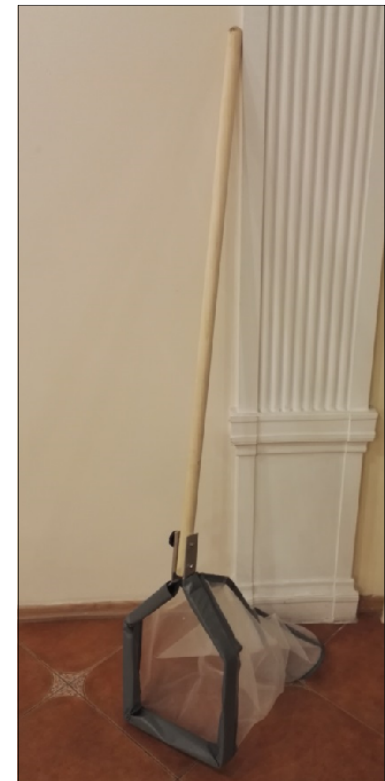


Sampling and processing of benthic macroinvertebrates samples from water bodies

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What are the benthic macroinvertebrates and why are they being monitored?

- The benthic macroinvertebrates consist of molluscs, crustaceans and insects that live at least part of their lives underwater.
- Benthic macroinvertebrates is one of the indicators of the EU Water Frame Directive of the protection and status of water bodies



Sampling of benthic macroinvertebrates

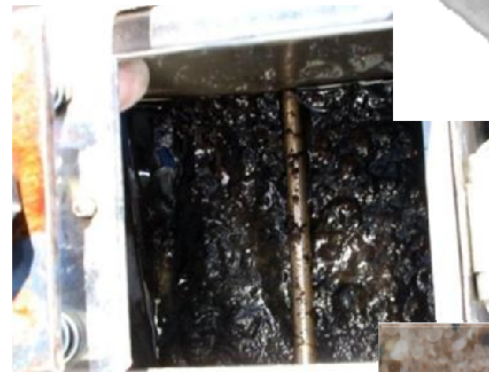
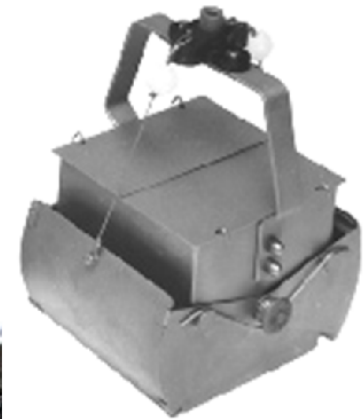
Rivers (rapids)

2 minutes of
sampling in
total



Lakes (different for shores and deeps)

5 (3-6)
parallel
samples



River sampling

- Samples taken from rapids
 - Rough rock bottom
 - Gravel
- In front of the net the sediment is kicked with strong round movements for a time of 30 seconds. During the kicking the person performing the sampling has to move upriver the length of about one meter.
 - Contents of the net is poured to a plate, cleaned up and checked.
 - Sieving of contents and finally the sieved contents into a sample jar



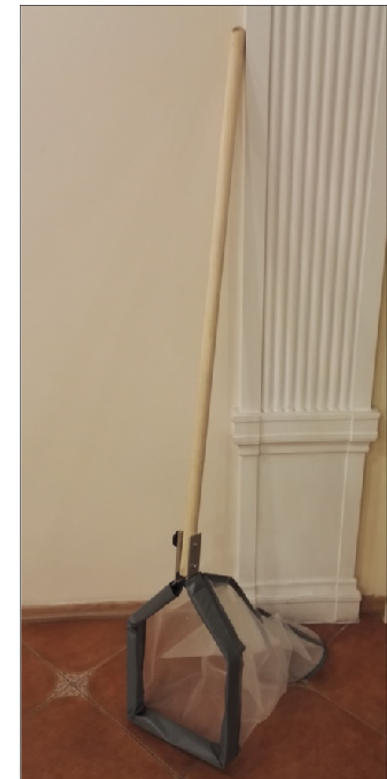
Shoreline sampling from lakes

- Hand sampling from rocky shores
- 2-3 places / lake
- 2-3 20 second samples / sampling place
- All together 120 seconds / lake



Equipment needed for benthic invertebrates sampling

- Map of the area (or GPS), stopwatch, net for sampling
- Tweezers and a wash bottle
- Plastic bucket and sieve
- Waders
- Funnel
- Containers with lids for samples



Process of sampling

- Using net according to the type of sampling location
- Empty contents of net to a container (sieve is good for this)
- Wash off the benthic invertebrates that are attached to the net
- Pick the invertebrates from the bucket to a container or a white surface for determination of species



Son-Kul sampling

- Sampling in Son Kul this time is made for different reason than that was described now
- The main target is to gather benthic invertebrates in order to analyze them for possible pesticide remains
- Reason for analyses is to determine whether there are pesticides present in the food chain of the lake

Thank you!

