A preliminary study on the taste preferences of marble goby Oxyeleotris marmoratus) for amino acids.

Abstract

The taste preferences of marble goby (Oxyeleotris marmoratus) for a mixture and several single L-isomer amino acids were determined through behavioural tests. Agar gel pellet was used as the medium to deliver the amino acids, and the fish acceptance on these pellets was evaluated by calculating the acceptance index (total pellet ingested/ total pellet given; maximum and minimum values are 1 and 0, respectively). The O. marmoratus were found to moderately accept L-alanine, Lglycine, and L-glutamine (index values = 0.38, 0.32, and 0.27, respectively) but reject L-cysteine, L-glutamic acid, L-lysine, L-serine and taurine (index value = 0). The amino acids mixture (AAM) showed the highest acceptance (0.91) by the fish. Such results indicated that the fish preferred for the amino acids mixture than any of the single amino acids tested. Therefore, the amino acids mixture is potent to function as the feeding stimulant for the O. marmoratus.