

Table S1. Voucher details and GenBank accession numbers of taxa used in this study

| Taxa | GenBank accession number | Voucher number | Locality |
|--|--------------------------|----------------|-------------------------|
| <i>Angelica laxifoliata</i> Diels | MH180258 | | |
| <i>Bupleurum boissieuanum</i> H.Wolff | MF663725 | | |
| <i>Bupleurum chinense</i> Franch. | MN893666 | | |
| <i>Carum carvi</i> L. | KR048286 | | |
| <i>Chamaesium delavayi</i> (Franch.) R.H.Shan & S.L.Liou | MN119367 | | |
| <i>Chamaesium paradoxum</i> H.Wolff | MK780227 | | |
| <i>Chuanminshen violaceum</i> M.L.Sheh & R.H.Shan | KU921430 | | |
| <i>Cicuta virosa</i> L. | KX352466 | | |
| <i>Crithmum maritimum</i> L. | HM596072 | | |
| <i>Cryptotaenia japonica</i> Hassk. | MK629764 | | |
| <i>Hansenia forbesii</i> (H.Boissieu) Pimenov & Kljuykov | MT834935* | J18081401(SZ) | Yuzhong, Gansu, China |
| <i>Hansenia forrestii</i> (H.Wolff) Pimenov & Kljuykov | MT843761* | J18102301(SZ) | Yajiang, Sichuan, China |

| | | | |
|--|-----------|---------------|-------------------------|
| <i>Hansenia oviformis</i> (R.H.Shan) Pimenov & Kljuykov | MT843762* | J19102201(SZ) | Shanyang, Shanxi, China |
| <i>Hansenia weberbaueriana</i> (Fedde ex H.Wolff) Pimenov & Kljuykov | MT843763* | J18081901(SZ) | Qilian, Qinghai, China |
| <i>Haplosphaera himalayensis</i> Ludlow | MK353674* | G18100802(SZ) | Nyingchi, Tibet, China |
| <i>Haplosphaera phaea</i> Hand.-Mazz. | MK801097 | J18072109(SZ) | Deqin, Yunnan, China |
| <i>Heracleum candicans</i> Wall. ex DC. | MK522402 | | |
| <i>Ligusticum chuanxiong</i> S.H.Qiu, Y.Q.Zeng, K.Y.Pan, Y.C.Tang & J.M.Xu | KX594382 | | |
| <i>Ligusticum delavayi</i> Franch. | MT409613 | | |
| <i>Pastinaca pimpinellifolia</i> M.Bieb. | KM035850 | | |
| <i>Peucedanum japonicum</i> Thunb. | KU866530 | | |
| <i>Pleurospermum camtschaticum</i> Hoffm. | KU041142 | | |
| <i>Prangos fedtschenkoi</i> (Regel & Schmalh.) Korovin | KY652265 | | |
| <i>Pterygopleurum neurophyllum</i> (Maxim.) Kitag. | KT983257 | | |
| <i>Seseli montanum</i> L. | KM035851 | | |
| <i>Sinodielsia microloba</i> Kljuykov | MT843766* | F18 (SZ) | Nyingchi, Tibet, China |

| | | | |
|---|-----------|----------|---------------------------|
| <i>Sinodielsia yunnanensis</i> H.Wolff (EY) | MT843765* | Y6 (SZ) | Eryuan, Yunnan, China |
| <i>Sinodielsia yunnanensis</i> H.Wolff (HB) | MK993275 | K1(SZ) | Shangri-La, Yunnan, China |
| <i>Sinodielsia yunnanensis</i> H.Wolff (KM) | MT843764* | F10 (SZ) | Kunming,, Yunnan, China |
| <i>Tongoloa silaifolia</i> H.Wolff | NC_049062 | | |
| <i>Torilis scabra</i> DC. | MN105615 | | |
| <i>Trachyspermum ammi</i> Sprague | MN746303 | | |

*: Newly generated sequences; otherwise, sequences were obtained from GenBank.

Table S2. The indexes of the codon usage bias in the *Hansenia*, *Haplosphaera* and *Sinodielsia* species.

| Index | <i>Hansenia forbesii</i> | <i>Han. forrestii</i> | <i>Han. oviformis</i> | <i>Han. weberbaueriana</i> | <i>Haplosphaera himalayensis</i> | <i>Hap. phaea</i> | <i>Aeeboldia yunnanensis</i> (HB) | <i>Sinodielsia yunnanensis</i> (KM) | <i>MS. yunnanensis</i> (EY) | <i>S. yunnanensis Peucedanum delavayi</i> | <i>Sinodielsia microloba</i> |
|----------------|--------------------------|-----------------------|-----------------------|----------------------------|----------------------------------|-------------------|-----------------------------------|-------------------------------------|-----------------------------|---|------------------------------|
| Codon No. | 21,228 | 21,213 | 21,230 | 21,254 | 21,229 | 21,207 | 21,147 | 21,134 | 21,146 | 21,162 | |
| Amino acid No. | 21,175 | 21,160 | 21,177 | 21,201 | 21,176 | 21,154 | 21,094 | 21,081 | 21,093 | 21,109 | |
| CAI | 0.167 | 0.167 | 0.167 | 0.167 | 0.167 | 0.167 | 0.166 | 0.166 | 0.166 | 0.166 | |
| CBI | -0.098 | -0.098 | -0.099 | -0.099 | -0.1 | -0.098 | -0.101 | -0.101 | -0.101 | -0.102 | |
| ENC | 49.82 | 49.8 | 49.83 | 49.91 | 49.79 | 49.77 | 49.65 | 49.68 | 49.67 | 49.63 | |
| Fop | 0.355 | 0.355 | 0.355 | 0.355 | 0.354 | 0.355 | 0.353 | 0.354 | 0.353 | 0.353 | |
| GC3s | 0.271 | 0.27 | 0.271 | 0.271 | 0.269 | 0.27 | 0.266 | 0.267 | 0.267 | 0.266 | |

CAI: Codon adaptation Index; CBI: Codon bias index; ENC: Effective number of codons; Fop: Frequency of optimal codons; GC3s: GC of silent 3rd codon position

