



# Large-scale tissue-specific and temporal gene expression profiles in Pengze crucian carp

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Genet. Mol. Res. 15 (1): gmr.15017642

Received September 15, 2015

Accepted December 9, 2015

Published March 31, 2016

DOI <http://dx.doi.org/10.4238/gmr.15017642>

**ABSTRACT.** In the present study, the tissue-specific and temporal gene expression profiles of four catalogues of gonadal development-related genes (sex differentiation-related, steroid receptor, steroidogenic, and structural genes) were detected in nine tissues and during 11 successive developmental stages in the Pengze crucian carp (Pcc) (a triploid mono-female gynogenetic fish). The results showed that these target genes exhibited overlapping distributions in various tissues, with the exception of Pcc-vasa and Pcc-cyp17a1. Gene expression profiling of the developmental stages showed that all of the target genes simultaneously reached peak expression levels at 40 and 48 days post hatching (dph). Both 40 and 48 dph appeared to be two key time points associated with the process of

Pcc gonadal development. These data will provide a clear understanding of gene expression patterns associated with the gonadal development-related genes of this gynogenic teleost.

**Key words:** Gene expression; Gonadal development; Gynogenic Pengze crucian carp; Tissue-specific; Temporal