

Ecography

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of species traits. – Ecography doi: 10.1111/ecog.00662

**Supplementary material**

## Supplementary material Appendix 1

**Table A1.** Trait values and levels of temperature synchrony (TEMP) for the 27 fish species. Trait descriptions are given in Table A2. Temperature synchrony was measured as for species synchrony i.e., as the mean of all the CCCs computed between pairs in the time series.

Species	TEMP	FH	FD	ST	LS	MA	LL	PC	HA	IP	UTT	FE	ED (mm)	SH	SW	BL (mm)
<i>Abramis brama</i>	0.81	1	3	1	3	4	2	1	2	2	24	50000	2.7	5.2	0.31	750
<i>Alburnoides bipunctatus</i>	0.70	2	2	2	1	2	3	1	2	2	19	1500	4.5	4.21	0.38	325
<i>Alburnus alburnus</i>	0.80	2	3	2	1	2	2	1	2	2	30	2000	1	2.41	0.42	150
<i>Ameiurus melas</i>	0.87	1	2	1	2	2	1	3	1	2	24	150	1.3	5.83	0.17	60
<i>Barbatula barbatula</i>	0.69	1	3	2	1	2	1	1	1	3	20	300	1.7	4.5	0.19	60
<i>Barbus barbus</i>	0.77	1	3	1	3	5	1	1	2	2	26	500	2.5	4.38	0.39	125
<i>Blicca bjoerkna</i>	0.79	1	2	2	2	3	2	1	1	1	27	20000	2.25	3.3	0.32	275
<i>Carassius carassius</i>	0.82	1	2	2	2	3	1	1	1	1	25	100000	1	4	0.28	125
<i>Chondrostoma nasus</i>	0.75	1	2	1	2	3	1	1	2	2	28	5000	1	6.5	0.58	100
<i>Cottus gobio</i>	0.79	1	3	1	1	2	3	3	1	3	32	800000	1.4	3.13	0.42	500
<i>Cyprinus carpio</i>	0.83	1	2	2	3	4	2	1	2	1	27	160000	1.5	2.71	0.42	325
<i>Esox lucius</i>	0.79	2	5	1	3	3	3	1	1	2	24	10000	2.2	5.23	0.3	500
<i>Gasterosteus aculeatus</i>	0.78	2	3	2	1	1	1	3	2	2	30	3000	1.7	5.72	0.28	125
<i>Gobio gobio</i>	0.78	1	3	2	1	2	2	1	2	3	26	300000	0.9	4	0.46	300
<i>Gymnocephalus cernua</i>	0.85	1	4	2	1	2	1	1	1	2	30	100	2.5	3.64	0.28	65
<i>Lepomis gibbosus</i>	0.85	2	3	2	2	2	1	3	2	1	25	109000	1.5	3.23	0.27	250
<i>Leuciscus leuciscus</i>	0.78	2	2	1	2	3	3	1	2	3	26	100000	1.75	2.81	0.33	400
<i>Perca fluviatilis</i>	0.80	2	4	1	3	3	2	1	1	3	30	5750	1.55	4.92	0.36	135
<i>Phoxinus phoxinus</i>	0.78	2	3	2	1	2	2	1	1	2	25	150000	1.4	2.95	0.36	225
<i>Pungitius pungitius</i>	0.86	2	3	1	1	1	1	3	2	2	25	10000	1.75	4.87	0.32	250
<i>Rhodeus sericeus</i>	0.78	2	2	2	1	1	3	2	2	2	25	50000	1.35	3.66	0.29	275
<i>Rutilus rutilus</i>	0.84	2	2	1	2	2	2	1	2	2	18	6000	2	4.95	0.29	150
<i>Salmo trutta fario</i>	0.87	2	4	1	2	3	3	2	1	3	24	100000	2.3	5.03	0.32	300
<i>Scardinius erythrophthalmus</i>	0.81	2	2	2	3	3	2	1	2	1	24	1500	2	3.58	0.31	110
<i>Squalius cephalus</i>	0.77	2	2	2	2	3	3	1	2	1	24	125000	1.5	3.97	0.36	400

<i>Telestes souffia</i>	0.76	2	3	1	2	3	2	1	2	1	25	1000	1.5	5.26	0.32	80
<i>Tinca tinca</i>	0.83	1	2	2	2	3	2	1	1	1	35	5000	1.45	4.43	0.37	250

**Table A2.** Description of the 15 traits used.

Trait	Code	Modality	Description
Diet	FD	1	Omnivorous
		2	Invertivorous
		3	Invertivorous-carnivorous
		4	Piscivorous
Body length	BL	quantitative	Total body length from the mouth to the fork of the tail (mm)
Larval length	LL	1	≤ 4.2mm
		2	4.2-6.3mm
		3	> 6.3mm
Shape factor	SH	quantitative	Ratio of total body length to maximum body depth
Swimming factor	SW	quantitative	Ratio of the minimum depth of the caudal peduncle to the maximum caudal fin depth
Feeding habitat	FH	1	Benthivorous
		2	Water column
Resting habitat	HA	1	Demersal
		2	Benthopelagic
		3	Pelagic
Absolute fecundity	FE	quantitative	Number of oocytes
Spawning times	ST	1	Once a year
		2	Several times a year
Egg diameter	ED	quantitative	At hatching (mm)
Life span	LS	1	< 8 years
		2	8-15 years
		3	> 15 years
Female maturity	MA	1	≤ 2 years
		2	2-3 years
		3	3-4 years

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		4	4-5 years
		5	$\geq 5$ years
Parental care	PC	1	No protection
		2	No protection, but with nester or egg hiders
		3	Nester or egg hiders
Incubation period	IP	1	$\leq 7$ days
		2	7-14 days
		3	$> 14$ days
Upper thermal optimum	UTT	quantitative	Optimum maximum temperature ( $^{\circ}\text{C}$ )

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