

Long-term change in water quality at Masugatanoike spring water and its influencing factors

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[1] none

Long-term changes in water quality at Masugatanoike spring and the factors affecting them were examined.

Although the changes were not always stable, the increasing trend in water temperature and decreasing trend in the concentrations of nitrate and chloride ions and volatile organochlorine compounds were observed after 1990.

The high concentrations of nitrate ion (500 $\mu\text{mol/L}$) suggested the influence of sub-soil infiltration of domestic wastewater.

However, this concentration did not decrease dramatically even after the completion of sewerage system in the recharge area.

The responses of spring water quality were very slow and had a significant time lag.

This study showed the importance of long-term monitoring of spring water quality.