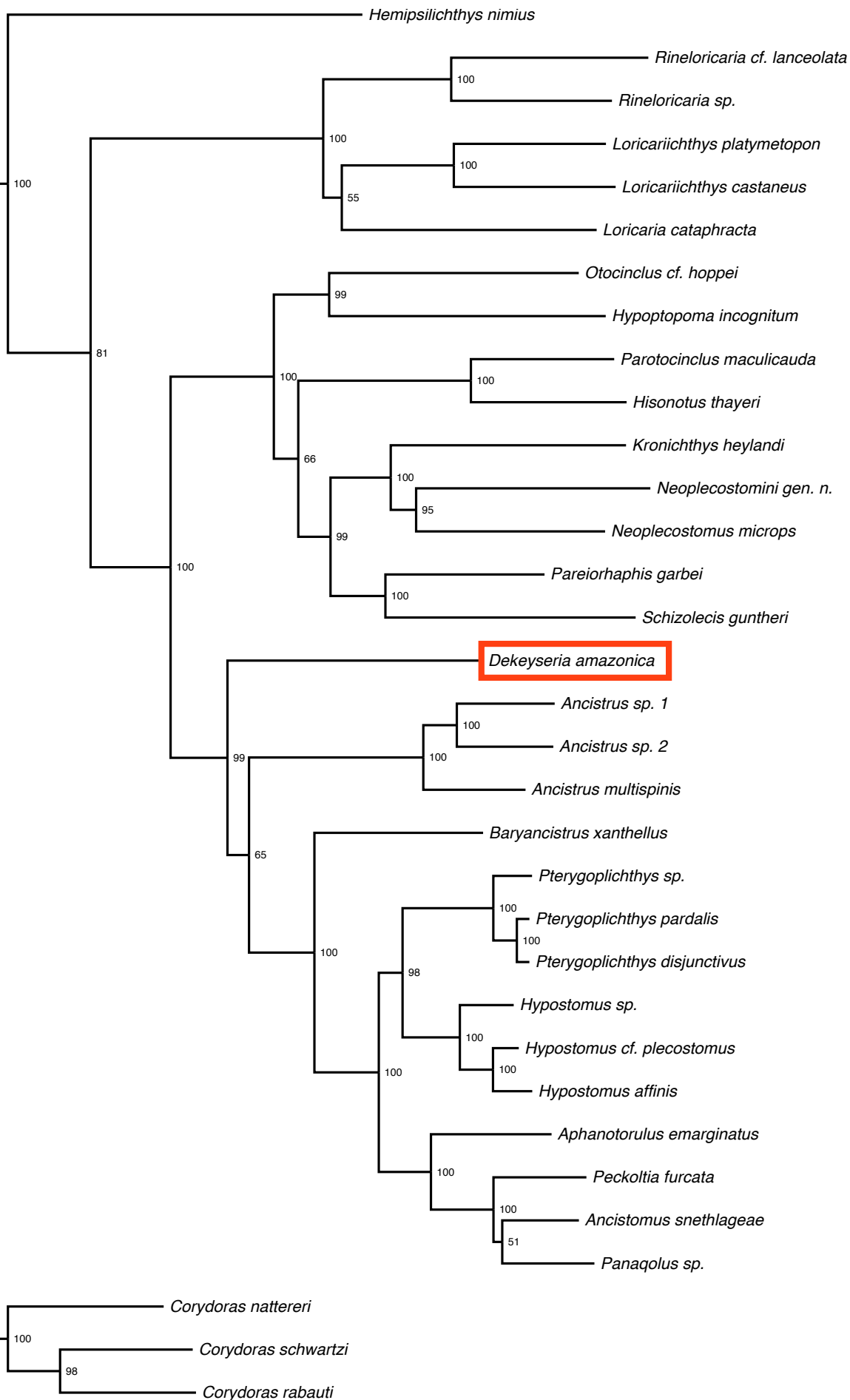


Additional file 6: Phylogenetic tree retrieved using the three longest genes (A) and the three genes with the best performance (B). The three longest genes, *cox1*, *nad4* and *nad5*, also harbored most informative characters. A - The position of *Dekeyseria amazonica*, highlighted in a red box, changed in relation to the tree using the 15 mitochondrial genes. The three genes with best performance as identified by Havird & Santos 2014 were *nad2*, *nad4* and *nad5*. B - The position of *Loricaria cataphracta*, highlighted in a red box, changed in relation to the tree using the 15 mitochondrial genes. Genes were aligned with built-in MUSCLE using SeaView and used for phylogenetic tree reconstruction using RAxML under the GTR+GAMMA+I model and 1000 bootstrap replica.

A



0.07

B

