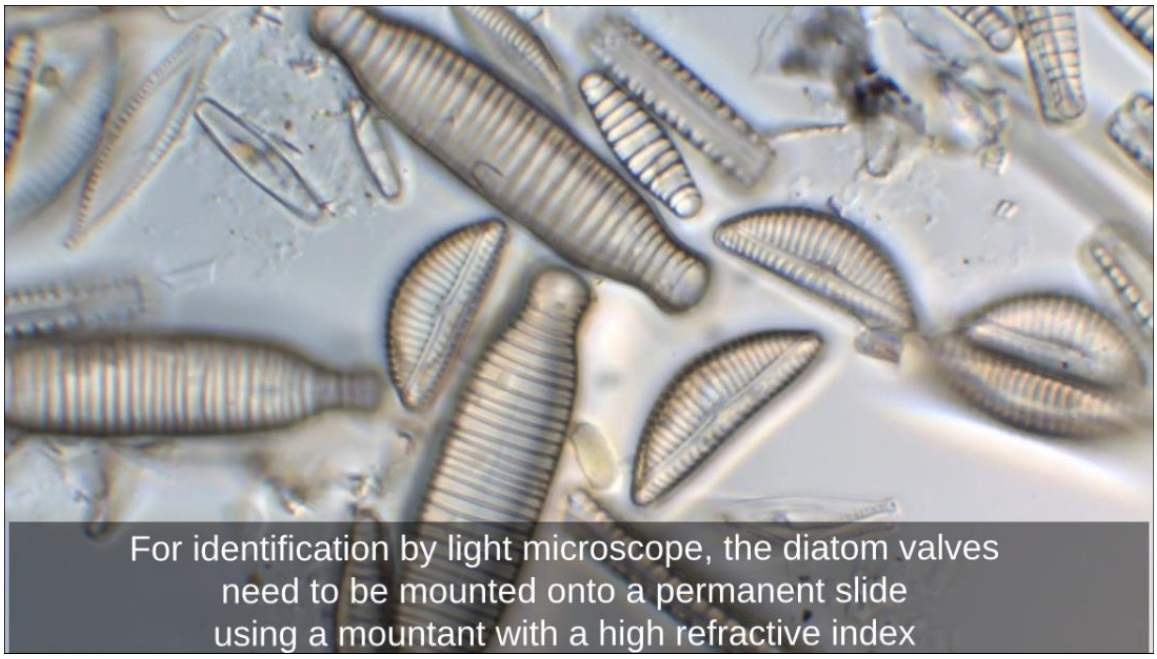
Action funded by the EUROPEAN UNION

EUWI+ EU WATER INITIATIVE FOR EASTERN PARTNERSHIP

Two training videos on biological monitoring (diatoms, phytobenthos/algae) developed in the frame of European Union Water Initiative Plus



Diatom Training video - Part I field work
Diatom Training video - Part II lab work

Eastern Partnership countries are in the process of aligning their water management standards with those of the European Union and especially the Water Framework Directive (WFD). The EU WFD aims at upgrading conventional water quality monitoring (based on investigation of chemical parameters only) to carry out more comprehensive biological monitoring, which gives water managers more precise information on water quality. However, the focus of ecological status assessment is often limited to the biological quality element (BQE) of macroinvertebrates. The introduction of diatoms (phytobenthos/algae) as a second BQE is an important next step towards improving biological monitoring.

In the frame of the European Union Water Initiative Plus, the Environment Agency Austria, responsible for activities related to water monitoring and analysis, shares its expertise in this domain with colleagues from the Eastern Partnership countries. As the COVID-19 crisis has made it impossible to provide further training on the field, two training videos have been developed to provide guidance.

Two videos on how to introduce diatoms as a biological quality element

Each video shows the necessary steps to introduce diatoms (phytobenthos) as a biological quality element for ecological status assessment. The first video shows the sampling process in the field and the second

video explains the preparation of samples and permanent slides in the laboratory, following the European Standard (CEN 13946: 2014).

Who might be interested in these videos?

Due to their technical nature, the training videos are mainly aimed at biological monitoring experts and hydrobiologists. However all experts, independent of their institution, are invited to watch and highly encouraged to share our videos within their networks to further enhance capacity building.
Of course, anyone else who is interested in learning more about diatom sampling and sample treatment is welcome too! The video subtitles are available in 7 languages.

Biological monitoring in the EU Water Framework Directive

Biological monitoring investigates benthic invertebrates (insects, snails, worms, etc. living in water), diatoms (algae), fish and macrophytes (water plants) – known as Biological Quality Elements (BQEs). Chemical monitoring, on the other hand, is mainly concerned with detecting nutrients (agriculture, urban wastewater) , pesticides and industrial pollutants. Information provided by chemical monitoring only represents the point in time and specific location where the sample was taken, whereas biological monitoring gives water managers more comprehensive information over a whole water body and a longer timespan featuring varying conditions. This is important because aquatic animals and plants constantly live in the river and react to any natural changes and untypical disturbances. Therefore, the presence or absence of certain species, such as diatoms, reflects a natural or impacted status of a water body.

Background info: European Union Water Initiative Plus (EUWI+)

Launched in September 2016 for a duration of 4 years, the **European Union Water Initiative plus for the Eastern Partnership (EUWI+)** is one of the biggest policy dialogue and technical support commitments of the European Union to the water sector in the Eastern Partner countries. The programme supports the six partner countries (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine) to align their legislation with European Union policy on water management, with a focus on transboundary rivers. The project is co-funded by the European Union (EUR 23.5 million) and Austria and France (EUR 1.0 million). It is implemented by the Organisation for Economic Co-operation and Development (OECD), the United Nations Economic Commission for Europe (UNECE), and an EU member states consortium comprising the Environment Agency Austria (Austria) and the International Office for Water (France).

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