

Figure S1. Historical sampling (period 1983-2021) with the location of 239 hauls (230 OTSB-14 and 9 Beam Trawls) carried out in the Balearic Basin, from a collection of cruises obtained from different competitive projects, which covered depths between ca. 300-2300 m. This sampling allowed the calculation of CoG for decapod crustaceans. Isobaths every 100 m.

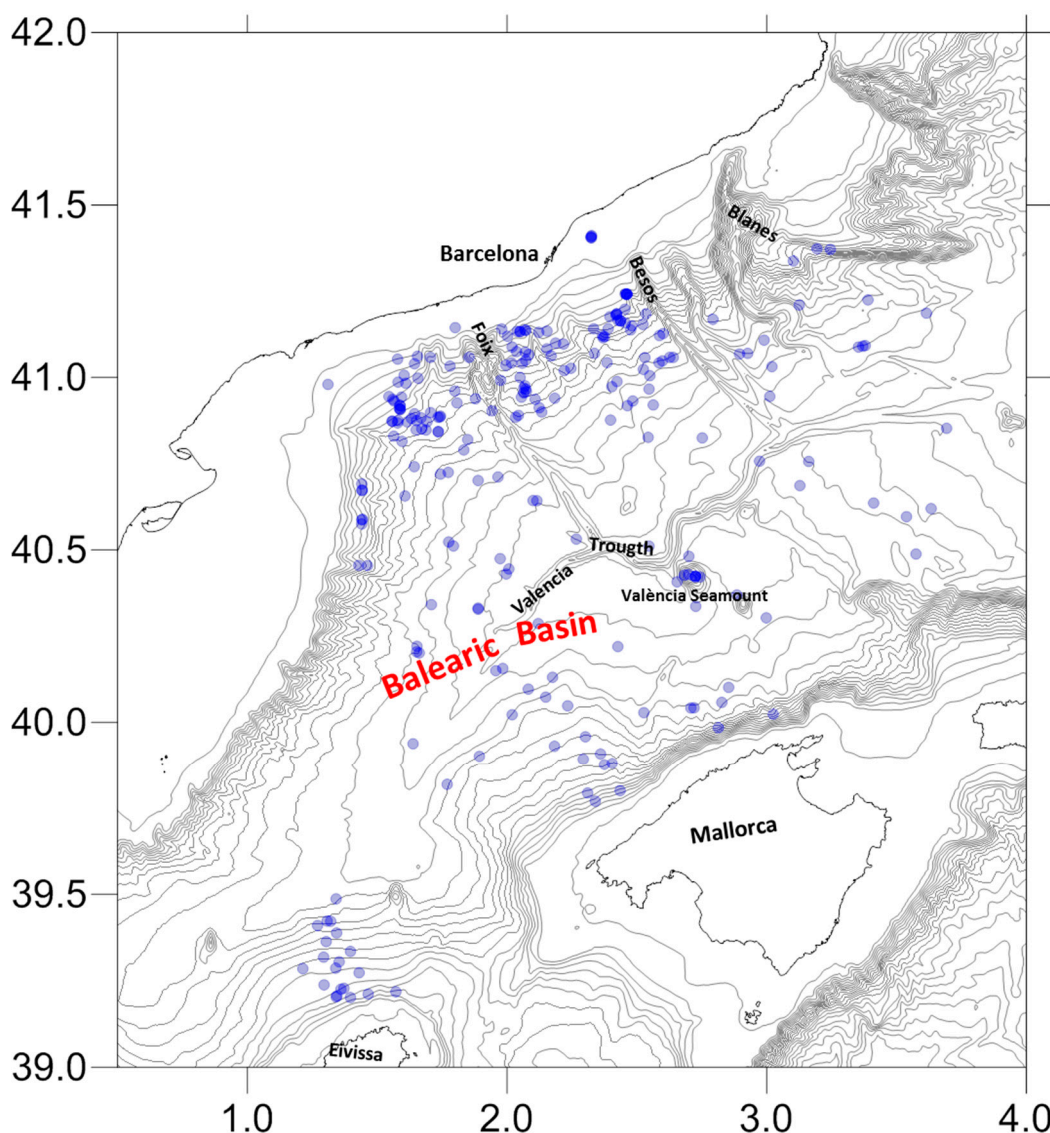


Figure S1. Map showing the extensive sampling carried out over both continental and insular margins of the Balearic Basin at depths between about 300-2300 m, with information on Eucarida (decapods) and other taxa (fish, cephalopods...). Sampling was performed with the same gear, an OTSB-14 doors trawl, in the period 1985-2021 and it was the basis for knowing the species distribution and their CoG in the study area.

Figure S2. Scheme with chronology for dating of the MC2 and MC3 sediments over Valencia Seamount summit and in the adjacent Mallorca slope, respectively, including the criteria used to validate the ^{210}Pb profile, with approximate date of occurrence of the markers (Hg, Pb, As concentration and microplastic occurrence) analysed.

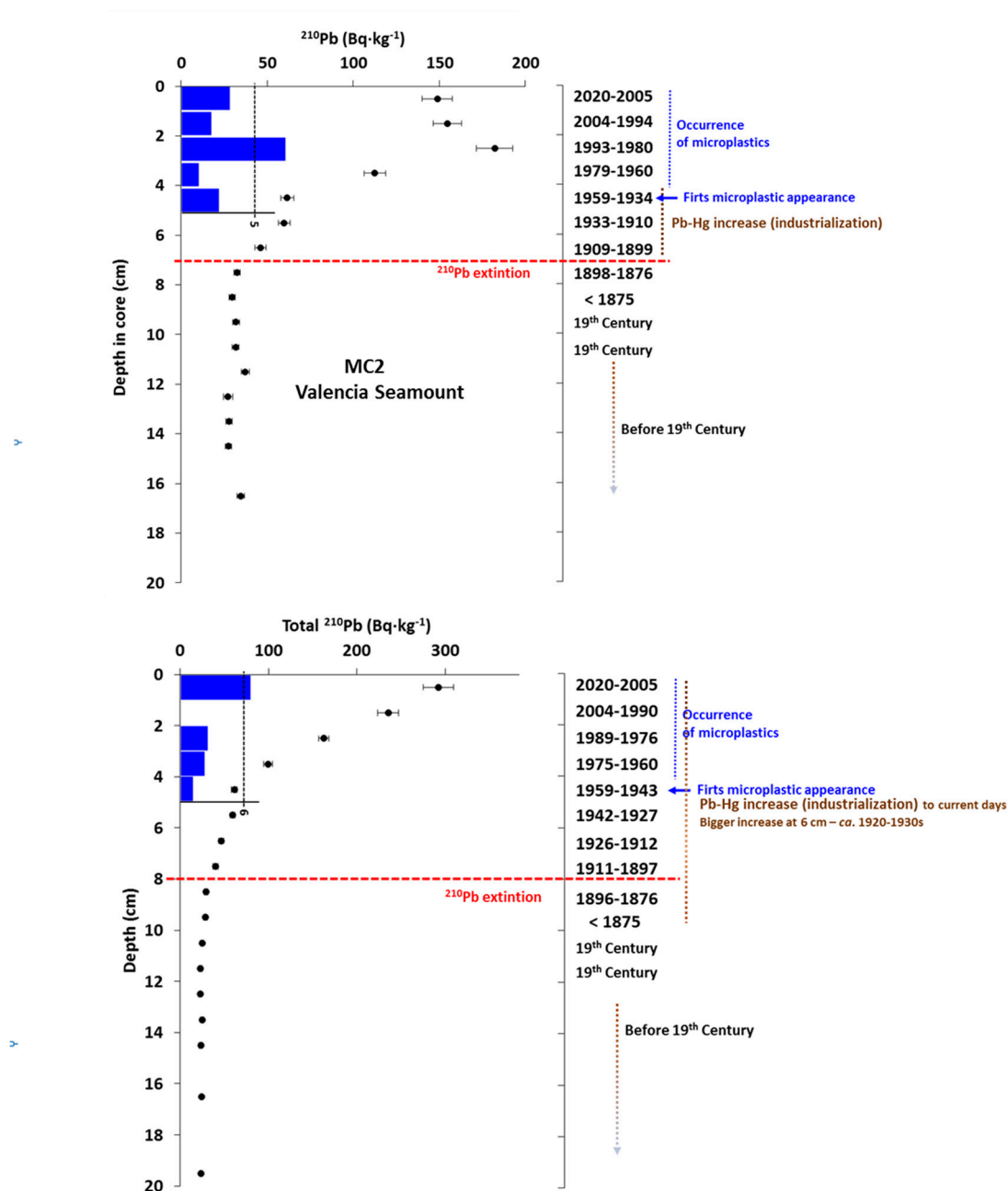


Figure S3. Mean concentration of the metals Si, and Li (in $\mu\text{g/g}$) in the MC2 and MC3 cores as a function of age (corresponding to core depth, per 1 cm), both possible markers terrigenous inputs to the sea.

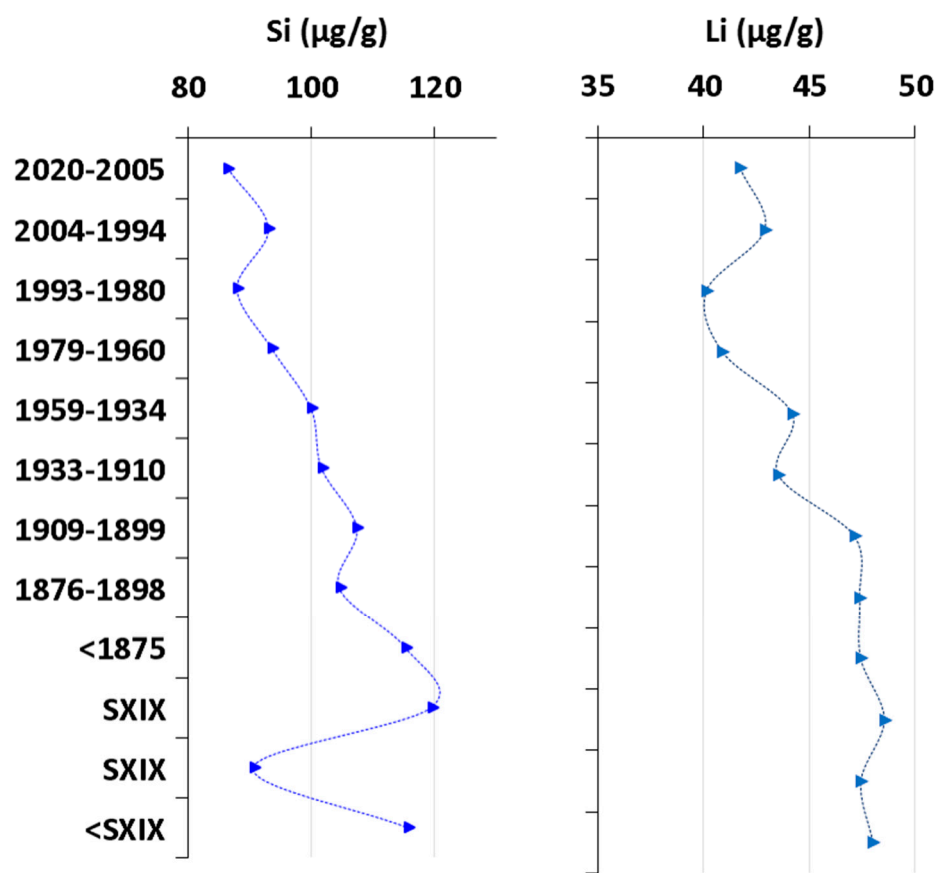


Table S1. Characteristics of samples at/over the bottom and at the water column performed over Valencia Seamount and over comparable depths in the adjacent Mallorca slope regarding sediments (MC3) and water column (CTD3). *Beam trawls with 0.5 plankton net attached.

Date	Time		Location				swept are: L (m)		Depth	
València Seamount summit										
09/07/2021	10.06	BeamTrawl1	40°25.354' N	2°43.239' E	40°25.438' N	2°43.414' E	0,105	154,0	1251	1208
09/07/2021	11.46	BeamTrawl2	40°25.306' N	2°43.144' E	40°25.370' N	2°44'580' E	0,711	1045,7	1176	1388
09/07/2021	14.17	BeamTrawl3*	40°25.480' N	2°43.130' E	40°25.432' N	2°43'582' E	0,314	462,1	1189	1280
10/07/2021	09.17	BeamTrawl4*	40°25.498' N	2°42.258' E	40°26.066' N	2°43'210' E	0,438	643,5	1196	1289
10/07/2021	11.23	BeamTrawl5*	40°25.171' N	2°43.060' E	40°25.174' N	2°42'482' E	0,104	153,3	1091	1080
14/07/2021	10.56	BeamTrawl6	40°25.340' N	2°43.190' E	40°25.520' N	2°43'530' E	0,171	252,1	1111	1173
14/07/2021	13.11	BeamTrawl7	40°25.730' N	2°41.960' E	40°25.730' N	2°41.960' E	0,267	392,1	1176	1186
14/07/2021	15.09	BeamTrawl8	40°25.639' N	2°41.499' E	40°25.869' N	2°40.970' E	0,245	359,8	1140	1298
09/07/2021	16.00	MC2	40°25.378' N	2°43.582' E					1156	
11/03/2020	22.19	Rock Dredge 1	40°25.469 N	2°43.11 E	40°25.550 N	2°43.28 E	0,015	279,3	1102	1130
14/07/2021	18.15	CTD4	40°25.520' N	2°47.730' E					1143	
08/07/2021	21.09	CTD2	40°27.111 N	2° 49.588'E					1773	
Mallorca slope										
11/07/2021	18.14	MC3	39°58.850' N	2°48.320' E					1114	
11/07/2021	20.15	CTD3	39°58.465' N	2°48.408' E					1047	

Table S2. List of species of fish and decapod crustaceans collected by beam trawls over Valencia Seamount during RECOMARES0721 for which the analysis of stomach (gut) contents were performed in search of isopods and other peracarids.

Species	<i>n</i>
Crustacea Decapoda	
<i>Aristeus antennatus</i> (Risso, 1816)	6
<i>Geryon longipes</i> A. Milne-Edwards, 1882	2
<i>Munida tenuimana</i> Sars, 1872	2
<i>Plesionika martia</i> (A. Milne-Edwards, 1883)	1
<i>Polycheles typhlops</i> Heller, 1862	4
Osteichthyes	
<i>Alepocephalus rostratus</i> Risso 1820	1
<i>Bathypterois mediterraneus</i> Bauchot, 1962	2
<i>Lepidion lepidion</i> (Risso, 1810)	4
<i>Nezumia aequalis</i> (Günther, 1878)	4

Table S3. Macroplankton collected over Valencia seamount summit with WP2 nets near the bottom (BBL) and at the mesopelagic zone (Deep Scattering Layer, DSL).

	REC0721 WP2-5	A1 WP2-23	A1 WP2-24
	BBL, Seamou BBL, Seamou DSL (400 m)		
Data	14/07/2021	21/07/2010	21/07/2010
Depth	1121 m	1217 m	
mab	35-89 m	BBL, Seamouca. 620 m	
Decapoda (larvae)			
<i>Alpheus glaber</i>	0	1	0
<i>Gennadas elegans</i>	0	1	0
<i>Sergestes vigilax</i>	0	1	2
<i>Sergestes arcticus</i>	0	3	0
<i>Sergestes</i> spp.	2	1	4
<i>Brachyura</i> (zoea)	1	0	0
Euphausiacea	0		
<i>Calyptopsis</i> , <i>Furcilia</i>	2	38,5	118,2
<i>Stylocheiron</i> sp.	0	3	0
Euphausiacea unid. (J)	0	23,5	0
Adult	0	0	0
<i>Euphausia krohni</i>	0	0	13
<i>Nematoscelis megalops</i>	12	3	45
<i>Stylocheiron longicorne</i>	0	0	3
Lophogastrida	0	0	0
<i>Eucopia hanseni</i>	2	2	0
Amphipoda Hyperiidea			
<i>Hyperia schizogeneios</i>	0	2	1
<i>Hyperia</i> sp.	1	0	0
<i>Hyperoides longipes</i>	0	0	2
<i>Lycaeidae</i> (<i>Lycaea pulex</i>)	0	1	0
<i>Phronima sedentaria</i>	0	1	2
<i>Phrosina semilunata</i>	0	1	0
<i>Primno</i> cf. <i>brevicens</i>	0	0	1
<i>Scina crassicornis</i>	0	2	2
<i>Vibilia armata</i>	7	3	0