

**ISOLATION AND IDENTIFICATION OF *Aeromonas* spp. ISOLATED
FROM AFRICAN CATFISH (*Clarias gariepinus*)**

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ABSTRACT

Catfish (*Clarias gariepinus*), which locally known as 'keli', is a sharptooth catfish in aquaculture, and is highly recommended food fish in Africa. A total of twelve isolates were successfully isolated from African catfish fry (*Clarias gariepinus*) at Tok Jembal, Terengganu. The 12 isolates were identified as *Aeromonas hydrophila* by using morphological, biochemical and physiological tests. Isolates grown on GSP agar were selected. Of the 41 biochemical characteristics evaluated for all 12 strains of *Aeromonas*, only 7 tests (17.07%) yielded differential results. These were motility, gelatinase, indole production, arginine dihydrolase, arabinose, sorbitol and trehalose. The bacterial identification also was done using reference from Bergey's manual of determinative bacteriology 9th edition. Dendrogram was constructed from combination result of morphological, biochemical and physiological tests using Numerical Taxonomy Systems. The findings indicated the phenotypic distance among all isolates ranged from 0.0198 to 0.0612. The unit similarity of 12 strains from the 41 biochemical tests was between 81% to 91% similar to *A. hydrophila*. The similarity between strains was computed by using Dice coefficient (S_D). Strains were clustered by UPGMA (Unweighted Pair Group Method with Arithmetic Mean). The isolates were divided into 2 clusters; cluster 2 only contained *A. veronii*. Meanwhile, cluster 1 was sub-divided into 2 groups which contained all local isolates.