

## **ENDOCRINE DISRUPTORS IN THE SCHELDT ESTUARY (2)**

Monteyne Els M.<sup>1</sup>, Colin R. Janssen<sup>2</sup> and Patrick Roose<sup>1</sup>

<sup>1</sup> Management Unit of the North Sea Mathematical Model, Royal Belgian Institute of Natural Sciences, 2<sup>e</sup> en 23<sup>e</sup> Linieregimentsplein, B-8400 Oostende, Belgium  
E-mail: Els.Monteyne@mumm.ac.be

<sup>2</sup> Laboratory of Environmental Toxicology and Aquatic Ecology, Faculty of Bioscience Engineering, Ghent University, J. Plateuastraat 22, B-9000, Ghent, Belgium

The Scheldt Estuary is known as one of the more polluted estuaries in Europe (OSPAR, 2000). All major compartments of the estuary, i.e. water, suspended matter, sediments and biota, may be contaminated with chemicals such as polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs) and organotin compounds. In the framework of the ENDIS-RISKS project, the different compartments of the estuary were sampled during the last 2 years and the concentration levels of 22 different polycyclic aromatic hydrocarbons (PAHs), 18 polybrominated diphenylethers (PBDEs), 5 OCPs, 16 PCBs and 6 organotin compounds were determined. For the biota, mysids were selected as indicator organism for this particular ecosystem. In this group of organisms, the highest contaminant levels were found for TBT with concentrations of up to 2500 $\mu\text{g}/\text{kg}$  on a dry weight basis (or approx. 100 $\mu\text{g}/\text{kg}$  on a wet weight basis). With an ecotoxicological assessment criterium (EAC) – as established by OSPAR – of 2.4 $\mu\text{g}/\text{kg}$  on wet weight basis, the EAC is exceeded by a factor of 50 at some sampling stations. For the same species, the body concentrations of  $\Sigma\text{PCB}_7$  varied from 200 to 1400 $\mu\text{g}/\text{kg}$  (dry weight), again exceeding the OSPAR-EAC by a factor of more than 100. OCPs and PAHs are found in quantities varying from 5 to 100 $\mu\text{g}/\text{kg}$  (dry weight) which is below the EAC, except for lindane (EAC 0.29 $\mu\text{g}/\text{kg}$  on wet weight basis).