

## APPENDIX

Original binary matrix. Classic palaeobotanical data used for testing the algorithms presented in this methodological case study. Complete list of taxa appear in rows. Taxonomic data are scored in terms of the presence (1) or absence (0) for each time unit (columns). The taxa have been ordered about their origination moment. For temporal abbreviations see Table 1.

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC								MESOZOIC						CENOZOIC						
FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN	UN
Rhyniaceae	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drepanophyceae	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zosterophyllaceae	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horneophytaceae	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trimerophytaceae	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Protolpidodendraceae	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lycopodiaceae	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cladoxylaceae	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ibykaceae	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhacophytaceae	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zygopteridaceae	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stauropteridaceae	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aneurophytaceae	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Archaeopteridaceae	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selaginellaceae	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cyclostigmaceae	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pseudoborniaceae	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bowmanitaceae	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Eviostachyaceae	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Protokalonaceae	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elkinsiaceae	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eleutherophyllaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flemingitaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sigillariostrobaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lepidocarpaceae	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Cheirostrobaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Archaeocalamitaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calamostachyaceae	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Corynepteridaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Psalixochlaenaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC								MESOZOIC						CENOZOIC						
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Tedeleaceae	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Botryopteridaceae	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asterothecaceae	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Protopytyaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Genomospermaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eospermaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lagenostomaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Physostomaceae	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calamopityaceae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trigonocarpaceae	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potonieaceae	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cordaitanthaceae	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diaphorodendraceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spenceritaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caudatocarpaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pinakodendraceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sporangiostrobaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miadesmiaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isoetaceae	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chaloneriaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tchernoviaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Biscalitheaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sermeyaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Urnapteridaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crossothecaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marattiaceae	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Noeggerathiaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tingioslachyaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Cecropsidaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Callistophytaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peltaspermeaceae	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Arberiaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Rufforiaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Dicranophyllaceae	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichopityaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emporiaceae	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC										MESOZOIC					CENOZOIC					
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Buriadiaceae	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cardiolepidiaceae	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Emplectopteridaceae	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycadaceae	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vojnovskyaceae	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Utrechtiaceae	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyclodendraceae	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ferugliocladaceae	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gondwanostachyaceae	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Equisetaceae	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Osmundaceae	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gleicheniaceae	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Umkomasiaceae	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0
Majonicaceae	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ullmanniaceae	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleuromeiaceae	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Takhtajanodoxaceae	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Echinostachyaceae	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Voltziaceae	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0
Podocarpaceae	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
Cynepteridaceae	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Matoniaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Dipteridaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Polypodiaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Dicksoniaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Leptostrobaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0
Caytoniaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0
Bennettitaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0
Williamsoniaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0
Gnetaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Palissyaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0
Araucariaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Pinaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Cheirolepidiaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0
Ginkgoaceae	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
Nilsoniaceae	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC								MESOZOIC						CENOZOIC						
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Pentoxylaceae	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0
Taxaceae	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Schizaeaceae	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Pararaucariaceae	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
Taxodiaceae	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Cephalotaxaceae	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Arctopityaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Sciadopityaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
Cyatheaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Tempskyaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Loxsomaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Platanaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Chloranthaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Ranunculaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
Lophosoriaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Marsileaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Salviniaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Azollaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Cercidiphyllaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Fagaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Hamamelidaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Ulmaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Priscaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Magnoliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Lauraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Nymphaeaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Berberidaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Menispermaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Sabiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Amaranthaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Cyrtaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Theaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Actinidiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Lecythidaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Pentaphylacaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Aceraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC								MESOZOIC						CENOZOIC						
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Araliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Cornaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Icacinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Rhamnaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Rutaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Sapindaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Araceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Arecaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Typhaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Zingiberaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
Ophioglossaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Cupressaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Casuarinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Juglandaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Trochodendraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Ceratophyllaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Ericaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Salicaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Fabaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Mimosaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Myrtaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Rosaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Staphyleaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Thymelaeaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Vitaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Oleaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Cyperaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Poaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Hydrocharitaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Moaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Myricaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Urticaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Annonaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Aristolochiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Myristicaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Saururaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC								MESOZOIC						CENOZOIC						
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Schisandraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Caryophyllaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Bombacaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Brassicaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Capparaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Cistaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Cucurbitaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Dipterocarpaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Droseraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Ebenaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Flacourtiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Malvaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Myrsinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Sapotaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Sterculiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Styracaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Symplocaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Elaeocarpaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Tiliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Anacardiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Alangiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Apiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Burseraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Buxaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Celastraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Euphorbiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Grossulariaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Hydrangaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Linaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Loranthaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Lythraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Malpighiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Melastomataceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Proteaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Meliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Nyssaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

TAXA	TEMPORAL RANGE																				
	PALAEOZOIC										MESOZOIC					CENOZOIC					
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN
Olacaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Onagraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Rhizophoraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Santalaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Simaroubaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Apocynaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Asclepiadaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Asteraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Bignoniaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Boraginaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Caprifoliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Rubiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Scrophulariaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Solanaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Juncaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Musaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Sparganiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Alismataceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Potamogetonaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Pontederiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Betulaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Illiciaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Lardizabalaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Sargentodoxaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Clusiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Primulaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Violaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Aquifoliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Cunoniaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Haloragaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Hippuridaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Trapaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Lamiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Menyathaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Lemnaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Butomaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1

TAXA	TEMPORAL RANGE																					
	PALAEOZOIC								MESOZOIC						CENOZOIC							
	FAMILY LEVEL	US	LD	MD	UD	LCa	UCa	LPe	UPe	LT	MT	UT	LJ	MJ	UJ	LCr	UCr	LPa	MPa	UPa	LN	UN
Najadaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Taccaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Zannichelliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Leitneriaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Calycanthaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Coriariaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Fumariaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Piperaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Chenopodiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Polygonaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Clethraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Elatinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Empetraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Passifloraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Stachyuraceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Combretaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Elaeagnaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Garyaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Hippocastinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Podostemaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Viscaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Campanulaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Loganiaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Pedaliaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Valerianaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Commelinaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Xyridaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Oxalidaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Callitrichaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Plantaginaceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1