Supplementary Materials

Socio-economic predictors of Inuit hunting choices and their implications for climate change adaptation

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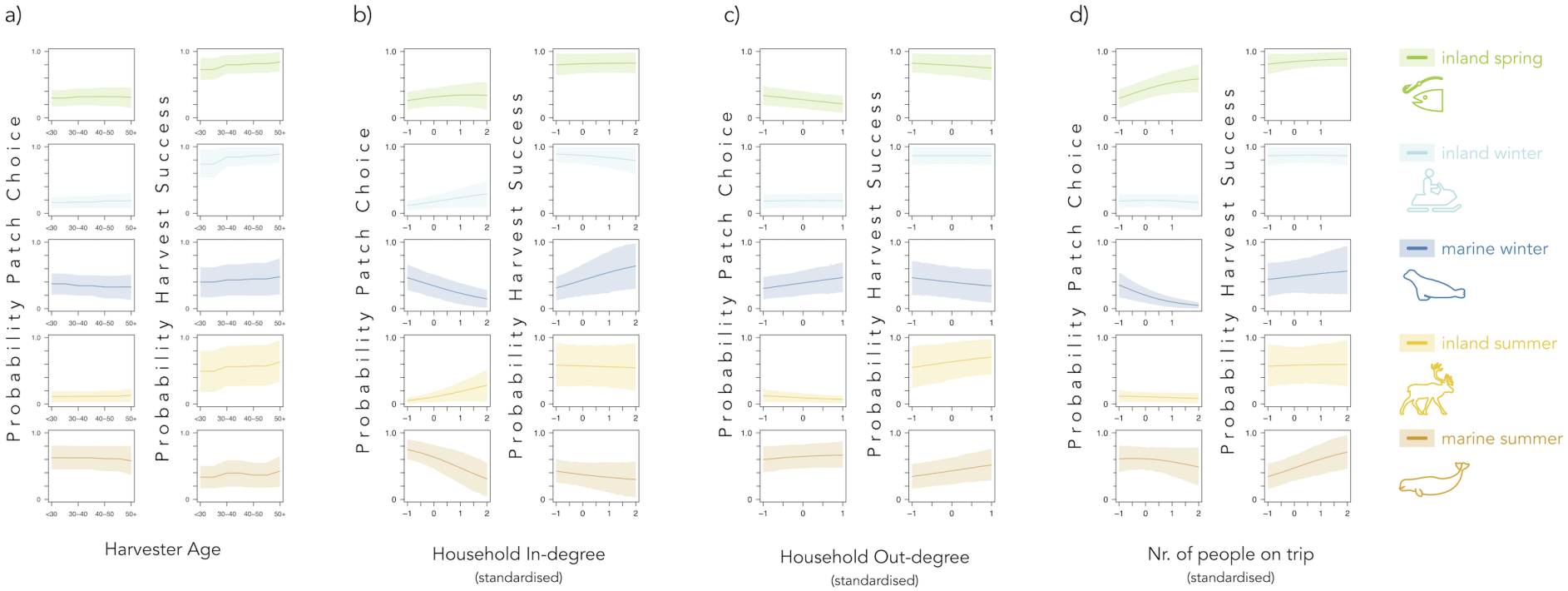

Figure S1: Probability of patch choice (left) and harvest success (right panel, respectively), as a function of standarised covariates. Posterior distributions (mean and 89% highest posterior density) for the probability of patch choice and within-patch success as a function of a) harvester's age, b) household in-degree, c) household out-degree, and d) number of people on the foraging trip. In each panel, the covariate of interest is standardised, with its range of values matching observed value ranges. Data are shown for a male harvester with an average income, age is set to 40-50 years in panels b) to d), the number of giving or receiving ties in the food sharing network (i.e., out-degree or in-degree) are set to average values respectively, and the number of people on the harvest trip is set to one in panels a) to c). Only the most common patch types are shown.

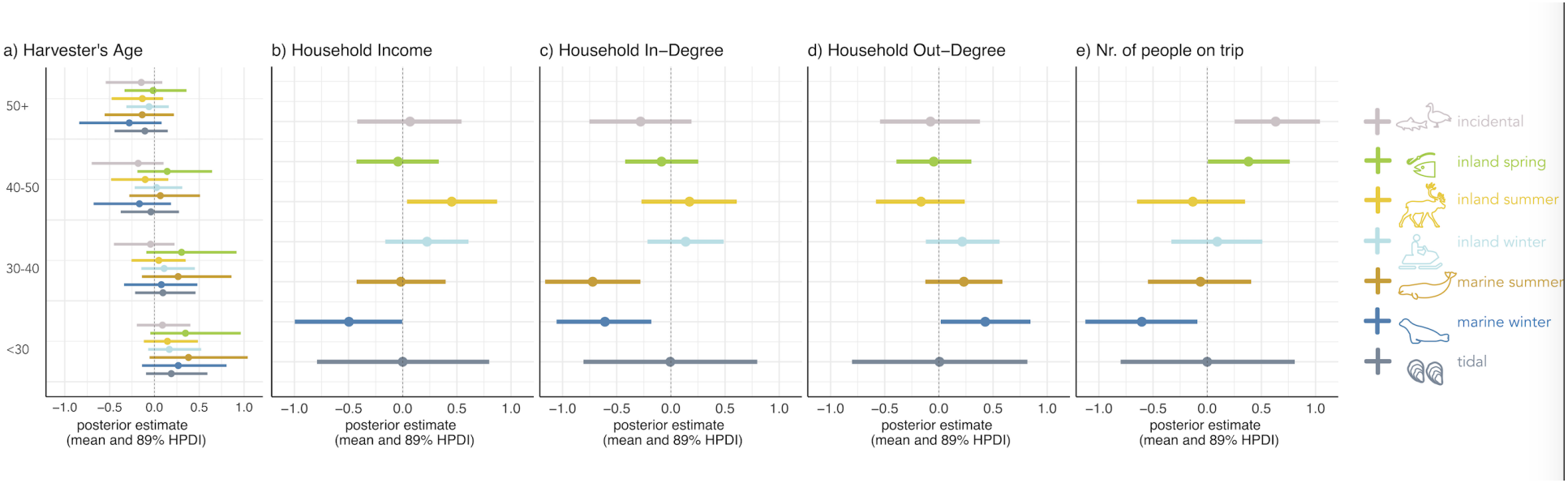

Figure S2: Effects of covariates on patch choice, by patch type. Posterior distributions (mean and 89% highest posterior density interval; HPDI) for the probability of patch choice as a function of a) harvester's age, and standardised effects of b) household income, c) household in-degree, d) household out-degree, and e) number of people attending the foraging trip.

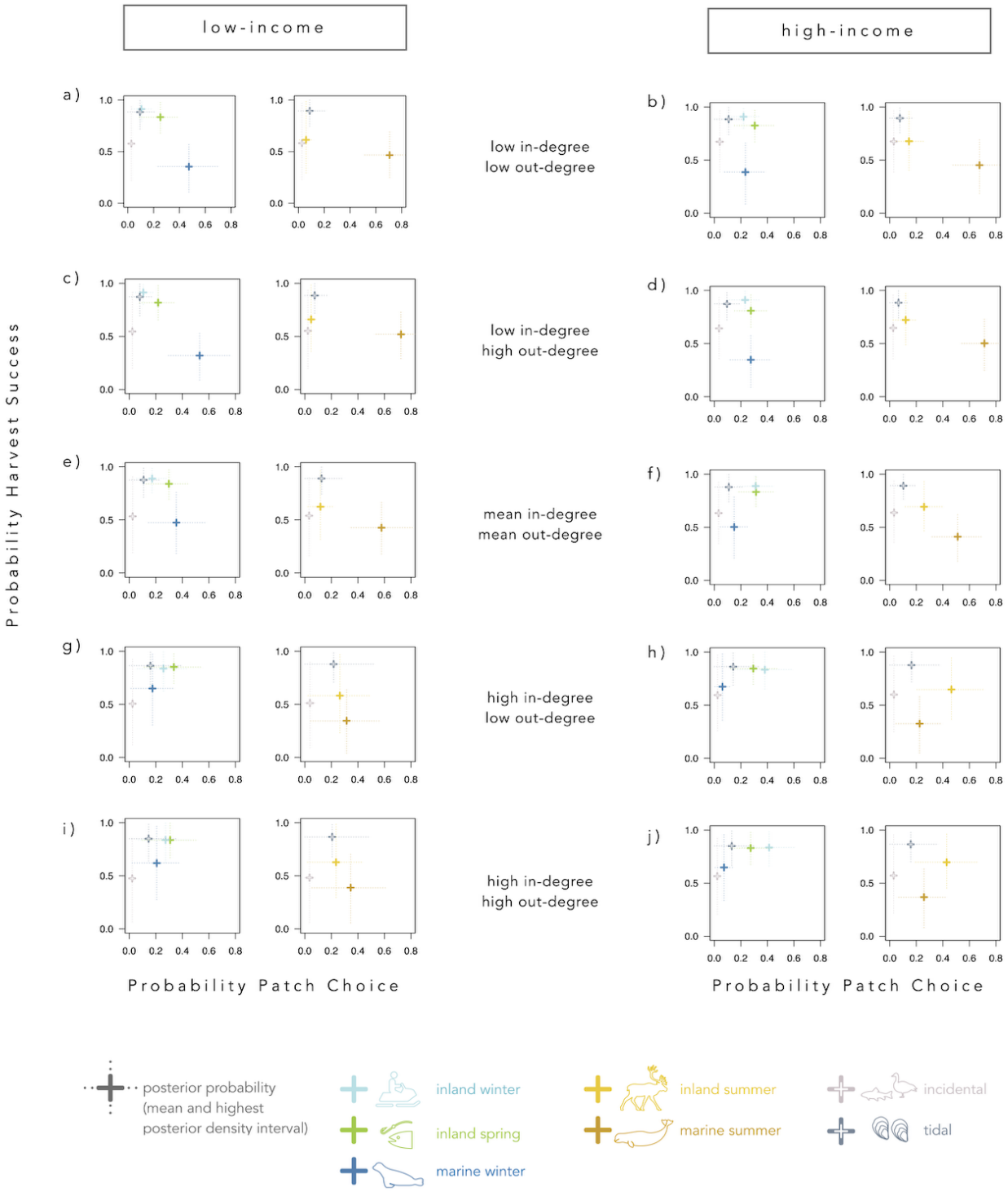

Figure S3: Posterior predictive probabilities of patch choice and within-patch success for 40–50-year-old male harvesters who differ in their income and number of incoming and outgoing food sharing ties. The combinations of socio-economic traits are hypothetical and the profiles differ in how common they are among Kangiqsujuarmiut; people with profiles represented in a) and j) are more common in our data, whereas b) and i) are less likely. Patches are colour-coded by season, in the same way as in Figure 3. Shown are the mean and the 89% highest posterior density interval of the posterior distributions. For patch choice, the mean of the prior predictive distribution is 0.14 (0.89% interval: 0.05–0.24), and for harvest success, the mean of the prior predictive distribution is 0.50 (0.89% interval: 0.31–0.69).

Table S1: Posterior estimates of covariate effects (mean and 89% confidence interval) on the probability of patch choice. Intercepts are given by season (su: ice-free, wi: snow and ice) and gender (f: female, m: male).

Counfound	**Patch Category**	**Mean**	**SD**	**5.5%**	**94.5%**
intercept wi, m	incidental	-0.56	0.36	-1.14	0.01
intercept wi, f	incidental	-0.22	0.43	-0.92	0.47
intercept su, m	incidental	-0.52	0.40	-1.16	0.11
intercept su, f	incidental	-0.22	0.42	-0.91	0.44
intercept wi, m	inland spring	1.54	0.31	1.02	2.00
intercept wi, f	inland spring	1.43	0.37	0.84	2.01
intercept su, m	inland spring	-0.78	0.40	-1.45	-0.15
intercept su, f	inland spring	-0.65	0.42	-1.32	0.01
intercept wi, m	inland summer	-1.00	0.38	-1.62	-0.39
intercept wi, f	inland summer	-0.43	0.44	-1.14	0.26
intercept su, m	inland summer	0.65	0.34	0.11	1.18
intercept su, f	inland summer	0.09	0.39	-0.54	0.72
intercept wi, m	inland winter	1.33	0.27	0.90	1.75
intercept wi, f	inland winter	0.46	0.39	-0.17	1.07
intercept su, m	inland winter	-0.79	0.40	-1.44	-0.16
intercept su, f	inland winter	-0.64	0.42	-1.32	0.01
intercept wi, m	marine summer	-1.12	0.38	-1.74	-0.52
intercept wi, f	marine summer	-0.44	0.43	-1.13	0.25
intercept su, m	marine summer	2.17	0.31	1.65	2.65
intercept su, f	marine summer	0.53	0.39	-0.09	1.15
intercept wi, m	marine winter	0.94	0.30	0.47	1.43
intercept wi, f	marine winter	-0.45	0.43	-1.15	0.24
intercept su, m	marine winter	-0.87	0.40	-1.51	-0.23
intercept su, f	marine winter	-0.47	0.43	-1.16	0.22
intercept wi, m	tidal	-0.00	0.50	-0.80	0.79
intercept wi, f	tidal	-0.00	0.50	-0.80	0.79
intercept su, m	tidal	0.00	0.49	-0.79	0.79
intercept su, f	tidal	-0.00	0.50	-0.80	0.80
income	incidental	0.07	0.30	-0.42	0.54
income	inland spring	-0.04	0.24	-0.43	0.33
income	inland summer	0.45	0.26	0.04	0.87
income	inland winter	0.23	0.24	-0.16	0.61
income	marine summer	-0.02	0.26	-0.43	0.40
income	marine winter	-0.50	0.31	-1.00	-0.00
income	tidal	-0.00	0.50	-0.79	0.80

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Table S1 – continued from previous page.

Counfound	Patch Category	Mean	SD	5.5%	94.5%
age <30	incidental	0.09	0.29	-0.39	0.52
age 30-40	incidental	-0.04	0.32	-0.67	0.30
age 40-50	incidental	-0.18	0.37	-0.94	0.15
age 50+	incidental	-0.15	0.30	-0.73	0.16
age <30	inland spring	0.35	0.42	-0.09	1.15
age 30-40	inland spring	0.30	0.41	-0.15	1.08
age 40-50	inland spring	0.14	0.34	-0.27	0.81
age 50+	inland spring	-0.01	0.30	-0.44	0.52
age <30	inland summer	0.14	0.28	-0.24	0.61
age 30-40	inland summer	0.05	0.27	-0.40	0.45
age 40-50	inland summer	-0.10	0.28	-0.64	0.23
age 50+	inland summer	-0.14	0.26	-0.63	0.17
age <30	inland winter	0.17	0.26	-0.15	0.65
age 30-40	inland winter	0.11	0.26	-0.24	0.58
age 40-50	inland winter	0.02	0.23	-0.31	0.43
age 50+	inland winter	-0.06	0.22	-0.41	0.26
age <30	marine summer	0.38	0.45	-0.11	1.25
age 30-40	marine summer	0.27	0.41	-0.22	1.04
age 40-50	marine summer	0.07	0.32	-0.38	0.66
age 50+	marine summer	-0.14	0.34	-0.73	0.34
age <30	marine winter	0.27	0.40	-0.26	0.99
age 30-40	marine winter	0.08	0.34	-0.50	0.61
age 40-50	marine winter	-0.17	0.36	-0.86	0.27
age 50+	marine winter	-0.28	0.40	-1.05	0.14
age <30	tidal	0.19	0.32	-0.19	0.76
age 30-40	tidal	0.10	0.31	-0.35	0.61
age 40-50	tidal	-0.04	0.30	-0.54	0.40
age 50+	tidal	-0.11	0.28	-0.60	0.26
in-degree	incidental	-0.28	0.29	-0.75	0.19
in-degree	inland spring	-0.09	0.21	-0.42	0.25
in-degree	inland summer	0.17	0.28	-0.27	0.61
in-degree	inland winter	0.14	0.22	-0.22	0.49
in-degree	marine summer	-0.72	0.28	-1.16	-0.28
in-degree	marine winter	-0.61	0.27	-1.05	-0.18
in-degree	tidal	-0.01	0.50	-0.81	0.80
out-degree	incidental	-0.08	0.29	-0.54	0.38
out-degree	inland spring	-0.05	0.22	-0.39	0.30
out-degree	inland summer	-0.17	0.26	-0.58	0.24
out-degree	inland winter	0.22	0.21	-0.12	0.56
out-degree	marine summer	0.23	0.22	-0.12	0.59
out-degree	marine winter	0.43	0.26	0.02	0.85
out-degree	tidal	0.01	0.51	-0.80	0.82

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Table S1 – continued from previous page.

Counfound	Patch Category	Mean	SD	5.5%	94.5%
N hunters	incidental	0.63	0.25	0.25	1.04
N hunters	inland spring	0.38	0.24	0.01	0.76
N hunters	inland summer	-0.13	0.31	-0.65	0.35
N hunters	inland winter	0.09	0.26	-0.33	0.51
N hunters	marine summer	-0.06	0.30	-0.55	0.41
N hunters	marine winter	-0.60	0.32	-1.12	-0.09
N hunters	tidal	-0.00	0.51	-0.80	0.81