

Monitoring of microplastic pollution?

Gábor Bordós

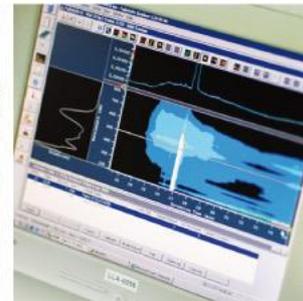
Projekt manager

ANALYSIS

CONSULTANCY

PLANNING

SINCE 1983



About MPs in a nutshell



Benefits vs. threats

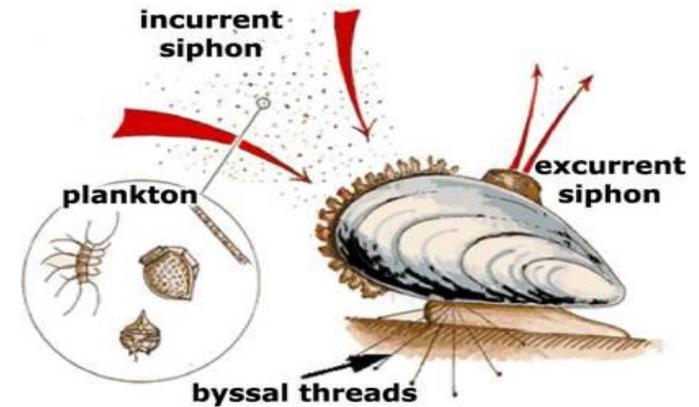


Entering the food web:

- indiscriminate ingestion
- by mistaken identity *Van et al., 2012*

In digestive tract

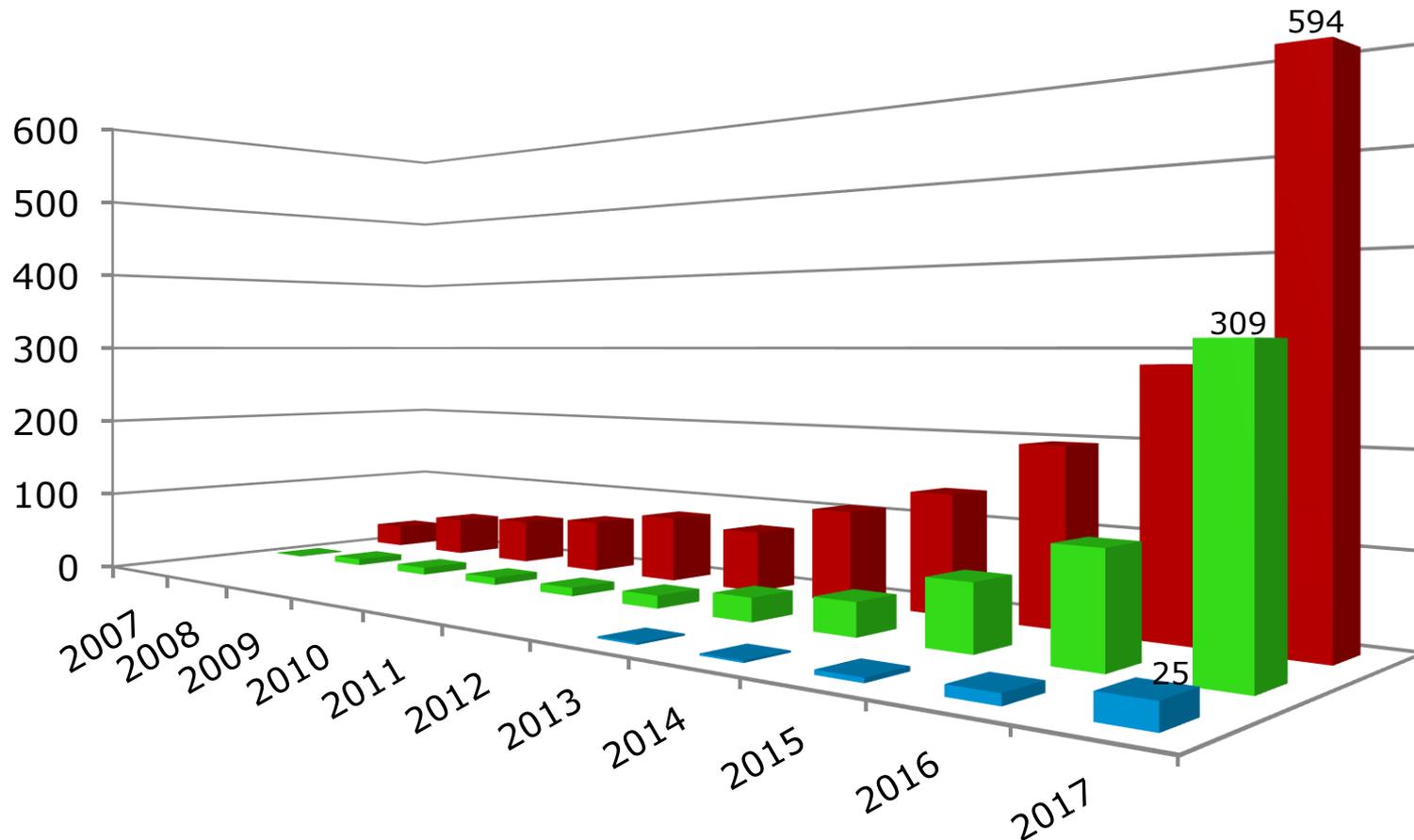
- inflammation
- clogging *Derraik, 2002*
- translocation to tissues (kagyló, rák)
Browne et al., 2008
- trophic level translocation *Farrel és Nelson, 2013*



■ Microplastic AND freshwater
- title, abstract, keyword

■ Microplastic
- title, abstract, keyword

■ Microplastic
- all files







Rhein-Ruhr region:
15-20 particles/m³ >250µm

0.3 particles/m³ > 500 μm

Environmental Pollution 188 (2014) 177–181

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Environmental Pollution

journal homepage: www.elsevier.com/locate/envpol

ELSEVIER

Short communication

The Danube so colourful: A potpourri of plastic litter outnumbers fish larvae in Europe's second largest river

Aaron Lechner^{a,*}, Hubert Keckeis^a, Franz Lumesberger-Loisl^a, Bernhard Zens^a, Reinhard Krusch^a, Michael Tritthart^b, Martin Glas^b, Elisabeth Schludermann^a



ENVIRONMENT AGENCY AUSTRIA **umweltbundesamt**^U

PLASTIC AND MICROPLASTIC IN THE ENVIRONMENT

P. Hohenblum, B. Liebmann, M. Liedermann

REP-0551
Vienna, 2015

6-66 kg/day > 250μm

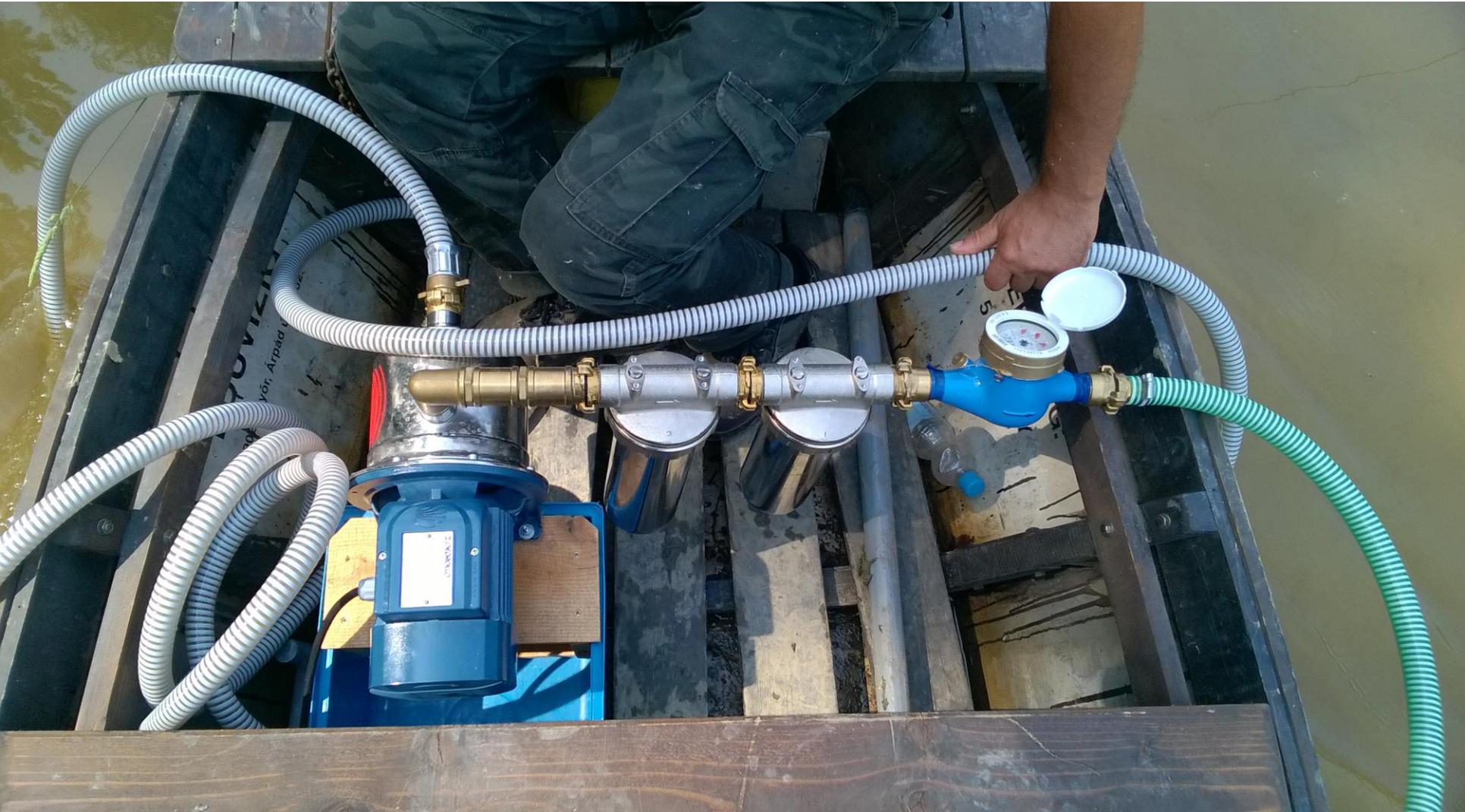
MPs in the Danube Region













A PPT-PROJEKTRŐL

MIKROMÉRÉS

MIKROTUDÁS

LABORÁTIUMUNK

PARTNEREINK

KAPCSOLAT

- ▶ Megmérjük felszíni vizeink mikroműanyag szintjét
- ▶ A legfontosabb tudnivalók a parányi plasztikokról

Tudta-e?

Az ehető kékkagyló közvetlen emberi fogyasztásban elterjedt, így a mikroműanyagok transzportja nem kizárható.



A legfontosabb tudnivalók:

A mikroműanyagok meghatározása. Hogyan kerülnek a vízbe?

Miért veszélyesek a környezetre és az állatokra?

Mi a helyzet a szabályozással?

Olvasmányok, szótár, hasznos linkek. Minden a mikroműanyagokról!

👉 *Kattintson az ikonokra* 👈

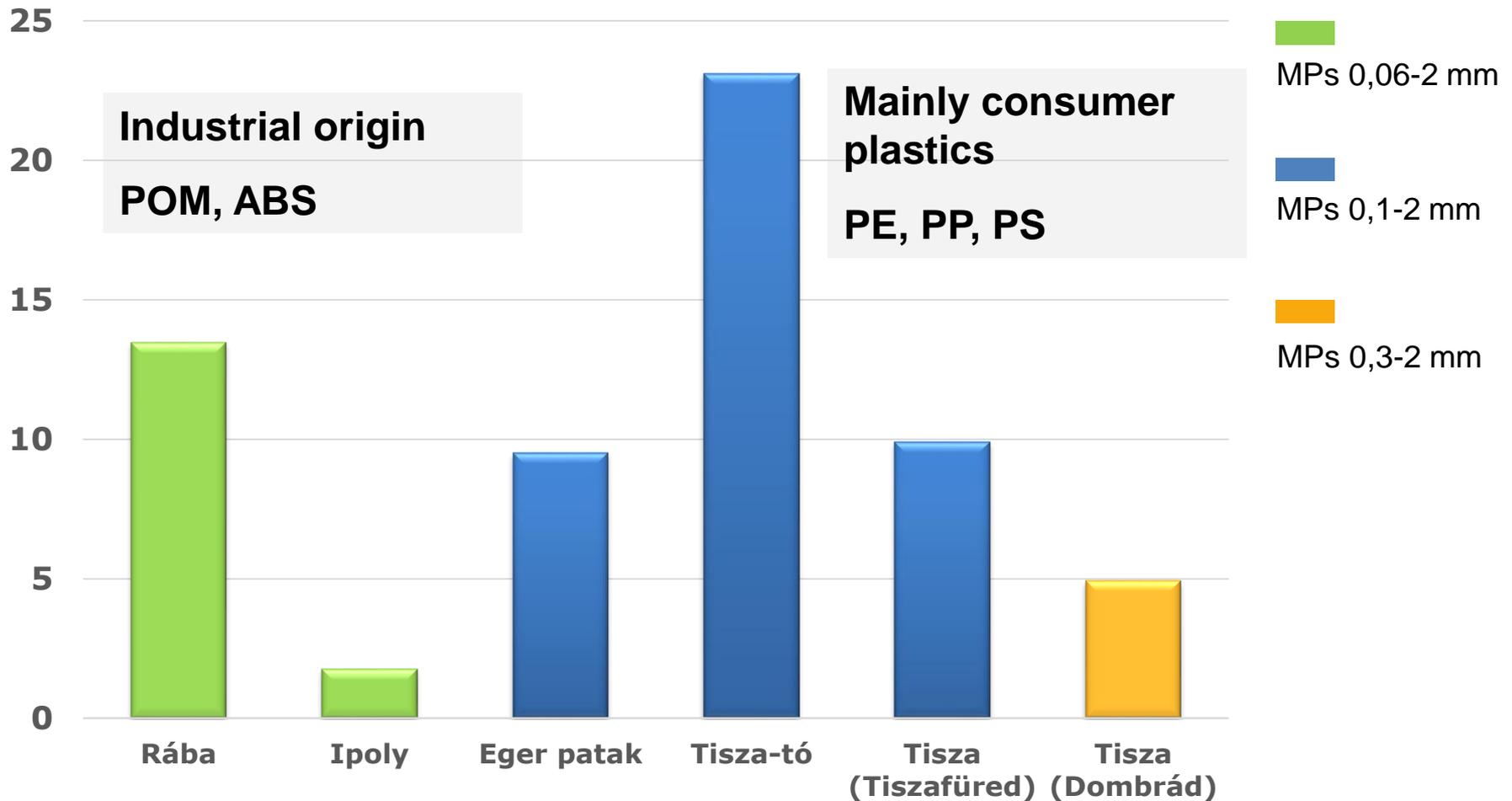
Tiny Plastic Puzzle (Parányi Plasztiktalány)

- CSR project of WESSLING
- raise awareness on the microplastic issue
- measuring MPs in tributary and the Danube

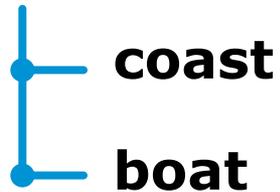
www.mikromuanyag.hu

- knowledge base of wide range of microplastic related topics
- communication of results

Microplastics in surface waters (piece/m³)



- **Operation on universal platforms**



- **Enables sampling in different depth**

- **Fast & cost effective**

- **Easily transportable**

- **High sampling reproducibility**

- **High resolution (catches smaller particles)**

- **Good basis for standardisation**

- less attention on freshwaters
- general monitoring concept is not present yet
- no unified sampling and sample preparation
- no legislation at the moment

Effects...???



WESSLING HUNGARY KFT.

Developing novel methods for
freshwater sampling and sample
preparation of microplastics

A TÁMOGATÁS ÖSSZEGE:
139 MILLIÓ FORINT



WESSLING
Életünk minősége



Thank you for the attention.

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www.wessling.hu

