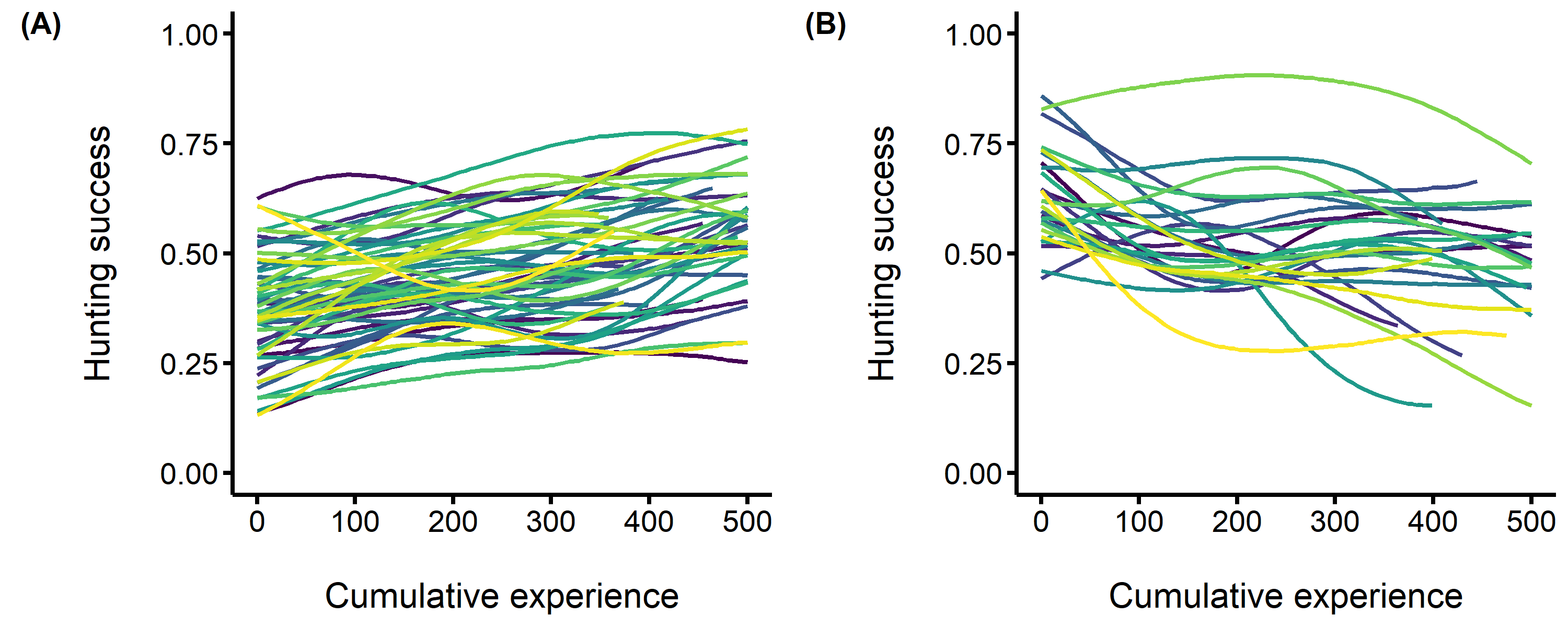
Hunting experience shapes individual foraging specialisation and predator-prey interactions in an online videogame:  
Appendix 1

Table S1. Fixed effects table on the mean part of the DHMLM comparing random groups of players with different matches played to the group presented in the main text.

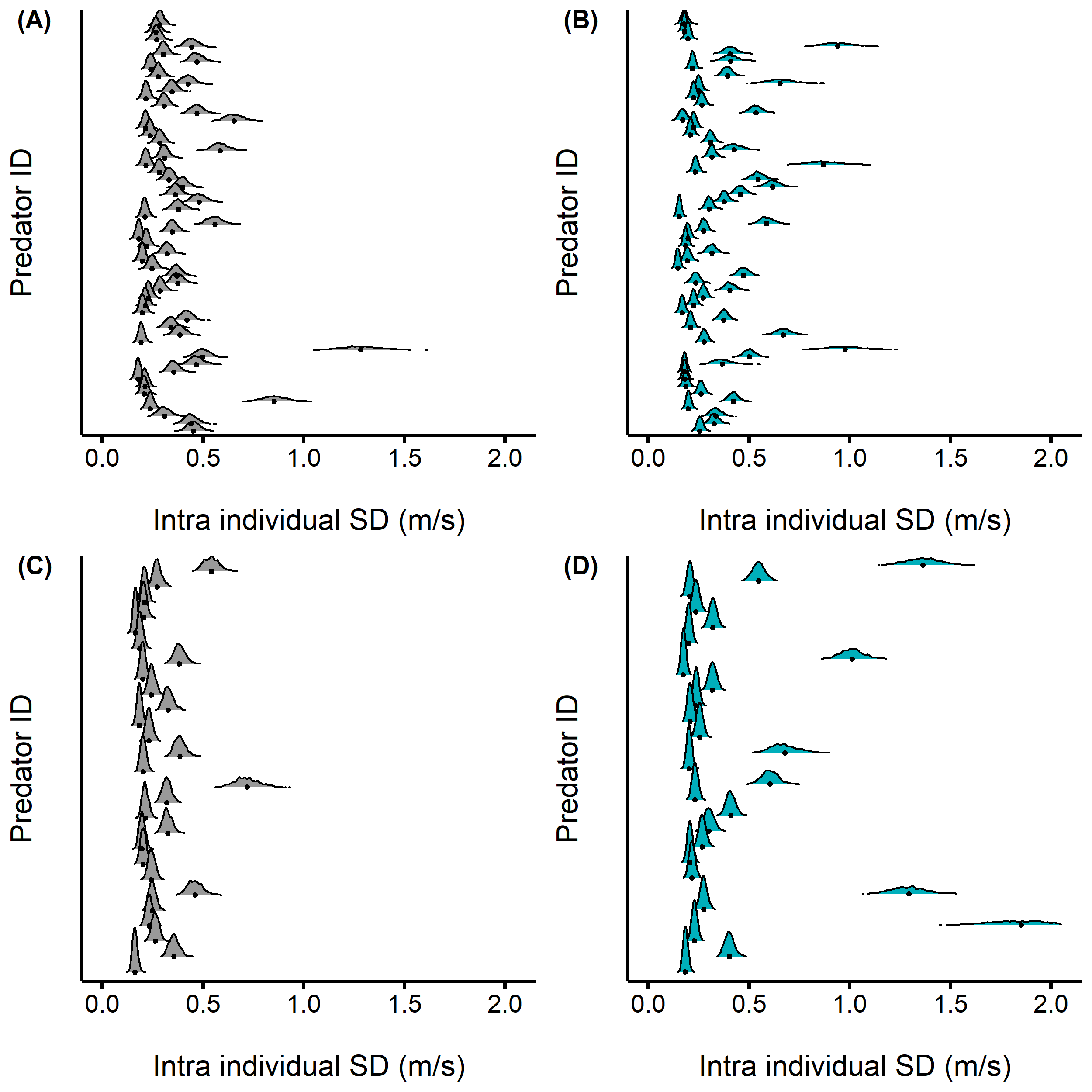
| Trait | Parameter | Value | lower 95% CI | upper 95% CI |
| --- | --- | --- | --- | --- |
| predator speed | prey rank | -0.06 | -0.07 | -0.06 |
| cumulative experience | -0.00 | -0.00 | -0.00 |
| group 1 | 3.49 | 3.36 | 3.62 |
| group 2 | 3.54 | 3.41 | 3.67 |
| group 3 | 3.55 | 3.43 | 3.69 |
| group 4 | 3.55 | 3.42 | 3.69 |
| prey speed | prey rank | -0.21 | -0.22 | -0.20 |
| cumulative experience | -0.00 | -0.00 | -0.00 |
| group 1 | 3.07 | 3.02 | 3.10 |
| group 2 | 3.08 | 3.04 | 3.12 |
| group 3 | 3.07 | 3.03 | 3.11 |
| group 4 | 3.07 | 3.03 | 3.11 |
| hunting success | game duration | 0.14 | 0.13 | 0.14 |
| cumulative experience | 0.01 | 0.01 | 0.01 |
| group 1 | -3.70 | -3.85 | -3.55 |
| group 2 | -3.66 | -3.81 | -3.50 |
| group 3 | -3.62 | -3.77 | -3.48 |
| group 4 | -3.72 | -3.90 | -3.54 |
| a Group 1: <50 matches, Group 2: between 50 and 99 matches, Group 3: between 100 and 299 matches, Group 4: > 299 (i.e. group in the main text) | | | | |

Table S2. Fixed effects table on the dispersion part of the DHMLM comparing random groups of players with different matches played to the group presented in the main text.

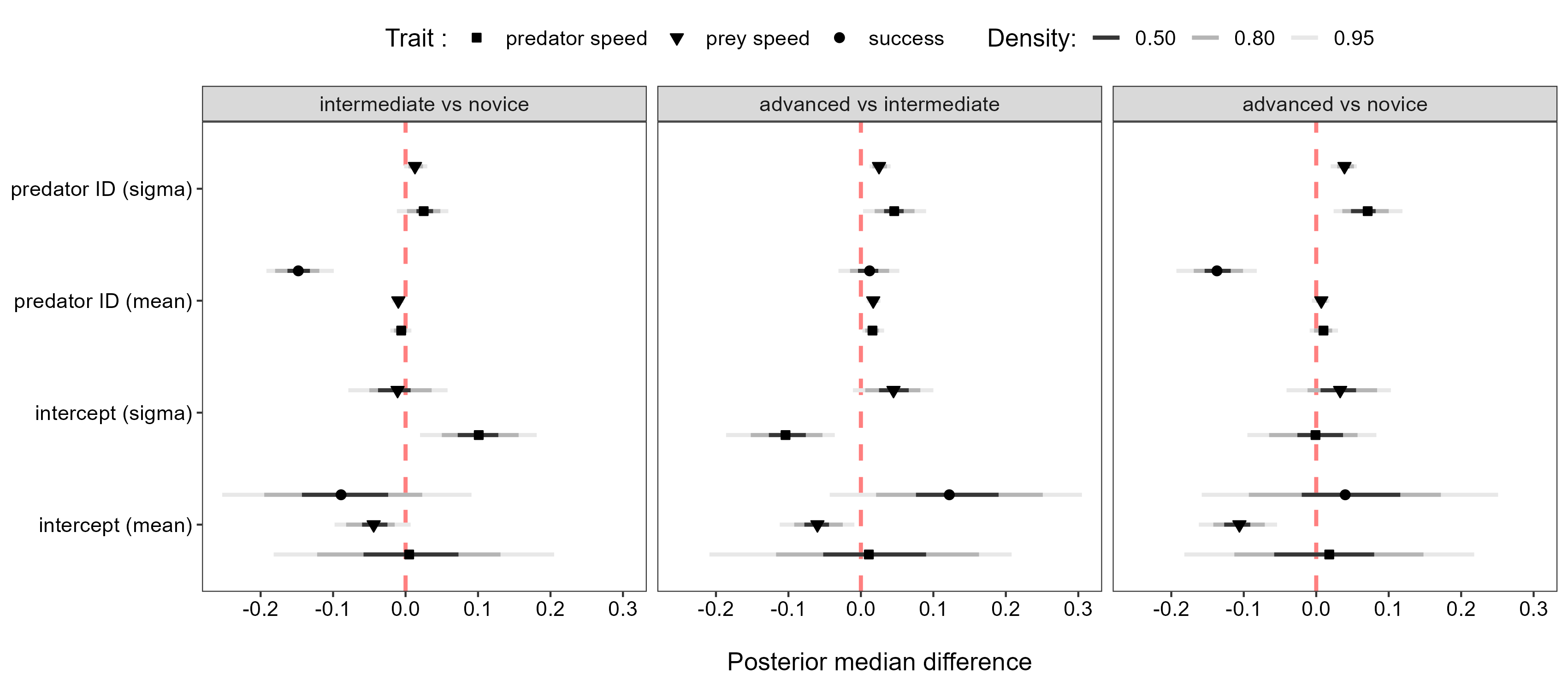
| Trait | Parameter | Value | lower 95% CI | upper 95% CI |
| --- | --- | --- | --- | --- |
| predator speed | prey rank | 0.01 | -0.01 | 0.03 |
| cumulative experience | -0.00 | -0.00 | 0.00 |
| group 1 | -1.26 | -1.35 | -1.16 |
| group 2 | -1.37 | -1.46 | -1.27 |
| group 3 | -1.41 | -1.51 | -1.30 |
| group 4 | -1.35 | -1.46 | -1.24 |
| prey speed | prey rank | 0.09 | 0.07 | 0.11 |
| cumulative experience | -0.00 | -0.00 | 0.00 |
| group 1 | -1.52 | -1.60 | -1.45 |
| group 2 | -1.54 | -1.62 | -1.46 |
| group 3 | -1.53 | -1.61 | -1.46 |
| group 4 | -1.52 | -1.60 | -1.44 |
| a Group 1: <50 matches, Group 2: between 50 and 99 matches, Group 3: between 100 and 299 matches, Group 4: > 299 (i.e. group in the main text) | | | | |



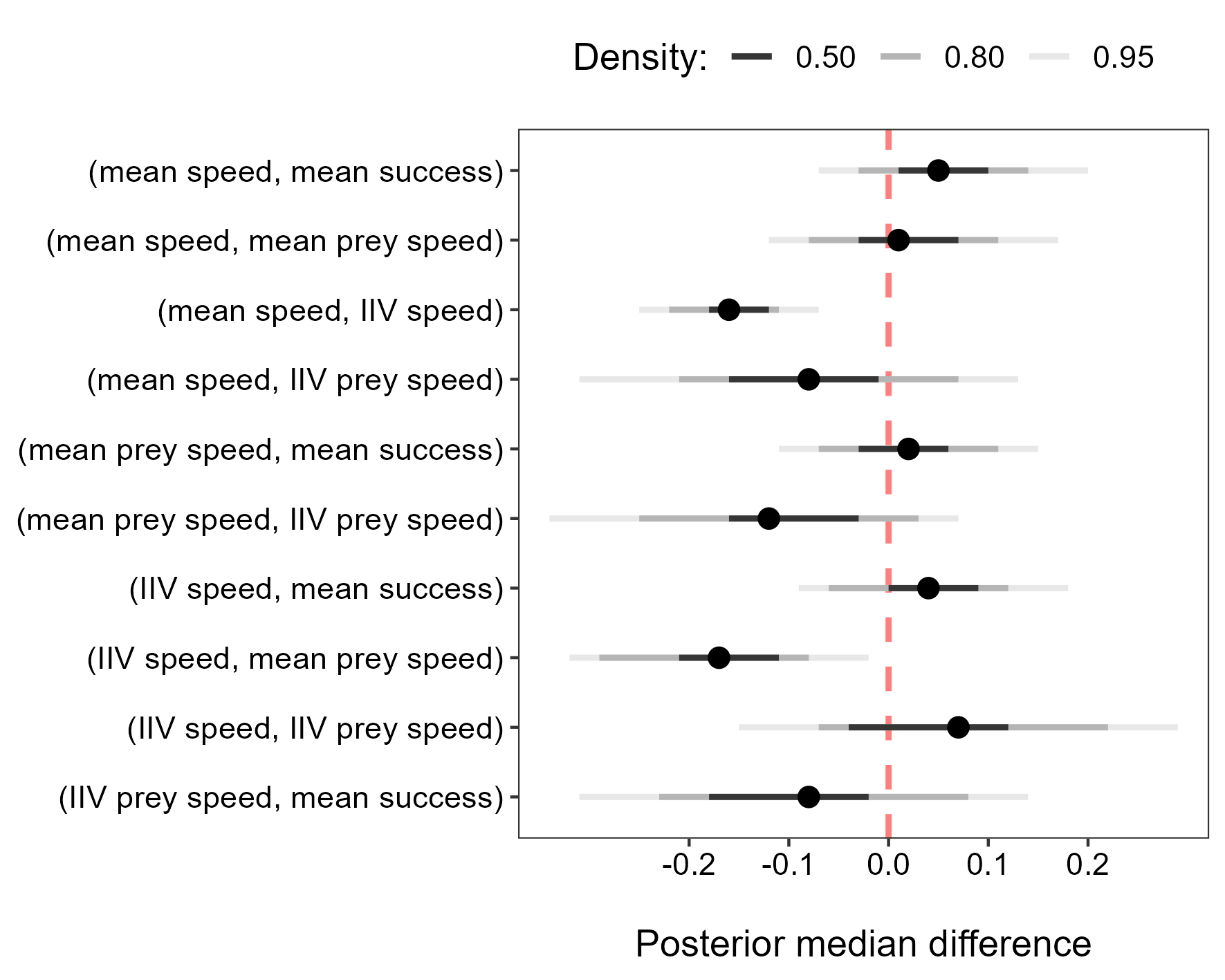
**Figure S1.** Among individual differences in the development of hunting expertise. The predators’ hunting success (i.e. the probability of capturing the four prey) is on the y axis, and the predators’ cumulative experience (i.e. the number of matches played prior to each observation) is on the x axis. Each fitted curve represents an individual predator. (A) Individuals with the greatest increase in hunting success with experience (B) Individuals with the greatest decrease in hunting success with experience.



**Figure S2.** Distribution of the intra individual behavioural variation (i.e. specialization) of predators with the greatest increase in hunting success (A and B) and greatest decrease (C and D) in hunting success when they were novices (A and C) and then (B and D) advanced hunters.



**Figure S3.** Posterior median differences and credible intervals comparing the parameter values predicted by the MDHGLM between each predator experience level. Each panel represent the experience levels that are compared. The parameter being compared is displayed on the y axis (e.g. whether the standard deviation of predator ID on the mean differs when the population was intermediate vs novice), and the difference is displayed on the x axis.



**Figure S4.** Posterior median differences and credible intervals comparing the correlations between traits when predators were advanced vs novice. The median difference is displayed on the x axis and the trait correlations being compared are displayed on the y axis.