

Dear Dr. Dr. Qaraman M. Koyee

I am writing to invite you to review the following manuscript, which has been submitted to Basrah Journal of Agricultural Sciences:

Manuscript Number: **BJAS-87-22**

Molecular based identification and phylogenetic relationship by using cytochrome b gene in *Pangasius pangasius*

For your convenience, the Abstract is provided below.

Abstract: For DNA barcoding universal molecular genes were used to identify the species. *Cytochrome b* is a specific gene used for identification purpose. DNA barcoding is a reliable and effective method compared to the different traditional morphological methods of specie identification. So, in the present study which was conducted to identify the species, a total of 50 fish samples were collected from five different sites. DNA was extracted by using the Phenol Chloroform method from muscle tissue. Five sequences were sequenced (One from each site), analyzed, and identified specific specie as *P. pangasius*. Identified sequences are variable in length from 369 bp (Site 1), 364 bp (Site 2), 369 bp (Site 1), 364 bp (Site 3), 352 bp (Site 4), and 334 bp (Site 5), respectively. Identity matches on the NCBI database confirmed the specific specie as *P. pangasius*. A distancing tree was drawn to show maximum likelihood among the same and different species. Yet, in many cases fishes on diverse developmental stages are difficult to identify by morphological characters. DNA-based identification methods offer an analytically powerful addition or even an alternative tool for species identification and phylogenetic study. This work intends to provide an updated and extensive overview on the DNA based methods for fish species identification by using Cytochrome b gene as targeted markers for identification purpose.

We hope you are willing to review of the manuscript. If so, would you be so kind as to return your review to us during 15 days.

Thank you



Editor Prof. Dr. Atheer H. Ali
24th June 2022