Comparison of behavioral characteristics of hatchery-reared and wild red tilefish Branchiostegus japonicus released in Maizuru Bay by using acoustic biotelemetry
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In order to establish techniques for the stock enhancement of red tilefish Branchiostegus japonicus, it is important to understand the behavioral characteristic of both hatchery-reared and wild fish. Four hatchery-reared and six wild fish were released and tracked using acoustic biotelemetry in Maizuru Bay, Kyoto, Japan, from August 2003 to February 2004. Data for the four wild fish released and tracked from January 2003 to May 2003 were also referred to for analysis. The released fish moved around in relatively large areas within about 10 days after the release, and then three hatchery-reared and two wild fish settled and stayed within limited areas. Fish of both origins showed strong site fidelity and diel activity patterns, i.e. they were detectable in the day but not at night, probably due to hiding behavior in their burrows at night. However, some discrepancies between fish of both origins were detected by comparing their track terms and activity patterns in detail. These discrepancies are probably attributable to the differences in environmental conditions that the fish had experienced before release.