



## **Ethoxyresorufin-*O*-Deethylase (EROD) Induction of Semipermeable Membrane Devices (SPMD) Samples from Shkodra/Skadar Lake**

Nevila Bushati<sup>1,\*</sup>, Anila Neziri<sup>1</sup>, Andrew Rastall<sup>2,3</sup>, Henner Hollert<sup>4</sup>, Thomas.B.Seiler<sup>4</sup>, Jens.Otte<sup>4</sup>,  
Lothar Erdinger<sup>2</sup>

<sup>1</sup>*Department of Biology and Chemistry, University of Shkodra, Albania;* <sup>2</sup>*University of Heidelberg, Germany,*  
<sup>3</sup>*The Open University, UK;* <sup>4</sup>*University of Heidelberg, Institute of Zoology, Germany*

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**Abstract:** The aim of the current study was to combine SPMD-based sampling technology of hydrophobic organic pollutants from natural waters with EROD bioassay for the assessment of risk posed from bioavailable toxic compounds to Lake of Shkodra biota. Shkodra/Skadar Lake is the largest lake in the Balkans region and located on the border between Albania to the south and Montenegro to the north. During the last decades, the anthropogenic pollution is going to be significant in this area. Hydrophobic organic compounds (HOPs) as organochlorine pesticides (OCPs), polychlorinated biphenyls PCBs, polycyclic aromatic hydrocarbons (PAHs), polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzo furans (PCDFs) have been shown to induce either lethal or sub-lethal toxicity including mutagenic, carcinogenic, teratogenic and endocrine disrupting effects on aquatic species. The semipermeable membrane devices (SPMD) dialysates of deployed six sampling sites produced a significant positive response in the EROD assay 2,3,7,8-tetrachlorodibenzo-*p*-dioxin equivalents (TCDD-EQ) ranged from 588 - 1904 pg/ SPMD.

**Key words:** *EROD, SPMD, TCDD-EQ, HOP, PAH, PCB, PCDF, PCDD*

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\*Corresponding: E-Mail: [nevilabushati@yahoo.com](mailto:nevilabushati@yahoo.com); Tel: +355692732725; Fax: +35522243747