**Appendix:**

The information about C, N and P contents of seeds, seed mass, and altitude of collection site among 253 species list with APG III system, which were collected from an alpine meadow on the eastern Qinghai-Tibet plateau

Family Species Altitude (m) Seed mass (mg) C (%) N (%) P (%)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Alliaceae | |  |  |  |  |  |
|  | *Allium mongolicum* | 2380 | 1.3490 | 50.73 | 4.77 | 0.44 |
|  | *Allium polyrhizum* | 2380 | 1.5353 | 51.36 | 5.13 | 0.66 |
|  | *Alliumcyaneum* | 2928 | 0.5713 | 54.65 | 4.47 | 0.55 |
| Amaranthaceae | |  |  |  |  |  |
|  | *Axyris amaron* | 2968 | 1.5600 | 48.12 | 2.66 | 0.52 |
|  | *Chenopodium album* | 3141 | 0.2363 | 41.13 | 1.88 | 0.38 |
|  | *Chenopodium foetidum* | 2708 | 0.1377 | 44.69 | 2.27 | 0.16 |
|  | *Chenopodium glaucum* | 3516 | 0.2363 | 53.59 | 2.27 | 0.42 |
|  | *Chenopodium hybridum* | 2141 | 1.7753 | 45.26 | 3.02 | 0.40 |
| Apiaceae | |  |  |  |  |  |
|  | *Aeronema chinense* | 2782 | 0.5073 | 67.71 | 3.12 | 0.47 |
|  | *Angelica laxifolliata* | 2860 | 0.9833 | 58.39 | 2.45 | 0.74 |
|  | *Angelica nitida* | 3495 | 2.1277 | 56.25 | 3.31 | 0.55 |
|  | *Anthriscus sylvestris* | 2912 | 4.6243 | 57.58 | 3.14 | 0.91 |
|  | *Bupleurum commelynoideum* | 2904 | 0.9363 | 54.22 | 3.47 | 0.44 |
|  | *Bupleurum smithii* | 2202 | 0.2110 | 54.99 | 4.13 | 0.41 |
|  | *Carum buriaticum* | 3062 | 2.0980 | 53.50 | 3.41 | 0.42 |
|  | *Carum carvi* | 3250 | 1.8303 | 55.88 | 3.48 | 0.47 |
|  | *Chamaesium paradoxum* | 3525 | 1.1463 | 57.46 | 3.30 | 0.50 |
|  | *Heracleum moellendorfii* | 2654 | 6.5820 | 56.33 | 3.49 | 0.53 |
|  | *Heradeum miuefolium* | 3420 | 2.4663 | 55.74 | 2.56 | 0.44 |
|  | *Ligusticum acuminatum* | 2220 | 0.3223 | 57.63 | 3.70 | 0.48 |
|  | *Ligusticum thomsonii* | 3495 | 0.8747 | 60.15 | 3.43 | 0.51 |
|  | *Notopterygium franchetii* | 2768 | 2.6643 | 53.18 | 3.63 | 0.17 |
|  | *Pimpinella smithii* | 2604 | 1.3923 | 57.81 | 3.08 | 0.57 |
|  | *Plearospermum cristatum* | 2202 | 2.1033 | 63.74 | 4.43 | 0.49 |
|  | *Pleurospermum hookeri* | 3775 | 2.1933 | 59.94 | 3.61 | 0.72 |
|  | *Pleurospermum hookeri* var*. thomsonii* | 3525 | 2.8510 | 65.99 | 2.66 | 0.39 |
|  | *Pleurospermum szechenyii* | 3525 | 2.2997 | 61.61 | 2.86 | 0.43 |
|  | *Seseli squarrulosum* | 2708 | 1.0457 | 58.62 | 3.52 | 0.40 |
|  | *Sphallerocarpus gracilis* | 2968 | 4.9240 | 55.83 | 2.10 | 0.57 |
|  | *Tongoloa ekata* | 3902 | 0.6560 | 55.07 | 3.71 | 0.53 |
|  | *Torilis japonnica* | 2948 | 2.4283 | 57.23 | 2.98 | 0.81 |
| Araceae | |  |  |  |  |  |
|  | *Arisaema erubescens* | 2648 | 5.4440 | 47.17 | 1.64 | 0.22 |
| Asteraceae | |  |  |  |  |  |
|  | *Ajania przewalskii* | 3525 | 0.1257 | 64.36 | 4.40 | 0.77 |
|  | *Ajania salicifolia* | 2604 | 0.1630 | 53.87 | 2.80 | 0.60 |
|  | *Ajania tenuifolia* | 3566 | 0.1173 | 56.78 | 4.18 | 0.70 |
|  | *Anaphalis aureo-punctata* | 3525 | 0.0933 | 57.20 | 7.64 | 1.09 |
|  | *Anaphalis hancockii* | 3505 | 0.1430 | 58.65 | 7.22 | 1.11 |
|  | *Anaphalis lactea* | 3566 | 0.2133 | 65.02 | 6.91 | 0.86 |
|  | *Anaphalis latialata* var*. Viridis* | 3564 | 0.0327 | 62.96 | 5.10 | 0.99 |
|  | *Anaphalis margaritacea* | 2904 | 0.0593 | 59.94 | 4.35 | 1.47 |
|  | *Anaphalis* sp. | 2968 | 0.0563 | 63.95 | 5.96 | 1.36 |
|  | *Arctium lappa* | 2768 | 11.2690 | 63.56 | 2.51 | 0.17 |
|  | *Artemisia desertorum* | 3566 | 0.2670 | 60.14 | 6.96 | 0.94 |
|  | *Artemisia hedinii* | 3525 | 0.1060 | 63.23 | 3.73 | 0.98 |
|  | *Artemisia mongolica* | 3470 | 0.1357 | 58.64 | 3.42 | 0.68 |
|  | *Artemisia scoparia* | 3525 | 0.0820 | 69.35 | 3.48 | 1.04 |
|  | *Artemisia sieversiana* | 2968 | 0.3123 | 59.89 | 3.92 | 1.03 |
|  | *Aster diplostephioides* | 3525 | 0.7410 | 54.46 | 4.81 | 0.62 |
|  | *Aster flaccidus* | 3902 | 0.5163 | 57.53 | 5.76 | 0.72 |
|  | *Aster poliothamnus* | 2904 | 0.8190 | 55.70 | 2.27 | 0.59 |
|  | *Aster souliei* | 3525 | 0.8580 | 61.24 | 2.74 | 0.51 |
|  | *Aster yunnanensis* var*. labrangensis* | 3525 | 0.3270 | 56.97 | 5.70 | 0.82 |
|  | *Bidens tripartita* | 2668 | 3.1940 | 51.24 | 4.76 | 0.74 |
|  | *Cacalia deltophylla* | 3566 | 2.1287 | 61.85 | 2.92 | 0.56 |
|  | *Carduus nutans* | 3155 | 3.2520 | 73.41 | 2.75 | 0.55 |
|  | *Carpesium lipskyi* | 2663 | 0.6550 | 56.53 | 3.41 | 0.18 |
|  | *Cremanthodium brunneo-pilosum* | 3525 | 1.9777 | 53.89 | 3.91 | 0.75 |
|  | *Cremanthodium lineare* | 3505 | 0.9653 | 54.88 | 3.92 | 0.70 |
|  | *Doronicum gansuense* | 3536 | 3.1657 | 73.12 | 3.18 | 0.69 |
|  | *Erigeron acer* | 2928 | 0.0957 | 58.06 | 4.79 | 0.81 |
|  | *Heteropappus crenatifoius* | 2622 | 0.3770 | 57.88 | 3.68 | 0.75 |
|  | *Kalimeris mongolica* | 2141 | 0.7780 | 59.78 | 3.21 | 0.48 |
|  | *Leontopodium anaum* | 4122 | 0.1267 | 61.88 | 6.60 | 0.93 |
|  | *Leontopodium haplophylloides* | 3902 | 0.1167 | 73.12 | 5.91 | 0.76 |
|  | *Ligularia przewalskii* | 3312 | 1.2297 | 58.16 | 4.75 | 0.91 |
|  | *Ligularia sagitta* | 3566 | 0.9797 | 53.38 | 3.86 | 0.94 |
|  | *Ligularia tangutorum* | 3505 | 0.8847 | 58.02 | 3.78 | 0.62 |
|  | *Ligularia virgaurea* | 3525 | 1.4130 | 54.15 | 3.44 | 0.52 |
|  | *Ligularia virgaurea var. pilosa* | 3741 | 0.3750 | 54.32 | 3.21 | 0.45 |
|  | *Parasenecio roborowskii* | 2604 | 1.0240 | 57.35 | 3.20 | 0.63 |
|  | *Picris japonica* | 3470 | 1.2053 | 64.26 | 3.13 | 0.58 |
|  | *Saussurea epilobioides* | 3741 | 1.4690 | 59.82 | 4.22 | 0.56 |
|  | *Saussurea hieracioides* | 3525 | 2.0113 | 57.15 | 3.62 | 0.47 |
|  | *Saussurea kansuensis* | 3902 | 1.8740 | 67.22 | 3.74 | 0.47 |
|  | *Saussurea nigrescens* | 3525 | 1.5457 | 59.51 | 4.45 | 0.70 |
|  | *Saussurea parviflora* | 2968 | 1.4390 | 58.27 | 3.08 | 0.39 |
|  | *Saussurea purpurascens* | 3556 | 3.3127 | 57.04 | 3.19 | 0.35 |
|  | *Saussurea* sp. | 2968 | 1.2520 | 68.66 | 3.36 | 0.49 |
|  | *Saussurea sylvatica* | 3741 | 2.3457 | 60.16 | 3.28 | 0.31 |
|  | *Saussurea dzeurensis* | 3560 | 1.5413 | 59.27 | 3.88 | 0.45 |
|  | *Senecio densierratus* | 2860 | 0.8523 | 59.16 | 4.39 | 0.84 |
|  | *Senecio dubitabilis* | 3516 | 0.2647 | 63.85 | 2.94 | 0.66 |
|  | *Senecio thianshanicus* | 2968 | 0.4370 | 59.08 | 3.09 | 0.99 |
|  | *Sinacalia tangutica* | 2648 | 0.3367 | 61.17 | 5.15 | 1.15 |
|  | *Sonchus transcaspicus* | 2928 | 0.3407 | 54.66 | 3.08 | 0.83 |
|  | *Xanthopappus subacaulis* | 2968 | 7.9243 | 53.61 | 5.05 | 0.71 |
| Biebersteiniaceae | |  |  |  |  |  |
|  | *Biebersteinia heterostemon* | 2928 | 2.1773 | 57.83 | 4.14 | 0.72 |
| Brassicaceae | |  |  |  |  |  |
|  | *Arabis hirstuta* | 3536 | 0.1370 | 70.05 | 3.55 | 0.48 |
|  | *Arabis pendula* | 2220 | 0.2257 | 72.94 | 3.44 | 0.42 |
|  | *Capsella bursa-pastoris* | 3525 | 0.1847 | 69.30 | 3.82 | 0.45 |
|  | *Descurainia sophia* | 3621 | 0.1833 | 69.82 | 4.08 | 0.76 |
|  | *Draba criopoda* | 3902 | 0.1223 | 65.14 | 3.02 | 0.60 |
|  | *Lepidium apetalum* | 2160 | 0.2140 | 53.36 | 3.84 | 0.39 |
|  | *Rorippa islandica* | 3516 | 0.0587 | 55.07 | 2.95 | 0.26 |
|  | *Rorippa islandica* | 3902 | 7.9973 | 64.43 | 3.89 | 0.48 |
|  | *Sisymbrium heteromallum* | 3902 | 0.0610 | 72.63 | 4.84 | 0.56 |
| Campanulaceae | |  |  |  |  |  |
|  | *Adenophora lillifolioides* | 3440 | 0.1250 | 60.91 | 4.66 | 0.62 |
|  | *Adenophora potaninii* | 2280 | 0.1213 | 61.79 | 4.67 | 0.72 |
|  | *Adenophora stenanthina* | 2812 | 0.1117 | 65.50 | 3.34 | 0.57 |
|  | *Codonopsis pilosula* | 2202 | 0.2890 | 69.16 | 3.05 | 0.48 |
|  | *Cyananthus hookeri* | 3564 | 0.2143 | 52.12 | 3.89 | 0.75 |
| Cannabaceae | |  |  |  |  |  |
|  | *Hummlus lupulus* | 2202 | 1.6593 | 62.80 | 5.35 | 0.99 |
| Caprifoliaceae | |  |  |  |  |  |
|  | *Dioscorea nipponica* | 2771 | 6.3925 | 57.03 | 2.28 | 0.52 |
|  | *Dispsacus japonicus* | 2202 | 5.4090 | 64.74 | 2.91 | 0.45 |
|  | *Morina alba* | 3688 | 5.7600 | 59.29 | 3.18 | 0.45 |
|  | *Morina chinensis* | 3525 | 3.5987 | 58.43 | 3.91 | 0.54 |
|  | *Pterocephalus hookeri* | 3525 | 2.9333 | 64.12 | 5.78 | 0.85 |
|  | *Arenaria przewalskii* | 3902 | 0.3927 | 52.48 | 6.58 | 0.89 |
|  | *Cerastium caespitosum* | 2928 | 0.1530 | 51.21 | 2.41 | 0.40 |
|  | *Lychnis fulgens* | 2202 | 0.9997 | 43.16 | 2.79 | 0.43 |
|  | *Melandrium multicaule* | 3141 | 0.1630 | 51.77 | 2.08 | 0.44 |
|  | *Silene apricum* | 3062 | 0.1237 | 50.53 | 2.03 | 0.32 |
|  | *Silene gonosperma* | 3902 | 0.3137 | 47.84 | 4.07 | 0.68 |
|  | *Silene pterosperma* | 2968 | 0.3713 | 48.60 | 2.61 | 0.38 |
|  | *Silene repens* | 2141 | 0.1310 | 48.28 | 3.50 | 0.44 |
| Clusiaceae | |  |  |  |  |  |
|  | *Hypericum ascyron* | 2220 | 0.1033 | 71.27 | 2.74 | 0.55 |
|  | *Hypericum monogynum* | 2141 | 0.2047 | 76.68 | 3.37 | 0.52 |
|  | *Hypericum przewalskii* | 3012 | 0.1653 | 66.79 | 2.26 | 0.45 |
| Convolvulaceae | |  |  |  |  |  |
|  | *Cuscuta chinensis* | 2280 | 0.3757 | 54.84 | 2.30 | 0.29 |
|  | *Cuscuta europaea* | 2912 | 0.3207 | 60.76 | 3.33 | 0.63 |
|  | *Cuscuta japonica* | 2202 | 7.6697 | 48.11 | 2.34 | 0.39 |
| Crassulaceae | |  |  |  |  |  |
|  | *Rhodiola eurycarpa* | 3688 | 0.1320 | 62.46 | 7.23 | 0.83 |
|  | *Rhodiola kirilowii* | 3741 | 0.0203 | 54.99 | 3.41 | 0.73 |
|  | *Sedum celatum* | 3539 | 0.0203 | 58.90 | 4.08 | 0.55 |
| Cyperaceae | |  |  |  |  |  |
|  | *Carex aridula* | 3505 | 1.1067 | 50.90 | 1.25 | 0.21 |
|  | *Carex chlorostachys* | 2968 | 0.4370 | 49.59 | 1.96 | 0.10 |
|  | *Carex enervis* | 3600 | 0.6193 | 52.38 | 2.09 | 0.33 |
|  | *Carex hubigena* | 3902 | 0.4017 | 58.05 | 1.84 | 0.19 |
|  | *Carex kansuensis* | 3312 | 1.2467 | 51.06 | 1.83 | 0.22 |
|  | *Carex microglochin* | 3505 | 1.3013 | 57.48 | 3.23 | 0.53 |
|  | *Carex przewalski* | 3441 | 0.5683 | 51.02 | 1.69 | 0.24 |
|  | *Kobresia kansuensis* | 3525 | 0.9840 | 56.47 | 3.97 | 0.46 |
|  | *Kobresia* sp | 3525 | 0.2130 | 55.50 | 2.67 | 0.35 |
|  | *Scirpus triqueter* | 2340 | 1.2123 | 49.71 | 1.35 | 0.29 |
| Euphorbiaceae | |  |  |  |  |  |
|  | *Euphorbia helioscopia* | 2928 | 0.9583 | 69.82 | 1.88 | 0.45 |
| Fabaceae | |  |  |  |  |  |
|  | *Astragalus adsurgens* | 2928 | 2.5963 | 46.53 | 6.86 | 0.67 |
|  | *Astragalus bhotanensis* | 2771 | 1.6120 | 44.41 | 5.22 | 0.38 |
|  | *Astragalus melilotoides* | 2708 | 1.9250 | 47.51 | 5.46 | 0.58 |
|  | *Astragalus polycladus* | 2928 | 4.0413 | 51.10 | 6.31 | 0.61 |
|  | *Astragalus przewalskii* | 3556 | 3.2207 | 53.65 | 6.52 | 0.71 |
|  | *Astragalus tongolensis* var*. glaber* | 3688 | 1.4940 | 44.86 | 9.49 | 1.17 |
|  | *Caragana jubata* | 3312 | 9.9137 | 52.47 | 6.61 | 0.79 |
|  | *Hedysarum multijugum* | 2021 | 6.3173 | 58.82 | 6.07 | 0.58 |
|  | *Hedysarum polybotrys* | 2904 | 1.1197 | 50.15 | 3.52 | 0.40 |
|  | *Hedysarum tanguticum* | 3525 | 2.8480 | 52.54 | 6.99 | 0.72 |
|  | *Lathyrus pratensis* | 2928 | 13.3127 | 45.67 | 4.16 | 0.43 |
|  | *Lespedeza bicolor* | 2440 | 17.1180 | 50.72 | 5.95 | 0.49 |
|  | *Medicago lupulina* | 2904 | 1.4007 | 55.09 | 4.72 | 0.39 |
|  | *Medicago ruthenica* | 2202 | 1.9407 | 54.47 | 5.34 | 0.46 |
|  | *Oxytropis ochrocephala* | 3300 | 3.0917 | 54.55 | 6.45 | 0.50 |
|  | *Oxytropis xinglongshanica* | 2220 | 1.0197 | 49.97 | 6.72 | 0.57 |
|  | *Tibetia himalaica* | 3461 | 1.9307 | 52.85 | 5.77 | 0.45 |
|  | *Vicia angustifolia* | 2928 | 1.4073 | 53.61 | 4.68 | 0.32 |
|  | *Vicia cracca* | 2968 | 16.4357 | 39.46 | 4.37 | 0.15 |
| Gentianaceae | |  |  |  |  |  |
|  | *Comastoma pulmonarium* | 3562 | 0.2727 | 53.71 | 2.81 | 0.38 |
|  | *Gentiana dahuriea* | 2968 | 0.2077 | 54.87 | 3.94 | 0.42 |
|  | *Gentiana offcinolis* | 3425 | 0.2880 | 58.53 | 3.73 | 0.42 |
|  | *Gentiana straminea* | 3435 | 0.2343 | 44.62 | 2.83 | 0.39 |
|  | *Gentianopsis contorta* | 2968 | 0.0947 | 64.47 | 3.49 | 0.47 |
|  | *Gentianopsis paludosa* | 2956 | 0.0687 | 56.14 | 2.74 | 0.47 |
|  | *Swertia bimaculata* | 2340 | 0.1390 | 65.21 | 3.32 | 0.60 |
|  | *Swertia wolfangiana* | 3902 | 0.1480 | 62.33 | 4.59 | 0.48 |
| Geraniaceae | |  |  |  |  |  |
|  | *Erodium stephananum* | 2968 | 5.6840 | 51.86 | 3.96 | 0.90 |
|  | *Geranium sibiricum* | 2928 | 1.8523 | 56.94 | 4.32 | 0.91 |
| Iridaceae | |  |  |  |  |  |
|  | *Iris potaninii* | 2912 | 22.9785 | 61.81 | 2.45 |  |
| Juncaginaceae | |  |  |  |  |  |
|  | *Triglochin palustre* | 3141 | 0.7090 | 49.96 | 2.16 | 0.33 |
| Lamiaceae | |  |  |  |  |  |
|  | *Clinopodium urticifolium* | 2141 | 0.3060 | 57.61 | 4.44 | 0.85 |
|  | *Dracocephalum heterophyllum* | 2352 | 3.0063 | 69.81 | 3.75 | 0.59 |
|  | *Dracocephalum tanguticum* | 3440 | 1.8363 | 58.00 | 3.40 | 0.54 |
|  | *Elsholtzia densa* var*. ianthina* | 2928 | 1.9803 | 65.02 | 2.80 | 0.68 |
|  | *Elsholtzia feddei* | 2708 | 0.3123 | 58.10 | 2.79 | 0.28 |
|  | *Isodon henry* | 2220 | 0.2540 | 68.78 | 3.75 | 0.71 |
|  | *Lamium amplexicaule* | 2928 | 0.4650 | 66.49 | 2.73 | 0.62 |
|  | *Nepeta prattii* | 3461 | 1.1933 | 66.31 | 4.16 | 0.61 |
|  | *Salvia przewalskii* | 2860 | 5.3313 | 48.59 | 2.69 | 0.21 |
|  | *Salvia roborowskii* | 3525 | 2.0997 | 64.91 | 3.11 | 0.82 |
|  | *Salvia tricuspis* | 2141 | 2.2560 | 65.28 | 3.31 | 0.49 |
|  | *Lloydia oxycarpa* | 3902 | 0.6303 | 61.82 | 3.49 | 0.44 |
|  | *Lilium pumilum* | 2280 | 0.1373 | 49.76 | 3.22 | 0.41 |
| Linaceae | |  |  |  |  |  |
|  | *Linum pallescens* | 2220 | 2.3610 | 74.78 | 3.29 | 0.34 |
| Malvaceae | |  |  |  |  |  |
|  | *Malva verticillate* var. *chinensis* | 2968 | 2.0510 | 56.47 | 3.14 | 0.64 |
| Onagraceae | |  |  |  |  |  |
|  | *Epilobium angustifolium* | 3741 | 0.0515 | 60.81 | 4.31 | 0.97 |
|  | *Epilobium palustre* | 3470 | 0.1087 | 63.69 | 4.46 | 1.39 |
|  | *Epilobium royleanum* | 3688 | 0.1243 | 75.01 | 4.91 | 0.96 |
| Papaveraceae | |  |  |  |  |  |
|  | *Chelidonium majus* | 2220 | 0.5787 | 61.96 | 4.84 | 1.05 |
|  | *Meconopsis horridula* | 3902 | 0.2377 | 64.27 | 5.09 | 1.03 |
|  | *Meconopsis integrifolia* | 3902 | 0.6287 | 65.19 | 3.80 | 0.66 |
|  | *Picranostigma leptopoyum* | 2957 | 0.6487 | 67.61 | 2.90 | 0.64 |
| Plantaginaceae | |  |  |  |  |  |
|  | *Plantage depressa* | 2928 | 0.2490 | 44.82 | 2.78 | 0.61 |
|  | *Plantage major* | 2380 | 0.2423 | 59.07 | 3.76 | 0.83 |
| Plumbaginaceae | |  |  |  |  |  |
|  | *Plumbagella micrantha* | 3525 | 5.8923 | 49.16 | 1.78 | 0.33 |
| Polemoniaceae | |  |  |  |  |  |
|  | *Polemonium coeruleum* var. *chinense* | 2958 | 0.8127 | 59.81 | 3.26 | 0.69 |
| Polygonaceae | |  |  |  |  |  |
|  | *Fagopyrom urophyllum* | 2968 | 22.1793 | 63.85 | 1.43 | 0.29 |
|  | *Polygonum divaricatum* | 3556 | 2.1357 | 47.31 | 3.16 | 0.62 |
|  | *Polygonum hookeri* | 3525 | 1.5117 | 52.73 | 4.22 | 0.59 |
|  | *Polygonum viviparum* | 3525 | 1.3787 | 45.50 | 2.57 | 0.38 |
|  | *Rheum pumilum* | 3902 | 5.1447 | 44.69 | 2.83 | 0.29 |
|  | *Rubia membranacea* | 2912 | 9.4770 | 60.63 | 2.41 | 0.34 |
|  | *Rumex acetosa* | 3525 | 0.6464 | 47.27 | 3.72 | 0.79 |
|  | *Rumex aquaticus* | 3525 | 1.7633 | 46.84 | 3.80 | 0.58 |
|  | *Rumex crispus* | 2340 | 1.1167 | 49.44 | 2.33 | 0.26 |
|  | *Rumex nepalensis* | 3566 | 3.5543 | 49.06 | 2.17 | 0.32 |
|  | *Rumex patientia* | 2968 | 2.0633 | 43.62 | 2.37 | 0.14 |
| Primulaceae | |  |  |  |  |  |
|  | *Primula optata* | 3902 | 0.2123 | 64.70 | 2.13 | 0.25 |
|  | *Primula tangutica* | 3982 | 0.1550 | 65.71 | 2.97 | 0.43 |
| Ranunculaceae | |  |  |  |  |  |
|  | Aconitum barbatum var. hispidum | 2141 | 2.4260 | 65.59 | 4.29 | 0.63 |
|  | Aconitum flavum | 3050 | 1.5160 | 70.78 | 3.72 | 0.54 |
|  | *Aconitum sinomontanum* | 3461 | 2.9213 | 72.58 | 4.06 | 0.54 |
|  | *Anemone obtusiloba* subsp*. ovalifolia* | 3525 | 1.8443 | 52.12 | 3.58 | 0.55 |
|  | *Aquilegia oxysepala* | 2142 | 1.2557 | 61.07 | 2.53 | 0.35 |
|  | *Caltha scaposa* | 3525 | 0.8260 | 60.64 | 5.17 | 0.82 |
|  | *Cimicifuga foetida* | 2904 | 0.3743 | 55.42 | 3.36 | 0.60 |
|  | *Clematis brevicaudata* | 2141 | 1.2550 | 56.42 | 2.94 | 0.41 |
|  | *Clematis tangutica* | 3488 | 2.1530 | 57.47 | 2.70 | 0.50 |
|  | *Delphinium kamaoense* var*. glabrescens* | 3525 | 0.6143 | 58.43 | 3.87 | 0.65 |
|  | *Delphinium pachycentrum* | 3312 | 0.6940 | 66.28 | 4.24 | 0.74 |
|  | *Delphinium pylzowii* var*. trigynum* | 3902 | 0.5820 | 59.18 | 3.36 | 0.73 |
|  | *Delphinium Souliei* | 3505 | 0.3293 | 62.86 | 4.32 | 0.61 |
|  | *Souliea vaginata* | 3012 | 0.4853 | 53.05 | 4.96 | 0.47 |
|  | *Thalictrum alpinum* | 2928 | 0.7483 | 53.48 | 2.81 | 0.32 |
|  | *Thalictrum baicalense* | 2648 | 4.1817 | 54.84 | 1.52 | 0.09 |
|  | *Thalictrum macrorhynchum* | 2202 | 6.2447 | 63.27 | 2.74 | 0.30 |
|  | *Thalictrum minus* | 2141 | 0.6910 | 60.17 | 2.92 | 0.26 |
|  | *Thalictrum przewalskii* | 3536 | 1.7583 | 58.18 | 2.39 | 0.26 |
|  | *Thalictrum uncatum* | 2730 | 3.4210 | 59.82 | 2.45 | 0.15 |
| Rosaceae | |  |  |  |  |  |
|  | *Agrimonia pilosa* | 2928 | 11.0110 | 56.70 | 2.84 | 0.14 |
|  | *Malus manshurica* | 2220 | 7.2737 | 59.26 | 5.15 | 0.62 |
|  | *Potentilla bifurca* | 2996 | 0.5047 | 54.68 | 1.42 | 0.34 |
|  | *Potentilla chinensis* | 2141 | 0.2753 | 53.90 | 2.86 | 0.29 |
|  | *Potentilla multifolia* | 2924 | 0.2767 | 54.74 | 2.57 | 0.39 |
|  | *Sanguisorba officinalis* | 2912 | 2.0983 | 58.39 | 3.90 | 0.57 |
|  | *Galium asperuloides* | 2904 | 4.8880 | 48.06 | 1.88 | 0.44 |
|  | *Galium verum* | 2928 | 0.4950 | 52.93 | 2.54 | 0.35 |
|  | *Rubia sylvatica* | 2220 | 17.6240 | 53.81 | 2.70 | 0.29 |
| Saxifragaceae | |  |  |  |  |  |
|  | *Saxifraga montana* | 3902 | 0.0417 | 68.99 | 3.76 | 0.64 |
| Scrophulariaceae | |  |  |  |  |  |
|  | *Pedicularis alaschanica* | 2968 | 1.3990 | 53.51 | 3.36 | 0.17 |
|  | *Pedicularis brevilabris* | 3312 | 0.7160 | 49.09 | 4.59 | 0.76 |
|  | *Pedicularis cristatella* | 2904 | 1.0267 | 53.81 | 2.91 | 0.19 |
|  | *Pedicularis ingens* | 3564 | 0.9717 | 58.00 | 5.48 | 0.69 |
|  | *Pedicularis lachnoglossa* | 3525 | 1.5923 | 49.58 | 4.89 | 0.65 |
|  | *Pedicularis lasiophrys* var*. sinica* | 3312 | 0.2820 | 56.02 | 3.91 | 0.64 |
|  | *Pedicularis longiflora* var*. tubiformis* | 3312 | 0.5563 | 54.51 | 3.60 | 0.58 |
|  | *Pedicularis polyodonta* | 3152 | 0.3727 | 56.50 | 3.29 | 0.53 |
|  | *Pedicularis rudis* | 3141 | 0.7707 | 58.00 | 4.52 | 0.67 |
|  | *Pedicularis semitorta* | 2968 | 1.1210 | 47.73 | 3.29 | 0.61 |
|  | *Pedicularis striata* | 2141 | 0.8813 | 47.62 | 4.16 | 0.59 |
|  | *Pedicularis szetschuanica* | 3525 | 0.3997 | 53.28 | 3.17 | 0.38 |
|  | *Scrophularia mcisa* | 2380 | 0.3927 | 53.07 | 2.27 | 0.70 |
|  | *Veronica anagallis-aquatica* | 3049 | 0.0390 | 66.08 | 3.14 | 0.53 |
|  | *Veronica rockii* | 2904 | 0.0560 | 57.59 | 2.51 | 0.19 |
| Solanaceae | |  |  |  |  |  |
|  | *Hyoscyamus niger* | 2160 | 0.5090 | 66.47 | 3.55 | 0.48 |
| Typhaceae | |  |  |  |  |  |
|  | *Typha orientalis* | 2340 | 0.0240 | 49.13 | 3.23 | 0.67 |
| Valerianaceae | |  |  |  |  |  |
|  | *Nardostachys chinensis* | 3552 | 3.7873 | 55.95 | 2.48 | 0.35 |