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Remarkably low genetic variation but high population differentiation in the climbing perch, *Anabas testudineus* (Anabantidae), based on the mtDNA control region

A.F.J. Jamsari[1], Z.A. Muchlisin[1,3], M. Musri[4] and M.N. Siti Azizah[1,2]

[1]School of Biological Sciences, Universiti Sains Malaysia, Minden, Penang, Malaysia
[2]Centre for Marine and Coastal Studies, Universiti Sains Malaysia, Minden, Penang, Malaysia
[3]Department of Aquaculture, Coordinator of Fishery and Marine Sciences, Syiah Kuala University, Banda Aceh, Indonesia
[4]Department of Marine Sciences, Coordinator of Fishery and Marine Sciences, Syiah Kuala University, Banda Aceh, Indonesia

Corresponding author: M.N. Siti Azizah
E-mail: sazizah@usm.my

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ABSTRACT. *Anabas testudineus* (Anabantidae) is an important food fish in Southeast Asia. We analyzed the mitochondrial DNA control region sequence data to evaluate the genetic variability and population structure of this species. Sixty specimens were collected from four populations in Sumatra and two populations in Peninsular Malaysia. We found a very low level of genetic variability, with five of the six populations exhibiting total absence of genetic variation. Based on analysis of molecular variance, 84.72% of the total variation was among populations and 15.28% within populations. A geographical division based on F_{ST} values indicated highly significant genetic differentiation among populations from the four drainage systems: Aceh, Sumatra Utara, Pulau Pinang, and Terengganu (F_{ST} ranging from 0.633 to 1.000). No phylogeographic relationships among populations were detected, despite the generation of four distinct clades in a neighbor-joining phylogenetic tree.

Key words: *Anabas testudineus*; Climbing perch; Sundaland; Population genetics; Control region