

Supplementary material

Appendix 2. Genbank accession numbers: *matK/matR/ndhF/rbcL*

Alstroemeria albescens: -/JQ404506/-; *A. amabilis*: -/JQ404507/-; *A. andina*: JQ404769/JQ404893/JQ404508/-; *A. angustifolia*: JQ404770/JQ404894/JQ404509/-; *A. apertiflora*: -/JQ404510/-; *A. aurea*: JN417408/JQ404896/JQ404511/JQ404664; *A. brasiliensis*: JQ404773/-/JQ404512/-; *A. calliantha*: -/JQ404514/-; *A. caryophyllaea*: JQ404774/JQ404897/JQ404515/JQ404665; *A. crispata*: JQ404775/JQ404898/JQ404517/JQ404666; *A. exserens*: -/JQ404521/JQ404670; *A. foliosa*: -/JQ404522/JQ404671; *A. foliosa*: JQ404778/JQ404902/JQ404523/JQ404672; *A. fuscovinosa*: JQ404780/-/JQ404525/JQ404673; *A. gardneri*: -/JQ404526/-; *A. graminea*: JQ404781/-/JQ404527/-; *A. hookeri*: JQ404782/JQ404904/JQ404528/JQ404674; *A. inodora*: -/JQ404529/-; *A. isabellana*: JQ404783/JQ404905/JQ404531;/JQ404675; *A. julieae*: JQ404786/-/JQ404534/JQ404677; *A. kingii*: JQ404787/JQ404908/JQ404535/JQ404678; *A. ligtu*: JQ404788/JQ404909/JQ404536/JQ404679; *A. longistaminea*: JQ404790/JQ404911/JQ404538/JQ404681; *A. longistyla*: -/JQ404539/-; *A. magnifica*: JQ404791/JQ404912/JQ404540/JQ404682; *A. ochracea*: JQ404792/JQ404913/JQ404543/JQ404684; *A. orchidioides*: JQ404794/JQ404914/JQ404546/JQ404685; *A. pallida*: -/JQ404916/JQ404547/JQ404687; *A. patagonica*: -/JQ404917/JQ404548/-; *A. pelegrina*: JQ404797/JQ404918/JQ404549/-; *A. philippii* var. *albicans*: JQ404798/JQ404919/JQ404551/JQ404688; *A. philippii* var. *philippii*: JQ404799/JQ404920/JQ404552/JQ404689; *A. plantaginea*: -/JQ404553/-; *A. presliana*: JQ404800/JQ404921/JQ404555/JQ404690; *A. pseudospathulata*: JQ404801/JQ404922/JQ404556/JQ404691; *A. psittacina*: JQ404802/JQ404923/JQ404557/-; *A. pulchella*: JX418009/-JX418010/-; *A. punctata*: JQ404803/JQ404924/JQ404558/JQ404692; *A. pygmaea*: JQ404804/JQ404925/JQ404559/-; *A. radula*: JQ404805/JQ404926/JQ404560/-; *A. revoluta*: JQ404806/JQ404927/JQ404561/JQ404693; *A. rupestris*: JQ404807/JQ404928/JQ404562/JQ404694; *A. schizanthoides*: JQ404808/JQ404929/JQ404563/JQ404695; *A. sellowiana*: JQ404809/JQ404930/JQ404564/JQ404696; *A. speciosa*: JQ404815/JQ404937/JQ404576/JQ404703; *A. stenopetala*: JQ404816/JQ404938/JQ404577/JQ404704; *A. stenophylla*: JQ404817/JQ404939/JQ404578/JQ404705; *A. umbellata*: JQ404818/JQ404940/JQ404579/JQ404706; *A. versicolor*: JQ404819/JQ404941/JQ404580/JQ404707; *A. viridiflora*: -/JQ404581/-; *A. werdermannii*: JQ404820/JQ404942/JQ404582/JQ404708; *A. zoellneri*: JQ404821/JQ404943/JQ404583/JQ404709; *Androcymbium dregei*: JQ404777/JQ404901/JQ404520/JQ404669; *Bomarea acutifolia*: JQ404822/-/JQ404584/JQ404710; *B. ampayesana*: JQ404824/JQ404945/JQ404586/JQ404712; *B. angulata*: JQ404825/-/JQ404587/-; *B. boliviensis*: JQ404827/JQ404947/JQ404589/-; *B. bredemeyerana*: -/JQ404948/JQ404590/JQ404714; *B. brevis*: JQ404828/JQ404949/JQ404591/JQ404715; *B. coccinea*: JQ404830/-/JQ404593/JQ404717; *B. crassifolia*: Q404831/JQ404951/JQ404594/JQ404718; *B. chiriquina*: -/JQ404950/JQ404592/JQ404716; *B. densiflora*: JQ404832/JQ404952/JQ404595/JQ404719; *B. diffracta*: -/JQ404953/JQ404596/JQ404720; *B. dissitifolia*: JQ404834/JQ404954/JQ404597/JQ404721; *B. distichifolia*: -/JQ404598/-; *B. dulcis*: JQ404835/JQ404955/JQ404599/JQ404722; *B. edulis*: -/JQ404956/JQ404600/JQ404723; *B. formosissima*: JQ404838/JQ404957/JQ404601/JQ404724; *B. glaucescens*: -/JQ404958/JQ404603/JQ404726; *B. hirsuta*: -/JQ404959/JQ404604/-; *B. involucrosa*: -/JQ404960/JQ404605/JQ404727; *B. linifolia*: -/JQ404606/-; *B. macrocephala*: JQ404842/JQ404961/JQ404607/-; *B. macusanii*: JQ404844/-/JQ404608/JQ404728; *B. multiflora*: -/JQ404978/JQ404610/JQ404746; *B. multipes*: JQ404846/JQ404962/JQ404611/JQ404730; *B. nematocaulon*: JQ404847/JQ404963/JQ404612/JQ404731; *B. nervosa*: JQ404848/JQ404964/JQ404613/JQ404732; *B. ovallei*: -/JQ404965/JQ404614/-; *B. ovata*: JQ404850/JQ404966/JQ404615/JQ404733; *B. pardina*: JQ404851/JQ404967/JQ404616/JQ404734; *B. parvifolia*: JQ404852/JQ404968/JQ404617/JQ404735; *B. patacocensis*: JQ404853/JQ404969/JQ404618/JQ404736; *B. patinii*: -/JQ404970/JQ404619/JQ404737; *B. pauciflora*: -/JQ404620/-; *B. perglabra*: JQ404855/JQ404971/JQ404621/JQ404738; *B. porrecta*: -/JQ404622/-; *B. puracencis*: -/JQ404623/-; *B. purpurea*: JQ404856/JQ404972/JQ404624/JQ404739; *B. salsilla*: -/JQ404973/JQ404625/JQ404740; *B. setacea*: -/JQ404626/-; *B. speciosa*: JQ404860/-/JQ404630/-; *B. spissiflora*: JQ404861/JQ404975/JQ404631/JQ404742; *B. stans*: JQ404862/-/JQ404632/-; *B. superba*:

JQ404863/-/JQ404633/JQ404743; *B. tribrachiata*: -/-/JQ404634/-; *B. uncifolia*:
JQ404864/JQ404976/JQ404635/JQ404744; *B. vargasii*: JQ404865/JQ404977/JQ404636/JQ404745;
Camptorrhiza strumosa: JQ404870/-/JQ404641/-; *Colchicum bornmuelleri*:
JQ404869/JQ404981/JQ404640/JQ404749; *C. montanum*: JQ404887/JQ404997/JQ404658/JQ404764; *C.*
vernum: JQ404868/JQ404980/JQ404639/JQ404748; *Disporum chinense*:
JQ404871/JQ404982/JQ404642/JQ404750; *D. viridescens*: JQ404876/JQ404986/JQ404647/JQ404755;
Drymophila cyanocarpa: JN417412/JQ404983/JQ404643/JQ404752; *Drymophila moorei*: -
/JQ404984/JQ404645/JQ404753; *Gloriosa modesta*: JQ404880/JQ404990/JQ404652/JQ404759;
Hexacyrtis dickiana: -/-/JQ404648/-; *Kuntheria pedunculata*: JQ404877/JQ404987/JQ404649/JQ404756;
Luzuriaga marginata: JQ404878/JQ404988/JQ404650/JQ404758; *L. parviflora*:
JQ404882/JQ404992/JQ404653/JQ404760; *L. polyphylla*: JQ404884/JQ404994/JQ404656/JQ404762; *L.*
radicans: JN417411/JQ404996/JQ404657/JQ404763; *Onixotis triquetra*:
JQ404888/JQ404998/JQ404659/JQ404765; *Sandersonia aurantiaca*:
JQ404889/JQ404999/JQ404660/JQ404766; *Uvularia grandiflora*: JQ404890/JQ405000/JQ404661/-; *U.*
perfoliata: JQ404891/JQ405001/JQ404662/JQ404767; *Wurmbea kraussii*:
JQ404892/JQ405002/JQ404663/JQ404768;

Appendix 3. Qualitative morpho-anatomical character matrix

Taxa	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Alstroemeria albescens</i>	0	-	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria amabilis</i>	0	-	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria andina_subsp._venustula</i>	1	0	1	1	1	1	0	[01]	1	1	1	0	0
<i>Alstroemeria angustifolia_subsp._angustifolia</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria apertiflora</i>	0	-	0	1	0	1	0	1	1	0	1	1	1
<i>Alstroemeria aurea</i>	1	1	0	0	0	0	0	1	0	-	1	0	0
<i>Alstroemeria brasiliensis</i>	[01]	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria calliantha</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria caryophyllaea</i>	1	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria cunha</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria foliosa</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria fuscovinosa</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria gardneri</i>	[01]	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria exserens</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria graminea</i>	1	0	0	0	?	?	?	?	?	?	?	?	?
<i>Alstroemeria julieae</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria hookeri</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria inodora</i>	1	1	0	0	?	?	?	?	?	?	?	?	?
<i>Alstroemeria isabellana</i>	0	-	0	1	0	1	0	1	1	0	1	1	1
<i>Alstroemeria ligtu</i>	1	1	0	0	0	0	0	[01]	1	0	0	0	0
<i>Alstroemeria longistaminea</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria longistyla</i>	0	-	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria magnifica_subsp._magnifica</i>	1	1	0	0	0	0	0	1	1	0	0	0	0
<i>Alstroemeria monticola</i>	[01]	0	[01]	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria orchidioides</i>	[01]	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria ochracea</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria pallida</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria patagonica</i>	1	0	0	0	2	1	0	0	0	-	0	0	0
<i>Alstroemeria pelegrina</i>	1	1	0	0	0	0	1	1	0	-	1	0	0
<i>Alstroemeria plantaginea</i>	1	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria presliana</i>	1	1	0	0	0	1	0	1	1	0	0	0	0
<i>Alstroemeria pseudospathulata</i>	1	0	0	0	2	1	0	1	1	1	1	0	0
<i>Alstroemeria psittacina</i>	1	1	0	0	0	0	0	1	1	0	0	0	0
<i>Alstroemeria pulchella</i>	1	1	0	0	?	?	?	?	?	?	?	?	?
<i>Alstroemeria punctata</i>	1	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria pygmaea</i>	1	0	0	0	2	1	0	0	0	-	0	0	0
<i>Alstroemeria radula</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria revoluta</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria rupestris</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria sellowiana</i>	0	-	0	1	0	1	0	1	1	0	1	1	1
<i>Alstroemeria speciosa</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria stenopetala</i>	1	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria stenophylla</i>	1	0	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria versicolor</i>	1	1	0	0	0	1	0	1	0	-	1	0	0
<i>Alstroemeria viridiflora</i>	1	1	0	?	?	?	?	?	?	?	?	?	?
<i>Alstroemeria werdermannii</i>	1	0	0	0	1	1	0	1	1	1	1	0	0
<i>Bomarea boliviensis</i>	1	1	2	0	0	0	0	1	1	0	1	1	0
<i>Bomarea dulcis</i>	1	1	2	0	2	0	0	1	1	0	1	1	0
<i>Bomarea edulis</i>	1	1	2	0	0	0	0	1	1	0	1	1	0
<i>Bomarea glaucescens</i>	1	1	?	0	?	?	?	?	?	?	?	?	?
<i>Bomarea macrocephala</i>	1	1	2	0	2	0	0	1	1	0	1	1	0
<i>Bomarea ovallei</i>	1	1	0	0	0	0	0	1	1	0	1	1	0

