

||||| 特集：宇宙生物学実験の新たな展開 |||||

水棲生物実験装置
—スペースシャトルから国際宇宙ステーションへ—

内田 智子¹・河野 靖¹・益川 充代²

**Experiment Hardware for Space Utilization Research with Aquatic Animals
—Advances for International Space Station—**

Satoko UCHIDA¹, Yasushi KONO¹ and Mitsuyo MASUKAWA²

Abstract

Aquatic animals, such as small freshwater fish or amphibians, are excellent model both for ground and space experiments. We have developed aquatic animal experiment hardware for Space Shuttle missions from 1992 to 1998. Also, we have been performing technical studies to develop advanced experiment hardware, Aquatic Habitat (AQH), for long-term experiments in the International Space Station. The AQH will have the capabilities to accommodate three-generations of small freshwater fish (medaka and zebrafish) and egg through metamorphosis of amphibian (African clawed frog). For these purposes, the AQH will have the many brand-new capabilities that the previous facilities have never had. Currently, we are preparing for the start of flight hardware development. In addition, we are advancing another technical studies aiming at precursor mission that precedes the experiments in the International Space Station.