

*Title:* **Accumulation and distribution of Stockholm Convention POPs in gull eggs as indicators of environmental pollution**

*Student:* Anna López Millán

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*Supervisor/s:* Dra. Anna Rigol Parera

*Departament of Chemical Engineering and Analytical Chemistry*

Dra. Sílvia Lacorte Bruguera

*IDAEA-CSIC*

Persistent Organic Pollutants (POPs) are chemical compounds that tend to bioaccumulate in ecosystems and fatty tissue of living organisms, leading to important toxic effects. Although the Stockholm Convention has banned and strictly regulated their use for years, their properties (lipid solubility, volatility and persistency) are the reason that high levels of POPs can still be found in the environment.

A bibliographic compilation of the levels of POPs in gull eggs around the world and their most relevant environmental properties has been carried out with the objective of assessing which chemicals are found at the highest concentrations and why. Gull eggs have been selected as bioindicators of environmental pollution.

The levels of POPs have been analysed and graphically represented performing a principal component analysis (PCA) and it has been possible to confirm that POPs with high octanol-water partition coefficient are more readily accumulated in gull eggs and this species is suitable for the biomonitoring of the occurrence of these pollutants.

**Keywords:** POPs, gull eggs, Stockholm Convention, bioaccumulation, Distribution, PCBs, PBDEs, organochlorinated pesticides, perfluorinated compounds