

## Hrvatsko udruženje slatkovodnih ekologa

Vas poziva na predavanje pod naslovom:

## Long-term effects of pharmaceutically active compounds PhAC on cardiac activity and locomotion of signal crayfish *Pacifastacus leniusculus*

koje će u **utorak, 15.10. u 14.30h** u Vijećnici Biološkog odsjeka PMF-a, Rooseveltov trg 6, održati

## Filip Ložek

PhD student sa University of South Bohemia, Faculty of fisheries and protection of waters, České Budějovice, Češka, koji trenutno boravi na Zoologijskom zavodu Biološkog odsjeka Prirodoslovno-matematičkog fakulteta Sveučilišta u Zagrebu.



## <u>Sažetak:</u>

Environmental pollution by pharmaceutically active compounds (PhACs) is increasingly recognized as a major threat to the aquatic environment. The presence of PhACs in the aquatic environment is not associated with acute toxicity but can impact physiology, resulting in behaviour alterations in non-target organisms followed by ecological impact as disturbance of predator-prey relationships. To detect these etho-physiological alterations we investigate long-term effects of selected PhAC (Tramadol, Methamphetamine) at environmentally relevant levels through evaluation of cardiac activity and locomotion of signal crayfish Pacifastacus leniusculus during acute stress. We use crayfish as a model of non-target organisms which are among freshwater crustaceans, particularly susceptible to PhACs. They possess a complex physiology and exhibit complex intraspecific interactions and are keystone species in freshwater ecosystems, functioning as strong ecosystem engineers. Previous studies of PhACs effect on aquatic organisms at environmentally relevant concentrations have been primarily focused on their behaviour. The recorded effects on crayfish cardiac physiology could present a new area of research in relation to PhaC residue environmental impact.