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## AQUATIC ANIMAL EXPERIMENT ON THE ISS AND THE AQUATIC HABITAT

**Abstract**

Japan has long history of using aquatic animals for space experiments from its beginning of experimental research on space life science such as STS-47 Space Lab J project. Since then several aquatic animals are used and those results suggested that the small freshwater fish have a high possibility of the long term and multi generational experiment in space. The Aquatic Habitat (AQH), now developing by JAXA, has a unique feature for aquatic animal experiment on board the ISS Kibo module. The AQH have long term life support for up to 90 days, multi-generation breeding, automatic feeding system synchronized with specimen stages, water quality control for long term experiments, air-water interface, specimen monitoring system, and specimen sampling system. This facility is expected to launch by the HTV 3 in early 2012 and start experiment operation in FY2012.

In this paper, developing result of this unique facility and experiment preparation activity including launch site rehearsal will be presented.