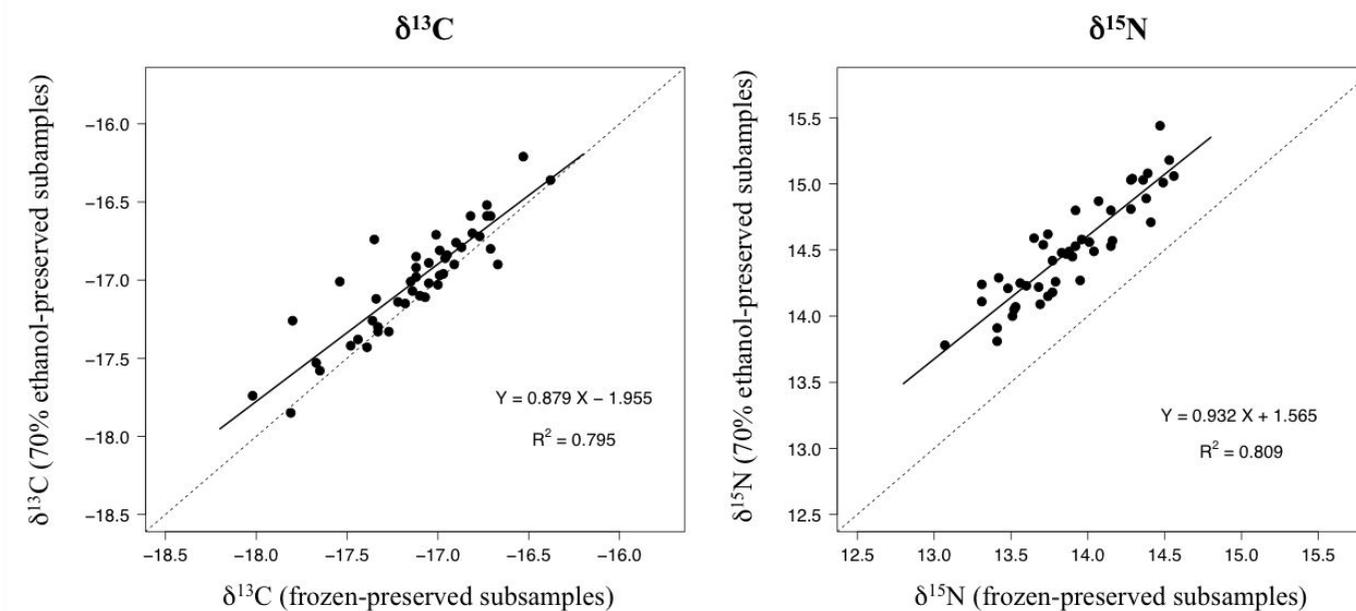
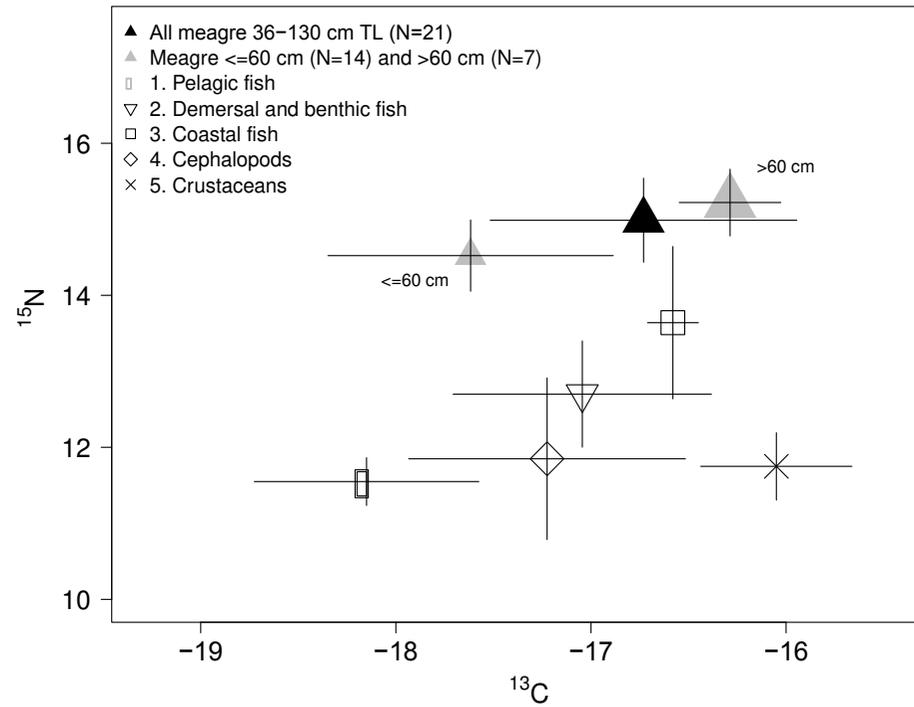


## On-line Material



**Figure S1:** Assessment of the effect of alcohol preservation (70% ethanol) on meagre muscle  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values (in ‰): relationships between  $\delta^{13}\text{C}$  (left) and  $\delta^{15}\text{N}$  values (right) obtained for 70% ethanol-preserved vs. frozen-preserved muscle subsamples from 46 juveniles individuals (32-40 cm total length, TL) that were collected in 2011 and dedicated to this assessment. For each relationship, the squared Pearson correlation coefficient is given, as well as the equation of the regression line used for further correction of meagre isotopic data for SIAR modelling (i.e. data for individuals collected in 2010 and covering a wide ranges of sizes, 36-130 cm TL). The correspondence line 1:1 is also indicated.



**Figure S2:**  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values (in ‰) of meagre and prey groups from the Bay of Biscay (Spitz et al., 2013), used for SIAR modelling. Data are mean  $\pm$  standard deviation. As prey samples were frozen-preserved (Spitz et al., 2013), meagre data presented here and used in SIAR modelling are corrected values from the alcohol preservation effect (see text and Fig. S1).

**Table S1:** Results of the statistical tests performed (Kruskal-Wallis tests followed by multiple comparison tests with Holm's adjustment method) for significant differences in the  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values of prey groups from the Bay of Biscay used in SIAR modelling (Spitz et al., 2013). Significant p-values ( $<0.05$ ) are in bold. Mean  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values  $\pm$  standard deviation (SD) of each prey group are also given in the first column.

$\delta^{13}\text{C}$ (‰) (Mean $\pm$ SD)	Kruskal-Wallis $\chi^2 = 16.6$ , df = 4, p = <b>0.002</b>					
	1. Pelagic fish	2. Demersal and benthic fish	3. Coastal fish	4. Cephalopods	5. Crustaceans	
-18.2 $\pm$ 0.6	1. Pelagic fish	—	—	—	—	—
-17.0 $\pm$ 0.7	2. Demersal and benthic fish	<b>0.008</b>	—	—	—	—
-16.6 $\pm$ 0.1	3. Coastal fish	<b>0.001</b>	0.449	—	—	—
-17.2 $\pm$ 0.7	4. Cephalopods	0.087	0.596	0.395	—	—
-16.1 $\pm$ 0.4	5. Crustaceans	<b>&lt;0.001</b>	<b>0.048</b>	0.449	<b>0.048</b>	—

$\delta^{15}\text{N}$ (‰) Mean $\pm$ SD	Kruskal-Wallis $\chi^2 = 16.0$ , df = 4, p = <b>0.003</b>					
	1. Pelagic fish	2. Demersal and benthic fish	3. Coastal fish	4. Cephalopods	5. Crustaceans	
11.6 $\pm$ 0.3	1. Pelagic fish	—	—	—	—	—
12.7 $\pm$ 0.7	2. Demersal and benthic fish	<b>0.048</b>	—	—	—	—
13.6 $\pm$ 1.0	3. Coastal fish	<b>0.001</b>	0.187	—	—	—
11.9 $\pm$ 1.1	4. Cephalopods	1.000	0.265	<b>0.011</b>	—	—
11.8 $\pm$ 0.4	5. Crustaceans	1.000	0.210	<b>0.007</b>	1.000	—