

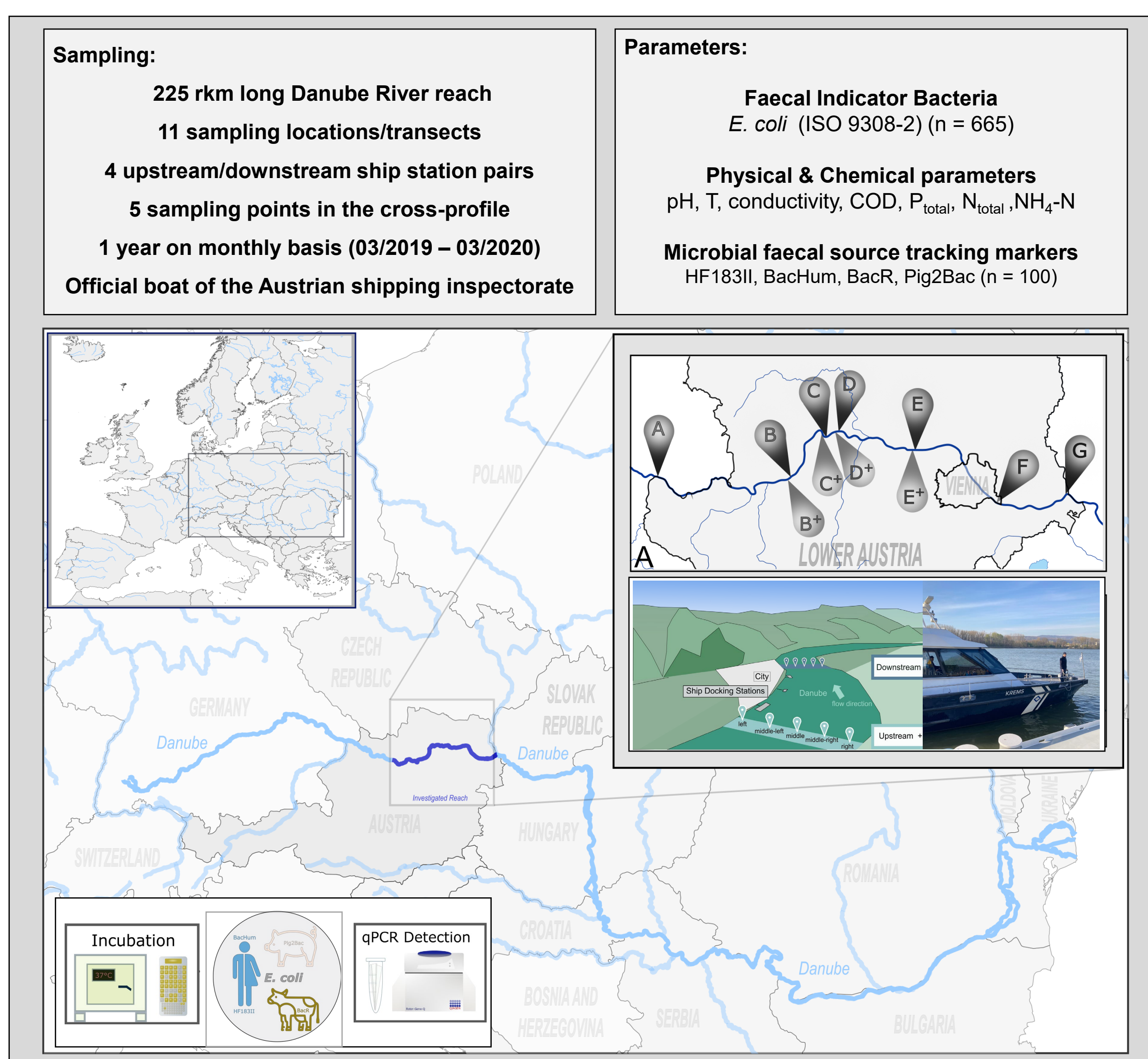
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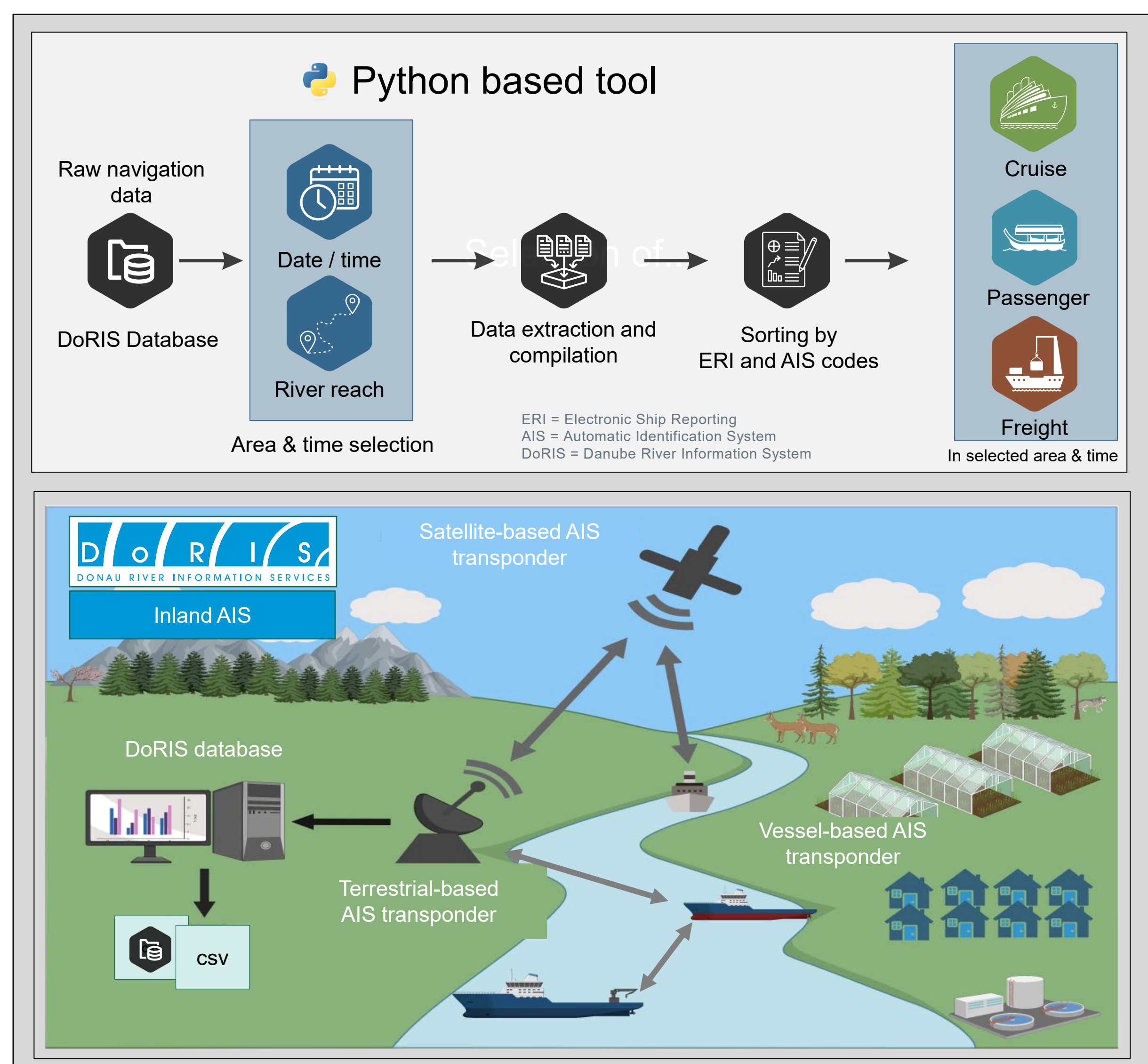
## The approach.

The contribution of ships to the faecal pollution status of large rivers is vastly unknown, but often the subject of public concern. Herewith, we present a novel data driven approach for comprehensive evaluation of the contribution of ships to the faecal pollution level of a large river section. The data-basis for the evaluation is a spatially and temporally highly resolved water-quality analysis, in combination with an adaptive ship data assessment tool. Both databases are used for performing three different steps for impact evaluation: 1) Faecal impact scenario estimation by pollution source profiling, 2) Status-quo on the faecal pollution level of the river section, 3) Associations between observed faecal pollution and ship activity. The approach was carried out for the first time at a large Danube River section in the region of Austria in Europe, showing high potential as a universal and a sensitive approach.

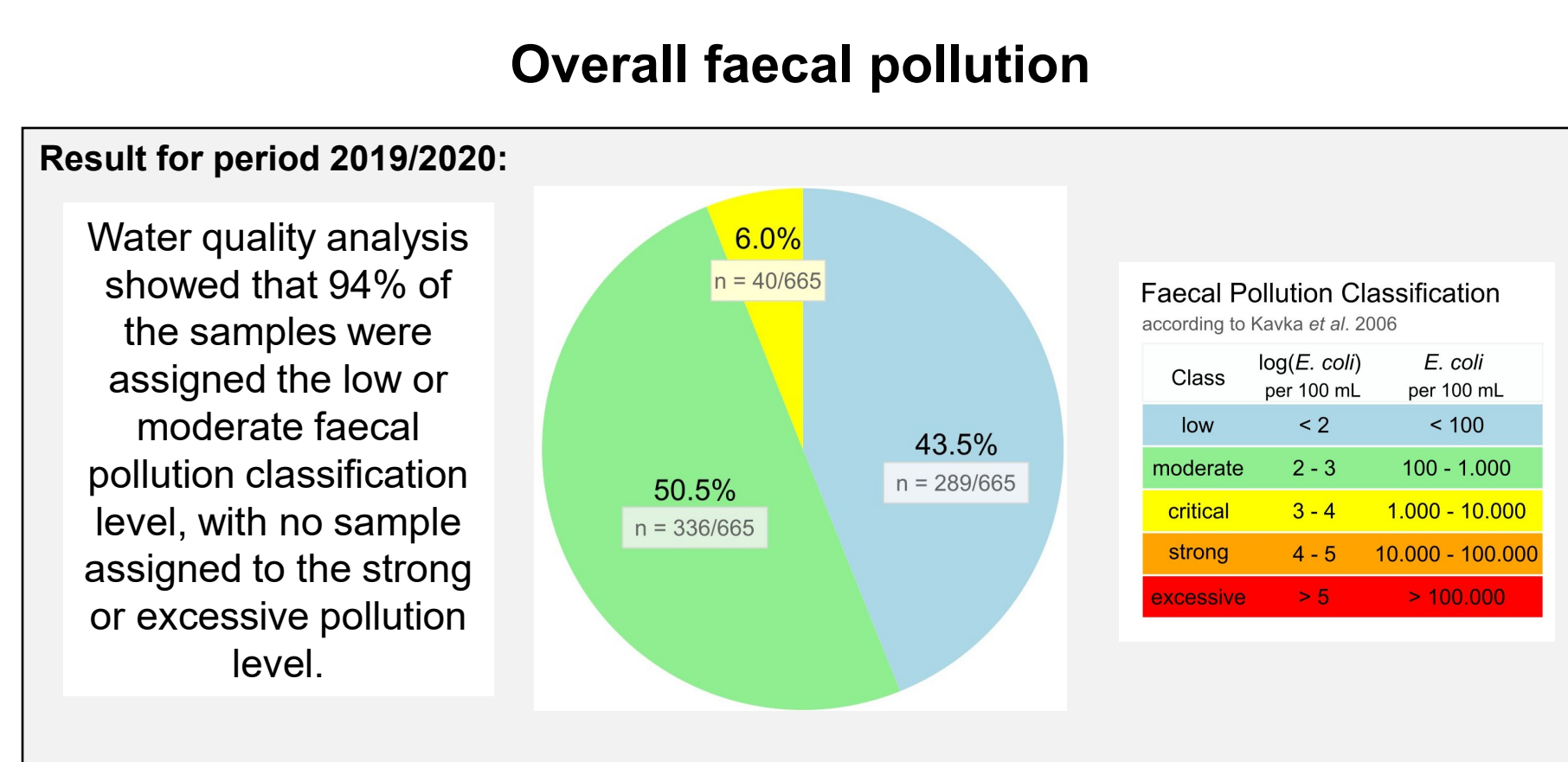
## Water-quality analysis



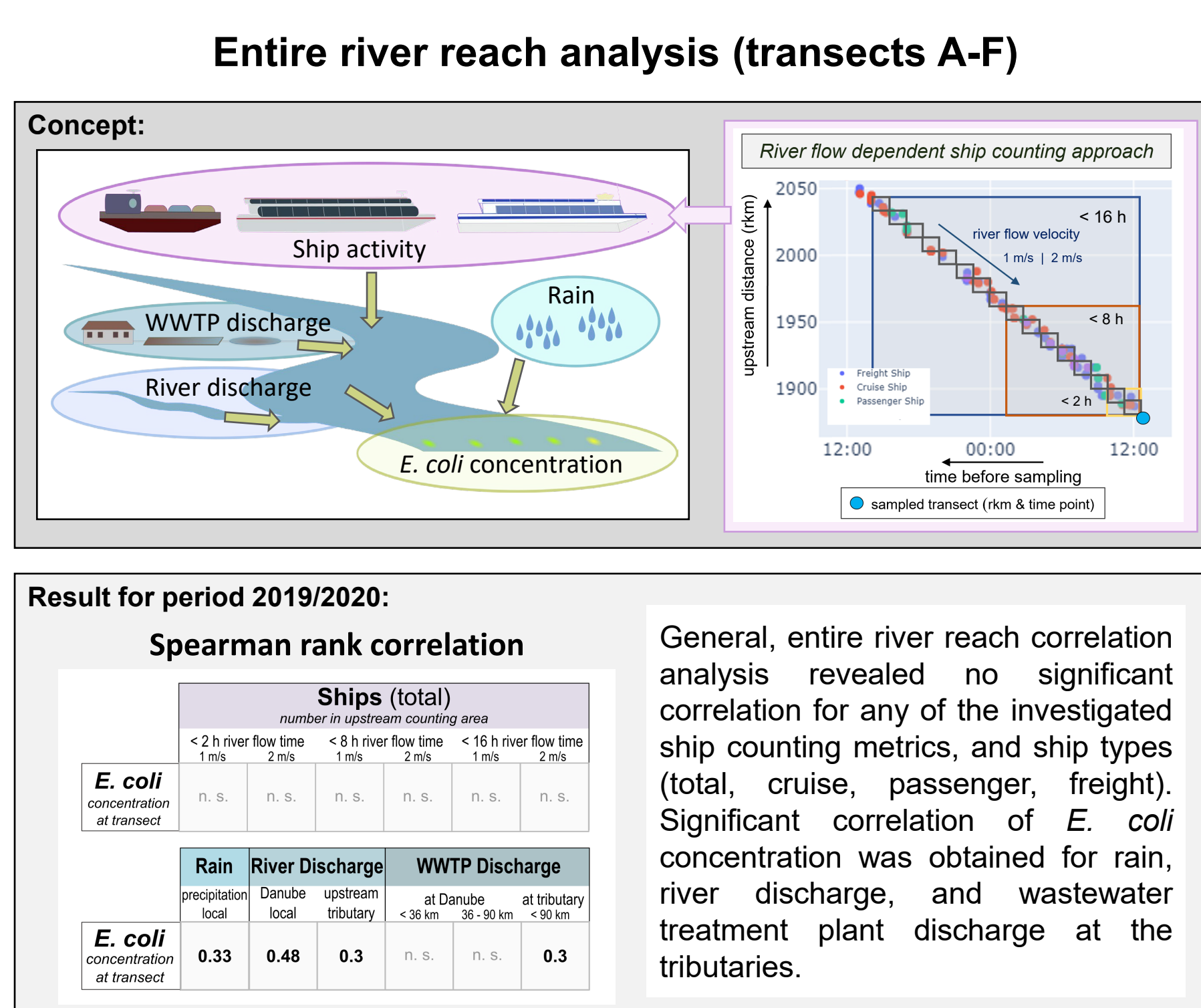
## Ship data assessment



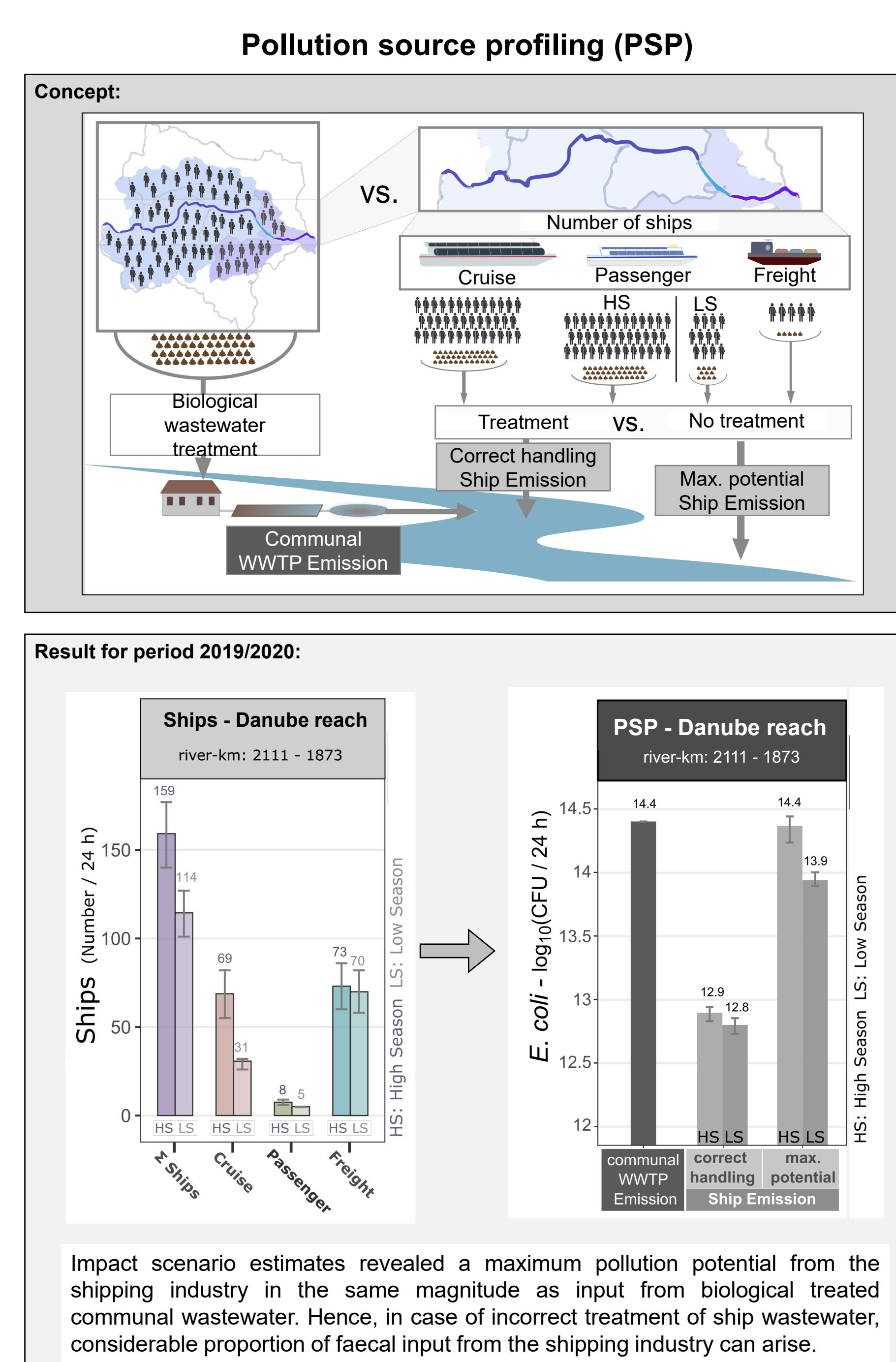
## Faecal pollution status



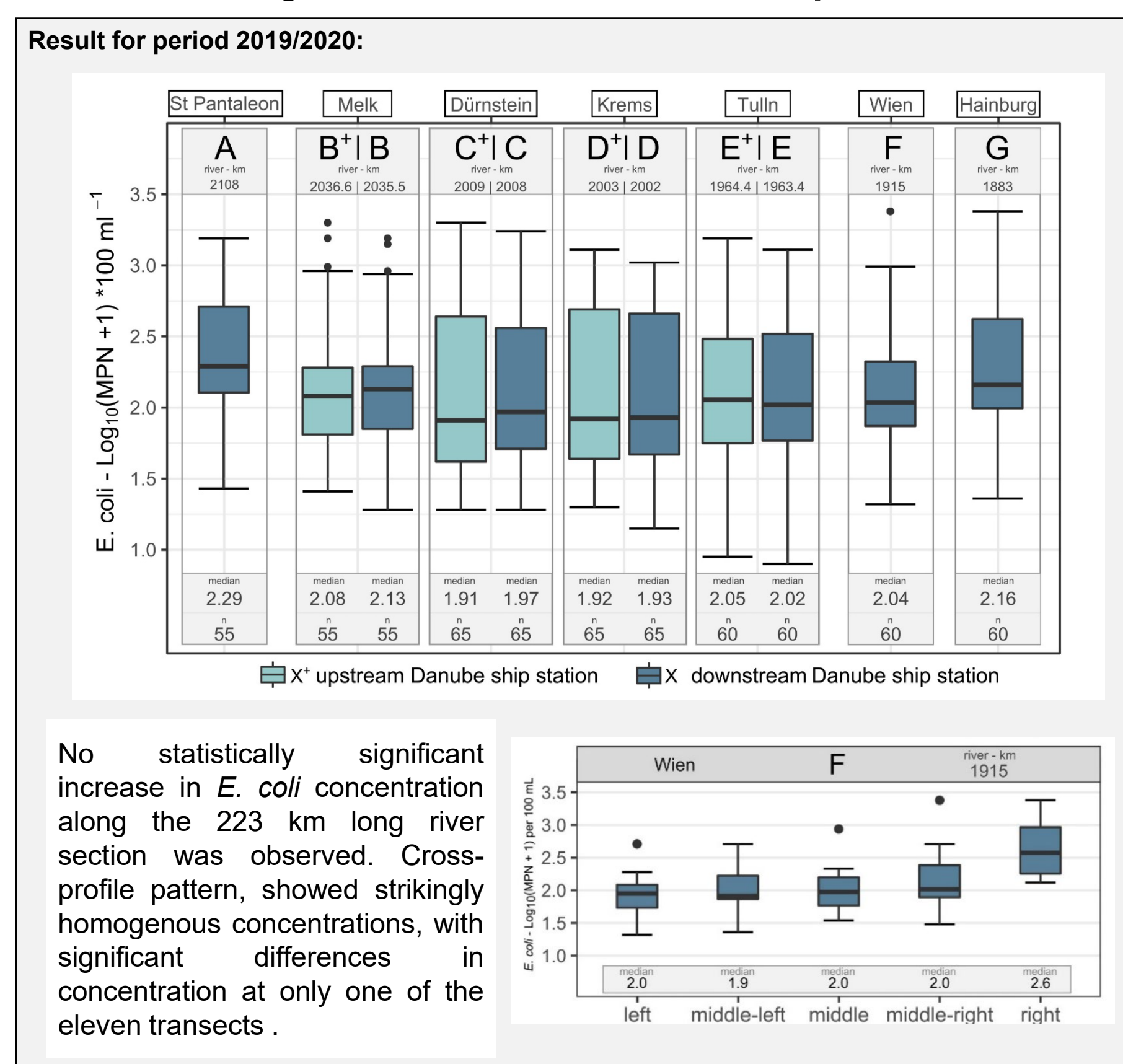
## Association ships & pollution



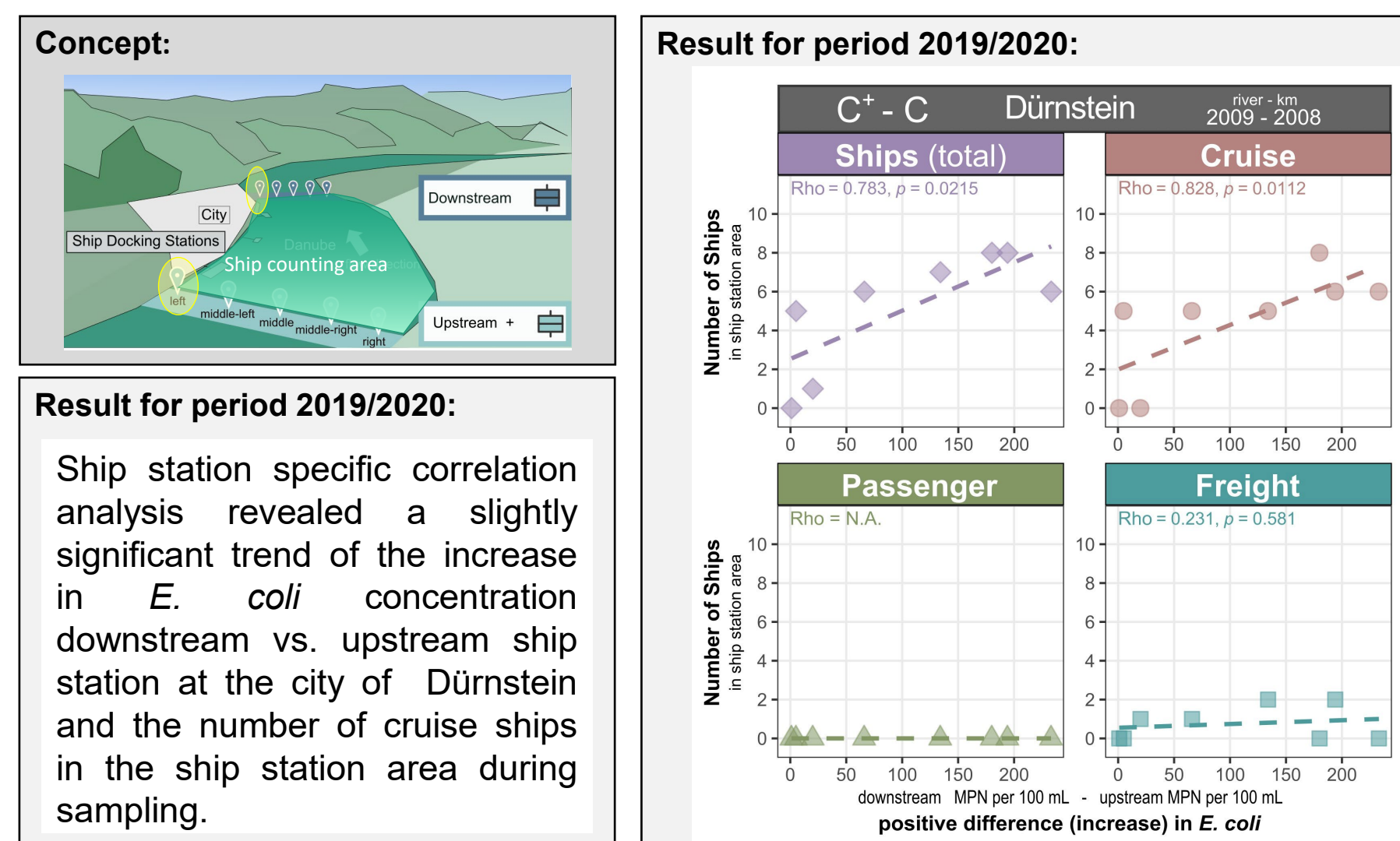
## Impact scenario estimation



## Longitudinal and cross-sectional pollution



## Ship station specific correlation analysis



## Acknowledgements:

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