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Genetic diversity and phylogenetic relationship of catfish order *siluriformes* inferred from mitochondrial gene sequence variation

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Order *Siluriformes* includes many commercially and economically important species throughout the world. Here, we investigated genetic relationships and diversity in this order. Sequence comparisons and phylogenetic analyses revealed considerable variations between mitochondrial *CO1* genes among twenty-four *siluriformes* species. The nucleotide frequencies are A=23.80%, T/U=29.62%, C=26.63%, and G=19.95%. For estimating ML values, a user-specified toplogy was used. The maximum Log likelihood for this computation was -9413.645. Estimates of average evolutionary divergence over all sequence and the numbers of base substitutions per site from averaging over all sequence pairs were 4.984. Our results suggest that Batasio tranvancoria formed a single clade; *R. Rita, W. Attu, M. Montanus and B. Bagarius* comprised a single separate family; and *M. Vittatus, M. Horai, B. Tengana, M. Malabaricus, M. Bacourti, M. Singaringan, M. Bleekeri, M. Gulio, M. Multiradiatus, M. Rhegma, M. Cavasius, M. Tengara, S. Aor, S. Seenghala, B. Bajad, B. Filamentosus, B. Macracanthus, P. Siamensis, E. Vacha and B. Travancoria* formed single subfamily.

Biography

Punhal Khan Lashari is working as an Associate Professor in the Department of Fresh Water Biology and Fisheries, University of Sindh, Pakistan. He is responsible to conduct research in the field of Fish genetics/Fisheries Biology/Aquaculture from various aspects. His research mainly focuses on aquaculture, aquatic ecology, fish biology, fish genetics, and fish health management.

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