

European catfish (*Silurus glanis*) as a freshwater apex predator drives ecosystem via its diet adaptability

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Table S1. Regression equations for back-calculation of total length (L_T ; cm) of individual prey fish species from recovered diagnostic bones (bone dimension in mm). PhT=pharyngeal tip, DeL=dental length, MxL=maxilar length, PpL=preopercular length and PpG=preopercular gape.

Family / species	Bone measurement	Equation, L_T =	Reference*
Cyprinidae			
Roach <i>Rutilus rutilus</i>	PhT	$1.5658\text{PhT}+0.2805$	Čech & Vejřík (2011)
Rudd <i>Scardinius erythrophthalmus</i>	PhT	$1.4894\text{PhT}+0.6513$	Čech et al. (2008)
Gudgeon <i>Gobio gobio</i>	PhT	$1.9278\text{PhT}-0.0653$	Čech & Vejřík (2011)
European Chub <i>Squalius cephalus</i>	PhT	$1.3733\text{PhT}-0.025$	Čech et al. (2008)
Common Dace <i>Leuciscus leuciscus</i>	PhT	$1.8579\text{PhT}-0.9119$	Čech & Vejřík (2011)
Bleak <i>Alburnus alburnus</i>	PhT	$2.1733\text{PhT}+0.1657$	Čech et al. (2008)
Belica <i>Leucaspius delineatus</i>	PhT	$1.6855\text{PhT}+0.1111$	Čech & Čech (2013)
Asp <i>Aspius aspius</i>	PhT	$1.4942\text{PhT}+1.1551$	Čech et al. (2008)
Common Bream <i>Abramis brama</i>	PhT	$1.7671\text{PhT}+0.244$	Čech et al. (2008)
White Bream <i>Blicca bjoerkna</i>	PhT	$1.7206\text{PhT}+1.7419$	Čech et al. (2008)
Nase <i>Chondrostoma nasus</i>	PhT	$1.9032\text{PhT}+2.3628$	M. Čech, unpubl.data
Tench <i>Tinca tinca</i>	PhT	$1.3262\text{PhT}-0.3947$	Čech et al. (2008)
Common Carp <i>Cyprinus carpio</i>	PhT	$1.1102\text{PhT}-2.8219$	Čech et al. (2008)
Prussian Carp <i>Carassius auratus</i>	PhT	$1.0521\text{PhT}+0.9672$	Čech & Čech (2017)
Stone Moroko <i>Pseudorasbora parva</i>	PhT	$2.3262\text{PhT}-0.2566$	Čech & Čech (2013)
Eurasian minnow <i>Phoxinus phoxinus</i>	PhT	$1.5703\text{PhT}+0.5619$	M. Čech, unpubl.data
Anquillidae			
European eel <i>Anguilla anguilla</i>	DeL	$1.7691\text{DeL}+8.8001$	Čech & Vejřík (2011)
Salmonidae			
Trout spp.	MxL	$1.0755\text{MxL}+1.8713$	Čech & Vejřík (2011)
	DeL	$1.3191\text{DeL}+2.0274$	Čech & Vejřík (2011)
Esocidae			
Northern Pike <i>Esox lucius</i>	DeL	$0.6981\text{DeL}+3.9125$	Čech et al. (2008)
Cottidae			
Bullhead <i>Cottus gobio</i>	PpL	$1.203\text{PpL}-0.9609$	Čech & Vejřík (2011)

Family / species	Bone measurement	Equation, $L_T =$	Reference
Percidae			
European Perch <i>Perca fluviatilis</i>	DeL	$1.1217DeL + 1.7753$	Čech et al. (2008)
	PpG	$0.8821PpG + 0.9797$	Čech et al. (2008)
Ruffe <i>Gymnocephalus cernuus</i>	DeL	$1.6758DeL - 0.1998$	Čech et al. (2008)
	PpG	$0.7923PpG + 0.4587$	Čech et al. (2008)
Zander <i>Sander lucioperca</i>	DeL	$1.0821DeL - 1.17$	Čech et al. (2008)
	PpG	$1.1815PpG - 1.2726$	Čech et al. (2008)

*For the methods of measurement, see the following studies: 1) Čech, M. & Čech, P. Effect of brood size on food provisioning rate in Common Kingfishers *Alcedo atthis*. *Ardea* (2017, in press). 2) Čech, M. & Čech, P. The role of floods in the lives of fish-eating birds: Predator loss or benefit? *Hydrobiologia* 717(1), 203-211 (2013). 3) Čech, M. & Vejřík, L. Winter diet of great cormorant (*Phalacrocorax carbo*) on the River Vltava: estimate of size and species composition and potential for fish stock losses. *Folia Zool.* 60, 129–142 (2011). 4) Čech, M., Čech, P., Kubečka, J., Prchalová, M. & Draštík, V. Size selectivity in summer and winter diets of great cormorant (*Phalacrocorax carbo*): Does it reflect season-dependent difference in foraging efficiency? *Waterbirds* 31(3): 438-447 (2008).