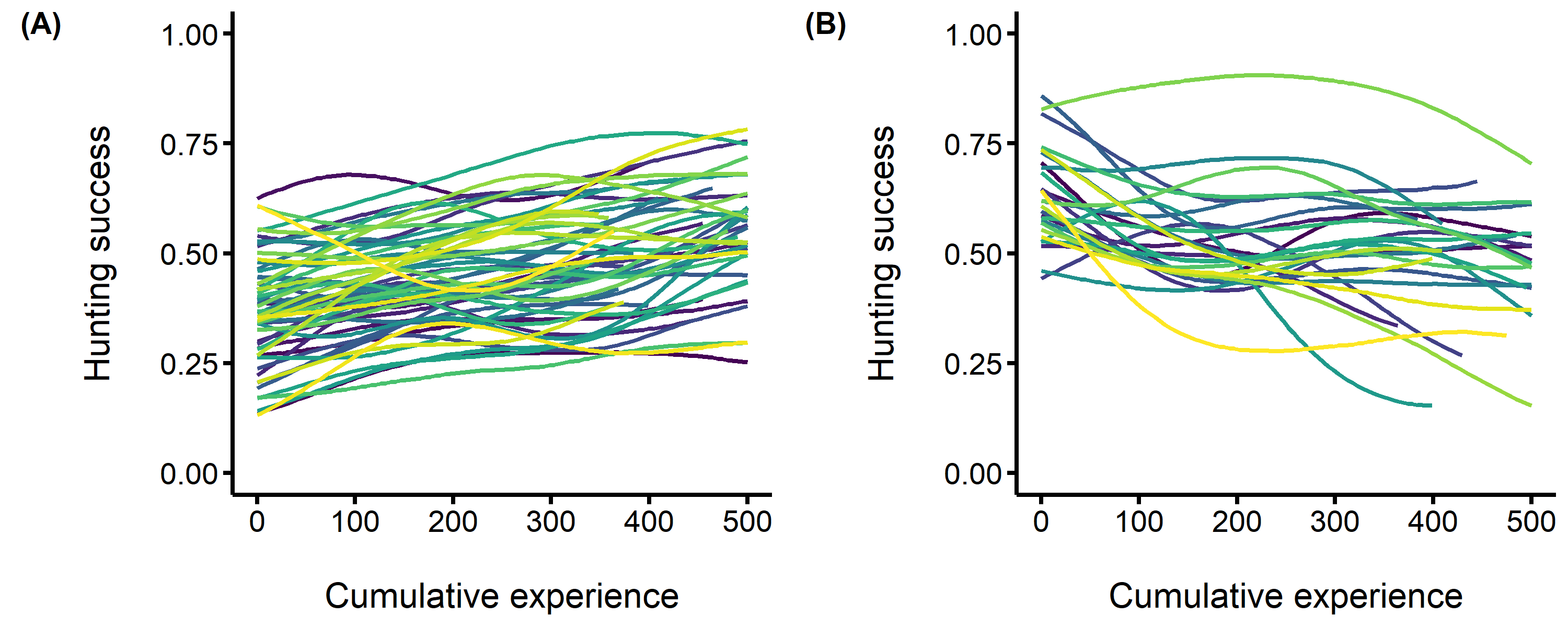
Online supporting information for  
Hunting experience shapes individual foraging specialisation and predator-prey interactions in an online videogame

Fixed effects table on the mean part of the model

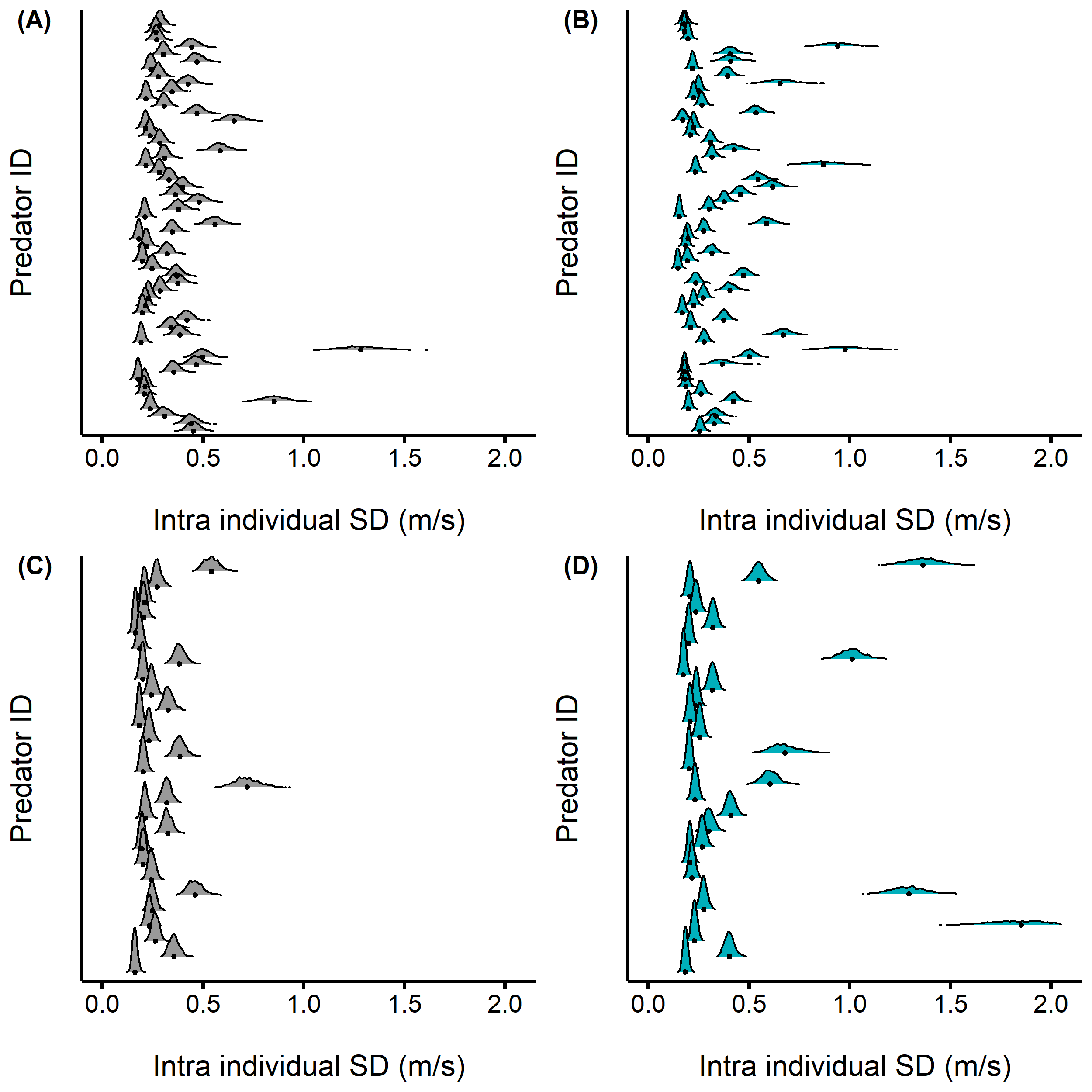
| Trait | Parameter | Value | lower 95% CI | upper 95% CI |
| --- | --- | --- | --- | --- |
| predator speed | prey rank | -0.06 | -0.07 | -0.06 |
| cumulative experience | -0.00 | -0.00 | -0.00 |
| group 1 | 3.49 | 3.36 | 3.62 |
| group 2 | 3.54 | 3.41 | 3.67 |
| group 3 | 3.55 | 3.43 | 3.69 |
| group 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 | 3.06 | 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 | 3.12 |
| hunting success | game duration | 0.14 | 0.14 | 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 | | | | |

Fixed effects table on the dispersion part of the model

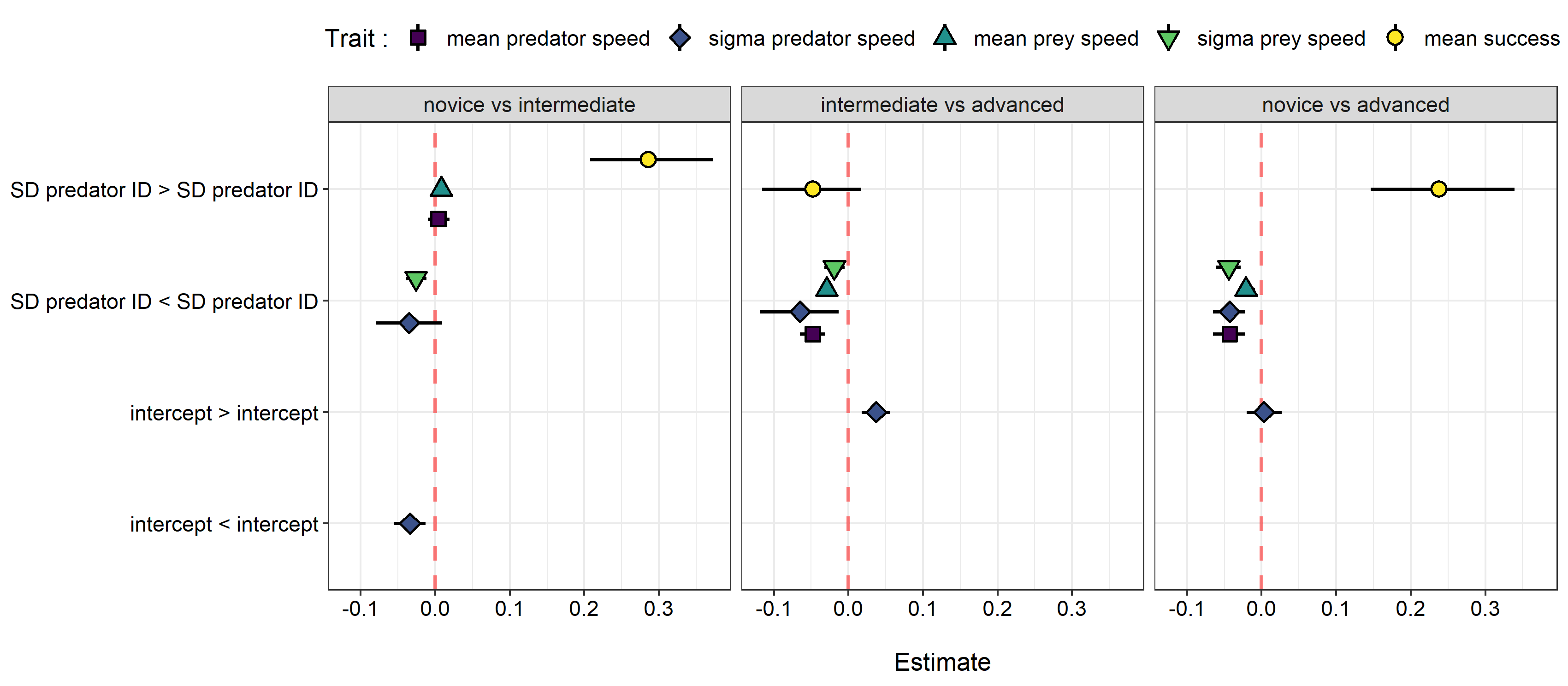
| Trait | Parameter | Value | lower 95% CI | upper 95% CI |
| --- | --- | --- | --- | --- |
| predator speed | prey rank | 0.01 | -0.01 | 0.03 |
| cumulative experience | -0.00 | -0.00 | 0.00 |
| group 1 | -1.25 | -1.35 | -1.16 |
| group 2 | -1.37 | -1.46 | -1.27 |
| group 3 | -1.41 | -1.51 | -1.30 |
| 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 | | | | |



**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 S4.** Posterior median differences and 95% credible intervals between the parameter values of each predator experience level predicted by the MDHGLM. The test is displayed on the y axis (i.e. whether the group of interest has either a greater or smaller value), and the parameter value is displayed on the x axis. Each panel represent the experience level groups that are being compared.