

**Givnish et al. – American Journal of Botany – Appendix S2.** Taxa included in the across-monocots study and sources of sequence data. Sources not included in the main bibliography are listed at the foot of this table.

Order	Family	Species	Authority	Source
Acorales	Acoraceae	<i>Acorus americanus</i>	(Raf.) Raf.	Leebens-Mack et al. 2005
		<i>Acorus calamus</i>	L.	Goremykin et al. 2005
Alismatales	Alismataceae	<i>Alisma triviale</i>	Pursh	Ross et al. 2016
		<i>Astonia australiensis</i>	(Aston) S.W.L.Jacobs	Ross et al. 2016
		<i>Baldellia ranunculoides</i>	(L.) Parl.	Ross et al. 2016
		<i>Butomopsis latifolia</i>	(D.Don) Kunth	Ross et al. 2016
		<i>Caldesia oligococca</i>	(F.Muell.) Buchanan	Ross et al. 2016
		<i>Damasonium minus</i>	(R.Br.) Buchenau	Ross et al. 2016
		<i>Echinodorus amazonicus</i>	Rataj	Ross et al. 2016
		<i>Helanthium boliviyanum</i>	(Rusby) Lehtonen & Myllys	Ross et al. 2016
		<i>Hydrocleys nymphoides</i>	(Humb. & Bonpl. ex Willd.) Buchanan	Ross et al. 2016
		<i>Limnocharis flava</i>	(L.) Buchanan	Ross et al. 2016
Aponogetonaceae	Aponogetonaceae	<i>Luronium natans</i>	Raf.	Ross et al. 2016
		<i>Ranalisma humile</i>	(Rich. ex Kunth)	Ross et al. 2016
		<i>Sagittaria latifolia</i>	Willd.	Ross et al. 2016
		<i>Wiesneria triandra</i>	(Dalzell) Micheli	Ross et al. 2016
		<i>Aponogeton distachyos</i>	L.f.	Ross et al. 2016
		<i>Aglaonema costatum</i>	N.E.Br.	Henriquez et al. 2014
		<i>Aglaonema modestum</i>	Schott ex Engl.	Henriquez et al. 2014
		<i>Aglaonema nitidum</i>	(Jack) Kunth	Henriquez et al. 2014
		<i>Alocasia fornicata</i>	(Roxb.) Schott	Henriquez et al. 2014
		<i>Alocasia navicularis</i>	(K.Koch & C.D.Bouché) K.Koch	Henriquez et al. 2014
Araceae	Araceae	<i>Amorphophallus titanum</i>	(Becc.) Becc.	Henriquez et al. 2014
		<i>Anchomanes hookeri</i>	(Kunth) Schott	Henriquez et al. 2014
		<i>Anthurium huixtlense</i>	Matuda	Henriquez et al. 2014
		<i>Anubias heterophylla</i>	Engl.	Henriquez et al. 2014
		<i>Arisaema franchetianum</i>	Engl.	Henriquez et al. 2014
		<i>Arisarum simorrhinum</i>	Durieu	Henriquez et al. 2014
		<i>Calla palustris</i>	L.	Henriquez et al. 2014
		<i>Carlephyton glaucophyllum</i>	Bogner	Henriquez et al. 2014
		<i>Colocasia esculenta</i>	(L.) Schott	Ahmed et al. 2012
		<i>Dieffenbachia parlatorei</i>	Linden & André	Henriquez et al. 2014
		<i>Lasia spinosa</i>	(L.) Thwaites	Henriquez et al. 2014
		<i>Lemna minor</i>	L.	Mardanov et al. 2008
		<i>Monstera obliqua</i>	Miq.	Henriquez et al. 2014
		<i>Montrichardia arborescens</i>	(L.) Schott	Henriquez et al. 2014
		<i>Orontium aquaticum</i>	L.	Henriquez et al. 2014
Piperales	Piperaceae	<i>Philodendron lanceolatum</i>	Schott	Henriquez et al. 2014

	<i>Pinellia pedatisecta</i>	Schott	Henriquez et al. 2014
	<i>Pinellia tripartita</i>	(Blume) Schott	Henriquez et al. 2014
	<i>Pothos scandens</i>	L.	Henriquez et al. 2014
	<i>Rhaphidophora amplissima</i>	Schott (Roxb.) Zoll. &	Henriquez et al. 2014
	<i>Schismatoglottis calyptata</i>	Moritzi	Henriquez et al. 2014
	<i>Spathiphyllum patulinervum</i>	G.S.Bunting	Henriquez et al. 2014
	<i>Spirodela polyrhiza</i>	(L.) Schleid.	Wang & Messing 2011
	<i>Stenospermation multiovulatum</i>	(Engl.) N.E.Br.	Henriquez et al. 2014
	<i>Steudnera colocasiifolia</i>	K.Koch	Henriquez et al. 2014
	<i>Stylochaeton bogneri</i>	Mayo	Henriquez et al. 2014
	<i>Syngonium angustatum</i>	Schott	Henriquez et al. 2014
	<i>Taccarum caudatum</i>	Rusby	Henriquez et al. 2014
	<i>Typhonium blumei</i>	Nicolson & Sivad.	Henriquez et al. 2014
	<i>Ulearum donburnsii</i>	Croat & Feuerst. (Benth.) Hartog &	Henriquez et al. 2014
	<i>Wolfia australiana</i>	Plas	Wang & Messing 2009
	<i>Wolfiella lingulata</i>	(Hegelm.) Hegelm.	Wang et al. 2011
	<i>Xanthosoma helleborifolium</i>	(Jacq.) Schott	Henriquez et al. 2014
	<i>Zamioculcas zamiifolia</i>	(Lodd.) Engl.	Henriquez et al. 2014
	<i>Zantedeschia aethiopica</i>	(L.) Spreng.	Henriquez et al. 2014
	<i>Zomicarpella amazonica</i>	Bogner	Henriquez et al. 2014
Butomaceae	<i>Butomus umbellatus</i>	L.	Ross et al. 2016
Cymodoceaceae	<i>Amphibolis griffithii</i>	(J.M.Black) Hartog	Ross et al. 2016
	<i>Cymodocea nodosa</i>	(Ucria) Asch. (R.Br.) Asch. &	Ross et al. 2016
	<i>Cymodocea serrulata</i>	Magnus	Ross et al. 2016
	<i>Halodule wrightii</i>	Asch.	Ross et al. 2016
	<i>Syringodium filiforme</i>	Kütz	Ross et al. 2016
	<i>Thalassodendron pachyrhizum</i>	Hartog (Humb. & Bonpl.)	Ross et al. 2016
Hydrocharitaceae	<i>Apalanthe granatensis</i>	Planch.	Ross et al. 2016
	<i>Blyxa aubertii</i>	Rich.	Ross et al. 2016
	<i>Egeria najas</i>	Planch.	Ross et al. 2016
	<i>Elodea canadensis</i>	Michx.	Huotari & Korpelainen 2012
	<i>Enhalus acoroides</i>	(L.f.) Royle	Ross et al. 2016
	<i>Halophila decipiens</i>	Ostenf.	Ross et al. 2016
	<i>Hydrocharis morsus-ranae</i>	L.	Ross et al. 2016
	<i>Lagarosiphon major</i>	(Ridl.) Moss (Humb. & Bonpl. ex	Ross et al. 2016
	<i>Limnobium laevigatum</i>	Willd.) Heine (Willd.) Rostk. &	Ross et al. 2016
	<i>Najas flexilis</i>	W.L.E.Schmidt	Peredo et al. 2013
	<i>Najas guadalupensis</i>	(Spreng.) Magnus (Roxb. ex Wight)	Ross et al. 2016
	<i>Nechamandra alternifolia</i>	Thwaites	Ross et al. 2016
	<i>Ottelia ovalifolia</i>	(R.Br.) Rich.	Ross et al. 2016
	<i>Stratiotes aloides</i>	L.	Ross et al. 2016

			Banks & Sol. ex
		<i>Thalassia testudinum</i>	K.D.Koenig
		<i>Vallisneria americana</i>	Michx.
Juncaginaceae		<i>Cycnogeton procerum</i>	(R.Br.) Buchenau
		<i>Tetroncium magellanicum</i>	Willd.
		<i>Triglochin maritima</i>	L.
Maundiaceae		<i>Maundia triglochinoides</i>	F.Muell.
Posidoniaceae		<i>Posidonia ostenfeldii</i>	Hartog
Potamogetonaceae		<i>Groenlandia densa</i>	(L.) Fourr.
		<i>Lepilaena australis</i>	J.Drumm. ex Harv.
		<i>Potamogeton richardsonii</i>	(A.Benn.) Rydb.
		<i>Stuckenia pectinata</i>	(L.) Börner
		<i>Zannichellia palustris</i>	L.
Ruppiaceae		<i>Ruppia polycarpa</i>	R.Mason
Scheuchzeriaceae		<i>Scheuchzeria palustris</i>	L.
Tofieldiaceae		<i>Pleea tenuifolia</i>	Michx.
		<i>Tofieldia coccinea</i>	Richardson
		<i>Triantha glutinosa</i>	(Michx.) Baker
		<i>Triantha occidentalis</i>	(S.Watson) R.R.Gates
Zosteraceae		<i>Phyllospadix scouleri</i>	Hook.
		<i>Zostera muelleri</i>	(Griseb. & H.Wendl.)
Arecales	Arecaceae	<i>Acoelorraphe wrightii</i>	H.Wendl. ex Becc.
		<i>Areca vestiaria</i>	Giseke
		<i>Arenga caudata</i>	(Lour.) H.E.Moore
		<i>Bismarckia nobilis</i>	Hildebr. & H.Wendl.
		<i>Borassodendron machadonis</i>	(Ridl.) Becc.
		<i>Borassus flabellifer</i>	L.
		<i>Brahea brandegeei</i>	(Purpus) H.E.Moore
		<i>Calamus caryotoides</i>	A.Cunn. ex Mart.
		<i>Caryota mitis</i>	Lour.
		<i>Chamaedorea seifrizii</i>	Burret
		<i>Chamaerops humilis</i>	L.
		<i>Chuniophoenix nana</i>	Burret
		<i>Cocos nucifera</i>	L.
		<i>Colpothrinax cookii</i>	Read
		<i>Corypha lecomtei</i>	Becc. ex Lecomte
		<i>Elaeis guineensis</i>	Jacq.
		<i>Elaeis oleifera</i>	(Kunth) Cortés
		<i>Eremospatha macrocarpa</i>	H.Wendl.
		<i>Eugeissona tristis</i>	Griff.
		<i>Leucothrinax morrisii</i>	(H.Wendl.) C.Lewis & Zona
		<i>Licuala paludosa</i>	Griff.
		<i>Lodoicea maldivica</i>	(J.F.Gmel.) Pers.
		<i>Mauritia flexuosa</i>	L.f.
		<i>Metroxylon warburgii</i>	(Heimerl) Becc.

		<i>Nypa fruticans</i>	Wurmb	Barrett et al. 2016
		<i>Phoenix dactylifera</i>	L.	Yang et al. 2010
		<i>Phytelephas aequatorialis</i>	Spruce	Barrett et al. 2016
		<i>Pigafetta elata</i>	(Mart.) H.Wendl.	Barrett et al. 2016
		<i>Pritchardia thurstonii</i>	F.Muell. & Drude	Barrett et al. 2016
		<i>Pseudophoenix vinifera</i>	(Mart.) Becc. H.Wendl. ex	Barrett et al. 2016
		<i>Ravenea hildebrandtii</i>	C.D.Bouché	Givnish et al. 2010
		<i>Sabal domingensis</i>	Becc.	Heyduk et al. 2015
		<i>Salacca ramosiana</i>	Mogea	Barrett et al. 2016
		<i>Serenoa repens</i>	(W.Bartram) Small J.Dransf. &	Barrett et al. 2016
		<i>Tahina spectabilis</i>	Rakotoarin.	Barrett et al. 2016
		<i>Trithrinax brasiliensis</i>	Mart.	Barrett et al. 2016
		<i>Veitchia arecina</i>	Becc.	Barrett et al. 2016
		<i>Wallichia densiflora</i>	Mart.	Barrett et al. 2016
		<i>Washingtonia robusta</i>	H.Wendl.	Barrett et al. 2016
Asparagales	Amaryllidaceae	<i>Agapanthus praecox</i>	Willd.	Givnish et al. 2010
		<i>Allium cepa</i>	L.	Steele et al. 2012
		<i>Amaryllis belladonna</i>	L.	Steele et al. 2012
		<i>Crinum asiaticum</i>	L.	Steele et al. 2012
		<i>Eucharis grandiflora</i>	Planch. & Linden	Steele et al. 2012
		<i>Gilliesia graminea</i>	Lindl. (Decne.) Friis &	Steele et al. 2012
		<i>Scadoxus cinnabarinus</i>	Nordal	Steele et al. 2012
		<i>Tulbaghia violacea</i>	Harv.	Steele et al. 2012
		<i>Agave attenuata</i>	Salm-Dyck	McKain et al. 2016
		<i>Albuca kirkii</i>	(Baker) Brenan	Givnish et al. 2010, McKain et al. 2016
Asparagaceae		<i>Androstephium coeruleum</i>	(Scheele) Greene	Steele et al. 2012
		<i>Anemarrhena asphodeloides</i>	Bunge	Steele et al. 2012, McKain et al. 2016
		<i>Aphyllanthes monspeliensis</i>	L.	Steele et al. 2012
		<i>Asparagus officinalis</i>	L.	Givnish et al. 2010
		<i>Beschorneria septentrionalis</i>	García-Mend.	McKain et al. 2016
		<i>Bowiea volubilis</i>	Harv.	Steele et al. 2012
		<i>Brodiaea californica</i>	Lindl. ex Lem.	Steele et al. 2012
		<i>Camassia scilloides</i>	(Raf.) Cory	Steele et al. 2012, McKain et al. 2016
		<i>Chlorogalum pomeridianum</i>	(DC.) Kunth	McKain et al. 2016
		<i>Chlorophytum rhizopendulum</i>	Bjørå & Hemp	Givnish et al. 2010, McKain et al. 2016
		<i>Cordyline australis</i>	(G.Forst.) Endl.	Steele et al. 2012
		<i>Dasyllirion wheeleri</i>	S.Watson ex Rothr.	Steele et al. 2012
		<i>Dichelostemma capitatum</i>	(Benth.) Alph.Wood	Steele et al. 2012
		<i>Eriospermum cervicorne</i>	Marloth	Steele et al. 2012
		<i>Herreria bonplandii</i>	Lecomte	This study
		<i>Hesperaloe parviflora</i>	(Torr.) J.M.Coult.	Givnish et al. 2010, McKain et al. 2016
		<i>Hesperocallis undulata</i>	A.Gray	McKain et al. 2016
		<i>Hesperoyucca whipplei</i>	(Torr.) Trel.	McKain et al. 2016
		<i>Hosta ventricosa</i>	Stearn	Givnish et al. 2010, McKain et al. 2016

	<i>Ledebouria cordifolia</i>	(Baker) Stedje & Thulin	Steele et al. 2012
	<i>Liriope spicata</i>	Lour.	Steele et al. 2012
	<i>Lomandra longifolia</i>	Labill.	Givnish et al. 2010
	<i>Maianthemum stellatum</i>	(L.) Link	Barrett et al. 2016
	<i>Manfreda virginica</i>	(L.) Salisb. ex Rose	McKain et al. 2016
	<i>Nolina atopocarpa</i>	Bartlett	Givnish et al. 2010, McKain et al. 2016
	<i>Ophiopogon japonicus</i>	(Thunb.) Ker Gawl.	Steele et al. 2012
	<i>Ornithogalum tenuifolium</i>	F.Delarache	Steele et al. 2012
	<i>Ruscus aculeatus</i>	L.	Steele et al. 2012
	<i>Sansevieria trifasciata</i>	Prahn	Steele et al. 2012
	<i>Schoenolirion croceum</i>	(Michx.) Alph.Wood	McKain et al. 2016
	<i>Triteleia hyacinthina</i>	(Lindl.) Greene	Steele et al. 2012
	<i>Yucca schidigera</i>	Roezl ex Ortgies	Leebens-Mack et al. 2005, Jansen et al. 200
Asphodelaceae	<i>Aloe vera</i>	(L.) Burm.f.	Steele et al. 2012
	<i>Asphodelus albus</i>	Mill.	Graham et al. 2006
	<i>Haworthia cymbiformis</i>	(Haw.) Duval	Steele et al. 2012
	<i>Hemerocallis littorea</i>	Makino	Graham et al. 2006
	<i>Kniphofia linearifolia</i>	Baker	Steele et al. 2012
	<i>Phormium tenax</i>	J.R.Forst. & G.Forst.	Givnish et al. 2010
	<i>Xanthorrhoea preissii</i>	Endl.	Steele et al. 2012
Asteliaceae	<i>Neoastelia spectabilis</i>	J.B.Williams	Givnish et al. 2010
Blandfordiaceae	<i>Blandfordia punicea</i>	(Labill.) Sweet	Graham et al. 2006
Boryaceae	<i>Borya sphaerocephala</i>	R.Br.	This study
Doryanthaceae	<i>Doryanthes palmeri</i>	W.Hill ex Benth.	Graham et al. 2006
Hypoxidaceae	<i>Curculigo capitulata</i>	(Lour.) Kuntze	Givnish et al. 2010
Iridaceae	<i>Iris tenax</i>	Douglas ex Lindl.	Steele et al. 2012
	<i>Iris virginica</i>	L. (Pall.) Schult. & Schult.f. (L.) T.Durand & Schinz	Givnish et al. 2010 Graham et al. 2006
Ixioliriaceae	<i>Ixiolirion tataricum</i>	(L.) T.Durand & Schinz	Graham et al. 2006
Lanariaceae	<i>Lanaria lanata</i>	Schinz	Graham et al. 2006
Orchidaceae	<i>Aa paleacea</i>	(Kunth) Rchb.f.	Givnish et al. 2015
	<i>Angraecum sesquipedale</i>	Thouars	Givnish et al. 2015
	<i>Anoectochilus emeiensis</i>	K.Y.Lang	Zhu et al. 2016
	<i>Apostasia wallichii</i>	R.Br.	Givnish et al. 2010
	<i>Calanthe triplicata</i>	(Willemet) Ames (L.) Britton, Sterns & Poggenb.	Yang et al. 2014 Givnish et al. 2015
	<i>Calopogon tuberosus</i>	(L.) Oakes	Givnish et al. 2015
	<i>Calypso bulbosa</i>	Hook. (Bateman ex Lindl.)	Givnish et al. 2015
	<i>Catasetum integerrimum</i>	P.N.Don	Givnish et al. 2015
	<i>Cattleya aurantiaca</i>	(Pabst) Van den Berg	Perini et al. Unpublished (NC_032083)
	<i>Cattleya liliputana</i>	Lindl.	Givnish et al. 2015
	<i>Chloraea gavilu</i>	(d'Urv.) Lindl.	Givnish et al. 2015
	<i>Codonorchis lessonii</i>	(Sm.) G.Don ex Steud.	Givnish et al. 2015
	<i>Coelia triptera</i>		Givnish et al. 2015

<i>Coelogyne flaccida</i>	Lindl.	Givnish et al. 2015
<i>Corallorrhiza odontorhiza</i>	(Willd.) Nutt.	Givnish et al. 2015
<i>Corallorrhiza striata</i>	Lindl.	Barret & Davis 2012
<i>Coryanthes macrantha</i>	(Hook.) Hook.	Givnish et al. 2015
<i>Corycium carnosum</i>	(Lindl.) Rolfe (Lindl.) S.C.Chen &	Givnish et al. 2015
<i>Cryptochilus roseus</i>	J.J.Wood	Givnish et al. 2015
<i>Cymbidium aloifolium</i>	(L.) Sw.	Yang et al. 2013
<i>Cymbidium lancifolium</i>	Hook. (Nees) Link & Otto ex	Givnish et al. 2015
<i>Cyrtopodium flavum</i>	Rchb.	Givnish et al. 2015
<i>Dactylorhiza fuchsii</i>	(Druce) Soó	Givnish et al. 2015
<i>Dendrobium catenatum</i>	Lindl.	Zhong et al. 2016
<i>Dendrobium heterocarpum</i>	Wall. ex Lindl.	Givnish et al. 2015
<i>Dendrobium huoshanense</i>	Z.Z.Tang & S.J.Cheng	Niu et al. 2017
<i>Dendrobium officinale</i>	Kimura & Migo	Lou et al. 2014
<i>Earina autumnalis</i>	(G.Forst.) Hook.f.	Givnish et al. 2015
<i>Eria rosea</i>	(L.) N.H.Williams &	
<i>Erycina pusilla</i>	M.W.Chase	Pan et al. 2012
<i>Eulophia petersii</i>	(Rchb.f.) Rchb.f.	Givnish et al. 2015
<i>Liparis loeselii</i>	(L.) Rich.	Givnish et al. 2015
<i>Listera fugongensis</i>	X.H.Jin	Givnish et al. 2015
<i>Masdevallia coccinea</i>	Linden ex Lindl. (Bateman ex Lindl.) M.A.Blanco &	Givnish et al. 2015
<i>Maxillariella variabilis</i>	Carnevali	Givnish et al. 2015
<i>Neottia cordata</i>	(L.) Rich.	Givnish et al. 2015
<i>Neottia nidus-avis</i>	(L.) Rich. (Zoll. & Moritzi)	Givnish et al. 2015
<i>Nervilia crociformis</i>	Seidenf.	Givnish et al. 2015
<i>Oncidium Gower Ramsey</i>		Wu et al. 2010
<i>Oncidium sphacelatum</i>	Lindl.	Givnish et al. 2015
<i>Phaius tankervilleae</i>	(Banks) Blume	Givnish et al. 2015
<i>Phalaenopsis aphrodite</i>	Rchb.f.	Givnish et al. 2010
<i>Phalaenopsis equestris</i>	(Schauer) Rchb.f.	Jhen et al. 2012
<i>Phragmipedium</i>	(Warsz. & Rchb.f.)	
<i>Phragmipedium longifolium</i>	Rolfe	Kim et al. 2015
<i>Pogonia ophioglossoides</i>	(L.) Ker Gawl.	Givnish et al. 2015
<i>Rhizanthella gardneri</i>	R.S.Rogers	Delannoy et al. 2011
<i>Sobralia aff. bouchei</i>		Kim et al. 2015
<i>Sobralia callosa</i>	L.O.Williams	Kim et al. 2015
<i>Thelymitra cyanea</i>	(Lindl.) Benth.	Givnish et al. 2015
<i>Triphora trianthophora</i>	(Sw.) Rydb.	Givnish et al. 2015
<i>Tropidia polystachya</i>	(Sw.) Ames	Givnish et al. 2015
<i>Vanilla planifolia</i>	Jacks. ex Andrews	Givnish et al. 2015
<i>Zygopetalum maculatum</i>	(Kunth) Garay	Givnish et al. 2015
<i>Cyanastrum cordifolium</i>	Oliv.	Graham et al. 2006
Tecophilaeaceae		

	Xeronemataceae	<i>Xeronema callistemon</i>	W.R.B.Oliv.	Steele et al. 2012
Commelinales	Commelinaceae	<i>Belosynapsis ciliata</i>	(Blume) R.S.Rao	Givnish et al. 2010
		<i>Cartonema philydroides</i>	F.Muell.	Saarela et al. 2008
		<i>Palisota bogneri</i>	Brenan	Saarela et al. 2008
		<i>Tradescantia ohiensis</i>	Raf.	Givnish et al. 2010
	Haemodoraceae	<i>Anigozanthos flavidus</i>	DC.	This study
		<i>Xiphidium caeruleum</i>	Aubl.	Barrett et al. 2013
	Hanguanaceae	<i>Hanguana malayana</i>	(Jack) Merr.	Barrett et al. 2016
	Philydraceae	<i>Helmholtzia acorifolia</i>	F.Muell.	Saarela et al. 2008
		<i>Philydrella drummondii</i>	L.G.Adams Banks & Sol. ex Gaertn.	Saarela et al. 2008
		<i>Philydrum lanuginosum</i>	(Spreng.) Solms	This study
	Pontederiaceae	<i>Eichhornia paniculata</i>	Hook.f.	Arunkumar et al. 2017
		<i>Hydrothrix gardneri</i>		Graham et al. 2006
		<i>Pontederia cordata</i>	L.	This study
Dasypogonales	Dasypogonaceae	<i>Baxteria australis</i>	R.Br. ex Hook. R.L.Barrett & K.W.Dixon	Barrett et al. 2016
		<i>Calectasia narragara</i>	R.Br.	Barrett et al. 2013
		<i>Dasypogon bromeliifolius</i>	R.Br.	Givnish et al. 2010, Barret et al. 2013
		<i>Kingia australis</i>	R.Br.	Givnish et al. 2010, Barret et al. 2013
Dioscoreales	Burmanniaceae	<i>Burmannia bicolor</i>	Mart.	Lam et al. 2016
		<i>Thismia tentaculata</i>	K.Larsen & Aver.	Lim et al. 2016
	Dioscoreaceae	<i>Dioscorea elephantipes</i>	(L'Hér.) Engl.	Givnish et al. 2010
		<i>Dioscorea rotundata</i>	Poir.	Mariac et al. 2014
		<i>Tacca chantrieri</i>	André	Lim et al. 2016
	Nartheciaceae	<i>Aletis fauriei</i>	H.Lév. & Vaniot	Kim et al. Unpublished (NC_033411.1 )
		<i>Aletis spicata</i>	(Thunb.) Franch.	Kim et al. Unpublished (NC_033412.1 )
		<i>Lophiola americana</i>	(Pursh) A.Wood	Lam et al. 2015
Liliales	Alstroemeriaceae	<i>Alstroemeria aurea</i>	Graham	Kim & Kim 2013
		<i>Alstroemeria longistaminea</i>	Mart.	Givnish et al. 2016
		<i>Bomarea edulis</i>	(Tussac) Herb.	Kim et al. 2016
		<i>Bomarea sp878</i>		Givnish et al. 2016
		<i>Drymophila moorei</i>	Baker	Givnish et al. 2016
		<i>Luzuriaga radicans</i>	Ruiz & Pav.	Kim et al. 2014
	Campynemataceae	<i>Campynema lineare</i>	Labill.	Mennes et al. 2015
		<i>Campynemanthe viridiflora</i>	Baill.	Givnish et al. 2016
	Colchicaceae	<i>Burchardia umbellata</i>	R.Br.	Givnish et al. 2016
		<i>Uvularia grandiflora</i>	Sm.	Givnish et al. 2016
		<i>Uvularia sessilifolia</i>	L.	Givnish et al. 2016
		<i>Wurmbea pygmaea</i>	(Endl.) Benth.	Givnish et al. 2016
	Corsiaceae	<i>Arachnitis uniflora</i>	Phil.	Mennes et al. 2015
		<i>Corsia boridiensis</i>	P.Royer	Mennes et al. 2015
	Liliaceae	<i>Amana edulis</i>	(Miq.) Honda (Benth.) Douglas ex Benth.	Li et al. 2017
		<i>Calochortus albus</i>		Givnish et al. 2016
		<i>Cardiocrinum cathayanum</i>	(E.H.Wilson) Stearn	Lu et al. 2017
		<i>Cardiocrinum cordatum</i>	(Thunb.) Makino	Lu et al. 2017

		<i>Cardiocrinum giganteum</i>	(Wall.) Makino	Lu et al. 2017
		<i>Clintonia borealis</i>	(Aiton) Raf.	Givnish et al. 2016
		<i>Fritillaria cirrhosa</i>	D.Don	Li et al. 2014
		<i>Fritillaria hupehensis</i>	P.K.Hsiao & K.C.Hsia	Li et al. 2014
		<i>Fritillaria taipaiensis</i>	P.Y.Li	Li et al. 2014
		<i>Lilium longiflorum</i>	Thunb.	Kim et al. 2013
		<i>Lilium</i> sp.		This study
		<i>Lilium superbum</i>	L.	Givnish et al. 2010
		<i>Medeola virginiana</i>	L.	Givnish et al. 2016
		<i>Prosartes lanuginosa</i>	(Michx.) D.Don	Givnish et al. 2016
		<i>Tricyrtis macropoda</i>	Miq.	Givnish et al. 2016
		<i>Tulipa pulchella</i>	(Regel) Baker	Givnish et al. 2016
Melanthiaceae		<i>Amianthium muscitoxicum</i>	(Walter) A.Gray	Givnish et al. 2016
		<i>Chionographis japonica</i>	(Willd.) Maxim.	Bodin et al. 2013
		<i>Daiswa chinensis</i>	(Franch.) Takht.	Huang et al. 2016
		<i>Daiswa dunniana</i>	(H. Lév.) Takht.	Huang et al. 2016
		<i>Daiswa forrestii</i>	Takht.	Huang et al. 2016
		<i>Paris verticillata</i>	M.Bieb.	Do et al. 2014
		<i>Trillium cuneatum</i>	Raf.	Schilling et al. unpublished
		<i>Trillium decumbens</i>	Harb.	Schilling et al. unpublished
		<i>Trillium luteum</i>	(Muhl.) Harb.	Givnish et al. 2016
		<i>Trillium maculatum</i>	Raf.	Kim et al. 2016
Petermanniaceae		<i>Trillium tschonoskii</i>	Maxim.	Kim et al. 2016
		<i>Veratrum patulum</i>	O.Loes.	Do et al., 2013
		<i>Petermannia cirrosa</i>	F.Muell.	Givnish et al. 2016
	Philesiaceae	<i>Lapageria rosea</i>	Ruiz & Pav.	Givnish et al. 2016
		<i>Philesia buxifolia</i>	Lam.	Givnish et al. 2016
	Ripogonaceae	<i>Ripogonum album</i>	R.Br.	Givnish et al. 2016
	Smilacaceae	<i>Smilax china</i>	L.	Liu et al. 2012
	Cyclanthaceae	<i>Carludovica palmata</i>	Ruiz & Pav.	Lam et al. 2015
		<i>Cyclanthus bipartitus</i>	Poit. ex A.Rich.	Lam et al. 2015
	Pandanaceae	<i>Freyinetia banksii</i>	A.Cunn.	Lam et al. 2015
Pandanales		<i>Pandanus tectorius</i>	Parkinson ex Du Roi	
		<i>Pandanus utilis</i>	Bory	Givnish et al. 2010
		<i>Sararanga sinuosa</i>	Hemsl.	Lam et al. 2015
	Stemonaceae	<i>Croomia japonica</i>	Miq.	Lam et al. 2015
		<i>Pentastemonia sumatrana</i>	Steenis	Lam et al. 2015
		<i>Stemona tuberosa</i>	Lour.	Lam et al. 2015
		<i>Stichoneuron caudatum</i>	Ridl.	Lam et al. 2015
	Triuridaceae	<i>Sciaphila densiflora</i>	Schltr.	Lam et al. 2015
	Velloziaceae	<i>Xerophyta retinervis</i>	Baker	Lam et al. 2015
	Petrosaviaceae	<i>Japonolirion osense</i>	Nakai	Davis et al. 2013
Petrosaviales		<i>Petrosavia stellaris</i>	Becc.	Logacheva et al., 2014
	Anarthriaceae	<i>Anarthria scabra</i>	R.Br.	This study
		<i>Hopkinsia anoectocolea</i>	(F.Muell.) D.F.Cutler	This study
		<i>Lyginia imberbis</i>	R.Br.	This study

Bromeliaceae	<i>Brocchinia micrantha</i>	(Baker) Mez	Givnish et al. 2010
	<i>Brocchinia prismatica</i>	L.B.Sm.	Givnish et al. 2015
	<i>Fosterella caulescens</i>	Rauh	Givnish et al. 2010
	<i>Navia saxicola</i>	L.B.Sm.	Givnish et al. 2010
	<i>Neoregelia carolinae</i>	(Beer) L.B.Sm.	Givnish et al. 2010
	<i>Neoregelia sp.</i>	(A.Chev.) Harms & Mildbr.	Givnish et al. 2010
	<i>Pitcairnia feliciana</i>	L.B.Sm.	Givnish et al. 2010
	<i>Puya laxa</i>	(L.) L.	Poczai & Hyvönen 2017
Centrolepidaceae	<i>Centrolepis monogyna</i>	(Hook.f.) Benth.	Givnish et al. 2010
Cyperaceae	<i>Cyperus alternifolius</i>	L. (Hassk. ex Steud.)	Givnish et al. 2010
	<i>Mapania palustris</i>	Fern.-Vill.	Givnish et al. 2015
Ecdeiocoleaceae	<i>Ecdeiocolea monostachya</i>	F.Muell. B.G.Briggs & L.A.S.Johnson	Givnish et al. 2010
	<i>Georgeantha hexandra</i>	Lam.	Givnish et al. 2010
Eriocaulaceae	<i>Eriocaulon compressum</i>	(Bong.) Ruhland	This study
	<i>Syngonanthus chrysanthus</i>	L.	Givnish et al. 2010
Flagellariaceae	<i>Flagellaria indica</i>	& Gris	Givnish et al. 2010
Joinvilleaceae	<i>Joinvillea ascendens</i>	L.	Givnish et al. 2010
Juncaceae	<i>Juncus effusus</i>	(Ehrh.) Desv.	Givnish et al. 2010
	<i>Luzula parviflora</i> ssp. <i>parviflora</i>	Aubl. (Hsueh & T.P.Yi) Keng f.	This study
Mayacaceae	<i>Mayaca fluviatilis</i>	Host	Zhang et al. 2011
Poaceae	<i>Acidosasa purpurea</i>	L.	Saarela et al. 2015
	<i>Aegilops cylindrica</i>	Stapf	Saski et al. 2007
	<i>Agrostis stolonifera</i>	(Schult.) Hitchc.	Lundgren et al. 2015
	<i>Alloteropsis angusta</i>	Bor	Burke et al. 2016b
	<i>Amphicarpum</i> <i>muhlenbergianum</i>	Brongn.	Arthan et al. 2017
	<i>Andropogon burmanicus</i>	L.	Morris & Duvall 2010
	<i>Anomochloa marantoidea</i>	Nutt.	Saarela et al. 2015
	<i>Anthoxanthum odoratum</i>	(Walter) Muhl.	Cotton et al. 2015
	<i>Aristida purpurea</i>	L.	Burke et al. 2012
	<i>Arundinaria gigantea</i>	(Lindl.) F.Muell. ex Benth.	Lwin et al. unpublished (NC_037077)
	<i>Arundo donax</i>	L.	Duvall et al. 2016
	<i>Astrebla pectinata</i>	(Raddi) Kuhlm.	Sebastin et al. 2018
	<i>Avena sterilis</i>	F.Muell.	Burke et al. 2016b
	<i>Axonopus fissifolius</i>	(L.) Voss	Wysocki et al. 2015
	<i>Bambusa arnhemica</i>	L.C.Chia & H.L.Fung	Wysocki et al. 2015
	<i>Bambusa bambos</i>	(Lour.) Raeusch. ex Schult.	Zhang et al. 2011
	<i>Bambusa emeiensis</i>	Munro	Gao et al. 2016
	<i>Bambusa multiplex</i>	(Michx.) Torr.	Wu et al. 2009
	<i>Bambusa oldhamii</i>		Duvall et al. 2016
	<i>Bouteloua curtipendula</i>		

<i>Bouteloua gracilis</i>	(Kunth) Lag. ex Griffiths	Duvall et al. 2016
<i>Brachiaria fragrans</i>	A.Camus (Michx.) Trel.,	Silva et al. 2016
<i>Brachyelytrum aristosum</i>	Branner & Coville	Saarela et al. 2015
<i>Brachypodium distachyon</i>	(L.) P.Beaup.	Bortiri et al. 2008
<i>Buergeriochloa bambusoides</i>	Pilg.	Wysocki et al. 2015
<i>Cenchrus americanus</i>	(L.) Morrone	Mariac et al. 2014
<i>Centropodia glauca</i>	(Nees) Cope	Duvall et al. 2016
<i>Chaetobromus involucratus</i>	(Schrad.) Nees	Cotton et al. 2015
<i>Chikusichloa aquatica</i>	Koidz.	Zhang et al. 2016b
<i>Chionochloa macra</i>	Zotov	Cotton et al. 2015
<i>Chloris barbata</i>	Sw. Soderstr. & C.E.Calderon	Duvall et al. 2016
<i>Chusquea circinata</i>	E.Fourn.	Ma et al. 2015
<i>Chusquea liebmannii</i>	L.G.Clark	Wysocki et al. 2015
<i>Chusquea PFM2015</i>	L.	Ma et al. 2015
<i>Chusquea spectabilis</i>	(E.Fourn.) Swallen (Nees ex Steud.)	Wysocki et al. 2015
<i>Coix lacryma-jobi</i>	W.Watson	Leseberg and Duvall 2009
<i>Cryptochloa strictiflora</i>	Bol.	Burke et al. 2012
<i>Cymbopogon flexuosus</i>	Munro	Arthan et al. 2017
<i>Danthonia californica</i>	É.Desv.	Cotton et al. 2015
<i>Dendrocalamus latiflorus</i>	(Gleason)	Wu & Ge 2012
<i>Deschampsia antarctica</i>	Brandenburg	Lee et al. 2014
<i>Diandrolyra sp Clark1301</i>	(L.) Greene	Wysocki et al. 2015
<i>Diarrhena obovata</i>	(L.) P.Beaup.	Nah et al. 2016
<i>Distichlis bajaensis</i>	(L.) Gaertn.	Givnish et al. 2010
<i>Distichlis spicata</i>	Host	Duvall et al. 2016
<i>Eragrostis minor</i>	(Zucc.) Trotter	Duvall et al. 2016
<i>Eragrostis tef</i>	F.Muell.	Wysocki et al. 2015
<i>Eremitis sp ClarkZhang1343</i>	T.H.Wen	Cotton et al. 2015
<i>Eriachne stipacea</i>	L.	Zhang et al. 2011
<i>Ferrocalamus rimosivaginus</i>	(Rojas Acosta) Londoño &	Hand et al. 2013
<i>Festuca ovina</i>	P.M.Peterson	Wysocki et al. 2015
<i>Greslania McPherson19217</i>	Pilg.	do Nascimento et al. 2016
<i>Guadua chacoensis</i>	A.Camus	Wysocki et al. 2015
<i>Guadua weberbaueri</i>	Kunth (Thurb.) Benth. ex	Hajek et al. unpublished
<i>Hickelia madagascariensis</i>	Scribn.	Duvall et al. 2016
<i>Hilaria cenchroides</i>	L.	Saski et al. 2007
<i>Hilaria rigida</i>		
<i>Hordeum vulgare</i>		

<i>Imperata cylindrica</i>	(L.) Raeusch.	Burke et al. 2016b
<i>Indocalamus longiauritus</i>	Hand.-Mazz.	Zhang et al. 2011
<i>Isachne distichophylla</i>	Munro ex Hillebr.	Cotton et al. 2015
<i>Leersia tisserantii</i>	(A.Chev.) Launert	Wu & Ge 2012
<i>Leptaspis banksii</i>	R.Br.	Burke et al. 2016a
<i>Leptaspis zeylanica</i>	Nees ex Steud.	Burke et al. 2016a
<i>Lithachne pauciflora</i>	(Sw.) P.Beauv.	Wysocki et al. 2015
<i>Lolium multiflorum</i>	Lam.	Hand et al. 2013
<i>Lolium perenne</i>	L.	Diekmann et al. 2009
<i>Melica mutica</i>	Walter	Saarela et al. 2015
<i>Merostachys Greco18</i>		do Nascimento et al. 2016
<i>Micraira spiciforma</i>	Lazarides	Cotton et al. 2015
<i>Microlaena stipoides</i>	(Labill.) R.Br.	Wu & Ge 2012
<i>Monachather paradoxus</i>	Steud.	Cotton et al. 2015
<i>Neohouzeau Clark</i>		
<i>Attigala1712</i>		Wysocki et al. 2015
<i>Neololeba atra</i>	(Lindl.) Widjaja (Kunth) Keng ex	Wysocki et al. 2015
<i>Neyraudia reynaudiana</i>	Hitchc.	Wysocki et al. 2014
<i>Olmeca reflexa</i>	Soderstr.	Wysocki et al. 2015
<i>Olyra latifolia</i>	L.	Burke et al. 2014
<i>Oryza sativa</i>	L.	Zhang et al. 2012
<i>Oryzopsis asperifolia</i>	Michx. (Munro) C.E.Calderón ex	Saarela et al. 2015
<i>Otatea acuminata</i>	Soderstr.	Wysocki et al. 2015
<i>Otatea glauca</i>	L.G.Clark & G.Cortés	Ma et al. 2015
<i>Panicum virgatum</i>	L.	Young et al. 2011
<i>Pariana radiciflora</i>	Sagot ex Döll	Wysocki et al. 2015
<i>Paspalum fimbriatum</i>	Kunth	Burke et al. 2016b
<i>Phalaris arundinacea</i>	L.	Saarela et al. 2015
<i>Pharus latifolius</i>	L.	Jones et al. 2014, Wysocki et al. 2014
<i>Phragmites australis</i>	(Cav.) Trin. ex Steud.	Duvall et al. 2017
<i>Phyllostachys edulis</i>	(Carrière) J.Houz. (Lodd. ex Lindl.)	Wysocki et al. 2015
<i>Phyllostachys nigra</i>	Munro	Wysocki et al. 2015
<i>Phyllostachys propinqua</i>	McClure	Wu & Ge 2012
<i>Poa palustris</i>	L.	Saarela et al. 2015
<i>Puccinellia nuttalliana</i>	(Schult.) Hitchc.	Saarela et al. 2015
<i>Puelia olyriformis</i>	(Franch.) Clayton	Jones et al. 2014
<i>Raddia brasiliensis</i>	Bertol.	Wysocki et al. 2015
<i>Saccharum NCo310</i>		Asano et al. 2004
<i>Saccharum officinarum</i>	L.	Evans & Joshi 2016
<i>Sartidia dewinteri</i>	Munday & L.Fish	Besnard et al. 2014
<i>Schizachyrium scoparium</i>	(Michx.) Nash	Arthan et al. 2017
<i>Secale cereale</i>	L.	Middleton et al. 2014
<i>Setaria italica</i>	(L.) P.Beauv.	Wang & Gao 2015
<i>Sorghum bicolor</i>	(L.) Moench	Saski et al. 2007

	<i>Sporobolus heterolepis</i>	(Gray) A.Gray (Hitchc.) P.M. Peterson & Saarela	Duvall et al. 2016
	<i>Sporobolus michauxianus</i>		Duvall et al. 2016
	<i>Stipa purpurea</i>	Griseb.	Lu et al. 2017
	<i>Streptochaeta angustifolia</i>	Soderstr.	Givnish et al. 2010
	<i>Streptochaeta spicata</i>	Schrad. ex Nees (Conert) N.P.Barker	Burke et al. 2016b
	<i>Tenaxia guillarmodiae</i>	& H.P.Linder	Duvall et al. 2016
	<i>Thamnochortus spathiflorus</i>	(Trin.) Munro	Wysocki et al. 2015
	<i>Triticum aestivum</i>	L.	Middleton et al. 2014
	<i>Zea mays</i>	L.	Bosacchi et al. 2015
	<i>Zizania aquatica</i>	L.	Wysocki et al. 2015
Rapateaceae	<i>Potarophytum riparium</i>	Sandwith	Givnish et al. 2010
	<i>Rapatea paludosa</i>	Aublet	This study
	<i>Stegolepis sp.</i>		This study
Restionaceae	<i>Thamnochortus insignis</i>	Mast.	Givnish et al. 2010
	<i>Thamnochortus punctatus</i>	Pillans	Givnish et al. 2010
Thurniaceae	<i>Prionium serratum</i>	(L.f.) Drège	This study
	<i>Thurnia sphaerocephala</i>	(Rudge) Hook.f.	Givnish et al. 2010
Typhaceae	<i>Sparganium eurycarpum</i>	Engelm.	Givnish et al. 2010
	<i>Typha latifolia</i>	L.	Givnish et al. 2010
Xyridaceae	<i>Abolboda macrostachya</i>	Spruce ex Malme (L.B.Sm.) Steyermark. &	Givnish et al. 2010
	<i>Aratityopea lopezii</i>	P.E.Berry	This study
	<i>Xyris jupicai</i>	Rich.	Graham et al. 2006
Cannaceae	<i>Canna indica</i>	L.	Barrett et al. 2014a
Zingiberales	<i>Canna iridiflora</i>	Ruiz & Pav.	This study
	<i>Canna jaegeriana</i>	Urb.	This study
Costaceae	<i>Chamaecostus sp.</i>		This study
	<i>Cheilocostus speciosus</i>	(J.Koenig) C.D.Speccht	This study
	<i>Costus dubius</i>	(Afzel.) K.Schum.	This study
	<i>Costus gabonensis</i>	Koechlin	This study
	<i>Costus osae</i>	Maas & H.Maas	This study
	<i>Costus pictus</i>	D.Don	This study
	<i>Costus pulverulentus</i>	C.Presl	This study
	<i>Dimerocostus strobilaceus</i>	Kuntze (Poepp. ex Petersen)	This study
	<i>Monocostus uniflorus</i>	Maas	Barrett et al. 2014a, Sass et al. 2016
	<i>Tapeinochilos ananassae</i>	(Hassk.) K.Schum.	This study
Heliconiaceae	<i>Heliconia acuminata</i>	A.Rich.	This study
	<i>Heliconia collinsiana</i>	Griggs	This study
	<i>Heliconia nutans</i>	Woodson	This study
	<i>Heliconia sp23</i>		This study
	<i>Heliconia sp25</i>		This study
	<i>Heliconia sp41</i>		This study
Lowiaceae	<i>Orchidantha fimbriata</i>	Holttum	Barrett et al. 2014a, Sass et al. 2016
	<i>Orchidantha maxillarioides</i>	(Ridl.) K.Schum.	This study
Marantaceae	<i>Calathea roseopicta</i>	(Linden) Regel	This study

		<i>Donax canniformis</i>	(G.Forst.) K.Schum.	This study
		<i>Halopegia azurea</i>	(K.Schum.) K.Schum.	This study
		<i>Ischnosiphon heleniae</i>	L.Andersson	This study
		<i>Maranta leuconeura</i>	E.Morren (K.Schum.) Milne-Redh. (J.F.Macbr.)	Barrett et al. 2014a
		<i>Marantochloa leucantha</i>	L.Andersson	This study
		<i>Stromanthe stromanthoides</i>	(Benn.) Benth.	Barrett et al. 2014a
	Musaceae	<i>Ensete superbum</i>	(Roxb.) Cheesman	This study
		<i>Ensete ventricosum</i>	(Welw.) Cheesman	Graham et al. 2006
		<i>Musa acuminata</i>	Colla	Leebens-Mack et al. 2005
		<i>Musa balbisiana</i>	Colla Siebold & Zucc. ex	Shetty et al. 2016
		<i>Musa basjoo</i>	Iinuma	This study
		<i>Musa coccinea</i>	Andrews	This study
		<i>Musa ornata</i>	Roxb.	This study
		<i>Musa</i> sp. (FTBG 2007-0825A)	(Franch.) C.Y.Wu ex H.W.Li	Barrett et al. 2014a
	Strelitziaceae	<i>Musella lasiocarpa</i>	Sonn.	Barret et al. 2014a
		<i>Ravenala madagascariensis</i>	R.A.Dyer	This study
		<i>Strelitzia caudata</i>	Banks	This study
	Zingiberaceae	<i>Strelitzia reginae</i>	(Sonn.) K.Schum.	This study
		<i>Aframomum angustifolium</i>	(Vieill.) K.Schum.	This study
		<i>Alpinia purpurata</i>	(Pers.) B.L.Burtt &	This study
		<i>Alpinia zerumbet</i>	R.M.Sm.	Barrett et al. 2013
		<i>Curcuma longa</i>	L.	This study
		<i>Curcuma roscoea</i>	Wall.	Barrett et al. 2014a
		<i>Elettariopsis stenosiphon</i>	(K.Schum.) B.L.Burtt & R.M.Sm.	This study
		<i>Etlingera elatior</i>	(Jack) R.M.Sm.	This study
		<i>Globba winitii</i>	C.H.Wright	This study
		<i>Hedychium coronarium</i>	J.Koenig	This study
		<i>Renealmia alpinia</i>	(Rottb.) Maas	Givnish et al. 2010
		<i>Riedelia</i> sp.		This study
		<i>Scaphiochlamys</i> sp33		This study
		<i>Siamanthus siliquosus</i>	K.Larsen & J.Mood	This study
		<i>Siphonochilus kirkii</i>	(Hook.f.) B.L.Burtt	This study
		<i>Zingiber officinale</i>	Roscoe	This study
		<i>Zingiber spectabile</i>	Griff.	Barrett et al. 2013

#### OUTGROUPS

Amborellales	Amborellaceae	<i>Amborella trichopoda</i>	Baill.	Goremykin et al. 2003a
Apiales	Apiaceae	<i>Anethum graveolens</i>	L.	Jansen et al. 2007
Apiales	Araliaceae	<i>Panax ginseng</i>	C.A.Mey.	Kim & Lee 2004
Apiales	Araliaceae	<i>Panax japonicus</i>	(T.Nees) C.A.Mey.	Kim et al. 2017
Asterales	Asteraceae	<i>Helianthus annuus</i>	L.	Jansen et al. 2007

Austrobaileyales	Schisandraceae	<i>Illicium oligandrum</i>	Merr. & Chun	Hansen et al. 2007
Buxles	Buxaceae	<i>Buxus microphylla</i>	Siebold & Zucc.	Hansen et al. 2007
Canellales	Winteraceae	<i>Drimys granadensis</i>	L.f.	Cai et al. 2006
Caryophyllales	Amaranthaceae	<i>Spinacia oleracea</i>	L.	Schmitz-Linneweber et al. 2001
Ceratophyllales	Ceratophyllaceae	<i>Ceratophyllum demersum</i>	L.	Moore et al. 2007
Cucurbitales	Cucurbitaceae	<i>Cucumis sativus</i>	L.	Plader et al. 2007
Fabales	Fabaceae	<i>Medicago papillosa</i>	Boiss.	Matsushima et al., 2008
Gentianales	Rubiaceae	<i>Coffea arabica</i>	L.	Samson et al. 2007
Laurales	Calycanthaceae	<i>Calycanthus floridus</i>	L.	Goremykin et al. 2003b
Magnoliales	Magnoliaceae	<i>Liriodendron tulipifera</i>	L. Torr. & A.Gray ex Hook.	Cai et al. 2006
Malpighiales	Salicaceae	<i>Populus trichocarpa</i>	(Aiton) W.T. Aiton	Tuskan et al. 2006
Nymphaeales	Nymphaeaceae	<i>Nuphar advena</i>	Cheeseman	Raubeson et al. 2007
Nymphaeales	Nymphaeaceae	<i>Trithuria inconspicua</i>	C.DC.	Goremykin et al. 2012
Piperales	Piperaceae	<i>Piper cenocladum</i>	L.	Cai et al. 2006
Proteales	Platanaceae	<i>Platanus occidentalis</i>	Thunb.	Moore et al. 2006
Ranunculales	Berberidaceae	<i>Nandina domestica</i>	L.	Raubeson et al., 2007
Vitales	Vitaceae	<i>Vitis vinifera</i>	Jansen et al. 2006	

- 
- Arthan, W., McKain, M. R., Traiperm, P., Welker, C. A., Teisher, J. K. & Kellogg, E. A. (2017). Phylogenomics of Andropogoneae (Panicoideae: Poaceae) of mainland Southeast Asia. *Systematic Botany*, 42(3), 418-431.
- Arunkumar, R., Wang, W., Wright, S. I. & Barrett, S. C. (2017). The genetic architecture of trityl and its breakdown to self-fertilization. *Molecular ecology*, 26(3), 752-765.
- Barrett, C. F. & Davis, J. I. (2012). The plastid genome of the mycoheterotrophic *Corallorrhiza striata* (Orchidaceae) is in the relatively early stages of degradation. *American Journal of Botany*, 99(9), 1513-1523.
- Barrett, C. F., Davis, J. I., Leebens-Mack, J., Conran, J. G. & Stevenson, D. W. (2013) Plastid genomes and deep relationships among the commelinid monocot angiosperms. *Cladistics*, 29, 65-87.
- Barrett, C. F., Baker, W. J. Comer R. R., Conran, J. G., Lahmeyer, S. C., Leebens-Mack, J., Li, J., Lim, G. S., Mayfield-Jones, D. R., Perez, L., Medina, J., Pires, J. C., Stevenson, D. W., Zomlefer, W. B. & Davis, J. I. (2016) Plastid genomes reveal support for deep phylogenetic relationships and extensive rate variation among palms and other commelinid monocots. *New Phytologist* 209: 855-870.
- Burke, S. V., Lin, C. S., Wysocki, W. P., Clark, L. G., & Duvall, M. R. (2016). Phylogenomics and plastome evolution of tropical forest grasses (*Leptaspis*, *Streptochaeta*: Poaceae). *Frontiers in Plant Science*, 7, 1993.
- Cotton, J. L., Wysocki, W. P., Clark, L. G., Kelchner, S. A., Pires, J. C., Edger, P. P., ... & Duvall, M. R. (2015). Resolving deep relationships of PACMAD grasses: a phylogenomic approach. *BMC plant biology*, 15(1), 178.
- Delannoy, E., Fujii, S., Colas des Franks-Small, C., Brundrett, M. & Small, I. (2011). Rampant gene loss in the underground orchid *Rhizanthella gardneri* highlights evolutionary constraints on plastid genomes. *Molecular Biology and Evolution*, 28(7), 2077-2086.
- do Nascimento Vieira, L., Dos Anjos, K. G., Faoro, H., de Freitas Fraga, H. P., Greco, T. M., de

- Oliveira Pedrosa, F., ... & Guerra, M. P. (2016). Phylogenetic inference and SSR characterization of tropical woody bamboos tribe Bambuseae (Poaceae: Bambusoideae) based on complete plastid genome sequences. *Current Genetics*, 62(2), 443-453.
- Duvall, M. R., Fisher, A. E., Columbus, J. T., Ingram, A. L., Wysocki, W. P., Burke, S. V., ... & Kelchner, S. A. (2016). Phylogenomics and plastome evolution of the chloridoid grasses (Chloridoideae: Poaceae). *International Journal of Plant Sciences*, 177(3), 235-246.
- Evans, D. L. & Joshi, S. V. (2016). Complete chloroplast genomes of *Saccharum spontaneum*, *Saccharum officinarum* and *Miscanthus floridulus* (Panicoideae: Andropogoneae) reveal the plastid view on sugarcane origins. *Systematics and biodiversity*, 14(6), 548-571.
- Goremykin, V. V., Nikiforova, S. V., Biggs, P. J., Zhong, B., Delange, P., Martin, W., ... & Lockhart, P. J. (2012). The evolutionary root of flowering plants. *Systematic biology*, 62(1), 50-61.
- Heyduk, K., Trapnell, D. W., Barrett, C. F. & Leebens-Mack, J. (2015). Phylogenomic analyses of species relationships in the genus *Sabal* (Arecaceae) using targeted sequence capture. *Biological Journal of the Linnean Society*, 117(1), 106-120.
- Huang, Y. Y., Matzke, A. J. & Matzke, M. (2013). Complete sequence and comparative analysis of the chloroplast genome of coconut palm (*Cocos nucifera*). *PLoS One*, 8(8), e74736.
- Huang, Y., Li, X., Yang, Z., Yang, C., Yang, J. & Ji, Y. (2016). Analysis of complete chloroplast genome sequences improves phylogenetic resolution in *Paris* (Melanthiaceae). *Frontiers in plant science*, 7, 1797.
- Jheng, C. F., Chen, T. C., Lin, J. Y., Chen, T. C., Wu, W. L. & Chang, C. C. (2012). The comparative chloroplast genomic analysis of photosynthetic orchids and developing DNA markers to distinguish *Phalaenopsis* orchids. *Plant science*, 190, 62-73.
- Jones, S. S., Burke, S. V. & Duvall, M. R. (2014). Phylogenomics, molecular evolution, and estimated ages of lineages from the deep phylogeny of Poaceae. *Plant Systematics and Evolution*, 300(6), 1421-1436.
- Kim, H. T., Kim, J. S., Moore, M. J., Neubig, K. M., Williams, N. H., Whitten, W. M. & Kim, J. H. (2015). Seven new complete plastome sequences reveal rampant independent loss of the *ndh* gene family across orchids and associated instability of the inverted repeat/small single-copy region boundaries. *PLoS One*, 10(11), e0142215.
- Kim, J. S., Kim, H. T., Yoon, C. Y. & Kim, J. H. (2016). The complete plastid genome sequence of *Bomarea edulis* (Alstroemeriaceae: Liliales). *Mitochondrial DNA Part A*, 27(3), 1869-1870.
- Kim, K., Nguyen, V. B., Dong, J., Wang, Y., Park, J. Y., Lee, S. C. & Yang, T. J. (2017). Evolution of the Araliaceae family inferred from complete chloroplast genomes and 45S nrDNAs of 10 Panax-related species. *Scientific Reports*, 7(1), 4917.
- Lam, V. K., Merckx, V. S., & Graham, S. W. (2016). A few-gene plastid phylogenetic framework for mycoheterotrophic monocots. *American Journal of Botany*, 103(4), 692-708.
- Li, P., Lu, R. S., Xu, W. Q., Ohi-Toma, T., Cai, M. Q., Qiu, Y. X., ... & Fu, C. X. (2017). Comparative Genomics and Phylogenomics of East Asian Tulips (*Amana*, Liliaceae). *Frontiers in plant science*, 8, 451.
- Lim, G. S., Barrett, C. F., Pang, C. C., & Davis, J. I. (2016). Drastic reduction of plastome size in the mycoheterotrophic *Thismia tentaculata* relative to that of its autotrophic relative *Tacca chantrieri*. *American Journal of Botany*, 103(6), 1129-1137.
- Lu, D., Zhao, Y., Han, R., Wang, L. & Qin, P. (2016). The complete chloroplast genome sequence of the purple gramineous *Stipa purpurea* (Poales: Poaceae). *Conservation Genetics Resources*, 8(2), 101-104.
- Lu, R. S., Li, P. & Qiu, Y. X. (2017). The complete chloroplast genomes of three *Cardiocrinum* (Liliaceae) species: comparative genomic and phylogenetic analyses. *Frontiers in plant*

- science, 7, 2054.
- Luo, J., Hou, B. W., Niu, Z. T., Liu, W., Xue, Q. Y. & Ding, X. Y. (2014). Comparative chloroplast genomes of photosynthetic orchids: insights into evolution of the Orchidaceae and development of molecular markers for phylogenetic applications. PLoS One, 9(6), e99016.
- Ma, P. F., Zhang, Y. X., Guo, Z. H. & Li, D. Z. (2015). Evidence for horizontal transfer of mitochondrial DNA to the plastid genome in a bamboo genus. Scientific Reports, 5, 11608.
- Mariac, C., Scarcelli, N., Pouzadou, J., Barnaud, A., Billot, C., Faye, A., ... & Santoni, S. (2014). Cost-effective enrichment hybridization capture of chloroplast genomes at deep multiplexing levels for population genetics and phylogeography studies. Molecular Ecology Resources, 14(6), 1103-1113.
- McKain, M. R., McNeal, J. R., Kellar, P. R., Eguiarte, L. E., Pires, J. C., & Leebens-Mack, J. (2016). Timing of rapid diversification and convergent origins of active pollination within Agavoideae (Asparagaceae). American Journal of Botany, 103(10), 1717-1729.
- Moore, M. J., Bell, C. D., Soltis, P. S. & Soltis, D. E. (2007). Using plastid genome-scale data to resolve enigmatic relationships among basal angiosperms. Proceedings of the National Academy of Sciences, 104(49), 19363-19368.
- Niu, Z., Xue, Q., Zhu, S., Sun, J., Liu, W. & Ding, X. (2017). The complete plastome sequences of four orchid species: Insights into the evolution of the Orchidaceae and the utility of plastomic mutational hotspots. Frontiers in Plant Science, 8, 715.
- Pan, I. C., Liao, D. C., Wu, F. H., Daniell, H., Singh, N. D., Chang, C., ... & Lin, C. S. (2012). Complete chloroplast genome sequence of an orchid model plant candidate: *Erycina pusilla* apply in tropical *Oncidium* breeding. PloS one, 7(4), e34738.
- Poczai, P. & Hyvönen, J. (2017). The complete chloroplast genome sequence of the CAM epiphyte Spanish moss (*Tillandsia usneoides*, Bromeliaceae) and its comparative analysis. PloS one, 12(11), e0187199.
- Saarela, J. M., Prentis, P. J., Rai, H. S. & Graham, S. W. (2008). Phylogenetic relationships in the monocot order Commelinales, with a focus on Philydraceae. Botany, 86(7), 719-731.
- Sebastin, R., Lee, K.J., Shin, M.-J., Cho, G.-T., Ma, K.-H., Lee, J.-R., Lee, G.-A., and Chung, J.-W. 2018. The complete chloroplast genome sequence of wild oat, *Avena sterilis* L. (Poaceae) and its phylogeny. Mitochondrial DNA Part B 3(1): 311-312.
- Shetty, S. M., Shah, M., Ulfa, M., Makale, K., Mohd-Yusuf, Y., Khalid, N. & Othman, R. Y. (2016). Complete chloroplast genome sequence of *Musa balbisiana* corroborates structural heterogeneity of inverted repeats in wild progenitors of cultivated bananas and plantains. The Plant Genome, 9(2).
- Silva, C., Besnard, G., Piot, A., Razanatsoa, J., Oliveira, R. P. & Vorontsova, M. S. (2016). Museomics resolve the systematics of an endangered grass lineage endemic to north-western Madagascar. Annals of Botany, 119(3), 339-351.
- Steele, P. R., Hertweck, K. L., Mayfield, D., McKain, M. R., Leebens-Mack, J. & Pires, J. C. (2012). Quality and quantity of data recovered from massively parallel sequencing: Examples in Asparagales and Poaceae. American Journal of Botany, 99(2), 330-348.
- Sveinsson, S. & Cronk, Q. (2016). Conserved gene clusters in the scrambled plastomes of IRLC legumes (Fabaceae: Trifolieae and Fabeae). bioRxiv, 040188.
- Tuskan, G. A., Difazio, S., Jansson, S., Bohlmann, J., Grigoriev, I., Hellsten, U., ... & Schein, J. (2006). The genome of black cottonwood, *Populus trichocarpa* (Torr. & Gray). science, 313(5793), 1596-1604.
- Uthaipaisanwong, P., Chanprasert, J., Shearman, J. R., Sangsrakru, D., Yoocha, T., Jomchai, N.,

- ... & Tangphatsornruang, S. (2012). Characterization of the chloroplast genome sequence of oil palm (*Elaeis guineensis* Jacq.). *Gene*, 500(2), 172-180.
- Wang, W. & Messing, J. (2011). High-throughput sequencing of three Lemnoideae (duckweeds) chloroplast genomes from total DNA. *PloS one*, 6(9), e24670.
- Wang, W., & Messing, J. (2011). High-throughput sequencing of three Lemnoideae (duckweeds) chloroplast genomes from total DNA. *PloS one*, 6(9), e24670.
- Wu, F. H., Chan, M. T., Liao, D. C., Hsu, C. T., Lee, Y. W., Daniell, H., ... & Lin, C. S. (2010). Complete chloroplast genome of *Oncidium Gower Ramsey* and evaluation of molecular markers for identification and breeding in Oncidiinae. *BMC plant biology*, 10(1), 68.
- Wysocki, W. P., Clark, L. G., Kelchner, S. A., Burke, S. V., Pires, J. C., Edger, P. P., ... & Duvall, M. R. (2014). A multi-step comparison of short-read full plastome sequence assembly methods in grasses. *Taxon*, 63(4), 899-910.
- Yang, J. B., Li, D. Z. & Li, H. T. (2014). Highly effective sequencing whole chloroplast genomes of angiosperms by nine novel universal primer pairs. *Molecular Ecology Resources*, 14(5), 1024-1031.
- Yang, J. B., Tang, M., Li, H. T., Zhang, Z. R. & Li, D. Z. (2013). Complete chloroplast genome of the genus *Cymbidium*: lights into the species identification, phylogenetic implications and population genetic analyses. *BMC evolutionary biology*, 13(1), 84.
- Yang, M., Zhang, X., Liu, G., Yin, Y., Chen, K., Yun, Q., ... & Yu, J. (2010). The complete chloroplast genome sequence of date palm (*Phoenix dactylifera* L.). *PloS one*, 5(9), e12762.
- Zhong, Z., Zhang, G., Lai, X. & Huang, S. (2016). The complete chloroplast genome sequence of a new variety of *Dendrobium officinale* 'zhong ke IV hao'. *Mitochondrial DNA Part B*, 1(1), 669-670.
- Zhu, S., Niu, Z., Yan, W., Xue, Q. & Ding, X. (2016). The complete chloroplast genome sequence of *Anoectochilus emeiensis*. *Mitochondrial DNA Part A*, 27(5), 3565-3566.