

GLOBAL ACTION NEEDED TO ADDRESS A PERSISTENT THREAT TO CETACEANS

PCBs remain a contemporary issue for cetaceans

Persistent Organic Pollutants (POPs) are chemical substances that persist in the environment, bioaccumulate through the food web, and pose a risk of adverse effects in humans and wildlife. A recent study¹ showed that, although banned organochlorine pesticides like DDT and dieldrin have declined significantly in marine top predators in Europe, polychlorinated biphenyls (or PCBs) – a POP - have stopped declining a decade ago and still persist at excessively high concentrations in killer whales (*O. orca*), bottlenose dolphins (*T. truncatus*), and striped dolphins (*S. coeruleoalba*) in the Northeast Atlantic and the Mediterranean Sea. PCB concentrations in European cetaceans are the highest globally – much higher than cetaceans in the US/Canada – and still widely associated with long-term population declines and low or zero rates of reproduction.

High PCBs are not just a “European” problem. The very high trophic level and longevity of most marine apex predators mean that bioaccumulation and biomagnification of PCBs and other POPs is an inevitable consequence of their life history and diet. The relatively long lactation period in cetaceans also enables considerable PCB transmission from mother to calf, predominantly in mother’s milk. Killer whales remain the most highly PCB-contaminated mammalian species on earth, with very high concentrations found in individuals throughout their global range. Other cetacean species at particular risk of PCB toxicity include false killer whales (*P. crassidens*), harbour porpoise (*P. phocoena*) and coastal bottlenose dolphins; all marine mammal species in the Mediterranean and Black Seas; beluga (*D. leucas*) in St Lawrence River, Canada and several coastal/river dolphin and porpoise species in SE Asia.²

What action has been taken under the Stockholm Convention?

The Stockholm Convention was created to address POPs, including PCBs, and entered into force in 2004. There are now 180 parties to the Convention who have committed to seek the elimination of PCBs through prohibiting their production and their use. However, despite the wide global support for addressing PCBs, a 2015 United Nations Environment Programme (UNEP) assessment estimates that around 14 million tonnes – the vast majority of PCB (containing or contaminated) equipment and materials – still requires elimination, and the efforts to date have only eliminated 11-22% of PCB (containing or contaminated) equipment and materials.³ Clearly, there has been insufficient action by Stockholm Convention parties to address this severe and persistent threat. It is likely that there are ongoing sources of PCBs pollution entering the environment because of a systemic underperformance of Stockholm Convention parties in implementing their obligations, with the result that many European and global cetacean populations are still severely threatened by PCBs today.

ACCOBAMS⁴ engagement on the issue can help!

There is significant evidence that there are PCB ‘hotspots’ for cetaceans in Europe, such as in the western Mediterranean Sea. ACCOBAMS is a key forum for cooperating to reduce threats to cetaceans in the Mediterranean and Black Seas.

ACCOBAMS leadership on cetacean conservation and research in these regions could help create support for further action to reduce sources of PCBs as well as research to investigate pathways of PCB contamination of the marine environment and future environmental monitoring to assess PCB levels in marine sediments, discharges and freshwater outflow. The ACCOBAMS Scientific Committee could initiate work programmes to assess of the full impact of PCB exposure on cetaceans, with particular reference to Mediterranean and Black Sea countries.

What more can be done?

PCBs will continue to be a persistent threat that will cause Europe's cetacean populations to decline into extinction unless urgent action is undertaken. ACCOBAMS delegates frequently hold respected and authoritative positions of influence within their own countries.

You can help raise awareness on this important issue and help change the status quo through advocating at home that there is a critical need for effective implementation of the Stockholm Convention by its parties as well as the rapid conclusion of the Stockholm Convention's Article 17 negotiations to establish an effective compliance and enforcement mechanism in light of the increasingly dire contemporary threat PCBs pose to European, and potentially global, populations of cetaceans.

Improved implementation of the Stockholm Convention to address PCBs will not only help save cetaceans, but will also help protect human health and the environment. Actions needed to help reduce the threat from PCBs include:

- the proper disposal of large stocks of PCBs and PCB-containing equipment and materials
- improving management and monitoring of landfills to reduce PCBs leakage
- limiting the dredging of PCB-laden rivers/estuaries which will help reduce PCB mobilization in marine sediments
- regulating the disposal of PCBs in joint sealants in old buildings such as European tower-blocks built in the 1950s-80s.

Stockholm Convention parties are intending to conclude Article 17 compliance negotiations at the April 2017 Conference of the Parties (CoP). A strong, enforceable compliance framework that incentivises both developed and developing countries alike will help ensure that all parties to the Convention take their commitments seriously and that efforts to eliminate PCBs are rapidly enhanced across the world.

Ultimately, there needs to be a global movement to call for:

- more ambition and accountability of Contracting Parties through the Stockholm Convention
- improved state practice implementing the Stockholm Convention with greater emphasis on destruction or irreversible transformation for all PCB (containing or contaminated) equipment and materials
- increased assistance to developing countries for PCB elimination efforts, including infrastructure and capacity building for destruction facilities
- additional funding for research and monitoring to identify PCB pollution sources and their toxic effects on marine mammals and other marine apex predators.

All ACCOBAMS delegates can be champions on this important issue and encourage their country to take action and to help create an effective, enforceable compliance mechanism in the Stockholm Convention.

Wildlife and Countryside Link represents more than 8 million people through 45 voluntary organisations across the UK concerned with the conservation and protection of wildlife. Our call to address the threat from PCBs is supported by eleven organisations. Contact PCBs@wcl.org.uk for further information. If you wish to speak to a representative at Sixth Meeting of the Parties to ACCOBAMS, please contact Mark Simmonds, Humane Society International.

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¹ Jepson, Paul D et al. 'PCB pollution continues to impact populations of orcas and other dolphins in European waters' *Nature – Scientific Reports* (2016) 6:18573

² Jepson, Paul D and Robin J. Law 'Persistent pollutants, persistent threats' *Science* (2016) 352: 1389; <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0131085>

³ UNEP, 'Preliminary assessment of efforts made towards the elimination of polychlorinated biphenyls' (2015); Stockholm Convention, 'Report of the meeting of the Bureau of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants, Geneva, Switzerland, 28-29 June 2016' (2016).

⁴ Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area

