

Ecography

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Supplementary material

Appendix 1.

Table A1. Results for the best and most parsimonious Linear Mixed Model for fish size diversity excluding the reservoirs (n=301). Species diversity x ecoregion (interaction between species diversity and the factor ecoregion).

	AIC	Estimate	Std. Error	d.f.	t/F	p-value
Full model	121.33					
(Intercept)		2.67	0.47	286	5.72	<0.001***
Species diversity		0.13	0.04	286	3.16	<0.001***
Maximum depth (m)		0.09	0.06	286	1.64	0.10
Maximum temperature (°C)		-0.90	0.40	286	-2.26	<0.05*
Total phosphorus (mg . m ⁻³)		-0.05	0.05	286	-1.00	0.32
Longitude (°)		0.003	0.01	286	0.34	0.73
Non-natives species (%)		-0.07	0.14	286	-0.51	0.61
Ecoregion				286	9.87	<0.001***
Species diversity x ecoregion				286	8.64	<0.001***
Full model:						
Size diversity ~ species diversity + maximum depth + maximum temperature + total phosphorus + longitude + non-native species + ecoregion + species diversity x ecoregion						
Stepwise selection						
Model 1 = Full model except	119.45					
longitude						
Model 2 = Model 1 except total	117.71					
phosphorus						
Best model = Model 2 except	116.78					
non-natives specie						
(Intercept)		2.67	0.46	289	5.81	<0.001***
Species diversity		0.13	0.04	289	3.07	<0.01**
Maximum depth (m)		0.12	0.05	289	2.53	<0.05*
Maximum temperature (°C)		-0.93	0.39	289	-2.37	<0.05*
Ecoregion				289	9.90	<0.001***
Species diversity x ecoregion				289	8.78	<0.001***

Best model:

Size diversity ~ species diversity + maximum depth + maximum temperature + ecoregion +
species diversity x ecoregion

Table A2. Comparison of mean body size (cm) for some widely distributed species between Turkey (Northern Anatolia and Western Anatolia ecoregions) and the European ecoregions.

	Mean size (cm)		Max. of mean size (cm)	
	Turkey	Rest of lakes	Turkey	Rest of lakes
<i>Abramis brama</i>	9.5	18.6	10.1	32.3
<i>Alburnus alburnus</i>	9.7	12.1	11.9	15.5
<i>Perca fluviatilis</i>	9.3	12.8	17.5	21.6
<i>Sander lucioperca</i>	16.5	19.9	17.1	40.7
<i>Scardinius erythrophthalmus</i>	9.1	17.7	23.0	29.7

Figure A1. Box plots showing the average number of species overlapping in each ecoregion. The grey horizontal lines are the median, the box encloses are the 25th and 75th percentiles, the whiskers are the 5th and 95th percentiles and the black dots represent the outliers. Different letters indicate significant values ($p < 0.05$) according to the Tukey post-hoc test whereas the same letters indicate that there were no significant differences between the pair of ecoregions.

