

SUPPLEMENTARY MATERIAL

Title: Estimating baseline toxicity of PAHs from marine chronically polluted sediments and bioaccumulation in target organs of fish hypothetically exposed to them, a new tool in risk assessment.

Authors: E. Rojo-Nieto* and J. A. Perales

Andalusian Centre of Marine Science and Technology (CACYTMAR), Department of Environmental Technologies, University of Cadiz, 11510 Puerto Real, Spain.

*Corresponding author: elisa.rojo@uca.es; telephone 034 956016587; fax 0034 956 016746

Keywords:

Passive sampling, Sediment, PAH, Freely dissolved concentration, Chemical activity, Bioaccumulation.

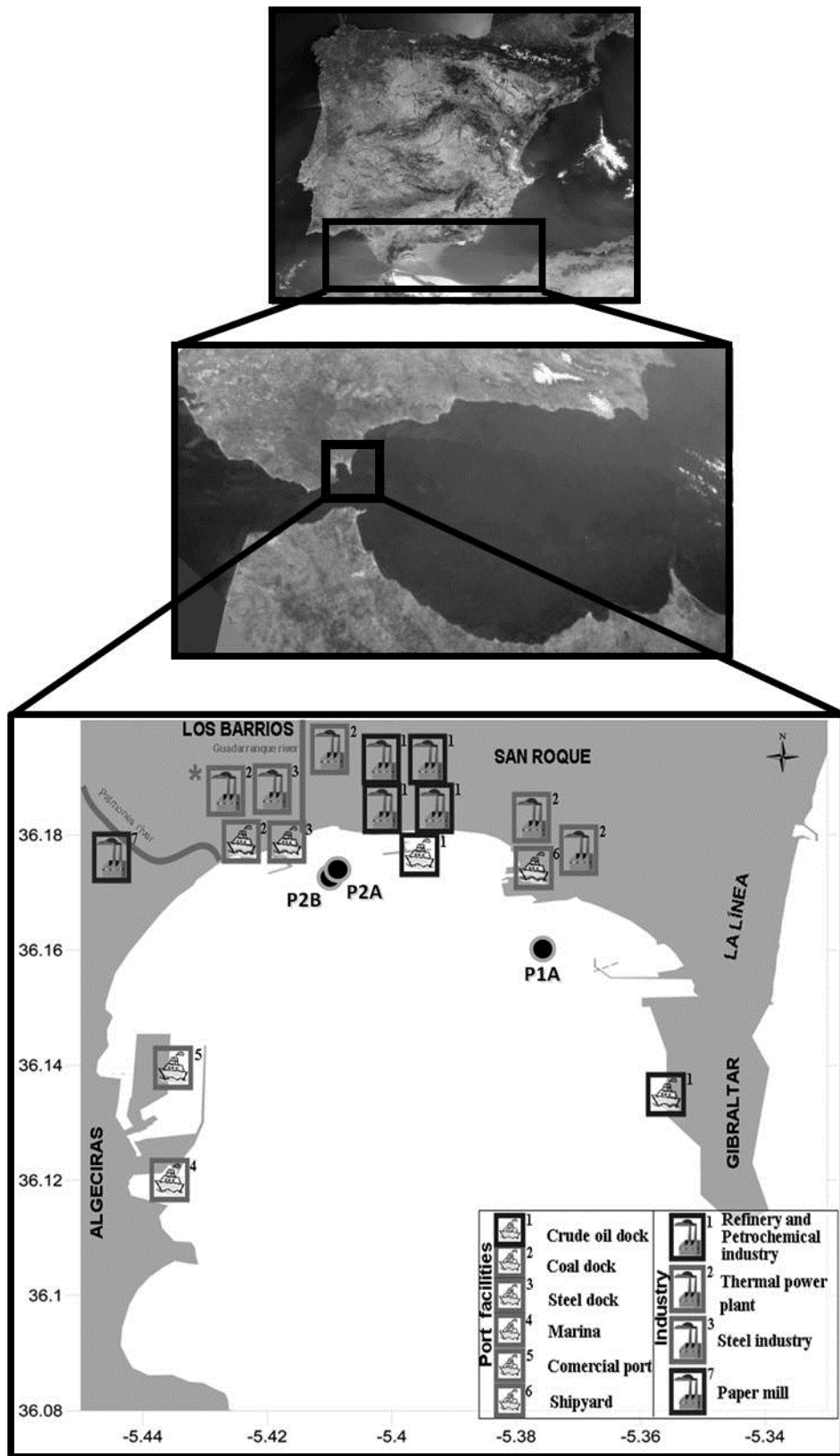


Figure S1. Sampling area, showing the different sampling points and the most important industries and docks.

* Coal electric power station.

Table S1: Data from Rojo-Nieto et al 2013. Levels of PAHs ($\mu\text{g}/\text{Kg}$ dry weight) in sediments. *NAPH* Naphthalene, *ACE* Acenaphthylene, *ACEN* Acenaphthene, *FLUO* Fluorene, *PHE* Phenanthrene, *ANT* Anthracene, *FLUOR* Fluoranthene, *PYR* Pyrene, *B(a)A* Benzo(a)Anthracene, *CHRY* Chrysene, *B(b)F* Benzo(b)Fluoranthene, *B(k)F* Benzo(k)Fluoranthene, *B(a)P* Benzo(a)Pyrene, *B(ghi)P* Benzo(g,h,i)Perylene, *DB(ah)A* Dibenzo(a,h)Anthracene, *I(123)P* Indeno(1,2,3-cd)Pyrene.

	P1A	P2A	P2B
NAPH	66.20	368.25	25.18
ACE	73.80	1.97	3.02
ACEN	124.00	80.26	44.58
FLOU	48.30	52.38	45.13
PHE	242.00	196.54	260.58
ANT	135.00	32.61	65.76
FLOUR	196.00	230.94	347.76
PYR	190.00	205.82	274.58
B(a)A	74.10	90.53	78.95
CHRY	76.10	110.31	104.62
B(b)F	72.90	71.51	99.42
B(k)F	97.60	40.59	d.l.
B(a)P	125.00	61.77	58.29
B(ghi)P	127.00	165.37	d.l.
DB(ah)A	d.l.	d.l.	d.l.
I(123)P	84.00	19.49	24.90

Table S2: Data from Rojo-Nieto et al 2014. Concentrations of PAHs in target organs (μg lipid/Kg OC), in *Solea senegalensis* adults fished during spawning period.

Pool	Species	Sampling Campaign	Station	BAF Phen Muscle	BAF Pyr Muscle	BAF Phen Liver	BAF Pyr Liver
P1	Senegal sole	SC2	P2				
P2	Senegal sole	SC2	P1	0.095		0.029	
P3	Senegal sole	SC2	P1	0.037		0.018	
P4	Senegal sole	SC2	P1	0.054		0.012	
P5	Senegal sole	SC2	P1	0.040		0.008	
P10	Senegal sole	SC2	P5	0.143	0.124		0.040
P12	Senegal sole	SC4	P1	1.546	1.473	0.331	0.539
P13	Senegal sole	SC4	P1		4.684		0.688