



## HW-28. PCBs, ever-present old friends, are also present in cetaceans from Galician waters (NW Iberian Peninsula)

Gutiérrez-Muñoz, Paula <sup>1</sup>; Pérez-Fernández, Begoña <sup>1</sup>; Saavedra, Camilo <sup>1</sup>; Covelo, Pablo <sup>2</sup>; Méndez-Fernández, Paula <sup>3</sup>; López, Alfredo <sup>2</sup>; Viñas, Lucía <sup>1</sup>; Pierce, Graham J. <sup>4</sup>

1. Instituto Español de Oceanografía (IEO-CSIC)
2. Coordinadora para o Estudo dos Mamíferos Mariños (CEMMA)
3. Observatoire Pelagis (La Rochelle Université)
4. Instituto de Investigaciones Marinas (IIM-CSIC)

While organic pollutants, such as polychlorinated biphenyls (PCBs), are increasingly regulated in their production and use, they still remain a significant threat to marine life. Due to their high position in the food chain, odontocete cetaceans can be greatly affected by even low levels of pollutants in the environment, as most of them biomagnify up the food chain. In this study, concentrations of PCBs were analysed in the blubber of the three most frequent odontocete cetacean species in NW Spain (NE Atlantic): common dolphin (*Delphinus delphis*) (n = 42), bottlenose dolphin (*Tursiops truncatus*) (n = 17) and harbour porpoise (*Phocoena phocoena*) (n = 19). Samples were collected from stranded individuals between 2009 and 2023. Individual concentrations ranged from 0.32 to 160.74 µg/g lipid weight (l.w., Σ14PCBs), with the highest levels observed, by far, in bottlenose dolphins (its median concentration is three times higher than that of other species). Our results, along with those of previous studies, indicate that most of the species exhibit a declining trend in PCB levels, except for the harbour porpoise. Many of the values observed also exceed one of the most common and agreed threshold value used for these species (17 µg/g l.w.), with 51.28% of the individuals analysed surpassing this limit. This suggests that a high percentage of the individuals analysed may be at risk from PCBs despite an apparent global decrease in environmental levels. PCBs, along with other anthropogenic stressors, may negatively impact cetacean populations. Therefore, monitoring PCB levels in cetaceans is crucial for assessing their health status at both individual and population levels.