|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Appendix 1. List of taxa included in the phylogenetic analyses, with GenBank accessions numbers | | | | |
|  | **ITS** | **ITS1** only | **trn*L*(UAA)** | **trn*L*-trn*F*** |
| **Subfamily Echiochiloideae - Tribe Echiochileae** |  |  |  |  |
| *Antyphytum hintoniorum* L.C. Higgins & B.L. Turner | AJ555899 | \_ | \_ | \_ |
| *Echiochilon pauciflorum* (Stocks ex Wright) Långstrom & M.W. Chase | AJ555901 | \_ | \_ | \_ |
| *Ogastemma pusillum* (Coss. & Durieu ex Bonnet & Barratte) Brummitt | AJ555900 | \_ | \_ | \_ |
| **Subfamily Boraginoideae - Tribe Lithospermeae** |  | \_ | \_ | \_ |
| *Aegonychon purpurocaeruleum* (L.) Holub | AJ555897 | \_ | \_ | \_ |
| *Alkanna graeca* Boiss. & Spruner | FJ461535 | \_ | \_ | \_ |
| *Alkanna hirsutissima* (Bertol.) DC. | EU919572 | \_ | \_ | \_ |
| *Alkanna macrophylla* Boiss. & Heldr. | EU919573 | \_ | \_ | \_ |
| *Alkanna tinctoria* Tausch | EU919577 | \_ | \_ | \_ |
| *Alkanna megacarpa* DC. | EU919574 | \_ | \_ | \_ |
| *Alkanna orientalis* (L.) Boiss. | EU919575 | \_ | \_ | \_ |
| *Alkanna pinardi* Boiss. | EU919576 | \_ | \_ | \_ |
| *Alkanna pindicola* Hausskn. | FJ461536 | \_ | \_ | \_ |
| *Arnebia decumbens* (Vent.) Cosson & Kralik | EU919578 | \_ | \_ | \_ |
| *Arnebia densiflora* Ledeb. | EU919591 | \_ | \_ | \_ |
| *Arnebia linearifolia* A. DC. | EU919580 | \_ | \_ | \_ |
| *Buglossoides arvensis* (L.) I.M. Johnst. | EU919581 | \_ | \_ | \_ |
| *Cerinthe major* L. | EU919583 | L43200 | L43198 | L43199\* |
| *Cerinthe minor* L. | EU919582 | L43204 | L43202 | L43203\* |
| *Cystostemon heliocharis* (S. Moore) A.G Mill. & Riedl | KF287968 | \_ | \_ | \_ |
| *Echiostachys incanu*s (Thunb.) Levyns | \_ | AF284112 | AF284110 | AF284111\* |
| *Echium aculeatum* Poir. | EU048849 | L43169 | L43166 | EU433615\* |
| *Echium albican*s Lag. & Rodr. | \_ | L43172 | L43170 | L43171\* |
| *Echium arenarium* Guss. | EU919584 | \_ | \_ | \_ |
| *Echium asperrimum* Lam. | \_ | L43176 | L43174 | L43175\* |
| *Echium callithyrsum* Webb ex Bolle | \_ | \_ | \_ | KC542532 |
| *Echium candicans* L. fil. | EU048856 | \_ | \_ | \_ |
| *Echium creticum* L. | FJ763249 | L43208 | L43207 | FJ763303 |
| *Echium decaisnei* Webb & Berthel. | \_ | L43212 | L43210 | L43211\* |
| *Echium horridum* Batt. | \_ | L43228 | L43226 | L43227\* |
| *Echium humile* Desf. | \_ | AF284109 | AF284105 | AF284099\* |
| *Echium hypertropicum* Webb | EU048858 | \_ | \_ | \_ |
| *Echium italicum* L. | \_ | L43236 | L43234 | L43235\* |
| *Echium lusitanicum* L. | EU048847 | L43252 | L43250 | L43251\* |
| *Echium onosmaefolium* Webb & Berthel. | \_ | L43260 | L43258 | L43259\* |
| *Echium parviflorum* Moench | \_ | L43264 | L43262 | L43263\* |
| *Echium pininana* Webb & Berthel. | \_ | L43268 | L43266 | L43267\* |
| *Echium pitardii* A.Chev. | \_ | L43322 | L43320 | L43321\* |
| *Echium plantagineum* L. | \_ | L43272 | L43270 | L43271\* |
| *Echium pycnanthum* Pomel | \_ | AF284108 | AF284104 | AF284101\* |
| *Echium rosulatum* Lange | \_ | L43276 | L43274 | L43275\* |
| *Echium sabulicola* Pomel | \_ | L43288 | L43286 | L43287\* |
| *Echium stenosiphon* Webb | JF284623 | L43319 | L43317 | L43318\* |
| *Echium tenue* subsp. *dumosum* (De Coincy) Klotz. | \_ | AF284106 | AF284102 | AF284098\* |
| *Echium tuberculatum* Hoffmanss. & Link. | \_ | L43300 | L43298 | L43299\* |
| *Echium vilmorinianum* Sauv. & Vindt | \_ | AF284107 | AF284103 | AF284100\* |
| *Echium virescens* DC. | \_ | L43296 | L43294 | L43295 \* |
| *Echium vulcanorum* A. Chev. | EU048857 | L43304 | L43302 | L43303\* |
| *Echium vulgare* L. | AJ555896 | L43312 | L43310 | FJ763301 |
| *Echium wildpretii* H.Pearson ex Hook. | \_ | L43316 | L43314 | L43315\* |
| *Glandora diffusa* (Lag.) D.C. Thomas | \_ | L43248 | L43246 | L43247\* |
| *Glandora rosmarinifolia* (Ten.) D.C. Thomas | EU919585 | \_ | \_ | \_ |
| *Halacsya sendtneri* (Boiss.) Dörfl. | EU919587 | \_ | \_ | \_ |
| *Huynhia pulchra* (Roem. & Schult.) Greuter & Burdet | EU919589 | \_ | \_ | \_ |
| *Huynhia purpurea* (S. Erik & Sümbül) L. Cecchi et Selvi | LN626704 | \_ | \_ | \_ |
| *Lithodora hispidula* (Sm.) Griseb. subsp. versicolor Meikle | FJ789866 | \_ | \_ | \_ |
| *Lithodora zahnii* (Heldr. ex Halácsy) I.M. Johnst. | FJ789873 | \_ | \_ | \_ |
| *Lithospermum officinale* L. | EU919590 | \_ | \_ | \_ |
| *Lobostemon fruticosus* H. Buek | KF287992 | L43244 | L43242 | KF288077 |
| *Lobostemon montanus* H. Buek | \_ | AF284113 | AF284114 | AF284115\* |
| *Lobostemon trigonus* H. Buek | FJ789876 | \_ | \_ | \_ |
| *Maharanga emodi* DC. | FJ763207 | \_ | \_ | J763269 |
| *Mairetis microsperma* (Boiss.) I.M. Johnst. | EU919592 | \_ | \_ | \_ |
| *Megacaryon orientale* (L.) Boiss. (stored under *Echium orientale* L.) | KX272780 | KX272780 | KX272781 | KX272781 |
| *Moltkia angustifolia* DC. | EU919593 | \_ | \_ | KF288077 |
| *Moltkia aurea* Boiss. | EU919594 | \_ | \_ | \_ |
| *Moltkia coerulea* (Willd) Lehm. | EU919595 | \_ | \_ | \_ |
| *Moltkia petraea* (Tratt.) Griseb. | EU919596 | \_ | \_ | \_ |
| *Moltkia suffruticosa* (L.) Brand | EU919597 | \_ | \_ | \_ |
| *Moltkiopsis ciliata* (Forssk.) I.M. Johnst. | EU919598 | \_ | \_ | \_ |
| *Neatostema apulum* (L.) I.M. Johnst. | EU919599 | \_ | \_ | \_ |
| *Onosma aleppica* Boiss. | EU919600 | \_ | \_ | \_ |
| *Onosma echioides* (L.) L. | EU919601 | \_ | \_ | \_ |
| *Onosma fastigiata* Braun-Blanq. | KC707685 | \_ | \_ | \_ |
| *Onosma fruticosa* Sibth. & Sm. | FJ763196 | \_ | \_ | FJ763260 |
| *Onosma heterophylla* Griseb. | EU919602 | \_ | \_ | \_ |
| *Onosma paniculata* Bureau & Franch. | EF199859 | \_ | \_ | \_ |
| *Onosma rhodopaea* Velen. | FJ763195 | \_ | \_ | FJ763259 |
| *Onosma pseudoarenaria* Schur | KC707697 | \_ | \_ | \_ |
| *Onosma stellulata* Waldst. & Kit. | \_ | \_ | \_ | KF288094 |
| *Onosma tricerosperma* Lag. | \_ | \_ | \_ | KC542541 |
| *Onosma visianii* G.C. Clementi | EU919603 | \_ | \_ | \_ |
| *Onosma waltonii* Duthie | EF199846 | \_ | \_ | \_ |
| *Paramoltkia doerfleri* (Wettst.) Greuter & Burdet | EU919605 | \_ | \_ | \_ |
| *Podonosma orientalis* (L.) Feinbrun | EU919607 | \_ | \_ | \_ |
| *Pontechium maculatum* (L.) Böhle & Hilger - 1 | EU919608 | \_ | \_ | KF288055 |
| *Pontechium maculatum* (L.) Böhle & Hilger - 2 | \_ | L43280 | L43278 | L43279\* |

\* = partial sequence