

10. Development of research facilities for biodiversity conservation - Design and construction of biotope for research on aquatic organisms -

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Work conducted on construction sites can degrade the natural environment. One countermeasure adopted to date, compensatory mitigation, seeks to preserve biodiversity by transferring native species found at the planned construction site to other sites. From February to August 2021, we constructed a biotope at our technical research institute as part of efforts for "practicing compensatory mitigation" and "accumulating technologies related to biodiversity-friendly spaces such as biotopes". Specifically, we intend to conduct research to identify the ecological characteristics of *Eriocaulon parvum* and other aquatic plant species and to preserve biodiversity by accumulating technologies related to the items and procedures of surveys and experiments.

Serving as a research center, the biotope consists of five growth experiment ponds, a conservation experiment pond, and a floating-leaf plant experiment pond. The growth experiment ponds are for experiments examining growth differences attributable to varying conditions; the conservation experiment pond is for practicing compensatory measures; and the floating-leaf plant experiment pond is for growing and exhibiting floating-leaf plants. All ponds have adjustable water levels and circulating water. This paper reports on the design, construction, and initiatives undertaken at this biotope.

Key words: biodiversity, biotope, endangered species, aquatic plants, mitigation