

Supplementary S1. ML tree was constructed from the ITS sequences showing the phylogenetic relationships between the 95 *Earliella scabrosa* collections. Sequences outside the true *Earliella scabrosa* are highlighted in red and are not taken into account in the rest of the analyses.



Supplementary S2. Data on the *Earliella scabrosa* collections used in this study

Species name	Vouchers	Forest type	Country
<i>Earliella scabrosa</i>	OAB0062	Semi decidious Dense forest	Benin
<i>Earliella scabrosa</i>	OAB0067	Semi decidious Dense forest	Benin
<i>Earliella scabrosa</i>	OAB0119	Woodland	Benin
<i>Earliella scabrosa</i>	OAB0186	Woodland	Benin
<i>Earliella scabrosa</i>	OAB0212	Savanna	Benin
<i>Earliella scabrosa</i>	OAB0285	Semi decidious Dense forest	Benin
<i>Earliella scabrosa</i>	OAB0286	Semi decidious Dense forest	Benin
<i>Earliella scabrosa</i>	OAB0691	Dense dry forest	Benin
<i>Earliella scabrosa</i>	OAB0626	Dense dry forest	Benin
<i>Earliella scabrosa</i>	OAB0630	Dense dry forest	Benin
<i>Earliella scabrosa</i>	OAB0729	Semi decidious Dense forest	Benin
<i>Earliella scabrosa</i>	OAB0755	Woodland	Benin
<i>Earliella scabrosa</i>	OAB0845	Woodland	Benin
<i>Earliella scabrosa</i>	OAB1120	Dense dry forest	Benin
<i>Earliella scabrosa</i>	OAB1021	Woodland Serekoro	Guinea
<i>Earliella scabrosa</i>	OAB1024	Woodland Serekoro	Guinea
<i>Earliella scabrosa</i>	OAB1025	Woodland Serekoro	Guinea
<i>Earliella scabrosa</i>	OAB1027	Woodland Kankan	Guinea
<i>Earliella scabrosa</i>	OAB1030	Woodland Kankan	Guinea
<i>Earliella scabrosa</i>	ALN050	Mbindjo forest	Congo

Supplementary S3. Result from species delimitation analysis using the Automated Barcode Gap Discovery (ABGD)

Group [1] n: 10 ;id: Earliella scabrosa 117 01 01 Sri Lanka; Earliella scabrosa CIRM-BRFM 1817 USA; Earliella scabrosa CR45 Venezuela; Earliella scabrosa CR95 Venezuela; Earliella scabrosa PR1209 Puerto Rico; Earliella scabrosa FLAS-F-61025 USA; Earliella scabrosa URM7788 Brazil; Earliella scabrosa ZD16091703 China; Earliella scabrosa ZD16091705 China; Earliella scabrosa BRFM1106 French Guiana
Group [2] n: 2 ;id: Earliella scabrosa CrIrel Venezuela; Earliella scabrosa UOC DAMIA D37 Sri Lanka
Group[3] n: 17 ;id: Earliella scabrosa biocode08-59 French Polynesia; Earliella scabrosa biocode08-30 French Polynesia; Earliella scabrosa FBP13 Viet Nam; Earliella scabrosa biocode08-82 French Polynesia; Earliella scabrosa biocode08-183 French Polynesia; Earliella scabrosa biocode09-337 French Polynesia; Earliella scabrosa biocode08-158 French Polynesia; Earliella scabrosa biocode08-145 French Polynesia; Earliella scabrosa biocode09-248 French Polynesia; Earliella scabrosa biocode09-324 French Polynesia ; Earliella scabrosa CLZhao 3730 China; Earliella scabrosa NTOU5411 Taiwan; Earliella scabrosa MH 60 Pakistan; Earliella scabrosa FBP11 Viet Nam; Earliella scabrosa NTOU5413 Taiwan; Earliella scabrosa NTOU5882 Taiwan; Earliella scabrosa biocode08-110 French Polynesia
Group [4] n: 1 ;id: Earliella scabrosa UOC DAMIA D13b Sri Lanka
Group [5] n: 1 ;id: Earliella scabrosa extr19 Taiwan
Group [6] n: 1 ;id: Earliella scabrosa biocode09-544 French Polynesia
Group [7] n: 1 ;id: Earliella scabrosa biocode08-96 French Polynesia
Group [8] n: 1 ;id: Earliella scabrosa He31 China
Group [9] n: 3 ;id: Earliella scabrosa CLZhao 3722 China; Earliella scabrosa CLZhao 3989 China; Earliella scabrosa CLZhao 4008 China
Group [10] n: 1 ;id: Earliella scabrosa Cui 6236 China
Group [11] n: 1 ;id: Earliella scabrosa KP1 Thailand
Group [12] n: 1 ;id: Earliella scabrosa UOC-BIB-MB03 Sri Lanka
Group [13] n: 1 ;id: Earliella scabrosa FDNa20 Viet Nam
Group [14] n: 1 ;id: Earliella scabrosa 216-TWTDW2 China
Group [15] n: 1 ;id: Earliella scabrosa NTOU5416 Taiwan
Group [16] n: 1 ;id: Earliella scabrosa NTOU5409 Taiwan
Group [17] n: 20 ;id: Earliella scabrosa OAB0691 Benin; Earliella scabrosa OAB0119 Benin; Earliella scabrosa OAB0212 Benin; Earliella scabrosa OAB0286 Benin; Earliella scabrosa ALN050 Congo; Earliella scabrosa OAB0067 Benin; Earliella scabrosa OAB0186 Benin; Earliella scabrosa OAB0285 Benin; Earliella scabrosa OAB0626 Benin; Earliella scabrosa OAB1027 Guinea; Earliella scabrosa OAB1021 Guinea; Earliella scabrosa OAB1024 Guinea; Earliella scabrosa OAB1025 Guinea; Earliella scabrosa OAB1030 Guinea; Earliella scabrosa OAB0062 Benin; Earliella scabrosa OAB0755 Benin; Earliella scabrosa OAB0630 Benin; Earliella scabrosa OAB1120 Benin; Earliella scabrosa OAB0729 Benin; Earliella scabrosa OAB0845 Benin
Group [18] n: 2 ;id: Earliella scabrosa NTOU5883 Taiwan; Earliella scabrosa NTOU5884 Taiwan

Supplementary S4. Result from species delimitation analysis using the Automated Barcode Gap Discovery (ABGD)

Group[1] n: 66 ;id: Earliella scabrosa 117 01 01 Sri Lanka; Earliella scabrosa CIRM-BRFM 1817 USA; Earliella scabrosa CR45 Venezuela; Earliella scabrosa CR95 Venezuela; Earliella scabrosa PR1209 Puerto Rico; Earliella scabrosa FLAS-F-61025 USA; Earliella scabrosa CrIrel Venezuela; Earliella scabrosa URM7788 Brazil; Earliella scabrosa ZD16091703 China; Earliella scabrosa ZD16091705 China; Earliella scabrosa biocode08-59 French Polynesia; Earliella scabrosa biocode08-30 French Polynesia; Earliella scabrosa FBP13 Viet Nam; Earliella scabrosa UOC DAMIA D13b Sri Lanka; Earliella scabrosa BRFM1106 French Guiana; Earliella scabrosa UOC DAMIA D37 Sri Lanka; Earliella scabrosa biocode08-82 French Polynesia; Earliella scabrosa biocode08-183 French Polynesia; Earliella scabrosa biocode09-337 French Polynesia; Earliella scabrosa biocode08-158 French Polynesia; Earliella scabrosa biocode08-145 French Polynesia; Earliella scabrosa extr19 Taiwan; Earliella scabrosa biocode09-544 French Polynesia; Earliella scabrosa biocode08-96 French Polynesia; Earliella scabrosa biocode09-248 French Polynesia; Earliella scabrosa biocode09-324 French Polynesia; Earliella scabrosa He31 China; Earliella scabrosa CLZhao 3722 China; Earliella scabrosa CLZhao 3730 China; Earliella scabrosa NTOU5411 Taiwan; Earliella scabrosa CLZhao 3989 China; Earliella scabrosa Cui 6236 China; Earliella scabrosa MH 60 Pakistan; Earliella scabrosa KP1 Thailand; Earliella scabrosa FBP11 Viet Nam; Earliella scabrosa UOC-BIB-MB03 Sri Lanka; Earliella scabrosa FDNa20 Viet Nam; Earliella scabrosa 216-TWTDW2 China; Earliella scabrosa NTOU5416 Taiwan; Earliella scabrosa NTOU5409 Taiwan; Earliella scabrosa NTOU5413 Taiwan; Earliella scabrosa CLZhao 4008 China; Earliella scabrosa OAB0691 Benin Earliella scabrosa OAB0119 Benin; Earliella scabrosa OAB0212 Benin; Earliella scabrosa OAB0286 Benin; Earliella scabrosa ALN050 Congo; Earliella scabrosa OAB0067 Benin; Earliella scabrosa OAB0186 Benin; Earliella scabrosa OAB0285 Benin; Earliella scabrosa OAB0626 Benin; Earliella scabrosa OAB1027 Guinea; Earliella scabrosa OAB1021 Guinea; Earliella scabrosa OAB1024 Guinea; Earliella scabrosa OAB1025 Guinea; Earliella scabrosa OAB1030 Guinea; Earliella scabrosa OAB0062 Benin; Earliella scabrosa OAB0755 Benin; Earliella scabrosa OAB0630 Benin; Earliella scabrosa OAB1120 Benin; Earliella scabrosa OAB0729 Benin; Earliella scabrosa OAB0845 Benin; Earliella scabrosa NTOU5882 Taiwan; Earliella scabrosa NTOU5883 Taiwan; Earliella scabrosa NTOU5884 Taiwan; Earliella scabrosa biocode08-110 French Polynesia