

Radinger J. and C. Wolter. 2015. Disentangling the effects of habitat suitability, dispersal and fragmentation on the distribution of river fishes. *Ecological Applications* 25:914-927.

Appendix C

Details on species-specific random effects of habitat suitability (HS), dispersal probability (DI) and barrier effects (BE) (*Ecological Archives* A025-055).

TABLE C1: Conditional modes of species-specific random effects (a_i : random intercept, b_{iX} : random slopes) of habitat suitability (HS) dispersal probability (DI) and barrier effects (BE) from the full random multiple GLMM without interactions (Table 4, column 2).

Species	a_i	b_{iHS}	b_{iDI}	b_{iBE}
Anguilla	0.39	-0.08	5.98	1.47
Cobienia	0.23	-1.54	50.46	1.22
Blicrkna	-0.51	0.58	-22.70	-2.02
Gobiobio	0.06	0.48	-14.73	0.12
Leucatus	-0.75	0.54	-23.43	-2.90
Leuscus	-0.35	0.55	-20.41	-1.44
Phoxinus	0.67	-0.50	21.40	2.62
Rutilus	0.05	0.68	-21.16	0.00
Tincinca	0.38	-1.14	39.10	1.67
Esoxcius	0.60	1.01	-26.73	1.98
Gastatus	0.68	-1.14	41.91	2.78
Pungtius	0.12	-0.49	16.60	0.57
Gymnrrnua	-0.95	0.44	-22.04	-3.63
Percilis	0.01	0.31	-9.53	-0.03
Lampilis	0.16	0.76	-22.56	0.41
Lampneri	-0.75	-0.13	-2.15	-2.75
Salmario	0.13	0.44	-12.62	0.39

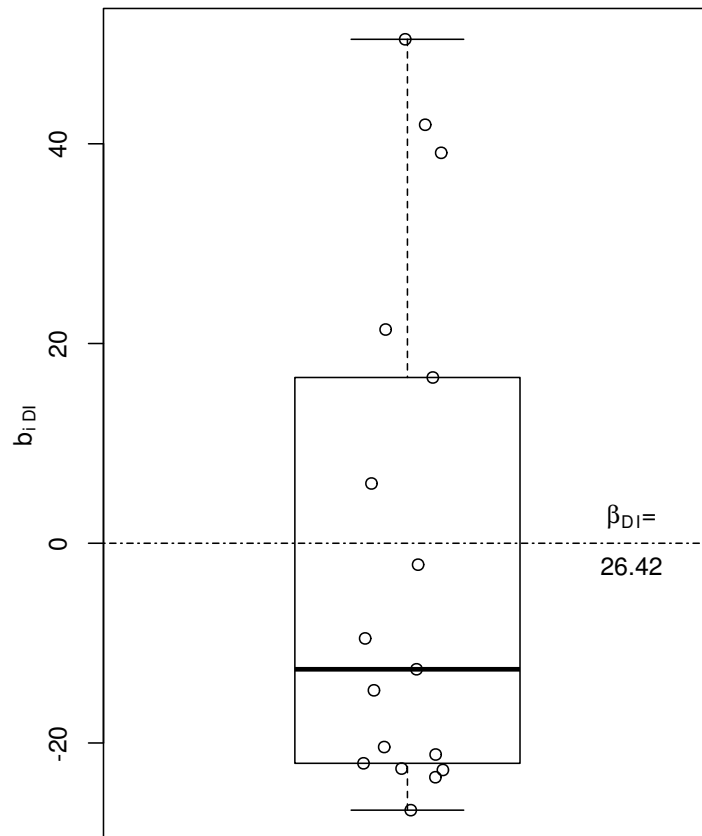


FIG. C1: Boxplot of random slopes for DI. Single species-specific slopes (b_{iDI} , open circles) show high variance from the mean random slope ($\beta_{DI}=26.42$) within species, indicating different importance of dispersal (modelled with FIDIMO) for different species. Regarding single species, an increasing total effect size ($\beta_{DI} + b_{iDI}$) refers to higher importance (odds ratio) of dispersal for a given species.