

# WATER QUALITY ANALYSIS ON WATER-BASIN IN MACONKA

## Some information about biotical quality assessment of water in Fáy András Vocational school Hungary:

Description is given of the method generally used in Belgium to assess the quality of running water, so called BISEL analyses.

It involves the determination of a biotic index with scores between 0 and 10, its based on a qualitative sampling of the aquatic macro invertebrate fauna, collected in situ using a hand net. Its major advantages are its simplicity, speed, and reliability, low cost and practical utility. We can combine it with chemical analyses, but macro invertebrates have „memory„ and number demonstrate pollution.

The steps are:

1. sampling procedure
2. field protocol
3. conservation, separation, and treatment of sampled material
4. identification of the organism
5. calculation of the biotic index
6. interpretation of the biotic indexes

Maconka is a part of the town Bátonyterenye. It is on the northern part of Mátra hills. The Zagyva river runs in the middle of water-basin.

The Zagyva water is 179 km long, its rise from our discreet and runs to Tisza river at Szolnok. The water-basin is surface type its capacity is 1 million 800 000 m<sup>3</sup>. Water system is natural; the basin is regulated and equalized.

It is quantity regulated basin for avert damage and profitable.

Filling system is gravitation, operation system is unbroken.

- The first goal is to make compare between water output and using water.
- The second goal is assuring drinking water.
- The 3. goal is fishing

The water-basin was built in 1976.

On the catchments area there are not meaningful pollution.

Our group collected water samples from 3 points.

- We measured temperature
- PH : was 7-8.5 it is neutral
- Electrical conductivity: 550-950 μS/cm

- Alkalinity: 4-6 mg/L as  $\text{CaCO}_3$
- Nitrate: 12 mg/l
- Nitrite: 0.01-0.2 mg/l
- Dissolved Oxygen: 8-11 mg/l
- Hardness: 150-250 mg/l CaO
- $\text{SO}_4$ : 112-140 mg/l

The quality of water –basin as we see the Hungarian standard /MSZ 12 749/1993 about the quality of surface water / are good II. Class.