Table S4. Fossil information and age constraints used to calibrate the branch length in the phylogeny. All the fossils were used as minimum age constraints except *.

Clade	**Age**	**Stem/Crown**	**References**
Tracheophytes	421	crown	Garrat and Rickards 1987; Hueber 1992; Kenrick and Crane 1997
Euphyllophytes	365	crown	Rothwell & Schleckler 1988
Osmunda	299	stem	Galtier et al. (2001); Miller (1971); Phipps et al. (1998); Rößler & Galtier (2002)
Acrogymnospermae	290	stem	Mapes & Rothwell (1984, 1991)
Pinaceae	225	stem	Miller (1999)
Marsileaceae	140	stem	Yamada & Kato (2002)
Eudicotyledons	125	crown	Hughes & McDougall (1990); Doyle (1992); Friis et al. (2006)
Laurales	109	stem	Crane et al. (1994)
Proteales	109	crown	Crane et al. (1994)
Fagales	96	stem	Friis et al. (2006)
Pteridaceae	93	stem	Krassilov & Bacchia (2000)
Ericales	91	crown	Nixon & Crepet (1993)
Saxifragales	89	crown	Hermsen et al. (2003)
Malpighiales	89	crown	Crepet & Nixon (1998)
Myrtales	88	crown	Takahashi et al. (1999)
Cornales	86	crown	Magallon (1997)
Aquifoliales	85	stem	Muller (1981)
Azolla	83	stem	Batten et al. (1978)
Pilularia	83	stem	Lupia et al. (2000); Pryer (1999)
Malvales	70	crown	Wolfe (1976)
Poales	68	crown	Muller (1981); Jarzen (1978)
Sapindales	65	crown	Knobloch & Mai (1986)
Fabales	60	crown	Herendeen & Crane (1992)
Lamiales	44	crown	Call & Dilcher (1992)
Caprifoliaceae	36	stem	Manchester & Donoghue (1995)
Polygrammoids	34	stem	Van Uffelen (1991)

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