

Supplementary Table S1. Details of the stomiiform fishes analysed in this study. Longitude (lon) and latitude (lat) of collection, and standard length (SL, mm) of specimens are provided. One individual was analysed for most species, except for *S. boa* (pool of 3 individuals), *P. polli* and *C. pseudopallida* (pools of 2 individuals each). Species vertical depth range (layer, m) and migration habits (M: migrant; NM: non-migrant; PM: partial migrant) were obtained from Olivar et al. (2017), own unpublished data, and FishBase. Main diet according to FishBase and additional references.

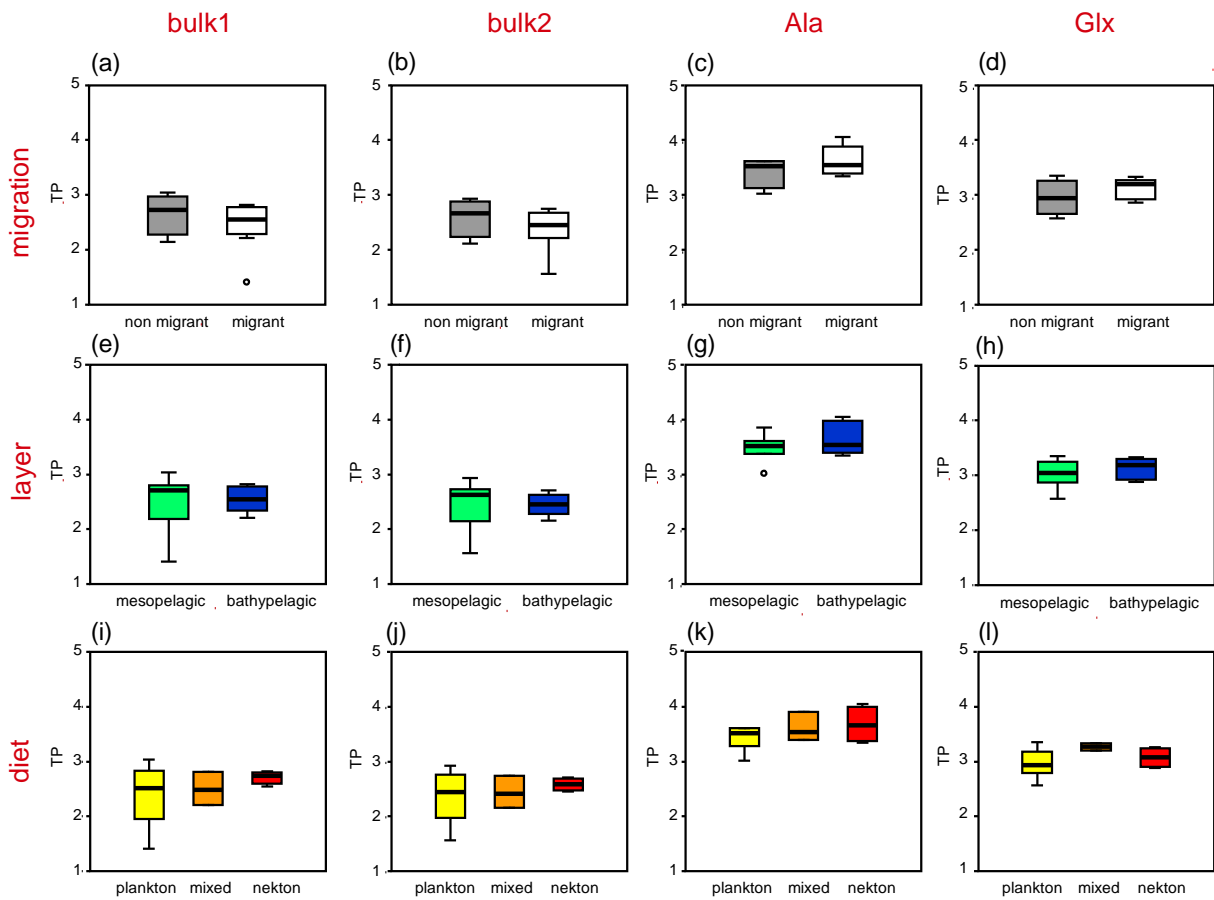
Species	Family	lon	lat	depth layer	SL	migration habit	diet†	diet
<i>Cyclothone acclinidens</i>	Gonostomatidae	-21.3721	14.3818	300-800	31	NM	plankton ¹⁻³	zooplankton (mainly copepods and debris)
<i>Cyclothone livida</i>	Gonostomatidae	-21.3721	14.3818	400-800	31	NM	no data	zooplankton ?
<i>Cyclothone pseudopallida</i>	Gonostomatidae	-22.6762	10.8212	300-800	31	NM	plankton ^{4,5}	zooplankton (mainly copepods)
<i>Sigmops elongatus</i>	Gonostomatidae	-17.3951	25.3535	100-1200	111	PM	nekton ⁵⁻⁸	midwater fish and crustaceans
<i>Vinciguerrria nimbaria</i>	Phosichthyidae	-23.9500	7.2500	0-800	48	M	plankton ^{6,8-10}	zooplankton (mainly copepods)
<i>Argyropelecus hemigymnus</i>	Sternoptychidae	-21.3722	14.5105	0-1000	30	PM	mixed ^{2,4,5,8,11-13}	zooplankton (also midwater fish)
<i>Argyropelecus sladeni</i>	Sternoptychidae	-22.6762	10.8212	100-700	31	PM	plankton ^{14,15}	crustaceans
<i>Polyipnus polli</i>	Sternoptychidae	-20.1641	18.1283	200-600	35	NM	plankton ¹⁶	zooplankton (mixed crustaceans)
<i>Sternoptyx diaphana</i>	Sternoptychidae	-20.2150	18.0719	100-1200	27	PM	mixed ^{2,8,13,15,17}	zooplankton (also midwater fish)
<i>Borostomias elucens</i>	Stomiidae	-20.1641	18.1283	0-1500	98	M	nekton ¹⁸	midwater fish and crustaceans
<i>Chauliodus danae</i>	Stomiidae	-20.2150	18.0719	0-1800	152	M	nekton ^{16,19-21}	midwater fish and crustaceans
<i>Malacosteus niger</i>	Stomiidae	-22.6462	10.9406	0-1800	71	M	mixed ^{8,16,18,22,23}	zooplankton (also crustaceans and fish)
<i>Stomias boa</i>	Stomiidae	-20.1641	18.1283	0-700	91	M	nekton ^{11,24}	midwater fish and crustaceans

†Numbers indicate references listed below

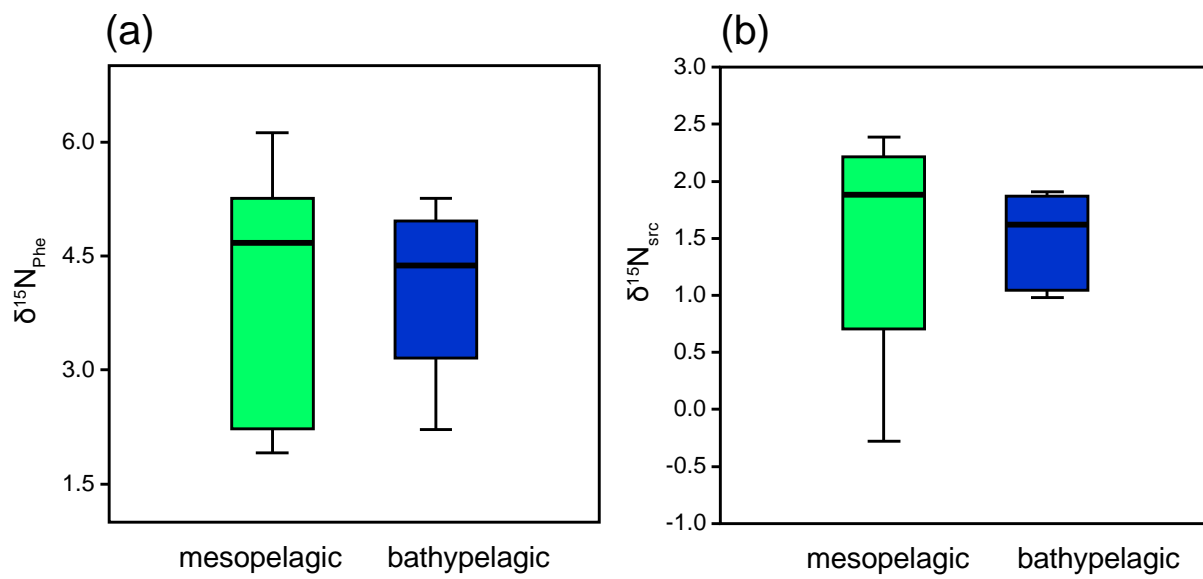
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Supplementary Figure S1. Box plots of trophic position (TP) estimates (see Table 1) of the stomiiform fishes analysed in this study grouped by migration habits (migrants and partial migrants vs. non-migrants), habitat depth layers (mesopelagic, bathypelagic), and feeding types (plankton, mixed, nekton). Each box encompasses the 25 and 75% quartiles, whereas the whiskers indicate 1.5 times the interquartile range, the horizontal line indicates the median, and circles indicate outliers (>1.5 times the interquartile range).



Supplementary Figure S2. Box plot of $\delta^{15}\text{N}$ baseline in (a) phenylalanine ($\delta^{15}\text{N}_{\text{Phe}}$) or (b) averaged source amino acids ($\delta^{15}\text{N}_{\text{src}}$) in the stomiiform fishes analysed in this study grouped by habitat depth layers. The box encompasses the 25 and 75% quartiles, the whiskers indicate 1.5 times the interquartile range, and the horizontal line indicates the median.