	0.637	5	8
C.ladanifer	0.637	0.456	0.407	3.517	0.131	2	-1.683	11.366	11.150	0.663	4	7
C.salviifolius	0.507	0.343	0.467	3.085	0.120	2	-4.097	16.194	16.983	1.310	6	9
H. calycinum	1.000					2	Inf	-Inf	-Inf	0.000	0	3
H.halimifolium	0.265	-0.226	1.121	0.540	0.631	2	-7.119	22.238	21.405	3.769	3	6
L.pedunculata	0.292	-0.417	2.224	0.412	0.708	2	-8.801	25.602	24.039	9.894	2	5
L.stoechas	0.817	0.452	1.569	2.236	0.427	2	-4.705	17.410	14.955	2.462	1	4


C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
L.stoechas
visitation rate stability
S_mean


C.crispus
C.ladanifer
C.salviifolius
H.halimifolium
L.pedunculata
L.stoechas
visitation rate stability
syncLM