

### Appendix 3. Additional statistical results from generalized linear mixed models.

The following tables show full model results for generalized linear mixed models (GLMM) examining the influences of age, gender, region, education, years of gardening experience, hours spent in the garden, and motivations of gardeners on total, crop, and ornamental plant species richness and proportion of plants that were crops.

**Table A3.1.** Results of GLMM model selection for models examining relationships between gardener socio-demographic factors, gardening experience, and motivations for gardening and plant species richness, crop species richness, and ornamental plant species richness. All models within two AIC points of the top model are shown and were included in average models. Garden was included as a random effect for all models. A plus (+) indicates a factor was included in that model, NA indicates the factor was not included in that model.

Model	Age	Gender	Region	Edu- cation	Years	Hours	Moti- vation	df	AICc	Delta AIC
<i>Total Plant species richness (LN)</i>										
1	NA	NA	NA	NA	NA	0.144	NA	4	271.4	0.00
2	NA	NA	NA	NA	NA	NA	NA	3	272.3	0.85
<i>Crop species richness</i>										
1	NA	NA	+	+	NA	1.92	+	17	1043.9	0.00
2	NA	+	+	+	NA	1.94	+	18	1044.1	0.22
<i>Ornamental species richness (LN)</i>										
1	NA	+	NA	NA	NA	NA	NA	4	713.8	0.00
2	NA	+	NA	NA	NA	0.347	NA	5	714.3	0.54
3	NA	+	+	NA	NA	NA	+	8	714.5	0.78
4	NA	+	+	NA	NA	0.356	+	9	715.1	1.32
<i>Prop. of species that were crop species</i>										
1	NA	+	+	NA	NA	NA	NA	7	513.9	0.00
2	+	+	+	NA	NA	NA	NA	8	514.5	0.64
3	NA	+	NA	NA	NA	NA	NA	3	515.0	1.16
4	NA	+	NA	NA	+	NA	NA	4	515.1	1.20
5	+	+	NA	NA	NA	NA	NA	4	515.2	1.29
6	NA	+	+	NA	+	NA	NA	8	515.2	1.36

**Table A3.2.** GLMM model results for tests examining how gardener socio-demographic variables influence plant, crop and ornamental richness reported by gardeners as well as the proportion of plant species that were crops in urban gardens in the California central coast. All models results are for averaged models. Pairwise results for factors with multiple levels are reported in Tables A3.3-A3.7.

Dependent variable	Factors in best model	No. of best models factor was included	z	p
All plant species richness	LN Hours	1	2.729	0.006
Crop species richness	Education	2	<i>Table A3.3</i>	<i>Table A3.3</i>
	LN Hours	2	3.16	0.002
	Motivation	2	<i>Table A3.4</i>	<i>Table A3.4</i>
	Region	2	<i>Table A3.5</i>	<i>Table A3.5</i>
Ornamental species richness	Gender	1	0.61	0.542
	Gender	4	2.393	0.017
	LN Hours	2	1.721	0.085
	Region	1	<i>Table A3.6</i>	<i>Table A3.6</i>
	Prop. of plants species that were crops	Gender	6	2.53
Prop. of plants species that were crops	Region	3	<i>Table A3.7</i>	<i>Table A3.7</i>
	Age	2	1.306	0.192
	Years	2	1.155	0.248

**Table A3.3.** GLMM model results for pairwise comparisons examining differences in crop plant richness based on education level of gardeners. Numbers show p-values for pairwise comparisons of different levels for reach factor.

	High School	No School	Post-High School	Pre-High School	University
Graduate degree	0.264	0.767	0.995	0.993	0.938
High School		0.512	0.751	0.812	0.709
No School			0.384	0.387	0.375
Post-High School				0.995	0.929
Pre-High School					0.954

**Table A3.4.** GLMM model results for pairwise comparisons examining differences in crop plant richness based on motivations of gardeners. Numbers show p-values for pairwise comparisons of different levels for reach factor.

	Food	Health	Recreation	Social
Nature Connection	0.296	0.507	0.341	0.57
Food		0.090	0.976	0.146
Health			0.119	0.957
Recreation				0.169

**Table A3.5.** GLMM model results for pairwise comparisons examining differences in crop plant richness based on region of national origin. Numbers show p-values for pairwise comparisons of different levels for reach factor.

	Europe	Latin America	Middle East	USA/Canada
Asia/Pacific Islands	0.092	0.645	0.162	0.808
Europe		0.29	0.019	0.026
Latin America			0.099	0.462
Middle East				0.175

**Table A3.6.** GLMM model results for pairwise comparisons examining differences in ornamental plant richness based on region of national origin of gardeners. Numbers show p-values for pairwise comparisons of different levels for reach factor.

	Europe	Latin America	Middle East	North America
Asia/Pacific	0.072	0.083	0.678	0.033
Europe		0.939	0.568	0.959
Latin America			0.549	0.967
Middle East				0.5312

**Table A3.7.** GLMM model results for pairwise comparisons examining differences in the proportion of all plants that were crops based on region of national origin of gardeners. Numbers show p-values for pairwise comparisons of different levels for reach factor.

	Europe	Latin America	Middle East	North America
Asia/Pacific	0.1127	0.025	0.636	0.006
Europe		0.347	0.849	0.1712
Latin America			0.587	0.887
Middle East				0.546