

SUSANA MAGALLÓN AND MICHAEL J. SANDERSON. 2002. Relationships among seed plants inferred from highly conserved genes: sorting conflicting phylogenetic signals among ancient lineages. *American Journal of Botany* 89(12): 1991-2006.

Taxonomic sample. Genera and species included in phylogenetic analyses using *psaA* and *psbB* sequences, including collection information, and accession numbers in GenBank and EMBL data bases. The prefix GBAN- has been added to GenBank accessions to link the online version of *American Journal of Botany* with GenBank but is not part of the actual accession number.

Family	Species	Gene(s)	Voucher information	<i>psa A</i> accession number	<i>psbB</i> accession number
Angiosperms					
Aceraceae	<i>Acer palmatum</i> Thunb.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 76.0206 (SM326)	GBAN- AJ430381	GBAN- AJ347845
Altingiaceae	<i>Liquidambar styraciflua</i> L.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 75.0063 (SM315)	GBAN- AJ344276	GBAN- AJ347860
Amborellaceae	<i>Amborella trichopoda</i> Baill.	<i>psaA, psbB</i>	UC Santa Cruz Arboretum 75.5 (SM335)	GBAN- AJ344262	GBAN- AJ347847
Araceae	<i>Spathiphyllum</i> sp.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 90.1626 (SM328)	GBAN- AJ344286	GBAN- AJ347870
Araceae	<i>Acorus calamus</i> L.	<i>psaA, psbB</i>	UCD Botanical Conservatory B94.404 (SM339)	GBAN- AJ344261	GBAN- AJ347846
Arecaceae	<i>Serenoa repens</i> (W. Bartram) Small	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 75.0595 (SM330)	GBAN- AJ344285	GBAN- AJ347869
Aristolochiaceae	<i>Asarum caudatum</i> Lindl.	<i>psaA, psbB</i>	UCD Botanical Conservatory B99.097 (SM381)	GBAN- AJ344263	GBAN- AJ347848
Austrobaileyaceae	<i>Austrobaileya scandens</i> C.T. White	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 72.0615 (SM334)	GBAN- AJ344264	GBAN- AJ347849
Buxaceae	<i>Pachysandra terminalis</i> Siebold & Zucc.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 80.1193 (SM316)	GBAN- AJ344281	GBAN- AJ347865
Calycanthaceae	<i>Calycanthus occidentalis</i> Hook. &	<i>psaA, psbB</i>	UCD Arboretum A76.0076 (SM336)	GBAN- AJ344265	GBAN- AJ347850

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Capparaceae	<i>Isomeris arborea</i> Nutt.	<i>psaA, psbB</i>	UCD Arboretum - no accession number (SM305)	GBAN-AJ344274	GBAN-AJ347858
Chloranthaceae	<i>Chloranthus spicatus</i> (Thunb.) Makino	<i>psaA</i>	UCD Botanical Conservatory BAA.719 (SM303)	GBAN-AJ344267	-
	<i>Chloranthus spicatus</i> (Thunb.) Makino	<i>psbB</i>	UCD Botanical Conservatory BAA.719 (Sanderson et al. 2000)	-	GBAN-AF222709
Ericaceae	<i>Enkianthus chinensis</i> Franch.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 97.0176 (SM354)	GBAN-AJ344270	GBAN-AJ347854
Eupomatiaceae	<i>Eupomatia laurina</i> R. Br.	<i>psaA, psbB</i>	UC Santa Cruz Arboretum 75.125 (SM379)	GBAN-AJ344271	GBAN-AJ347855
Fabaceae	<i>Pisum sativum</i> L.	<i>psaA, psbB</i>	Martin F. Wojciechowski 398 (Sanderson et al. 2000)	GBAN-AF223227	GBAN-AF222710
Fagaceae	<i>Fagus grandifolia</i> Ehrh.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 79.0612 (SM321)	GBAN-AJ344272	GBAN-AJ347856
Juglandaceae	<i>Carya mexicana</i> Engelm.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 91.0679 (SM332)	GBAN-AJ344266	GBAN-AJ347851
Lauraceae	<i>Persea americana</i> Mill.	<i>psaA, psbB</i>	UCD Botanical Conservatory - no accession number (SM348)	GBAN-AJ344282	GBAN-AJ347866
Liliaceae	<i>Lilium brownii</i> F.E. Brown ex Miellez	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 75.0082 (SM317)	GBAN-AJ344275	GBAN-AJ347859
Magnoliaceae	<i>Magnolia grandiflora</i> L.	<i>psaA, psbB</i>	UCD Arboretum - no accession number (SM310)	GBAN-AJ344277	GBAN-AJ347861
Menispermaceae	<i>Cocculus laurifolius</i> DC.	<i>psaA, psbB</i>	UCD cultivated (SM338)	GBAN-AJ344268	GBAN-AJ347852
Monimiaceae	<i>Hedycarya angustifolia</i> A. Cunn.	<i>psaA, psbB</i>	UC Santa Cruz Arboretum 75.176 (SM377)	GBAN-AJ344273	GBAN-AJ347857
Nelumbonaceae	<i>Nelumbo nucifera</i> Gaertn.	<i>psaA, psbB</i>	Lotusland, Santa Barbara, CA. (SM360, Col. V.	GBAN-AJ344278	GBAN-AJ347862

Nymphaeaceae	<i>Nuphar luteum</i> (L.) Sibth. & Small	<i>psaA, psbB</i>	Hayes) UCD Botanical Conservatory – no accession number (Col. M. F. Wojciechowski)	GBAN- AJ344279	GBAN- AJ347863
Nymphaeaceae	<i>Nymphaea</i> sp. (cultivar “Paul Harriot”)	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 94.1344 (SM358)	GBAN- AJ344280	GBAN- AJ347864
Platanaceae	<i>Platanus racemosa</i> Nutt.	<i>psaA, psbB</i>	UCD Arboretum - no accession number (SM306)	GBAN- AJ344283	GBAN- AJ347867
Poaceae	<i>Oryza sativa</i> L.	<i>psaA, psbB</i>	Complete chloroplast genome sequence available in GenBank	GBAN- X15901	GBAN- X15901
Poaceae	<i>Zea mays</i> L.	<i>psaA, psbB</i>	Complete chloroplast genome sequence available in GenBank	GBAN- X86563	GBAN- X86563
Ranunculaceae	<i>Coptis laciniata</i> A. Gray	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 53.0857 (SM331)	GBAN- AJ344269	GBAN- AJ347853
Saururaceae	<i>Saururus cernuus</i> L.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 85.1635 (SM318)	GBAN- AJ344284	GBAN- AJ347868
Solanaceae	<i>Nicotiana tabacum</i> L.	<i>psaA, psbB</i>	Complete chloroplast genome sequence available in GenBank	GBAN- Z00044	GBAN- Z00044
Winteraceae	<i>Drimys winteri</i> J.R. Forst. & G. Forst.	<i>psaA, psbB</i>	UCD Botanical Conservatory B94.008 (Sanderson et al. 2000)	GBAN- AF180016	GBAN- AF222708
Gnetales					
Ephedraceae	<i>Ephedra tweediana</i> Fisch. & C.A. Mey	<i>psaA, psbB</i>	UCD Arboretum A67.0620 (Sanderson et al. 2000)	GBAN- AF180017	GBAN- AF222702
Gnetaceae	<i>Gnetum gnemon</i> L.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 97.0075 (Col. M. F. Wojciechowski)	GBAN- AJ344287	GBAN- AJ347871
Welwitschiaceae	<i>Welwitschia mirabilis</i> Hook. f.	<i>psaA, psbB</i>	UCD Botanical Conservatory - no accession	GBAN- AF180013	GBAN- AF222704

			number (Sanderson et al. 2000)		
Conifers					
Araucariaceae	<i>Araucaria araucana</i> (Mol.) C. Koch	<i>psaA, psbB</i>	UCD cultivated (Sanderson et al. 2000)	GBAN- AF180018	GBAN- AF222701
Cupressaceae (including Taxodiaceae)	<i>Cryptomeria japonica</i> (L. f.) D. Don	<i>psaA, psbB</i>	UCD Arboretum A85.0044 (SM363)	GBAN- AJ344290	GBAN- AJ347874
Cupressaceae (including Taxodiaceae)	<i>Cupressus arizonica</i> Greene	<i>psaA, psbB</i>	UCD Arboretum T165 (SM362)	GBAN- AJ344291	GBAN- AJ347875
Cupressaceae (including Taxodiaceae)	<i>Juniperus chinensis</i> L.	<i>psaA, psbB</i>	UCD Arboretum T0235 (SM364)	GBAN- AJ344292	GBAN- AJ347876
Cupressaceae (including Taxodiaceae)	<i>Sequoia sempervirens</i> (D. Don) Endl.	<i>psaA, psbB</i>	UCD cultivated (Sanderson et al. 2000)	GBAN- AF180012	GBAN- AJ347882
Pinaceae	<i>Abies alba</i> Mill.	<i>psaA, psbB</i>	UCD Arboretum A74.013 (SM361)	GBAN- AJ344288	GBAN- AJ347872
Pinaceae	<i>Cedrus libani</i> A. Rich.	<i>psaA, psbB</i>	UCD Arboretum A64.0856 (SM385)	GBAN- AJ344289	GBAN- AJ347873
Pinaceae	<i>Picea spinulosa</i> (Giff.) A. Henry	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 75.1011 (SM312)	GBAN- AJ344294	GBAN- AJ347878
Pinaceae	<i>Pinus parviflora</i> Siebold & Zucc.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 88.0146 (SM350)	GBAN- AJ344295	GBAN- AJ347879
Pinaceae	<i>Pinus strobus</i> L.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 86.0483 (SM353)	GBAN- AJ344296	GBAN- AJ347880
Pinaceae	<i>Pinus thunbergii</i> Parl.	<i>psaA, psbB</i>	Complete chloroplast genome sequence available in GenBank	GBAN- D17510	GBAN- D17510
Podocarpaceae (including Phyllocladaceae)	<i>Podocarpus gracilior</i> Pilg.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 28.0175 (SM325)	GBAN- AJ344297	GBAN- AJ347881

Podocarpaceae (including Phyllocladaceae)	<i>Phyllocladus trichomanoides</i> D. Don	<i>psaA, psbB</i>	UC Santa Cruz Arboretum 75.33 (Col. D. G. Kelch 99.081)	GBAN- AJ344293	GBAN- AJ347877
Taxaceae	<i>Taxus brevifolia</i> Nutt.	<i>psaA, psbB</i>	UC Botanical Garden, Berkeley 81.0068 (SM313)	GBAN- AJ344298	GBAN- AJ347883
Taxaceae	<i>Torreya californica</i> Torr.	<i>psaA, psbB</i>	UCD Arboretum - no accession number (Sanderson et al. 2000)	GBAN- AF180025	GBAN- AF222706
Cycads Cycadaceae	<i>Cycas taiwaniana</i> Carruth.	<i>psaA, psbB</i>	UCD Botanical Conservatory B73.098 (Sanderson et al. 2000)	GBAN- AF180015	GBAN- AF222697
Zamiaceae	<i>Encephalartos lebomboensis</i> Verdoorn	<i>psaA, psbB</i>	UCD Botanical Conservatory B72.195 (Sanderson et al. 2000)	GBAN- AF180011	GBAN- AF222700
Zamiaceae	<i>Zamia pumila</i> L.	<i>psaA, psbB</i>	UCD Botanical Conservatory B94.129 (SM349)	GBAN- AJ344299	GBAN- AJ347884
<i>Ginkgo</i> Ginkgoaceae	<i>Ginkgo biloba</i> L.	<i>psaA, psbB</i>	UCD cultivated (Sanderson et al. 2000)	GBAN- AF223226	GBAN- AF222705
Moniliformopses Aspleniaceae	<i>Asplenium nidus</i> L.	<i>psaA</i>	UCD Botanical Conservatory B94.274 (Sanderson et al., 2000)	GBAN- AF180021	-
	<i>Asplenium nidus</i> L.	<i>psbB</i>	UCD Botanical Conservatory B96.257 (SM344)	-	GBAN- AJ347885
Equisetaceae	<i>Equisetum palustre</i> L.	<i>psaA, psbB</i>	UCD cultivated. (Sanderson et al., 2000)	GBAN- AF180019	GBAN- AF222696
Marattiaceae	<i>Angiopteris evecta</i> (G. Forst.) Hoffm.	<i>psaA, psbB</i>	UCD Botanical Conservatory - no accession number (Sanderson et al., 2000)	GBAN- AF180020	GBAN- AF222699

Marsileaceae	<i>Marsilea botryocarpa</i> H.E. Ballard	<i>psaA</i>	UCD Botanical Conservatory B97.438 (Sanderson et al., 2000)	GBAN- AF180014	-
	<i>Marsilea mutica</i> Mett.	<i>psbB</i>	UC Botanical Garden, Berkeley 97.0535 (SM359)	-	GBAN- AJ347886
Ophioglossaceae	<i>Ophioglossum</i> <i>petiolatum</i> Hook.	<i>psaA, psbB</i>	UCD Botanical Conservatory B.59.137 (Col. M. F. Wojciechowski)	GBAN- AJ344300	GBAN- AJ347887
Psilotaceae	<i>Psilotum nudum</i> (L.) P. Beauv.	<i>psaA, psbB</i>	UCD Botanical Conservatory s.n. (Sanderson et al., 2000)	GBAN- AF180023	GBAN- AF222707
Pteridaceae	<i>Adiantum capillus-</i> <i>veneris</i> L.	<i>psaA, psbB</i>	UCD Botanical Conservatory B90.225 (Sanderson et al., 2000)	GBAN- AF180022	GBAN- AF222698
Lycophytes Lycopodiaceae	<i>Huperzia squarrosa</i> (G. Forst.) Trevis.	<i>psaA, psbB</i>	UCD Botanical Conservatory B91.598 (Sanderson et al., 2000)	GBAN- AF180024	GBAN- AF222703
Hepatophytes Marchantiaceae	<i>Marchantia</i> <i>polymorpha</i> L.	<i>psaA, psbB</i>	Complete chloroplast genome sequence available in GenBank	GBAN- X04465	GBAN- X04465