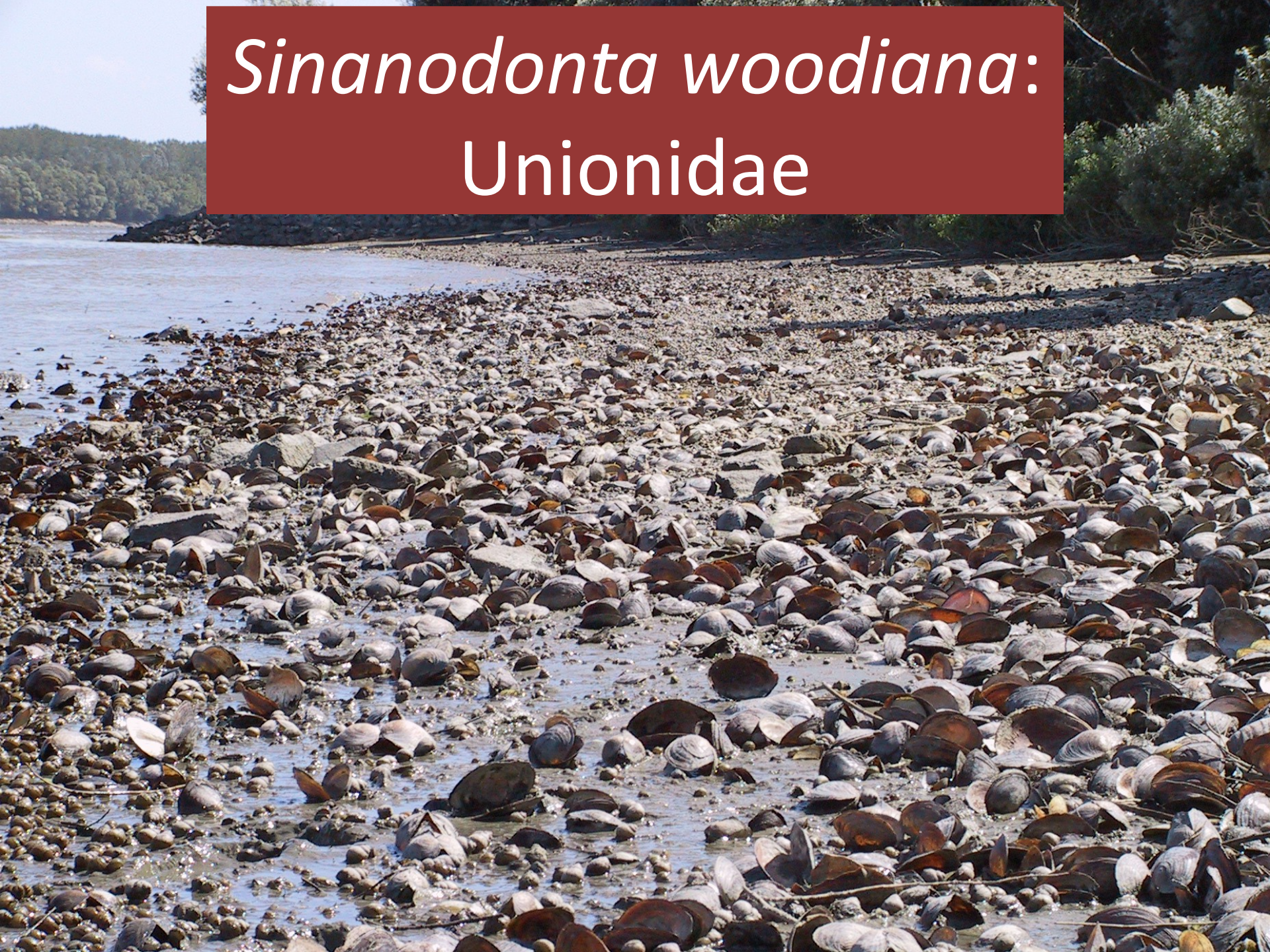


Non-native and invasive Mollusca & Crustacea in Hungary

Béla Csányi

Sinanodonta woodiana:
Unionidae





Coexistence with other Molluscs



Selective kill of *Sinanodonta woodiana*
can be frequently seen...

Surviving *Dreissena*
polymorpha

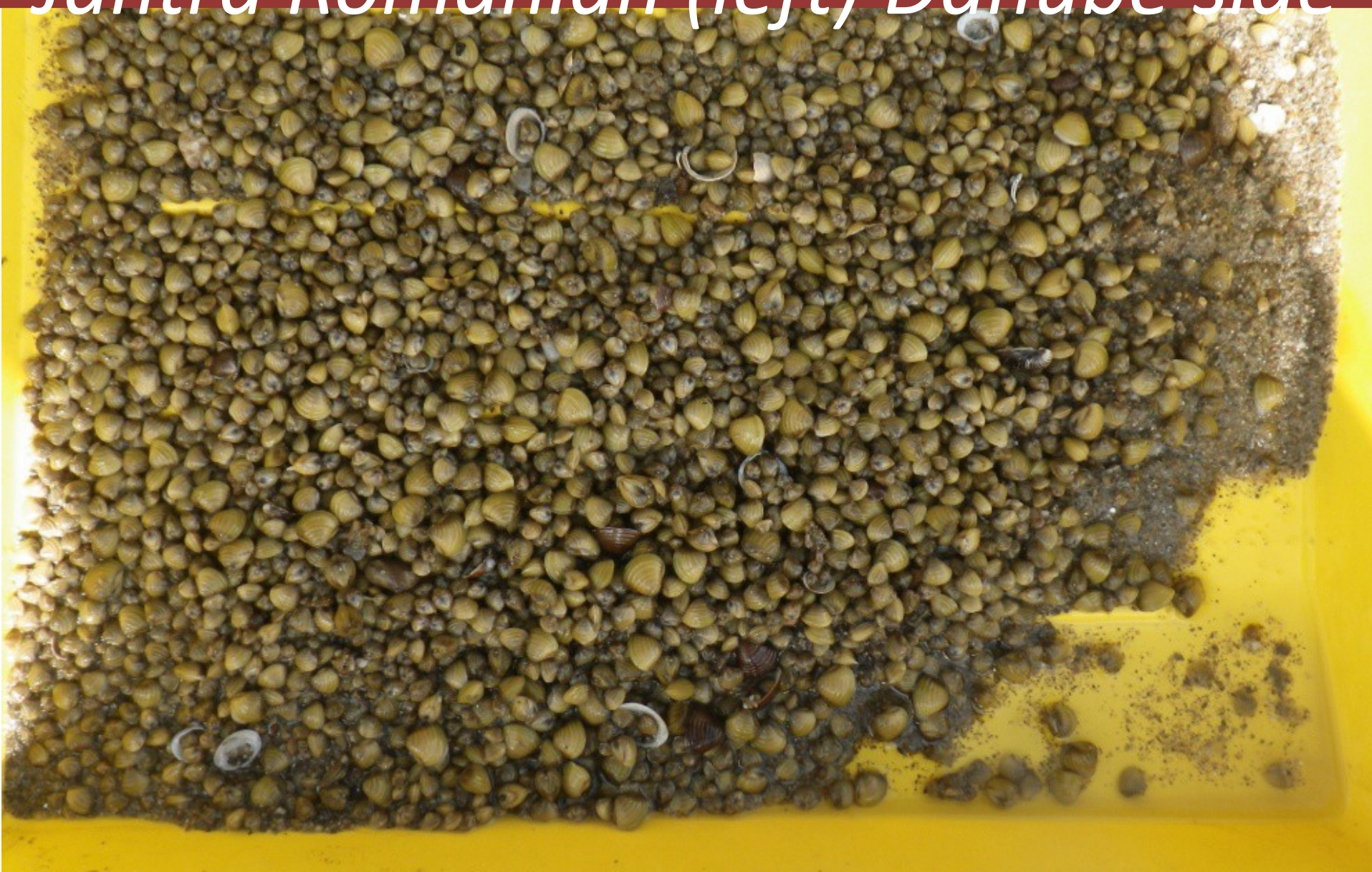


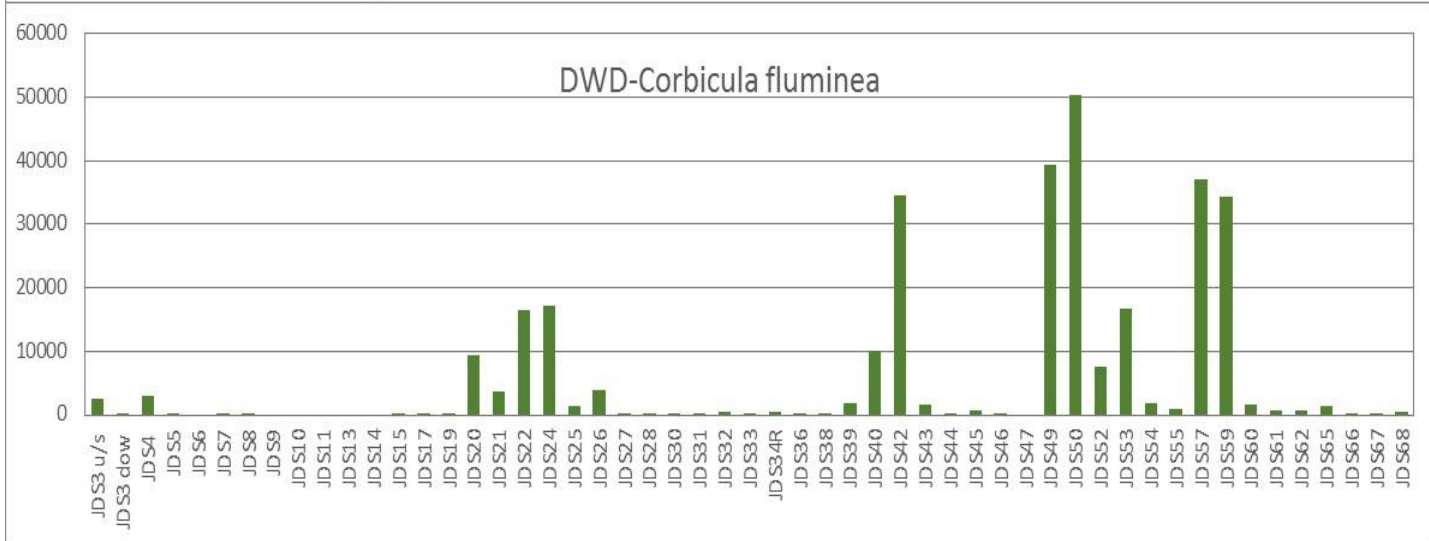
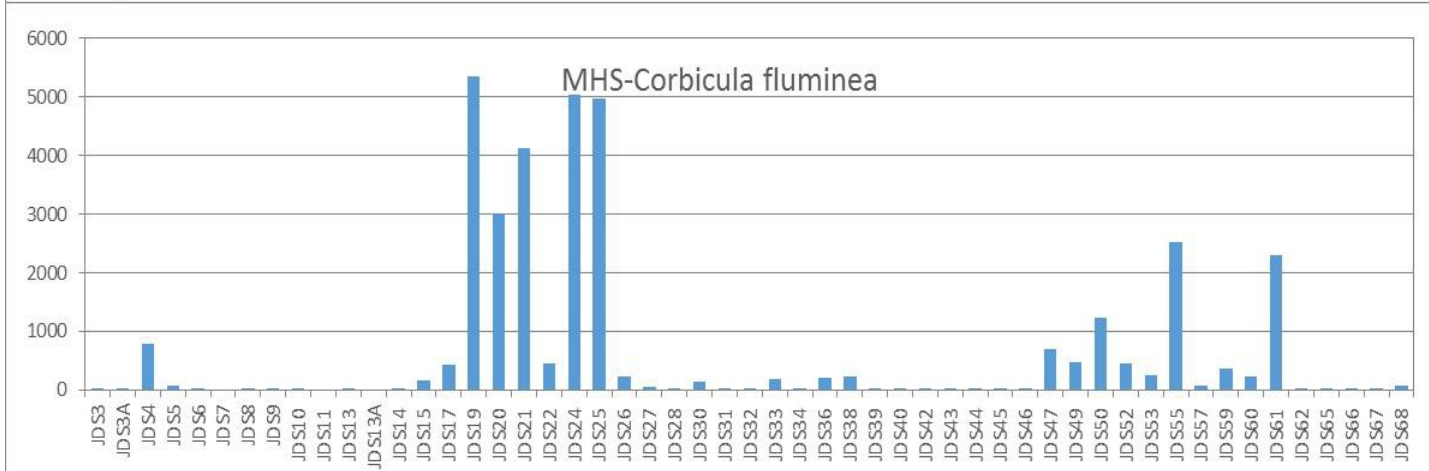
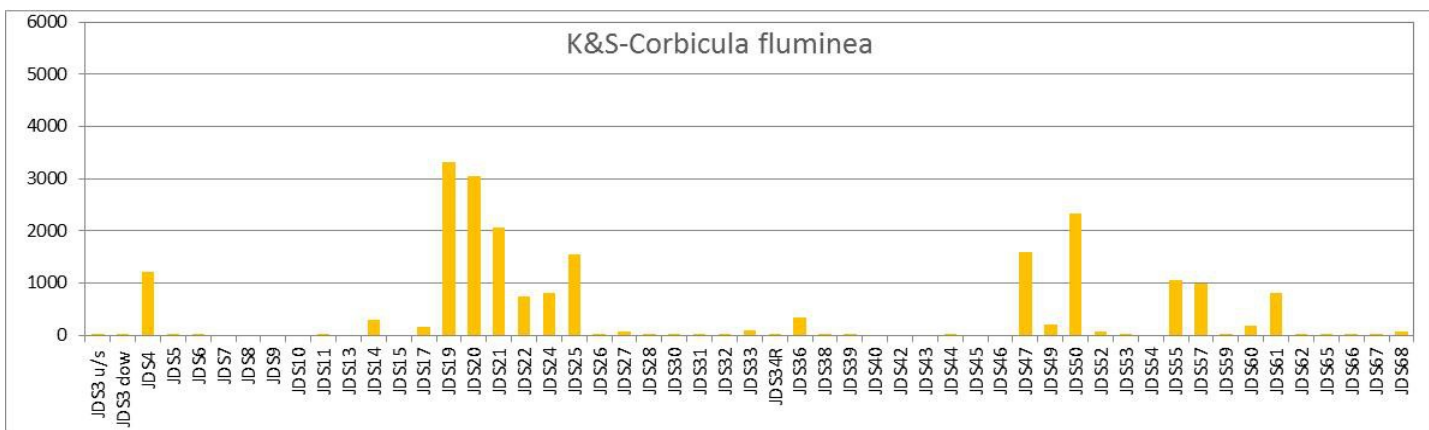
Corbicula fluminea & *C. fluminalis*

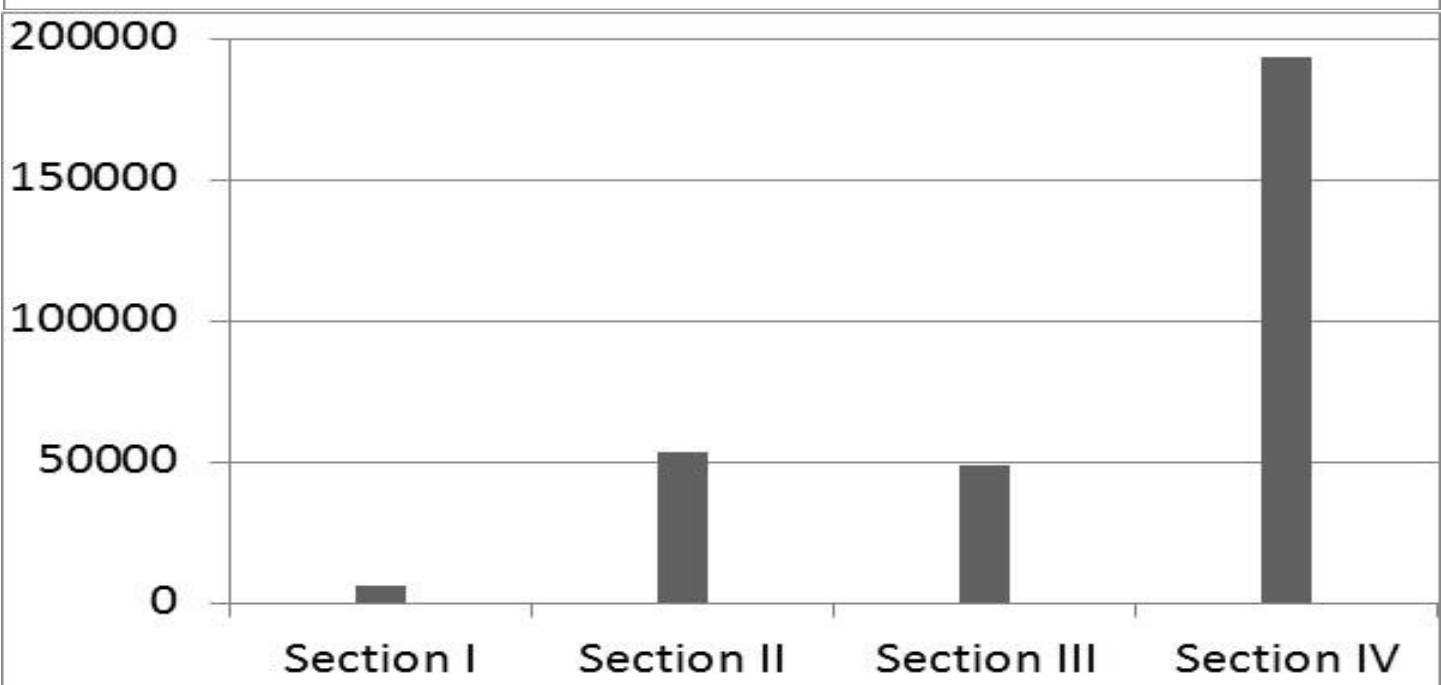
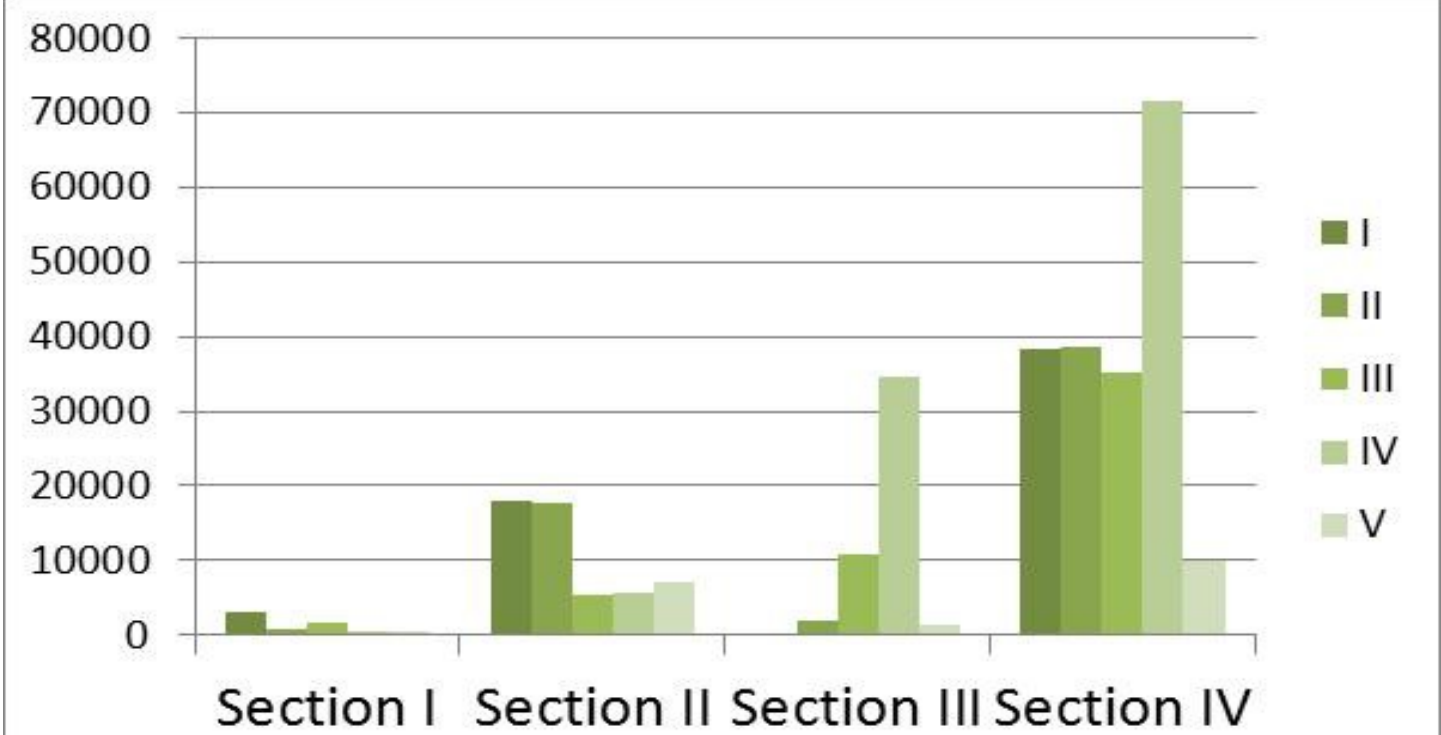




*Mass of Corbicula fluminea d/s
Jantra Romanian (left) Danube side*







*Invasive Corbicula fluminea, native
Holandriana holandrii*

A close-up photograph of a large number of clams, likely Corbicula fluminea and Holandriana holandrii, packed together in a shallow metal tray. The clams are mostly yellowish-brown with distinct concentric ridges on their shells. Some shells are open, revealing the dark interior. The clams are submerged in a shallow layer of water, which reflects light and creates highlights on the shells. The overall appearance is that of a dense, mixed population of these two species.

Successful coexistence

Non-native aquatic snails

Planorbella Helisoma



Hebetancylus Physella



Pseudosuccinea Melanoides Pila



Potamopyrgus

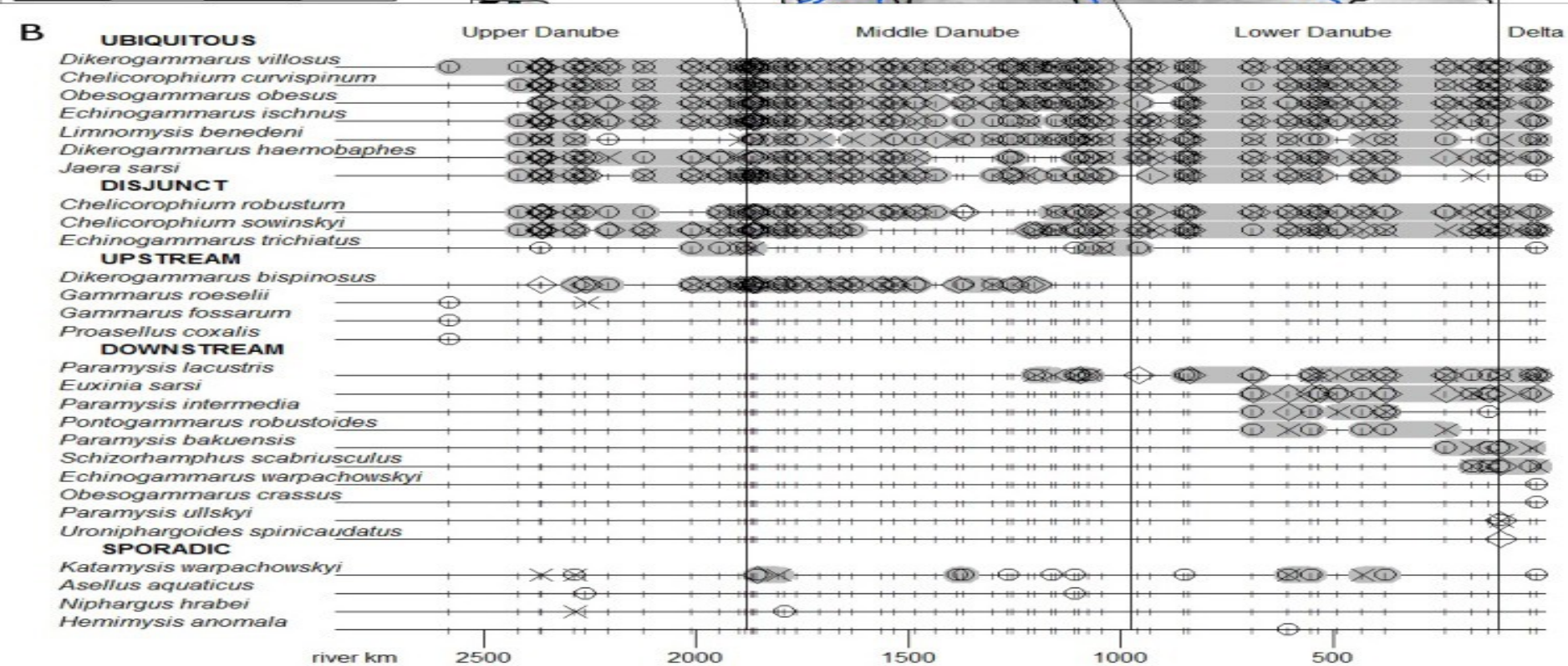
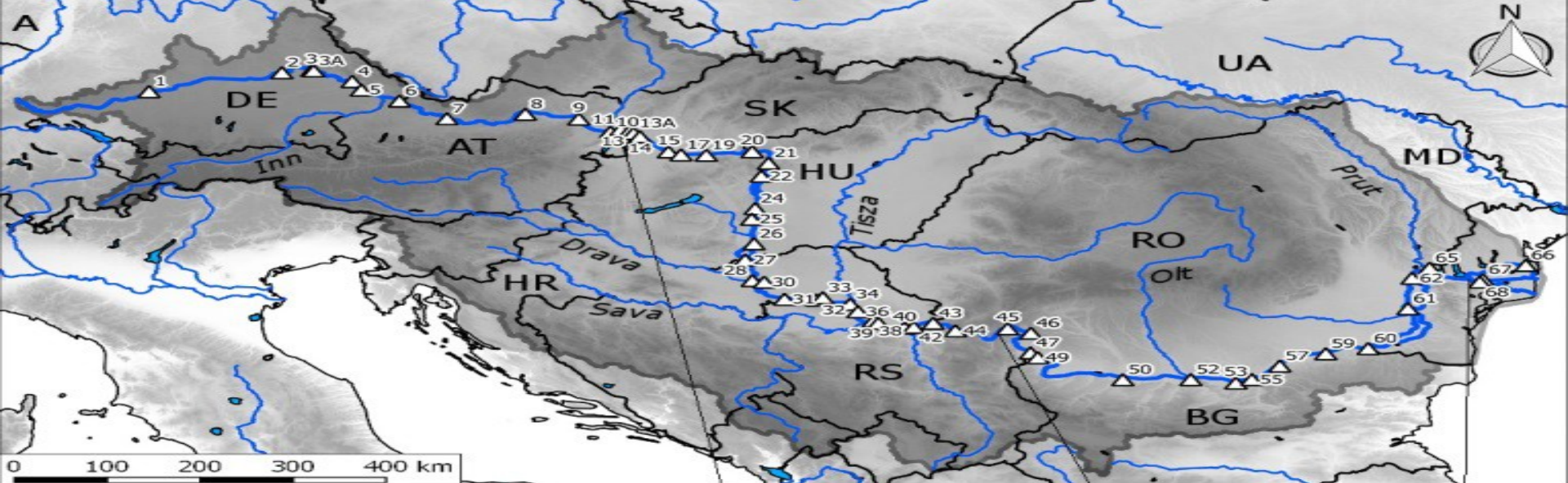


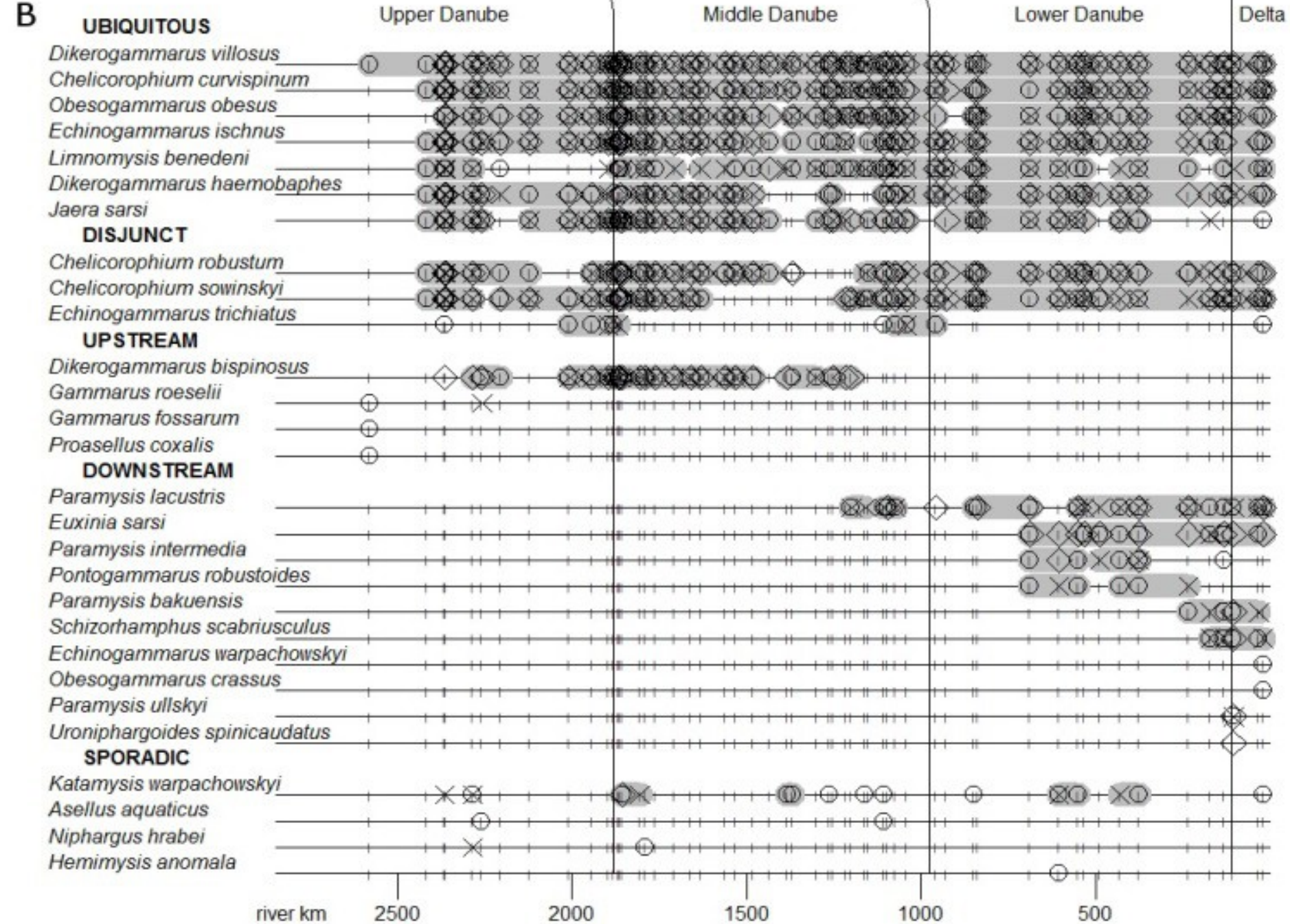
Marisa cornuarietis:
Ampullariidae



Clea (Anentome) helena:
Buccinidae







Pacifastacus leniusculus





Orconectes limosus



Other Crustacea taxa

- *Eriocheir sinensis*
- Procambaridae: *P. clarki*, *P. falanx*



IAS in the Danube River Basin Management - coordinated by ICPDR

- Evaluation of the existing pressures by different taxa/taxon groups:
- Further elaboration of the risk assessment methodology;
- Development of the methodology for evaluation of the IAS impact on the ecological status assessment;
- Suggestion of possibilities for effective mitigation measures;
- Update of the Danube IAS list as well as the Black List.

Preparation of a Manual for IAS monitoring in the DRB

- Review of IAS data collection in the DRB;
 - Sources/databases
 - Methods
- Sampling methodology for aquatic species;
- IAS data evaluation;
 - Spatial analysis (sections/tributaries)
 - Analysis of IAS/native taxa
- Design of a reporting format and database;

Deliverable: **Updated Guidance Document**

Deadline?

IAS during JDS4

- Development of targeted & tailored methodology for collecting and evaluating of data
- Actual open questions concerning spatial distribution

Thanking to my colleagues

- András Weiperth, Blanka Gál, József Szekeres, Ágnes Irma György, Zoltán Szalóky, Momir Paunovic, Stoimir Kolarevic

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