

## (Project Work and) Master's Thesis HS 2024



Head: Prof. Dr. Robert Boes Supervision: Prof. Y. Yasuda (Nihon Univ)

## Kasumigaura and Teganuma: Improvement of the lake and marsh environment

Kasumigaura is the second largest lake in Japan. The lake is managed by the Ministry of Land, Infrastructure, Transport and Tourism. Teganuma is the largest swamp managed by Chiba Prefecture. Kasumigaura is facing a drastic decrease in the number of aquatic plants and animals and erosion of its shores, while Teganuma is facing a lack of environment for the growth of released eels (Fig. 1).



Fig. 1: Kasumigaura lake and Teganuma marsh

This master's project will be conducted in the field. The installation of assembled boulder structures will be applied to Kasumigaura, the second largest lake in Japan, and Teganuma, where many invasive alien species live. The habitat and refuge environment of aquatic organisms and the growth process of aquatic vegetation will be investigated. Furthermore, we will establish a release method for the conservation of released eels, and periodically investigate how the installation technology of the assembled boulder structure contributes to the improvement of the lake environment. These results will be reflected in the resulting thesis. 6 months of total workload will be required.

Contact: **Reto Keller** Teaching Assistance, HIA B 57.1 044/633 34 08, Keller@vaw.baug.ethz.ch **Remarks:** Project-oriented thesis, topic can be distributed more than once; For Civil Engineering: Project must be continued with a follow-up project as part of the Master's thesis (only Master's thesis or Project Work is not possible). For Environmental Engineering: Can only be chosen as a Master's thesis. This project is available in English and Japanese. Accommodation will be provided in university housing (Funabashi campus in Chiba Prefecture). Transportation for the research will be provided. The university has two campuses, one in Tokyo and the other in Chiba, and we will support your travel between the two campuses. Please check further financial support over ETH's Erich-Degen-Stiftung.