Newly developed microsatellite markers of Mystus nemurus tested for cross-species amplification in two distantly related aquacultured catfish species

ABSTRACT

The work reported here is an attempt to explore the possibility of DNA microsatellite loci transfer (cross-species amplification) to other economically important aquacultured catfish species other than its source species. A total of 25 new microsatellite loci developed for riverine catfish, Mystus nemurus were successfully cross-amplified in two distantly related catfish species within the suborder Siluroidei. Five out of the 19 loci that successfully cross-amplified in Pangasius micronemus were polymorphic, while for Clarias batrachus, cross-amplification was successful using 17 polymorphic loci. The observed heterozygosities were high for all the three catfishes. The results indicated that microsatellite loci could be as polymorphic in non-source species as in the source species.

Keyword: Microsatellites; Cross-species amplification; Mystus nemurus; Pangasius micronemus; Clarias batrachus