

## Organochlorine pesticides and PCBs in marine fish

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**Abstract** Organochlorine pesticides (such as 1,1,1-trichloro - 2,2 - bis (4-chlorophenyl) ethane (DDT) and its metabolites) and polychlorinated biphenyls (PCBs) are classified as Persistent Organic Pollutants (POPs) and are present in the contamination pattern of marine environments world-wide. Concentrations of PCBs and DDTs were measured in two marine species: garfish (*Belone belone*) and red mullet (*Mullus barbatus*). Samples were collected from Black Sea, Bulgaria during 2007 – 2010. The DDTs and PCBs were determined by gas chromatography - mass spectrometry.

Concentrations in muscle tissue of garfish ranged from 80.89 to 118.04 ng/g wet weight for total DDTs. DDTs concentration in red mullet was found 104.59 ng/g ww. PCB concentrations in garfish varied in the range of 40.04 and 65.62 ng/g ww. In muscle tissue of red mullet PCB concentrations were found 34.12 ng/g ww. The levels of DDTs and PCBs in garfish and red mullet from the Black Sea were comparable with those found in other marine ecosystem.

**Keywords:** fish, DDT, PCB, Black Sea, Bulgaria

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