

Supplementary Information

Warming demands extensive tropical but minimal temperate management in plant-pollinator networks

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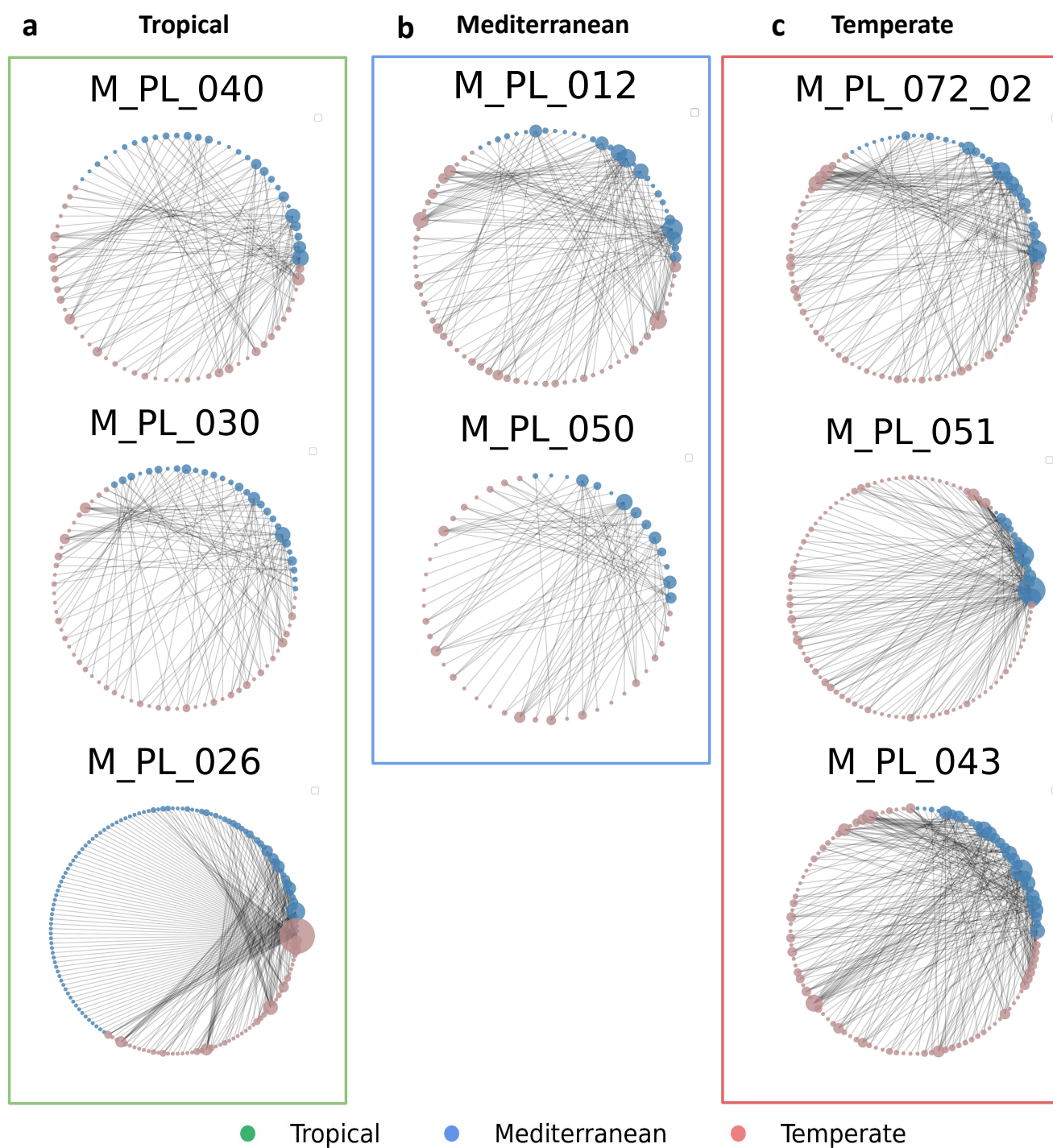


Figure S1: Plant-pollinator networks illustration: Illustrations of plant-pollinator networks in the Tropical (a), Mediterranean (b), and Temperate (c) regions. Node sizes indicate the number of connections for each species.

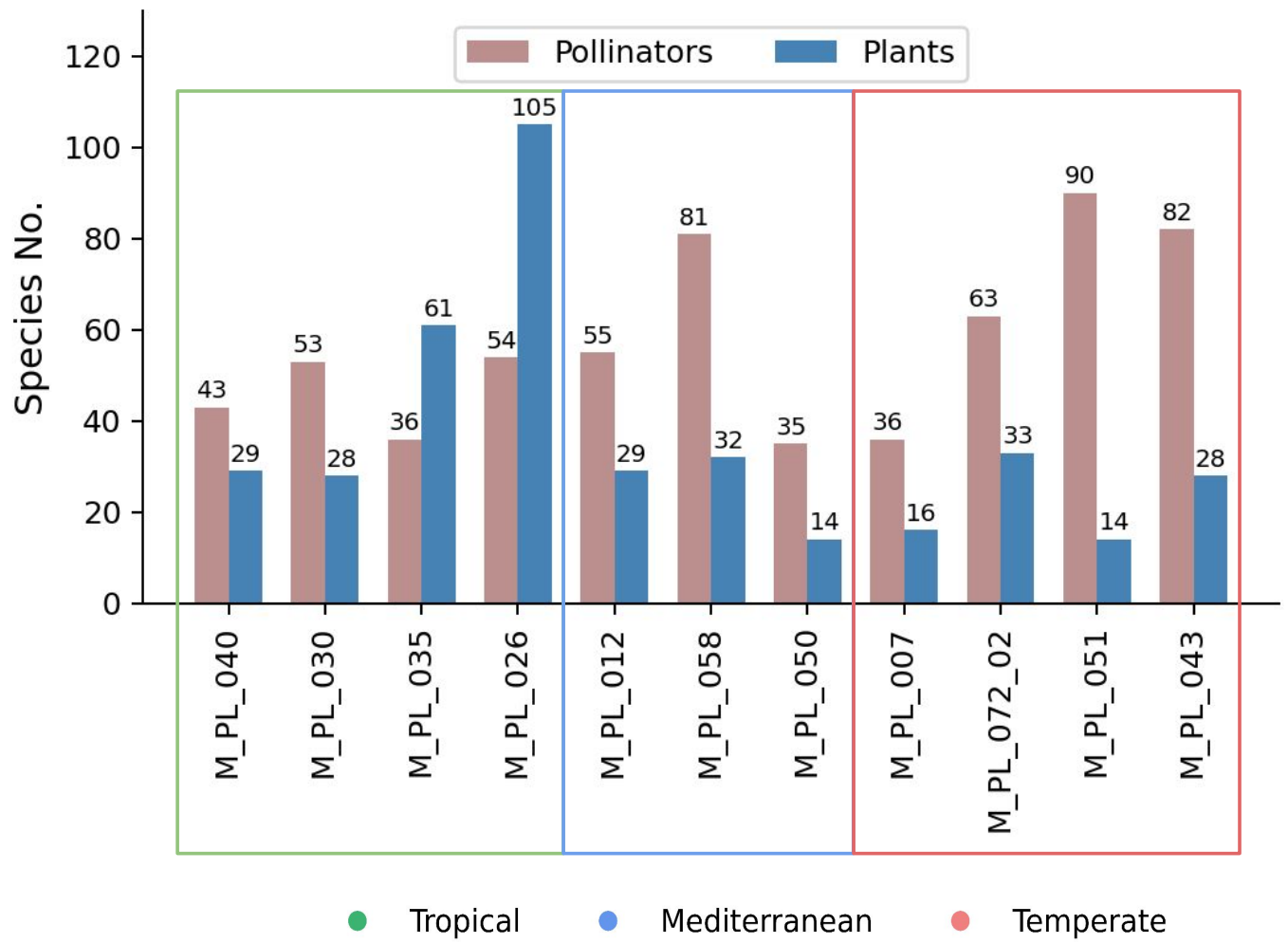


Figure S2: Species details in plant-pollinator networks: Species (Plant and pollinator) numbers of plant-pollinator networks in the Tropical, Mediterranean, and Temperate regions.

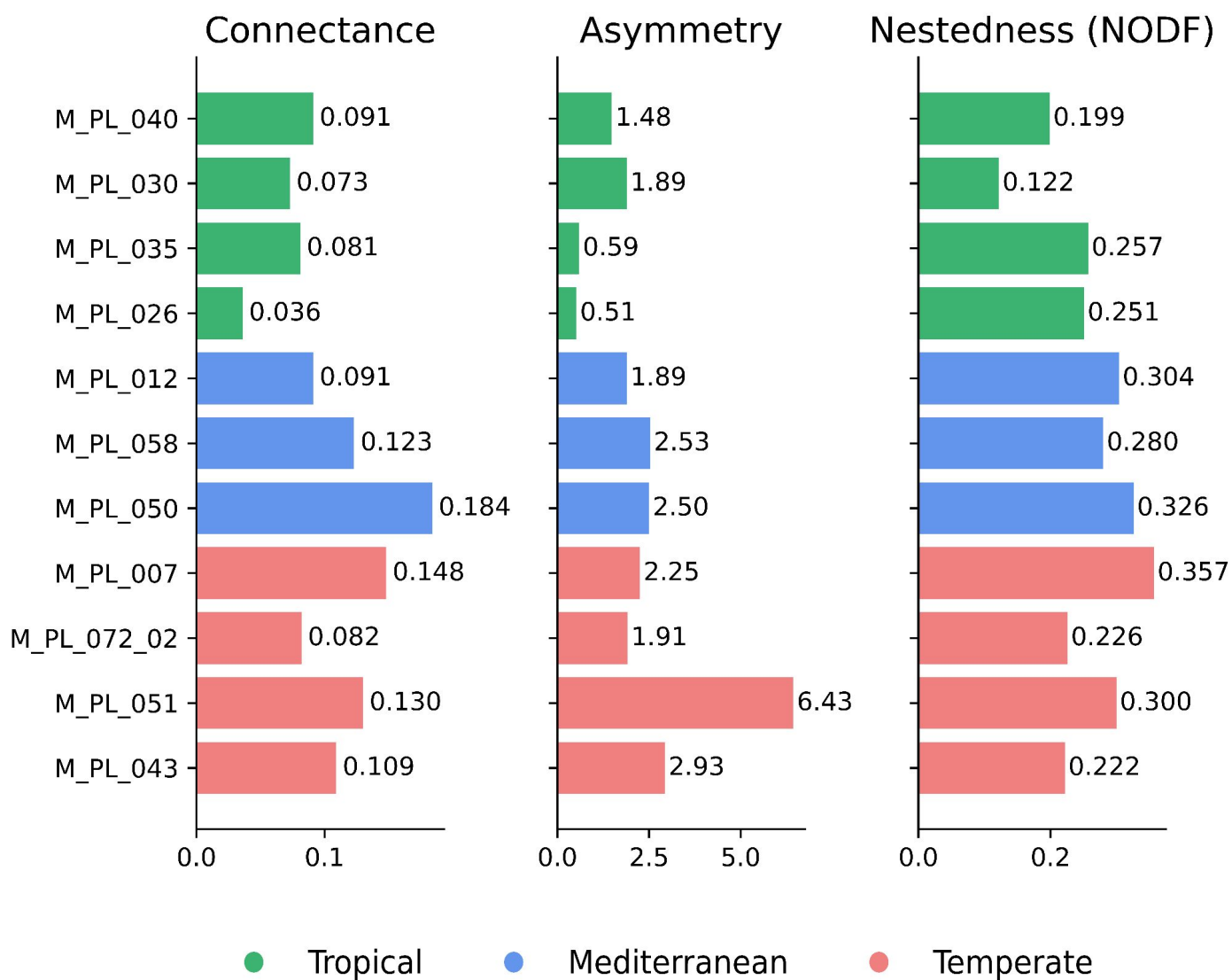


Figure S3: Network topological properties in plant-pollinator networks: Connectance, asymmetry, and nestedness (NODF) of plant-pollinator networks in the Tropical, Mediterranean, and Temperate regions.

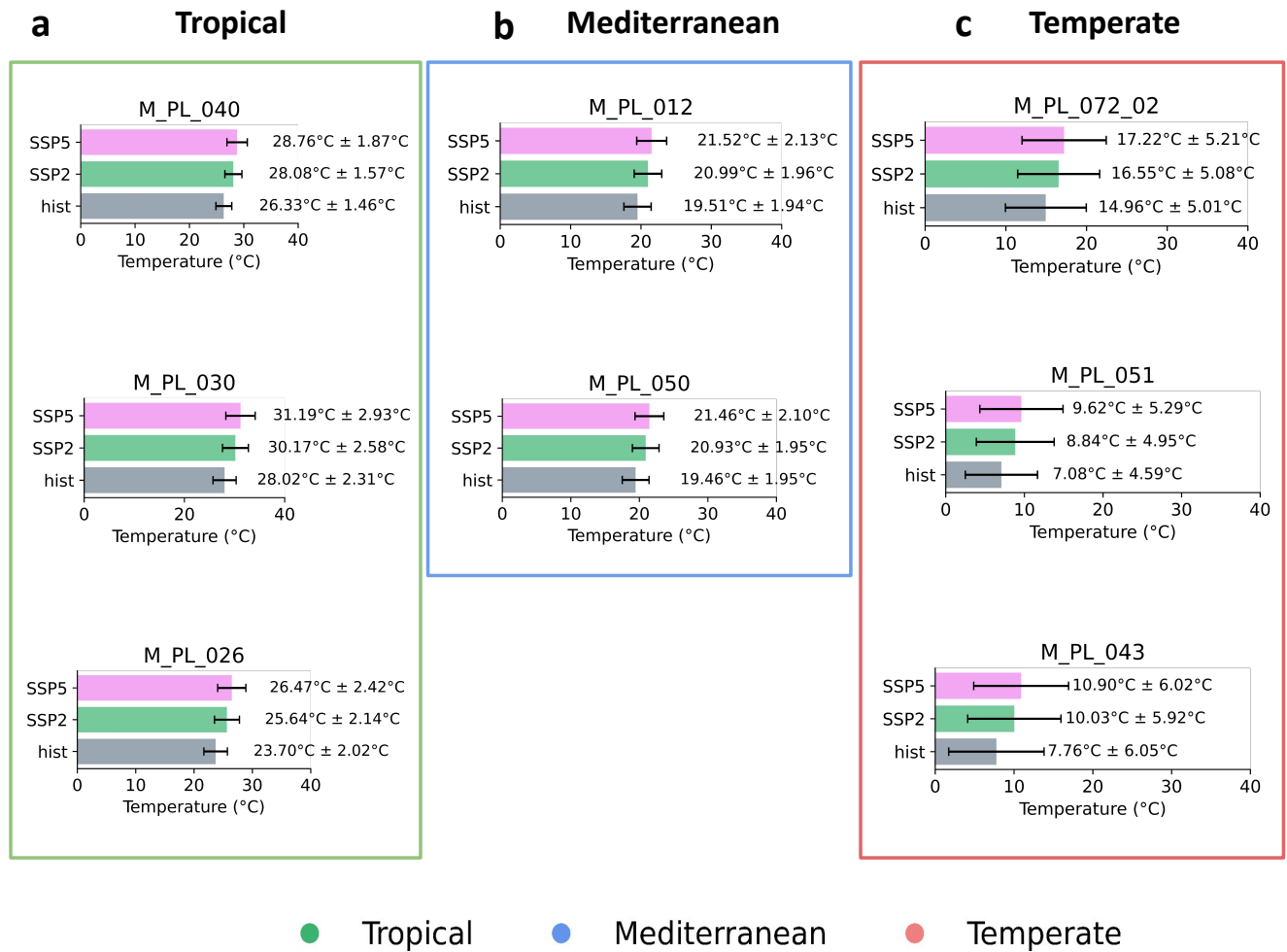


Figure S4: Seasonal temperature dynamics in plant-pollinator network regions: Accumulated mean temperature and variability of historical (hist), SSP2-4.5 (SSP2), SSP5-8.5 (SSP5) of plant-pollinator networks in the Tropical (a), Mediterranean (b), and Temperate (c) regions.

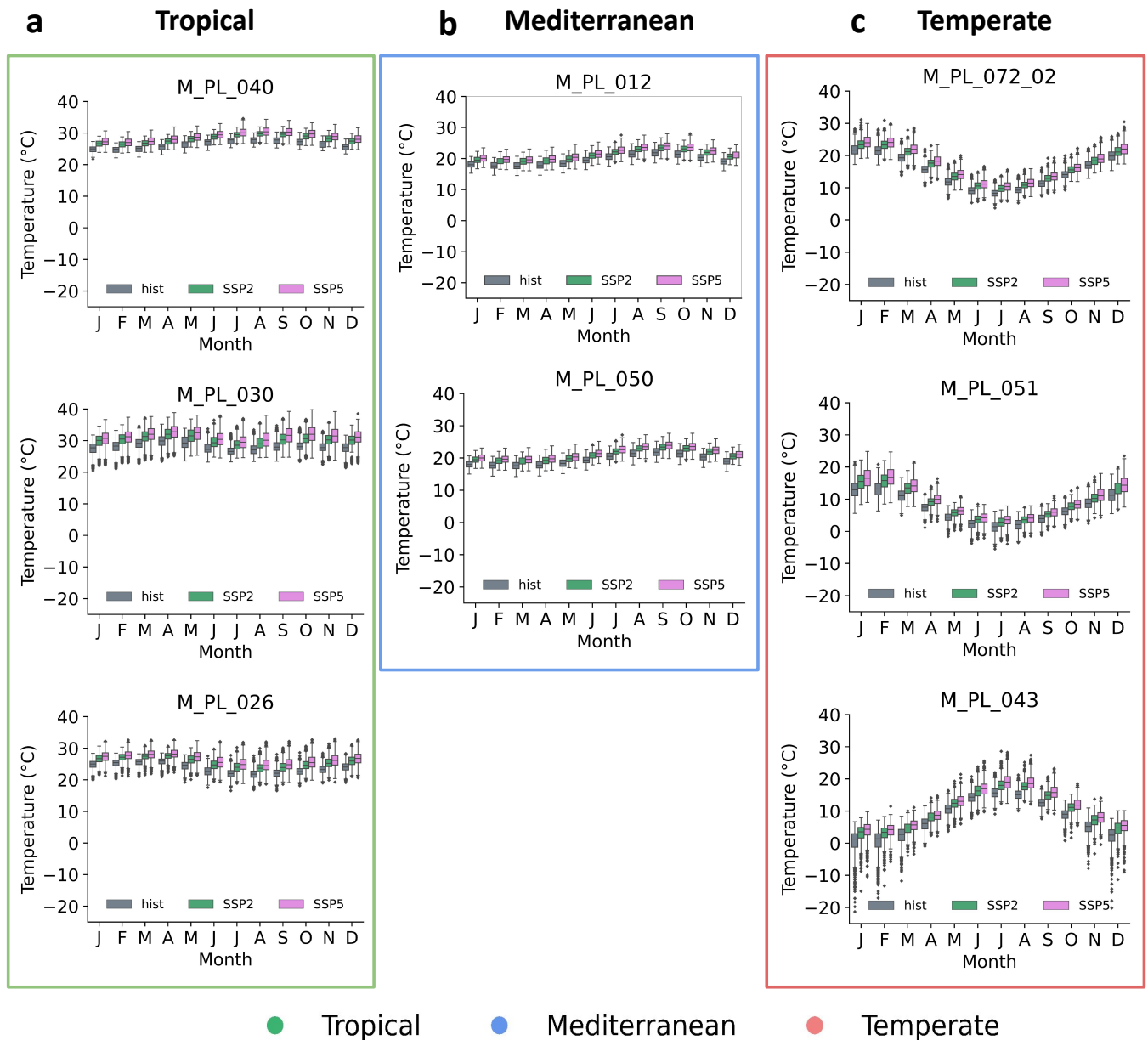


Figure S5: Seasonal temperature dynamics in plant-pollinator network regions: Seasonal temperature variation under historical (1850-2014) SSP2-4.5 and SSP5-8.5 scenarios (2015-2100) of plant-pollinator networks in the Tropical (a), Mediterranean (b), and Temperate (c) regions.

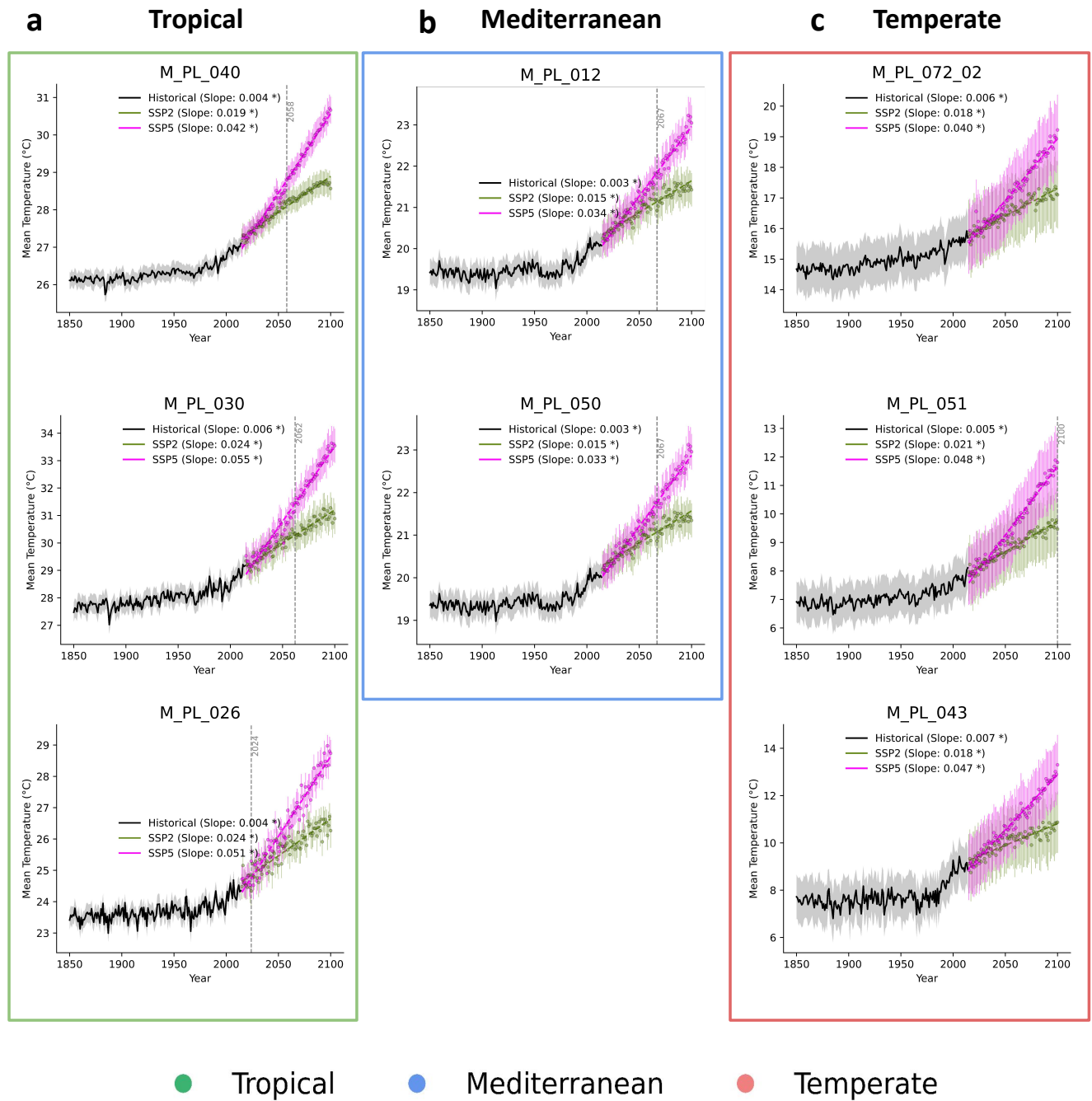


Figure S6: Annual temperature dynamics in plant-pollinator network regions: Annual temperature variation under historical (1850–2014) SSP2–4.5 and SSP5–8.5 scenarios (2015–2100) of plant-pollinator networks in the Tropical (a), Mediterranean (b), and Temperate (c) regions. The vertical line shows the year from which the temperature of SSP2 and SSP5 diverges. (*) here slope is significant (at 5% significance level).

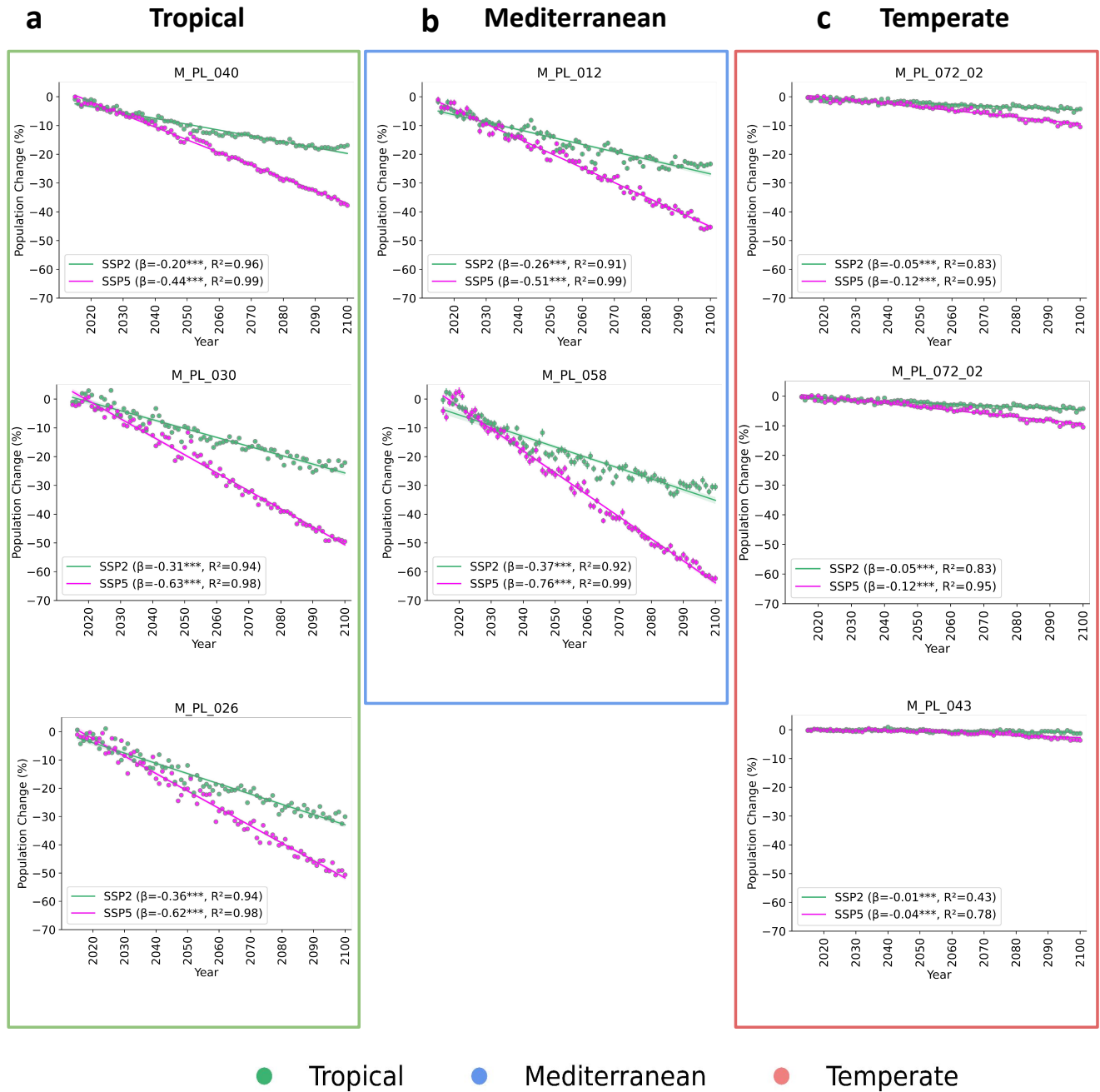


Figure S7: Population abundance of insect pollinators under climate warming scenarios: Annual mean pollinator population abundance percentage change under warming scenarios SSP2-4.5 and SSP5-8.5 (2015-2100) w.r.t. 2014 population level in moderate environmental health conditions ($\gamma_0 = 1.5$) of plant-pollinator networks in the Tropical (a), Mediterranean (b), and Temperate (c) regions. (***) here slope is significant (at 1% significance level).

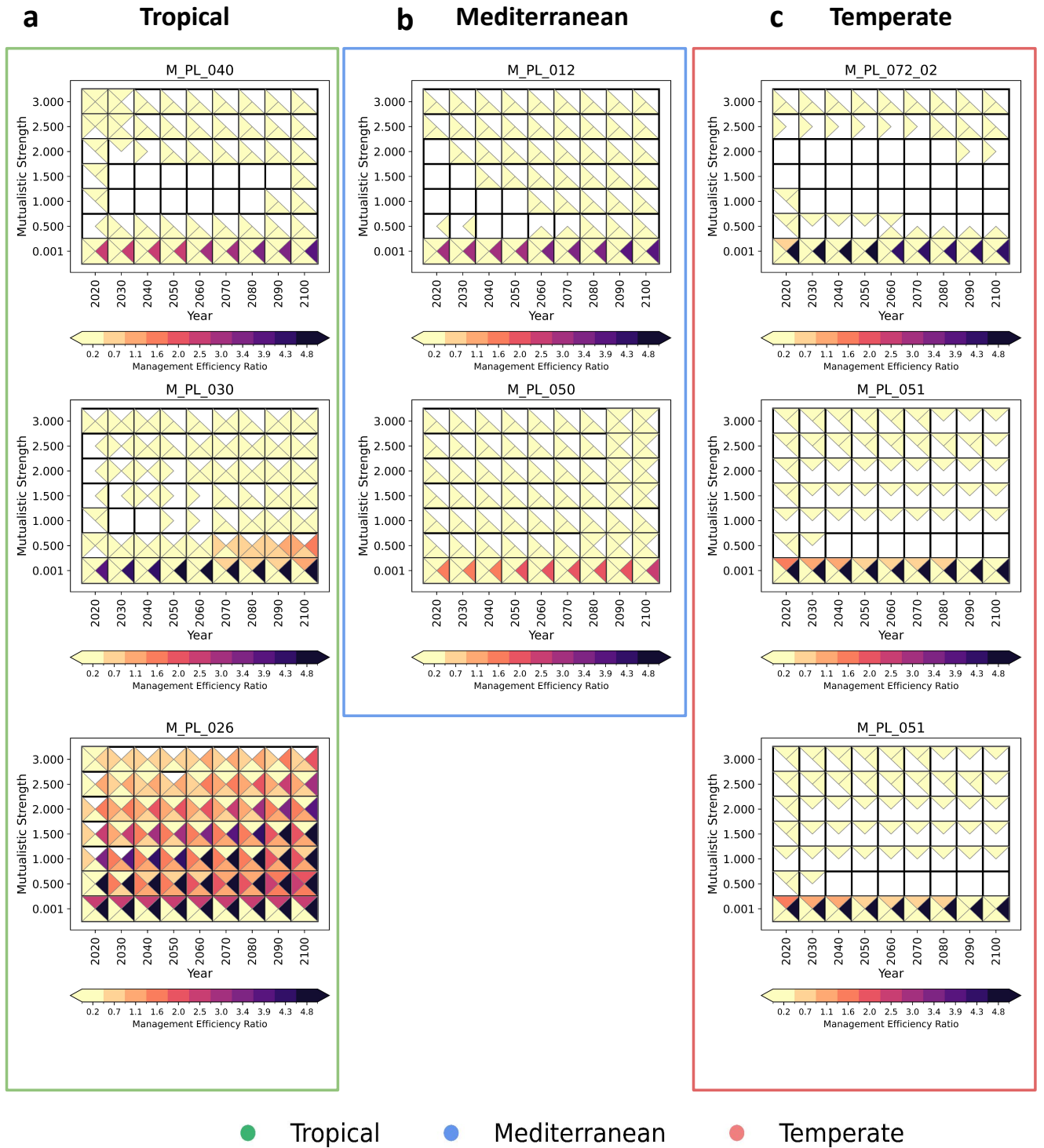


Figure S8: Comparison of Management Efficiency Ratio across environmental conditions and regions: Management Efficiency Ratio (MER) of mean pollinator abundance at 10-year intervals with respect to varying mutualistic strength for SSP5-8.5 scenario in the Tropical (a), Mediterranean (b), and Temperate (c) networks. Here, white cells show a value less than equal to 0 means there is no effect of management.

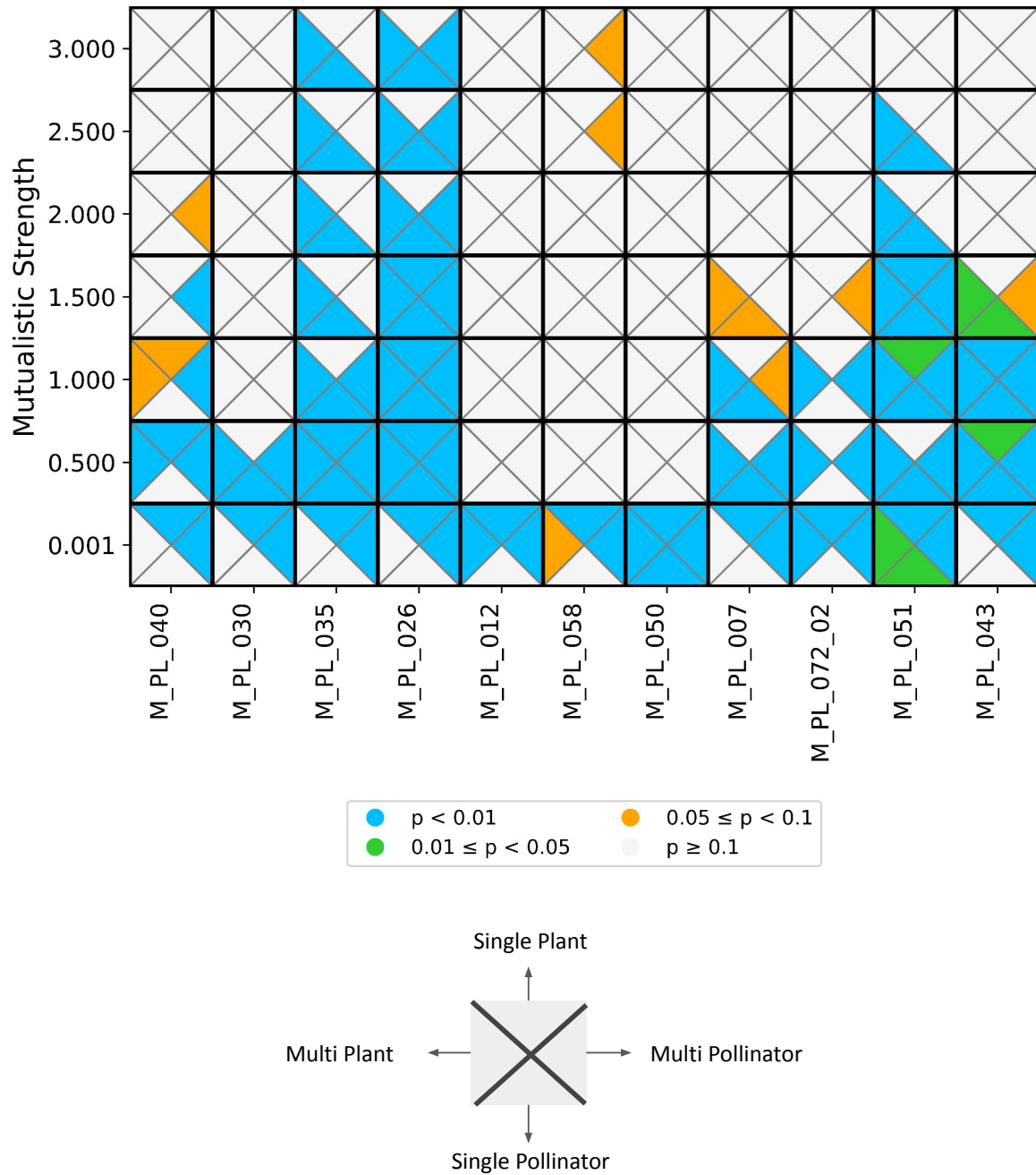


Figure S9: Significance Testing of Management Strategies across environmental conditions and regions: t-tests (with Bonferroni correction) comparing different management strategies (Single Plant, Multi Plant, Single Pollinator, Multi Pollinator) against without management baseline with respect to varying mutualistic strength for SSP5-8.5 scenario in the networks.

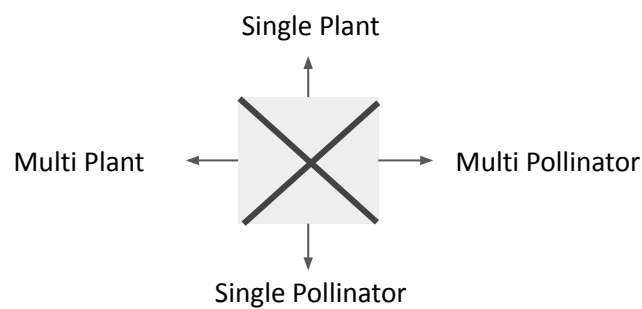
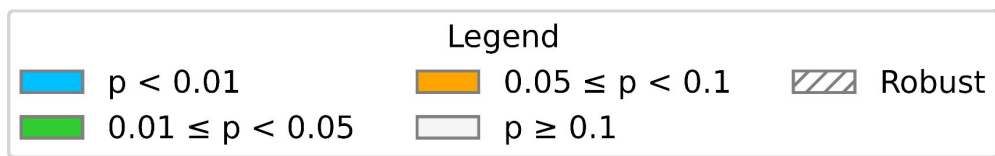
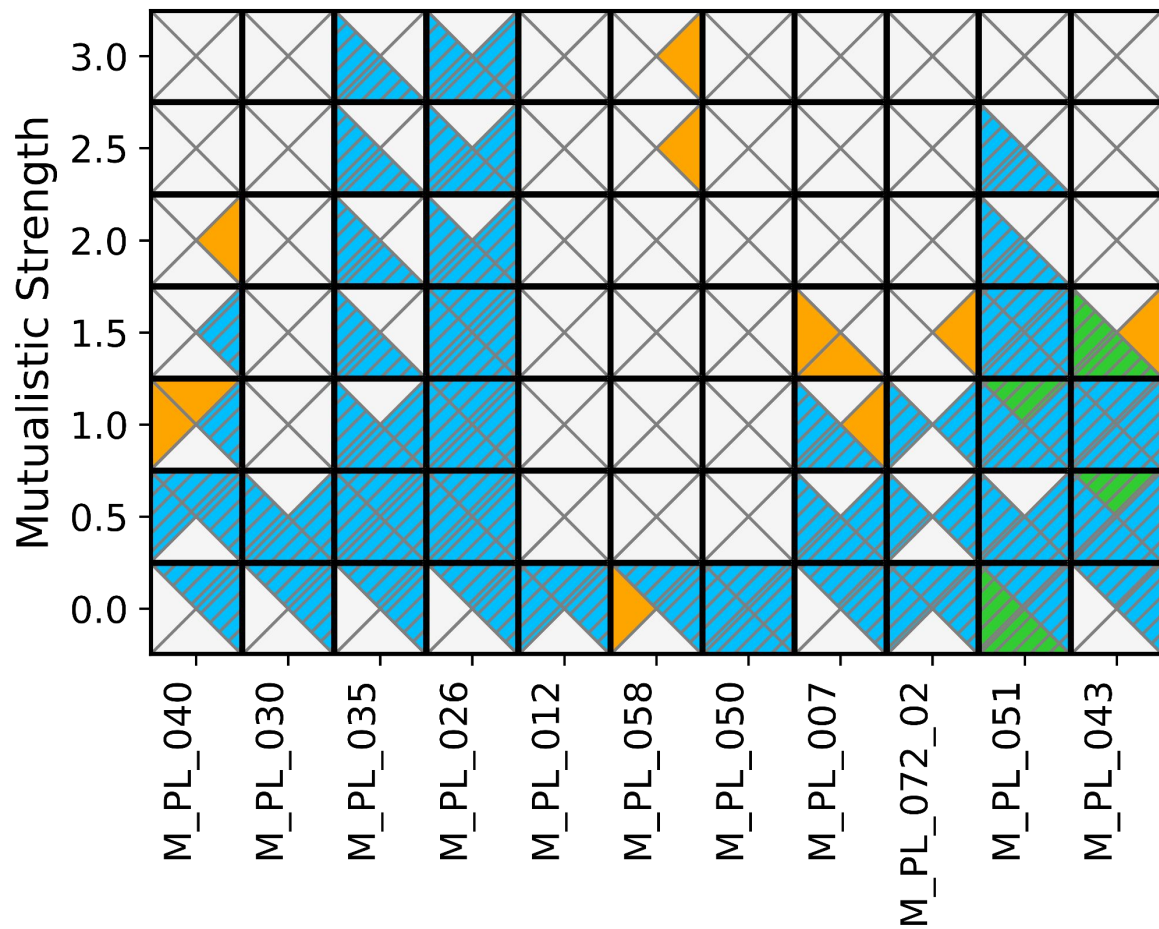


Figure S10: Significance Testing of Management Strategies across environmental conditions and regions: t-tests (with Bonferroni correction) comparing different management strategies (Single Plant, Multi Plant, Single Pollinator, Multi Pollinator) against without management baseline with respect to varying mutualistic strength for SSP5-8.5 scenario in the networks. Hatched triangles mark results that are robust, i.e., significant in both Welch's t-test and Mann-Whitney U after Bonferroni correction ($\alpha/4$).

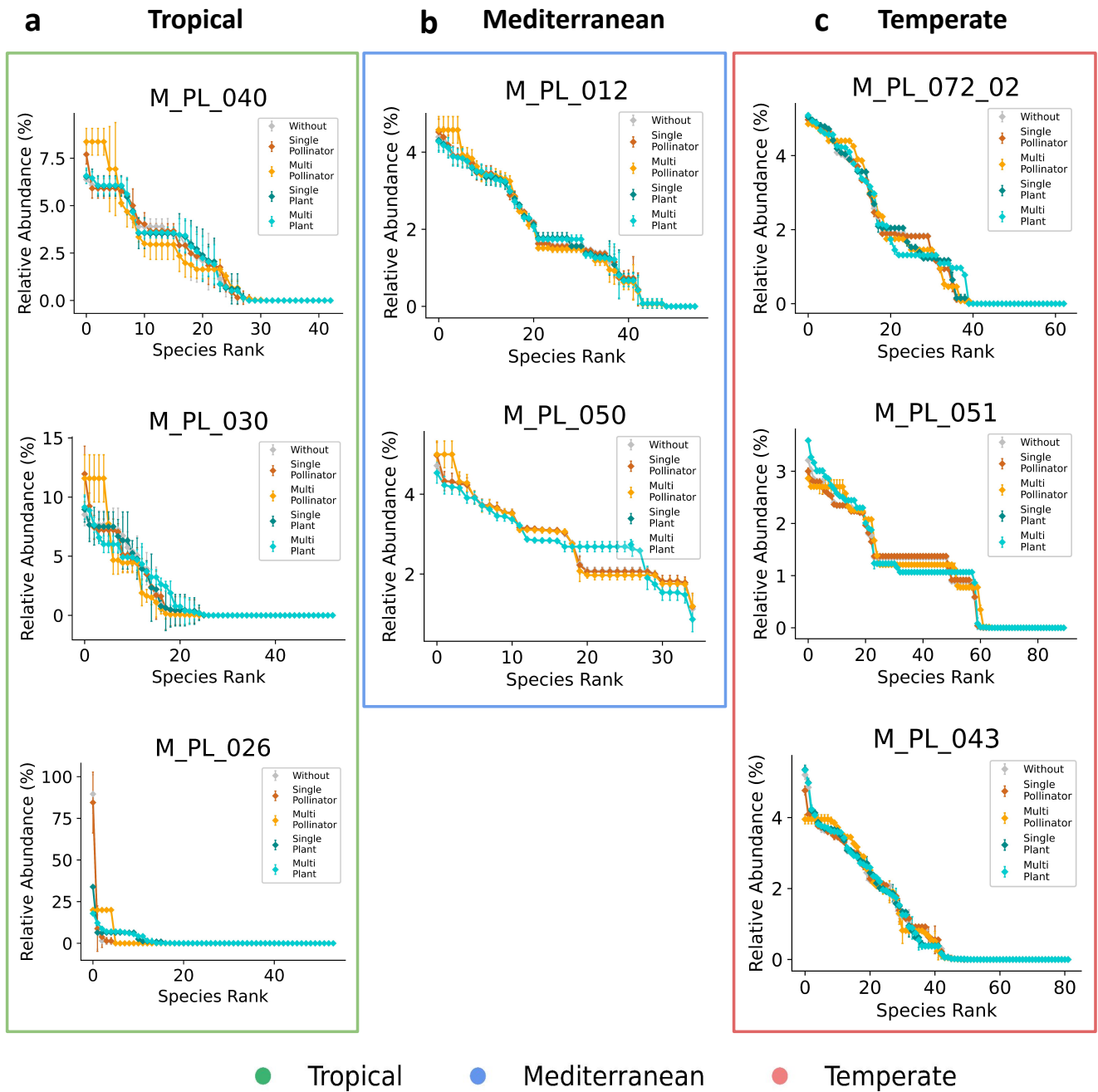


Figure S11: Rank abundance curve of different management strategies against without management: Rank abundance curve for pollinators at mutualistic strength ($\gamma_0 = 1.5$) under SSP5-8.5 comparing different management strategies (Single Plant, Multi Plant, Single Pollinator, Multi Pollinator) against without management baseline in the Tropical (a), Mediterranean (b), and Temperate (c) networks.

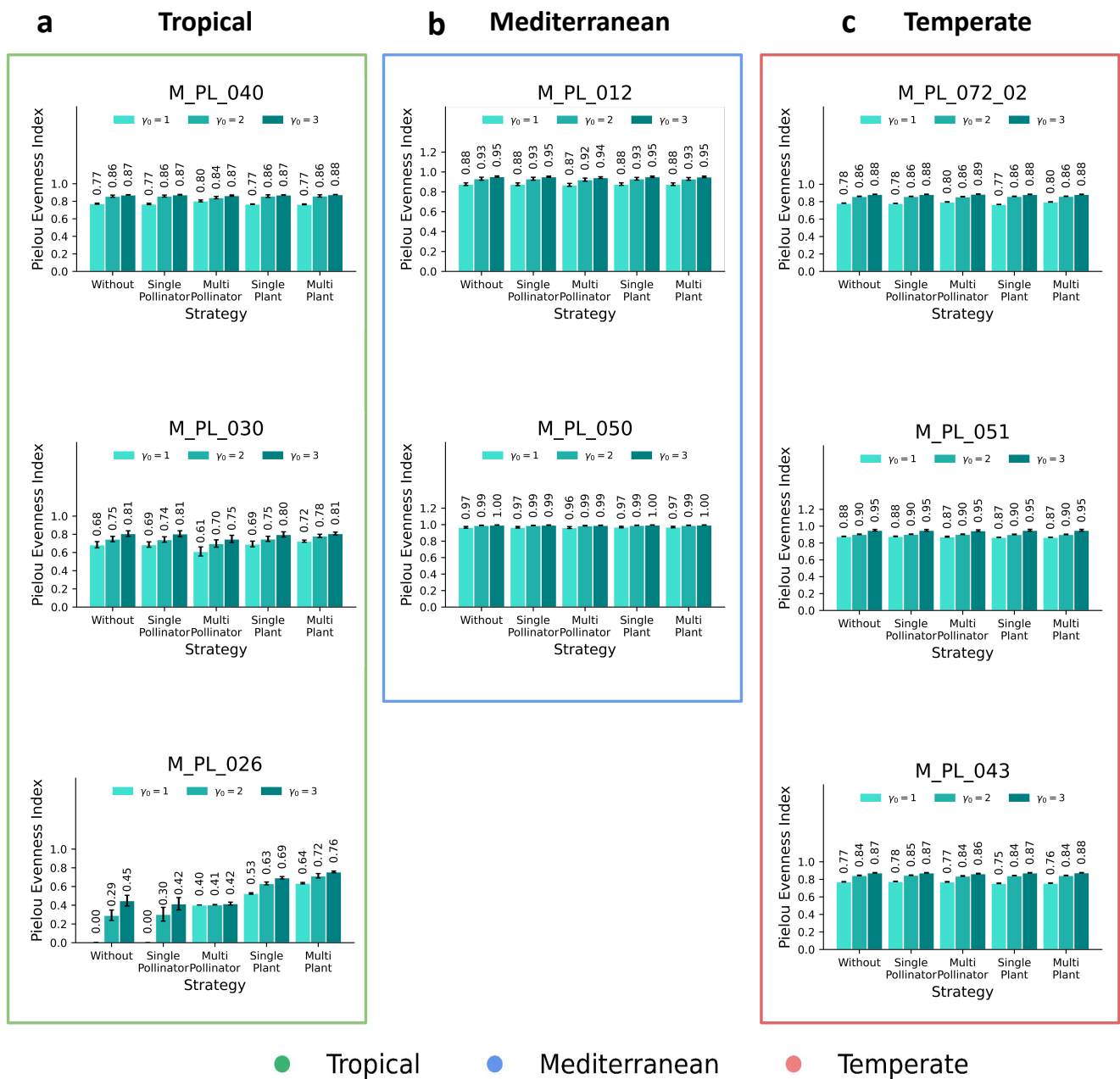


Figure S12: Pielou Evenness Index of different management strategies against without management across different mutualistic strength: Variation in the Pielou evenness index under SSP5-8.5 comparing different management strategies (Single Plant, Multi Plant, Single Pollinator, Multi Pollinator) against without management baseline under different mutualistic strengths in the Tropical (a), Mediterranean (b), and Temperate (c) networks.

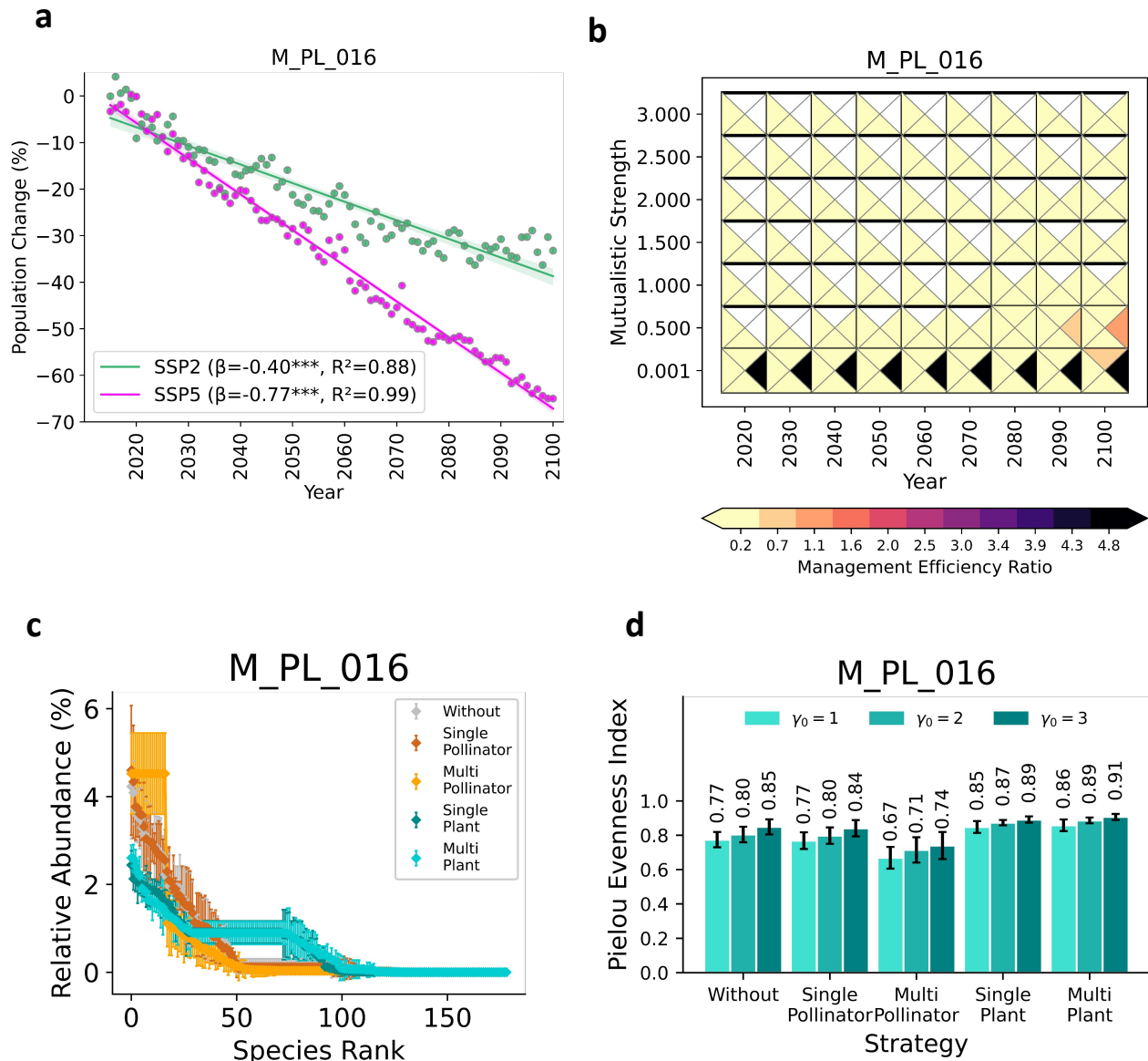


Figure S13: Simulation results for the M_PL_16 terrestrial Mediterranean network (179 pollinators): Annual mean pollinator population abundance percentage change under warming scenarios SSP2-4.5 and SSP5-8.5 (2015-2100) w.r.t. 2014 population level in moderate environmental health conditions ($\gamma_0 = 1.5$) (a), Management Efficiency Ratio (MER) of mean pollinator abundance at 10-year intervals with respect to varying mutualistic strength for SSP5-8.5 scenario (b), Rank abundance curve for pollinators at mutualistic strength ($\gamma_0 = 1.5$) under SSP5-8.5 comparing different management strategies (Single Plant, Multi Plant, Single Pollinator, Multi Pollinator) against without management baseline (c), Variation in the Pielou evenness index under SSP5-8.5 comparing different management strategies against without management baseline under different mutualistic strengths (d).

Table S1: Geographical details of plant-pollinator networks.

Network ID	Latitude	Longitude	Ecoclimatic region	Koppen climate region
M_PL_040	18.35	-77.65	Tropical	Aw
M_PL_030	8.93	-67.41		
*M_PL_035	17.92	-76.19		
M_PL_026	-0.5	-90.5		
M_PL_012	28.13	-17.25	Mediterranean	Csa
*M_PL_058	42.29	3.23		
M_PL_050	28.27	-16.61		
*M_PL_007	52.41	1.09	Temperate	Cfb
M_PL_072_02	-37.73	-58.23		
M_PL_051	-41.07	-71.52		
M_PL_043	56.24	9.95		

Note: The “*” networks are shown in the main figures, others are shown in Supplementary. M_PL here refers to plant-pollinator network.

Table S2: Regional comparison of baseline network structure.

Metric	df between	df within	F-value	p-value
Connectance	2	8	3.59	0.077
Asymmetry	2	8	2.809	0.119
Nestedness (NODF)	2	8	2.810	0.119

Table S3: Biophysical parameters for different ecoclimatic regions

Ecoclimatic region	$T_{opt}(K)$	α_{opt}	σ_{α}	β_{opt}	A_k	h_{opt}	σ_h	κ_{opt}	μ	t
Tropical	301.915	0.3	4.824	0.2945	9710	0.2	15	0.0001	0.0001	0.5
Mediterranean	297.215	0.3	4.648	0.1355	16824	0.2	15	0.0001	0.0001	0.5
Temperate	297.557	0.3	6.571	0.2252	4366	0.2	15	0.0001	0.0001	0.5

Table S4: Pairwise Mean Differences and 95% Confidence Intervals for Management Strategies Across Mutualistic Strengths (γ_0)

Network ID	Mutualistic strength(γ_0)	Pair	Difference in mean	95% CI (low)	95% CI (high)	95% CI (width)
M_PL_040	3	Single Pollinator vs Without	-0.01698194436	-0.0797582789	0.04579439017	0.1255526691
M_PL_040	2.5	Single Pollinator vs Without	-0.01713756457	-0.07971039942	0.04543527029	0.1251456697
M_PL_040	2	Single Pollinator vs Without	-0.01819872175	-0.07927795304	0.04288050954	0.1221584626
M_PL_040	1.5	Single Pollinator vs Without	-0.03396857171	-0.0931778691	0.02524072568	0.1184185948
M_PL_040	1	Single Pollinator vs Without	-0.07297542078	-0.1354709542	-0.01047988739	0.1249910668
M_PL_040	0.5	Single Pollinator vs Without	-0.2040900943	-0.2712979563	-0.1368822322	0.134415724
M_PL_040	0.001	Single Pollinator vs Without	0.02194197785	0.01733398841	0.02654996728	0.009215978876
M_PL_040	3	Multi Pollinator vs Without	-0.04391492961	-0.1089021177	0.02107225851	0.1299743762
M_PL_040	2.5	Multi Pollinator vs Without	-0.05747856275	-0.1238597189	0.008902593399	0.1327623123
M_PL_040	2	Multi Pollinator vs Without	-0.08372758382	-0.1517767404	-0.01567842729	0.1360983131
M_PL_040	1.5	Multi Pollinator vs Without	-0.1349000255	-0.2024250395	-0.06737501158	0.1350500279
M_PL_040	1	Multi Pollinator vs Without	-0.173513447	-0.2428545323	-0.1041723618	0.1386821705
M_PL_040	0.5	Multi Pollinator vs Without	-0.1891915423	-0.2421706173	-0.1362124673	0.10595815
M_PL_040	0.001	Multi Pollinator vs Without	0.2987272816	0.2956272815	0.3018272816	0.006200000103
M_PL_040	3	Single Plant vs Without	0.01320770666	-0.04605889596	0.07247430929	0.1185332052
M_PL_040	2.5	Single Plant vs Without	0.01291685096	-0.04594925672	0.07178295863	0.1177322153
M_PL_040	2	Single Plant vs Without	0.006976804161	-0.05013726228	0.06409087061	0.1142281329
M_PL_040	1.5	Single Plant vs Without	-0.01092930127	-0.06475952144	0.0429009189	0.1076604403
M_PL_040	1	Single Plant vs Without	-0.02685841178	-0.08001020431	0.02629338076	0.1063035851
M_PL_040	0.5	Single Plant vs Without	0.04612549455	0.001620422344	0.09063056675	0.0890101444
M_PL_040	0.001	Single Plant vs Without	0.0007889731371	-0.002558927966	0.004136874241	0.006695802207
M_PL_040	3	Multi Plant vs Without	0.02421505865	-0.03452026726	0.08295038455	0.1174706518
M_PL_040	2.5	Multi Plant vs Without	0.02354590616	-0.03484813453	0.08193994686	0.1167880814
M_PL_040	2	Multi Plant vs Without	0.0133040558	-0.04344148818	0.07004959979	0.113491088
M_PL_040	1.5	Multi Plant vs Without	-0.01348955143	-0.06706585605	0.04008675319	0.1071526092
M_PL_040	1	Multi Plant vs Without	-0.05762715613	-0.1068750753	-0.008379236964	0.09849583834
M_PL_040	0.5	Multi Plant vs Without	0.08603210066	0.04481273676	0.1272514646	0.08243872781
M_PL_040	0.001	Multi Plant vs Without	0.00142794254	-0.00192734941	0.004783234489	0.006710583899
M_PL_030	3	Single Pollinator vs Without	-0.005328999255	-0.05629259593	0.04563459742	0.1019271933
M_PL_030	2.5	Single Pollinator vs Without	-0.005716948768	-0.05494610324	0.04351220571	0.09845830895
M_PL_030	2	Single Pollinator vs Without	-0.006579221215	-0.0536257699	0.04046732747	0.09409309738
M_PL_030	1.5	Single Pollinator vs Without	-0.01275188961	-0.05804415774	0.03254037852	0.09058453626
M_PL_030	1	Single Pollinator vs Without	-0.02685604139	-0.07176134595	0.01804926318	0.08981060913
M_PL_030	0.5	Single Pollinator vs Without	-0.02871379814	-0.06198766974	0.004560073461	0.0665477432
M_PL_030	0.001	Single Pollinator vs Without	0.02781515965	0.02391726166	0.03171305763	0.007795795972
M_PL_030	3	Multi Pollinator vs Without	-3.90E-05	-0.05036355957	0.05028554344	0.100649103
M_PL_030	2.5	Multi Pollinator vs Without	0.006662196843	-0.04187041454	0.05519480822	0.09706522276
M_PL_030	2	Multi Pollinator vs Without	0.007421738292	-0.03898802629	0.05383150288	0.09281952917
M_PL_030	1.5	Multi Pollinator vs Without	0.00117330657	-0.04267310181	0.04501971495	0.08769281675
M_PL_030	1	Multi Pollinator vs Without	0.006901461466	-0.03315910227	0.0469620252	0.08012112747
M_PL_030	0.5	Multi Pollinator vs Without	0.1316664847	0.1052081852	0.1581247842	0.05291659905
M_PL_030	0.001	Multi Pollinator vs Without	0.3273925053	0.3244072285	0.3303777821	0.005970553554
M_PL_030	3	Single Plant vs Without	0.01129287813	-0.0381279757	0.06071373197	0.09884170767
M_PL_030	2.5	Single Plant vs Without	0.01267939469	-0.03429854199	0.05965733137	0.09395587337
M_PL_030	2	Single Plant vs Without	0.007081976296	-0.03700318583	0.05116713842	0.08817032424
M_PL_030	1.5	Single Plant vs Without	-0.007122343873	-0.047823275	0.03357858726	0.08140186226
M_PL_030	1	Single Plant vs Without	-0.009844435882	-0.0467765489	0.02708767713	0.07386422603
M_PL_030	0.5	Single Plant vs Without	0.06528777987	0.03922490156	0.09135065817	0.05212575661
M_PL_030	0.001	Single Plant vs Without	0.0002874629262	-0.003673074393	0.00424800245	0.007921074638
M_PL_030	3	Multi Plant vs Without	0.03155104779	-0.01681163971	0.07991373528	0.09672537499
M_PL_030	2.5	Multi Plant vs Without	0.03717027341	-0.008912399442	0.08325294627	0.09216534571
M_PL_030	2	Multi Plant vs Without	0.03249026918	-0.01078103204	0.0757615704	0.08654260244
M_PL_030	1.5	Multi Plant vs Without	0.02276470566	-0.01727582774	0.06280523906	0.0800810668
M_PL_030	1	Multi Plant vs Without	0.02452239235	-0.01168583591	0.06073062061	0.07241645652
M_PL_030	0.5	Multi Plant vs Without	0.108780146	0.08309606964	0.1344642224	0.05136815275
M_PL_030	0.001	Multi Plant vs Without	0.0004877509374	-0.003475300046	0.004450801921	0.007926101968
M_PL_035	3	Single Pollinator vs Without	-0.009520489977	-0.07214541991	0.05310443995	0.1252498599
M_PL_035	2.5	Single Pollinator vs Without	-0.002351617903	-0.06139000535	0.05668676955	0.1180767749
M_PL_035	2	Single Pollinator vs Without	-0.0002059625238	-0.05603595791	0.05562403287	0.1116599908
M_PL_035	1.5	Single Pollinator vs Without	0.006877408108	-0.04823125173	0.06198606795	0.1102173197
M_PL_035	1	Single Pollinator vs Without	0.001362681215	-0.03894626628	0.04167162871	0.080617895
M_PL_035	0.5	Single Pollinator vs Without	0.04358230992	0.01610857583	0.07105604402	0.05494746818
M_PL_035	0.001	Single Pollinator vs Without	0.09030800732	0.08548533415	0.09513068049	0.009645346339
M_PL_035	3	Multi Pollinator vs Without	-0.008419126157	-0.07061263128	0.05377437897	0.1243870103
M_PL_035	2.5	Multi Pollinator vs Without	0.003452954896	-0.05487310931	0.0617790191	0.1166521284
M_PL_035	2	Multi Pollinator vs Without	0.01039292211	-0.04402269908	0.06480854329	0.1088312424
M_PL_035	1.5	Multi Pollinator vs Without	0.05072166792	-0.002044896105	0.1034882319	0.1055331281
M_PL_035	1	Multi Pollinator vs Without	0.07229768958	0.03523682303	0.1093585561	0.0741217331

Table S4: Pairwise Mean Differences and 95% Confidence Intervals for Management Strategies Across Mutualistic Strengths (γ_0)

Network ID	Mutualistic strength(γ_0)	Pair	Difference in mean	95% CI (low)	95% CI (high)	95% CI (width)
M_PL_035	0.5	Multi Pollinator vs Without	0.2828117925	0.2653546656	0.3002689194	0.03491425382
M_PL_035	0.001	Multi Pollinator vs Without	0.4992044103	0.4959324818	0.5024763388	0.006543857018
M_PL_035	3	Single Plant vs Without	0.09871349134	0.04060326376	0.1568237189	0.1162204552
M_PL_035	2.5	Single Plant vs Without	0.1122356085	0.0576572498	0.1668139672	0.1091567174
M_PL_035	2	Single Plant vs Without	0.1049034798	0.05430892409	0.1554980356	0.1011891115
M_PL_035	1.5	Single Plant vs Without	0.1310671471	0.08369299354	0.1784413006	0.09474830702
M_PL_035	1	Single Plant vs Without	0.06821358049	0.0310811886	0.1053459724	0.07426478377
M_PL_035	0.5	Single Plant vs Without	0.08062967161	0.06089237386	0.1003669694	0.03947459552
M_PL_035	0.001	Single Plant vs Without	0.0002227446481	-0.003376623407	0.003822112703	0.00719873611
M_PL_035	3	Multi Plant vs Without	0.2002665591	0.1444019401	0.2561311178	0.1117292379
M_PL_035	2.5	Multi Plant vs Without	0.2252160582	0.1724562285	0.277975888	0.1055196595
M_PL_035	2	Multi Plant vs Without	0.2337760957	0.1848843652	0.2826678263	0.09778346116
M_PL_035	1.5	Multi Plant vs Without	0.2779047621	0.2309690192	0.324840505	0.09387148576
M_PL_035	1	Multi Plant vs Without	0.3168858591	0.2814081197	0.3523635984	0.07095547874
M_PL_035	0.5	Multi Plant vs Without	0.3422580495	0.3199925395	0.3645235594	0.04453101994
M_PL_035	0.001	Multi Plant vs Without	0.001083734056	-0.002521667194	0.004689135306	0.0072108025
M_PL_026	3	Single Pollinator vs Without	-0.02571367193	-0.06976874743	0.01834140358	0.08811015102
M_PL_026	2.5	Single Pollinator vs Without	0.007182364517	-0.0279732705	0.04233799954	0.07031127004
M_PL_026	2	Single Pollinator vs Without	0.01831564908	-0.009557824794	0.04618912296	0.05574694775
M_PL_026	1.5	Single Pollinator vs Without	0.02894941792	0.01078252687	0.04711630897	0.0363337821
M_PL_026	1	Single Pollinator vs Without	0.03199986672	0.02187699677	0.04212273668	0.0202457399
M_PL_026	0.5	Single Pollinator vs Without	0.1363763022	0.127688405	0.1450641993	0.01737579423
M_PL_026	0.001	Single Pollinator vs Without	0.2207418768	0.218792758	0.2226909957	0.003898237735
M_PL_026	3	Multi Pollinator vs Without	0.7816615829	0.7508487028	0.812474463	0.06162576014
M_PL_026	2.5	Multi Pollinator vs Without	0.9485590663	0.9225452596	0.974572873	0.05202761338
M_PL_026	2	Multi Pollinator vs Without	1.067832148	1.046214195	1.089450101	0.04323590676
M_PL_026	1.5	Multi Pollinator vs Without	1.19480049	1.17880241	1.210798569	0.03199615883
M_PL_026	1	Multi Pollinator vs Without	1.273267125	1.263144257	1.283389994	0.02024573715
M_PL_026	0.5	Multi Pollinator vs Without	1.377639595	1.3689517	1.386327489	0.01737578923
M_PL_026	0.001	Multi Pollinator vs Without	1.46035838	1.459512556	1.461204204	0.001691648683
M_PL_026	3	Single Plant vs Without	0.2204375782	0.179692343	0.2611828134	0.08149047044
M_PL_026	2.5	Single Plant vs Without	0.2865404676	0.252151189	0.3209297463	0.06877855729
M_PL_026	2	Single Plant vs Without	0.3072496314	0.2774739453	0.3370253174	0.05955137202
M_PL_026	1.5	Single Plant vs Without	0.3158423429	0.2908551973	0.3408294886	0.04997429132
M_PL_026	1	Single Plant vs Without	0.2485750078	0.2287337287	0.2684162869	0.03968255824
M_PL_026	0.5	Single Plant vs Without	0.1500075276	0.1365130976	0.1635019577	0.02698886007
M_PL_026	0.001	Single Plant vs Without	0.0002249219844	-0.0006936682469	0.001143512216	0.001837180463
M_PL_026	3	Multi Plant vs Without	0.4021954881	0.3622079684	0.4421830079	0.07997503956
M_PL_026	2.5	Multi Plant vs Without	0.488850343	0.4515116127	0.5261890733	0.07467746059
M_PL_026	2	Multi Plant vs Without	0.5106678506	0.4750102317	0.5463254696	0.07131523785
M_PL_026	1.5	Multi Plant vs Without	0.5119119115	0.4794238784	0.5443999445	0.06497606618
M_PL_026	1	Multi Plant vs Without	0.4201211245	0.3928613996	0.4473808494	0.05451944984
M_PL_026	0.5	Multi Plant vs Without	0.2734850366	0.2545515093	0.2924185639	0.03786705466
M_PL_026	0.001	Multi Plant vs Without	0.0007258293126	-0.0002007400464	0.001652398672	0.001853138718
M_PL_012	3	Single Pollinator vs Without	-0.009654561189	-0.2406436097	0.2213344873	0.461978097
M_PL_012	2.5	Single Pollinator vs Without	-0.01028780516	-0.2403536675	0.2197780571	0.4601317246
M_PL_012	2	Single Pollinator vs Without	-0.01109209276	-0.2393629903	0.2171788048	0.4565417951
M_PL_012	1.5	Single Pollinator vs Without	-0.01189261582	-0.2372444332	0.2134592016	0.4507036348
M_PL_012	1	Single Pollinator vs Without	-0.01020607093	-0.2315384272	0.2111262854	0.4426647126
M_PL_012	0.5	Single Pollinator vs Without	-0.009505658716	-0.2203969358	0.2013856184	0.4217825542
M_PL_012	0.001	Single Pollinator vs Without	0.03939135255	0.03015713704	0.04862556806	0.01846843102
M_PL_012	3	Multi Pollinator vs Without	-0.04914253632	-0.2812180547	0.182932982	0.4641510367
M_PL_012	2.5	Multi Pollinator vs Without	-0.05389431945	-0.2852534997	0.1774648608	0.4627183605
M_PL_012	2	Multi Pollinator vs Without	-0.05806935574	-0.2878779594	0.1717392479	0.4596172072
M_PL_012	1.5	Multi Pollinator vs Without	-0.06092698358	-0.2881148666	0.1662608994	0.454375766
M_PL_012	1	Multi Pollinator vs Without	-0.05818880897	-0.2824436765	0.1660660585	0.448509735
M_PL_012	0.5	Multi Pollinator vs Without	-0.03561015396	-0.2535830103	0.1823627024	0.4359457127
M_PL_012	0.001	Multi Pollinator vs Without	0.7651548932	0.7593042612	0.7710055252	0.011701264
M_PL_012	3	Single Plant vs Without	0.02163065824	-0.2076321032	0.2508934197	0.4585255228
M_PL_012	2.5	Single Plant vs Without	0.02170974079	-0.2061734314	0.249592913	0.4557663443
M_PL_012	2	Single Plant vs Without	0.02081737609	-0.2045617045	0.2461964567	0.4507581612
M_PL_012	1.5	Single Plant vs Without	0.01575983156	-0.2056381415	0.2371578046	0.4427959461
M_PL_012	1	Single Plant vs Without	0.005359275658	-0.2105683132	0.2212868646	0.4318551778
M_PL_012	0.5	Single Plant vs Without	0.007971360698	-0.1969366291	0.2128793505	0.4098159797
M_PL_012	0.001	Single Plant vs Without	0.004981591213	-0.0002143261369	0.01017750856	0.0103918347
M_PL_012	3	Multi Plant vs Without	0.03361530375	-0.1948172583	0.2620478658	0.4568651241
M_PL_012	2.5	Multi Plant vs Without	0.03389257327	-0.1929613399	0.2607464865	0.4537078264
M_PL_012	2	Multi Plant vs Without	0.03235799186	-0.1917238863	0.25643987	0.4481637563

Table S4: Pairwise Mean Differences and 95% Confidence Intervals for Management Strategies Across Mutualistic Strengths (γ_0)

Network ID	Mutualistic strength(γ_0)	Pair	Difference in mean	95% CI (low)	95% CI (high)	95% CI (width)
M_PL_012	1.5	Multi Plant vs Without	0.02337381527	-0.1963662891	0.2431139196	0.4394802087
M_PL_012	1	Multi Plant vs Without	0.002155248018	-0.2114069593	0.2157174553	0.4271244146
M_PL_012	0.5	Multi Plant vs Without	-0.02115156588	-0.2216669561	0.1793638244	0.4010307805
M_PL_012	0.001	Multi Plant vs Without	0.008731230687	0.003469523808	0.01399293757	0.01052341376
M_PL_058	3	Single Pollinator vs Without	-0.05558308858	-0.3555517533	0.2443855761	0.5999373294
M_PL_058	2.5	Single Pollinator vs Without	-0.05534004145	-0.3545702843	0.2438902014	0.5984604856
M_PL_058	2	Single Pollinator vs Without	-0.05441713379	-0.3525913165	0.2437570489	0.5963483655
M_PL_058	1.5	Single Pollinator vs Without	-0.05192581495	-0.3481143207	0.2442626908	0.5923770114
M_PL_058	1	Single Pollinator vs Without	-0.04517989791	-0.3365025827	0.2461427868	0.5826453695
M_PL_058	0.5	Single Pollinator vs Without	-0.02732441538	-0.3015138956	0.2468650649	0.5483789605
M_PL_058	0.001	Single Pollinator vs Without	0.05656387555	0.04967263398	0.06345511712	0.01378248315
M_PL_058	3	Multi Pollinator vs Without	-0.3564555185	-0.6563716626	-0.05653937441	0.5998322882
M_PL_058	2.5	Multi Pollinator vs Without	-0.3456750236	-0.6437603552	-0.04758969203	0.5961706631
M_PL_058	2	Multi Pollinator vs Without	-0.329187507	-0.6246574877	-0.03371752629	0.5909399614
M_PL_058	1.5	Multi Pollinator vs Without	-0.3021031235	-0.5933970633	-0.01080918366	0.5825878796
M_PL_058	1	Multi Pollinator vs Without	-0.2496170757	-0.5323842373	0.03315008598	0.5655343233
M_PL_058	0.5	Multi Pollinator vs Without	-0.1209925943	-0.3792112721	0.1372260835	0.5164373555
M_PL_058	0.001	Multi Pollinator vs Without	0.9652461113	0.9607558537	0.969736369	0.008980515275
M_PL_058	3	Single Plant vs Without	0.03515787416	-0.2610774682	0.3313932165	0.5924706848
M_PL_058	2.5	Single Plant vs Without	0.04095671729	-0.2541163208	0.3360297554	0.5901460762
M_PL_058	2	Single Plant vs Without	0.04848506684	-0.244980399	0.3419505326	0.5869309316
M_PL_058	1.5	Single Plant vs Without	0.05807014511	-0.232734651	0.3488749412	0.5816095921
M_PL_058	1	Single Plant vs Without	0.06938438903	-0.2158596111	0.3546283891	0.5704880002
M_PL_058	0.5	Single Plant vs Without	0.08535294778	-0.1826917136	0.3533976092	0.5360893229
M_PL_058	0.001	Single Plant vs Without	0.002625415626	-0.003135617114	0.008386448366	0.01152206548
M_PL_058	3	Multi Plant vs Without	0.08206438565	-0.2114108778	0.375539649	0.5869505268
M_PL_058	2.5	Multi Plant vs Without	0.09222611943	-0.1998364436	0.3842886825	0.5841251261
M_PL_058	2	Multi Plant vs Without	0.1044484862	-0.1856372788	0.3945342512	0.5801717153
M_PL_058	1.5	Multi Plant vs Without	0.1192543019	-0.1676101452	0.4061187489	0.573728894
M_PL_058	1	Multi Plant vs Without	0.1365086228	-0.1440225724	0.4170398179	0.5610623903
M_PL_058	0.5	Multi Plant vs Without	0.1737072191	-0.08875188785	0.436166326	0.5249182138
M_PL_058	0.001	Multi Plant vs Without	0.007187156316	0.001356681243	0.01301763139	0.01166095015
M_PL_050	3	Single Pollinator vs Without	-0.005121746721	-0.3611900664	0.3509465729	0.7121366393
M_PL_050	2.5	Single Pollinator vs Without	-0.005726625212	-0.3613884274	0.3499351769	0.7113236043
M_PL_050	2	Single Pollinator vs Without	-0.006715851696	-0.3616644006	0.3482326972	0.7098970978
M_PL_050	1.5	Single Pollinator vs Without	-0.008782762609	-0.3622353749	0.3446698497	0.7069052246
M_PL_050	1	Single Pollinator vs Without	-0.01394175632	-0.3631030825	0.3352195698	0.6983226523
M_PL_050	0.5	Single Pollinator vs Without	-0.01185642871	-0.3473355054	0.323622648	0.6709581534
M_PL_050	0.001	Single Pollinator vs Without	0.08405598777	0.069370374	0.09874160154	0.02937122754
M_PL_050	3	Multi Pollinator vs Without	-0.02803714321	-0.3842264348	0.3281521483	0.7123785831
M_PL_050	2.5	Multi Pollinator vs Without	-0.03236485195	-0.3883622679	0.323632564	0.7119948319
M_PL_050	2	Multi Pollinator vs Without	-0.03798944062	-0.3935957614	0.3176168801	0.7112126415
M_PL_050	1.5	Multi Pollinator vs Without	-0.04552462012	-0.4001730728	0.3091238325	0.7092969053
M_PL_050	1	Multi Pollinator vs Without	-0.05724890111	-0.4089726875	0.2944748853	0.7034475728
M_PL_050	0.5	Multi Pollinator vs Without	-0.03675933355	-0.3752515115	0.3017328444	0.6769843559
M_PL_050	0.001	Multi Pollinator vs Without	0.7019732719	0.691455026	0.7124915178	0.02103649185
M_PL_050	3	Single Plant vs Without	0.03562161288	-0.3185587962	0.389802022	0.7083608183
M_PL_050	2.5	Single Plant vs Without	0.04024821968	-0.3131865072	0.3936829466	0.7068694538
M_PL_050	2	Single Plant vs Without	0.04665847805	-0.3055751522	0.3988921082	0.7044672604
M_PL_050	1.5	Single Plant vs Without	0.05689900642	-0.2930009672	0.40679898	0.6997999472
M_PL_050	1	Single Plant vs Without	0.07829281071	-0.2655398651	0.4221254865	0.6876653517
M_PL_050	0.5	Single Plant vs Without	0.1533621648	-0.1745900726	0.4813144022	0.6559044748
M_PL_050	0.001	Single Plant vs Without	0.01234548917	0.004481252909	0.02020972543	0.01572847253
M_PL_050	3	Multi Plant vs Without	0.03562161288	-0.3185587962	0.389802022	0.7083608183
M_PL_050	2.5	Multi Plant vs Without	0.04024821968	-0.3131865072	0.3936829466	0.7068694538
M_PL_050	2	Multi Plant vs Without	0.04665847805	-0.3055751522	0.3988921082	0.7044672604
M_PL_050	1.5	Multi Plant vs Without	0.05689900642	-0.2930009672	0.40679898	0.6997999472
M_PL_050	1	Multi Plant vs Without	0.07829281071	-0.2655398651	0.4221254865	0.6876653517
M_PL_050	0.5	Multi Plant vs Without	0.1533621648	-0.1745900726	0.4813144022	0.6559044748
M_PL_050	0.001	Multi Plant vs Without	0.01234548917	0.004481252909	0.02020972543	0.01572847253
M_PL_016	3	Single Pollinator vs Without	-0.01766182491	-0.1009793945	0.06565574472	0.1666351393
M_PL_016	2.5	Single Pollinator vs Without	-0.01747197997	-0.1000124596	0.06506849962	0.1650809592
M_PL_016	2	Single Pollinator vs Without	-0.01641730587	-0.09794977363	0.06511516188	0.1630649355
M_PL_016	1.5	Single Pollinator vs Without	-0.01457735891	-0.09437550811	0.0652207903	0.1595962984
M_PL_016	1	Single Pollinator vs Without	-0.0146777285	-0.09103947722	0.06168402023	0.1527234974
M_PL_016	0.5	Single Pollinator vs Without	-0.003968674725	-0.07012885193	0.06219150248	0.1323203544
M_PL_016	0.001	Single Pollinator vs Without	0.01364082604	0.01156920552	0.01571244655	0.004143241026
M_PL_016	3	Multi Pollinator vs Without	-0.1168755278	-0.190274766	-0.04347628964	0.1467984764

Table S4: Pairwise Mean Differences and 95% Confidence Intervals for Management Strategies Across Mutualistic Strengths (γ_0)

Network ID	Mutualistic strength(γ_0)	Pair	Difference in mean	95% CI (low)	95% CI (high)	95% CI (width)
M_PL_016	2.5	Multi Pollinator vs Without	-0.1032429277	-0.1752964231	-0.03118943233	0.1441069908
M_PL_016	2	Multi Pollinator vs Without	-0.08313990791	-0.1535459604	-0.01273385539	0.140812105
M_PL_016	1.5	Multi Pollinator vs Without	-0.05263924155	-0.1203757035	0.01509722041	0.1354729239
M_PL_016	1	Multi Pollinator vs Without	-0.005509419785	-0.06840129034	0.05738245077	0.1257837411
M_PL_016	0.5	Multi Pollinator vs Without	0.1271829418	0.07502479405	0.1793410895	0.1043162955
M_PL_016	0.001	Multi Pollinator vs Without	0.5656860315	0.5643426288	0.5670294342	0.002686805375
M_PL_016	3	Single Plant vs Without	0.05859824391	-0.02186640912	0.1390628969	0.160929306
M_PL_016	2.5	Single Plant vs Without	0.06285523755	-0.01658271114	0.1422931862	0.1588758974
M_PL_016	2	Single Plant vs Without	0.06802734136	-0.01004158844	0.1460962712	0.1561378596
M_PL_016	1.5	Single Plant vs Without	0.07399496754	-0.00173656013	0.1497264952	0.1514630553
M_PL_016	1	Single Plant vs Without	0.0714658678	0.0007607970845	0.1421709385	0.1414101414
M_PL_016	0.5	Single Plant vs Without	0.09462724702	0.03471448767	0.1545400064	0.1198255187
M_PL_016	0.001	Single Plant vs Without	0.001553129138	-0.000243081079	0.003349339355	0.003592420434
M_PL_016	3	Multi Plant vs Without	0.0619089429	-0.01854415958	0.1423620454	0.160906205
M_PL_016	2.5	Multi Plant vs Without	0.06545431466	-0.01392038791	0.1448290172	0.1587494051
M_PL_016	2	Multi Plant vs Without	0.06984870062	-0.008102594427	0.1477999957	0.1559025901
M_PL_016	1.5	Multi Plant vs Without	0.07529546694	-0.0002807063743	0.1508716403	0.1511523466
M_PL_016	1	Multi Plant vs Without	0.07224506137	0.001762624507	0.1427274982	0.1409648737
M_PL_016	0.5	Multi Plant vs Without	0.09420083835	0.03467717456	0.1537245021	0.1190473276
M_PL_016	0.001	Multi Plant vs Without	0.001738856439	-6.08E-05	0.003538481852	0.003599250827
M_PL_007	3	Single Pollinator vs Without	-0.0003499972948	-0.01148353382	0.01078353923	0.02226707304
M_PL_007	2.5	Single Pollinator vs Without	-0.0003330976281	-0.01190742409	0.01124122883	0.02314865292
M_PL_007	2	Single Pollinator vs Without	1.96E-05	-0.01213556906	0.0121748498	0.02431041886
M_PL_007	1.5	Single Pollinator vs Without	0.001515489733	-0.0113269979	0.01435797736	0.02568497526
M_PL_007	1	Single Pollinator vs Without	0.005076439907	-0.008346284656	0.01849916447	0.02684544913
M_PL_007	0.5	Single Pollinator vs Without	-0.001999065232	-0.02027435735	0.01627622689	0.03655058424
M_PL_007	0.001	Single Pollinator vs Without	0.07214948383	0.06855603353	0.07574293413	0.007186900606
M_PL_007	3	Multi Pollinator vs Without	-0.000835465478	-0.01211551788	0.01044458693	0.02256010481
M_PL_007	2.5	Multi Pollinator vs Without	-0.001729130591	-0.01346400382	0.01000574264	0.02346974646
M_PL_007	2	Multi Pollinator vs Without	-0.002702527901	-0.01505048773	0.00964543193	0.02469591966
M_PL_007	1.5	Multi Pollinator vs Without	-0.004165469382	-0.01731573853	0.008984799769	0.0263005383
M_PL_007	1	Multi Pollinator vs Without	-0.01675955486	-0.03136641437	-0.00215269535	0.02921371902
M_PL_007	0.5	Multi Pollinator vs Without	-0.05720983755	-0.08139970049	-0.03301997462	0.04837972587
M_PL_007	0.001	Multi Pollinator vs Without	0.35859215	0.3557743156	0.3614099844	0.005635668774
M_PL_007	3	Single Plant vs Without	0.000460373863	-0.01054695164	0.01146769937	0.02201465101
M_PL_007	2.5	Single Plant vs Without	-0.002053532122	-0.01351305888	0.00940599464	0.02291905352
M_PL_007	2	Single Plant vs Without	-0.006468702331	-0.01853208338	0.00559467872	0.0241267621
M_PL_007	1.5	Single Plant vs Without	-0.01599636119	-0.02882190703	-0.003170815343	0.02565109169
M_PL_007	1	Single Plant vs Without	-0.04507092793	-0.05870990197	-0.03143195389	0.02727794808
M_PL_007	0.5	Single Plant vs Without	-0.06507372516	-0.08241541488	-0.04773203544	0.03468337944
M_PL_007	0.001	Single Plant vs Without	0.003454366194	0.0001580029194	0.006750729469	0.006592726549
M_PL_007	3	Multi Plant vs Without	0.000460373863	-0.01054695164	0.01146769937	0.02201465101
M_PL_007	2.5	Multi Plant vs Without	-0.002053532122	-0.01351305888	0.00940599464	0.02291905352
M_PL_007	2	Multi Plant vs Without	-0.006468702331	-0.01853208338	0.00559467872	0.0241267621
M_PL_007	1.5	Multi Plant vs Without	-0.01599636119	-0.02882190703	-0.003170815343	0.02565109169
M_PL_007	1	Multi Plant vs Without	-0.04507092793	-0.05870990197	-0.03143195389	0.02727794808
M_PL_007	0.5	Multi Plant vs Without	-0.06507372516	-0.08241541488	-0.04773203544	0.03468337944
M_PL_007	0.001	Multi Plant vs Without	0.003454366194	0.0001580029194	0.006750729469	0.006592726549
M_PL_072_02	3	Single Pollinator vs Without	-0.001376980111	-0.01622916586	0.01347520563	0.02970437149
M_PL_072_02	2.5	Single Pollinator vs Without	-0.001131039264	-0.01602313702	0.01376105849	0.02978419551
M_PL_072_02	2	Single Pollinator vs Without	-0.001505247309	-0.01651818424	0.01350768962	0.03002587387
M_PL_072_02	1.5	Single Pollinator vs Without	-0.002963213623	-0.0179992479	0.01207282066	0.03007206856
M_PL_072_02	1	Single Pollinator vs Without	-0.009570577562	-0.02559063642	0.006449481299	0.03204011772
M_PL_072_02	0.5	Single Pollinator vs Without	0.003686305209	-0.0139064135	0.02127902392	0.03518543741
M_PL_072_02	0.001	Single Pollinator vs Without	0.01532310208	0.01311747479	0.01752872936	0.004411254563
M_PL_072_02	3	Multi Pollinator vs Without	-0.01027598823	-0.02555000479	0.00499802833	0.03054803312
M_PL_072_02	2.5	Multi Pollinator vs Without	-0.01326129111	-0.02872352543	0.002200943211	0.03092446864
M_PL_072_02	2	Multi Pollinator vs Without	-0.0167422333	-0.0325677075	-0.0009167590997	0.0316509484
M_PL_072_02	1.5	Multi Pollinator vs Without	-0.02059406489	-0.03688557519	-0.004302554594	0.03258302059
M_PL_072_02	1	Multi Pollinator vs Without	-0.04083884861	-0.06013522657	-0.02154247065	0.03859275592
M_PL_072_02	0.5	Multi Pollinator vs Without	-0.05040188379	-0.07291301819	-0.02789074939	0.0450226879
M_PL_072_02	0.001	Multi Pollinator vs Without	0.3395726213	0.3382895491	0.3408556934	0.002566144284
M_PL_072_02	3	Single Plant vs Without	0.001252031586	-0.01341953034	0.01592359351	0.02934312384
M_PL_072_02	2.5	Single Plant vs Without	-0.0002676663337	-0.01497591708	0.01444058441	0.02941650149
M_PL_072_02	2	Single Plant vs Without	-0.003151105845	-0.01793997183	0.01163776014	0.02957773197
M_PL_072_02	1.5	Single Plant vs Without	-0.008120847999	-0.02283792194	0.006596225938	0.02943414787
M_PL_072_02	1	Single Plant vs Without	-0.01203278256	-0.02741590401	0.003350338891	0.0307662429
M_PL_072_02	0.5	Single Plant vs Without	0.0005918847556	-0.0154716647	0.01665543421	0.03212709891

Table S4: Pairwise Mean Differences and 95% Confidence Intervals for Management Strategies Across Mutualistic Strengths (γ_0)

Network ID	Mutualistic strength(γ_0)	Pair	Difference in mean	95% CI (low)	95% CI (high)	95% CI (width)
M_PL_072_02	0.001	Single Plant vs Without	0.0007791022159	-0.0001439390586	0.00170214349	0.001846082549
M_PL_072_02	3	Multi Plant vs Without	0.007739389519	-0.006705359501	0.02218413854	0.02888949804
M_PL_072_02	2.5	Multi Plant vs Without	0.00424932565	-0.01018539088	0.01868404217	0.02886943305
M_PL_072_02	2	Multi Plant vs Without	-0.002439648289	-0.01690211588	0.01202281931	0.02892493519
M_PL_072_02	1.5	Multi Plant vs Without	-0.01317582165	-0.02753436255	0.001182719239	0.02871708179
M_PL_072_02	1	Multi Plant vs Without	-0.05436895569	-0.06843603351	-0.04030187787	0.02813415565
M_PL_072_02	0.5	Multi Plant vs Without	-0.03751834224	-0.05173464129	-0.0233020432	0.02843259809
M_PL_072_02	0.001	Multi Plant vs Without	0.002287043144	0.001350083986	0.003224002302	0.001873918315
M_PL_051	3	Single Pollinator vs Without	0.0001984088208	-0.001479392425	0.001876210067	0.003355602492
M_PL_051	2.5	Single Pollinator vs Without	0.000766757427	-0.0008275605873	0.002361075441	0.003188636029
M_PL_051	2	Single Pollinator vs Without	0.001624978831	-1.26E-05	0.003262540961	0.00327512426
M_PL_051	1.5	Single Pollinator vs Without	0.002997042351	0.001110365693	0.004883719009	0.003773353316
M_PL_051	1	Single Pollinator vs Without	0.003010670415	0.0006974579517	0.005323882878	0.004626424926
M_PL_051	0.5	Single Pollinator vs Without	-0.006705873834	-0.01350110399	8.94E-05	0.01359046032
M_PL_051	0.001	Single Pollinator vs Without	0.01775824253	0.0166248435	0.01889164156	0.002266798061
M_PL_051	3	Multi Pollinator vs Without	0.001113144456	-0.0005957578951	0.002822046806	0.003417804701
M_PL_051	2.5	Multi Pollinator vs Without	0.00121345286	-0.000423710244	0.002850615965	0.003274326208
M_PL_051	2	Multi Pollinator vs Without	-0.001372479106	-0.003193901023	0.0004489428107	0.003642843834
M_PL_051	1.5	Multi Pollinator vs Without	-0.004069839851	-0.006392251284	-0.001747428418	0.004644822866
M_PL_051	1	Multi Pollinator vs Without	-0.01391814314	-0.01735331313	-0.01048297315	0.006870339984
M_PL_051	0.5	Multi Pollinator vs Without	-0.05357173857	-0.06631849026	-0.04082498688	0.02549350337
M_PL_051	0.001	Multi Pollinator vs Without	0.2880150903	0.2870171336	0.289013047	0.001995913328
M_PL_051	3	Single Plant vs Without	-0.0006200699192	-0.00227600803	0.001035868192	0.003311876222
M_PL_051	2.5	Single Plant vs Without	-0.003138377844	-0.00472956286	-0.001547192829	0.00318237003
M_PL_051	2	Single Plant vs Without	-0.009193998538	-0.01087224839	-0.007515748685	0.003356499706
M_PL_051	1.5	Single Plant vs Without	-0.01613430354	-0.01814594153	-0.01412266556	0.00402327597
M_PL_051	1	Single Plant vs Without	-0.02891618144	-0.03155383749	-0.02627852538	0.00527531211
M_PL_051	0.5	Single Plant vs Without	-0.05960704715	-0.06421485825	-0.05499923606	0.00921562219
M_PL_051	0.001	Single Plant vs Without	0.002129668154	0.0007020928817	0.003557243427	0.002855150546
M_PL_051	3	Multi Plant vs Without	-0.0006200699192	-0.00227600803	0.001035868192	0.003311876222
M_PL_051	2.5	Multi Plant vs Without	-0.003138377844	-0.00472956286	-0.001547192829	0.00318237003
M_PL_051	2	Multi Plant vs Without	-0.009193998538	-0.01087224839	-0.007515748685	0.003356499706
M_PL_051	1.5	Multi Plant vs Without	-0.01613430354	-0.01814594153	-0.01412266556	0.00402327597
M_PL_051	1	Multi Plant vs Without	-0.02891618144	-0.03155383749	-0.02627852538	0.00527531211
M_PL_051	0.5	Multi Plant vs Without	-0.05960704715	-0.06421485825	-0.05499923606	0.00921562219
M_PL_051	0.001	Multi Plant vs Without	0.002129668154	0.0007020928817	0.003557243427	0.002855150546
M_PL_043	3	Single Pollinator vs Without	0.0001077462157	-0.003032686005	0.003248178437	0.006280864442
M_PL_043	2.5	Single Pollinator vs Without	0.000609407653	-0.002722223876	0.003941039182	0.006663263058
M_PL_043	2	Single Pollinator vs Without	0.001780584521	-0.001880266012	0.005441435054	0.007321701065
M_PL_043	1.5	Single Pollinator vs Without	0.004227208453	0.0001697795108	0.008284637395	0.008114857884
M_PL_043	1	Single Pollinator vs Without	0.00850934926	0.003855120239	0.01316357828	0.009308458042
M_PL_043	0.5	Single Pollinator vs Without	0.009700848633	0.002829228376	0.01657246889	0.01374324052
M_PL_043	0.001	Single Pollinator vs Without	0.0236554742	0.02219240877	0.02511853964	0.002926130874
M_PL_043	3	Multi Pollinator vs Without	0.00201032696	-0.001593247701	0.00561390162	0.007207149321
M_PL_043	2.5	Multi Pollinator vs Without	0.002382439554	-0.001424184442	0.00618906355	0.007613247993
M_PL_043	2	Multi Pollinator vs Without	0.00302522737	-0.001061201543	0.007111656284	0.008172857827
M_PL_043	1.5	Multi Pollinator vs Without	0.005482011681	0.001102812345	0.009861211016	0.008758398671
M_PL_043	1	Multi Pollinator vs Without	0.009038505349	0.003903677112	0.01417333359	0.01026965647
M_PL_043	0.5	Multi Pollinator vs Without	0.02077558769	0.01285330157	0.02869787382	0.01584457225
M_PL_043	0.001	Multi Pollinator vs Without	0.3755393053	0.374438137	0.3766404736	0.002202336626
M_PL_043	3	Single Plant vs Without	-0.0002930007257	-0.003425592526	0.002839591075	0.006265183601
M_PL_043	2.5	Single Plant vs Without	-0.001560863111	-0.004911267611	0.001789541389	0.006700809
M_PL_043	2	Single Plant vs Without	-0.003524995351	-0.00726820501	0.0002182143077	0.007486419318
M_PL_043	1.5	Single Plant vs Without	-0.006633324801	-0.01092376064	-0.002342888962	0.008580871679
M_PL_043	1	Single Plant vs Without	-0.01894044481	-0.02390397085	-0.01397691876	0.009927052094
M_PL_043	0.5	Single Plant vs Without	0.01275586916	0.005945071181	0.01956666713	0.01362159595
M_PL_043	0.001	Single Plant vs Without	0.000711119239	-0.0007294935229	0.002151732001	0.002881225524
M_PL_043	3	Multi Plant vs Without	0.001359200289	-0.00175148931	0.004469889887	0.006221379197
M_PL_043	2.5	Multi Plant vs Without	8.62E-05	-0.003235463175	0.003407774465	0.006643237639
M_PL_043	2	Multi Plant vs Without	-0.002317327687	-0.006023901073	0.001389245699	0.007413146772
M_PL_043	1.5	Multi Plant vs Without	-0.005655806313	-0.009942140592	-0.001369472034	0.008572668559
M_PL_043	1	Multi Plant vs Without	-0.01654909178	-0.02145139656	-0.011646787	0.009804609555
M_PL_043	0.5	Multi Plant vs Without	0.01087559623	0.004298372815	0.01745281965	0.01315444684
M_PL_043	0.001	Multi Plant vs Without	0.001060275517	-0.0003937157679	0.002514266802	0.002907982569