PARENTAGE ASSIGNMENT OF SELECTIVE POPULATION OF STRIPED CATFISH (*Pangasianodon hypophthalmus*) USING MICROSATELLITE

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Summary

The establishment of microsatellite set for parentage assignment used for breeding program is very important to eliminate common environmental effect to full-sib family. In this study, 11 microsatellite markers screened from 28 selected microsatellite markers were used to assign offsprings to their parents in striped catfish breeding program. In 25 full-sib families, 50 parents of second generation and their offsprings (40 offsping/family, with parent known in advance), 95.5% offsprings were unambiguously assigned to single families while 4.5% were assigned to more than one family. In validation step on tracing 5 full-sib families of second generation and their offsprings (15 offspings/family, parent hidden in advance). Results indicated that only 76.0% offsprings were unambiguously assigned to single families, 17.3% were assigned to more than one family and 6.7% were not assigned. When using “Leave one out” analysis approach, 7 out of 11 microsatellite markers with assigned ability up to 81.3% was found.

Keywords: *Pangasianodon hypophthalmus*, parentage assignment, microsatellite, breeding.