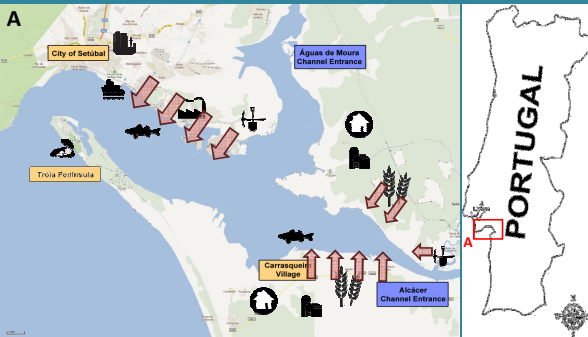


## Characterization of cytotoxic and genotoxic effects of contaminated sediments from the Sado Estuary and potential human health risk

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### Study Area – Sado Estuary



An estuary is a semi-enclosed maritime area with limited self renewal capability which makes it particularly capable of retaining contaminants from different sources.

Adapted from: Google Maps. Available at <http://maps.google.pt/>. (Last accessed: September 20<sup>th</sup> 2011)

## Objectives

**Main Objective**

Assess the potential ecological and human health risk of a contaminated estuarine environment

**Particular Objective**

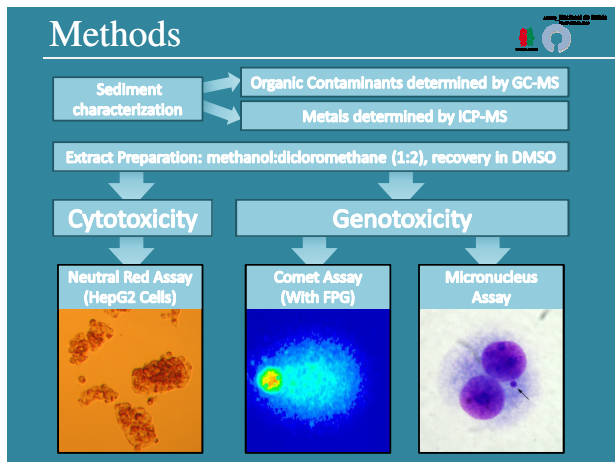
Characterize the cytotoxic and genotoxic potential of sediments from the Sado Estuary

### Sediment samples collection sites



Samples Collected in 2011 in frequently used fishing sites

Adapted from: Google Maps. Available at <http://maps.google.pt/>. (Last accessed: September 20<sup>th</sup> 2011)



# Results Discussion

### Northern Margin

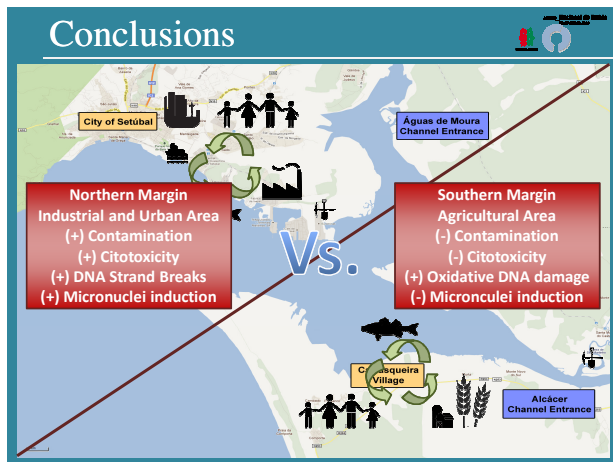
2 Cytotoxic and Genotoxic samples (F and P)  
1 Potential Reference Sample (C)

Sample F	Sample P	Sample C
Cytotoxicity	Cytotoxicity	Cytotoxicity
DNA Strand Breaks	DNA Strand Breaks	DNA Strand Breaks
Oxidative DNA damage	Oxidative DNA damage	Oxidative DNA damage
MN induction	MN induction	MN induction
Contamination levels	Contamination levels	Contamination levels

### Southern Margin

2 weak cytotoxic but genotoxic samples.  
Both samples presenting significantly high oxidative DNA damage.

Sample E	Sample A
Cytotoxicity	Cytotoxicity
DNA Strand Breaks	DNA Strand Breaks
Oxidative DNA damage	Oxidative DNA damage
MN induction	MN induction
Contamination levels	Contamination levels



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## Thank You for your attention!