

## **DNA Barcodes of Pholcid Spiders (Araneae : Pholcidae) in Bukidnon and Camiguin, Philippines**

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### **ABSTRACT**

DNA barcoding is a global initiative to standardize species identification of every living organism. This study aims to examine the effectiveness of DNA barcoding in species identification using 61 CO1 sequences from 12 species of pholcid spiders. CO1 barcodes of pholcid spiders demonstrate 95.08% diagnostic effectiveness as shown in clusters of neighbor-joining (NJ) tree. Barcode Gap Analysis (GBA) of 12 pholcid species exhibits the presence of barcode gap, with mean distance to nearest neighbor species of 11.27% (range 0.16-19.69%). Distance Analysis (DA) also revealed that mean intraspecific divergence of 12 species identified was 3.05%. Moreover, six species exhibit deep divergence with greater than 2% threshold value. The result implies that DNA barcoding can be utilized to facilitate species level identification leading towards deeper understanding of species diversity among pholcid spiders.

**Key words:** Barcode gap, Concordant, Cytochrome c oxidase 1, Genetic divergence, Neighbor-joining tree.