

Water Quality of the Hirase River

Ikuta high school

Our high school has about 1,000 students.

It is surrounded by nature.

We have many kinds of club activities.

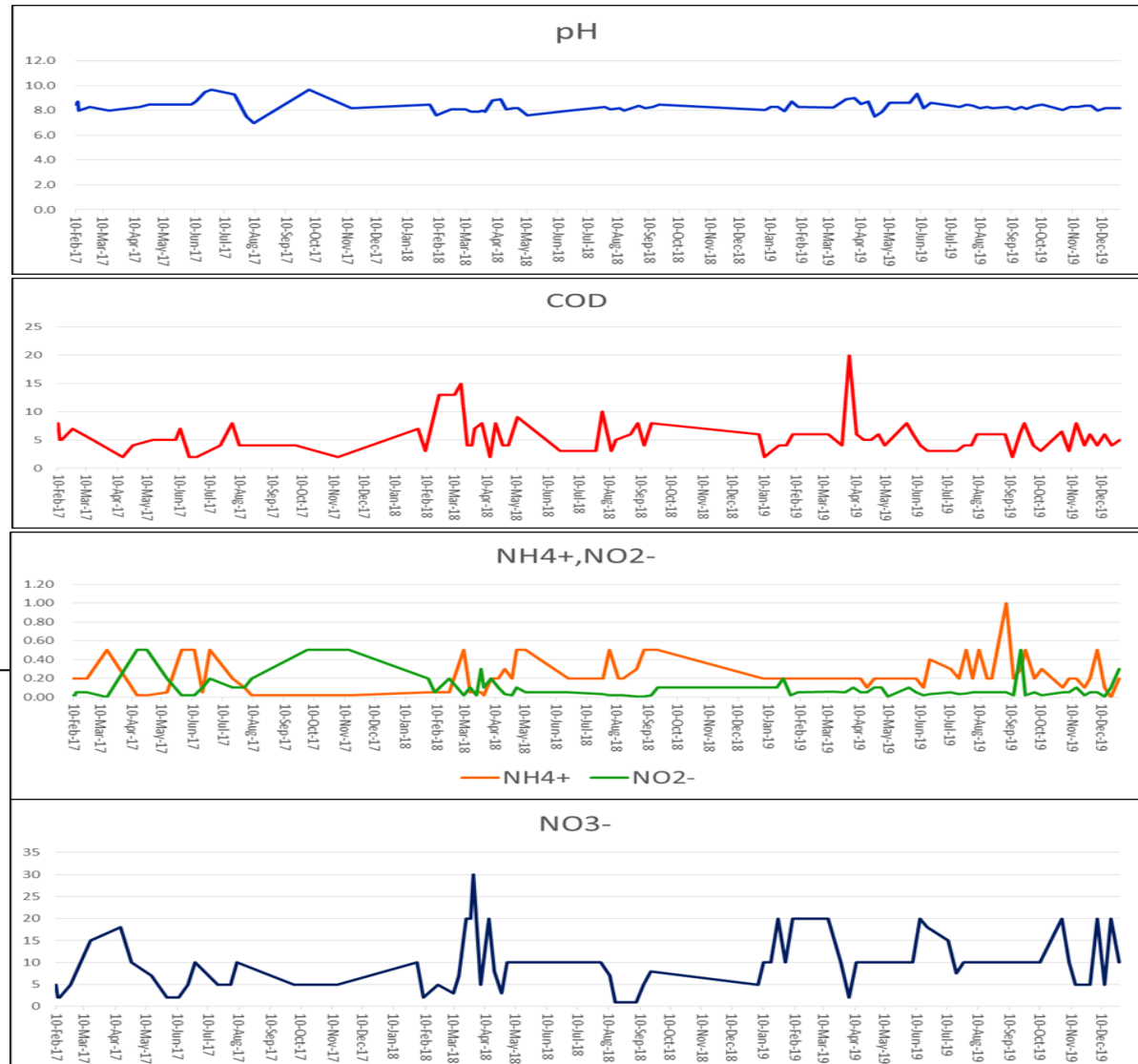
About the activities for GLOBE

- Hydrology since 2015
- Phenology since 2019
- Attending an international meeting in Ireland

Discussion

We think that the quality of the water got worse became as a result of heavy in a short period rain falling.

Measurement results

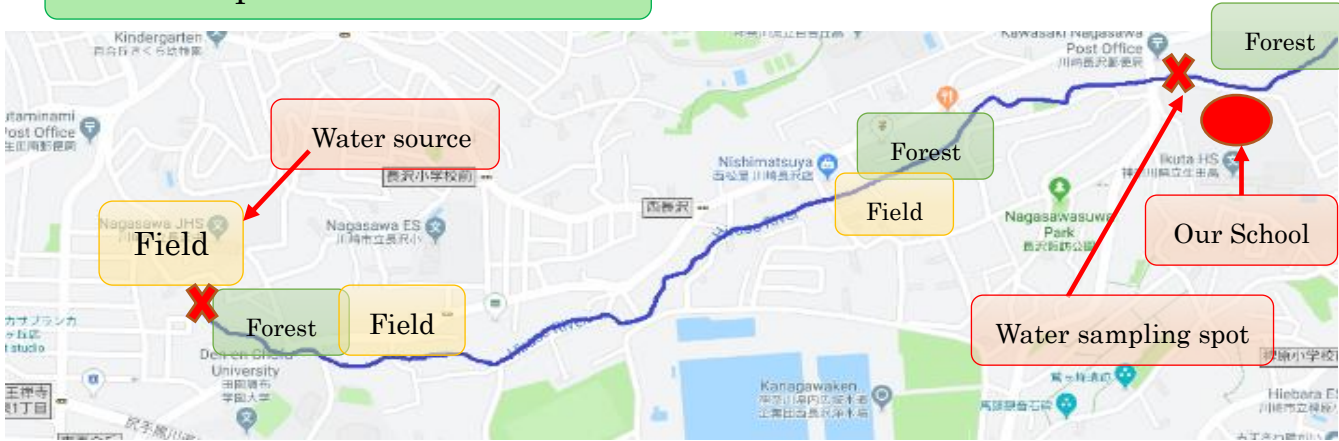


Measurement items



- ① pH → The hydrogen ion exponent
 - ② COD → The amount of the organic matter
 - ③ NH₄⁺
 - ④ NO₂⁻
 - ⑤ NO₃⁻
- The amount of the nitrogen

The Map of the Hirase River

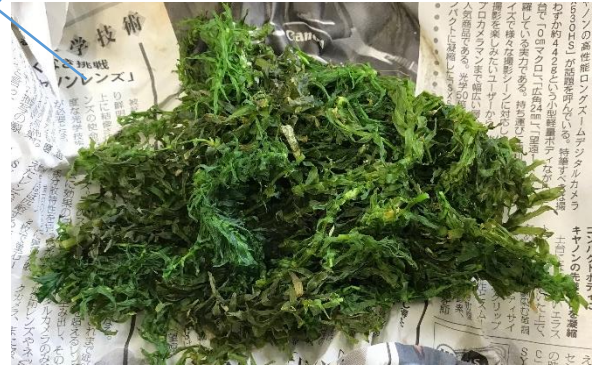


The weight of OHKANADAMO

With NO ₃ ⁻ in the tank.	Without NO ₃ ⁻ in the tank.
8.07 g	6.40g

10 days later

Dried OHKANADAMO



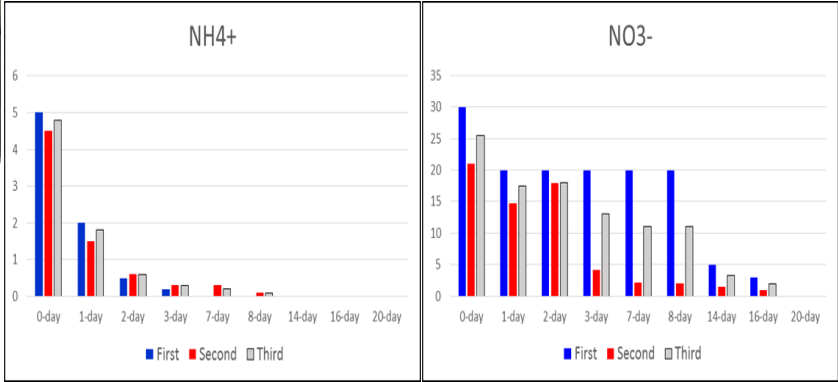
Experiment on removal of nitrogen

This is a water plant called OHKANADAMO.



- We made a solution with fixed concentration of NH₄⁺ and NO₃⁻.
- We measured the concentration of NH₄⁺ and NO₃⁻ in these two water tanks.

Experimental results



Conclusion

- OHKANADAMO absorbs NH₄⁺ even if photosynthesis is limited.
- OHKANADAMO absorbs NO₃⁻ if it photosynthesizes normally.