**Table IV.** Results of the identification simulations from “Species in common without Cytb” datasets using Best Close Match (BCM) and BOLD ID criteria based on SPIDER and tree-based comparison of efficiency among the studied barcoding markers using the percentage of monophyletic groups recovered from the neighbor-joining phylogenetic reconstructions.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Distance-based evaluation | | | | | | | | | | | | | | | | | | | | Tree-based evaluation | |
|  |  |  | threshVal | | | | LocalMinima | | | | 1.00% | | | | 3.00% | | | | 6.00% | | | | Monophyly | |
| Species in common without Cytb (100 sp) |  |  | Correct (%) | Incorrect (%) | Ambiguous (%) | No ID (%) | Correct (%) | Incorrect (%) | Ambiguous (%) | No ID (%) | Correct (%) | Incorrect (%) | Ambiguous (%) | No ID (%) | Correct (%) | Incorrect (%) | Ambiguous (%) | No ID (%) | Correct (%) | Incorrect (%) | Ambiguous (%) | No ID (%) | Correct (%) | Incorrect (%) |
| 12s  (1036 spm) | Threshold value | 0.15% | | | | 0.78% | | | | 1.00% | | | | 3.00% | | | | 6.00% | | | | 65.00 | 35.00 |
| BCM | 71.81 | 1.06 | 2.99 | 24.13 | 86.20 | 1.83 | 3.57 | 8.40 | 88.32 | 2.03 | 3.57 | 6.08 | 92.37 | 2.51 | 3.67 | 1.45 | 92.76 | 2.80 | 3.67 | 0.77 |
| BOLD | 68.82 | 0.87 | 6.18 | 24.13 | 61.97 | 0.77 | 28.86 | 8.40 | 60.33 | 0.97 | 32.63 | 6.08 | 46.81 | 0.58 | 51.16 | 1.45 | 21.43 | 0.29 | 77.51 | 0.77 |
| 16s  (1342 spm) | ThreshID value | 0.50% | | | | 2.60% | | | | 1.00% | | | | 3.00% | | | | 6.00% | | | | 67.00 | 33.00 |
| BCM | 83.01 | 1.42 | 4.62 | 10.95 | 91.43 | 2.24 | 4.84 | 1.49 | 88.30 | 2.01 | 4.77 | 4.92 | 91.73 | 2.31 | 4.84 | 1.12 | 92.47 | 2.38 | 4.84 | 0.30 |
| BOLD | 75.04 | 0.67 | 13.34 | 10.95 | 61.77 | 0.37 | 36.36 | 1.49 | 71.09 | 0.82 | 23.17 | 4.92 | 58.57 | 0.22 | 40.09 | 1.12 | 34.43 | 64.98 | 0.30 | 0.30 |
| COI  (1113 spm) | ThreshID value | 1.00% | | | | 0.89% | | | | 1.00% | | | | 3.00% | | | | 6.00% | | | | 80.00 | 20.00 |
| BCM | 89.04 | 0.36 | 0.09 | 10.51 | 87.96 | 0.36 | 0.09 | 11.59 | 89.04 | 0.36 | 0.09 | 10.51 | 94.61 | 0.63 | 0.09 | 4.67 | 96.86 | 0.63 | 0.09 | 2.43 |
| BOLD | 85.62 | 0.27 | 3.59 | 10.51 | 84.64 | 0.27 | 3.50 | 11.59 | 85.62 | 0.27 | 3.59 | 10.51 | 84.91 | 0.36 | 10.06 | 4.67 | 81.58 | 0.36 | 15.63 | 2.43 |