

Project Title

Determination of the quantity of pelagic microplastics in estuaries of different salinities of non-tidal seas under conditions of military operations

Project Data

Duration	Funding	Project location/ Region
02.02.2026 – 01.02.2027	14 200 €	Odesa, Ukraine

About the Project

What is the problem – and what do you want to change about it?

Lack of data on the quantitative characteristics of microplastic pollution of the pelagic waters of estuaries of different salinities during the war.

What are you doing specifically to achieve this goal?

To address this issue, 4 expeditions will be conducted (by hydrological seasons) on 4 estuaries with salinities ranging from about 0 to 300 ppm.

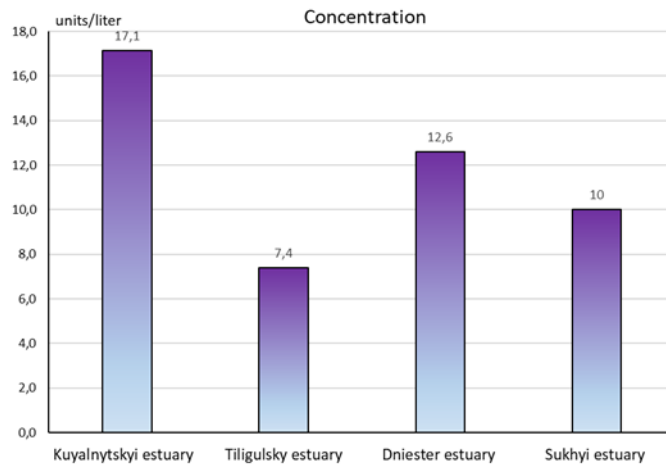
All quantitative and qualitative indicators will be analyzed and statistical patterns will be derived.

What is special or new about your approach?

This is the first study of microplastics in the pelagic for estuaries of non-tidal seas. What is distinctive is that not only the geographical but also the seasonal variability of microplastics in the pelagic will be analyzed at the same time. The first maps will be provided and the estuaries will be ranked by the degree of pollution. In addition, the pelagic microplastic index will be tested as an indicator of the degree of anthropogenic load.

The figure: What does the project actually do?

The number of microplastics per liter ranged from 2.3 to 26.0, the average value was 11.8 ± 2.08 units/liter.



Average concentration of plastic in estuaries in spring 2026

What remains? What concrete results are achieved, and who can use them in the future?

At present, we have three indicators: the number of types of microplastics, the concentration of microplastics and the size at 5 sampling points for 4 estuaries in the spring season. In the future, this will be used for monitoring purposes, and to determine the impact of military operations on water bodies in southern Ukraine.

Also, the data is needed to draw the attention of local communities to the problem of water pollution by microplastics and to make further recommendations on administrative decisions aimed at improving the state of aquatic ecosystems (the need for separate collection and processing of polymer waste)

See the project images
on the following pages



Project images

Image 1 of 6



Collecting microplastic samples on the shore of the Kuyalnyiyskyi estuary.

Photo: © Ruslana Mihas

Project images

Image 2 of 6

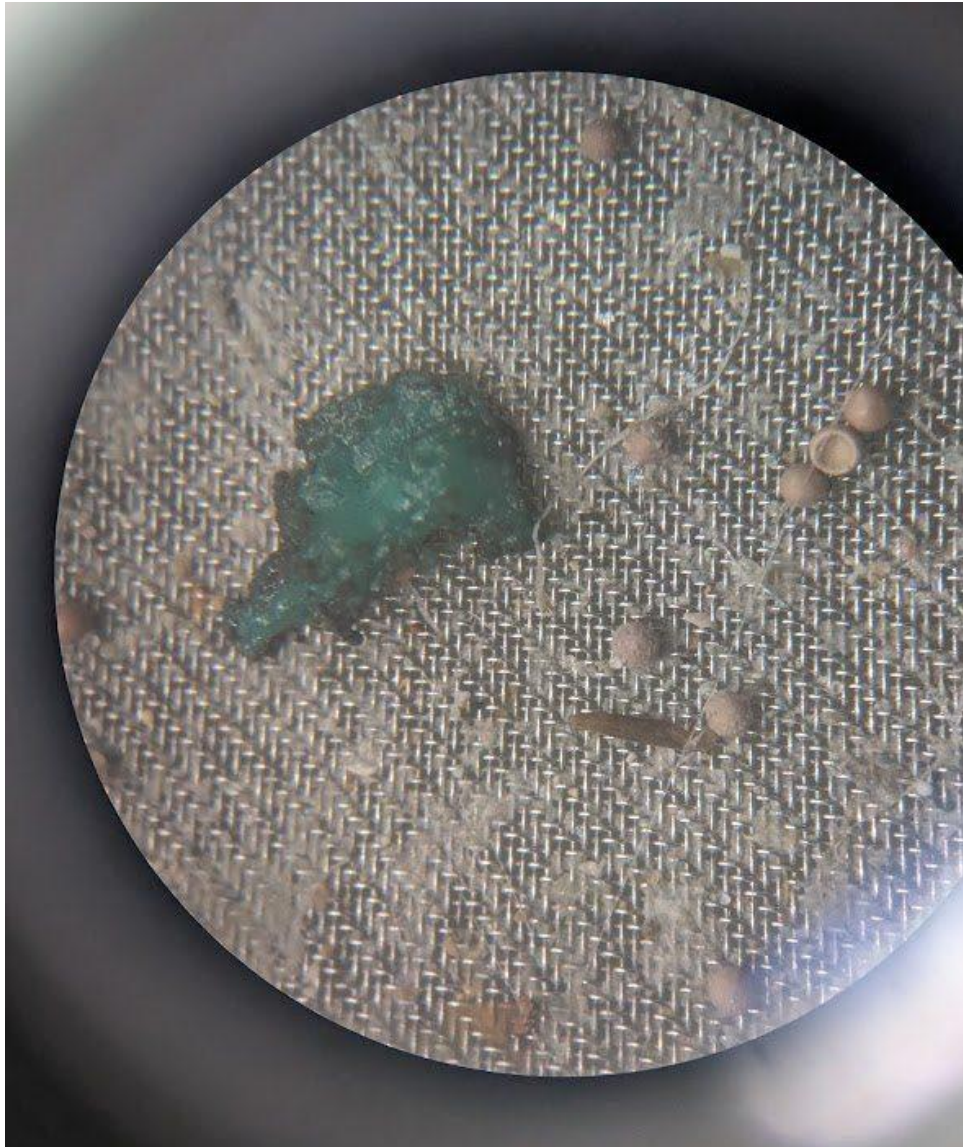


Fiberglass at the Kuyalnytskyi estuary.

Photo: © Ruslana Mihas

Project images

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Green plastic.

Photo: © Ruslana Mihas

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Sampling at the Dniester estuary.

Photo: © Ruslana Mihas

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Sources of pollution.

Photo: © Ruslana Mihas

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Going down to take samples at the Tiligul estuary.

Photo: © Ruslana Mihas