

LARRY HUFFORD, MICHELLE M. MCMAHON, ANNA M. SHERWOOD, GAIL REEVES, AND MARK W. CHASE. 2003. The major clades of Loasaceae: phylogenetic analysis using the plastid *matK* and *trnL-trnF* regions. *American Journal of Botany* 90(8): 1215-1228.

Sources of DNA (voucher specimen locations are abbreviated as in Index Herbariorum) and GENBANK numbers for *matK* and *trnL-trnF* sequences.

| Taxon  | Specimen sampled for DNA (source of voucher) or publication | GenBank accession    |                      |
|--|---|----------------------|----------------------|
|  |   | <i>matK</i>          | <i>trnL-trnF</i>     |
| <b>Loasaceae</b>                                   |   |                      |                      |
| <i>Aosa plumierii</i> (Urb.) Weigend               | Moody 47 (WS)   | AF503319             | AY254225             |
| <i>Blumenbachia insignis</i> Schrad.               | Kittredge 1010 (M)  | AY250186             | AY254226             |
| <i>Blumenbachia latifolia</i> Cambess              | Zandini et al. 2920 (MO)                                    | AF503324             | AY254227             |
| <i>Cajophora</i> sp.                               | Hufford 3518 (WS)   | not sampled          | AY254228             |
| <i>Cajophora</i> sp.                               | Hufford 3522(WS)  | not sampled          | AY254229             |
| <i>Cajophora</i> sp.                               | Hufford 3524 (WS)   | AY254056             | AY254230             |
| <i>Cajophora canarinoides</i><br>Urb. & Gilg       | Wood 8056 (M)   | AY254057             | AY254231             |
| <i>Cajophora carduifolia</i> Presl.                | Poston 229 (MO)<br>Hufford 3503 (WS)                        | AF503328<br>AY254058 | AY254235<br>AY254234 |
| <i>Cajophora chuquitensis</i><br>Urb. & Gilg       | Beck 17894 (MO)   | AF503329             | AY254233             |
| <i>Cajophora cirsiiifolia</i> Presl.               | Poston 223 (LA)<br>Hufford 3509 (WS)                        | AF503327<br>AY254059 | AY254235<br>AY254234 |
| <i>Cajophora clavata</i><br>Urb. & Gilg            | Poelt s.n. 14.11.53 (M)                                     | AY254060             | AY254236             |
| <i>Cajophora lateritia</i> Klotzsch                | West 8311 (MO)  | AF503330             | not sampled          |
| <i>Cajophora macrocarpa</i><br>Urb. & Gilg         | Krapovickas et al. 219667<br>(MO)                           | AF503326             | not sampled          |
| <i>Cevallia sinuata</i> Lag.                       | Waterbrook 175 (WS)   | AF503301             | AY254237             |
| <i>Eucnide aurea</i> (A. Gray)<br>Thompson & Ernst | Hufford 2634 (WS)   | AF503314             | AY254239             |
| <i>Eucnide bartonioides</i> Zucc.                  | Moody 41 (WS)   | AF503316             | AY254240             |
| <i>Eucnide cordata</i><br>(Kell.) Kell. ex Curran  | de la Luz 8300 (WS)   | AY254062             | AY254241             |
| <i>Eucnide urens</i> Parry                         | Hufford 552 (WS)  | AF503315             | AY254242             |
| <i>Fuertesia domingensis</i> Urb.                  | Mejia et al. (JBSD)   | AF503299             | not sampled          |
|  | Moody 45 (WS)   | not sampled          | AY254244             |
| <i>Gronovia scandens</i> L.                        | Moody 53 (WS)   | AF503300             | not sampled          |

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|  | Fishbein 3583 (WS)                               | not sampled | AY254245    |
| <i>Huidobria chilensis</i> Gay                                       | Munoz et al. 2749 (MO)                           | AF503317    | AY254246    |
| <i>Huidobria fruticosa</i> Phil.                                     | Dillon & Trujillo C.<br>8034 (M)                 | AY254064    | AY254247    |
| <i>Kissenia capensis</i> Endl.                                       | Goldblatt and Manning<br>8718 (MO)               | AF503333    | AY254249    |
| <i>Klaprothia fasciculata</i><br>(K. Presl) Poston                   | Poston 214 (LA)                                  | AF503332    | not sampled |
| <i>Loasa acanthifolia</i> Desr.                                      | West 4675 (LA)                                   | AF503323    | not sampled |
| <i>Loasa heterophylla</i><br>Hook. & Arn.                            | Grau and Ehrhart 94/547<br>(M)                   | AY254066    | AY254250    |
| <i>Loasa malesherbioides</i><br>R. A. Phil.                          | Kiesling et al. 7814 (MO)                        | AF503318    | AY254251    |
| <i>Loasa pallida</i> Gill.   | Teillier and Pauchard<br>2510 (MO)               | AF503322    | AY254252    |
| <i>Mentzelia adhaerens</i> Benth.                                    | Panero 2831 (TEX)                                | AY254067    | AY254253    |
| <i>Mentzelia albescens</i><br>(Gill.) Griesb.                        | Schajorskoy s.n.,<br>9-XII-1966 (M)              | AY254068    | AY254254    |
| <i>Mentzelia albicaulis</i><br>Dougl. ex Hook.                       | Moorefield 4422 (MO)                             | AF503312    | AY254255    |
| <i>Mentzelia arborescens</i><br>Urb. & Gilg                          | Moody 35 (WS)                                    | AF503303    | AY254256    |
| <i>Mentzelia argillosa</i><br>Darlington                             | Hufford 3735 (WS)                                | AY254069    | AY254257    |
| <i>Mentzelia aspera</i> L.   | Breedlove and Davidse<br>55045 (LL)              | AY254071    | AY254259    |
| <i>Mentzelia brandegei</i> Watson                                    | Maguire and Holmgren<br>26719 (WS)               | AY254072    | AY254260    |
| <i>Mentzelia congesta</i><br>(Nutt.) Torr. & A. Gray                 | Wong and Baldwin<br>726-14 (WS)                  | AY254073    | AY254261    |
| <i>Mentzelia cronquistii</i><br>H. J. Thomps. & Prigge               | Cronquist 9030 (WS)                              | AY254074    | AY254262    |
| <i>Mentzelia decapetala</i><br>(Pursh) Urb. & Gilg                   | Hufford 3692 (WS)                                | AY254075    | AY254263    |
| <i>Mentzelia dispersa</i> Watson                                     | Hufford 3753 (WS)                                | AY254076    | AY254264    |
| <i>Mentzelia cf. fendleriana</i><br>Urb. & Gilg                      | Weedin 338 (WS)                                  | AY254077    | not sampled |
| <i>Mentzelia hirsutissima</i> Watson                                 | Hufford 911 (WS)                                 | AF503308    | AY254265    |
| <i>Mentzelia hispida</i> Willd.                                      | Hufford 3523 (WS)                                | AY254078    | AY254266    |
| <i>Mentzelia integra</i><br>(Jones) Tidestrom                        | Hufford 2680 (WS)                                | AF503305    | AY254267    |
| <i>Mentzelia involucrata</i> Watson                                  | Carranza 1023 (MO)                               | AF503304    | AY254268    |
| <i>Mentzelia laevicaulis</i><br>(Dougl. ex Hook.)<br>Torr. & A. Gray | Cronquist and Neese<br>11890 (WS)                | AY254079    | AY254269    |
|  | Hodgson and Mittleman<br>s.n., 15 Apr. 1975 (WS) | AY254080    | AY254270    |
|  | Hitchcock 21852 (WS)                             | AF503306    | AY254271    |

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| <i>Mentzelia micrantha</i><br>(Hook. & Arn.)<br>Torr. & A. Gray | Boyd and Ross 7453<br>(BRY)          | not sampled | AY254274    |
| <i>Mentzelia multiflora</i><br>(Nutt.) A. Gray                  | Weber 7527 (WS)                      | AY254083    | AY254275    |
| <i>Mentzelia nitens</i> Greene                                  | Hufford 3609 (WS)                    | AY254084    | AY254276    |
| <i>Mentzelia nuda</i><br>(Pursh) Torr. & A. Gray                | Grable 5246 (WS)                     | AF503311    | AY254277    |
| <i>Mentzelia oreophila</i><br>J. Darlington                     | Ferris and Ernst 13138 (WS)          | AY254081    | AY254272    |
| <i>Mentzelia pterosperma</i> Eastw.                             | Preece and Turner 2531<br>(WS)       | AY254082    | AY254273    |
| <i>Mentzelia reflexa</i> Coville                                | Holmgren and Holmgren<br>14,325 (NY) | AY254085    | AY254278    |
| <i>Mentzelia rhizomata</i> Reveal                               | Weber and Clark 16359<br>(WS)        | AY254070    | AY254258    |
| <i>Mentzelia torreyi</i> A. Gray                                | Taylor 4870 (MO)                     | AF503302    | AY254279    |
| <i>Mentzelia tricuspis</i> A. Gray                              | Hufford 553 (WS)                     | AF503309    | AY254280    |
| <i>Nasa chenopodiifolia</i><br>(Desr.) Weigend                  | Weigend et al. 97/461 (M)            | AY254086    | AY254281    |
| <i>Nasa cymbopetala</i><br>(Urb. & Gilg) Weigend                | Hufford 3525 (WS)                    | AY254087    | AY254282    |
| <i>Nasa driesslei</i> Weigend                                   | Hofreiter and Hofreiter<br>13/97 (M) | AY254088    | AY254283    |
| <i>Nasa magnifica</i><br>(Urb. & Gilg) Weigend                  | Hufford 3502 (WS)                    | not sampled | AY254284    |
| <i>Nasa speciosa</i><br>(D. Smith) Weigend                      | Moody 16 (WS)                        | AF503320    | not sampled |
| <i>Nasa triphylla</i><br>(Juss.) Weigend                        | Almeda and Almeda 2605<br>(MO)       | AF503321    | AY254285    |
| <i>Nasa urens</i> (Jacq.) Weigend                               | Hufford 3839 (WS)                    | AY254089    | AY254286    |
| <i>Petalonyx crenatus</i><br>A. Gray ex Watson                  | Chiang et al. 7650 (MO)              | AF503295    | AY254287    |
| <i>Petalonyx linearis</i> Greene                                | Fishbein 3732 (WS)                   | AY254090    | AY254288    |
| <i>Petalonyx nitidus</i> Watson                                 | Tiehm 1954 (WS)                      | AF503296    | AY254289    |
| <i>Petalonyx parryi</i> A. Gray                                 | Hufford 554 (WS)                     | AF503294    | AY254290    |
| <i>Petalonyx thurberi</i> A. Gray                               | Kepner s.n., 20.7.1978<br>(WS)       | AF503297    | AY254291    |
| <i>Plakothira parviflora</i> Florence                           | NTBG 970008 (PTBG)                   | AF503331    | AY254292    |
| <i>Presliophytum arequipensis</i><br>Weigend                    | Weigend and Fortner<br>97/848 (M)    | AY254091    | AY254293    |
| <i>Presliophytum heucheraefolium</i><br>(Killip) Weigend        | Hufford 3515 (WS)                    | AY254092    | AY254294    |
| <i>Presliophytum incanum</i><br>(Graham) Weigend                | Hufford 3498 (WS)                    | AY254093    | AY254295    |
| <i>Schismocarpus pachypus</i>                                   | Breedlove 50788 (CAS)                | AF503313    | AY254296    |

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| <i>Scyphanthus elegans</i> D. Don | Zollner III83 (MO)         | AF50334     | AY254298 |
|                                   | Grau and Ehrhart 1-295 (M) | not sampled | AY254297 |

**Outgroups**

|   |                          |          |             |
|---|--------------------------|----------|-------------|
| <i>Actinidia chinensis</i> L.                 | Kron, 1997               | U61324   | not sampled |
| <i>Cornus canadensis</i>                      | Xiang et al., 1998       | U96890   | not sampled |
| <i>Cornus florida</i> L.                      | Cagle 94 (WS)            | AY254061 | AY254238    |
| <i>Davidia involucrata</i> Baill.             | Xiang et al., 1998       | U96885   | not sampled |
| <i>Fendlera rupicola</i><br>Engelm. & A. Gray | Hufford 541 (WS)         | AY254063 | AY254243    |
| <i>Fouquieria splendens</i>                   | Xiang et al., 1998       | U96903   | not sampled |
| <i>Hydrangea hirta</i> Sieb.                  | Takusu s.n. 17.6.94 (WS) | AY254065 | AY254248    |
| <i>Hydrostachys multifida</i> Juss.           | Schatz et al. 3413 (MO)  | AY254547 | not sampled |
| <i>Plocosperma buxifolium</i>                 | Endress et al. 1996      | Z70192   | not sampled |

**Literature cited**

- Endress, M. E., B. Sennblad, S. Nilsson, L. Civeyrel, M. W. Chase, S. Huysmans, E. Grafstroem, and B. Bremer. 1996. A phylogenetic analysis of Apocynaceae s. str. and some related taxa in Gentianales. A multidisciplinary approach. *Opera Botanica Belgica* 7: 59-102.
- Kron, K. 1997. Phylogenetic relationships of Rhododendroideae (Ericaceae). *American Journal of Botany* 84: 973-980.
- Xiang, Q.-Y., D. E. Soltis, and P. S. Soltis. 1998. Phylogenetic relationships of Cornaceae and close relatives inferred from *matK* and *rbcL* sequences. *American Journal of Botany* 85: 285-297.