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## IAPT/IOPB chromosome data 13

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All materials CHN; collected in Argentina, Misiones; collectors: H = A.I. Honfi, Ag = P.M. Aguilera; vouchers in MNES.

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## ASTERACEAE

*Angelphytum hatschbachii* H. Rob., 2n = 64, H 1317.*Aspilia montevidensis* (Spreng.) Kuntze var. *montevidensis*, 2n = 44, Ag 21.*Calea uniflora* Less., 2n = 32, H 1315.

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All material CHN; collector: MB = Matthias Baltisberger; vouchers in Z/IT.

## ASTERACEAE

*Achillea fragrantissima* (Forssk.) Sch.Bip., 2n = 18; Egypt, MB 13219, MB 13901.*Aster albanicus* Degen, 2n = 18; Albania, MB 12481, MB 12567; Albania, A. Mullaj & V. Tartari 12798.*Bidens pilosa* L., 2n = 72; Egypt, MB 13292.*Centaurea pindicola* Griseb., 2n = 20; Greece, MB & U. Schäppi 12599.*Hieracium murorum* L., 2n = 27; Switzerland, MB 13492.*Hieracium pilosella* L., 2n = 45; Switzerland, MB 13442, MB 13490.*Hieracium piloselloides* Vill., 2n = 36; Switzerland, MB 13443, MB 13505.*Osteospermum vaillantii* (Decne.) Norl., 2n = 32; Egypt, MB 13294.

## BRASSICACEAE

*Draba aizoides* L., 2n = 16; Switzerland, R. Fuchter RF123.

## CAMPANULACEAE

*Campanula cochlearifolia* Lam., 2n = 34; Switzerland, U. Käser 19870074.46.

## CARYOPHYLLACEAE

*Silene uniflora* Roth, 2n = 24; Ireland, M. Gnesotto 14200.

## CRASSULACEAE

*Sempervivum marmoreum* Griseb., 2n = 34; Albania, P. Vogli PV17.

## LAMIACEAE

*Stachys aegyptiaca* Pers., 2n = 34; Egypt, MB 13218, MB 13293.*Stachys arvensis* L., 2n = 10; France, Réunion (Indian Ocean), MB 12345, MB 12369.*Teucrium chamaedrys* L., 2n = 62; France, MB & K. Krug 13715.

## RANUNCULACEAE

*Consolida ajacis* (L.) Schur, 2n = 16; Netherlands, MB & D. Frey 13485.*Ranunculus sceleratus* L., 2n = 32; Netherlands, MB & D. Frey 13486.Victor V. Chepinoga,<sup>1,2\*</sup> Aleksandr A. Gnutikov,<sup>3</sup>  
Pavel I. Lubogoschinsky<sup>1</sup> & Katja M. Fleckenstein<sup>4</sup><sup>1</sup> Department of Botany, Irkutsk State University, Karl Marks Str. 1, 664003 Irkutsk, Russia<sup>2</sup> Albrecht von Haller Institute of Plant Sciences, Georg August University of Göttingen, Untere Karlspüle 2, 37073 Göttingen, Germany<sup>3</sup> Komarov Botanical Institute RAS, Prof. Popov Str. 2, 197376 St.-Petersburg, Russia<sup>4</sup> Faculty of Biology, Albert Ludwig University of Freiburg, Schaezlestr. 1, 79104 Freiburg, Germany\* Author for correspondence: [Victor.Chepinoga@gmail.com](mailto:Victor.Chepinoga@gmail.com)

All materials CHN; collectors: AG = A. Gnutikov, KF = K. Fleckenstein, PL = P. Lubogoschinsky, VCH = V. Chepinoga; vouchers in IRKU, duplicates in VLA.

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All materials for the chromosome column should be submitted electronically to: Karol Marhold, [karol.marhold@savba.sk](mailto:karol.marhold@savba.sk) (Institute of Botany, Slovak Academy of Sciences, SK-845 23 Bratislava, Slovakia, and Department of Botany, Charles University, CZ 128–01 Prague, Czech Republic). The full version of this contribution is available in the online edition of TAXON appended to this article. The following citation format is recommended: Baltisberger, M. & Voelger, M. 2006. *Sternbergia sicula*. In: Marhold, K. (ed.), IAPT/IOPB chromosome data 1. *Taxon* 55: 444, E2.

**ACORACEAE**

*Acorus calamus* L.,  $2n = 36$ ; Russia, Zabaikalskii Krai, PL C776.

**ALISMATACEAE**

*Alisma orientale* (Sam.) Juz.,  $2n = 14$ ; Russia, Zabaikalskii Krai, PL C713.

*Sagittaria natans* Pall.,  $2n = 22$ ; Russia, Zabaikalskii Krai, AG & I. Enushchenko C612.

*Sagittaria trifolia* L.,  $2n = 22$ ; Russia, Zabaikalskii Krai, PL C711.

**APIACEAE**

*Cicuta virosa* L.,  $2n = 22$ ; Russia, Buryatia, R. Moriz C1076, R. Moriz C1077, R. Moriz C1079.

**ASTERACEAE**

*Inula britannica* L.,  $2n = 32$ ; Russia, Zabaikalskii Krai, PL C712.

*Saussurea amara* (L.) DC.,  $2n = 26$ ; Russia, Zabaikalskii Krai, PL & A. Konovalov C721.

*Taraxacum delabatum* Hand.-Mazz.,  $2n = 32$ ; Russia, Buryatia, AG & VCH C562.

*Tephrosia palustris* (L.) Rchb.,  $2n = 48$ ; Russia, Zabaikalskii Krai, PL C695.

*Triplolium vulgare* Nees,  $2n = 18$ ; Russia, Zabaikalskii Krai, PL C759.

**BORAGINACEAE**

*Myosotis caespitosa* K.F. Schultz,  $2n = 48$ ; Russia, Zabaikalskii Krai, PL C699.

**BUTOMACEAE**

*Butomus junceus* Turcz.,  $2n = 26$ ; Russia, Zabaikalskii Krai, PL C710.

**CARYOPHYLLACEAE**

*Spergula arvensis* L.,  $2n = 18$ ; Russia, Irkutskaya Oblast', A. Verkhovina & N. Yakovchiz C863.

*Stellaria bungeana* Fenzl,  $2n = 36$ ; Russia, Irkutskaya Oblast', R. Moriz C928.

*Stellaria cherleriae* (Fisch. ex Ser.) F.N. Williams,  $2n = 52$ ; Russia, Zabaikalskii Krai, A. Konovalov & M. Isaikina C650, M. Isaikina C673.

*Stellaria dichotoma* L.,  $2n = 44$ ; Russia, Zabaikalskii Krai, S. Rosbakh C649.

**CHENOPODIACEAE**

*Kalidium foliatum* (Pall.) Moq.,  $2n = 18$ ; Russia, Zabaikalskii Krai, PL C758.

*Kochia angustifolia* (Turcz.) Peshkova,  $2n = 18$ ; Russia, Zabaikalskii Krai, PL C764.

*Salicornia perennans* Willd.,  $2n = 18$ ; Russia, Zabaikalskii Krai, PL C717.

**CYPERACEAE**

*Eleocharis palustris* (L.) Roem. & Schult.,  $2n = 16$ ; Russia, Zabaikalskii Krai, PL C656.

**HYDROCHARITACEAE**

*Elodea canadensis* Michx.,  $2n = 24$ ; Russia, Irkutskaya Oblast', VCH & R. Moriz C957.

**NITRARIACEAE**

*Nitraria sibirica* Pall.,  $2n = 30$ ; Russia, Zabaikalskii Krai, PL C765.

**ORCHIDACEAE**

*Spiranthes sinensis* (Pers.) Ames,  $2n = 30$ ; Russia, Zabaikalskii Krai, PL C727.

**PLANTAGINACEAE**

*Plantago depressa* Schlecht.,  $2n = 12$ ; Russia, Irkutskaya Oblast', A. Chepinoga & B. Batbayar C087; Russia, Zabaikalskii Krai, A. Konovalov, M. Isaikina & PL C800.

*Plantago major* L.,  $2n = 12$ ; Russia, Irkutskaya Oblast', A. Chepinoga & B. Batbayar C091; Russia, Zabaikalskii Krai, A. Konovalov & KF C801.

*Plantago salsa* Pall.,  $2n = 12$ ; Russia, Zabaikalskii Krai, PL C694, A. Konovalov & M. Isaikina C802.

**POACEAE**

*Agrostis clavata* Trin.,  $2n = 42$ ; Russia, Irkutskaya Oblast', VCH C130.

*Agrostis gigantea* Roth,  $2n = 28$ ; Russia, Buryatia, R. Moriz C1075. *Deschampsia cespitosa* (L.) P. Beauv.,  $2n = 26$ ; Russia, Buryatia, R. Moriz C1009, PL C1052.

*Glyceria lithuanica* (Gorski) Gorski,  $2n = 20$ ; Russia, Irkutskaya Oblast', VCH & A. Chepinoga C832.

*Glyceria triflora* (Korsh.) Kom.,  $2n = 20$ ; Russia, Zabaikalskii Krai, VCH & S. Rosbakh C814.

*Phragmites australis* (Cav.) Trin. ex Steud.,  $2n = 56$ ; Russia, Zabaikalskii Krai, PL C754.

*Poa supina* Schrad.,  $2n = 14$ ; Russia, Irkutskaya Oblast', VCH C129. *Puccinellia hauptiana* V.I. Krecz.,  $2n = 28$ ; Russia, Zabaikalskii Krai, A. Konovalov & M. Isaikina C789.

*Puccinellia macranthera* V.I. Krecz.,  $2n = 28$ ; Russia, Zabaikalskii Krai, VCH & S. Rosbakh C651, VCH C652, PL C678, PL C688, VCH & S. Rosbakh C841.

*Puccinellia tenuiflora* (Griseb.) Scribn. & Merr.,  $2n = 14$ ; Russia, Zabaikalskii Krai, VCH & S. Rosbakh C653, VCH & S. Rosbakh C654, PL C689, VCH C788.

**POLYGONACEAE**

*Rheum rhabarbarum* L.,  $2n = 44$ ; Russia, Zabaikalskii Krai, A. Konovalov & M. Isaikina C790.

*Rumex acetosella* L.,  $2n = \text{ca. } 42$ ; Russia, Zabaikalskii Krai, VCH C792.

*Rumex maritimus* L.,  $2n = 40$ ; Russia, Zabaikalskii Krai, VCH & S. Rosbakh C791.

*Rumex pseudonatronatus* (Borbas) Borbas ex Murb.,  $2n = 20$ ; Russia, Irkutskaya Oblast', AG & V. Mozer C194; Russia, Buryatia, R. Moriz C1068.

**POTAMOGETONACEAE**

*Potamogeton compressus* L.,  $2n = 26$ ; Russia, Zabaikalskii Krai, AG & I. Enushchenko C397, PL, S. Rosbakh & VCH C736.

*Potamogeton pectinatus* L.,  $2n = \text{ca. } 78$ ; Russia, Zabaikalskii Krai, AG & I. Enushchenko C396.

**PRIMULACEAE**

*Glaux maritima* L.,  $2n = 30$ ; Russia, Zabaikalskii Krai, PL C674.

**RANUNCULACEAE**

*Aconitum septentrionale* Koelle,  $2n = 16$ ; Russia, Irkutskaya Oblast', R. Moriz C954; Russia, Buryatia, R. Moriz C1021.

*Anemone baicalensis* Turcz. ex Ledeb.,  $2n = 28$ ; Russia, Buryatia, R. Moriz C1022, PL C1047.

*Atragene speciosa* Weinm.,  $2n = 16$ ; Russia, Buryatia, PL C1053.

*Batrachium kauffmannii* (Clerc) V.I. Krecz.,  $2n = 32$ ; Russia, Irkutskaya Oblast', VCH & Z. Kaplan C1086.

*Batrachium trichophyllum* (Chaix) Bosch,  $2n = 16$ ; Russia, Zabaikalskii Krai, PL C768.

*Caltha membranacea* (Turcz.) Schipcz.,  $2n = 32$ ; Russia, Zabaikalskii Krai, VCH C661.

*Caltha palustris* L.,  $2n = 32$ ; Russia, Buryatia, R. Moriz C1038.  $2n = 60$ ; Russia, Buryatia, R. Moriz C1061.

- Halerpestes salsuginosa* (Pall. ex Georgi) Greene,  $2n = 48$ ; Russia, Zabaikalskii Krai, *PL C698*.
- Halerpestes sarmentosa* (Adams) Kom.,  $2n = 16$ ; Russia, Zabaikalskii Krai, *PL C696*.
- Leptopyrum fumaroides* (L.) Rchb.,  $2n = 14$ ; Russia, Zabaikalskii Krai, A. Konovalov, M. Isaikina, *PL & KF C881*.
- Pulastilla ambigua* (Turcz. ex Pritz.) Juz.,  $2n = 16$ ; Russia, Irkutskaya Oblast', S. Bukin, D. Abdullin & D. Zhgulev *C823*.
- Ranunculus chinensis* Bunge,  $2n = 16$ ; Russia, Zabaikalskii Krai, *PL C668*.
- Ranunculus gmelinii* DC.,  $2n = 16$ ; Russia, Zabaikalskii Krai, *VCH C662*.
- Ranunculus propinquus* C.A. Mey.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *VCH C626*; Russia, Buryatia, R. Moriz *C974*.
- Ranunculus radicans* C.A. Mey.,  $2n = 30$ ; Russia, Zabaikalskii Krai, *PL & VCH C700*.  $2n = 32$ ; Russia, Zabaikalskii Krai, *PL C770*.
- Ranunculus reptans* L.,  $2n = 32$ ; Russia, Zabaikalskii Krai, *PL C658*.
- Ranunculus sceleratus* L.,  $2n = 56$ ; Russia, Zabaikalskii Krai, *PL C769*.  $2n = 64$ ; Russia, Irkutskaya Oblast', S. Rosbakh & *KF C824*.
- Thacla natans* (Pall. ex Georgi) Deyl & Soják,  $2n = 32$ ; Russia, Zabaikalskii Krai, *PL C767*.

**ROSACEAE**

- Chamaerhodos erecta* (L.) Bunge,  $2n = 14$ ; Russia, Zabaikalskii Krai, *VCH, S. Rosbakh, M. Isaikina, A. Konovalov & N. Pazdnikova C795*.
- Dasiphora parvifolia* (Fisch. ex Lehm.) Juz. ( $\equiv$  *Pentaphylloides parvifolia* (Fisch. ex Lehm.) Soják),  $2n = 14$ ; Russia, Zabaikalskii Krai, *PL C697*.
- Filipendula ulmaria* (L.) Maxim.,  $2n = 14$ ; Russia, Buryatia, *PL C1056*.
- Geum aleppicum* Jacq.,  $2n = 42$ ; Russia, Buryatia, *PL C1057*.
- Geum rivale* L.,  $2n = 42$ ; Russia, Buryatia, *PL C1043*.
- Potentilla acaulis* L.,  $2n = 14$ ; Russia, Zabaikalskii Krai, *PL C706*.
- Potentilla anserina* L.,  $2n = 28$ ; Russia, Zabaikalskii Krai, *AG & I. Enushchenko C391*.
- Potentilla argentea* L.,  $2n = 42$ ; Russia, Irkutskaya Oblast', A. Prudnikova & A. Chudinov *C845*.
- Potentilla conferta* Bunge,  $2n = 42$ ; Russia, Zabaikalskii Krai, *VCH & A. Konovalov C853*.
- Potentilla longifolia* Willd. ex Schlecht.,  $2n = 14$ ; Russia, Irkutskaya Oblast', *VCH, A. Verkhozina & E. Kuznetsova C852*; Russia, Zabaikalskii Krai, M. Isaikina *C851*.  $2n = 42$ ; Russia, Zabaikalskii Krai, I. Enushchenko & *AG C842*.
- Potentilla multifida* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *VCH C648*; Russia, Zabaikalskii Krai, *PL C844, VCH, S. Rosbakh & A. Konovalov C847*.
- Potentilla norvegica* L.,  $2n = 56$ ; Russia, Krasnoyarskii Krai, *VCH C843*.
- Potentilla nudicaulis* Willd. ex Schlecht.,  $2n = 28$ ; Russia, Zabaikalskii Krai, *VCH & S. Rosbakh C850*.
- Potentilla paradoxa* Nutt. ex Torr. & Gray,  $2n = 28$ ; Russia, Zabaikalskii Krai, *AG & I. Enushchenko C403, VCH & S. Rosbakh C846*.
- Potentilla semiglabra* Juz.,  $2n = 56$ ; Russia, Zabaikalskii Krai, *AG & I. Enushchenko C407*.
- Potentilla sericea* L.,  $2n = 28$ ; Russia, Zabaikalskii Krai, *VCH & al. C849*.
- Potentilla tanacetifolia* Willd. ex Schlecht.,  $2n = 28$ ; Russia, Zabaikalskii Krai, *PL C684*.
- Potentilla tergemina* Soják,  $2n = 28$ ; Russia, Zabaikalskii Krai, *VCH & M. Isaikina C848*.

**SALICACEAE**

- Salix schwerinii* E. Wolf,  $2n = 38$ ; Russia, Zabaikalskii Krai, *PL C778*.

**TRAPACEAE**

- Trapa sibirica* Fler.,  $2n = 48$ ; Russia, Irkutskaya Oblast', *AG & I. Enushchenko C528*.

**TYPHACEAE**

- Typha latifolia* L.,  $2n = 30$ ; Russia, Irkutskaya Oblast', *AG & A. Rosbakh C222*.

**ZANNICHELLIACEAE**

- Zannichellia pedunculata* Rchb.,  $2n = 24$ ; Russia, Zabaikalskii Krai, *PL C748*.

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All materials CHN; collectors: AK = A. Konovalov, MI = M. Isaikina, PL = P. Lubogoschinsky, SR = S. Rosbakh, VCH = V. Chepinoga; vouchers in IRKU, duplicates in VLA.

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**ASCLEPIADACEAE**

- Vincetoxicum sibiricum* (L.) Decne,  $2n = 18$ ; Russia, Zabaikalskii Krai, *VCH C819, VCH & N. Pazdnikova C820*.  $2n = 24$ ; Russia, Zabaikalskii Krai, *PL C705*.

**ASTERACEAE**

- Artemisia anethifolia* Weber ex Stechm.,  $2n = 16$ ; Russia, Zabaikalskii Krai, *PL C680*.
- Artemisia scoparia* Waldst. & Kit.,  $2n = 16$ ; Russia, Zabaikalskii Krai, *PL & AK C723*.
- Artemisia sieversiana* Ehrh. ex Willd.,  $2n = 18$ ; Russia, Zabaikalskii Krai, *PL C681*.
- Kalimeris integrifolia* Turcz.,  $2n = 36$ ; Russia, Zabaikalskii Krai, *PL C719*.
- Leontodon autumnalis* L.,  $2n = 12$ ; Russia, Republic of Buryatia, R. Moriz *C991*.
- Leontopodium conglobatum* (Turcz.) Hand.-Mazz.,  $2n = 52$ ; Russia, Zabaikalskii Krai, *PL C771*.
- Leontopodium leontopodioides* (Willd.) Beauverd,  $2n = 26$ ; Russia, Zabaikalskii Krai, *PL C692*.
- Ligularia fischeri* Turcz.,  $2n = 60$ ; Russia, Zabaikalskii Krai, *PL C774*.
- Tragopogon orientalis* L.,  $2n = 12$ ; Russia, Irkutskaya Oblast', *VCH & N. Dulepova C862*.
- Xanthium sibiricum* Patr. ex Widder,  $2n = 36$ ; Russia, Zabaikalskii Krai, *PL & AK C722*.
- Youngia stenoma* (Turcz. ex DC.) Ledeb.,  $2n = 10$ ; Russia, Zabaikalskii Krai, *PL C752*.

**BRASSICACEAE**

- Alyssum obovatum* (C.A. Mey.) Turcz.,  $2n = 16$ ; Russia, Irkutskaya Oblast', N. Dulepova *C838*.

*Erysimum flavum* (Georgi) Bobrov,  $2n = 14$ ; Russia, Irkutskaya Oblast', VCH, A. Verkhovzina & E. Kuznetsova C869.

#### CARYOPHYLLACEAE

*Silene amoena* L. (= *S. repens* Patrin),  $2n = 24$ ; Russia, Irkutskaya Oblast', R. Moriz & A. Sergeyeva C920.

#### CHENOPODIACEAE

*Corispermum sibiricum* Iljin,  $2n = 18$ ; Russia, Irkutskaya Oblast', VCH, A. Verkhovzina & E. Kuznetsova C641.

#### DIPSACACEAE

*Scabiosa comosa* Fisch. ex Roem. & Schult.,  $2n = 16$ ; Russia, Zabaikalskii Krai, VCH, SR & N. Pazdnikova C793.

#### FABACEAE

*Amoria hybrida* (L.) C. Presl (≡ *Trifolium hybridum* L.),  $2n = 16$ ; Russia, Republic of Buryatia, R. Moriz C1069.

*Astragalus adsurgens* Pall.,  $2n = 16$ ; Russia, Zabaikalskii Krai, PL C687.

*Astragalus olchonensis* Gontsch.,  $2n = 16$ ; Russia, Irkutskaya Oblast', A. Verkhovzina, D. Krivenko & Ye. Zhmud' C867.

*Chrysopsis spadicea* (L.) Greene (≡ *Trifolium spadiceum* L.),  $2n = 14$ ; Russia, Republic of Buryatia, R. Moriz C1015.

*Melilotoides ruthenicus* (L.) Soják,  $2n = 16$ ; Russia, Zabaikalskii Krai, PL C701.

#### HYPECOACEAE

*Hypecoum erectum* L.,  $2n = 16$ ; Russia, Republic of Buryatia, I. Enushchenko C837.

#### LAMIACEAE

*Leonurus sibiricus* L.,  $2n = 20$ ; Russia, Zabaikalskii Krai, PL C741.

#### PAPAVERACEAE

*Papaver amurense* (N. Busch) Tolm.,  $2n = 42$ ; Russia, Zabaikalskii Krai, MI C803.

*Papaver nudicaule* L.,  $2n = 28$ ; Russia, Zabaikalskii Krai, AK, MI & PL C804.

#### POACEAE

*Achnatherum sibiricum* (L.) Keng ex Tzvelev,  $2n = 24$ ; Russia, Zabaikalskii Krai, VCH, SR, MI & al. C807.

*Elymus gmelinii* (Ledeb.) Tzvelev,  $2n = 28$ ; Russia, Zabaikalskii Krai, VCH, SR, MI, N. Pazdnikova & AK C808.

*Eragrostis minor* Host,  $2n = 40$ ; Russia, Zabaikalskii Krai, MI & N. Pazdnikova C816.

*Festuca ovina* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', VCH C836.

*Panicum miliaceum* L. s.l.,  $2n = 36$ ; Russia, Zabaikalskii Krai, AK & MI C840.

*Poa stepposa* (Krylov) Roshev.,  $2n = 42$ ; Russia, Zabaikalskii Krai, AK & MI C810, VCH & SR C811.

*Setaria viridis* (L.) P. Beauv.,  $2n = 18$ ; Russia, Zabaikalskii Krai, VCH, SR, MI & al. C817, VCH, SR, MI & al. C818.

*Stipa krylovii* Roshev.,  $2n = 44$ ; Russia, Zabaikalskii Krai, VCH & SR C813.

#### ROSACEAE

*Sanguisorba officinalis* L.,  $2n = 28$ ; Russia, Zabaikalskii Krai, VCH, SR & N. Pazdnikova C797.

*Sanguisorba parviflora* (Maxim.) Takeda,  $2n = 28$ ; Russia, Zabaikalskii Krai, AK & MI C796.

*Sanguisorba tenuifolia* Fisch. ex Link,  $2n = 28$ ; Russia, Zabaikalskii Krai, VCH & SR C798.

#### RUBIACEAE

*Rubia cordifolia* L.,  $2n = 22$ ; Russia, Zabaikalskii Krai, PL & AK C724.

#### SCROPHULARIACEAE

*Pedicularis sceptrum-carolinum* L.,  $2n = 32$ ; Russia, Zabaikalskii Krai, VCH C660.

*Veronica daurica* Steven,  $2n = 32$ ; Russia, Zabaikalskii Krai, PL C739.

#### SOLANACEAE

*Hyoscyamus niger* L.,  $2n = 34$ ; Russia, Zabaikalskii Krai, AK & K. Fleckenstein C821.

*Solanum septemlobum* Bunge,  $2n = 24$ ; Russia, Zabaikalskii Krai, PL C775.

#### VALERIANACEAE

*Patrinia rupestris* (Pall.) Dufur.,  $2n = 22$ ; Russia, Zabaikalskii Krai, VCH, SR, MI & al. C794.

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All materials CHN; collectors: AS = A. Sergeyeva, PL = P. Lubogoschinsky, RM = R. Moriz, VCH = V. Chepinoga; vouchers in IRKU, duplicates in VLA.

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#### APIACEAE

*Angelica decurrens* (Ledeb.) B. Fedtsch.,  $2n = 22$ ; Russia, Republic of Buryatia, RM C1060.

*Angelica sylvestris* L.,  $2n = 22$ ; Russia, Krasnoyarskii Krai, A. Gnutikov & I. Enushchenko C537; Russia, Republic of Buryatia, PL C1045; Russia, Irkutskaya Oblast', AS C912.

*Bupleurum aureum* Fisch. ex Hoffm.,  $2n = 16$ ; Russia, Irkutskaya Oblast', RM & AS C926.

*Pleurospermum uralense* Hoffm.,  $2n = 18$ ; Russia, Republic of Buryatia, RM C1025.

#### ASTERACEAE

*Achillea millefolium* L.,  $2n = 18$ ; Russia, Republic of Buryatia, RM C1003.

*Chrysanthemum zawadskii* subsp. *peleiolepis* (Trautv.) A.V. Grebenjuk & Czepinoga,  $2n = 72$ ; Russia, Irkutskaya Oblast', RM & AS C943.

*Chrysanthemum zawadskii* Herbich subsp. *zawadskii*,  $2n = 54$ ; Russia, Zabaikalskii Krai, PL C772.

*Cirsium helenioides* (L.) Hill,  $2n = 34$ ; Russia, Republic of Buryatia, RM C973, RM C1028, PL C1046.

*Doronicum altaicum* Pall.,  $2n = 60$ ; Russia, Republic of Buryatia, RM C1037.

*Fornicium uniflorum* (L.) Zuev (≡ *Rhaponticum uniflorum* (L.) DC.),  $2n = 26$ ; Russia, Zabaikalskii Krai, PL & K. Fleckenstein C666.

- Lepidotheca suaveolens* (Pursh) Nutt (≡ *Chamomilla suaveolens* (Pursh) Rydb.),  $2n = 18$ ; Russia, Republic of Buryatia, *RM C1016*.  
*Leucanthemum vulgare* Lam.,  $2n = 36$ ; Russia, Republic of Buryatia, *RM C989*.  
*Mulgedium sibiricum* (L.) Less. (≡ *Lactuca sibirica* (L.) Benth. ex Maxim.),  $2n = 18$ ; Russia, Zabaikalskii Krai, *PL C718*.  
*Parasenecio hastatus* (L.) H. Koyama (≡ *Cacalia hastata* L.),  $2n = 60$ ; Russia, Republic of Buryatia, *RM C1018*.  
*Petasites radiatus* (J.F. Gmel.) J. Toman (= *Nardosmia laevigata* (Willd.) DC.),  $2n = 60$ ; Russia, Republic of Buryatia, *RM C965*.  
*Senecio vulgaris* L.,  $2n = 40$ ; Russia, Zabaikalskii Krai, *VCH, S. Rosbakh & M. Isaikina C861*.  
*Tanacetum boreale* Fisch. ex DC.,  $2n = 18$ ; Russia, Irkutskaya Oblast', *RM & AS C921*.  
*Tussilago farfara* L.,  $2n = 60$ ; Russia, Republic of Buryatia, *RM C982*.

**BRASSICACEAE**

- Lepidium densiflorum* Schrad.,  $2n = 32$ ; Russia, Republic of Buryatia, *VCH C805*.  
*Lepidium ruderales* L.,  $2n = 32$ ; Russia, Irkutskaya Oblast', *VCH C806, B. Batbayar & A. Chepinoga C870*.

**CANNABACEAE**

- Cannabis sativa* L. s.l.,  $2n = 20$ ; Russia, Zabaikalskii Krai, *PL C702*.

**CARYOPHYLLACEAE**

- Dianthus superbus* L.,  $2n = 30$ ; Russia, Irkutskaya Oblast', *A. Gnutikov C203*.

**CONVALLARIACEAE**

- Maianthemum bifolium* (L.) F.W. Schmidt,  $2n = 36$ ; Russia, Irkutskaya Oblast', *RM C956*.

**FABACEAE**

- Vicia sepium* L.,  $2n = 14$ ; Russia, Republic of Buryatia, *RM C967*.

**FUMARIACEAE**

- Corydalis impatiens* (Pall.) Fisch.,  $2n = 16$ ; Russia, Irkutskaya Oblast', *N. Dulepova C839*.

**GERANIACEAE**

- Geranium sibiricum* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *A. Chepinoga & B. Batbayar C092*.

**LAMIACEAE**

- Dracocephalum nutans* L.,  $2n = 10$ ; Russia, Irkutskaya Oblast', *S. Rosbakh C133*.  
*Lamium album* L.,  $2n = 18$ ; Russia, Republic of Buryatia, *RM C1019*.  
*Prunella vulgaris* L.,  $2n = 28$ ; Russia, Republic of Buryatia, *RM C987, RM C1024*.

**LILIACEAE**

- Lilium pilosiusculum* (Freyn) Misch.,  $2n = 24$ ; Russia, Irkutskaya Oblast', *RM C952*.

**MELANTHIACEAE**

- Veratrum lobelianum* Bernh.,  $2n = 32$ ; Russia, Republic of Buryatia, *RM C1026*.

**ONAGRACEAE**

- Chamaenerion angustifolium* (L.) Scop.,  $2n = 36$ ; Russia, Irkutskaya Oblast', *RM & AS C932*; Russia, Zabaikalskii Krai, *A. Konovalov & M. Isaikina C822*.

**ORCHIDACEAE**

- Dactylorhiza fuchsii* (Druce) Soó,  $2n = 20$ ; Russia, Republic of Buryatia, *AS C1014*.

**PARNASSIACEAE**

- Parnassia palustris* L.,  $2n = 36$ ; Russia, Zabaikalskii Krai, *A. Gnutikov & I. Enushchenko C587*.

**PINACEAE**

- Abies sibirica* Ledeb.,  $2n = 24$ ; Russia, Irkutskaya Oblast', *AS C948*.

**POACEAE**

- Anthoxanthum alpinum* Á. Löve & D. Löve,  $2n = 10$ ; Russia, Republic of Buryatia, *RM C966*.  
*Anthoxanthum odoratum* L.,  $2n = 20$ ; Russia, Republic of Buryatia, *RM C1033*.  
*Calamagrostis langsdorfii* (Link) Trin.,  $2n = 28$ ; Russia, Republic of Buryatia, *PL C1054*.  
*Calamagrostis obtusata* Trin.,  $2n = 28$ ; Russia, Republic of Buryatia, *PL C1055*.  
*Deschampsia altaica* (Schischkin) O.D. Nikif.,  $2n = 26$ ; Russia, Tyva Republic, *E. Vedernikova C834*.  
*Elymus novae-angliae* (Scribn.) Tzvelev,  $2n = 28$ ; Russia, Irkutskaya Oblast', *A. Gnutikov & VCH C237*.  
*Hierochloë glabra* Trin.,  $2n = 28$ ; Russia, Republic of Buryatia, *RM C975*.  
*Milium effusum* L.,  $2n = 28$ ; Russia, Republic of Buryatia, *PL C1050*.  
*Phleum phleoides* (L.) H. Karst.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *A. Gnutikov & VCH C138*.  
*Poa nemoralis* L.,  $2n = 42$ ; Russia, Republic of Buryatia, *PL C1051*.

**POLEMONIACEAE**

- Polemonium racemosum* Kitam.,  $2n = 18$ ; Russia, Republic of Buryatia, *RM C1027, RM C1029*.

**ROSACEAE**

- Rubus humilifolius* C.A. Mey.,  $2n = 14$ ; Russia, Republic of Buryatia, *PL C1048*; Russia, Zabaikalskii Krai, *VCH C665*.  
*Rubus matsumuranus* H. Lévl. & Vaniot,  $2n = 28$ ; Russia, Republic of Buryatia, *RM C1030*.

**SAMBUCACEAE**

- Sambucus sibirica* Nakai,  $2n = 38$ ; Russia, Irkutskaya Oblast', *RM & AS C927*.

**SAXIFRAGACEAE**

- Mitella nuda* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *RM C953*.

**SCROPHULARIACEAE**

- Pedicularis resupinata* L.,  $2n = 16$ ; Russia, Republic of Buryatia, *RM C1073*.

**TRILLIACEAE**

- Paris quadrifolia* L.,  $2n = 10$ ; Russia, Republic of Buryatia, *PL C1049*; Russia, Irkutskaya Oblast', *RM C945*.

**VIOLACEAE**

- Viola biflora* L.,  $2n = 12$ ; Russia, Republic of Buryatia, *A. Konovalov, RM & AS C1065*.

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#### ROSACEAE

*Potentilla aurea* L.,  $2n = 14$ ; Italy, CD Ptl4031, CD Ptl4032 (HEID 806942–806945), CD Ptl4104 (HEID 807066–807067).

*Potentilla brauneana* Hoppe,  $2n = 14$ ; Italy, Thomas Haberer Ptl4389 (HEID 807525), CD Ptl4091, CD Ptl4095 (HEID 807043–807044, 807050–807051).

*Potentilla crantzii* (Crantz) Beck ex Fritsch,  $2n = 28$ ; Slovenia, JP Ptl4231 (HEID 807309–807310);  $2n = 35$ ; France, CD Ptl7056, CD Ptl7058 (HEID 805865–805866, 805869–805870);  $2n = 42$ ; Italy, CD Ptl4111 (HEID 806885, 807079).

*Potentilla heptaphylla* L.,  $2n = 14$ ; Austria, CD Ptl3923 (HEID 805661–805662); Germany, T. Gregor Ptl3410 (W 2012-02368), T. Gregor Ptl3400 (HEID 805120, W 2012-02358).

*Potentilla incana* G. Gaertn., B. Mey. & Scherb.,  $2n = 28$ ; Austria, JP Ptl6181, JP Ptl6187 (HEID 806100, 806106–806107, W 2012-02431); Italy, CD Ptl4291 (HEID 807407, W 2012-02289), CD Ptl4316 (HEID 807440, W 2012-02443); \*\* $2n = 48–52$ ; Sweden, T. Gregor Ptl3056, T. Gregor Ptl3059 (HEID 804524–804525, 804530–804531).

*Potentilla neumanniana* Rchb. (The species is treated here in a broad circumscription and presumably comprises various forms of different evolutionary origin.),  $2n = 28$ ; Austria, JP Ptl6201 (HEID 806132, W 2012-02432); Germany, CD Ptl3747, CD Ptl3748 (HEID 805527–805530); Italy, CD Ptl4392, CD Ptl4393, CD Ptl4400 (HEID 807529–807531, 807543–807544, W 2012-02290);  $2n = 35$ ; France, CD Ptl7261 (HEID 805916, W 2012-02247, W 2012-02313); Germany, CD Ptl3741 (HEID 805515–805516); Italy, CD Ptl4391, CD Ptl4395 (HEID 807528, 807534–807535, W 2012-02291); Switzerland, S. Nürnberger Ptl3752, S. Nürnberger Ptl3758 (HEID 805536, 805541);  $2n = 42$ ; France, CD Ptl3522, CD Ptl3526 (HEID 805224–805225, 805231–805232, W 2012-02482), CD Ptl7271 (HEID 805926, W 2012-02248, W 2012-02314), CD Ptl4271 (HEID 807376); Italy, CD Ptl4396 (HEID 807536–807537);  $2n = 49$ ; Spain, JP Ptl6091 (HEID 805969, W 2012-02430);  $2n = 56$ ; Spain, JP Ptl6121 (HEID 806013, W 2012-02507);  $2n = 62–63$ ; Spain, JP Ptl6113 (HEID 806005–806006);  $2n = 60–65$ . France, CD Ptl3501 (HEID 805170–805171, W 2012-02451).

*Potentilla recta* L.,  $2n = 28$ ; Spain, JP Ptl6142 (HEID 806051–806052).

*Potentilla rigoana* Th. Wolf, \* $2n = 14$ ; Italy, CD Ptl4681 (HEID 807643, W 2012-02167, W 2012-02428), CD Ptl4349 (HEID 807485–807486, W 2012-02199, W 2012-02447).

*Potentilla sternerii* T. Gregor & Karlsson,  $2n = 42$ ; Sweden, T. Gregor Ptl3243 (HEID 804879–804880).

*Potentilla subacaulis* L., \*\* $2n = 14 + 3–6B$ ; Russia, Irkutskaya Oblast', V. Chepinoga & al. Ptl5525, V. Chepinoga & al. Ptl5527, V. Chepinoga & al. Ptl5533 (W 2012-02330, W 2012-02336, W 2012-02337).

*Potentilla thuringiaca* Bernh.,  $2n = 42$ ; Switzerland, CD Ptl4608 (HEID 807629, W 2012-02164); \*\* $2n = 61–63$ ; Switzerland, CD Ptl4571 (HEID 807592, W 2012-02213).

*Potentilla velutina* Lehm.,  $2n = 14$ ; France, CD Ptl3583 (HEID 805288, W 2012-02466, W 2012-02317), CD Ptl3628 (HEID 805384, W 2012-02467, W 2012-02322).

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#### APIACEAE

*Bupleurum himalayense* Klotzsch,  $n = 8$ ; DK 26020.

*Eriocyclus caespitosus* H. Wolff,  $n = 11$ ; DK 26021.

*Seseli sibiricum* Benth. ex C.B. Clarke,  $n = 11$ ; DK 26031.

#### ASTERACEAE

*Crepis multicaulis* Ledeb.,  $n = 5$ ; DK 26097, DK 26098, DK 26099.

*Crepis sancta* (L.) Bab.,  $n = 5$ ; DK 26100, DK 26201.

*Erigeron mucronatus* DC.,  $n = 9$ ; DK 26214.

*Erigeron umbrosus* (Kar. & Kir.) Popov,  $n = 9$ ; DK 26215, DK 26216, DK 26217, DK 26218.

*Lactuca orientalis* Boiss.,  $n = 9$ ; DK 26241, DK 26242.

*Saussurea albescens* Hook. f. & Thomson ex C.B. Clarke,  $n = 17$ ; DK 26262.

*Senecio krascheninnikovii* Schischk.,  $n = 10$ ; DK 26253.

*Youngia glauca* Edgew.,  $n = 8$ ; DK 26096.

#### BERBERIDACEAE

*Berberis kunwarensis* Royle,  $n = 14$ ; DK 23383.

#### BIGNONIACEAE

*Incarvillea arguta* Royle,  $n = 11$ ; DK 25515.

*Incarvillea emodi* (Lindl.) Chatterjee,  $n = 11$ ; DK 25511.

#### BRASSICACEAE

*Arabis glabra* Bernh.,  $n = 6$ ; DK 25549.

*Arabis nova* Vill.,  $n = 8$ ; DK 25550.

*Arabis tibetica* Hook. f. & Thomson,  $n = 21$ ; DK 25563.

*Descurainia sophia* (L.) Webb ex Prantl,  $n = 14$ ; DK 25561.

*Erysimum hieracifolium* L.,  $n = 16$ ; DK 25557.

*Erysimum melicentae* Dunn,  $n = 21$ ; DK 25558.

*Sisymbrium orientale* L.,  $n = 7$ ; DK 25562.

#### CAMPANULACEAE

*Campanula argyrotricha* Wall. & DC.,  $n = 14$ ; DK 19889.

#### CAPPARIDACEAE

*Capparis spinosa* L.,  $n = 12$ ; DK 23388, DK 23391.

#### CAPRIFOLIACEAE

*Lonicera hypoleuca* Decne.,  $n = 9$ ; DK 25954, DK 25955.

*Lonicera myrtillus* Hook. f. & Thomson,  $n = 9$ ; DK 25952.

**CARYOPHYLLACEAE**

- Arenaria edgeworthiana* Majumdar, *n* = 11; DK 25827.  
*Minuartia kashmirica* Mattf., *n* = 13; DK 25834.  
*Myosoton aquaticum* Moench, *n* = 14; DK 25835.  
*Sagina saginoides* (L.) H. Karst., *n* = 11; DK 25836.  
*Spergularia diandra* (Guss.) Heldr., *n* = 9; DK 25843. *n* = 18; DK 25842.  
*Stellaria paniculata* Edgew., *n* = 17; DK 25849.

**CHENOPODIACEAE**

- Salsola collina* Pall., *n* = 9; DK 25532, DK 25533.  
*Salsola kali* L., *n* = 27; DK 25536, DK 25538.

**ELAEAGNACEAE**

- Elaeagnus parvifolia* Wall. ex Royle, *n* = 9; DK 23380.  
*Hippophae salicifolia* D. Don, *n* = 9; DK 23370.

**FABACEAE**

- Astragalus candolleanus* Royle, *n* = 8; DK 25973.  
*Astragalus malacophyllus* Benth. ex Bunge, *n* = 8; DK 25971.  
*Astragalus strobiliferus* Royle, *n* = 8; DK 25975.  
*Colutea nepalensis* Sims, *n* = 8; DK 25980, DK 25981, DK 25982.  
*Desmodium elegans* var. *nutans* (Hook.) H. Ohashi, *n* = 11; DK 25960.  
*Desmodium racemosum* DC., *n* = 11; DK 25959.  
*Indigofera himalayensis* Ali, *n* = 8; DK 25821.  
*Medicago falcata* L., *n* = 8; DK 25988.  
*Piptanthus nepalensis* Sweet, *n* = 9; DK 25998.  
*Trigonella emodi* Benth., *n* = 8; DK 25817, DK 25818.  
*Trigonella pubescens* Edgew. ex Baker, *n* = 8; DK 25819.  
*Vicia pallida* Turcz., *n* = 12; DK 25810.

**FUMARIACEAE**

- Corydalis ramosa* Wall., *n* = 8; DK 23375.

**GENTIANACEAE**

- Gentiana argentea* Royle ex D. Don, *n* = 9; DK 23400.

**GERANIACEAE**

- Erodium cicutarium* (L.) L'Her. ex Aiton, *n* = 10; DK 26010

**HYPERICACEAE**

- Hypericum perforatum* L., *n* = 16; DK 23395.

**LAMIACEAE**

- Thymus linearis* Benth., *n* = 13; DK 25928, DK 25930, DK 25933.

**ONAGRACEAE**

- Epilobium hirsutum* L., *n* = 18; DK 25857.  
*Epilobium parviflorum* Schreb., *n* = 18; DK 25855.  
*Oenothera affinis* Cambess., *n* = 14; DK 25851.

**PHYTOLACCAEAE**

- Phytolacca acinosa* Roxb., *n* = 36; DK 25528.

**PRIMULACEAE**

- Androsace rotundifolia* Hardw., *n* = 10; DK 23397.  
*Androsace sarmentosa* Wall., *n* = 10; DK 23398.

**RANUNCULACEAE**

- Aquilegia fragrans* Benth., *n* = 7; DK 23352, DK 23353.  
*Delphinium roylei* Munz, *n* = 8; DK 23357.  
*Thalictrum minus* L., *n* = 7; DK 26052.

**ROSACEAE**

- Fragaria nubicola* Lindl. ex Lacaita, *n* = 7; DK 25894, DK 25895.  
*Potentilla bifurca* L., *n* = 21; DK 26007.

- Potentilla cuneifolia* Bertol., *n* = 14; DK 26008.  
*Rosa brunonii* Lindl., *n* = 7; DK 25896.

**SCROPHULARIACEAE**

- Veronica anagallis-aquatica* L., *n* = 9; DK 25577. *n* = 18; DK 25575, DK 25576, DK 25589.

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**AMARANTHACEAE**

- Amaranthus blitoides* S. Watson, *2n* = 32; Russia, Primorskii Krai, Nechaev 11174 (VLA).

**ASTERACEAE**

- Artemisia annua* L., *2n* = 18; Russia, Amurskaya Oblast', AK 07-87; Russia, Khabarovskii Krai, AK 05-02; Russia, Primorskii Krai, AK 05-41.  
*Artemisia arctica* Less., *2n* = 18; Russia, Kamchatskii Krai, Kamchatka Peninsula, Yefimov 08-05; Russia, Khabarovskii Krai, Antonova 08-10.  
*Artemisia argyi* H. Lév. & Vaniot, *2n* = 36; Russia, Amurskaya Oblast', AK 07-57, AK 07-58; Russia, Primorskii Krai, AK 05-89, AK 05-90, AK 05-91, AK 07-55, AK 07-56.  
*Artemisia borealis* Pall., *2n* = 18; Russia, Kamchatka Peninsula, Yakubov 05-39.  
*Artemisia commutata* Besser, *2n* = 36; Russia, Amurskaya Oblast', AK 07-107, AK 07-108, AK 07-109, AK 07-110, AK 07-111, AK 07-112, AK 07-113, AK 07-114, AK 07-175, AK 07-176, AK 07-177, AK 07-178.  
*Artemisia desertorum* Spreng., *2n* = 18; Russia, Amurskaya Oblast', AK 07-124, AK 07-126, AK 07-134, AK 07-173, AK 07-174. *2n* = 36; Russia, Amurskaya Oblast', AK 07-125, AK 07-127, AK 07-128, AK 07-129, AK 07-130, AK 07-131, AK 07-132, AK 07-133, AK 07-135; Russia, Khabarovskii Krai, AK 05-135, AK 05-136, AK 05-138, AK 05-139, AK 05-140, AK 05-141, AK 05-142; Russia, Primorskii Krai, AK 05-134, AK 05-137.  
*Artemisia feddei* H. Lév. & Vaniot, *2n* = 16; Russia, Primorskii Krai, AK 05-18, AK 05-81, AK 05-82, AK 05-83, AK 05-84.  
*Artemisia freyniana* (Pamp.) Krasch., *2n* = 18; Russia, Amurskaya Oblast', AK 07-77, AK 07-78, AK 07-79, AK 07-80, AK 07-81, AK 07-82, AK 07-84, AK 07-85, AK 07-86; Russia, Primorskii Krai, AK 05-01, AK 05-22, AK 05-23, AK 05-24, AK 07-89.  
*Artemisia glomerata* Ledeb., *2n* = 54; Russia, Kamchatka Peninsula, Yefimov 08-04.  
*Artemisia gmelinii* Weber ex Stechm., *2n* = 54; Russia, Amurskaya Oblast', AK 07-88, AK 07-89, AK 07-90, AK 07-91, AK 07-92, AK 07-93, AK 07-97, AK 07-99; Russia, Khabarovskii Krai, AK 08-34, AK 08-35, AK 05-38; Russia, Primorskii Krai, AK 05-30, AK 05-31, AK 05-32, AK 05-33, AK 05-34, AK 05-36, AK 05-37, AK

- 07-94, AK 07-95, AK 07-96, AK 08-36; Russia, Sakhalin Island, Tkachenko 00-04.
- Artemisia integrifolia* L.,  $2n = 18$ ; Russia, Amurskaya Oblast', AK 07-19, AK 07-21, AK 07-25; Russia, Evreiskaya Avtonomnaya Oblast', AK 05-96; Russia, Khabarovskii Krai, AK 05-12, AK 05-97, AK 05-98, AK 05-99, AK 05-100, AK 05-102, AK 05-103, AK 05-104, AK 08-18; Russia, Sakhalin Island, Smirnov 00-19.  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-17, AK 07-18, AK 07-20, AK 07-22, AK 07-23, AK 07-24, AK 07-179, AK 07-180, AK 07-181, AK 07-183, AK 07-185; Russia, Primorskii Krai, AK 05-95, AK 05-105, AK 05-106, AK 05-107, AK 08-17.
- Artemisia keiskeana* Miq.,  $2n = 18$ ; Russia, Primorskii Krai, AK 05-42, AK 05-43.
- Artemisia koidzumii* Nakai,  $2n = 36$ ; Russia, Khabarovskii Krai, AK 05-11, AK 05-74, AK 05-75, AK 05-76, AK 05-78, AK 05-79, AK 05-80, AK 08-32; Russia, Sakhalin Island, Firsov 08-01, Romanov 05-77.
- Artemisia laciniata* Willd.,  $2n = 18$ ; Russia, Amurskaya Oblast', AK 07-63, AK 07-64, AK 07-65, AK 07-66, AK 07-67, AK 07-68, AK 07-69, AK 07-70, AK 07-71, AK 07-72, AK 07-102, AK 07-103, AK 07-104; Russia, Primorskii Krai, AK 05-03, AK 05-28, AK 05-29; Russia, Kuril Islands, Stupina 11-01, Stupina 11-02, Stupina 11-03, Stupina 11-04.  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-61, AK 07-62, AK 07-172.
- Artemisia lagocephala* Fisch. ex Besser,  $2n = 18$ ; Russia, Primorskii Krai, Alekseyeva 07-155.  $2n = 54$ ; Russia, Amurskaya Oblast', Starchenko 07-60; Russia, Khabarovskii Krai, Antonova 08-12.
- Artemisia leucophylla* Turcz. ex C.B. Clarke,  $2n = 16$ ; Russia, Shantarskie Islands, Krjukova 08-11.
- Artemisia littoricola* Kitam.,  $2n = 36$ ; Russia, Primorskii Krai, Alekseyeva 07-151, AK 05-112, AK 05-115, AK 05-120, AK 05-113, AK 05-114, AK 05-116, AK 05-117, AK 05-118, AK 05-119, AK 08-78; Russia, Sakhalin Island, Tkachenko 00-05.
- Artemisia macilentia* (Maxim.) Krasch.,  $2n = 18$ ; Russia, Amurskaya Oblast', AK 07-136, AK 07-137, AK 07-138, AK 07-140, AK 07-141, AK 07-142.  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-139, AK 07-143, AK 07-144, AK 07-145.
- Artemisia manshurica* (Kom.) Kom.,  $2n = 36$ ; Russia, Primorskii Krai, AK 89-02, AK 05-10, AK 05-108, AK 05-109, AK 05-128, AK 05-129, AK 05-130, AK 05-131, AK 05-133, AK 07-110, AK 07-111, AK 07-122, AK 07-123, AK 08-79.
- Artemisia maximovicziana* Krasch. ex Poljakov,  $2n = 90$ ; Russia, Amurskaya Oblast', AK 07-101; Russia, Khabarovskii Krai, AK 05-04, AK 05-25.
- Artemisia medioxima* Krasch. ex Poljakov,  $2n = ca. 108$ ; Russia, Amurskaya Oblast', AK 07-73, AK 07-74, AK 07-76.  $2n = 126$ ; Russia, Khabarovskii Krai, AK 05-45, AK 05-46.  $2n = 144$ ; Russia, Khabarovskii Krai, AK 05-44.
- Artemisia mongolica* Fisch. ex Besser,  $2n = 16$ ; Russia, Amurskaya Oblast', Starchenko 07-59.
- Artemisia montana* Pamp.,  $2n = 54$ ; Russia, Sakhalin Island, Firsov 08-02.
- Artemisia rubripes* Nakai,  $2n = 16$ ; Russia, Amurskaya Oblast', AK 05-45, AK 05-46, AK 07-38, AK 07-39, AK 07-40, AK 07-41, AK 07-42, AK 07-44, AK 07-47, AK 07-48; Russia, Khabarovskii Krai, AK 05-14, AK 05-15, AK 05-16, AK 05-17, AK 05-50, AK 05-55, AK 05-56, AK 05-57; Russia, Primorskii Krai, AK 05-47, AK 05-48, AK 05-49, AK 05-51, AK 05-52, AK 05-53, AK 05-54, AK 05-58, AK 05-59, AK 05-61, AK 07-43, Alekseyeva 07-152.
- Artemisia schmidtiana* Maxim.,  $2n = 18$ ; Russia, Kuril Islands, Yeryomenko 07-169.
- Artemisia scoparia* Waldst. & Kit.,  $2n = 16$ ; Russia, Republic of Dagestan, Yarovenko 06-70 (10936); Russia, Amurskaya Oblast', AK 07-115, AK 07-116, AK 07-117, AK 07-118, AK 07-119; Russia, Evreiskaya Avtonomnaya Oblast', AK 05-123, AK 05-124; Russia, Khabarovskii Krai, AK 05-09; Russia, Primorskii Krai, AK 07-120, AK 07-121, AK 05-122, AK 05-125, AK 05-127.  $2n = 18$ ; Russia, Primorskii Krai, AK 05-126.
- Artemisia selengensis* Turcz. ex Besser,  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-06, AK 07-09, AK 07-26; Russia, Khabarovskii Krai, AK 05-20; Russia, Primorskii Krai, AK 05-19, AK 05-70, AK 07-07, AK 07-08, AK 08-43.
- Artemisia sieversiana* Ehrh. ex Willd.,  $2n = 18$ ; Russia, Amurskaya Oblast', AK 07-01, AK 07-02, AK 07-03; Russia, Evreiskaya Avtonomnaya Oblast', AK 05-60; Russia, Primorskii Krai, AK 05-08, AK 05-61.
- Artemisia stelleriana* Besser,  $2n = 18$ ; Russia, Primorskii Krai, Alekseyeva 07-154; Russia, Sakhalin Island, Tkachenko 00-02; Russia, Kuril Islands, Tkachenko 00-01.
- Artemisia stolonifera* (Maxim.) Kom.,  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-10, AK 07-11, AK 07-12, AK 07-13; Russia, Primorskii Krai, AK 05-92, AK 05-93, AK 05-94, AK 07-14, AK 07-15.
- Artemisia subulata* Nakai,  $2n = 36$ ; Russia, Amurskaya Oblast', AK 07-27, AK 07-28, AK 07-29, AK 07-30, AK 07-35, AK 07-36, AK 07-37, AK 07-182; Russia, Primorskii Krai, AK 05-69.  $2n = 54$ ; Russia, Amurskaya Oblast', AK 07-31, AK 07-32, AK 07-34, AK 07-184, AK 07-186.
- Artemisia sylvatica* Maxim.,  $2n = 16$ ; Russia, Primorskii Krai, AK 05-65.  $2n = 18$ ; Russia, Primorskii Krai, AK 05-21.
- Artemisia tanacetifolia* L.,  $2n = 54$ ; Russia, Amurskaya Oblast', AK 07-105.
- Artemisia umbrosa* Turcz. ex DC.,  $2n = 36$ ; Russia, Primorskii Krai, Alekseyeva 07-15, AK 08-42.  $2n = 54$ ; Russia, Amurskaya Oblast', AK 07-49, AK 07-50, AK 07-51, AK 07-52, AK 07-53, AK 07-54, AK 07-188; Russia, Evreiskaya Avtonomnaya Oblast', AK 05-85; Russia, Primorskii Krai, AK 05-86, AK 05-87, AK 05-88, AK 08-16.
- Artemisia vulgaris* L.,  $2n = 16$ ; Russia, Sakhalin Island, Romanov 07-16.
- Filifolium sibiricum* (L.) Kitam.,  $2n = 18$ ; Russia, Amurskaya Oblast', AK 07-04 (LE).

#### POACEAE

- Alopecurus aequalis* Sobol.,  $2n = 14$ ; Russia, Leningradskaya Oblast', Tsvelyov 11465 (VLA); Russia, Zabaikal'skii Krai, SK 11951 (IRK, VLA).
- Alopecurus arundinaceus* Poir.,  $2n = 28$ ; Russia, Republic of Burjatia, SK 12024 (IRK, VLA).
- Milium effusum* L.,  $2n = 28$ ; Germany, Kotscheruba 12047 (LE); Slovakia, Kotscheruba 12048 (LE); Ukraine, Kotscheruba & Onishchenko 12049 (LE).
- Panicum bisulcatum* Thunb.,  $2n = 36$ ; Russia, Primorskii Krai, Nechaev 11197 (VLA).
- Poa alpina* L.,  $2n = 42$ ; Russia, Republic of Dagestan, Kotscheruba 11452 (VLA).
- Poa annua* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', Probatova & Seledets 10785 (VLA).

#### ROSACEAE

- Potentilla anserina* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', Probatova & Seledets 10680 (VLA); Russia, Chitinskaya Oblast', Tsyrenova 10718, 10719 (VLA); Russia, Amurskaya Oblast', Tsyrenova 10625 (VLA).
- Potentilla fragarioides* L.,  $2n = 14$ ; Russia, Amurskaya Oblast', Probatova & Seledets 10724 (VLA).
- Potentilla tergemina* Sojak,  $2n = 28$ ; Russia, Amurskaya Oblast', Probatova & Seledets 10738 (VLA).



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All material CHN; collectors: AK = A.E. Kozhevnikov; ZK = Z.V. Kozhevnikova; vouchers in VLA.

**ASTERACEAE**

*Inula helenium* L., 2n = 20; Russia, Primorskii Krai, AK & ZK 791-1.

**CUPRESSACEAE**

*Juniperus davurica* var. *maritima* (Urussov) Kozhevnikova, 2n = 22; Russia, Primorskii Krai, AK & ZK 607-1, AK & ZK 608-1.

*Juniperus rigida* var. *litoralis* (Urussov) Kozhevnikova, 2n = 22; Russia, Primorskii Krai, AK & ZK 607-2, AK & ZK 608-2.

*Juniperus sargentii* (Henry) Takeda ex Nakai, 2n = 22; Russia, Sakhalinskaya Oblast', Sakhalin Island, AK 416-2.

*Juniperus sibirica* Burgsd., 2n = 22; Russia, Chitinskaya Oblast', AK & ZK 381-1; Russia, Primorskii Krai, AK & ZK 483-2.

**EPHEDRACEAE**

*Ephedra distachya* L., 2n = 28; Russia, Primorskii Krai, ZK & AK 801-1.

*Ephedra equisetina* Bunge, 2n = 14; Russia, Primorskii Krai, ZK & AK 801-2.

*Ephedra monosperma* J.G. Gmel. ex C.A. Mey, 2n = 14; Russia, Primorskii Krai, ZK & AK 775-1.

**FABACEAE**

*Lathyrus tuberosus* L., 2n = 14; Russia, Primorskii Krai, AK & ZK 789-1.

*Vicia tetrasperma* (L.) Schreb., 2n = 14; Russia, Primorskii Krai, AK & ZK 771-2.

**MALVACEAE**

*Lavatera thuringiaca* L., 2n = 44; Russia, Primorskii Krai, AK & ZK 796-1.

**POLYGONACEAE**

*Persicaria lapathifolia* (L.) Gray, 2n = 22; Russia, Krasnodarskii Krai, Probatova & Seledets 11287.

**RANUNCULACEAE**

*Pulsatilla cernua* (Thunb.) Bercht. & J. Presl, 2n = 16; Russia, Primorskii Krai, ZK & AK 485-4, ZK & AK 726-1, ZK & AK 732-9, ZK & AK 745-3, ZK & AK 748-2, ZK & AK 755-3, ZK & AK 757-1, ZK & AK 758-3.

*Pulsatilla chinensis* (Bunge) Regel, 2n = 16; Russia, Primorskii Krai, AK & ZK 751-1, ZK & AK 485-3, ZK & AK 732-8, ZK & AK 743-2, ZK & AK 744-2, ZK & AK 745-1, ZK & AK 748-5, ZK & AK 752-1, ZK & AK 752-2, ZK & AK 754-1, AK 705-1, AK 708-1.

*Pulsatilla dahurica* (Fisch. ex DC.) Spreng. (light violet flowers), 2n = 16; Russia, Primorskii Krai, ZK & AK 485-2, ZK & AK 742-1, ZK & AK 745-4, ZK & AK 746-1, ZK & AK 747-1, ZK & AK 748-1, ZK & AK 752-4, ZK & AK 753-1, ZK & AK 758-1, AK & al. 706-2.

*Pulsatilla dahurica* (Fisch. ex DC.) Spreng. (white flowers), 2n = 16; Russia, Primorskii Krai, ZK & AK 747-2.

*Pulsatilla kissii* Mandl, 2n = 16; Russia, Primorskii Krai, ZK & AK 743-1, ZK & AK 748-4. 2n = 32; Russia, Primorskii Krai, ZK & AK 485-1, ZK & AK 732-7, ZK & AK 745-5.

*Pulsatilla turczaninovi* Krylov & Serg., 2n = 16; Russia, Primorskii Krai, ZK & AK 708-1.

**ROSACEAE**

*Exochorda serratifolia* S. Moore, 2n = 16; Russia, Primorskii Krai, AK & ZK 468-1.

**TAXACEAE**

*Taxus cuspidata* Siebold & Zucc., 2n = 24; Russia, Primorskii Krai, AK & ZK 341-1.

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All materials CHN; collectors: TE = T.V. Elisafenko, DK = D.A. Krivenko; vouchers in VLA (Poaceae) & IRK (Violaceae).

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**POACEAE**

*Glyceria spiculosa* (F. Schmidt) Roshev., 2n = 40; Russia, Khabarovskii Krai, N.S. Probatova & V.P. Seledets 7085.

*Glyceria triflora* (Korsh.) Kom., 2n = 20; Russia, Khabarovskii Krai, M.V. Kryukova 9721.

*Hordeum jubatum* L., 2n = 28; Russia, Primorskii Krai, N.S. Probatova & V.P. Seledets 7588.

*Leymus mollis* (Trin.) Hara, 2n = 28; Russia, Primorskii Krai, O.L. Burundukova 9529.

*Ochlopoa annua* (L.) H. Scholz (≡ *Poa annua* L.), 2n = 28; Russia, Primorskii Krai, N.S. Probatova & V.P. Seledets 7401.

*Schedonorus pratensis* (Huds.) P. Beauv., 2n = 14; Russia, Primorskii Krai, N.S. Probatova & V.P. Seledets 7395.

**VIOLACEAE**

*Viola alexandrowiana* Juz., 2n = 24; Russia, Republic of Buryatiya, M.M. Ivanova 22910; Russia, Irkutskaya Oblast', G.P. Semenova & M.M. Ivanova 22503.

*Viola arvensis* Murray, 2n = 34; Russia, Novosibirskaya Oblast', TE 22507.

*Viola biflora* L., 2n = 12; Russia, Republic of Altai, TE 22512.

*Viola czemalensis* Zuev, 2n = 24; Russia, Republic of Altai, Yu.V. Ovchinnikov 22517, TE 22897.

*Viola dactyloides* Roem. & Schult., 2n = 24; Russia, Republic of Sakha (Yakutia), G.P. Semenova & M.M. Ivanova 22506.

*Viola dissecta* Ledeb., 2n = 24; Russia, Republic of Altai, TE 22525, TE 22701; Russia, Novosibirskaya Oblast', TE 22700; Russia, Republic of Buryatiya, TE 22704; Russia, Irkutskaya Oblast', TE & DK 15870, DK 18770. 2n = 48; Russia, Krasnoyarskii Krai, M.M. Ivanova & N.I. Tupitsyna 22524.

*Viola epipsiloides* Á. Löve & D. Löve, 2n = 24; Russia, Irkutskaya Oblast', DK 19725.

*Viola gmeliniana* Roem. & Schult., 2n = 24; Russia, Republic of Buryatiya, TE 19466; Russia, Irkutskaya Oblast', TE & DK 18777.

*Viola incisa* Turcz., 2n = 24; Russia, Irkutskaya Oblast', DK 18767.

*Viola ircutiana* Turcz., 2n = 24; Russia, Republic of Buryatiya, G.P. Semenova & M.M. Ivanova 22505.

- Viola irinae* Zolot.,  $2n = 48$ ; Russia, Republic of Altai, TE 22521; Russia, Novosibirskaya Oblast', TE 22520.
- Viola kamtschadalorum* W. Becker & Hult.,  $2n = 72$ ; Russia, Sakhalinskaya Oblast', Yu.V. Ovchinnikov 22516.
- Viola macroceras* Bunge,  $2n = 24$ ; Russia, Republic of Altai, TE 22519, TE 22518.
- Viola mauritii* Tepl.,  $2n = 20$ ; Russia, Republic of Buryatiya, TE 22705.
- Viola milanae* Vl. V. Nikitin,  $2n = 24$ ; Russia, Republic of Altai, TE 22522, TE 22703; Russia, Republic of Tyva, TE 22523.
- Viola mirabilis* L.,  $2n = 20$ ; Russia, Republic of Altai, TE 22510; Russia, Novosibirskaya Oblast', TE 22509.
- Viola montana* L.,  $2n = 40$ ; Russia, Krasnoyarskii Krai, TE 22702.
- Viola nemoralis* Kütz.,  $2n = 40$ ; Russia, Novosibirskaya Oblast', T.V. Elisafenko 22909.  $2n = 20$ ; Russia, Republic of Buryatiya, DK 20667.
- Viola odorata* L.,  $2n = 20$ ; Armenia, Gegarkunik Oblast', A.V. Karakulov 22508.
- Viola rupestris* F.W. Schmidt,  $2n = 20$ ; Russia, Republic of Altai, TE 22501; Russia, Novosibirskaya Oblast', TE 22502; Russia, Krasnoyarskii Krai, TE 22511.
- Viola sacchalinenensis* H. Boissieu,  $2n = 20$ ; Russia, Republic of Altai, TE 22706; Russia, Republic of Buryatiya, TE 22513, DK 20665.
- Viola selkirkii* Pursh ex Goldie,  $2n = 24$ ; Russia, Republic of Khakassiya, TE 22515; Russia, Republic of Buryatiya, TE 22514.
- Viola uniflora* L.,  $2n = 24$ ; Russia, Novosibirskaya Oblast', TE 22499, TE 22498.
- Viola variegata* Fisch. ex Link,  $2n = 24$ ; Russia, Zabaikal'skii Krai, G.P. Semenova & M.M. Ivanova 22504.
- Viola verecunda* A. Gray,  $2n = 24$ ; Russia, Sakhalinskaya Oblast', Yu.V. Ovchinnikov 22500.

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Chromosome numbers, DNA ploidy levels and genome sizes were counted and estimated by JK = J. Kučera and MS = M. Slovák; vouchers are deposited in SAV. Accessions of *P. rhagadioloides* and *P. pauciflora* from island of Crete were collected by DZ = D. Zelený, JD = J. Danihelka and CHFL = Ch. F. Li.

### COMPOSITAE

*Picris pauciflora* Willd.

$2n = 2x = 10$ , CHN. Greece, JK & MS GRE1.

$2n \sim 2x \sim 10$ ,  $2C = 1.51\text{--}1.65$  pg, FCM. Greece, DZ, JD & CHFL PAUC1-CRETE2, DZ, JD & CHFL PAUC2-CRETE2, DZ, JD & CHFL PAUC3-CRETE2; Macedonia (F.Y.R.O.M.), JK & MS MDD1, JK & MS MDD2, JK & MS MDD3; Turkey, JK & MS ULU1, JK & MS ULU2, JK & MS ULU3, JK & MS TUR2\_1, JK & MS TUR2\_2, JK & MS TUR2\_3, JK & MS TRC1, JK & MS TRC2, JK & MS TRC3.

*Picris rhagadioloides* Willk.

$2n = 2x = 10$ , CHN. Turkey, JK & MS TRD1, JK & MS GRD1.

$2n \sim 2x \sim 10$ ,  $2C = 2.00\text{--}2.13$  pg, FCM. Greece, JK & MS GRA1, JK & MS GRA2, JK & MS GRA3, JK & MS GRD1, JK & MS GRD2, JK & MS GRD3, DZ, JD & CHFL RHAG1-CRETE3, DZ, JD & CHFL RHAG2-CRETE3, DZ, JD & CHFL RHAG3-CRETE3; Turkey, JK & MS EDIR1, JK & MS EDIR2, JK & MS EDIR3, JK & MS TRD1, JK & MS TRD2, JK & MS TRD3.

*Picris strigosa* M. Bieb.

$2n = 2x = 10$ , CHN. Turkey, JK & MS TRD1.

$2n \sim 2x \sim 10$ ,  $2C = 3.88\text{--}3.91$  pg, FCM. Turkey, JK & MS TRD1, JK & MS TRD2.

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All materials CHN; collectors: ML = Maria Lomonosova, AS = Alexander Sukhorukov; voucher specimens in NS unless otherwise stated.

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### CHENOPODIACEAE

*Atriplex fera* (L.) Bunge,  $2n = 18$ ; Russia, Buryatia Republic, ML 431a.

*Atriplex patens* (Litv.) Iljin,  $2n = 18$ ; Russia, Kurgan Oblast', ML 733.  $2n = 36$ ; Kazakhstan, East Kazakhstan Oblast', ML 123, ML 160; Russia, Kurgan Oblast', ML 733a; Russia, Altai Republic, ML 239; Russia, Buryatia Republic, ML 431.

*Atriplex patula* L.,  $2n = 36$ ; Russia, Karelia Republic, ML 769.

*Atriplex sagittata* L.,  $2n = 18$ ; Russia, Khakassia Republic, ML 598.

*Atriplex sibirica* L.,  $2n = 18$ ; Russia, Buryatia Republic, ML 431.

*Chenopodium album* L.,  $2n = 54$ ; Germany, Berlin, 10 Sep 2000, ML s.n.; Kazakhstan, Almaty Oblast', ML & AS 68; Kazakhstan, East Kazakhstan Oblast', ML & AS 71; Russia, Novosibirsk Oblast', ML 266; Russia, Buryatia Republic, ML 450; Russia, Irkutsk Oblast', 25 Sep 2002, Zarubin s.n. (IRKU); Russia, Leningrad Oblast', ML 768

\**Chenopodium atripliciforme* Murr,  $2n = 54$ ; Russia, Altai Krai, 7 Aug 2001, Aebel s.n. (TK).

*Chenopodium novopokrovskianum* (Aellen) Uotila,  $2n = 36$ ; Kazakhstan, Almaty Oblast', ML 52; Russia, Chita Oblast', ML 480.

*Chenopodium strictum* Roth,  $2n = 36$ ; Kazakhstan, East Kazakhstan Oblast', ML & AS 72; Kazakhstan, East Kazakhstan Oblast', ML 107; Russia, Altai Krai, ML 86.

*Chenopodium suecicum* Murr,  $2n = 18$ ; Russia, Karelia Republic, ML 764a, ML 766, ML 769.

\**Corispermum chinganicum* Iljin,  $2n = 18$ ; Kazakhstan, East Kazakhstan Oblast', ML 91.

\**Corispermum macrocarpum* Bunge,  $2n = 18$ ; Russia, Buryatia Republic, Korolyuk 254.

*Corispermum sibiricum* Iljin,  $2n = 18$ ; Russia, Chita Oblast', ML 520; Russia, Buryatia Republic, Kazanovskiy 14980 (IRK).

*Kochia scoparia* (L.) Schrad.,  $2n = 18$ ; Russia, Irkutsk Oblast', 19 Sep 2002, ML s.n.

\*\**Suaeda acuminata* (C.A. Mey.) Moq.,  $2n = 18$ ; Belarus, Minsk Oblast', Dzus 1556.

\*\**Suaeda arcuata* Bunge,  $2n = 18$ ; Kazakhstan, Kyzylorda Oblast', Mamutov 2.

\*\**Suaeda corniculata* (C.A. Mey.) Bunge subsp. *corniculata*,  $2n = 54$ ; \*\*Mongolia, Bayan-Olgii aymaq, Aug 2001, Krasnoborov, & al. s.n.; Russia, Altai Republic, Krasnoborov 97; Russia, Bashkortostan Republic, 15 Aug 2009, Abramova s.n.; Russia, Sakha (Yakutia) Republic, 23 Aug 2004, Zakharova s.n.

*Suaeda microsperma* (C.A. Mey.) Fenzl,  $2n = 18$ ; Kazakhstan, East Kazakhstan Oblast', ML 179, 19 Sep 2001, ML, s.n.; ML & AS 45a.

*Suaeda salsa* (L.) Pall.,  $2n = 36$ ; Russia, Saratov Oblast', 27 Aug 2008, Fedorova s.n.

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All material CHN; collectors: NP = N.S. Probatova, SK = S.G. Kazanovsky; VN = V.A. Nechaev; VS = V.P. Seledets; vouchers in VLA and IRK.

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#### ALISMATACEAE

*Alisma lanceolatum* With.,  $2n = 28$ ; Ukraine, NP 5190.

#### ALLIACEAE

*Allium microdictyon* Prokh.,  $2n = 16$ ; Russia, Republic of Buryatia, SK 11991.

*Allium schoenoprasum* L.,  $2n = 16$ ; Russia, Republic of Buryatia, SK 12025.

*Allium splendens* Willd. ex Schult. f.,  $2n = 32$ ; Russia, Amurskaya Oblast', NP & VS 9449.  $2n = 64$ ; Russia, Amurskaya Oblast', Kapustina 8538.

#### AMARANTHACEAE

*Amaranthus blitoides* S. Watson,  $2n = 32$ ; Russia, Krasnodarskii Krai, NP & VS 11754.

#### ARISTOLOCHIACEAE

*Aristolochia contorta* Bunge,  $2n = 14$ ; Russia, Primorskii Krai, VN 11133.

#### ASPARAGACEAE

*Asparagus brachyphyllus* Turcz.,  $2n = 20$ ; Russia, Zabaikal'skii Krai, SK 11933.

*Asparagus burjatikus* Peschkova,  $2n = 40$ ; Russia, Republic of Buryatia, Krivenko 11995.

*Asparagus davuricus* Fisch. ex Link,  $2n = 20$ ; Russia, Zabaikal'skii Krai, SK 11856.

*Asparagus gibbus* Bunge,  $2n = 40$ ; Russia, Zabaikal'skii Krai, SK 11854.

#### ASTERACEAE

*Achillea asiatica* Serg.,  $2n = 36$ ; Russia, Irkutskaya Oblast', SK 11936.

*Arctium tomentosum* Mill.,  $2n = 36$ ; Russia, Irkutskaya Oblast', SK 11948.

*Centaurea scabiosa* L.,  $2n = 20$ ; Russia, Irkutskaya Oblast', SK 11941.

*Chondrilla brevirostris* Fisch. & C.A. Mey.,  $2n = 15$ ; Russia, Astrakhanskaya Oblast', NP & VS 11577.

*Cirsium serratuloides* Hill,  $2n = 34$ ; Russia, Republic of Buryatia, SK 11745.

*Conyza canadensis* (L.) Cronquist,  $2n = 18$ ; Russia, Krasnodarskii Krai, NP & VS 11594; Russia, Irkutskaya Oblast', SK 11965.

*Crepidiastrum denticulatum* (Houtt.) Pak & Kawano,  $2n = 10$ ; Russia, Primorskii Krai, VN 11958.

*Crepis rhoeadifolia* M. Bieb.,  $2n = 10$ ; Russia, Krasnodarskii Krai, NP & VS 11550.

*Crepis tectorum* L.,  $2n = 8$ ; Russia, Zabaikal'skii Krai, SK 12002.

*Erigeron flaccidus* (Bunge) Botsch.,  $2n = 36$ ; Russia, Republic of Buryatia, SK 11753.

*Galinsoga parviflora* Cav.,  $2n = 16$ ; Russia, Irkutskaya Oblast', SK 11977.

*Helianthus lenticularis* Douglas,  $2n = 34$ ; Russia, Astrakhanskaya Oblast', NP & VS 11628.

*Hieracium umbellatum* L.,  $2n = 27$ ; Russia, Irkutskaya Oblast', SK 11938.

*Ixeris chinensis* (Thunb.) Kitag.,  $2n = 16$ ; Russia, Zabaikal'skii Krai, SK 11993.

*Lactuca serriola* L.,  $2n = 18$ ; Russia, Astrakhanskaya Oblast', NP & VS 11635.

*Leontodon autumnalis* L.,  $2n = 12$ ; Russia, Irkutskaya Oblast', SK 11988.

*Nabulus ochroleuca* Maxim.,  $2n = 16$ ; Russia, Primorskii Krai, VN 11955.

*Phalacrocoma septentrionale* (Fernald & Wiegand) Tzvelev,  $2n = 18$ ; Russia, Krasnodarskii Krai, NP & VS 11651; Russia, Primorskii Krai, NP & VS 11767.

*Pterocypsela indica* (L.) C. Shih,  $2n = 18$ ; Russia, Primorskii Krai, Barkalov 7532.

*Saussurea amara* (L.) DC.,  $2n = 26$ ; Russia, Irkutskaya Oblast', Verkhovina 11984.

*Saussurea parviflora* DC.,  $2n = 26+0-7B$ ; Russia, Republic of Buryatia, SK 11918.

*Senecio vulgaris* L.,  $2n = 40$ ; Russia, Irkutskaya Oblast', SK 12004; Russia, Primorskii Krai, Semeykin 11905.

*Serratula coronata* L.,  $2n = 22$ ; Russia, Irkutskaya Oblast', SK 11947.

*Sonchus arvensis* L.,  $2n = 36$ ; Russia, Irkutskaya Oblast', SK 11966.

*Sonchus asper* (L.) Hill,  $2n = 18$ ; U.S.A., Texas, Rudyka 11548.

*Tanacetum vulgare* L.,  $2n = 18$ ; Russia, Irkutskaya Oblast', SK 11959.

*Taraxacum* cf. *bessarabicum* Hand.-Mazz.,  $2n = 16$ ; Russia, Republic of Buryatia, NP & VS 10488.

*Tripleurospermum inodorum* (L.) Sch. Bip.,  $2n = 36$ ; Russia, Irkutskaya Oblast', SK 11927; Russia, Zabaikal'skii Krai, NP & VS 11108.

*Trommsdorffia maculata* (L.) Bernh.,  $2n = 10$ ; Russia, Irkutskaya Oblast', SK 11697.

#### BORAGINACEAE

*Lappula consanguinea* Gürke,  $2n = 24$ ; Russia, Magadanskaya Oblast', Lyssenko 11790.

*Lappula redowskii* (Hornem.) Greene,  $2n = 24$ ; Russia, Magadanskaya Oblast', Lyssenko 11792.

*Lithospermum officinale* L.,  $2n = 28$ ; Russia, Krasnodarskii Krai, NP & VS 11622.

#### BRASSICACEAE

*Brassica campestris* L.,  $2n = 20$ ; Russia, Irkutskaya Oblast', SK 11954.

*Cardamine macrophylla* Willd.,  $2n = 64$ ; Russia, Irkutskaya Oblast', SK 12020; Russia, Republic of Buryatia, SK 11932.

*Dontostemon integrifolius* (L.) Ledeb.,  $2n = 14$ ; Russia, Irkutskaya Oblast', NP & VS 10766.

*Lepidium densiflorum* Schrad.,  $2n = 32$ ; Russia, Magadanskaya Oblast', Lyssenko 10584.

*Raphanus raphanistrum* L.,  $2n = 18$ ; Russia, Irkutskaya Oblast', SK 11922.

*Rorippa palustris* (L.) Besser,  $2n = 32$ ; Russia, Zabaikal'skii Krai, SK 12008.

**CAMPANULACEAE**

- Campanula patula* L.,  $2n = 18$ ; Russia, Republic of Buryatia, SK 11963.  
*Campanula rapunculoides* L.,  $2n = 68$ ; Russia, Irkutskaya Oblast', SK 11967.

**CARYOPHYLLACEAE**

- Dianthus superbus* L.,  $2n = 30$ ; Russia, Irkutskaya Oblast', SK 11968.  
*Herniaria glabra* L.,  $2n = 18$ ; Russia, Astrakhanskaya Oblast', NP & VS 12016.  
*Minuartia verna* (L.) Hiern,  $2n = 24$ ; Russia, Irkutskaya Oblast', SK 11913.  
*Neoussuria aprica* (Turcz. ex Fisch. & C.A. Mey.) Tzvelev,  $2n = 48$ ; Russia, Irkutskaya Oblast', SK 11987, Krivenko 12014.  
*Oberna behen* (L.) Ikonn.,  $2n = 24$ ; Russia, Irkutskaya Oblast', SK 11935; Russia, Primorskii Krai, Volynets 11907.  
*Silene chamarensis* Turcz.,  $2n = 24$ ; Russia, Republic of Buryatia, SK 12001.  
*Silene jeniseensis* Willd.,  $2n = 24$ ; Russia, Republic of Buryatia, SK 12030.  
*Silene repens* Patr.,  $2n = 48$ ; Russia, Republic of Buryatia, SK 12003.  
*Silene turczaninovii* Lazkov,  $2n = 24$ ; Russia, Republic of Buryatia, SK 11911.  
*Spergula arvensis* L.,  $2n = 18$ ; Russia, Primorskii Krai, VN 11601.  
*Stellaria media* (L.) Vill.,  $2n = 44$ ; Russia, Irkutskaya Oblast', SK 11923.

**CHENOPODIACEAE**

- Atriplex laevis* C.A. Mey.,  $2n = 18$ ; Russia, Irkutskaya Oblast', SK 11945.

**CRASSULACEAE**

- Aizopsis aizoon* (L.) Grulich,  $2n = 32$ ; Russia, Khabarovskii Krai, NP & VS 7200; Russia, Primorskii Krai, Lapenko 11049,  $2n = 64$ ; Russia, Amurskaya Oblast', NP & VS 10930; Russia, Primorskii Krai, Volynets 11368.  
*Aizopsis litoralis* (Kom.) S. Gontch.,  $2n = 32$ ; Russia, Primorskii Krai, SK 11379.  
*Aizopsis selskiana* (Regel & Maack) Grulich,  $2n = 32$ ; Russia, Primorskii Krai, VN 11412; Russia, Primorskii Krai, VN 11080.

**FABACEAE**

- Lotus caucasicus* Kuprian.,  $2n = 16$ ; Russia, Krasnodarskii Krai, Manilo 11587. This voucher specimen (VLA) was misidentified as "*Trigonella monspeliaca* L.," by Probatova & al. in Taxon 59: 1936, E9 (2010).  
*Vicia baicalensis* (Turcz.) B. Fedtsch.,  $2n = 12$ ; Russia, Republic of Buryatia, SK 11691.  
*Vicia sepium* L.,  $2n = 14$ ; Russia, Republic of Buryatia, SK 11696.  
*Vicia unijuga* A. Braun,  $2n = 12$ ; Russia, Republic of Buryatia, SK 11813.

**FUMARIACEAE**

- Corydalis ochotensis* Turcz.,  $2n = 16$ ; Russia, Primorskii Krai, VN 11925.

**GENTIANACEAE**

- Gentianopsis barbata* (Froel.) Ma,  $2n = 78$ ; Russia, Republic of Buryatia, SK 11899.

**GROSSULARIACEAE**

- Ribes triste* Pall.,  $2n = 16$ ; Russia, Primorskii Krai, Barkalov 9841.

**LAMIACEAE**

- Elsholtzia ciliata* (Thunb.) Hylander,  $2n = 16$ ; Russia, Irkutskaya Oblast', SK 11937.

*Galeopsis bifida* Boenn.,  $2n = 32$ ; Russia, Irkutskaya Oblast', NP & VS 10879.

*Leonurus quinquelobatus* Gilib.,  $2n = 18$ ; Russia, Irkutskaya Oblast', SK 11926.

*Nepeta* cf. *annonica* L.,  $2n = 18$ ; Russia, Primorskii Krai, NP & VS 11014.

**MALVACEAE**

*Abutilon theophrasti* Medik.,  $2n = 42$ ; Russia, Irkutskaya Oblast', SK, Gamburg 12005.

*Malva mohilevicensis* Down.,  $2n = 42$ ; Russia, Zabaikal'skii Krai, NP & VS 11107; Russia, Amurskaya Oblast', NP & VS 11624.

*Malva pusilla* Sm.,  $2n = 42$ ; Russia, Amurskaya Oblast', NP & VS 11626.

**PAPAVERACEAE**

*Papaver nudicaule* L.,  $2n = 28$ ; Russia, Zabaikal'skii Krai, SK & Bondarevich 12044, SK 12059.  $2n = 42$ ; Russia, Zabaikal'skii Krai, SK & Chernova 12022.

**PLANTAGINACEAE**

*Plantago lanceolata* L.,  $2n = 12$ ; Russia, Krasnodarskii Krai, NP & VS 11638.

**POACEAE**

*Agropyron desertorum* Schult.,  $2n = 28$ ; Russia, Astrakhanskaya Oblast', NP & VS 11611.

*Agrostis syreistschikowii* P.A. Smirn.,  $2n = 28$ ; Ukraine, NP 5182.

*Anisantha sterilis* (L.) Nevski var. *velutina* (Volkart ex Hegi) Tzvelev,  $2n = 14$ ; Russia, Krasnodarskii Krai, NP & VS 11636.

*Anisantha tectorum* var. *hirsuta* (Regel) Tzvelev,  $2n = 14$ ; Russia, Astrakhanskaya Oblast', NP & VS 12000.

*Brachypodium pinnatum* (L.) P. Beauv.,  $2n = 14$ ; Kazakhstan, Almaatinskaya Oblast', NP & VS 6848.  $2n = 18$ ; Kazakhstan, Almaatinskaya Oblast', NP & VS 5123 (VLA); Russia, Novossibirskaya Oblast', VS 4830.

*Brachypodium sprygini* (Tzvelev) Tzvelev,  $2n = 18$ ; Russia, Krasnodarskii Krai, Manilo 11278.

*Briza elatior* Sibth. & Sm.,  $2n = 14$ ; Russia, Krasnodarskii Krai, Manilo 11644.

*Bromus squarrosus* L.,  $2n = 14$ ; Russia, Krasnodarskii Krai, NP & VS 11604, NP & VS 12035.

*Bromus volgensis* Fisch. ex Jacq.,  $2n = 14$ ; Russia, Krasnodarskii Krai, NP & VS 12028.

*Calamagrostis caucasica* Trin.,  $2n = 28$ ; Russia, Republic of Dagestan, NP 5421.

*Calamagrostis hakonensis* Franch. & Sav.,  $2n = 56$ ; Japan, Hokkaido, VN 7528.

*Cinna latifolia* (Trevir. ex Göpp.) Griseb.,  $2n = 28$ ; Russia, Republic of Buryatia, SK 11950.

*Dactylis glomerata* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', SK 12018.

*Echinochloa spiralis* Vasinger,  $2n = 36$ ; Russia, Primorskii Krai, VN 10439.

× *Elyhordeum arcuatum* W.W. Mitch. & Hodgs.,  $2n = 28$ ; Russia, Khabarovskii Krai, NP & VS 8355.

*Elymus dahuricus* Turcz.,  $2n = 42$ ; Russia, Republic of Buryatia, SK 12013.

*Elymus glabriflorus* Scribn. & C.R. Ball,  $2n = 28$ ; U.S.A., Texas, Rudyka 11425.

*Elymus scandicus* var. *borealis* (Turcz.) Tzvelev,  $2n = 28$ ; Russia, Republic of Sakha-Yakutia, NP & VS 3827; Russia, Magadanskaya Oblast', Mochalova 7745.

*Elytrigia pseudocaesia* (Pacz.) Prokudin,  $2n = 42$ ; Russia, Saratovskaya Oblast', NP & VS 11311. This voucher was misidentified as "*Elytrigia repens* (L.) Nevski", by Probatova & al. in Taxon 58: 1287, E16 (2009).

- Eragrostis minor* Host,  $2n = 40$ ; Russia, Krasnodarskii Krai, NP & VS 11874.  
*Festuca baikalensis* (Griseb.) V.I. Krecz. & Bobr.,  $2n = 42$ ; Russia, Republic of Buryatia, *Chepinoga* 9690.  
*Festuca ovina* L.,  $2n = 14$ ; Russia, Republic of Buryatia, *Chepinoga* 10524.  
*Festuca sibirica* var. *karoii* St.-Yves,  $2n = 28$ ; Russia, Chitinskaya Oblast', *Belikovich* 9836.  
*Hierochloë glabra* Trin.,  $2n = 28$ ; Russia, Irkutskaya Oblast', *Loshakova* 5016; Russia, Chitinskaya Oblast', *Lesnikov* 5234, NP 5889.  
*Lolium perenne* L.,  $2n = 14$ ; Russia, Krasnodarskii Krai, NP & VS 11646.  
*Milium effusum* L.,  $2n = 28$ ; Russia, Republic of Buryatia, SK 11974/368, SK 11979/370.  
*Molinia caerulea* (L.) Moench,  $2n = 36$ ; Russia, Leningradskaya Oblast', NP 4368.  
*Panicum bisulcatum* Thunb.,  $2n = 36$ ; Russia, Primorskii Krai, *Chubarj* 11973.  
*Poa bulbosa* L.,  $2n = 42$ ; Russia, Astrakhanskaya Oblast', NP & VS 11629.  
*Poa kolymensis* Tzvelev,  $2n = 14$ ; Russia, Magadanskaya Oblast', *Lyssenko* 11886/11887.  
*Poa lipskyi* Roshev.,  $2n = 42$ ; Kazakhstan, Almaatinskaya Oblast', *Tsvelyov* 6920.  
*Poa nemoralis* L.,  $2n = 42$ ; Russia, Primorskii Krai, VN 11640.  
*Poa remota* Forselles,  $2n = 14$ ; Russia, Komi Republic, *Lavrenko* 6343.  
*Poa sibirica* Roshev.,  $2n = 14$ ; Russia, Irkutskaya Oblast', SK 11789.  
*Poa transbaicalica* Roshev.,  $2n = 28$ ; Russia, Amurskaya Oblast', NP & VS 4653.  
*Poa vorobievii* Probat.,  $2n = 28$ ; Russia, Primorskii Krai, VN 11366.  
*Schedonorus pratensis* (Huds.) P. Beauv.,  $2n = 14$ ; Russia, Republic of Buryatia, SK 11940.  
*Secale sylvestre* Host,  $2n = 14$ ; Ukraine, NP 4540.  
*Setaria viridis* (L.) P. Beauv.,  $2n = 18$ ; Russia, Krasnodarskii Krai, NP & VS 11641; Russia, Astrakhanskaya Oblast', NP & VS 11621; Russia, Irkutskaya Oblast', SK 12015.  
*Trisetum turcicum* Chrtek,  $2n = 14$ ; CHN. Russia, Republic of Severnaya Ossetia-Alania, *Polyvtsev* 5266.

**POLYGONACEAE**

- Oxyria digyna* Hill,  $2n = 28$ ; Russia, Irkutskaya Oblast', SK & *Pochinchik* 11823.  
*Persicaria lapathifolia* (L.) Gray,  $2n = 22$ ; Russia, Astrakhanskaya Oblast', NP & VS 11619; Russia, Amurskaya Oblast', NP & VS 11122.  
*Rumex ucranicus* Fisch.,  $2n = 40$ ; Russia, Astrakhanskaya Oblast', NP & VS 11631.

**PORTULACACEAE**

- Portulaca oleracea* L.,  $2n = 36$ ; Russia, Primorskii Krai, VN 11625.

**PRIMULACEAE**

- Primula xanthobasis* Fed.,  $2n = 18$ ; Russia, Republic of Buryatia, SK 11821.

**RANUNCULACEAE**

- Aquilegia turczaninovi* Kamelin & Gubanov,  $2n = 16$ ; Russia, Zabaikal'skii Krai, SK 11681.  
*Ranunculus natans* C.A. Mey.,  $2n = 16$ ; Russia, Republic of Buryatia, SK 11994.  
*Ranunculus sceleratus* L.,  $2n = 64$ ; Russia, Zabaikal'skii Krai, SK 11999.

**RESEDACEAE**

- Reseda lutea* L.,  $2n = 48$ ; Russia, Krasnodarskii Krai, NP & VS 11877.

**ROSACEAE**

- Agrimonia pilosa* Ledeb.,  $2n = 56$ ; Russia, Irkutskaya Oblast', SK 11960, SK 11972.  
*Chamaerhodos erecta* (L.) Bunge,  $2n = 14$ ; Russia, Republic of Buryatia, SK 11992.  
*Fragaria orientalis* Losinsk.,  $2n = 28$ ; Russia, Primorskii Krai, VN 10199.  
*Geum aleppicum* Jacq.,  $2n = 42$ ; Russia, Irkutskaya Oblast', SK 11946.  
*Potentilla acervata* Soják,  $2n = 14$ ; Russia, Irkutskaya Oblast', SK 11934; Russia, Amurskaya Oblast', NP & VS 10899.  
*Potentilla approximata* Bunge,  $2n = 28$ ; Russia, Khabarovskii Krai, NP & VS 7298.  
*Potentilla arenosa* (Turcz.) Juz.,  $2n = 28$ ; Russia, Kamchatskii Krai, Kamchatka Peninsula, *Yakubov* 9704.  
*Potentilla argentea* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', SK 11928, SK 12006; Russia, Amurskaya Oblast', *Kapustina* 8961; Russia, Khabarovskii Krai, NP & VS 7885.  
*Potentilla canescens* Besser,  $2n = 42$ ; Russia, Primorskii Krai, *Lapenko* 8144.  
*Potentilla centigrana* Maxim.,  $2n = 14$ ; Russia, Primorskii Krai, NP & VS 10774.  
*Potentilla chinensis* Ser.,  $2n = 14$ ; Russia, Amurskaya Oblast', *Kudrin* 8937.  
*Potentilla flagellaris* Willd. ex Schldl.,  $2n = 14$ ; Russia, Zabaikal'skii Krai, SK 12017.  
*Potentilla fragarioides* L.,  $2n = 14$ ; Russia, Irkutskaya Oblast', *Kalyuzhnyi* 9406; Russia, Primorskii Krai, *Rudyka* 7448.  
*Potentilla inquinans* Turcz.,  $2n = 14$ ; Russia, Zabaikal'skii Krai, SK 11930, *Chernova* & SK 12007.  
*Potentilla nivea* L.,  $2n = 56$ ; Russia, Kamchatskii Krai, Kamchatka Peninsula, *Yakubov* 8419.  
*Potentilla norvegica* L.,  $2n = 56$ ; Russia, Republic of Buryatia, SK 11981; Russia, Magadanskaya Oblast', NP & VS 7201.  
*Potentilla omissa* Soják,  $2n = 14$ ; Russia, Primorskii Krai, NP 9622.  
*Potentilla paradoxa* Nutt. ex Torr. & A. Gray,  $2n = 28$ ; Russia, Zabaikal'skii Krai, SK 11976, SK 12021, *Prelovskaya* & SK 11996.  
*Potentilla sericea* L.,  $2n = 14$ ; Russia, Irkutskaya Oblast', NP & VS 10740.  
*Potentilla supina* L.,  $2n = 28$ ; Russia, Astrakhanskaya Oblast', NP & VS 11615.  
*Sanguisorba officinalis* L.,  $2n = 28$ ; Russia, Irkutskaya Oblast', SK 11943.  
*Sanguisorba tenuifolia* Fisch. ex Link,  $2n = 28$ ; Russia, Primorskii Krai, *Rudyka* 7505.

**SCROPHULARIACEAE**

- Linaria acutiloba* Fisch. ex Rechb.,  $2n = 12+0-4B$ ; Russia, Irkutskaya Oblast', SK 11953.  
*Linaria genistifolia* (L.) Mill.,  $2n = 12$ ; Russia, Krasnodarskii Krai, NP & VS 11876.  
*Linaria vulgaris* Mill.,  $2n = 12$ ; Russia, Irkutskaya Oblast', SK 11939.  
*Veronica anagalloides* Guss.,  $2n = 18$ ; Russia, Primorskii Krai, VN 11863.  
*Veronica longifolia* L.,  $2n = 34$ ; Russia, Irkutskaya Oblast', *Prelovskaya* 11845.  
*Veronica officinalis* L.,  $2n = 36$ ; Russia, Krasnodarskii Krai, NP & VS 11474.

**SOLANACEAE**

- Physalis alkekengi* L.,  $2n = 24$ ; Russia, Krasnodarskii Krai, NP & VS 11879.

**VALERIANACEAE**

- Patrinia rupestris* (Pall.) Duftr.,  $2n = 22$ ; Russia, Primorskii Krai, VN 11971.

*Valeriana alternifolia* Ledeb.,  $2n = 56$ ; Russia, Zabaikal'skii Krai, SK & Chernova 12011.

*Valeriana transjensseensis* Kreyer,  $2n = 56$ ; Russia, Zabaikal'skii Krai, SK 12019.

#### VERBENACEAE

*Verbena officinalis* L.,  $2n = 14$ ; Russia, Krasnodarskii Krai, NP & VS 11589. This voucher specimen (VLA) was misidentified as "*V. hastata* L." by Probatova & al. in Taxon 59: 1937, E10 (2010).

#### VIOLACEAE

*Viola prionantha* Bunge,  $2n = 48$ ; Russia, Primorskii Krai, Barkalov 10499.

*Viola sacchalinesis* H. Boissieu,  $2n = 20$ ; Russia, Irkutskaya Oblast', NP & VS 10768.

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All materials CHN; collectors: AF = A. Fisogni, GC = G. Cristofolini, MR = M. Rossi, VL = V. Lucchetta; vouchers in BOLO

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#### GENTIANACEAE

*Gentiana lutea* L. subsp. *lutea*,  $2n = 40$ ; Italy, MR & AF 504368.

*Gentiana lutea* subsp. *symphyandra* (Murb.) Hayek,  $2n = 40$ ; Italy, MR & VL 502428, MR & VL 502430.

*Gentiana lutea* subsp. *vardjanii* T. Wraber,  $2n = 40$ ; Italy, MR, GC & VL 504364.

*Gentiana lutea* subsp. *montserratii* (Vivant ex Greuter) Romo,  $2n = 40$ ; Spain, MR & AF 504366.

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## IAPT/IOPB chromosome data 13

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Methods are described in Aguilera & al. (2011). Karyotype asymmetry indexes:  $A_1$  and  $A_2$  (Romero Zarco, 1986); AI (Paszko, 2006);  $r > 2$  and R (Stebbins, 1971). Abbreviations: *m*, metacentric; *sm*, sub-metacentric; *i*, centromeric mean.

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## ASTERACEAE

*Angelphytum hatschbachii* H. Rob.

$2n = 64$ , CHN. Argentina, Misiones Province, San Ignacio Department, on the road to Teyú Cuaré, 1 km SE of Paraná River, in open field, 27°17'S, 55°34'W, 14 Apr 2007, Honfi 1317 (MNES) (Fig. 1D).

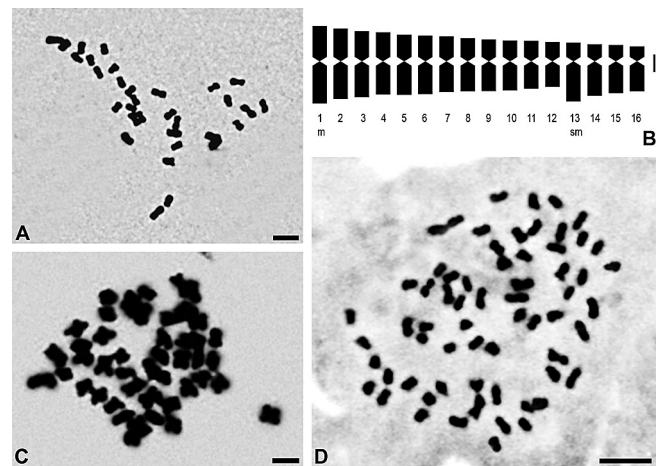
This is the first chromosome count for this species native from northeast Argentina, restricted to Misiones Province (Sáenz, 2008).

*Aspilia montevidensis* (Spreng.) Kuntze var. *montevidensis*

$2n = 44$ , CHN. Argentina, Misiones Province, Candelaria Department, 20 km SE of Paraná River, at the road border, in open field, 27°34'S, 55°34'W, 29 Dec 2006, Aguilera 21 (MNES) (Fig. 1C).

*Aspilia montevidensis* (Spreng.) Kuntze naturally occurs in northeast regions of Argentina (restricted to Chaco, Corrientes, Entre Ríos, Formosa, Santa Fe and Misiones Provinces), Brazil, Paraguay and Uruguay (Sáenz, 2008). Two varieties have been described for this species, *A. montevidensis* var. *montevidensis* and *A. montevidensis* var. *setosa* (Griseb.) Cabrera (Cabrera, 1970). *Aspilia montevidensis* var. *montevidensis* is tetraploid with  $2n = 4x = 44$  chromosomes. Previous chromosome counts in *A. montevidensis* var. *setosa* have shown the existence of a polyploid complex composed by diploids ( $2n = 2x = 22$ ), tetraploids ( $2n = 4x = 46$ ) and hexaploids ( $2n = 6x = 68$ ) with a base number of  $x = 11$ . Cytotypes of this complex are differentially distributed in eastern Argentina (2x), southern Brazil (4x) and southern Paraguay (6x) (Molero & al., 2006). In agreement with this report, our tetraploid cytotype has  $x = 11$  nevertheless at tetraploid level both varieties can be distinguished by morphological features and an additional pair of chromosomes.

All materials for the chromosome column should be submitted electronically to: Karol Marhold, [karol.marhold@savba.sk](mailto:karol.marhold@savba.sk) (Institute of Botany, Slovak Academy of Sciences, SK-845 23 Bratislava, Slovakia, and Department of Botany, Charles University, CZ 128–01 Prague, Czech Republic). The full version of this contribution is available in the online edition of TAXON appended to this article. The following citation format is recommended: Baltisberger, M. & Voelger, M. 2006. *Sternbergia sicula*. In: Marhold, K. (ed.), IAPT/IOPB chromosome data 1. *Taxon* 55: 444, E2.



**Fig. 1.** A–B, *Calea uniflora*: **A**, mitotic metaphase with  $2n = 32$ ; **B**, idiogram showing  $12m + 4sm$  chromosomes. **C**, *Aspilia montevidensis* var. *montevidensis*, mitotic metaphase with  $2n = 44$ . **D**, *Angelphytum hatschbachii*, mitotic metaphase with  $2n = 64$ . — Scale bar is 5 µm for the mitotic metaphases and 1 µm for the idiogram.

*Calea uniflora* Less.

$2n = 32$ , CHN. Argentina, Misiones Province, San Ignacio Department, on the road to Teyú Cuaré, 1 km SE of Paraná River, in sandy soil, in open field, 27°17'S, 55°34'W, 14 Apr 2007, Honfi 1315 (MNES) (Fig. 1A–B).

This taxon occurs in northeast Argentina (restricted to Corrientes, Entre Ríos and Misiones Provinces), Brazil, Paraguay and Uruguay (Sáenz, 2008).

*Calea uniflora* is diploid and possess a karyotype formula of  $24m + 8sm$ . The smallest chromosome has 2.51 µm (*m*) and the largest 4.37 µm (*m*) with a mean chromosome length of 3.17 µm. The karyotype is unimodal ( $A_2 = 0.16$ ;  $R = 1.73$ ) and symmetrical ( $A_1 = 0.28$ ;  $r > 2 = 0.18$ ;  $i = 41.15$ ;  $AI = 1.99$ ) (category 2A of karyotype asymmetry, Stebbins, 1971). The haploid genome has 50.76 µm (Fig. 1B). Our record is added to the contribution of Molero & al. (2006) who observed  $n = 16$  II in populations from Paraguay.

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All investigations have been carried out on root tips of cultivated plants (method see Baltisberger & Widmer, 2009). Indications of chromosome numbers in literature were checked with Goldblatt & Johnson (1979+). Deviating or interesting data are discussed. The nomenclature for chromosome morphology follows Levan & al. (1964) who distinguish 4 groups of chromosomes characterized by the arm ratio (long arm to short arm; metacentric chromosomes [m] with arm ratios between 1.0 and 1.7, submetacentric [sm] 1.7–3.0, subtelocentric [st] 3.0–7.0, and acrocentric [t] more than 7.0).

### ASTERACEAE

*Achillea fragrantissima* (Forssk.) Sch.Bip.

$2n = 18$ , CHN. Egypt, Sinai, surroundings of monastery of St. Catherine, rocky slope, 1 Jan 1997, M. Baltisberger 13219, 13901 (Z/ZT).

The investigated plants of *A. fragrantissima* showed the diploid chromosome number  $2n = 18$  confirming the indication in Badr & al. (1997). The karyotype consists of 14 metacentric and 4 submetacentric chromosomes, the latter with satellites (Fig. 2A). This is (taking in account the quality of the figure in Badr & al., 1997) quite similar to the karyotype with 16 meta- and 2 submetacentric

chromosomes given by Badr & al. (1997). A haploid karyotype with 7 metacentric and 2 satellited submeta- to subtelocentric chromosomes as found in *A. fragrantissima* is indicated for many species of *Achillea*, from diploid up to decaploid levels (e.g. *Achillea umbellata* Sibth. & Sm., diploid in Tzanoudakis & Iatrou, 1981; *A. fraasii* Sch. Bip., tetraploid in Baltisberger, 1993; *A. chrysocoma* Friv. hexaploid in Baltisberger, 1992, and octoploid in Baltisberger & Baltisberger, 1995; *A. cf. clusiana* Tausch, decaploid in Baltisberger, 1992).

*Aster albanicus* Degen

$2n = 18$ , CHN. Albania, 40 km ENE of Tirana, on the road from Burreli to Peshkopia, W of Bulqiza, Qafa e Buallit, steep, rocky slope on serpentine, 700 m, 29 Jul 1991, M. Baltisberger 12481, 12567 (Z/ZT); Albania, W of Lushnja, Karavasta, sand dunes with *Pinus halepensis*, 2–5 m, Nov 1990, A. Mullaj & V. Tartari 12798 (Z/ZT).

*Aster albanicus* is an endemic species of northern Albania related to the rather widespread and polymorphic *Aster sedifolius* L. both characterized by sterile ligules and glandular punctate leaves (Merxmüller & Schreiber, 1976). *Aster albanicus* grows in two rather different ecological habitats viz. sand dunes and forests of *Pinus halepensis* in the littoral of the Adriatic sea as well as on rocks and screes on serpentine from 200 m (near Librazhdi) up to 2300 m (mount Shebenik; Qosja & Puto, 1985). The pappus of plants from the littoral is much longer than the achenes while plants from the serpentine show a pappus about as long as the achenes. Based on these characters Qosja & Puto (1985) treated plants of the two habitats as subspecies and proposed *A. albanicus* subsp. *papiristoi* from the littoral as a new subspecies (not formally published). We measured achenes and pappus of 35 plants from both habitats. The achenes from both habitats are 4–5 mm long (serpentine  $\bar{x} = 4.56 \pm 0.39$  mm; littoral  $\bar{x} = 4.25 \pm 0.36$  mm) but the pappus is different, indeed. The pappus of plants from the littoral is 7–8 mm long ( $\bar{x} = 7.36 \pm 0.42$  mm) whereas plants from the other habitat show a pappus of 4.5–5.5 mm ( $\bar{x} = 5.07 \pm 0.42$  mm). This supports the view of Qosja & Puto (1985).

The plants of both habitats are diploid with  $2n = 18$  chromosomes (Fig. 2B) which corresponds with the indication of Qosja & Puto (1985) for both ecotypes of *A. albanicus* and that of Monti & al. (1978) for the related *A. sedifolius* as well as many indications for other species of the genus *Aster*. Based on four metaphases of plants from each habitat the karyotypes have been established. Plants of both habitats show the same karyotype (Table 1). This karyotype consists of 6 pairs of large metacentric chromosomes (chromosomes no. 1–6), 1 pair of subtelocentric chromosomes (no. 7) with satellites about as large as the small arms, and 2 pairs of smaller metacentric chromosomes (no. 8–9). Chromosomes with about the same arm ratio should be combined in one group if their length differ not more than 10% (Patau, 1960, 1965). This is here the case with the metacentric chromosomes showing two groups each with similar size viz. six pairs of them being large (no. 1–6) and two pairs smaller (no. 8–9).

*Bidens pilosa* L.

$2n = 72$ , CHN. Egypt, Upper Egypt, Assuan, ruderal place, 22 Dec 1996, M. Baltisberger 13292 (Z/ZT).

For *Bidens pilosa* several chromosome numbers are given representing different ploidy levels viz. diploid with  $2n = 24$  chromosomes (indicated as  $n = 12$ ), tetraploid with  $2n = 48$ , hexaploid with  $2n = 72$ , as well as octoploid with  $2n = 96$  (indicated as  $n = 48$ ). The plants from Egypt proved to be hexaploid which is the most common chromosome number for *Bidens pilosa*.

*Centaurea pindicola* Griseb.

$2n = 20$ , CHN. Greece, N. Grevena, SE to SW slope of Mt. Vourinos, SW of Kataphygon near Paleokastron, rocky slope, 1350–1550 m, 9 Aug 1990, M. Baltisberger & U. Schäppi 12599 (Z/ZT).

*Centaurea pindicola* belongs to the subgenus *Cyanus* (Mill.) Hayek (Dostál, 1976) which contains about 30 species (Susanna &

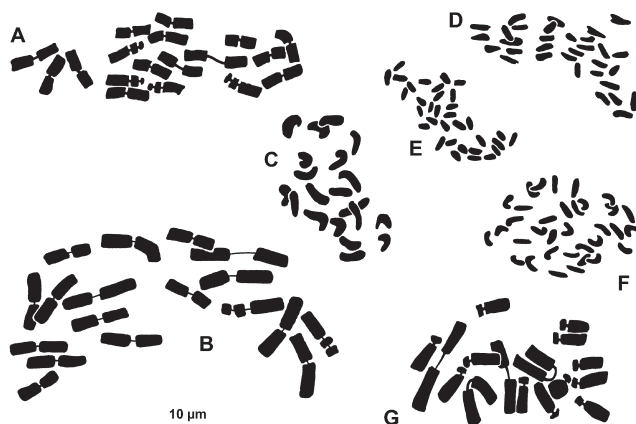


Fig. 2. Somatic metaphases. A, *Achillea fragrantissima*,  $2n = 18$ ; B, *Aster albanicus* (M. Baltisberger 12481),  $2n = 18$ ; C, *Centaurea pindicola*,  $2n = 20$ ; D, *Osteospermum vaillantii*,  $2n = 32$ ; E, *Sempervivum marmoratum*,  $2n = 34$ ; F, *Stachys aegyptiaca*,  $2n = 34$ ; G, *Consolidida ajacis*,  $2n = 16$ .



Garcia-Jacas, 2009). In literature, several chromosome numbers on two ploidy levels are indicated for taxa of this subgenus, viz. diploid with  $2n = 20, 22$  and  $24$ , and tetraploid with  $2n = 40, 44$  and  $48$ . For *Centaurea pindicola* two different chromosome numbers are indicated, both on the tetraploid level,  $2n = 40$  (Baltisberger, 1991a, 2002) and  $2n = ca. 44$  (Strid & Franzén, 1981). The plants from mount Vourinos represent a new ploidy level for this species, they proved to be diploid with  $2n = 20$  chromosomes (Fig. 2C) showing the same basic chromosome number  $x = 10$  as two of the previous indications.

*Hieracium murorum* L.

$2n = 27$ , CHN. Switzerland, ct. Aargau, NW of Villnachern, deciduous forest, 13 May 1998, *M. Baltisberger 13492* (Z/ZT).

For *H. murorum* two ploidy levels are given, triploid with  $2n = 27$  and tetraploid with  $2n = 36$  chromosomes. The plants investigated here are triploid.

*Hieracium pilosella* L.

$2n = 45$ , CHN. Switzerland, ct. Aargau, Villnachern, roadside near railway station, 13 May 1998, *M. Baltisberger 13442, 13490* (Z/ZT).

With the exception of triploid plants, all ploidy levels from diploid to octoploid are indicated for *Hieracium pilosella*, as well as some aneuploid numbers. The plants investigated showed  $2n = 45$  chromosomes and thus are pentaploid.

*Hieracium piloselloides* Vill.

$2n = 36$ , CHN. Switzerland, ct. Zürich, Zürich, campus of University Irchel, ruderal place, 25 May 1998, *M. Baltisberger 13443, 13505* (Z/ZT).

From diploid to hexaploid all ploidy levels are indicated for *H. piloselloides*. With  $2n = 36$  chromosomes the plants from Zurich proved to be tetraploid.

*Osteospermum vaillantii* (Decne.) Norl.

$2n = 32$ , CHN. Egypt, Upper Egypt, Assuan, shadow on ruderal place, 23 Dec 1996, *M. Baltisberger 13294* (Z/ZT).

For *O. vaillantii* two ploidy levels are indicated, diploid with  $2n = 16$  (Spellenberg & Ward, 1988), and tetraploid with  $2n = 32$  (Podlech, 1986), both on plants from Yemen Arab Republic. The plants from Egypt showed  $2n = 32$  chromosomes and proved to be tetraploid (Fig. 2D).

**BRASSICACEAE**

*Draba aizoides* L.

$2n = 16$ , CHN. Switzerland, ct. Valais, SW of Simplonpass, Nanztal, Nanzlicke, scree, 2450 m, 25 Jun 2000, *R. Fächter RF123* (Z/ZT).

**CAMPANULACEAE**

*Campanula cochlearifolia* Lam.

$2n = 34$ , CHN. Switzerland, ct. Baselland, near Ober Hauenstein, ca. 800 m, 1987, *U. Käser 19870074.46* (Z/ZT).

**CARYOPHYLLACEAE**

*Silene uniflora* Roth

$2n = 24$ , CHN. Ireland, near Howth, north coast of the peninsula, rocky place, 28 Oct 2008, *M. Gnesotto 14200* (Z/ZT).

**CRASSULACEAE**

*Sempervivum marmoreum* Griseb.

$2n = 34$ , CHN. Albania, district Kolonja, E of Erseka, Mali i Gramosit, rocky slope, 2400 m, 9 Jul 1994, *P. Vogli PV17* (Z/ZT).

Two ploidy levels are indicated for *S. marmoreum*, diploid with  $2n = 34$  (Uhl, 1961, plants from botanical garden, named as *S. schlehanii* Schott; Zésiger, 1982, origin of the plant material not given; 't Hart & Van Loon, 1982, plants from Greece, named as *S. ballsii* Wale) and tetraploid with  $2n = 68$  (Letz & al., 1999; plants from Slovakia, treated as *S. matricum* by Letz, 2009). This is the first count on plants from Albania. They showed  $2n = 34$  chromosomes and proved to be diploid (Fig. 2E).

**LAMIACEAE**

*Stachys aegyptiaca* Pers.

$2n = 34$ , CHN. Egypt, Sinai, surroundings of monastery of St. Catherine, rocky slope, 1 Jan 1997, *M. Baltisberger 13218, 13293* (Z/ZT).

*Stachys aegyptiaca* belongs to *Stachys* sect. *Ambleia* Benth. (Bhattacharjee, 1980) and grows on rocks and gravels in the East Saharo-Arabian area. Its chromosome number was not known up to now. With 34 chromosomes (Fig. 2F) *S. aegyptiaca* has the same chromosome number as many taxa of different groups within the genus *Stachys* (Baltisberger & Lenherr, 1984) as well as the closely related *S. palaestina* L. (Baltisberger & Widmer, 2004) which also occurs on the Sinai peninsula and elsewhere in the East Saharo-Arabian area.

*Stachys arvensis* L.

$2n = 10$ , CHN. France, Réunion (Indian Ocean), Cirque de Silaos, near Bras Sec, weed in a field of lentils, 12 Oct 1990, *M. Baltisberger 12345, 12369* (Z/ZT).

*Teucrium chamaedrys* L.

$2n = 62$ , CHN. France, SW Alps, Durance valley, WNW of Gap, N of Rabou, near Pont Romain, stony place, 1050 m, 11 May 2000, *M. Baltisberger & K. Krug 13715* (Z/ZT).

*Teucrium chamaedrys* is a widespread and very variable taxon divided into several infraspecific units which mostly are not recognized. Many different chromosome numbers are given (viz.  $2n = 32, 58, 60, 62, 64, 65, 72, 80, 96$ ) but no apparent correlation seems to exist between chromosome number and geographical distribution (map see Baltisberger & Baltisberger, 1995). Nevertheless, the chromosome number of  $2n = 62$  seems to be the most frequent one occurring in a rather broad (mainly Mediterranean) area from Spain to Bulgaria.

**RANUNCULACEAE**

*Consolida ajacis* (L.) Schur ( $\equiv$  *Delphinium ajacis* L.)

$2n = 16$ , CHN. Netherlands, Amsterdam, ruderal place, 13.8.1998, *MB & D. Frey 13485* (Z/ZT).

**Table 1.** Chromosome values (in  $\mu\text{m}$ ) of *Aster albanicus* from both habitats.

Habitat	Chromosome no.	Long arm		Short arm		Satellite		Arm ratio	Chromosome type
		$\bar{x}$	<i>s</i>	$\bar{x}$	<i>s</i>	$\bar{x}$	<i>s</i>		
Mountains	1–6	2.22	0.28	2.00	0.26	–	–	1.11	m
	7	2.20	0.12	0.60	0.08	0.59	0.05	3.67	st
	8–9	1.68	0.12	1.41	0.09	–	–	1.19	m
Littoral	1–6	2.33	0.28	2.06	0.26	–	–	1.13	m
	7	2.25	0.09	0.63	0.09	0.61	0.11	3.57	st
	8–9	1.70	0.10	1.46	0.12	–	–	1.16	m

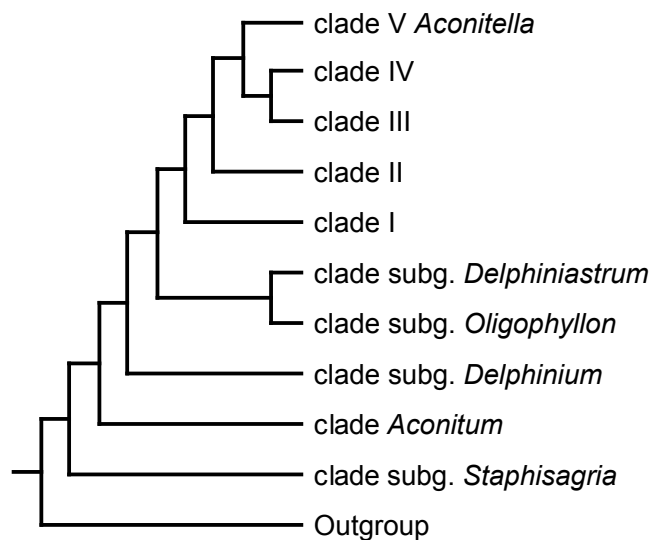
The genus *Consolida* comprises about 43 strictly annual species that have only one single follicle per flower while the closely related genus *Delphinium* with more than 300 species is mostly biennial or perennial, the plants having 3 (or more) follicles per flower (Tamura, 1993). Since more than 100 years the two genera have been mostly treated as separate units in Floras and papers. But in a recently published phylogenetic study it is shown that the genus *Consolida* is embedded in *Delphinium* forming together with *Aconitella* (another genus of *Delphinium* s.l.) a clade of annual species (Jabbour & Renner, 2011). Accepting the principle that taxonomic entities are monophyletic and taking into account that the two annual genera *Aconitella* and *Consolida* are nested within *Delphinium* they might be transferred in future into *Delphinium* (Jabbour & Renner, 2011).

The here investigated *C. ajacis* is diploid with  $2n = 16$  chromosomes. The karyotype consists of two pairs of large meta- to submetacentric chromosomes, one pair with satellites, and six pairs of smaller subtelocentric chromosomes (Fig. 2G). This corresponds with the karyotypes given for *C. ajacis* by Kurita (1955, named as *Delphinium ajacis* L.), Trifonova (1973, named as *C. ambigua* (L.) Ball & Heywood), Blanché & al. (1987) and Simon & al. (1995). Similar karyotypes are indicated for other species of *Consolida* viz. *C. divaricata* (Ledeb.) Schrödinger (Trifonova, 1973), *C. orientalis* (Gay) Schrödinger (Trifonova, 1973; Blanché & al., 1987), *C. regalis* S.F. Gray (Trifonova, 1973; Šopova & Sekovski, 1981; Baltisberger & Widmer, 2009), and *C. regalis* subsp. *paniculata* (Host) Soó (Trifonova, 1973; Baltisberger, 1987, named as *Delphinium paniculatum* Host; Simon & al., 1995). But not all taxa of the genus *Consolida* show the same karyotype. A different karyotype with three pairs of large meta- to submetacentric and five pairs of subtelocentric chromosomes is indicated for *C. mauritanica* (Cosson) Muntz and *C. pubescens* Soó (Blanché & al., 1987).

The same karyotype as in *C. ajacis* seems to be rather frequent in *Delphinium* s.l. (Yang & al., 1993; Yang, 1996, 2001) but at least two additional karyotypes occur within *Delphinium* s.l., one with the same chromosome number  $2n = 16$  and one with  $2n = 18$ . Searching for karyotype information on taxa included in the phylogenetic study of Jabbour & Renner (2011) indications for the following species were found: A karyotype with two pairs of large meta- to submetacentric and six pairs of smaller subtelocentric chromosomes (as in *Consolida ajacis*) is indicated for *Aconitella barbata* (Bunge) Soják

(Trifonova & Zemskova, 1986), *Delphinium delavayi* Franch. (Yang & al., 1993; Yang, 2001), and *D. grandiflorum* L. (Yang, 2001). Another karyotype with one pair of large meta- to submetacentric and seven pairs of subtelocentric chromosomes is given for *D. cossonianum* Batt. (Blanché & al., 1990), *D. favargerii* Blanché, Molero & Simon (Bosch & al., 2002), *D. gracile* DC. (Blanché, 1991), *D. halteratum* Sm. (Šopova & Sekovski, 1982; Blanché, 1991; Simon & al., 1995), *D. macropetalum* DC. (Blanché & al., 1990), and *D. peregrinum* L. (Baltisberger, 1991b; Constantinidis & al., 1997). A species with a deviating chromosome number of  $2n = 18$  is *D. staphisagria* L. with a karyotype of one pair of large meta- to submetacentric and eight pairs of subtelocentric chromosomes (Constantinidis & Kamari, 1995; Simon & al., 1995; Bareka & al., 2000; Bosch & al., 2002). This karyotype could have evolved from the frequent karyotype of two pairs of large metacentric and six pairs of smaller subtelocentric chromosomes (see above) and altered by the break-off of one of the large meta- to submetacentric chromosomes into two subtelocentric chromosomes. This hypothesis might be supported by *D. pictum* Willd., a species closely related to *D. staphisagria*, with a karyotype of two pairs of large metacentric and six pairs of smaller subtelocentric chromosomes (Simon & al., 1995).

It is interesting that species nested within a given clade in the phylogenetic tree of Jabbour & Renner (2011) mostly show the same karyotype, so *Consolida regalis* and *C. regalis* subsp. *paniculata* (clade I), *C. ajacis* and *C. orientalis* (clade II), *C. mauritanica* and *C. pubescens* (clade III), and *Delphinium cossonianum*, *D. favargerii*, *D. gracile*, *D. halteratum*, *D. macropetalum*, *D. peregrinum* (clade *Delphinium* subg. *Delphinium*). As mentioned in the discussion in Jabbour & Renner (2011) *D. pictum* (not included in the tree) belongs to the clade *Delphinium* subg. *Staphisagria*, the same clade as *D. staphisagria*. Only *D. balansae* Boiss. & Reuter nested in the clade *Delphinium* subg. *Delphinium* shows a deviating karyotype (Blanché & al., 1990). Taxa in the neighbouring clades I, II, V *Aconitella*, *Delphinium* subg. *Delphinastrum*, *Delphinium* subg. *Oligophyllon*, and *Delphinium* subg. *Delphinium* all have the same karyotype, but different karyotypes show the clades III and *Delphinium* subg. *Staphisagria* with separated positions within the phylogenetic tree (Fig. 3) It seems that it would be worth investigating karyotypes of further species of *Delphinium* s.l. and to include more taxa in molecular phylogenies to check if karyotypes are useful to support the phylogeny of *Delphinium* s.l. as it seems to be the case in the genus *Ranunculus* (Hörandl, pers. comm.; Baltisberger & Widmer, 2009).



**Fig. 3.** Phylogenetic relationship of the clades as shown in Jabbour & Renner (2011). Note that clade IV (no karyotype information available) and clade *Aconitum* are not mentioned in the discussion here. (Fig. 3 created by Reto Nyffeler.)

*Ranunculus sceleratus* L.

$2n = 32$ , CHN. Netherlands, Amsterdam, wet ruderal place, 13 Aug 1998, M. Baltisberger & D. Frey 13486 (Z/ZT).

Several ploidy levels from diploid to octoploid are indicated for *R. sceleratus*, as well as some aneuploid numbers. The plants investigated showed  $2n = 32$  chromosomes and thus are tetraploid which is the most frequent number within this species.

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\* First chromosome count for the species.

\*\* New chromosome number (cytotype) for the species.

▼ First chromosome count from an East Siberian accession.

▼▼ First chromosome count from a Siberian accession.

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**ACORACEAE***Acorus calamus* L.

$2n = 36$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuchei village, floodplain of right riverside of Onon River, oxbow lake Pashutkino, in shallow water, 663 m, 50°31'N, 115°02'E, 05 Aug 2008, *P. Lubogoschinsky C776* (IRKU, VLA).

**ALISMATACEAE***Alisma orientale* (Sam.) Juz.

▼▼  $2n = 14$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, nearby Ust'-Borzia village, river Borzia, on bank, 600 m, 50°35'N, 115°40'E, 09 Jul 2008, *P. Lubogoschinsky C713* (IRKU).

*Sagittaria natans* Pall.

$2n = 22$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 5 km SW of Cheremkhovo village, River Ingoda, on bank, 51°28'N, 112°43'E, 11 Aug 2007, *A. Gnutikov & I. Enushchenko C612* (IRKU).

*Sagittaria trifolia* L.

$2n = 22$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, nearby Ust'-Borzia village, river Borzia, on bank, 600 m, 50°35'N, 115°40'E, 09 Jul 2008, *P. Lubogoschinsky C711* (IRKU, VLA).

**APIACEAE***Cicuta virosa* L.

$2n = 22$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khमार-Daban mountains, 1 km S of Baikal Lake, Tankhoi village, in roadside ditch, 516 m, 51°32'N, 105°07'E, 15 Jul 2009, *R. Moriz C1076*, *R. Moriz C1077*, *R. Moriz C1079* (IRKU, VLA).

**ASTERACEAE***Inula britannica* L.

$2n = 32$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, nearby Ust'-Borzia village, river Borzia, on bank, 600 m, 50°35'N, 115°40'E, 09 Jul 2008, *P. Lubogoschinsky C712* (IRKU, VLA).

*Saussurea amara* (L.) DC.

$2n = 26$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 3 km NW of Yasnaya village, floodplain of Turga River, meadow, 595 m, 50°50'N, 115°45'E, 13 Jul 2008, *P. Lubogoschinsky & A. Kononov C721* (IRKU, VLA).

*Taraxacum delabatum* Hand.-Mazz.

▼  $2n = 32$ , CHN. Russia, East Siberia, Buryatia Republic, Mukhorshibirskii Raion, 3 km S of Sagan-Nur village, salty lake Olon-Sheber, wet meadow, 51°18'N, 108°25'E, 05 Aug 2007, *A. Gnutikov & V. Chepinoga C562* (IRKU, VLA).

*Tephrosieris palustris* (L.) Rchb.

▼  $2n = 48$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE Bolshevik village, salty lake Balyktui, on shore, 676 m, 50°24'N, 114°42'E, 03 Jul 2008, *P. Lubogoschinsky C695* (IRKU, VLA).

*Tripolium vulgare* Nees

▼  $2n = 18$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, on shore of Zun-Torei, 609 m, 50°00'N, 115°42'E, 27 Jul 2008, *P. Lubogoschinsky C759* (IRKU, VLA).

**BORAGINACEAE***Myosotis caespitosa* K.F. Schultz

$2n = 48$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE Bolshevik village, lakeside of salty lake Balyktui, wet meadow, 676 m, 50°24'N, 114°42'E, 04 Jul 2008, *P. Lubogoschinsky C699* (IRKU, VLA).

**BUTOMACEAE***Butomus junceus* Turcz.

$2n = 26$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, nearby Ust'-Borzia village, river Borzia, on bank, 600 m, 50°35'N, 115°40'E, 09 Jul 2008, *P. Lubogoschinsky C710* (IRKU, VLA).

**CARYOPHYLLACEAE***Spergula arvensis* L.

▼  $2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Cheremkhovskii Raion, 5 km SSW Lokhovo village, nearby oxbow lake Kobilya Golova, roadside, 52°47'N, 102°58'E, 21 Jul 2003, *A. Verkhovina & N. Yakovchiz C863* (IRKU).

*Stellaria bungeana* Fenzl

\* $2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludianskii Raion, Khमार-Daban mountains, 8 km S of Baikal lake, lower course of Snezhnaya River, edge of poplar forest, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, *R. Moriz C928* (IRKU).

*Stellaria cherleriae* (Fisch. ex Ser.) F.N. Williams

\* $2n = 52$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 8 km W of Gunei village, left riverside of Onon River, lakeside of oxbow lake Krovoo, in grassland steppe, 655 m, 50°30'N, 114°25'E, 17 Jul 2008, *A. Kononov & M. Isaikina C650*; Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 9 km SWW of Kunkur village, left riverside of Onon River, on rock, 676 m, 50°32'N, 115°02'E, 27 Jun 2008, *M. Isaikina C673* (IRKU).

*Stellaria dichotoma* L.

\*\* $2n = 44$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 15 km S of Kulusutai village, between Zun-Torei and Barun-Torei lakes, on the shore of Zun-Torei, 601 m, 50°06'N, 115°41'E, 28 Jul 2008, *S. Rosbakh C649* (IRKU).

**CHENOPODIACEAE***Kalidium foliatum* (Pall.) Moq.

$2n = 18$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 10 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, in steppe, 593 m, 48°58'N, 115°43'E, 27 Jul 2008, *P. Lubogoschinsky C758* (IRKU, VLA).

*Kochia angustifolia* (Turcz.) Peshkova

▼  $2n = 18$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, on the shore of Zun-Torei, 595 m, 50°00'N, 115°42'E, 30 Jul 2008, *P. Lubogoschinsky C764* (IRKU).

*Salicornia perennans* Willd.

$2n = 18$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoiutskii Raion, 17 km N of Nurinsk village, salty lake Barun-Nur, on shore, 625 m, 50°08'N, 115°38'E, 11 Jul 2008, *P. Lubogoschinsky C717* (IRKU, VLA).

**CYPERACEAE***Eleocharis palustris* (L.) Roem. & Schult.

$2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 3 km NE of Cheremkhovo village, left riverside of Ingoda River, in shallow water, 51°28'N, 112°44'E, 24 Jun 2008, *P. Lubogoschinsky C656* (IRKU).

**HYDROCHARITACEAE***Elodea canadensis* Michx.

▼ $2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, Khamar-Daban mountains, 10 km S of Baikal lake, lower course of Snezhnaya River, lakes Teplye, in water, 492 m, 51°23'N, 104°38'E, 01 Jul 2009, *V. Chepinoga* & *R. Moriz* C957 (IRKU).

**NITRARIACEAE***Nitraria sibirica* Pall.

\*\* $2n = 30$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, on the shore of Zun-Torei, 595 m, 50°00'N, 115°42'E, 30 Jul 2008, *P. Lubogoschinsky* C765 (IRKU).

**ORCHIDACEAE***Spiranthes sinensis* (Pers.) Ames

▼ $2n = 30$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoi-tuyskii Raion, 6 km NE Kusocha village, floodplain of right riverside of Onon River, wet meadow, 571 m, 50°44'N, 115°42'E, 13 Jul 2008, *P. Lubogoschinsky* C727 (IRKU, VLA).

**PLANTAGINACEAE***Plantago depressa* Schlecht.

$2n = 12$ , CHN. Russia, East Siberia, Irkutskaya Oblast', downtown of Irkutsk city, Kirov square, 52°17'N, 104°16'E, 22 Jun 2005, *A. Chepinoga* & *B. Batbaiar* C087 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 8 km S of Yasnaya village, lakeside of salty lake Khara-Nur, in feather grass steppe, 635 m, 50°45'N, 115°46'E, 13 Jul 2008, *A. Konovalov*, *M. Isaikina* & *P. Lubogoschinsky* C800 (IRKU).

*Plantago major* L.

$2n = 12$ , CHN. Russia, East Siberia, Irkutskaya Oblast', downtown of Irkutsk city, Kirov square, 52°17'N, 104°16'E, 22 Jun 2005, *A. Chepinoga* & *B. Batbaiar* C091 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 5 km S of Krasnaya Imalka village, salty lake Ara-Torom, on shore, 618 m, 50°12'N, 115°17'E, 26 Jul 2008, *A. Konovalov* & *K. Fleckenstein* C801 (IRKU).

*Plantago salsa* Pall.

▼ $2n = 12$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, salty lake Khotochei, on shore, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *P. Lubogoschinsky* C694 (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, salty lake Khotochei, on shore, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *A. Konovalov* & *M. Isaikina* C802 (IRKU).

**POACEAE***Agrostis clavata* Trin.

$2n = 42$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, surroundings of Bolshoi Lug village, anthropogenic meadow, 52°06'N, 104°06'E, 02 May 2005, *V. Chepinoga* C130 (IRKU).

*Agrostis gigantea* Roth

$2n = 28$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 1 km S of Baikal Lake, surroundings of Tankhoi village, lower course of Osinovka River, on bank, 469 m, 51°32'N, 105°05'E, 15 Jul 2009, *R. Moriz* C1075 (IRKU, VLA).

*Deschampsia cespitosa* (L.) P. Beauv.

$2n = 26$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 1.5 km S of Baikal Lake,

surroundings of Tankhoi village, meadow, 498 m, 51°32'N, 105°06'E, 06 Jul 2009, *R. Moriz* C1009 (IRKU); Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, *P. Lubogoschinsky* C1052 (IRKU, VLA).

*Glyceria lithuanica* (Gorski) Gorski

▼ $2n = 20$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Tulunskii Raion, 7 km SW of Uygat village, right riverside of Kirei River, mixed forest, 54°02'N, 100°32'E, 09 Aug 1999, *V. Chepinoga* & *A. Chepinoga* C832 (IRKU).

*Glyceria triflora* (Korsh.) Kom.

$2n = 20$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoi-tuyskii Raion, 6 km NE of Kusocha village, floodplain of right riverside of Onon River, oxbow lake Ledianoe, on shore, 571 m, 50°44'N, 115°42'E, 13 Jul 2008, *V. Chepinoga* & *S. Rosbakh* C814 (IRKU).

*Phragmites australis* (Cav.) Trin. ex Steud.

▼ $2n = 56$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 10 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, in steppe, 593 m, 48°58'N, 115°43'E, 27 Jul 2008, *P. Lubogoschinsky* C754 (IRKU, VLA).

*Poa supina* Schrad.

$2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, surroundings of Bolshoi Lug village, anthropogenic meadow, 52°06'N, 104°06'E, 02 May 2005, *V. Chepinoga* C129 (IRKU).

*Puccinellia hauptiana* V.I. Krecz.

$2n = 28$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km S of Sherlovaya Gora town, lakeside of Khara-Nor lake, meadow, 650 m, 50°29'N, 116°20'E, 28 Jun 2008, *A. Konovalov* & *M. Isaikina* C789 (IRKU).

*Puccinellia macranthera* V.I. Krecz.

$2n = 28$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km E of Soloviovsk village, on the shore of Zun-Torei lake, 597 m, 49°59'N, 115°50'E, 29 Jul 2008, *V. Chepinoga* & *S. Rosbakh* C651 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 5 km S of Krasnaya Imalka village, salty lake Ara-Torom, on shore, 618 m, 50°12'N, 115°17'E, 26 Jul 2008, *V. Chepinoga* C652 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km NW of Borzia town, salty lake Kholbo (Elf-Nur), saline meadow, 695 m, 50°27'N, 116°27'E, 30 Jun 2008, *P. Lubogoschinsky* C678 (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, salty lake Khotochei, on shore, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *P. Lubogoschinsky* C688 (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 17 km ESE of Ust'-Borzia village, salty lake Ekhe-Zagan-Nor, on shore, 50°33'N, 115°52'E, 10 Jul 2008, *V. Chepinoga* & *S. Rosbakh* C841 (IRKU).

*Puccinellia tenuiflora* (Griseb.) Scribn. & Merr.

$2n = 14$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 3 km NW of Yasnaya village, Turga River, in shallow water, 595 m, 50°50'N, 115°45'E, 13 Jul 2008, *V. Chepinoga* & *S. Rosbakh* C653 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 17 km ESE of Ust'-Borzia village, salty lake Ekhe-Zagan-Nor, on shore, 649 m, 50°33'N, 115°52'E, 10 Jul 2008, *V. Chepinoga* & *S. Rosbakh* C654 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, salty lake Khotochei, on shore, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *P. Lubogoschinsky* C689 (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Ononskii

Raion, 10 km SE of Builesan village, salty lake Zagan-Nor, on shore, 678 m, 50°11'N, 114°57'E, 24 Jul 2008, *V. Chepinoga C788* (IRKU).

#### POLYGONACEAE

*Rheum rhabarbarum* L.

$2n = 44$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 17 km S of Kubukhai village, salty lake Ukshinda, on shore, 655 m, 50°20'N, 114°49'E, 06 Jul 2008, *A. Kononov & M. Isaikina C790* (IRKU).

*Rumex acetosella* L.

$2n = ca. 42$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 14 km S of Kubukhai village, lake Baimbulak, on shore, 663, 50°22'N, 114°48'E, 05 Jul 2008, *V. Chepinoga C792* (IRKU).

*Rumex maritimus* L.

▼▼  $2n = 40$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuchei village, floodplain of right riverside of Onon River, oxbow lake, in shallow water, 663, 50°31'N, 115°02'E, 05 Aug 2008, *V. Chepinoga & S. Rosbakh C791* (IRKU).

*Rumex pseudonatronatus* (Borbas) Borbas ex Murb.

$2n = 20$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ziminskii Raion, Ignai village, riverside of Zima River, meadow, 53°48'N, 101°36'E, 11 Jul 2005, *A. Gnutikov & V. Mozer C194* (IRKU); Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 1.5 km S of Baikal lake, lower course of Anosovka River, on bank, 470 m, 51°31'N, 104°57'E, 14 Jul 2009, *R. Moriz C1068* (IRKU, VLA).

#### POTAMOGETONACEAE

*Potamogeton compressus* L.

$2n = 26$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyaninskii Raion, 14 km NNE of Olovyannaya, right riverside of Onon River, opposite of Zugol village, in oxbow lake, 51°02'N, 115°38'E, 17 Jun 2007, *A. Gnutikov & I. Enushchenko C397* (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 8 km W of Gunei village, left riverside of Onon River, oxbow lake Krovov, in shallow water, 655 m, 50°30'N, 114°25'E, 18 Jul 2008, *P. Lubogoshinsky, S. Rosbakh & V. Chepinoga C736* (IRKU, VLA).

*Potamogeton pectinatus* L.

▼  $2n = ca. 78$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyaninskii Raion, 14 km NNE of Olovyannaya, right riverside of Onon River, opposite of Zugol village, in oxbow lake, 51°02'N, 115°38'E, 17 Jun 2007, *A. Gnutikov & I. Enushchenko C396* (IRKU).

#### PRIMULACEAE

*Glaux maritima* L.

$2n = 30$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km S of Sherlovaya Gora town, Khara-Nor lake, saline meadow, 650 m, 50°29'N, 116°20'E, 28 Jun 2008, *P. Lubogoshinsky C674* (IRKU).

#### RANUNCULACEAE

*Aconitum septentrionale* Koelle

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, Khamar-Daban mountains, 8 km S of lake Baikal, lower course of Snezhnaya River, edge of poplar forest, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, *R. Moriz C954* (IRKU); Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 2 km S of Baikal lake, lower course of Pereemnaya River, on bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, *R. Moriz C1021* (IRKU).

*Anemone baicalensis* Turcz. ex Ledeb.

▼  $2n = 28$ , CHN. Russia, East Siberia, Buryatia Republic,

Kabanskii Raion, Khamar-Daban mountains, 2 km S of Baikal Lake, lower course of Pereemnaya River, on bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, *R. Moriz C1022* (IRKU); Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, *P. Lubogoshinsky C1047* (IRKU).

*Atragene speciosa* Weinm.

$2n = 16$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 11 Jul 2009, *P. Lubogoshinsky C1053* (IRKU, VLA).

*Batrachium kauffmannii* (Clerc) V.I. Krecz.

$2n = 32$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ziminskii Raion, Ignai village, Zima River, in river flow, 479 m, 53°47'N, 101°37'E, 20 Aug 2009, *V. Chepinoga & Z. Kaplan C1086* (IRKU, VLA).

*Batrachium trichophyllum* (Chaix) Bosch

$2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 14 km W of Sherlovaya Gora town, southern part of Adon-Chelon mountains, in brook, 779 m, 50°31'N, 116°10'E, 01 Aug 2008, *P. Lubogoshinsky C768* (IRKU, VLA).

*Caltha membranacea* (Turcz.) Schipcz.

$2n = 32$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 2 km SW of Tataurovo village, Setrinitsa River (left tributary of Ingoda River), in shallow water, 707 m, 51°35'N, 112°54'E, 25 Jun 2008, *V. Chepinoga C661* (IRKU).

*Caltha palustris* L.

$2n = 32$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 7 km S of Baikal Lake, middle course of Osinovka River, on bank, 639 m, 51°29'N, 105°08'E, 09 Jul 2009, *R. Moriz C1038* (IRKU).

$2n = 60$ , CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 1.5 km S of Baikal Lake, lower course of Mishikha River, on bank, 478 m, 51°38'N, 105°32'E, 12 Jul 2009, *R. Moriz C1061* (IRKU).

*Halerpestes salsuginosa* (Pall. ex Georgi) Greene

$2n = 48$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE Bolshevik village, salty lake Balyktui, on shore, 676 m, 50°24'N, 114°42'E, 03 Jul 2008, *P. Lubogoshinsky C698* (IRKU, VLA).

*Halerpestes sarmentosa* (Adams) Kom.

$2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE Bolshevik village, salty lake Balyktui, on shore, 676 m, 50°24'N, 114°42'E, 03 Jul 2008, *P. Lubogoshinsky C696* (IRKU, VLA).

*Leptopyrum fumarioides* (L.) Rchb.

$2n = 14$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Khilokskii Raion, southern surroundings of Khilok town, on wasteland, 51°19'N, 110°27'E, 23 Jun 2008, *A. Kononov, M. Isaikina, P. Lubogoshinsky & K. Fleckenstein C881* (IRKU).

*Pulastilla ambigua* (Turcz. ex Pritz.) Juz.

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', floodplain of Irkut River, near the railway station "Cheremushki", meadow, 51°16'N, 104°11'E, 10 Jun 2008, *S. Bukin, D. Abdullin & D. Zhgulev C823* (IRKU).

*Ranunculus chinensis* Bunge

2n = 16, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuhei village, floodplain of Onon River, oxbow lake, on shore, 663 m, 50°31'N, 115°02'E, 27 Jun 2008, P. Lubogoshchinsky C668 (IRKU, VLA).

*Ranunculus gmelinii* DC.

2n = 16, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 2 km SW of Tataurovo village, Setrinitisa River (left tributary of Ingoda River), shallow water, 707 m, 51°35'N, 112°54'E, 25 Jun 2008, V. Chepinoga C662 (IRKU, VLA).

*Ranunculus propinquus* C.A. Mey.

2n = 28, CHN. Russia, East Siberia, Irkutskaya Oblast', Kuitunskii Raion, surroundings of Sulket village, edge of spruce-birch forest, 54°26'N, 101°29'E, 10 Aug 1998, V. Chepinoga C626 (IRKU); Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 1.5 km S of Baikal Lake, lower course of Vydrinaya River, on bank, 470 m, 51°28'N, 104°51'E, 02 Jul 2009, R. Moriz C974 (IRKU).

*Ranunculus radicans* C.A. Mey.

2n = 30, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE of Bolshevik village, salty lake Balyktui, wet meadow, 676 m, 50°25'N, 114°42'E, 04 Jul 2008, P. Lubogoshchinsky & V. Chepinoga C700 (IRKU, VLA).

2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 14 km W of Sherlovaya Gora town, southern part of Adon-Chelon mountains, in brook, 779 m, 50°31'N, 116°10'E, 01 Aug 2008, P. Lubogoshchinsky C770 (IRKU, VLA).

*Ranunculus reptans* L.

2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 3 km NE of Cheremkhovo village, left riverside of Ingoda River, in shallow water, 51°28'N, 112°44'E, 24 Jun 2008, P. Lubogoshchinsky C658 (IRKU).

*Ranunculus sceleratus* L.

2n = 56, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 14 km W of Sherlovaya Gora town, southern part of Adon-Chelon mountains, in brook, 779 m, 50°31'N, 116°10'E, 01 Aug 2008, P. Lubogoshchinsky C769 (IRKU).

2n = 64, CHN. Russia, East Siberia, Irkutskaya Oblast', Cheremkhovskii Raion, 4 km SW of Cheremkhovo town, quarry lake, on sandy bank, 53°08'N, 103°00'E, 31 Aug 2008, S. Rosbakh & K. Fleckenstein C824 (IRKU, VLA).

*Thacla natans* (Pall. ex Georgi) Deyl & Soják

2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 14 km W of Sherlovaya Gora town, southern part of Adon-Chelon mountains, in brook, 779 m, 50°31'N, 116°10'E, 01 Aug 2008, P. Lubogoshchinsky C767 (IRKU, VLA).

**ROSACEAE***Chamaerhodos erecta* (L.) Bunge

2n = 14, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountains, on rock, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina, A. Konovalov & N. Pazardnikova C795 (IRKU).

*Dasiphora parvifolia* (Fisch. ex Lehm.) Juz.

(≡ *Pentaphylloides parvifolia* (Fisch. ex Lehm.) Soják)

\*2n = 14, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km SSE of Bolshevik village, salty lake Balyktui, on shore, 676 m, 50°24'N, 114°42'E, 03 Jul 2008, P. Lubogoshchinsky C697 (IRKU).

*Filipendula ulmaria* (L.) Maxim.

2n = 14, CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 11 Jul 2009, P. Lubogoshchinsky C1056 (IRKU, VLA).

*Geum aleppicum* Jacq.

2n = 42, CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 11 Jul 2009, P. Lubogoshchinsky C1057 (IRKU).

*Geum rivale* L.

2n = 42, CHN. Russia, East Siberia, Buryatia Republic, Kabanskii Raion, Khamar-Daban mountains, 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, on bank, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, P. Lubogoshchinsky C1043 (IRKU).

*Potentilla acaulis* L.

2n = 14, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, surroundings of Chindant-1 village, floodplain of Onon River, oxbow lake Khlebnoe, on sandy shore, 609 m, 50°20'N, 115°21'E, 08 Jul 2008, P. Lubogoshchinsky C706 (IRKU, VLA).

*Potentilla anserina* L.

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 14 km NNE of Olovyannaya, right riverside of Onon River, opposite of Zugol village, oxbow lake, on shore, 51°02'N, 115°38'E, 17 Jun 2007, A. Gnutikov & I. Enushchenko C391 (IRKU, VLA).

*Potentilla argentea* L.

2n = 42, CHN. Russia, East Siberia, Irkutskaya Oblast', Usolskii Raion, mouth of Toysuk River (right tributary of Kitoi River), on the clearing in birch-pine forest, 52°23'N, 103°22'E, 14 Aug 2004, A. Prudnikova & A. Chudinov C845 (IRKU).

*Potentilla conferta* Bunge

2n = 42, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 3 km N of Ulety village, Uletka River near the bridge, on bank, 51°23'N, 112°28'E, 24 Jun 2008, V. Chepinoga & A. Konovalov C853 (IRKU).

*Potentilla longifolia* Willd. ex Schlecht.

2n = 14, CHN. Russia, East Siberia, Irkutskaya Oblast', Olkhon-skii Raion, Baikal Lake, east coast of Olkhon island, surroundings of Uzury village, in pinewood, roadside, 53°19'N, 107°42'E, 30 Aug 2004, V. Chepinoga, A. Verkhovina & E. Kuznetsova C852 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 15 km S of Orlovskii village, lakeside of Ulik lake, in steppe, 658 m, 50°54'N, 114°52'E, 19 Jul 2008, M. Isaikina C851 (IRKU).

2n = 42, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 8 km SW of Tataurovo village, left riverside of Ingoda River, in steppe, 709 m, 51°32'N, 112°50'E, 12 Aug 2007, I. Enushchenko & A. Gnutikov C842 (IRKU).

*Potentilla multifida* L.

2n = 28, CHN. Russia, East Siberia, Irkutskaya Oblast', Tulunskii Raion, surroundings of Ikei village, in sand quarry, 54°13'N, 100°04'E, 24 Jul 2006, V. Chepinoga C648 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 18 km SSW of Nizhnii Zasuhei village, steppe lake Bain-Zagan, on sandy shore, 662 m, 50°20'N, 115°06'E, 23 Jul 2008, P. Lubogoshchinsky C844 (IRKU);

Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km E of Soloviovsk village, southern shore of Zun-Torei Lake, on roadside, 597 m, 49°59'N, 115°50'E, 29 Jul 2008, *V. Chepinoga, S. Rosbakh & A. Konovalov C847* (IRKU).

*Potentilla norvegica* L.

2n = 56, CHN. Russia, Middle Siberia, Krasnoyarskii Krai, Abanskii Raion, Lapino village, wasteland, 56°57'N, 97°37'E, 11 Jul 2007, *V. Chepinoga C843* (IRKU).

*Potentilla nudicaulis* Willd. ex Schlecht.

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoi-tuyskii Raion, 6 km NE Kusocha village, floodplain of right riverside of Onon River, on the shore of quarry lake, 571 m, 50°44'N, 115°42'E, 14 Jul 2008, *V. Chepinoga & S. Rosbakh C850* (IRKU).

*Potentilla paradoxa* Nutt. ex Torr. & Gray

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 4 km W of Yasnogorsk town, left riverside of Onon River, on moist shore, 51°52'N, 115°38'E, 18 Jun 2007, *A. Gnutikov & I. Enushchenko C403* (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Mogoi-tuyskii Raion, 6 km NE Kusocha village, floodplain of right riverside of Onon River, on shore of quarry lake, 571 m, 50°44'N, 115°42'E, 14 Jul 2008, *V. Chepinoga & S. Rosbakh C846* (IRKU).

*Potentilla semiglabra* Juz.

▼▼2n = 56, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 14 km NNE of Olovyannaya town, right riverside of Onon River, opposite of Zugol village, oxbow lake, on bank, 51°02'N, 115°38'E, 19 Jun 2007, *A. Gnutikov & I. Enushchenko C407* (IRKU, VLA).

*Potentilla sericea* L.

▼▼2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 20 km SW of Sherlovaya Gora town, southern part of Adon-Chelon mountains, on rock, 879 m, 50°28'N, 116°04'E, 02 Aug 2008, *V. Chepinoga, S. Rosbakh, M. Isaikina, N. Pazdnikova, A. Konovalov & P. Lubogoschinsky C849* (IRKU).

*Potentilla tanacetifolia* Willd. ex Schlecht.

▼2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, Nizhnii Zasuhei village, roadside, 647 m, 50°30'N, 115°05'E, 01 Jul 2008, *P. Lubogoschinsky C684* (IRKU, VLA).

*Potentilla tergemina* Soják

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, Nizhnii Zasuhei village, wasteland, 647 m, 50°30'N, 115°06'E, 01 Jul 2008, *V. Chepinoga & M. Isaikina C848* (IRKU).

**SALICACEAE**

*Salix schwerinii* E. Wolf

2n = 38, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuhei, floodplain of right riverside of Onon River, oxbow lake Pashutkino, on bank, 663 m, 50°31'N, 115°02'E, 05 Aug 2008, *P. Lubogoschinsky C778* (IRKU, VLA).

**TRAPACEAE**

*Trapa sibirica* Fler.

2n = 48, CHN. Russia, East Siberia, Irkutskaya Oblast', Taishetskii Raion, Shelaevo village, in Solonetskoe lake, 56°56'N, 97°40'E, 10 Jul 2007, *A. Gnutikov & I. Enushchenko C528* (IRKU, VLA).

**TYPHACEAE**

*Typha latifolia* L.

2n = 30, CHN. Russia, East Siberia, Irkutskaya Oblast', Ziminskii

Raion, 6 km SW of Basalaevka village, quarry lake, in shallow water, 53°44'N, 101°28'E, 14 Jul 2005, *A. Gnutikov & A. Rosbakh C222* (IRKU).

**ZANNICHELLIACEAE**

*Zannichellia pedunculata* Rchb.

▼▼2n = 24, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 10 km SE of Builesan village, salty lake Zagan-Nor, in shallow water, 678 m, 50°11'N, 114°57'E, 24 Jul 2008, *P. Lubogoschinsky C748* (IRKU, VLA).

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\* First chromosome count for the species.

\*\* New chromosome number (cytotype) for the species.

▼ First chromosome count from Siberia.

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**ASCLEPIADACEAE**

*Vincetoxicum sibiricum* (L.) Decne

\*\*2n = 18, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 20 km SW of Nizhnii Zasuhei village, southern edge of pine forest Zasuheiskii, roadside, 682 m, 50°22'N, 115°17'E, 23 Jul 2008, *V. Chepinoga C819* (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 5 km S of Krasnaya Imalka village, saline lake Ara-Torom, roadside, 618 m, 50°12'N, 115°17'E, 26 Jul 2008, *V. Chepinoga & N. Pazdnikova C820* (IRKU, VLA).

2n = 24, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, western surroundings of Chindant-1 village, right riverside of Onon River, oxbow Khlebnoe, sandy bank, 609 m, 50°20'N, 115°21'E, 08 Jul 2008, *P. Lubogoschinsky C705* (IRKU, VLA).

**ASTERACEAE**

*Artemisia anethifolia* Weber ex Stechm.

2n = 16, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km NW of Borzia town, saline lake Kholbo (Elf-Nur), saline meadow, 695 m, 50°27'N, 116°27'E, 30 Jun 2008, *P. Lubogoschinsky C680* (IRKU, VLA).

*Artemisia scoparia* Waldst. & Kit.

2n = 16, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanninskii Raion, 3 km NW of Yasnaya village, Turga River, floodplain meadow, 595 m, 50°50'N, 115°45'E, 13 Jul 2008, *P. Lubogoschinsky & A. Konovalov C723* (IRKU, VLA).

*Artemisia sieversiana* Ehrh. ex Willd.

2n = 18, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km NW of Borzia town, saline lake Kholbo (Elf-Nur), saline meadow, 695 m, 50°27'N, 116°27'E, 30 Jun 2008, *P. Lubogoschinsky C681* (IRKU).



*Kalimeris integrifolia* Turcz.

▼ $2n = 36$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoi-tuisckii Raion, 2 km SW of Yasnogorsk town, near the mouth of Turga River, riverside, 582 m, 50°50'N, 115°40'E, 12 Jul 2008, *P. Lubogochinsky C719* (IRKU, VLA).

*Leontodon autumnalis* L.

$2n = 12$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1 km S of Baikal Lake, vicinity of Tankhoi village, roadside, 516 m, 51°32'N, 105°07'E, 04 Jul 2009, *R. Moriz C991* (IRKU).

*Leontopodium conglobatum* (Turcz.) Hand.-Mazz.

$2n = 52$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, grassland steppe, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, *P. Lubogochinsky C771* (IRKU, VLA).

*Leontopodium leontopodioides* (Willd.) Beauverd

▼ $2n = 26$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, saline lake Khotochei, feather grass steppe, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *P. Lubogochinsky C692* (IRKU, VLA).

*Ligularia fischeri* Turcz.

▼ $2n = 60$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, birch-forest, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, *P. Lubogochinsky C774* (IRKU).

*Tragopogon orientalis* L.

$2n = 12$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, left riverside of Irkut River, oxbow Baushevo nearby Pionersk village, edge of birch-forest, 52°13'N, 103°54'E, 03 Jul 2004, *V. Chepinoga & N. Dulepova C862* (IRKU).

\**Xanthium sibiricum* Patr. ex Widder

$2n = 36$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyanskii Raion, 3 km NW of Yasnaya village, Turga River, floodplain meadow, 595 m, 50°50'N, 115°45'E, 13 Jul 2008, *P. Lubogochinsky & A. Kononov C722* (IRKU).

\**Youngia stenoma* (Turcz. ex DC.) Ledeb.

$2n = 10$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 15 km W of Ust'-Imalka village, saline lake Bulun-Zagan (Sataninskoe), on the bank, 653 m, 50°07'N, 115°06'E, 25 Jul 2008, *P. Lubogochinsky C752* (IRKU, VLA).

**BRASSICACEAE***Alyssum obovatum* (C.A. Mey.) Turcz.

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, surroundings of Shamanka village, sandy precipice near of Shamanskii cliff, 52°05'N, 103°50'E, 05 Jul 2003, *N. Dulepova C838* (IRKU).

*Erysimum flavum* (Georgi) Bobrov

$2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Olkhon-skii Raion, eastern coast of Olkhon island, Uzury village, in steppe, 53°19'N, 107°44'E, 30 Aug 2004, *V. Chepinoga, A. Verkhovina & E. Kuznetsova C869* (IRKU).

**CARYOPHYLLACEAE***Silene amoena* L. (= *S. repens* Patr.)

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludanskii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal

Lake, lower course of Snezhnaya River, sandy bank, 484 m, 51°24'N, 104°38'E, 29 Jun 2009, *R. Moriz & A. Sergejeva C920* (IRKU).

**CHENOPODIACEAE***Corispermum sibiricum* Iljin

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Olkhon-skii Raion, western coast of Olkhon island, Ulan-Khushinskaya gulf, on sand beach, 53°14'N, 107°27'E, 30 Aug 2004, *V. Chepinoga, A. Verkhovina & E. Kuznetsova C641* (IRKU).

**DIPSACACEAE***Scabiosa comosa* Fisch. ex Roem. & Schult.

$2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 10 km NE of Durbachi village, roadside, 703 m, 50°08'N, 116°12'E, 31 Jul 2008, *V. Chepinoga, S. Rosbakh & N. Pazdnikova C793* (IRKU).

**FABACEAE***Amoria hybrida* (L.) C. Presl (≡ *Trifolium hybridum* L.)

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, 3 km E of Anosovka River, roadside, 492 m, 51°31'N, 104°59'E, 14 Jul 2009, *R. Moriz C1069* (IRKU, VLA).

*Astragalus adsurgens* Pall.

$2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 8 km NE of Builesan village, saline lake Khotochei, on the shore, 678 m, 50°18'N, 114°57'E, 02 Jul 2008, *P. Lubogochinsky C687* (IRKU, VLA).

*Astragalus olchonensis* Gontsch.

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Olkhon-skii Raion, Olkhon island, Nurganskaya gulf, Peshchanaya village, on sand dunes, 53°17'236"N, 107°35'337"E, 10 Aug 2009, *A. Verkhovina, D. Krivenko & Ye. Zhmud' C867* (IRKU).

*Chrysochloa spadicea* (L.) Greene (≡ *Trifolium spadiceum* L.)

▼ $2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal Lake, surroundings of Tankhoi village, forest cutting, 498 m, 51°32'N, 105°06'E, 06 Jul 2009, *R. Moriz C1015* (IRKU).

*Melilotoides ruthenicus* (L.) Soják

▼ $2n = 16$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 17 km S of Kubukhai village, saline lake Ukshinda, on the shore, 655 m, 50°20'N, 114°49'E, 06 Jul 2008, *P. Lubogochinsky C701* (IRKU, VLA).

**HYPERICOACEAE***Hypochaeris erectum* L.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Tarbagataiskii Raion, 4 km N of Tarbagatai village, steppe hill, on roadside, 51°03'N, 107°21'E, 22 Jun 2007, *I. Enushchenko C837* (IRKU).

**LAMIACEAE***Leonurus sibiricus* L.

▼ $2n = 20$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 15 km SE of Zokto-Khangil village, western shore of Nozhii Lake, on steppe slope, 649 m, 50°49'N, 114°47'E, 18 Jul 2008, *P. Lubogochinsky C741* (IRKU, VLA).

**PAPAVERACEAE***Papaver amurense* (N. Busch) Tolm.

▼ $2n = 42$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 16 km N of Nizhnii Zasuhei village, saline lake Kunkur, grassland steppe, 50°39'N, 115°04'E, 21 Jul 2008, *M. Isaikina C803* (IRKU).

*Papaver nudicaule* L.

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyaninskii Raion, 8 km S of Yasnaya village, saline lake Khara-Nur, feather grass steppe, 635 m, 50°45'N, 115°46'E, 13 Jul 2008, A. Konovalov, M. Isaikina & P. Lubogoschinsky C804 (IRKU).

**POACEAE***Achnatherum sibiricum* (L.) Keng ex Tzvelev

2n = 24, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, grassland steppe, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina & al. C807 (IRKU).

*Elymus gmelinii* (Ledeb.) Tzvelev

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, nearby rocks, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina, N. Pazdnikova & A. Konovalov C808 (IRKU).

*Eragrostis minor* Host

2n = 40, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 12 km N of Soloviovsk village, between Zun-Torei and Barun-Torei lakes, cordon "Utochi" of Dahurian nature reserve, near a house, 595 m, 50°00'N, 115°43'E, 27 Jul 2008, M. Isaikina & N. Pazdnikova C816 (IRKU).

*Festuca ovina* L.

2n = 28, CHN. Russia, East Siberia, Irkutskaya Oblast', Taishetskii Raion, 5 km NE of Staryi Akulshet village, left riverside of Biryusa River, nearby the old bridge, on meadow, 56°02'N, 98°02'E, 07 Jul 2007, V. Chepinoga C836 (IRKU).

*Panicum miliaceum* L. s.l.

2n = 36, CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 8 km W of Gunei village, left riverside of Onon River, oxbow Krivoe, on the shore, 50°30'N, 114°25'E, 17 Jul 2008, A. Konovalov & M. Isaikina C840 (IRKU).

*Poa stepposa* (Krylov) Roshev.

2n = 42, CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 15 km SE of Zokto-Khangil village, western coast of Nozhii Lake, on steppe slope, 649 m, 50°49'N, 114°47'E, 18 Jul 2008, A. Konovalov & M. Isaikina C810 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Mogoituiskskii Raion, 6 km NE of Kusocha village, right riverside of Onon River, Karyerno lake, on the shore, 571 m, 50°44'N, 115°42'E, 14 Jul 2008, V. Chepinoga & S. Rosbakh C811 (IRKU).

*Setaria viridis* (L.) P. Beauv.

2n = 18, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 20 km SW of Sherlovaya Gora town, southern part of Adon-Chelon mountain-steppe massif, on steppe slope, 879 m, 50°28'N, 116°04'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina & al. C817 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, on rocks, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina & al. C818 (IRKU).

*Stipa krylovii* Roshev.

2n = 44, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 15 km S of Kulusutai village, between Zun-Torei and

Barun-Torei lakes, cordon "Theli" of Dahurian nature reserve, feather grass steppe, 601 m, 50°06'N, 115°41'E, 28 Jul 2008, V. Chepinoga & S. Rosbakh C813 (IRKU, VLA).

**ROSACEAE***Sanguisorba officinalis* L.

2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 10 km NE of Durbachi village, in steppe, 703 m, 50°08'N, 116°12'E, 31 Jul 2008, V. Chepinoga, S. Rosbakh & N. Pazdnikova C797 (IRKU).

*Sanguisorba parviflora* (Maxim.) Takeda

▼2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 8 km W of Gunei village, left riverside of Onon River, oxbow Krivoe, floodplain meadow, 655 m, 50°30'N, 114°25'E, 17 Jul 2008, A. Konovalov & M. Isaikina C796 (IRKU).

*Sanguisorba tenuifolia* Fisch. ex Link

▼2n = 28, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuchei village, left riverside of Onon River, shore of oxbow, 663 m, 50°31'N, 115°02'E, 05 Aug 2008, V. Chepinoga & S. Rosbakh C798 (IRKU).

**RUBIACEAE***Rubia cordifolia* L.

2n = 22, CHN. Russia, East Siberia, Zabaikalskii Krai, Olovyaninskii Raion, 3 km NW of Yasnaya village, Turga River, floodplain meadow, 595 m, 50°50'N, 115°45'E, 13 Jul 2008, P. Lubogoschinsky & A. Konovalov C724 (IRKU, VLA).

**SCROPHULARIACEAE***Pedicularis sceptrum-carolinum* L.

2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 2 km SW of Tataurovo village, Sestrinitza River (left tributary of Ingoda River), on the bank, 707 m, 51°35'N, 112°54'E, 25 Jun 2008, V. Chepinoga C660 (IRKU, VLA).

*Veronica daurica* Steven

▼2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Aginskii Raion, 15 km SW of Zokto-Khangil village, western coast of Nozhii Lake, at the foot of steppe slope, 649 m, 50°49'N, 114°47'E, 18 Jul 2008, P. Lubogoschinsky C739 (IRKU, VLA).

**SOLANACEAE***Hyoscyamus niger* L.

2n = 34, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 5 km S of Krasnaya Imalka, saline lake Ara-Torom, on the shore, 618 m, 50°12'N, 115°17'E, 26 Jul 2008, A. Konovalov & K. Fleckenstein C821 (IRKU, VLA).

\**Solanum septemlobum* Bunge

2n = 24, CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 6 km W of Nizhnii Zasuchei village, right riverside of Onon River, oxbow Pashutkino, in willow thickets, 663 m, 50°31'N, 115°02'E, 05 Aug 2008, P. Lubogoschinsky C775 (IRKU, VLA).

**VALERIANACEAE***Patrinia rupestris* (Pall.) Dufur.

2n = 22, CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-Chelon mountain-steppe massif, on rocks, 954 m, 50°31'N, 116°06'E, 02 Aug 2008, V. Chepinoga, S. Rosbakh, M. Isaikina & al. C794 (IRKU).

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\* First chromosome count for the species.

\*\* New chromosome number (cytotype) for the species.

▼ First chromosome count from Siberia.

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 Russian Fund for Basic Research.

#### APIACEAE

*Angelica decurrens* (Ledeb.) B. Fedtsch.

$2n = 22$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Bai-  
 kal Lake, lower course of Mishikha River, right riverside, *Populus*  
*suaveolens*-forest, the creek bank, 478 m, 51°38'N, 105°32'E, 12 Jul  
 2009, R. Moriz C1060 (IRKU).

*Angelica sylvestris* L.

$2n = 22$ , CHN. Russia, East Siberia, Krasnoyarskii Krai, Ilanskii  
 Raion, vicinity of Lapino village, shore of oxbow, 56°57'N, 97°37'E,  
 11 Jul 2007, A. Gnutikov & I. Enushchenko C537 (IRKU); Russia, East  
 Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-  
 Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town,  
 lower course of Mysovka River, river bank, 502 m, 51°41'N, 105°53'E,  
 10 Jul 2009, P. Lubogoschinsky C1045 (IRKU); Russia, East Siberia,  
 Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban  
 Mts., 4 km S of Baikal Lake, lower course of Khara-Murin River,  
*Pinus sibirica*-forest edge, 492 m, 51°27'N, 104°24'E, 28 Jun 2009,  
 A. Sergejeva C912 (IRKU).

*Bupleurum aureum* Fisch. ex Hoffm.

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyan-  
 skii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal Lake,  
 lower course of Snezhnaya River, left riverside, sandy-gravel bank,  
 484 m, 51°24'N, 104°38'E, 29 Jun 2009, R. Moriz & A. Sergejeva  
 C926 (IRKU).

*Pleurospermum uralense* Hoffm.

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal  
 Lake, lower course of Pereemnaya River, left riverside, on the bank,  
 453 m, 51°33'N, 105°10'E, 07 Jul 2009, R. Moriz C1025 (IRKU).

#### ASTERACEAE

*Achillea millefolium* L.

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal  
 Lake, eastern surroundings of Tankhoi village, *Pinus sibirica*-forest  
 edge, roadside, 498 m, 51°32'N, 105°06'E, 05 Jul 2009, R. Moriz  
 C1003 (IRKU, VLA).

*Chrysanthemum zawadskii* subsp. *peleirolepis* (Trautv.)

A.V. Grebenjuk & Czepinoga

$2n = 72$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyan-  
 skii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal Lake,

lower course of Snezhnaya River, left riverside, sandy-gravel bank,  
 484 m, 51°24'N, 104°38'E, 29 Jun 2009, R. Moriz & A. Sergejeva  
 C943 (IRKU).

*Chrysanthemum zawadskii* Herbich subsp. *zawadskii*

$2n = 54$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzin-  
 skii Raion, 17 km W of Sherlovaya Gora town, central part of Adon-  
 Chelon mountain-steppe massif, grassland steppe, 954 m, 50°31'N,  
 116°06'E, 02 Aug 2008, P. Lubogoschinsky C772 (IRKU, VLA).

*Cirsium helenioides* (L.) Hill

$2n = 34$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal  
 Lake, lower course of Vydrinaya River, left riverside, on the bank,  
 470 m, 51°28'N, 104°51'E, 02 Jul 2009, R. Moriz C973 (IRKU); Rus-  
 sia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills  
 of Khamar-Daban Mts., 1 km S of Baikal Lake, Tankhoi village,  
 roadside, 516 m, 51°32'N, 105°07'E, 04 Jul 2009, R. Moriz C984  
 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion,  
 foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course  
 of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N,  
 105°10'E, 07 Jul 2009, R. Moriz C1028 (IRKU); Russia, East Siberia,  
 Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban  
 Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower  
 course of Mysovka River, river bank, 502 m, 51°41'N, 105°53'E, 10  
 Jul 2009, P. Lubogoschinsky C1046 (IRKU).

*Doronicum altaicum* Pall.

$2n = 60$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal  
 Lake, middle course of Osinovka Tankhoiskaya River, left riverside,  
 river bank, 639 m, 51°29'N, 105°08'E, 09 Jul 2009, R. Moriz C1037  
 (IRKU).

*Fornicium uniflorum* (L.) Zuev (≡ *Rhaponticum*  
*uniflorum* (L.) DC.)

$2n = 26$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ule-  
 tovskii Raion, 5 km N of Tataurovo village, Kamenka River (left  
 tributary of Ingoda River), steppe slope, 717 m, 51°38'N, 112°56'E, 25  
 Jun 2008, P. Lubogoschinsky & K. Fleckenstein C666 (IRKU, VLA).

*Lepidothea suaveolens* (Pursh) Nutt (≡ *Chamomilla*  
*suaveolens* (Pursh) Rydb.)

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal  
 Lake, eastern surroundings of Tankhoi village, forest cutting, 498 m,  
 51°32'N, 105°06'E, 06 Jul 2009, R. Moriz C1016 (IRKU, VLA).

*Leucanthemum vulgare* Lam.

$2n = 36$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 1 km S of Baikal  
 Lake, Tankhoi village, roadside, 516 m, 51°32'N, 105°07'E, 04 Jul  
 2009, R. Moriz C989 (IRKU).

*Mulgedium sibiricum* (L.) Less. (≡ *Lactuca sibirica* (L.) Benth.  
 ex Maxim.)

$2n = 18$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Mogoitu-  
 iskii Raion, 2 km SW of Yasnogorsk town, near the mouth of Turga  
 River, riverside, 582 m, 50°50'N, 115°40'E, 12 Jul 2008, P. Lubogos-  
 chinsky C718 (IRKU, VLA).

*Parasenecio hastatus* (L.) H. Koyama (≡ *Cacalia hastata* L.)

$2n = 60$ , CHN. Russia, East Siberia, Republic of Buryatia, Ka-  
 bankskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal  
 Lake, lower course of Pereemnaya River, left riverside, river bank,  
 453 m, 51°33'N, 105°10'E, 07 Jul 2009, R. Moriz C1018 (IRKU).

*Petasites radiatus* (J.F. Gmel.) J. Toman (= *Nardosmia laevigata* (Willd.) DC.)

$2n = 60$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal Lake, lower course of Vydrinaya River, river bank, 470 m, 51°28'N, 104°51'E, 02 Jul 2009, R. Moriz C965 (IRKU).

*Senecio vulgaris* L.

$\nabla 2n = 40$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Borzinskii Raion, 5 km NW of Borzia town, saline lake Kholbo (Elf-Nur), roadside, 695 m, 50°27'N, 116°27'E, 01 Aug 2008, V. Chepinoga, S. Rosbakh & M. Isaikina C861 (IRKU).

*Tanacetum boreale* Fisch. ex DC.

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal Lake, lower course of Snezhnaya River, sandy river bank, 484 m, 51°24'N, 104°38'E, 29 Jun 2009, R. Moriz & A. Sergejeva C921 (IRKU).

*Tussilago farfara* L.

$2n = 60$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1 km S of Baikal Lake, Tankhoi village, roadside, 516 m, 51°32'N, 105°07'E, 04 Jul 2009, R. Moriz C982 (IRKU).

#### BRASSICACEAE

*Lepidium densiflorum* Schrad.

$\nabla 2n = 32$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, Selenga River delta, vicinity of Murzino village, roadside, 52°11'N, 106°29'E, 07 Aug 2004, V. Chepinoga C805 (IRKU).

*Lepidium rudemale* L.

$2n = 32$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Alarskii Raion, Aliaty, near a fence, 53°12'N, 102°13'E, 16 Jul 2003, V. Chepinoga C806 (IRKU); Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Sverdlovsky district, sanatorium "Angara", roadside, 52°17'36"N, 104°14'36"E, 01 Jul 2005, B. Batbayar & A. Chepinoga C870 (IRKU).

#### CANNABACEAE

*Cannabis sativa* L. s.l.

$2n = 20$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, Nizhnii Zasuhei village, central office of Dahurian natural reserve, near a house, 50°30'N, 115°06'E, 07 Jul 2008, P. Lubogochinsky C702 (IRKU, VLA).

#### CARYOPHYLLACEAE

*Dianthus superbus* L.

$2n = 30$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ziminskii Raion, Shchelbei village, right riverside of Zima River, river bank, 53°42'N, 101°21'E, 12 Jul 2005, A. Gnutikov C203 (IRKU).

#### CONVALLARIACEAE

*Maianthemum bifolium* (L.) F.W. Schmidt

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 8 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, *Populus suaveolens*-forest edge, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, R. Moriz C956 (IRKU).

#### FABACEAE

*Vicia sepium* L.

$2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal Lake, lower course of Vydrinaya River, river bank, 470 m, 51°28'N, 104°51'E, 02 Jul 2009, R. Moriz C967 (IRKU).

#### FUMARIACEAE

*Corydalis impatiens* (Pall.) Fisch.

\*\* $2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, Olkha River, vicinity of Vityaz' cliff, *Pinus sylvestris*-forest, 51°58'N, 104°06'E, 10 Jul 2004, N. Dulepova C839 (IRKU).

#### GERANIACEAE

*Geranium sibiricum* L.

$\nabla 2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', downtown of Irkutsk city, Kirov public garden, near a fence, 52°17'21"N, 104°16'56"E, 22 Jun 2005, A. Chepinoga & B. Batbayar C092 (IRKU).

#### LAMIACEAE

*Dracocephalum nutans* L.

$2n = 10$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Bratskii Raion, Bratsk city, Porozhskii village, Nagornaya str., near a fence, 56°04'N, 101°40'E, 26 Mai 2005, S. Rosbakh C133 (IRKU).

*Lamium album* L.

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, R. Moriz C1019 (IRKU).

*Prunella vulgaris* L.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1 km S of Baikal Lake, Tankhoi village, roadside, 516 m, 51°32'N, 105°07'E, 04 Jul 2009, R. Moriz C987 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, R. Moriz C1024 (IRKU).

#### LILIACEAE

*Lilium pilosiusculum* (Freyn) Miscz.

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 8 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, *Populus suaveolens*-forest edge, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, R. Moriz C952 (IRKU).

#### MELANTHIACEAE

*Veratrum lobelianum* Bernh.

$2n = 32$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, R. Moriz C1026 (IRKU).

#### ONAGRACEAE

*Chamaenerion angustifolium* (L.) Scop.

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, sandy-gravel bank, 484 m, 51°24'N, 104°38'E, 29 Jun 2009, R. Moriz & A. Sergejeva C932 (IRKU); Russia, East Siberia, Zabaikalskii Krai, Ononskii Raion, 17 km S of Kubukhai village, saline lake Ukshinda, gravel shore, 655 m, 50°20'N, 114°49'E, 06 Jul 2008, A. Konovalov & M. Isaikina C822 (IRKU, VLA).

#### ORCHIDACEAE

*Dactylorhiza fuchsii* (Druce) Soó

$2n = 20$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Tankhoi village, right riverside of Osinovka Tankhoiskaya River, forest cutting, 508 m, 51°31'N, 105°06'E, 06 Jul 2009, A. Sergejeva C1014 (IRKU).

**PARNASSIACEAE***Parnassia palustris* L.

$2n = 36$ , CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, Goreka village, left riverside of Goreka River, wet river bank, 51°04'N, 111°59'E, 07 Aug 2007, *A. Gnutikov & I. Enushchenko* C587 (IRKU).

**PINACEAE***Abies sibirica* Ledeb.

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 8 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, *Populus suaveolens*-forest edge, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, *A. Sergeyeva* C948 (IRKU).

**POACEAE***Anthoxanthum alpinum* Á. Löve & D. Löve

$2n = 10$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal Lake, lower course of Vydrinaya River, left riverside, river bank, 470 m, 51°28'N, 104°51'E, 02 Jul 2009, *R. Moriz* C966 (IRKU).

*Anthoxanthum odoratum* L.

$2n = 20$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, river bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, *R. Moriz* C1033 (IRKU, VLA).

*Calamagrostis langsdorfii* (Link) Trin.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 11 Jul 2009, *P. Lubogochinsky* C1054 (IRKU, VLA).

*Calamagrostis obtusata* Trin.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 11 Jul 2009, *P. Lubogochinsky* C1055 (IRKU, VLA).

\**Deschampsia altaica* (Schischkin) O.D. Nikif.

$2n = 26$ , CHN. Russia, East Siberia, Tyva Republic, Todzhinskii Raion, East Sayan Mts., right riverside of Arzhaan-Khem river, wet bank of the mineral spring Zhoigan, 52°33'N, 98°45'E, 10 Aug 2007, *E. Vedernikova* C834 (IRKU).

*Elymus novae-angliae* (Scribn.) Tzvelev

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Zalarinskii Raion, Khor-Tagna village, sandy bank of Tagna River, near a bridge, 53°25'N, 101°33'E, 16 Jul 2005, *A. Gnutikov & V. Chepinoga* C237 (IRKU).

*Hierochloë glabra* Trin.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1.5 km S of Baikal Lake, lower course of Vydrinaya River, river bank, 470 m, 51°28'N, 104°51'E, 02 Jul 2009, *R. Moriz* C975 (IRKU).

*Milium effusum* L.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, *P. Lubogochinsky* C1050 (IRKU).

*Phleum phleoides* (L.) H. Karst.

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ekhirit-Bulagatskii Raion, 3 km SW of Nizhnii Kukut village, floodplain of Murin River, on meadow, 52°44'N, 105°00'E, 16 Jun 2005, *A. Gnutikov & V. Chepinoga* C138 (IRKU).

*Poa nemoralis* L.

▼ $2n = 42$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, *P. Lubogochinsky* C1051 (IRKU).

**POLEMONIACEAE***Polemonium racemosum* Kitam.

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N, 105°10'E, 07 Jul 2009, *R. Moriz* C1027, C1029 (IRKU, VLA).

**ROSACEAE***Rubus humilifolius* C.A. Mey.

$2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 10 Jul 2009, *P. Lubogochinsky* C1048 (IRKU, VLA); Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, 5 km N of Tataurovo village, Kamenka River (left tributary of Ingoda River), floodplain forest, 717 m, 51°38'N, 112°56'E, 25 Jun 2008, *V. Chepinoga* C665 (IRKU, VLA).

*Rubus matsumuranus* H. Lév. & Vaniot

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 2 km S of Baikal Lake, lower course of Pereemnaya River, left riverside, river bank, 453 m, 51°33'N, 105°10'E, 08 Jul 2009, *R. Moriz* C1030 (IRKU).

**SAMBUCACEAE***Sambucus sibirica* Nakai

$2n = 38$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 7 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, sandy-gravel bank, 484 m, 51°24'N, 104°38'E, 29 Jun 2009, *R. Moriz & A. Sergeyeva* C927 (IRKU).

**SAXIFRAGACEAE***Mitella nuda* L.

▼ $2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sludyanskii Raion, foothills of Khamar-Daban Mts., 8 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, *Populus suaveolens*-forest edge, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, *R. Moriz* C953 (IRKU).

**SCROPHULARIACEAE***Pedicularis resupinata* L.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 1 km S of Baikal Lake, lower course of Osinovka Tankhoiskaya River, left riverside, river bank, 469 m, 51°32'N, 105°05'E, 15 Jul 2009, *R. Moriz* C1073 (IRKU).

**TRILLIACEAE***Paris quadrifolia* L.

$2n = 10$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 3 km S of Baikal Lake, surroundings of Babushkin town, lower course of Mysovka River, right riverside, 502 m, 51°41'N, 105°53'E, 10 Jul 2009,

*P. Lubogoschinsky C1049* (IRKU); Russia, East Siberia, Irkutskaya Oblast<sup>2</sup>, Sludyanskii Raion, foothills of Khamar-Daban Mts., 8 km S of Baikal Lake, lower course of Snezhnaya River, left riverside, *Populus suaveolens*-forest edge, 506 m, 51°24'N, 104°38'E, 30 Jun 2009, R. Moriz C945 (IRKU).

#### VIOLACEAE

*Viola biflora* L.

$2n = 12$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Mts., 5 km S of Baikal Lake, middle course of Osinovka Tankhoiskaya River, river bank, 575 m, 51°30'N, 105°07'E, 13 Jul 2009, A. Konovalov, R. Moriz & A. Sergejeva C1065 (IRKU).

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- \* First number for the species.
- \*\* New number for the species.

#### ROSACEAE

*Potentilla aurea* L.

$2n = 14$ , CHN. Italy, South Tyrol, Stilfserjoch, along trail no. 20 leading to the Rötlspitze 46°32'N, 10°27'E, 2860 m, 20 Jul 2006, C. Dobeš Ptl4031, C. Dobeš Ptl4032 (HEID 806942–806945) [Fig. 4J]; Italy, South Tyrol, Tuxer Alps, between Riederbergalm and Rollspitze 46°56'N, 11°28'E, 2040 m, 15 Jul 2006, C. Dobeš Ptl4104 (HEID 807066–807067).

*Potentilla brauneana* Hoppe

$2n = 14$ , CHN. Italy, Lombardy, province Sondrio, Valle dell Alpe im Valle di Rezzalo, between Costa Sobretta and Punta della Alpe 46°23'N, 10°29'E, 2540–2620 m, 21 Jul 2006, T. Haberler Ptl4389 (HEID 807525); Italy, South Tyrol, Tuxer Alps, between Riederbergalm and Rollspitze 46°56'N, 11°29'E, 2350 m, 15 Jul 2006, C. Dobeš Ptl4091, C. Dobeš Ptl4095 (HEID 807043–807044, 807050–807051).

*Potentilla crantzii* (Crantz) Beck ex Fritsch

$2n = 28$ , CHN. Slovenia, Julian Alps, Mangart saddle, below Mangart summit 46°26'N, 13°38'E, 2056 m, 07 Sep 2006, J. Paule Ptl4231 (HEID 807309–807310) [Fig. 4A].

$2n = 35$ , CHN. France, Department Hautes Alpes, Plateau d'Emparis, between Lac Noir und Lac Lerié 45°28'N, 6°13'E, 2450 m, 17 Jul 2007, C. Dobeš Ptl7056, C. Dobeš Ptl7058 (HEID 805865–805866, 805869–805870).

$2n = 42$ , CHN. Italy, South Tyrol, Tuxer Alps, between Riederbergalm and Rollspitze 46°56'N, 11°28'E, 2040 m, 15 Jul 2006, C. Dobeš Ptl4111 (HEID 806885, 807079).

*Potentilla heptaphylla* L.

$2n = 14$ , CHN. Austria, Lower Austria, Melk, Wachberg, ca. 1.6 km E of railway station Melk 48°1'N, 15°20'E, 240 m, 16 Jun 2006, C. Dobeš Ptl3923 (HEID 805661–805662); Germany, Hessen, Rammelesberg W Dorffitter 51°14'N, 8°52'E, 350–355 m, 15 Jun 2007, T. Gregor Ptl3410 (W 2012-02368); Germany, Hessen, Schanzenberg S of Korbach 51°15'N, 8°52'E, 380–385 m, 15 Jun 2007, T. Gregor Ptl3400 (HEID 805120, W 2012-02358) [Fig. 4B]; .

*Potentilla incana* G. Gaertn., B. Mey. & Scherb.

$2n = 28$ , CHN. Austria, Lower Austria, Wachau, Dunkelsteiner Wald, Gurhofgraben, 3–4 km E of Aggsbach Markt 48°17'N, 15°26'E, 410 m, 09 Jul 2007, J. Paule Ptl6181, J. Paule Ptl6187 (HEID 806100, 806106–806107, W 2012-02431); Italy, Marche, at summit of the Monte della Strega N of Montelago and 16 km NW of Fabriano 43°27'N, 12°46'E, 1260 m, 03 Jun 2007, C. Dobeš Ptl4291 (HEID 807407, W 2012-02289); Italy, Marche, Monte Catria, below the Rocca Bairada 43°28'N, 12°42'E, 1150 m, 02 Jun 2007, C. Dobeš Ptl4316 (HEID 807440, W 2012-02443).

\*\* $2n = 48–52$ , CHN. Sweden, Gotland, along street 148 between Tingstäde and Othem 57°44'N, 18°41'E, 40 m, 03 Jun 2006, T. Gregor Ptl3056, T. Gregor Ptl3059 (HEID 804524–804525, 804530–804531).

*Potentilla neummanniana* Rehb.

The species is treated here in a broad circumscription and presumably comprises various forms of different evolutionary origin.

$2n = 28$ , CHN. Austria, Lower Austria, Weinviertel, Fehnhaube-Kogelstein, ca. 3 km E of Eggenburg 48°38'N, 15°51'E, 317 m, 09 Jul 2007, J. Paule Ptl6201 (HEID 806132, W 2012-02432) [Fig. 4C]; Germany, Rheinland-Pfalz, Idar-Oberstein, along trail between Felsenkirche in Oberstein and the castle 49°42'N, 7°21'E, 04 Jun 2006, C. Dobeš Ptl3747, C. Dobeš Ptl3748 (HEID 805527–805530); Italy, Lombardy, Lago di Gaiano (W of Lago d'Iseo) 45°47'N, 10°92'E, 350 m, 26 Jul 2006, C. Dobeš Ptl4392, C. Dobeš Ptl4393, C. Dobeš Ptl4400 (HEID 807529–807531, 807543–807544, W 2012-02290).

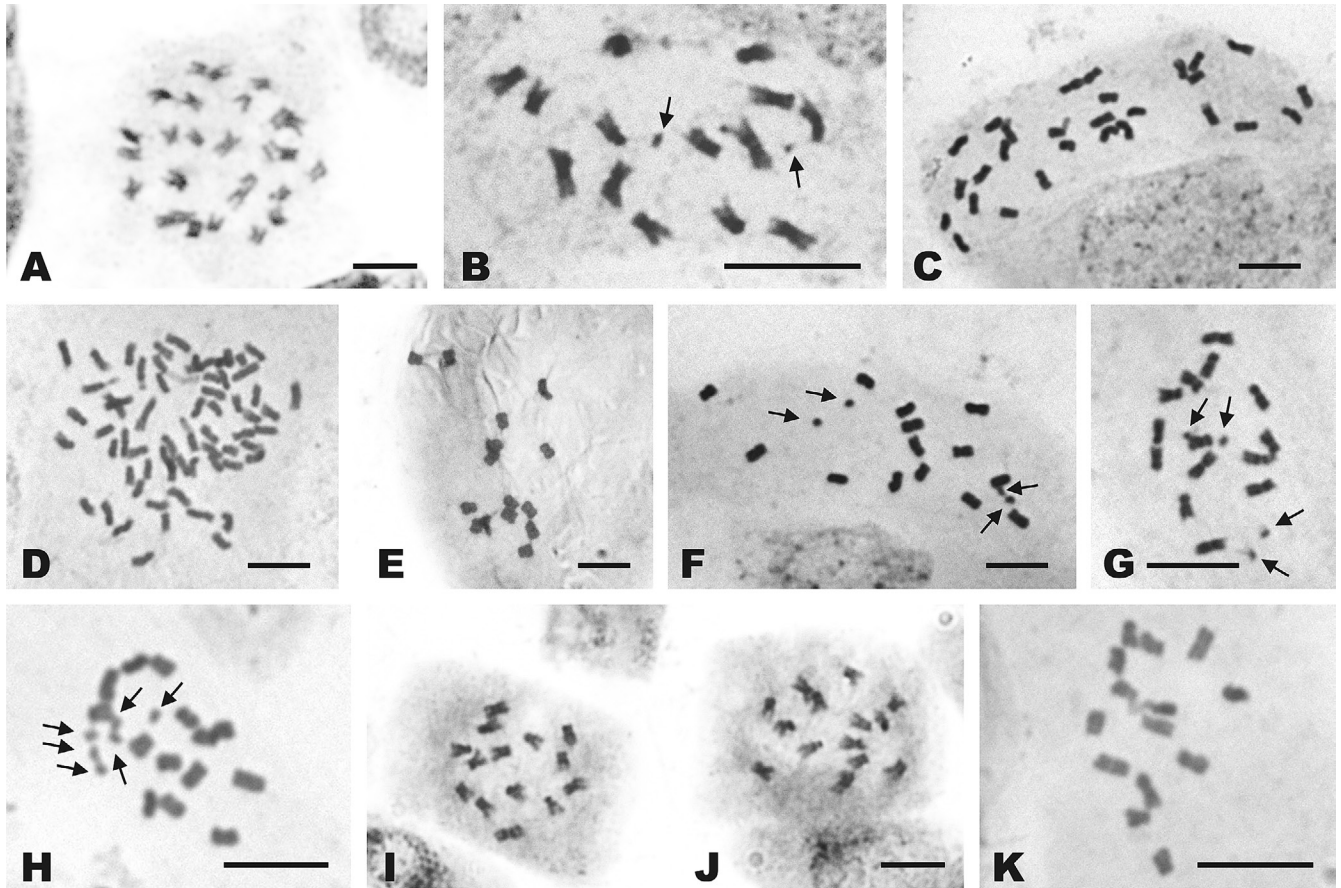
$2n = 35$ , CHN. France, Department Puy-de-Dôme, ca. 0.3 km NW of Grandeyrolles, S street to Treizanches 45°34'N, 3°31'E, 700 m, 10 Jul 2007, C. Dobeš Ptl7261 (HEID 805916, W 2012-02247, W 2012-02313); Germany, Rheinland-Pfalz, Idar-Oberstein, along trail between Felsenkirche in Oberstein and the castle 49°42'N, 7°21'E, 04 Jun 2006, C. Dobeš Ptl3741 (HEID 805515–805516); Italy, Lombardy, Lago di Gaiano (W of Lago d'Iseo) 45°47'N, 10°92'E, 350 m, 26 Jul 2006, C. Dobeš Ptl4391, C. Dobeš Ptl4395 (HEID 807528, 807534–807535, W 2012-02291); Switzerland, Wallis, Simplon pass 46°15'N, 8°20'E, 2300 m, 06 Jun 2006, S. Nürnberger Ptl3752, S. Nürnberger Ptl3758 (HEID 805536, 805541).

$2n = 42$ , CHN. France, Department Alpes-Maritimes, 2 km ENE of Saorge, Col de Peiremont 43°59'N, 7°34'E, 1043 m, 11 Apr 2006, C. Dobeš Ptl3522, C. Dobeš Ptl3526 (HEID 805224–805225, 805231–805232, W 2012-02482); France, Department Alpes-de-Haute-Provence, l'Ubaye valley, Jausier, 0.3 km E of the church 44°25'N, 6°44'E, 1250 m, 14 Jul 2007, C. Dobeš Ptl7271 (HEID 805926, W 2012-02248, W 2012-02314); France, Department Puy-de-Dôme, ca. 2 km SW of Beaune, N street D5 at kilometer 13 45°42'N, 2°58'E, 970 m, 10 Jul 2007, C. Dobeš Ptl4271 (HEID 807376); Italy, Lombardy, Lago di Gaiano (W of Lago d'Iseo) 45°47'N, 10°92'E, 350 m, 26 Jul 2006, C. Dobeš Ptl4396 (HEID 807536–807537).

$2n = 49$ , CHN. Spain, Cuenca, along the road N-202 between Cañamares and Cañizares 40°30'N, 2°13'W, 956 m, 24 Jun 2007, J. Paule Ptl6091 (HEID 805969, W 2012-02430)

$2n = 56$ , CHN. Spain, Cuenca, Ciudad Encantada 40°12'N, 2°34'W, 1430 m, 24 Jun 2007, J. Paule Ptl6121 (HEID 806013, W 2012-02507).

$2n = 62–63$ , CHN. Spain, Cuenca, 1 km SE of Beamud, road to Valdemoro Sierra 40°10'N, 1°49'W, 1353 m, 24 Jun 2007, J. Paule Ptl6113 (HEID 806005–806006).



**Fig. 4.** **A**, *Potentilla crantzii*  $2n = 28$  (J. Paule Ptl4231); **B**, *Potentilla heptaphylla*  $2n = 14$  (T. Gregor Ptl3400), arrows mark two satellites; **C**, *Potentilla neumanniana*  $2n = 28$  (J. Paule Ptl6201); **D**, *Potentilla neumanniana*  $2n = 63$  (C. Dobeš Ptl3501); **E**, *Potentilla rigoana*  $2n = 14$  (C. Dobeš Ptl4681); **F–G**, *Potentilla subacaulis*  $2n = 14+4B$  (V. Chepinoga & al. Ptl5525), arrows mark four B-chromosomes; **H**, *Potentilla subacaulis*  $2n = 14+6B$  (V. Chepinoga & al. Ptl5533), arrows mark six B-chromosomes; **I & J**, *Potentilla aurea*  $2n = 14$  (C. Dobeš Ptl4032); **K**, *Potentilla velutina*  $2n = 14$  (C. Dobeš Ptl3628). — Scale bar = 5  $\mu\text{m}$ .

$2n = 60–65$ , CHN. France, Department Alpes-Maritimes, Alpes Maritimes, Var valley, NE of Puget-Théniers above the cementary 43°57'N, 6°53'E, 480 m, 10 Apr 2006, C. Dobeš Ptl3501 (HEID 805170–805171, W 2012-02451) [Fig. 4D].

*Potentilla recta* L.

$2n = 28$ , CHN. Spain, Madrid, village El Paular, near the Rio Lozoya vis-a-vis the monastery 40°53'N, 3°53'W, 1148 m, 26 Jun 2007, J. Paule Ptl6142 (HEID 806051–806052).

*Potentilla rigoana* Th. Wolf

\* $2n = 14$ , CHN. Italy, Basilicata, Monte Pollino, near the Refugio De Gásperi (ca. 12 km NW of Castrovillari) 39°54'N, 16°75'E, 1560 m, 06 Jun 2007, C. Dobeš Ptl4681 (HEID 807643, W 2012-02167, W 2012-02428) [Fig. 4E]; Italy, Basilicata, below the summit of the Monte Pollino 39°54'N, 16°11'E, 2150 m, 07 Jun 2007, C. Dobeš Ptl4349 (HEID 807485–807486, W 2012-02199, W 2012-02447).

*Potentilla sternerii* T. Gregor & Karlsson

$2n = 42$ , CHN. Sweden, Öland, SE Mörbylanga, Borby Borg 56°29'N, 16°25'E, 54 m, 11 Jun 2006, T. Gregor Ptl3243 (HEID 804879–804880).

*Potentilla subacaulis* L.

\*\* $2n = 14+3–6B$ , CHN. Russia, Irkutskaya Oblast', vicinity of Ust'-Ordynskii, environs of Gushit village 52°52'N, 104°57'E, 02 Sep 2006, V. Chepinoga & al. Ptl5525, V. Chepinoga & al. Ptl5527, V. Chepinoga & al. Ptl5533 (W 2012-02330, W 2012-02336, W 2012-02337) [Fig. 4F–H].

*Potentilla thuringiaca* Bernh.

$2n = 42$ , CHN. Switzerland, Engadin, along street between Ftan-Pitschen and Scoul, ca. 0.5 km E of Pitschen 46°47'N, 10°15'E, 1620 m, 13 May 2007, C. Dobeš Ptl4608 (HEID 807629, W 2012-02164).

\*\* $2n = 61–63$ , CHN. Switzerland, Engadin, above railway station Ftan (W of Scoul) 46°47'N, 10°15'E, 1415 m, 13 May 2007, C. Dobeš Ptl4571 (HEID 807592, W 2012-02213).

*Potentilla velutina* Lehm.

$2n = 14$ , CHN. France, Department Alpes-Maritimes, Plateau de Calern, at the Observatoire de la Cote d'Azur (2 km NE of Caussols, 43°45'N, 6°55'E, 1270 m, 15 Apr 2006, C. Dobeš Ptl3583 (HEID 805288, W 2012-02466, W 2012-02317); France, Department Alpes-Maritimes, Plateau de Caussols, ca. 2.5 km SE of Caussols, close to Castel de Loup 43°43'N, 6°55'E, 1120 m, 15 Apr 2006, C. Dobeš Ptl3628 (HEID 805384, W 2012-02467, W 2012-02322) [Fig. 4K].

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- \* First chromosome count for the species.
- \*\* New chromosome number (cytotype) for the species.
- ▼ First chromosome count from an Indian accession.

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**APIACEAE**

*Bupleurum himalayense* Klotzsch

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, dry slopes, 28 Jun 2008, *Dalvir Kaur DK 26020* (PUN 53822).

\**Eriocyclus caespitosus* H. Wolff

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, waste moist slopes, 03 Jul 2009, *Dalvir Kaur DK 26021* (PUN 53823).

\**Seseli sibiricum* Benth. ex C.B. Clarke

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Kuppa, 31°25'N, 78°14'E, 2600 m, rock crevices, 03 Jul 2009, *Dalvir Kaur DK 26031* (PUN 53831).

**ASTERACEAE**

▼*Crepis multicaulis* Ledeb.

*n* = 5, CHN. India, Himachal Pradesh, Kinnaur, Kothi, 31°32'N, 78°16'E, 2670 m, cultivated fields, 05 May 2008, *Dalvir Kaur DK 26097* (PUN 53897); India, Himachal Pradesh, Kinnaur, Reckong Peo, 31°33'N, 78°16'E, 2670 m, waste places, 26 Jun 2008, *Dalvir Kaur DK 26098* (PUN 53898); India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, moist slopes, 18 May 2009, *Dalvir Kaur DK 26099* (PUN 53899).

▼*Crepis sancta* (L.) Bab.

*n* = 5, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, moist slopes, 18 May 2009, *Dalvir Kaur DK 26100* (PUN 53900); India, Himachal Pradesh, Kinnaur, Kuppa, 31°25'N, 78°14'E, 2600 m, water channel, 18 May 2009, *Dalvir Kaur DK 26201* (PUN 53908).

\*\**Erigeron mucronatus* DC.

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist rocky slopes and meadows, 29 Aug 2008, *Dalvir Kaur DK 26214* (PUN 53921).

\**Erigeron umbrosus* (Kar. & Kir.) Popov

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Chango, 31°58'N, 78°35'E, 3050 m, dry rocks, 13 Aug 2009, *Dalvir Kaur DK 26215* (PUN 53922); India, Himachal Pradesh, Kinnaur, Nako, 31°52'N, 78°37'E, dry rocks, 3660 m, 28 Jul 2008, *Dalvir Kaur DK 26216* (PUN 53923); India, Himachal Pradesh, Kinnaur, Namgia, 31°48'N, 78°39'E, 3050 m, dry rocks, 12 Aug 2009, *Dalvir Kaur DK 26217* (PUN 53924); India, Himachal Pradesh, Kinnaur, Yangthang, 31°53'N, 78°36'E, 3000 m, dry rocks, 13 Aug 2009, *Dalvir Kaur DK 26218* (PUN 53925).

▼*Lactuca orientalis* Boiss.

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Nako, 31°52'N, 78°37'E, 3660 m, dry rocky slopes, 13 Aug 2009, *Dalvir Kaur DK 26241* (PUN 53948); India, Himachal Pradesh, Kinnaur, Ropa, 31°47'N, 78°25'E, 3000 m, dry rocky slopes, 11 Aug 2009, *Dalvir Kaur DK 26242* (PUN 53949).

\**Saussurea albescens* Hook. f. & Thomson ex C.B. Clarke

*n* = 17, CHN. India, Himachal Pradesh, Kinnaur, Ropa, 31°47'N, 78°25'E, 3000 m, dry rocky slopes, 02 Jul 2009, *Dalvir Kaur DK 26262* (PUN 53969).

*Senecio krascheninnikovii* Schischk.

*n* = 10, CHN. India, Himachal Pradesh, Kinnaur, Thangi, 31°33'N, 78°28'E, 2700 m, sandy slopes, 02 July 2009, *Dalvir Kaur DK 26253* (PUN 53960).

\**Youngia glauca* Edgew.

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Nichar, 31°33'N, 77°57'E, 2150 m, water channel, 17 May 2009, *Dalvir Kaur DK 26096* (PUN 53896).

**BERBERIDACEAE**

\**Berberis kunwarensis* Royle

*n* = 14, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, waste open places, 04 May 2008, *Dalvir Kaur DK 23383* (PUN 54025).

**BIGNONIACEAE**

▼*Incarvillea arguta* Royle

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Karchham, 31°29'N, 78°10'E, 1900 m, rock crevices and stony slopes, 28 Jun 2008, *Dalvir Kaur DK 25515* (PUN 54061).

\**Incarvillea emodi* (Lindl.) Chatterjee

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Karchham, 31°29'N, 78°10'E, 1900 m, rocks and stony slopes, 02 Jul 2008, *Dalvir Kaur DK 25511* (PUN 54057).

**BRASSICACEAE**

▼*Arabis glabra* Bernh.

*n* = 6, CHN. India, Himachal Pradesh, Kinnaur, Kalpa, 31°31'N, 78°15'E, 2760 m, stony slopes, 03 May 2008, *Dalvir Kaur DK 25549* (PUN 54095).

▼*Arabis nova* Vill.

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist slopes and alpine meadows, 04 Jul 2009, *Dalvir Kaur DK 25550* (PUN 54096).

\**Arabis tibetica* Hook. f. & Thomson

*n* = 21, CHN. India, Himachal Pradesh, Kinnaur, Jangi Barrier, 31°36'N, 78°25'E, 2790 m, river bank, 30 Sep 2007, *Dalvir Kaur DK 25563* (PUN 54109).

*Descurainia sophia* (L.) Webb ex Prantl

*n* = 14, CHN. India, Himachal Pradesh, Kinnaur, Reckong Peo, 31°33'N, 78°16'E, 2670 m, cultivated fields, 03 May 2008, *Dalvir Kaur DK 25561* (PUN 54107).

*Erysimum hieraciifolium* L.

*n* = 16, India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, forests and waste places, 29 May 2009, *Dalvir Kaur DK 25557* (PUN 54103).

\*\**Erysimum melicentae* Dunn

*n* = 21, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, dry sandy slopes, 27 Jun 2008, *Dalvir Kaur DK 25558* (PUN 54104).

*Sisymbrium orientale* L.

*n* = 7, CHN. India, Himachal Pradesh, Kinnaur, Nako, 31°52'N, 78°37'E, 3660 m, wastelands in rock crevices, 28 Jul 2008, *Dalvir Kaur DK 25562* (PUN 54108).



**CAMPANULACEAE**\**Campanula argyrotricha* Wall. & DC.

*n* = 14, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, under dry rocky area, 28 Jun 2008, *Dalvir Kaur DK 19889* (PUN 50959).

**CAPPARIDACEAE**▼*Capparis spinosa* L.

*n* = 12, CHN. India, Himachal Pradesh, Kinnaur, Bhabanagar, 31°33'N, 77°56'E, 1900 m, rocky slopes, 02 May 2009, *Dalvir Kaur DK 23388* (PUN 54030); India, Himachal Pradesh, Kinnaur, Pooh, 31°45'N, 78°35'E, 2830 m, pendulous on old wall, 28 Jul 2008, *Dalvir Kaur DK 23391* (PUN 54033).

**CAPRIFOLIACEAE**\**Lonicera hypoleuca* Decne.

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Morang, 31°35'N, 78°26'E, 2590 m, dry rocky slopes, 02 Jul 2009, *Dalvir Kaur DK 25954* (PUN 53659); India, Himachal Pradesh, Kinnaur, Ropa valley, 31°41'N, 78°26'E, 3000 m, dry rocky slopes, 11 Aug 2009, *Dalvir Kaur DK 25955* (PUN 53660).

▼*Lonicera myrtillus* Hook. f. & Thomson

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, alpine meadows, 19 May 2009, *Dalvir Kaur DK 25952* (PUN 53657).

**CARYOPHYLLACEAE**\**Arenaria edgeworthiana* Majumdar

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, alpine meadows, 04 Jul 2009, *Dalvir Kaur DK 25827* (PUN 53725).

▼*Minuartia kashmirica* Mattf.

*n* = 13, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, stony slopes and rock crevices, 19 May 2009, *Dalvir Kaur DK 25834* (PUN 53733).

▼*Myosoton aquaticum* Moench

*n* = 14, CHN. India, Himachal Pradesh, Kinnaur, Nichar, 31°33'N, 77°57'E, 2150 m, rock crevices, 17 May 2009, *Dalvir Kaur DK 25835* (PUN 53734).

▼*Sagina saginoides* (L.) H. Karst.

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Raturang, 31°43'N, 78°24'E, 2600 m, sandy slopes, 20 May 2009, *Dalvir Kaur DK 25836* (PUN 53735).

*Spergularia diandra* (Guss.) Heldr.

▼*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Pooh, 31°45'N, 78°35'E, 2840 m, dry slopes, 28 July 2008, *Dalvir Kaur DK 25843* (PUN 53742).

\*\*▼*n* = 18, CHN. India, Himachal Pradesh, Kinnaur, Chango, 31°58'N, 78°35'E, 3050 m, dry slopes, 13 Aug 2009, *Dalvir Kaur DK 25842* (PUN 53741).

\**Stellaria paniculata* Edgew.

*n* = 17, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, dry slopes, 4 Jul 2009, *Dalvir Kaur DK 25849* (PUN 53751).

**CHENOPODIACEAE**▼*Salsola collina* Pall.

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Chango, 31°58'N, 78°35'E, 3050 m, dry slopes, 13 Aug 2009, *Dalvir Kaur DK 25532* (PUN 54078); India, Himachal Pradesh, Kinnaur, Morang,

31°35'N, 78°26'E, 2590 m, roadsides, 27 Jul 2008, *Dalvir Kaur DK 25533* (PUN 54079).

▼*Salsola kali* L.

*n* = 27, CHN. India, Himachal Pradesh, Kinnaur, Jangi, 31°36'N, 78°25'E, 2790 m, dry slopes, 30 Sep 2007, *Dalvir Kaur DK 25536* (PUN 54082); India, Himachal Pradesh, Kinnaur, Pooh, 31°45'N, 78°35'E, 2840 m, dry slopes, 27 Jul 2008, *Dalvir Kaur DK 25538* (PUN 54084).

**ELAEAGNACEAE**\**Elaeagnus parvifolia* Wall. ex Royle

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Sangla Valley, 31°25'N, 78°15'E, 2680 m, cultivated areas, 18 May 09, *Dalvir Kaur DK 23380* (PUN 54022).

▼*Hippophae salicifolia* D. Don

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Morang, 31°35'N, 78°26'E, 2590 m, waste places, 03 May 08, *Dalvir Kaur DK 23370* (PUN 54011).

**FABACEAE***Astragalus candolleanus* Royle

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, alpine meadows, 19 May 2009, *Dalvir Kaur DK 25973* (PUN 53678).

\**Astragalus malacophyllus* Benth. ex Bunge

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, moist shady localities, 19 May 2009, *Dalvir Kaur DK 25971* (PUN 53676).

\**Astragalus strobiliferus* Royle

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Ropa valley, 31°41'N, 78°26'E, 3000 m, sandy slopes, 11 Aug 2009, *Dalvir Kaur DK 25975* (PUN 53680).

\**Colutea nepalensis* Sims

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Morang, 31°35'N, 78°26'E, 2590 m, open waste places, 2 Jul 2009, *Dalvir Kaur DK 25980* (PUN 53685); India, Himachal Pradesh, Kinnaur, Pooh, 31°45'N, 78°35'E, 2840 m, dry rocks and open slopes, 12 Aug 2009, *Dalvir Kaur DK 25981* (PUN 53686); India, Himachal Pradesh, Kinnaur, Thangi, 31°33'N, 78°28'E, 2700 m, river bank, 02 July 2009, *Dalvir Kaur DK 25982* (PUN 53687).

*Desmodium elegans* var. *nutans* (Hook.) H. Ohashi

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Karchham, 31°29'N, 78°10'E, 1900 m, roadsides, 02 Aug 2007, *Dalvir Kaur DK 25960* (PUN 53666).

▼*Desmodium racemosum* DC.

*n* = 11, CHN. India, Himachal Pradesh, Kinnaur, Kalpa, 31°31'N, 78°15'E, 2760 m, dry rocky slopes, 03 May 2008, *Dalvir Kaur DK 25959* (PUN 53664).

\**Indigofera himalayensis* Ali

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Kangoos, 31°33'N, 77°55'E, 1980 m, margin of temperate forests, 17 May 2009, *Dalvir Kaur DK 25821* (PUN 53717).

▼*Medicago falcata* L.

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Morang, 31°35'N, 78°26'E, 2590 m, moist shady places, 30 Sep 2007, *Dalvir Kaur DK 25988* (PUN 53693).

▼*Piptanthus nepalensis* Sweet

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Sangla Valley, 31°25'N, 78°15'E, 2680 m, open waste places, 04 May 2008, *Dalvir Kaur DK 25998* (PUN53703).

*Trigonella emodi* Benth.

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist places, 04 Jul 2009, *Dalvir Kaur DK 25817* (PUN 53713); India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, along water courses, 04 Jul 2009, *Dalvir Kaur DK 25818* (PUN 53714).

\**Trigonella pubescens* Edgew. ex Baker

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist rocky slopes, 04 Jul 2009, *Dalvir Kaur DK 25819* (PUN 53715).

*Vicia pallida* Turcz.,

*n* = 12, CHN. India, Himachal Pradesh, Kinnaur, Bhabanagar, 31°33'N, 77°56'E, 1900 m, moist places and along water courses, 26 Sep 2009, *Dalvir Kaur DK 25810* (PUN 53706).

**FUMARIACEAE**\**Corydalis ramosa* Wall.

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Kalpa Valley, 31°31'N, 78°15'E, 2760 m, moist slopes, 01 Aug, 2009, *Dalvir Kaur DK 23375* (PUN 54016).

**GENTIANACEAE**\*\**Gentiana argentea* Royle ex D. Don

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, roadsides, 19 May 2009, *Dalvir Kaur DK 23400* (PUN 54042).

**GERANIACEAE**▼*Erodium cicutarium* (L.) L'Her. ex Aiton

*n* = 10, CHN. India, Himachal Pradesh, Kinnaur, Raturang, 31°43'N, 78°24'E, 2600 m, cultivated areas, 19 May 2009, *Dalvir Kaur DK 26010* (PUN 53815).

**HYPERICACEAE***Hypericum perforatum* L.

*n* = 16, CHN. India, Himachal Pradesh, Kinnaur, Kalpa Valley, 31°31'N, 78°15'E, 2760 m, orchards, 01 Aug 2009, *Dalvir Kaur DK 23395* (PUN 54037).

**LAMIACEAE***Thymus linearis* Benth.

*n* = 13, CHN. India, Himachal Pradesh, Kinnaur, Kalpa, 31°31'N, 78°15'E, 2760 m, cultivated field boundaries, 06 May 2008, *Dalvir Kaur DK 25928* (PUN 53629); India, Himachal Pradesh, Kinnaur, Kuppia, 31°25'N, 78°14'E, 2600 m, waste places, 03 Sep 2007, *Dalvir Kaur DK 25930* (PUN 53631); India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, dry alpine pastures, 04 Jul 2009, *Dalvir Kaur DK 25933* (PUN 53634).

**ONAGRACEAE***Epilobium hirsutum* L.

*n* = 18, CHN. India, Himachal Pradesh, Kinnaur, Bhabanagar, 31°33'N, 77°56'E, 1900 m, water channels, 21 Sep 2008, *Dalvir Kaur DK 25857* (PUN 53759).

▼*Epilobium parviflorum* Schreb.

*n* = 18, CHN. India, Himachal Pradesh, Kinnaur, Talangia, 31°33'N, 78°16'E, 2650 m, water channels and waste places, 24 Jun 2008, *Dalvir Kaur DK 25855* (PUN 53758).

▼*Oenothera affinis* Cambess.

*n* = 14, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, waste places along apple orchards, 26 Jun 2008, *Dalvir Kaur DK 25851* (PUN 53754).

**PHYTOLACCAEAE***Phytolacca acinosa* Roxb.

*n* = 36, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, cultivated fields, 27 Jun 2008, *Dalvir Kaur DK 25528* (PUN 54074).

**PRIMULACEAE***Androsace rotundifolia* Hardw.

*n* = 10, CHN. India, Himachal Pradesh, Kinnaur, Nichar, 31°33'N, 77°57'E, 2150 m, open slopes, 17 May 2009, *Dalvir Kaur DK 23397* (PUN 54039).

*Androsace sarmentosa* Wall.

*n* = 10, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, under rocks, 04 Jul 2009, *Dalvir Kaur DK 23398* (PUN 54040).

**RANUNCULACEAE***Aquilegia fragrans* Benth.

*n* = 7, CHN. India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, rock crevices, 04 Jul 2009, *Dalvir Kaur DK 23352* (PUN 53993); India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist shady meadows, 04 Jul 2009, *Dalvir Kaur DK 23353* (PUN 53994).

*Delphinium roylei* Munz

*n* = 8, CHN. India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, pastures and moist forest slopes, 05 Jul 2008, *Dalvir Kaur DK 23357* (PUN 53998).

*Thalictrum minus* L.

*n* = 7, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, forest margins, 04 Jul 2009, *Dalvir Kaur DK 26052* (PUN 53887).

**ROSACEAE**▼*Fragaria nubicola* Lindl. ex Lacaite

*n* = 7, CHN. India, Himachal Pradesh, Kinnaur, Chittkul, 31°21'N, 78°26'E, 3450 m, moist shady places, 19 May 2009, *Dalvir Kaur DK 25894* (PUN 53797); India, Himachal Pradesh, Kinnaur, Sangla, 31°25'N, 78°15'E, 2680 m, cultivated fields, 18 May 2009, *Dalvir Kaur DK 25895* (PUN 53799).

*Potentilla bifurca* L.

*n* = 21, India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, rock crevices, 19 May 2009, *Dalvir Kaur DK 26007* (PUN 53812).

*Potentilla cuneifolia* Bertol.

*n* = 14, India, Himachal Pradesh, Kinnaur, Rakchham, 31°22'N, 78°22'E, 3115 m, rock crevices, 19 May 2009, *Dalvir Kaur DK 26008* (PUN 53813).

*Rosa brunonii* Lindl.

*n* = 7, CHN. India, Himachal Pradesh, Kinnaur, Nichar, 31°33'N, 77°57'E, 2150 m, open slopes, 17 May 2009, *Dalvir Kaur DK 25896* (PUN 53801).

**SCROPHULARIACEAE***Veronica anagallis-aquatica* L.

*n* = 9, CHN. India, Himachal Pradesh, Kinnaur, Ropa valley,

31°41'N, 78°26'E, 3000 m, wet ditches, 11 Sep 2009, *Dalvir Kaur DK 25577* (PUN 54123).

$n = 18$ , CHN. India, Himachal Pradesh, Kinnaur, Pooh, 31°45'N, 78°35'E, 2840 m, swampy places along roadsides, 28 Jul 2009, *Dalvir Kaur DK 25575* (PUN 54121); India, Himachal Pradesh, Kinnaur, Reckong Peo, 31°33'N, 78°16'E, 2670 m, swampy places along roadsides, 30 Jul 2008, *Dalvir Kaur DK 25576* (PUN 54122); India, Himachal Pradesh, Kinnaur, Thangi, 31°33'N, 78°16'E, 2700 m, water channel, 02 Jul 2009, *Dalvir Kaur DK 25589* (PUN 54135).

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\* First chromosome count for the species.

\*\* New chromosome number (cytotype) for the species.

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#### AMARANTHACEAE

*Amaranthus blitoides* S. Watson

$2n = 32$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, the railway station Nadezhdinskaya, waste ground, 26 Oct 2008, *Nechaev 11174* (VLA).

#### ASTERACEAE

*Artemisia annua* L.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km N of Blagoveshchensk city, deciduous forest, on roadside, 19 Sep 2006, *Korobkov 07-87* (LE); Russia, Far East, Khabarovskii Krai, Khabarovsk city, waste ground, rubble hillocks, 23 Sep 2004, *Korobkov 05-02* (LE); Russia, Far East, Primorskii Krai, Vladivostok city, Churkina Cape, stony ridge, *Artemisia* community, 17 Oct 2004, *Korobkov 05-41* (LE).

*Artemisia arctica* Less.

$2n = 18$ , CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Tolbachik Volcano, 9 Aug 2006, *Yefimov 08-05* (LE); Russia, Far East, Khabarovskii Krai, Poliny Ossipenko Raion, Nevandzha Mountain Ridge, Pereval'noe Lake, W slope, *Larix–Pinus pumila* forest, 21 Aug 2006, *Antonova 08-10* (LE).

*Artemisia argyi* H. Lév. & Vaniot

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the lower part of the Bureya River, the high terrace of left riverside, near Ukrainka village, on the bank of a small lake, in shrubs, 6 Sep 2006, *Korobkov 07-57* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the plain between Bureya and Arkhara rivers, near Antonovka settlement, on the edge of a ditch, 4 Oct 2006, *Korobkov 07-58* (LE); Russia, Far East, Primorskii Krai, Kirovskii Raion, the valley of the Ussuri River, outskirts of Kirovskii settlement, light oak forest with shrubs, 9 Oct 2004, *Korobkov 05-90* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, the motorway along the Komissarovka River valley, top of a hill, the edge of *Quercus* forest, 20 Oct 2006, *Korobkov 07-55* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, dry

non-flooded terrace of a small river, fallow, *Artemisia* community, 8 Oct 2004, *Korobkov 05-89* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, Mountain-Taiga station, the terrace of a stream, *Artemisia* community along the path, 13 Oct 2006, *Korobkov 07-56* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, the valley of Razdol'naya River, near Terekhovka village, top of a hill, meadow with shrubs, 10 Oct 2004, *Korobkov 05-91* (LE).

*Artemisia borealis* Pall.

$2n = 18$ , CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Ust'-Kamchatskii Raion, N slope of Tolbachik Volcano, subalpine zone, on the small volcanic sulphuric river, 31 Aug 2004, *Yakovov 05-39* (LE).

*Artemisia commutata* Besser

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, locality Snezhka, near Mokhovaya Pad' settlement, the top of a hill, steppe with various herbs, 26 Sep 2006, *Korobkov 07-107, 07-113* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, *Pinus* forest on high sandy hills, 23 Sep 2006, *Korobkov 07-108, Korobkov 07-109, Korobkov 07-110, Korobkov 07-175, Korobkov 07-176, Korobkov 07-177, Korobkov 07-178* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, right riverside of Zeya River, downstream of Chagoyan settlement, the top of a hill, light *Pinus* forest, on the edge of a ditch, 28 Sep 2006, *Korobkov 07-112* (LE); Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the top of a hill, light *Pinus* forest, slopes of a ditch, 29 Sep 2006, *Korobkov 07-111, Korobkov 07-114* (LE).

\*\**Artemisia desertorum* Spreng.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, *Pinus* forest, sandy hillocks by the road, 23 Sep 2006, *Korobkov 07-124, Korobkov 07-126, Korobkov 07-173* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high floodplain of the Amur River, near Peschanoe Lake, sedge and grass swamp in depression, 20 Sep 2006, *Korobkov 07-134* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, the plain near Antonovka settlement, meadow with shrubs, 4 Oct 2006, *Korobkov 07-174* (LE).

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, motorway to Svobodnyi town, near Novinka settlement, the slope of a hill, light *Quercus* forest, on the edge of a ditch, 28 Sep 2006, *Korobkov 07-125* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, "Sergeevskie Utëssy", light *Betula* and *Quercus* forest with shrubs and herbs, 21 Sep 2006, *Korobkov 07-128, Korobkov 07-129* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, locality Snezhka, near Mokhovaya Pad' settlement, the slope of a hill, light *Quercus* forest with herbs, 25 Sep 2006, *Korobkov 07-130* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high lakeside of the Peschanoe Lake, meadow with shrubs, 20 Sep 2006, *Korobkov 07-127* (LE); Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the top of a hill, *Pinus* forest, sandy slopes of a ditch, 29 Sep 2006, *Korobkov 07-131, Korobkov 07-135* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, lakeside of the Krivoie Lake, dry sandy hillocks on the roadside, 6 Oct 2006, *Korobkov 07-132* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the watershed of Uril and Gryaznaya rivers, stony slope of a hill, light *Quercus* forest with shrubs and herbs, 5 Oct 2006, *Korobkov 07-133* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tummin River basin, near Tuluchi village, non-flooded low terrace, dry pebbles, 29 Sep 2004, *Korobkov 05-135, Korobkov 05-136*,

*Korobkov 05-138, Korobkov 05-139, Korobkov 05-140, Korobkov 05-141, Korobkov 05-142* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, right riverside of the Razdol'naya River, a slope of steep bank, light oak forest, clearing, 10 Oct 2004, *Korobkov 05-134, Korobkov 05-137* (LE).

*Artemisia feddei* H. Lév. & Vaniot

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the bottom of the rocky bank of Razdol'naya River, on rubble plots, among blocks, 10 Oct 2004, *Korobkov 05-82* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near the railway station Baranovskii, non-flooded terrace of the Razdol'naya River, dense *Artemisia* and grass community on sandy hillock, 10 Oct 2004, *Korobkov 05-84* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the pass to Vityaz' Bay, the old roadside, small-sized rubble plots, 15 Oct 2004, *Korobkov 05-81* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Filippovka village, the floodplain of a river, *Artemisia* community on sandy hillock, 15 Oct 2004, *Korobkov 05-18, Korobkov 05-83* (LE).

*Artemisia freyniana* (Pamp.) Krasch.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Tambovskii Raion, near Dukhovskoe village, high floodplain of the Amur River, the bank of Peschanoe Lake, sandy hillocks, meadow, 20 Sep 2006, *Korobkov 07-77, Korobkov 07-78* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, sandy hills, *Pinus* forest, 23 Sep 2006, *Korobkov 07-79* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the top of a hill, steppe, 25 Sep 2006, *Korobkov 07-80, Korobkov 07-81* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, "Sergeevskie Utëssy" in 1.5 km S of Sergeevka settlement, the drain hollow, meadow community, 21 Sep 2006, *Korobkov 07-84* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, the motorway from Blagoveshchensk to Svobodnyi town, near Novinka settlement, the steep stony slope of a hill, light *Quercus* forest, 28 Sep 2006, *Korobkov 07-80, Korobkov 07-86* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the left riverside of the Bureya River, near Skobel'tsino settlement, the top of a hill, light *Quercus* forest, 6 Sep 2006, *Korobkov 07-82* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the left riverside of the Bureya River, lakeside of the Krivoie Lake, 6 Oct 2006, *Korobkov 07-85* (LE); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, in vicinity of Mikhailovka settlement, S slope, herbal community with shrubs and solitary oaks, 20 Oct 2006, *Korobkov 07-89* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, stony ridge of a hill, shrubs and herbs community, 15 Oct 2004, *Korobkov 05-01, Korobkov 05-22, Korobkov 05-23, Korobkov 05-24* (LE);

*Artemisia glomerata* Ledeb.

\*\* $2n = 54$ , CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Ust'-Kamchatskii Raion, Tolbachik Volcano, 5 Aug 2006, *Efimov 08-04* (LE).

*Artemisia gmelinii* Weber ex Stechm.

$2n = 54$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the top of high ridge above Arkhara settlement, steppified meadow community, 4 Oct 2006, *Korobkov 07-88* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, "Sergeevskie Utëssy", the top of riverside hill, light *Quercus* forest with shrubs and herbs, 21 Sep 2006, *Korobkov 07-89, Korobkov 07-99* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, the slope of a hill, *Quercus* and *Pinus* forest on sands, 23 Sep 2006, *Korobkov 07-90* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the slope of a low

hill, light *Quercus* forest, 25 Sep 2006, *Korobkov 07-91* (LE); Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the slope of a sabulous hill, light *Pinus* forest, 29 Sep 2006, *Korobkov 07-92* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the watershed of Uril and Gryaznaya rivers, the slope of a hill, light *Quercus* forest with dense herbal layer, 5 Oct 2006, *Korobkov 07-93* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, floodplain of the Amur River, high lakeside of the Peschanoe Lake, *Artemisia* community with grasses and undershrubs, 20 Sep 2006, *Korobkov 07-97* (LE); Russia, Far East, Khabarovskii Krai, Khabarovsk city, right riverside of the Amur River, steep stony slope of the terrace, deciduous forest with underbrush, 10 Oct 2006, *Korobkov 08-34, 08-35* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, the bottom of S slope of the riverside hill, on rocks and stony deposits, 25 Sep 2004, *Korobkov 05-38* (LE); Russia, Far East, Primorskii Krai, Kirovskii Raion, near Kirovskii settlement, a slope of the valley of small river, on dry rubble at the roadside, 9 Oct 2004, *Korobkov 05-37* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, the valley of Komissarovka River, at the motorway, the slope of a hill, mixed forest with solitary *Pinus* trees, 20 Oct 2006, *Korobkov 07-94* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, W coast of the Khanka Lake, near Turii Rog settlement, high sandy terrace of a stream, at the edge of shrubs community, 21 Oct 2006, *Korobkov 07-95, Korobkov 07-96* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, in vicinity of Terekhovka village, the top of riverside hill, dense grass and *Artemisia* community with shrubs, 10 Oct 2004, *Korobkov 05-30, Korobkov 05-31* (LE); Russia, Far East, Primorskii Krai, the border of Khassanskii Raion, the motorway to Zarubino, the bottom of slope of a hill, stony hillocks by the road, the grass and *Artemisia* community with shrubs, 15 Oct 2004, *Korobkov 05-32* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Zarubino settlement, the top of coastal hill, steep stony slope to the sea, among grasses and various herbs, 16 Oct 2004, *Korobkov 05-34* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, the pass to Vityaz' Bay, E stony slope, meadow with shrubs, 15 Oct 2004, *Korobkov 05-33* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Okeanskii Ridge, near the pass, S stony slope, meadow with shrubs at the edge of *Malus* forest, 21 Oct 2004, *Korobkov 05-36* (LE); Russia, Far East, Primorskii Krai, Shkotovskii Raion, in vicinity of Mnogoudobnoe settlement, rubble deposits at the bottom of calcareous rocks, shrubs community, 15 Oct 2007, *Korobkov 08-36* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, W coast, Nevel'skii Raion, near Shebunino settlement, 12 Oct 2000, *Tkachenko 00-04* (LE).

*Artemisia integrifolia* L.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, motorway Blagoveshchensk–Svobodnyi, near Novinka settlement, SE steep slope of a hill, *Betula*, *Quercus* and *Larix* forest with undershrubs and various herbs, 28 Sep 2006, *Korobkov 07-19* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the large plain in 3 km W of Tarmanchukan settlement, sedge and grass swamp in the floodplain, 5 Oct 2006, *Korobkov 07-21* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the watershed of Uril and Gryaznaya rivers, the shrubs and herbs community, 5 Oct 2006, *Korobkov 07-25* (LE); Russia, Far East, Evreiskaya Avtonomnaya Oblast', local line Khabarovsk–Sovetskaya Gavan', railway station Volochaevka-2, *Salix* community, 3 Oct 2004, *Korobkov 05-96* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, non-flooded terrace, meadow with grasses and various herbs, 29 Sep 2004, *Korobkov 05-97, Korobkov 05-99* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, the bottom of the rocky slope on the left riverside, rubble deposits at the road, 25 Sep 2004,

*Korobkov 05-98, Korobkov 05-100, Korobkov 08-18* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, stony slope of a hill, mixed forest, 27 Sep 2004, *Korobkov 05-102, Korobkov 05-103, Korobkov 05-104* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, S steep stony slope of a hill, *Larix, Betula* and *Quercus* forest, 21 Sep 2004, *Korobkov 05-12* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Makarovskii Raion, Maguntan mud volcano, meadow, 21 Sep 2000, *Smirnov 00-19* (LE).

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, the plain between Bureya and Arkhara rivers, near Antonovka settlement, meadow community with shrubs, 4 Oct 2006, *Korobkov 07-17, Korobkov 07-23, Korobkov 07-180* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km N of Blagoveshchensk city, along the motorway to airport, lofty hill, multi-species deciduous forest, 19 Oct 2006, *Korobkov 07-18* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, meadow in depression, at the edge of *Pinus* and *Quercus* forest, 23 Sep 2006, *Korobkov 07-20* (LE); Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the edge of *Betula* forest, meadow with grasses and various herbs, 29 Sep 2006, *Korobkov 07-22* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the depression at the bottom of the slope of a hill, meadow with grasses and various herbs, 26 Sep 2006, *Korobkov 07-24* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, the lower course of the Bureya River, left riverside, high sandy lakeside of the Krivoie Lake, deciduous forest at the edge of depression, 6 Oct 2006, *Korobkov 07-179, Korobkov 07-183* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, high terrace of the Uril River, a depression at the W slope, herbal community with shrubs, 5 Oct 2006, *Korobkov 07-181* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, the floodplain of the Amur River, a depression at the lakeside of the Peschanoe Lake, sedge swamp community, 20 Sep 2006, *Korobkov 07-185* (LE); Russia, Far East, Primorskii Krai, Kirovskii Raion, outskirts of Kirovskii settlement, flat slope of the valley of Ussuri River, light oak forest with shrubs, 9 Oct 2004, *Korobkov 05-95, Korobkov 05-106, Korobkov 05-107* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the slope of riverside hill, meadow, 10 Oct 2004, *Korobkov 08-17* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the pass to Vityaz' Bay, the flat moist depression, dense meadow community, 15 Oct 2004, *Korobkov 05-105* (LE).

*Artemisia keiskeana* Miq.

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the Razdol'naya River, steep stony slope of the riverside, oak forest with shrubs and herbs, 10 Oct 2004, *Korobkov 05-43* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the steep stony maritime slope, oak forest with shrubs and various herbs, 16 Oct 2004, *Korobkov 05-42* (LE).

*Artemisia koidzumii* Nakai

$2n = 36$ , CHN. Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, S rubble slope of a hill, 25 Sep 2004, *Korobkov 05-11, Korobkov 05-74, Korobkov 05-75* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, left side of the valley, downstream of Tuluchi village, the bottom of the steep S slope, *Betula* and *Quercus* forest, 27 Sep 2004, *Korobkov 05-78, Korobkov 05-79, Korobkov 05-80* (LE); Russia, Far East, Khabarovskii Krai, the Tumnin River basin, rubble deposits at the bottom of S slope of a hill, 30 Sep 2004, *Korobkov 05-76, Korobkov 08-32* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Smirnykhovskii Raion, Vaida Mt., 340 m, old glade,

16 Sep 2004, *Firsov 08-01* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, near Korsakov city, plateau above the steep, 2 Oct 2004, *Romanov 05-77* (LE).

*Artemisia laciniata* Willd.

$**2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the top of a hill, the edge of the oak forest, dense meadow community, 25 Sep 2006, *Korobkov 07-67, Korobkov 07-69, Korobkov 07-102, Korobkov 07-103* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, near Chagoyan settlement, limestone slope, *Corylus* community, 28 Sep 2006, *Korobkov 07-63* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high floodplain of the Amur River, hillocks on lakeside of the Peschanoe Lake, meadow community at the edge of shrubs, 20 Sep 2006, *Korobkov 07-64, Korobkov 07-65, Korobkov 07-66* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the top of high ridge above Arkhara settlement, meadow community at the edge of the oak forest, 4 Oct 2006, *Korobkov 07-68* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, meadow with shrubs at the edge of *Pinus* forest, 23 Sep 2006, *Korobkov 07-70, Korobkov 07-104* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, "Sergeevskie Utëssy", 1.5 S of Sergeevka settlement, the upper part of a steep slope, oak forest with dense underbrush, 21 Sep 2006, *Korobkov 07-71, Korobkov 07-72* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, depression on the top of a hill, meadow with shrubs, 10 Oct 2004, *Korobkov 05-03, Korobkov 05-28, Korobkov 05-29* (LE); Russia, Far East, Sakhalinskaya Oblast', Kuril Islands, Kunashir Island, Pacific coast, Golovina Bay, Dlinnaya Mt., 15 Oct 2010, *Stupina 11-01, Stupina 11-02, Stupina 11-03, Stupina 11-04* (LE).

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mikhailovka settlement, the motorway to Belogor'e, low floodplain of a stream, sedge and grass meadow community on the hillocks, 21 Sep 2006, *Korobkov 07-61* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km of Blagoveshchensk city, the motorway to airport, the top of a hill, multi-species deciduous forest, 19 Sep 2006, *Korobkov 07-172* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high floodplain of the Amur River, lakeside of the Peschanoe Lake, slight depression, sedge and grass meadow community, 20 Sep 2006, *Korobkov 07-62* (LE).

*Artemisia lagocephala* Fisch. ex Besser

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Partizanskii Raion, Ol'khovaya Mt., 13 Sep 2006, *Alekseyeva 07-155* (LE).

$2n = 54$ , CHN. Russia, Far East, Amurskaya Oblast', Tyndinskii Raion, in vicinity of Berezitovyi mine, stony roadside, 2 Sep 2006, *Starchenko 07-60* (LE); Russia, Far East, Khabarovskii Krai, Poliny Ossipenko Raion, Nevandzha Ridge, Pereval'noe Lake, W slope, *Larix* and *Pinus pumila* forest, 22 Aug 2006, *Antonova 08-12* (LE).

*Artemisia leucophylla* Turcz. ex C.B. Clarke

$2n = 16$ , CHN. Russia, Far East, Khabarovskii Krai, Shantarskie Islands, Bol'shoi Shantar Island, 2 Sep 2006, *Krjukova 08-11* (LE).

*Artemisia littoricola* Kitam.

$2n = 36$ , CHN. Russia, Far East, Primorskii Krai, Ol'ginskii Raion, Ol'ga Bay, near Ol'ga settlement, coastal rocks, 15 Sep 2006, *Alekseyeva 07-151* (LE); Russia, Far East, Primorskii Krai, Partizanskii Raion, right riverside of the Partizanskaya River, near Ekaterinovka settlement, in splits of carbonate rocks, 15 Oct 2007, *Korobkov 08-78* (LE); Russia, Far East, Primorskii Krai, Vladivostok city, Churkina Cape, the top of stony ridge, rubble deposits, 17 Oct 2004, *Korobkov 05-113* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii

Peninsula, Ussuriiskii Bay, Cherepashii Cape, steep rubble-melkozem maritime slope, herbs and shrubs community, 21 Oct 2004, *Korobkov 05-116, Korobkov 05-117* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Okeanskii Ridge, the pass, stony sharp ridge, meadow community, 21 Oct 2004, *Korobkov 05-118, Korobkov 05-119* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Zarubino settlement, steep stony slope of a hill, on rubble, 16 Oct 2004, *Korobkov 05-114* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, in the lower part of coastal rocks, 16 Sep 2004, *Korobkov 05-112, Korobkov 05-115, Korobkov 05-120* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, W coast, 5 km of Krasnogorsk town, 8 Oct 2000, *Tkachenko 00-05* (LE).

*Artemisia macilenta* (Maxim.) Krasch.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, "Sergeevskie Utëssy" in 1.5 km S of Sergeevka settlement, steep stony slope of the riverside, dense meadow community with shrubs, 21 Sep 2006, *Korobkov 07-136, Korobkov 07-138* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, steep slope of a lofty hill, oak forest with dense herbal layer, 25 Sep 2006, *Korobkov 07-137, Korobkov 07-140* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, motorway Blagoveshchensk–Svobodnyi, near Novinka settlement, steep SE slope of a hill, burnt *Quercus* forest with dense underbrush, 28 Sep 2006, *Korobkov 07-141* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, sandy hills, *Pinus* forest, 23 Sep 2006, *Korobkov 07-142* (LE).

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, right riverside of Zeya River, downstream of Chagoyan settlement, the top of a hill, limestone rocks, light *Pinus* forest, 28 Sep 2006, *Korobkov 07-139, Korobkov 07-145* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, near the centre of "Muravëvskii zakaznik", dry steep slope of a terrace, *Artemisia* community, 20 Sep 2006, *Korobkov 07-143, Korobkov 07-144* (LE).

*Artemisia manshurica* (Kom.) Kom.

$2n = 36$ , CHN. Russia, Far East, Primorskii Krai, Kirovskii Raion, the valley of the Ussuri River, outskirts of Kirovskii settlement, flat slope of a hill, light oak forest with dense meadow and shrub community, 9 Oct 2004, *Korobkov 05-131* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, the motorway along the Komissarovka River valley, S slope of a hill, light *Quercus* forest with tall shrubs, 20 Oct 2006, *Korobkov 07-122* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, Mountain-Taiga station, the valley of a stream, a floodplain deciduous forest, 13 Oct 2006, *Korobkov 07-123* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, valley of the river, dry non-flooded terrace, *Artemisia* community with grasses, 8 Oct 2004, *Korobkov 05-130* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the top of a hill, meadow with shrubs, 10 Oct 2004, *Korobkov 05-129* (LE); Russia, Far East, Primorskii Krai, Shkotovskii Raion, in vicinity of Mnogoudobnoe settlement, rubble deposits at the bottom of calcareous rocks, meadow community with shrubs, 15 Oct 2007, *Korobkov 08-79* (LE); Russia, Far East, Primorskii Krai, Shkotovskii Raion, Southern Sikhote-Alin', near Anissimovka settlement, deciduous valley forest, on the way to Khualaza Mt., roadside, 23 Sep 1989, *Korobkov 89-02* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Okeanskii Ridge, the pass, steep slopes of the ridge, meadow with shrubs at the edge of *Malus* forest, 21 Oct 2004, *Korobkov 05-128* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Zarubino settlement, low maritime terrace, dry non-matted sandy slopes, 16 Oct 2004, *Korobkov 07-110, Korobkov 07-111* (LE); Russia, Far East, Primorskii Krai, the border of Khassanskii Raion, the motorway to Zarubino, the bottom of the slope of a hill, stony hillocks in the roadside,

*Artemisia* community, 15 Oct 2004, *Korobkov 05-133* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, stony ridge of the coastal hill, oak forest, 16 Oct 2004, *Korobkov 05-10* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the pass to Vityaz' Bay, stony ridge, dense meadow community with shrubs, 15 Oct 2004, *Korobkov 05-108, Korobkov 05-109* (LE).

*Artemisia maximovicziana* Krasch. ex Poljakov

$2n = 90$ , CHN. Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the top of a hill, light *Pinus* forest, 29 Sep 2006, *Korobkov 07-101* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, the top of a hill, stony slope, meadow community, 25 Sep 2004, *Korobkov 05-04, Korobkov 05-25* (LE).

*Artemisia medioxima* Krasch. ex Poljakov

$2n = ca. 108$ , CHN. Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, 10 km N of Svobodnyi, the top of a hill, *Larix* and *Betula* forest, meadow community at the forest edge, 28 Sep 2006, *Korobkov 07-73, Korobkov 07-74* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, near Shimanovskii settlement, mixed *Larix* and *Betula* forest with low shrubs, 28 Sep 2006, *Korobkov 07-76* (LE).

$2n = 126$ , CHN. Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, 5 km downstream of Tuluchi village, non-flooded terrace of the left riverside, meadow with shrubs at the deciduous forest edge, 29 Sep 2004, *Korobkov 05-45* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, the valley of Akur River in its upper course, the bottom of the steep stony slope, *Larix* and *Betula* forest, 30 Sep 2004, *Korobkov 05-46* (LE).

$2n = 144$ , CHN. Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River, non-flooded terrace of the right riverside, 2 km above Tuluchi village, near the railway embankment, meadow community, 2 Oct 2004, *Korobkov 05-44* (LE).

*Artemisia mongolica* Fisch. ex Besser

$2n = 16$ , CHN. Russia, Far East, Amurskaya Oblast', Tyndinskii Raion, Berezitovy mine, roadside, 2 Sep 2006, *Starchenko 07-59* (LE).

*Artemisia montana* Pamp.

$2n = 54$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Smirnykhovskii Raion, Vaida Mt., 340 m, forest edge, 16 Sep 2004, *Firssov 08-02* (LE);

*Artemisia rubripes* Nakai

$2n = 16$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, 1.5 km S of Sergeevka settlement, "Sergeevskie Utëssy", dense meadow community, 21 Sep 2006, *Korobkov 07-44* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, the motorway Blagoveshchensk–Svobodnyi, near Novinka settlement, the steep SE slope of a hill, light *Quercus* forest, 28 Sep 2006, *Korobkov 05-45, Korobkov 05-46* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km of Blagoveshchensk city, along the motorway to airport, lofty hill, deciduous forest, 19 Oct 2006, *Korobkov 07-47* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, the *Pinus* forest edge, roadside, 23 Sep 2006, *Korobkov 07-39* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, the plain near Antonovka settlement, meadow with shrubs, 4 Oct 2006, *Korobkov 07-38* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the left riverside of the Bureya River, the flood-plain terrace with waste lakes, deciduous forest with shrubs, 6 Oct 2006, *Korobkov 07-40, Korobkov 07-41* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the watershed of Uril and Gryaznaya rivers, depression on the slope,

*Artemisia* community, 5 Oct 2006, *Korobkov 07-42*, *Korobkov 07-48* (LE); Russia, Far East, Khabarovskii Krai, Khabarovsk city, waste ground, rubble deposits, 23 Sep 2004, *Korobkov 05-16*, *Korobkov 05-17* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, near Tuluchi village, the *Betula* and *Larix* valley forest, roadside, 26 Sep 2004, *Korobkov 05-50*, *Korobkov 05-55* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the valley of the Akur River in its lower course, the bottom of S stony slope, *Artemisia* and grass community, 26 Sep 2004, *Korobkov 05-56* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, the valley of the Akur River in its lower course, stony deposits on roadside, 28 Sep 2004, *Korobkov 05-14*, *Korobkov 05-15* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Tumnin River basin, the flood-plain of the Akur River in its upper course, mixed forest, on pebbles, 28 Sep 2004, *Korobkov 05-57* (LE); Russia, Far East, Primorskii Krai, Kirovskii Raion, the valley of the Ussuri River, outskirts of Kirovskii settlement, the slope of the river valley, meadow community with *Artemisia* at the edge of the forest belt, 9 Oct 2004, *Korobkov 05-48*, *Korobkov 05-49*, *Korobkov 05-53* (LE); Russia, Far East, Primorskii Krai, Spasskii Raion, outskirts of Spassk city, at the edge of the forest belt, *Artemisia* community, 8 Oct 2004, *Korobkov 05-52* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, non-flooded terrace of a small river, fallow, *Artemisia* and grass community, 8 Oct 2004, *Korobkov 05-51* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, near Mountain-Taiga station, the valley of a stream, multi-species deciduous forest, *Artemisia* community along the path, 21 Oct 2004, *Korobkov 07-43* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the top of riverside hill, meadow with shrubs and solitary oaks, 10 Oct 2004, *Korobkov 05-47*, *Korobkov 05-54*, *Korobkov 05-61* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Okeanskii Ridge, the pass, steep stony slope, dense meadow at the edge of *Malus* forest, 21 Oct 2004, *Korobkov 05-59* (LE); Russia, Far East, Primorskii Krai, Lazovskii Raion, near Glazkovka village, 16 Sep 2006, *Alekseyeva 07-152* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Zarubino settlement, the slope of a tall coastal hill, *Artemisia* and grass community, 16 Oct 2004, *Korobkov 05-58* (LE).

*Artemisia schmidtiana* Maxim.

$2n = 18$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Kuril Islands, Kunashir Island, near Yuzhno-Kuril'sk town, coastal rocks, 23 Sep 2006, *Erëmenko 07-169* (LE).

*Artemisia scoparia* Waldst. & Kit.

$2n = 16$ , CHN. Russia, North Caucasus, Republic of Dagestan, Sulak village, semi-deserts and steppes, Oct 2005, *Yarovenko 06-70* (10936) (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km of Blagoveshchensk city, along the motorway to airport, the top of a hill, *Betula* and *Quercus* forest, roadside, 19 Oct 2006, *Korobkov 07-116* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 2 km N of Belogor'e settlement, locality Mukhinka, *Pinus* forest on sandy hill, roadside, 23 Sep 2006, *Korobkov 07-118* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, right riverside of Zeya River, downstream of Chagoyan settlement, sandy bottom of a hill, 28 Sep 2006, *Korobkov 07-115* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the watershed of Uril and Gryaznaya rivers, non-flooded terrace of a stream, rubbles on roadside, 5 Oct 2006, *Korobkov 07-117* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, the left riverside of the Bureya River, near Skobel'tsino settlement, the top of a hill, *Artemisia* community along the path, 6 Sep 2006, *Korobkov 07-119* (LE); Russia, Far East, Evreiskaya Avtonomnaya Oblast', near railway station Volochaevka-2, at the edge of *Salix* community, 3 Oct 2004, *Korobkov 05-123*, *Korobkov 05-124* (LE); Russia, Far East, Khabarovskii Krai, Khabarovsk city,

waste ground, rubble hillocks, *Artemisia* community, 23 Sep 2004, *Korobkov 05-09* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, W coast of the Khanka Lake, near Turii Rog settlement, sandy terrace of a stream, at the edge of shrubs community, 21 Oct 2006, *Korobkov 07-120*, *Korobkov 07-121* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, dry non-flooded terrace of a small river, *Artemisia* and grass community, 8 Oct 2004, *Korobkov 05-125* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Ussuriiskii Bay, Cherepashii Cape, the valley of a small river, on fresh sandy spits, 21 Oct 2004, *Korobkov 05-127* (LE); Russia, Far East, Primorskii Krai, the border of Khassanskii Raion, the motorway to Zarubino, sandy-pebble terrace of a stream, valley forest, 15 Oct 2004, *Korobkov 05-122* (LE).

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the bottom of the right rocky riverside of the Razdol'naya River, melkozem plots, 10 Oct 2004, *Korobkov 05-126* (LE).

*Artemisia selengensis* Turcz. ex Besser

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km N of Blagoveshchensk city, along the motorway to airport, at the edge of a ditch, *Artemisia* community, 19 Sep 2006, *Korobkov 07-06*, *Korobkov 07-09* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, lakeside of the Krivoe Lake, dry sandy hillocks, deciduous forest with shrubs, 6 Oct 2006, *Korobkov 07-26* (LE); Russia, Far East, Khabarovskii Krai, Khabarovsk city, waste ground, rubble hillocks, 20 Sep 2004, *Korobkov 05-20* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, the motorway along the Komissarovka River valley, the edge of *Quercus* forest, along the ditch, 20 Oct 2006, *Korobkov 07-08* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, Mountain-Taiga station, the terrace of a stream, *Artemisia* community along the ditch, 13 Oct 2006, *Korobkov 07-07* (LE); Russia, Far East, Primorskii Krai, Partizanskii Raion, near Zolotaya Dolina settlement, along the roadside ditch, 15 Oct 2007, *Korobkov 08-43* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the pass to Vityaz' Bay, the stony side of the old road, 15 Sep 2004, *Korobkov 05-19*, *Korobkov 05-70* (LE).

*Artemisia sieversiana* Ehrh. ex Willd.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, in the environs of Chagoyan settlement, rubble deposits near carbonate rocks, 28 Sep 2006, *Korobkov 07-01* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Nikolaevka village, *Artemisia* community on the slopes of the old pit, 20 Sep 2006, *Korobkov 07-02* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the large depression in 4 km W of Tarmanchukan settlement, rubble deposits along the roadside, 5 Oct 2006, *Korobkov 07-03* (LE); Russia, Far East, Evreiskaya Avtonomnaya Oblast', near the railway station Volochaevka-2, waste ground, *Artemisia* community, 3 Oct 2004, *Korobkov 05-60* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, the non-flooded terrace of left riverside of the Razdol'naya River, sandy hillocks, *Artemisia* and grass community, 10 Oct 2004, *Korobkov 05-61* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Filippovka village, fallow lands at the edge of the valley forest, 15 Oct 2004, *Korobkov 05-08* (LE).

*Artemisia stelleriana* Besser

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, near Glazkovka village, 16 Sep 2006, *Alekseyeva 07-154* (LE); Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, W coast, Uglegorskii Raion, near Krasnopol'e settlement, 8 Oct 2000, *Tkachenko 00-02* (LE); Russia, Far East, Sakhalinskaya Oblast', Kuril Islands, Kunashir Island, near Yuzhno-Kuril'sk town, the Sea of Okhotsk coast, 24 Sep 2000, *Tkachenko 00-01* (LE).

*Artemisia stolonifera* (Maxim.) Kom.

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the lofty hill, oak forest, 25 Sep 2006, *Korobkov 07-11* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, 10 km N of Svobodnyi, the top of a hill, multi-species deciduous forest, 28 Sep 2006, *Korobkov 07-10*, *Korobkov 07-12* (LE); Russia, Far East, Amurskaya Oblast', Seryshevskii Raion, near Belogorka settlement, the *Betula* forest in slight depression, 29 Sep 2006, *Korobkov 07-13* (LE); Russia, Far East, Primorskii Krai, Khankaiskii Raion, the motorway in the Komissarovka River valley, slope of a hill, *Quercus* and *Betula* forest, 20 Oct 2006, *Korobkov 07-14* (LE); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, Mountain-Taiga station, the valley of a stream, deciduous forest, the herbaceous community, 13 Oct 2006, *Korobkov 07-15* (LE); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Okeanskii Ridge, the pass, the top of stony ridge, at the edge of *Malus* forest, meadow community with shrubs, 21 Oct 2004, *Korobkov 05-92*, *Korobkov 05-93* (LE); Russia, Far East, Primorskii Krai, the border of Khassanskii Raion, the motorway to Zarubino, the non-flooded terrace of a small river, valley forest, 15 Oct 2004, *Korobkov 05-94* (LE).

*Artemisia subulata* Nakai

$2n = 36$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, 1.5 km S of Sergeevka settlement, "Sergeevskie Utëssy", the dense meadow community with shrubs, 21 Sep 2006, *Korobkov 07-27* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the wide depression, on sands, 25 Sep 2006, *Korobkov 07-28*, *Korobkov 07-36* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high floodplain of the Amur River, low lakeside of the Peschanoe Lake, sedge and grass swamp, 20 Sep 2006, *Korobkov 07-29*, *07-30*, *07-35*, *07-37* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the valley of the Uril River, stony slope, meadow community, 5 Oct 2006, *Korobkov 07-182* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the pass to Vityaz' Bay, the flat moist drainage depression, dense meadow community, 15 Oct 2004, *Korobkov 05-69* (LE).

$2n = 54$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, the motorway Blagoveshchensk–Svobodnyi, near Novinka settlement, steep slope of a hill, at the edge of the light *Quercus* and *Larix* forest with shrubs and various herbs, 28 Sep 2006, *Korobkov 07-32* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, left riverside of the Amur River, 1.5 km S of Sergeevka settlement, "Sergeevskie Utëssy", dense meadow community, 21 Sep 2006, *Korobkov 07-34*, *Korobkov 07-186* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, near Mokhovaya Pad' settlement, the bottom of a lofty hill, oak forest with shrubs and various herbs, 25 Sep 2006, *Korobkov 07-184* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, low lakeside of the Krivoë Lake, sedge and grass swamp, 6 Oct 2006, *Korobkov 07-31* (LE).

*Artemisia sylvatica* Maxim.

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, steep stony slope of a hill, dense oak forest, 10 Oct 2004, *Korobkov 05-65* (LE).

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, steep stony right riverside of the Razdol'naya River, oak forest, 10 Oct 2004, *Korobkov 05-21* (LE).

*Artemisia tanacetifolia* L.

$2n = 54$ , CHN. Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, right riverside of Zeya River, downstream of Chagoyan settlement, the top of a hill, *Pinus* forest, along the edge of a ditch, 28 Sep 2006, *Korobkov 07-105* (LE).

*Artemisia umbrosa* Turcz. ex DC.

$**2n = 36$ , CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, near Glazkovka village, 16 Sep 2006, *Alekseyeva 07-15* (LE); Russia, Far East, Primorskii Krai, Partizanskii Raion, the valley of the Partizanskaya River, in the environs of Ekaterinovka settlement, rubble deposits at the bottom of chalk rocks, meadow community, 15 Oct 2007, *Korobkov 08-42* (LE).

$2n = 54$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, Blagoveshchensk city, the riverside of the Amur River, deciduous forest, 19 Sep 2006, *Korobkov 07-49* (LE); Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 10 km N of Blagoveshchensk city, along the motorway to airport, the top of a hill, multi-species deciduous forest, 19 Sep 2006, *Korobkov 07-50* (LE); Russia, Far East, Amurskaya Oblast', Shimanovskii Raion, right riverside of Zeya River, downstream of Chagoyan settlement, the non-flooded terrace of a stream, sandy-rubble deposits, 28 Sep 2006, *Korobkov 07-51* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Dukhovskoe village, high non-flooded terrace of the Amur River, steep slope, meadow community with shrubs, 20 Sep 2006, *Korobkov 07-52* (LE); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, in vicinity of Nikolaevka village, ruderal *Artemisia* community, near old silage pits, 20 Sep 2006, *Korobkov 07-53* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, E part of the Khinganskii nature reserve, the wide depression, 3 km W of Tarmanchukan settlement, non-flooded terrace of a stream, *Artemisia* community, 5 Oct 2006, *Korobkov 07-54* (LE); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, W part of the Khinganskii nature reserve, left riverside of the Bureya River in its lower part, the lakeside of the Krivoë Lake, waste ground on the roadside, 6 Oct 2006, *Korobkov 07-188* (LE); Russia, Far East, Evreiskaya Avtonomnaya Oblast', near railway station Volochevka-2, *Artemisia* community at the edge of *Salix* forest, 3 Oct 2004, *Korobkov 05-85* (LE); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Terekhovka village, dry non-flooded terrace of the left riverside of the Razdol'naya River, meadow community with *Artemisia*, 10 Oct 2004, *Korobkov 05-86* (LE); Russia, Far East, Primorskii Krai, the border of Khassanskii Raion, the motorway to Zarubino, the bottom of slope of a hill, rubbly hillocks, *Artemisia* community, 15 Oct 2004, *Korobkov 05-87* (LE); Russia, Far East, Primorskii Krai, Khassanskii Raion, Cape Gamova, the bottom of coastal rocks, rubble deposits, meadow community with *Artemisia*, 16 Oct 2004, *Korobkov 05-88*, *Korobkov 08-16* (LE).

*Artemisia vulgaris* L.

$2n = 16$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Okhinskii Raion, near sea port Kaigan, sandy hillocks, 15 Oct 2006, *Romanov 07-16* (LE).

*Filifolium sibiricum* (L.) Kitam.

$2n = 18$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, right riverside of Zeya River, near Mokhovaya Pad' settlement, lofty hills, stony steppe, 25 Oct 2006, *Korobkov 07-04* (LE).

## POACEAE

*Alopecurus aequalis* Sobol.

$2n = 14$ , CHN. Russia, Leningradskaya Oblast', coast of the Baltic Sea, Finskii Bay, between Bol'shaya Izhora settlement and Oranienbaum town, *Phragmites* community, 12 Sep 2009, *Tsvelyov 11465* (VLA); Russia, East Siberia, Zabaikal'skii Krai, Mogochinskii Raion, near Pokrovka village, left riverside of the Amur River, 316 m, swamp bank of the rivulet, 7 Jul 2011, *Kazanovskiy 11951* (VLA, IRK).

*Alopecurus arundinaceus* Poir.

$2n = 28$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, in vicinity of Zhemchug village, right riverside



of the Irkut River, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 12024* (VLA, IRK).

*Milium effusum* L.

$2n = 28$ , CHN. Germany, near Gatersleben, in forest, 13 Oct 2007, *Kotseruba 12047* (LE); Slovakia, Štrbské Pleso, in vicinity of Patria Hotel, 6 Jul 2008, *Kotseruba 12048* (LE); Ukraine, near Kiev, Golosseevskii forest, 17 Jul 2002, *Kotseruba & Onischenko 12049* (LE).

*Panicum bisulcatum* Thunb.

$2n = 36$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, the railway station Nadezhdinskaya, at the edge of the *Phragmites* community, 29 Nov 2008, *Nechaev 11197* (VLA).

*Poa alpina* L.

$2n = 42$ , CHN. Russia, North Caucasus, Republic of Daghestan, Dokuzparinskii Raion, Shalbudzagh Mt., ca. 3700 m, 14 Aug 2006, *Kotseruba 11452* (VLA).

*Poa annua* L.

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, Baikal Lake, 17 km NE of Listvyanka, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10785* (VLA).

**ROSACEAE**

*Potentilla anserina* L.

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, Baikal Lake, 17 km NE of Listvyanka settlement, near Bol'shie Koty village, the Baikal lakeside, on pebbles, 15 Sep 2007, *Probatova & Seledets 10680* (VLA); Russia, East Siberia, Chitinskaya Oblast' (now Zabaikal'skii Krai), the railway station Mogocha, as a weed at the embankment, 17 Jun 2007, *Tsyrenova 10718* (VLA); Russia, East Siberia, Chitinskaya Oblast', the railway station Amazar, at the railway road, 17 Jun 2007, *Tsyrenova 10719* (VLA); Russia, Far East, Amurskaya Oblast', the railway station Erofei Pavlovich, 18 Jun 2007, *Tsyrenova 10625* (VLA).

*Potentilla fragarioides* L.

$2n = 14$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 40 km N of Blagoveshchensk city, 2 km of the nature park «Mukhinka», the riverside of Zeya River, non-flooded terrace, 30 Sep 2007, *Probatova & Seledets 10724* (VLA).

*Potentilla tergemina* Soják

$2n = 28$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchenskii Raion, 40 km N of Blagoveshchensk city, 2 km of the nature park «Mukhinka», the riverside of Zeya River, 30 Sep 2007, *Probatova & Seledets 10738* (VLA).

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**ASTERACEAE**

*Inula helenium* L.

$2n = 20$ , CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, southern edge of Mikhailovka settlement, waste ground at the road, near the railway crossing, 14 Aug 2011, *Kozhevnikov & Kozhevnikova 791-1* (VLA).

**CUPRESSACEAE**

*Juniperus davurica* var. *maritima* (Urussov) Kozhevnikova

$2n = 22$ , CHN, Russia, Far East, Primorskii Krai, Lazovskii Raion, Lazovskii nature reserve, the cordon Petrova, seacoast opposite the Petrova Island, on sands and rocky slopes, 26 Aug 2007, *Kozhevnikov & Kozhevnikova 607-1* (VLA); Russia, Far East, Primorskii Krai, Lazovskii Raion, Lazovskii nature reserve, the seacoast north of the mouth of the Kievka River, Ta-Chingouza (Prosëlochnaya) Bay, coastal sands, 29 Aug 2007, *Kozhevnikov & Kozhevnikova 608-1* (VLA).

*Juniperus rigida* var. *litoralis* (Urussov) Kozhevnikova

$2n = 22$ , CHN, Russia, Far East, Primorskii Krai, Lazovskii Raion, Lazovskii nature reserve, the seacoast north of the mouth of the Kievka River, Ta-Chingouza (Prosëlochnaya) Bay, on sands, 29 Aug 2007, *Kozhevnikov & Kozhevnikova 608-2* (VLA); Russia, Far East, Primorskii Krai, Lazovskii Raion, Lazovskii nature reserve, the seacoast opposite the Petrova Island, sands and rocky slopes, 26 Aug 2007, *Kozhevnikov & Kozhevnikova 607-2* (VLA).

*Juniperus sargentii* (Henry) Takeda ex Nakai

$2n = 22$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Ulegorskii Raion, in vicinity of the railway station Pionery, the seaside of the Tatarskii Strait, coastal sandy dunes, 15 Aug 2004, *Kozhevnikov 416-2* (VLA).

*Juniperus sibirica* Burgsd.

$2n = 22$ , CHN. Russia, East Siberia, Chitinskaya Oblast', Sokhondinskii nature reserve, Sokhondo massif, in vicinity of the cordon Bukukun, *Larix* forest with *Pinus sibirica* and *P. pumila*, 18 Jul 2004, *Kozhevnikov & Kozhevnikova 381-1* (VLA); Russia, Far East, Primorskii Krai, Terneiskii Raion, Sikhote-Alinskii biosphere reserve, the locality Abrek, stony placers on the mountainside, 5 Aug 1996, *Kozhevnikov & Kozhevnikova 483-2* (VLA).

**EPHEDRACEAE**

*Ephedra distachya* L.

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 3–4 km NW of Zapovednoe settlement, near the mouth of the Kievka River, coastal sandy terrace, 26 Oct 2011, *Kozhevnikova & Kozhevnikov 801-1* (VLA);

*Ephedra equisetina* Bunge

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 3–4 km NW of Zapovednoe settlement, near the mouth of the Kievka River, coastal sandy terrace, 26 Oct 2011, *Kozhevnikova & Kozhevnikov 801-2* (VLA).

*Ephedra monosperma* J.G. Gmel. ex C.A. Mey.

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Ol'ginskii Raion, 4 km SE of Milogradovo settlement, the Krasnaya Skala Bay, coastal sandy-pebble terrace, 30 Jul 2011, *Kozhevnikova & Kozhevnikov 775-1* (VLA).

**FABACEAE**

*Lathyrus tuberosus* L.

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, ca. 4 km NW of Peschanoye village, the road M-60, at the roadside ditch, 14 Aug 2011, *Kozhevnikov & Kozhevnikova 789-1* (VLA).

*Vicia tetrasperma* (L.) Schreb.

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, ca. 1 km SE of Shtykovo settlement, the valley of the Artëmovka River, ruderal herbaceous communities on the roadside, 28 Jul 2011, *Kozhevnikov & Kozhevnikova 771-2* (VLA).

**MALVACEAE***Lavatera thuringiaca* L.

$2n = 44$ , CHN. Russia, Far East, Primorskii Krai, Ussuriyskii Raion, near the Krasnyi Yar village, ruderal community, 27 Sep 2011, *Kozhevnikov & Kozhevnikova 796-1* (VLA).

**POLYGONACEAE***Persicaria lapathifolia* (L.) Gray

$2n = 22$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, the valley of the Abin River (the Kuban' River basin), 11 Oct 2008, *Probatova & Seledets 11287* (VLA).

**RANUNCULACEAE***Pulsatilla cernua* (Thunb.) Bercht. & J. Presl

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, near Komissarovo settlement, the top of a hill on the boggy plain, 20 May 2011, *Kozhevnikova & Kozhevnikov 757-1* (VLA); Russia, Far East, Primorskii Krai, Khankaiskii Raion, 1.5 km S of Komissarovo settlement, near the bridge across the Komissarovka River, 20 May 2011, *Kozhevnikova & Kozhevnikov 758-3* (VLA); Russia, Far East, Primorskii Krai, Khankaiskii Raion, ca. 4 km NE of the top of the mountain Sinjaya (725 m), near the bridge across the stream, at the motorway Zharikovo–Komissarovo, 210 m, 20 May 2011, *Kozhevnikova & Kozhevnikov 755-3* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, the environs of the Sinel'nikovo-1 village, meadow on the flat upper part of a hill, near the quarry, 30 Sep 2010, *Kozhevnikova & Kozhevnikov 732-9* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, the environs of the Fadeevka village, the meadow along the high riverbank of the Razdol'naya (Suifun) River, 4 May 2010, *Kozhevnikova & Kozhevnikov 485-4* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, 5–6 km NE of Nikolo-L'vovskoe settlement, source of the Peressykhajuschaya River, grass-forb meadow at the edge of the oak forest, ca. 200 m, 18 May 2011, *Kozhevnikova & Kozhevnikov 745-3* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km N of Grigorjevka village, oak trees groups with grass-shrub thickets and *Artemisia*, stony-rubbly slope facing the road, 20 May 2011, *Kozhevnikova & Kozhevnikov 748-2* (VLA); Russia, Far East, Primorskii Krai, Khassanskii Raion, seacoast near the mouth of the Narva River, between Perevoznaya and Bezverkhovo settlements, maritime short grass meadow, 4 Sep 2010, *Kozhevnikova & Kozhevnikov 726-1* (VLA).

*Pulsatilla chinensis* (Bunge) Regel

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, 3 km W of Vladimiro-Petrovka village, E slope of the hill, meadow, 20 May 2011, *Kozhevnikov & Kozhevnikova 751-1* (VLA); Russia, Far East, Primorskii Krai, Khankaiskii Raion, 3–4 km NE of Sinjaya Mt., near the bridge across the stream at the motorway Zharikovo–Komissarovo, 210 m, 20 May 2011, *Kozhevnikova & Kozhevnikov 754-1* (VLA); Russia, Far East, Primorskii Krai, Khankaiskii Raion, ca. 1 km S of Komissarovo settlement, the hill in the valley of Komissarovka River, 24 Jun 2010, *Kozhevnikov 708-1* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, 2 km S of Rubinovka settlement, left side of the Molokanovka River valley, steppe meadow on the SW slope, 22 Jun 2010, *Kozhevnikov 705-1* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, 2 km SW of Zharikovo village, oak forest margin, near the field road, 20 May 2011, *Kozhevnikova & Kozhevnikov 752-1* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, 2 km SW of Zharikovo village, SE slope of a hill, 20 May 2011, *Kozhevnikova & Kozhevnikov 752-2* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, the environs of Fadeevka village, meadow on the flat terrace of high riverbank of the Razdol'naya River, 4 May 2010, *Kozhevnikova & Kozhevnikov 485-3* (VLA); Russia, Far East,

Primorskii Krai, Oktyabr'skii Raion, 2 km NW of Sinel'nikovo-1 village, SE slope of the Sinelovka hill, near the quarry, meadow on the flat upper terrace of the hill, 30 Sep 2010, *Kozhevnikova & Kozhevnikov 732-8* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, 5–6 km NE of Nikolo-L'vovskoe village, source of the Peressykhajuschaya River, grass-forb meadows and edges of the oak forest, ca. 200 m, 18 May 2011, *Kozhevnikova & Kozhevnikov 745-1* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, 3 km NE of Aleksei-Nikol'skoye village, near the crossroad Ussuriysk–Korfovka–Pokrovka, grass and shrubs communities at the oak forest margin, 18 May 2011, *Kozhevnikova & Kozhevnikov 744-2* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, ca. 4 km NE of Ulitovka village, near the bridge across the Suglinka River, 18 May 2011, *Kozhevnikova & Kozhevnikov 743-2* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km N of Grigor'evka village, stony-rubbly slope facing the road, oak trees group with grass-shrubs and *Artemisia* community, 20 May 2011, *Kozhevnikova & Kozhevnikov 748-5* (VLA).

*Pulsatilla dahurica* (Fisch. ex DC.) Spreng. (light violet flowers)

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, 1.5 km S of Komissarovo village, near the bridge across the Komissarovka River, 20 May 2011, *Kozhevnikova & Kozhevnikov 758-1* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, ca. 8 km SW of the Barabash-Levada village, lower course of the Mramornaya River in 3–4 km from its mouth, 240 m, 23 Jun 2010, *Kozhevnikov & al. 706-2* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, ca. 2 km NW of Zharikovo village, SE slope of the hill, near the field road, 20 May 2011, *Kozhevnikova & Kozhevnikov 752-4* (VLA); Russia, Far East, Primorskii Krai, Pogranichnyi Raion, ca. 8 km NE of Rubinovka village, near abandoned silo at the road, 20 May 2011, *Kozhevnikova & Kozhevnikov 753-1* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, the environs of Fadeevka village, meadow on the flat terrace of high riverbank of the Razdol'naya River, 4 May 2010, *Kozhevnikova & Kozhevnikov 485-2* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, 3–4 km W of Sinel'nikovo village, meadow at the foot of S slope, 18 May 2011, *Kozhevnikova & Kozhevnikov 747-1* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, N outskirts of Nikolo-L'vovskoye village, source of the Peressykhajuschaya River, near the bridge across the Razdol'naya River, 18 Jun 2011, *Kozhevnikova & Kozhevnikov 746-1* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, 5–6 km NE of Nikolo-L'vovskoye village, source of the Peressykhajuschaya River, grass-forb meadows and grass-shrub edges of oak forest, 18 May 2011, *Kozhevnikova & Kozhevnikov 745-4* (VLA); Russia, Far East, Primorskii Krai, Ussuriyskii Raion, ca. 1.5 km NE of Borisovka village, the dam near the bridge across the Razdol'naya River, 18 May 2011, *Kozhevnikova & Kozhevnikov 742-1* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km N of Grigorjevka village, oak trees groups with grasses, shrubs and *Artemisia* communities, stony-rubbly slope facing the road, 20 May 2011, *Kozhevnikova & Kozhevnikov 748-1* (VLA).

*Pulsatilla dahurica* (Fisch. ex DC.) Spreng. (white flowers).

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, 3–4 km W of Sinel'nikovo-1 village, meadow at the foot of S slope, 18 May 2011, *Kozhevnikova & Kozhevnikov 747-2* (VLA).

*Pulsatilla kissii* Mandl

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Ussuriyskii Raion, ca. 4 km NW of Ulitovka village, near the bridge across the Suglinka River, 18 May 2011, *Kozhevnikova & Kozhevnikov 743-1* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km N of Grigorjevka village, oak trees groups with grass-shrub thickets and *Artemisia* community, stony-rubbly slope facing the road, 20 May 2011, *Kozhevnikova & Kozhevnikov 748-4* (VLA).

$2n = 32$ , CHN. Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, the environs of Fadeevka village, meadow on the flat terrace of the high riverbank of Razdol'naya River, 4 May 2010, *Kozhevnikova & Kozhevnikov 485-1* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, 2 km NW from Sinelnikovo-1 village, SE slope of the Sinelovka hill, meadow on the flat upper terrace of the hill, 260 m, 30 Sep 2010, *Kozhevnikova & Kozhevnikov 732-7* (VLA); Russia, Far East, Primorskii Krai, Ussuriiskii Raion, 5–6 km NE of Nikolo-L'vovskoe village, source of Peressykhajuschaya River, grass-forb meadow at the edge of the oak forest, ca. 200 m, 18 May 2011, *Kozhevnikova & Kozhevnikov 745-5* (VLA).

*Pulsatilla turczaninovic* Krylov & Serg.

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, 1 km S of Komissarovo settlement, a hill in the valley of Komissarovka River, 24 Jun 2010, *Kozhevnikova & Kozhevnikov 708-1* (VLA).

#### ROSACEAE

*Exochorda serratifolia* S. Moore

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, in vicinity of Komissarovo settlement, at the bottom of the slope, the oak forest edge, 20 Jun 2005, *Kozhevnikov & Kozhevnikova 468-1* (VLA).

#### TAXACEAE

*Taxus cuspidata* Siebold & Zucc.

$2n = 24$ , CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, the watershed of Shkotovka and Serebryanka Rivers, Serebryanyi Pass, coniferous–broad-leaved forest with *Pinus koraiensis*, *Abies nephrolepis* and *Picea koraiensis*, 27 Apr 2006, *Kozhevnikov & Kozhevnikova 341-1* (VLA).

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\* First chromosome count for the species.

\*\* New chromosome number (cytotype) for the species.

▼ First chromosome count from an East Siberian accession.

■ First chromosome count from a West Siberian accession.

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#### POACEAE

*Glyceria spiculosa* (F. Schmidt) Roshev.

$2n = 40$ , CHN. Russia, Far East, Khabarovskii Krai, nature reserve «Bol'shekhekhtsirskii», Cape Cherepashii between the estuary

of Chirki River and Ussuri River, heterotrophic sphagnum bog, 1 Sep 1993, *N.S. Probatova & V.P. Seledets 7085* (VLA).

*Glyceria triflora* (Korsh.) Kom.

$2n = 20$ , CHN. Russia, Far East, Khabarovskii Krai, Poliny Ossipenko Raion, near Poliny Ossipenko settlement, the middle course of the Amgunj River, the area between Kerbi and Amgunj Rivers, Khalikovskoe Lake, in the shallow water, 18 Aug 2004, *M.V. Kryukova 9721* (VLA).

*Hordeum jubatum* L.

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Peter the Great Bay, Popova Island, as a weed near Stark wharf, 12 Sep 1997, *N.S. Probatova & V.P. Seledets 7588* (VLA).

*Leymus mollis* (Trin.) Hara

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Peter the Great Bay, Gerassimova Island, supralittoral zone, 20 Sep 2004, *O.L. Burundukova 9529* (VLA).

*Ochlopoa annua* (L.) H. Scholz (≡ *Poa annua* L.)

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Peter the Great Bay, Popova Island, near Stark wharf, 12 Sep 1997, *N.S. Probatova & V.P. Seledets 7401* (VLA).

*Schedonorus pratensis* (Huds.) P. Beauv.

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Peter the Great Bay, Popova Island, seacoast near Stark wharf, disturbed grass-covered sandy plots, 12 Sep 1997, *N.S. Probatova & V.P. Seledets 7395* (VLA).

#### VIOLACEAE

*Viola alexandrowiana* Juz.

\*\* $2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatiya, Tunkinskii Raion, vicinity of Arshan village, on rocks, 23 Jun 1986, *M.M. Ivanova 22910* (IRK); Russia, East Siberia, Irkutskaya Oblast', 30 km SW of Irkutsk city, Baklashi village, right bank of the Irkut River, valley of the mixed forest, 1 Oct 1979, *G.P. Semenova & M.M. Ivanova 22503* (IRK).

*Viola arvensis* Murray

■ $2n = 34$ , CHN. Russia, West Siberia, Novosibirskaya Oblast', Novosibirsk city, Akademgorodok, territory of Central Siberian Botanical Garden, open area in the mixed forest, 1 Aug 2001, *T.V. Elisafenko 22507* (IRK).

*Viola biflora* L.

■ $2n = 12$ , CHN. Russia, West Siberia, Republic of Altai, Ongudaiskii Raion, vicinity of Kupchegen' village, the valley of Bol'shoi Il'gumen' River, fir forest, 13 Jun 2001, *T.V. Elisafenko 22512* (IRK).

*Viola czemalensis* Zuev

\* $2n = 24$ , CHN. Russia, West Siberia, Republic of Altai, Chermal'skii Raion, near the hydroelectric power plant on the Katun' River, rocky slope, 17 Aug 2004, *Yu.V. Ovchinnikov 22517* (IRK); Russia, West Siberia, Republic of Altai, Chermal'skii Raion, near the hydroelectric power plant on the Chermal River, rocky northern slope exposure, 7 Jul 2010, *T.V. Elisafenko 22897* (IRK).

*Viola dactyloides* Roem. & Schult.

$2n = 24$ , CHN. Russia, East Siberia, Republic of Sakha (Yakutia), Olekminskii Raion, Chapaevovskoe village, pine forest, 7 Aug 1979, *G.P. Semenova & M.M. Ivanova 22506* (IRK).

*Viola dissecta* Ledeb.

■ $2n = 24$ , CHN. Russia, West Siberia, Republic of Altai, Maiminskii Raion, Gorno-Altai city, Tugoya Mountain, forest park, 8 Jun

2009, *T.V. Elisafenko 22525* (IRK); Russia, West Siberia, Republic of Altai, Ongudaiskii Raion, left bank of the Katun River, between Kupchehen' and Inya villages, rocky shore of the river, 7 Jul 2009, *T.V. Elisafenko 22701* (IRK); Russia, West Siberia, Novosibirskaya Oblast', Kolyvanskii Raion, vicinity of Kolyvan' village, floodplain of the Ob' River, near «Rybatskoe» Gardening, pine forest, 21 May 2011, *T.V. Elisafenko 22700* (IRK); Russia, Republic of Buryatiya, Tunkinskii Raion, vicinity of Zun-Murino village, meadow steppe, 24 Aug 2009, *T.V. Elisafenko 22704* (IRK); Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Ol'khon Island on the Baikal Lake, Sagan-Khushun Cape, a steppe stony slope of NW exposure, 10 Aug 2009, *T.V. Elisafenko & D.A. Krivenko 15870* (IRK); Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, vicinity of Bol'shoe Goloustnoe village, crease of Goloustnaya River, on stony placers, 2 Aug 2011, *D.A. Krivenko 18770* (IRK).

$2n = 48$ , CHN. Russia, East Siberia, Krasnoyarskii Krai, Sharypovskii Raion, Ivanovka village, Ingol' Lake, southern slope, forb meadow, 8 Jul 1984, *M.M. Ivanova & N.I. Tupitsyna 22524* (IRK).

*Viola epipsiloides* Á. Löve & D. Löve

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the valley of Sarma River, left bank, willow thickets along the river bank, 5 Aug 2011, *D.A. Krivenko 19725* (IRK).

*Viola gmeliniana* Roem. & Schult.

$\blacktriangledown 2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatiya, Tunkinskii Raion, vicinity of Zun-Murino village, meadow steppe, 24 Aug 2009, *T.V. Elisafenko 19466* (IRK); Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, vicinity of Bol'shoe Goloustnoe village, crease of Goloustnaya River, on stony placers, 2 Aug 2011, *T.V. Elisafenko & D.A. Krivenko 18777* (IRK).

*Viola incisa* Turcz.

$\blacktriangledown 2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, vicinity of Bol'shoe Goloustnoe village, crease of Goloustnaya River (locus classicus), on stony placers, 2 Aug 2011, *D.A. Krivenko 18767* (IRK).

*Viola ircutiana* Turcz.

$*2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatiya, Tunkinskii Raion, Tolgoi village, left bank of the Khurya-Khobok River, edge of birch forest, meadow, 20 Jul 1986, *G.P. Semenova & M.M. Ivanova 22505* (IRK).

*Viola irinae* Zolot.

$*2n = 48$ , CHN. Russia, West Siberia, Republic of Altai, Maiminskii Raion, Gorno-Altai city, Tugoya Mountain, forest park, 8 Jul 2009, *T.V. Elisafenko 22521* (IRK); Russia, West Siberia, Novosibirskaya Oblast', Kolyvanskii Raion, vicinity of Kolyvan' village, floodplain of the Ob' River, near «Rybatskoe» Gardening, pine forest, 25 May 1993, *T.V. Elisafenko 22520* (IRK).

*Viola kamtschadorum* W. Becker & Hult.

$**2n = 72$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Nevel'skii Raion, near Nevel'sk town, coastal hills near the Tatar Strait, covered bamboo, 15 Aug 2002, *Ju.V. Ovchinnikov 22516* (IRK).

*Viola macroceras* Bunge

$*2n = 24$ , CHN. Russia, West Siberia, Republic of Altai, Chemal'skii Raion, vicinity of Chemal village, right bank of the Chemal River, foot of rocks, pine forest, 7 Jul 2008, *T.V. Elisafenko 22519* (IRK); Russia, West Siberia, Republic of Altai, Ongudaiskii Raion, vicinity of Malyi Yaloman village, right bank of the Bol'shoi Yaloman River, near estuary, among stones, 6 Jul 2009, *T.V. Elisafenko 22518* (IRK).

*Viola mauritii* Tepl.

$**2n = 20$ , CHN. Russia, East Siberia, Republic of Buryatiya, Pribaikal'skii Raion, grassy bank of the Turka River, 10 Sep 2004, *T.V. Elisafenko 22705* (IRK).

*Viola milanae* Vl. V. Nikitin

$*2n = 24$ , CHN. Russia, West Siberia, Republic of Altai, Ongudaiskii Raion, the valley of Aigulak River, stony abrupt slope, steppe, 15 Jun 2001, *T.V. Elisafenko 22522* (IRK); Russia, West Siberia, Republic of Altai, Ust'-Kanskii Raion, Mendur-Sokkon, 5 km S, stony slope, 22 Jun 2010, *T.V. Elisafenko 22703* (IRK); Russia, West Siberia, Republic of Tyva, Tes-Khemskii Raion, vicinity of Bert-Dag village, the valley of Khyraallyg River, on gravel, 21 Jun 2003, *T.V. Elisafenko 22523* (IRK).

*Viola mirabilis* L.

$2n = 20$ , CHN. Russia, West Siberia, Republic of Altai, Ust'-Kanskii Raion, the valley of Anui River, edge forest, 22 Jun 2001, *T.V. Elisafenko 22510* (IRK); Russia, West Siberia, Novosibirskaya Oblast', Novosibirsk city, Akademgorodok, territory of Central Siberian Botanical Garden, mixed forest, 1 Aug 2001, *T.V. Elisafenko 22509* (IRK).

*Viola montana* L.

$\blacktriangledown 2n = 40$ , CHN. Russia, East Siberia, Krasnoyarskii Krai, Kuraginskii Raion, Oikha village, 5–10 km S, edge of birch forest, 19 Jun 2003, *T.V. Elisafenko 22702* (IRK).

*Viola nemoralis* Kütz.

$\blacksquare 2n = 40$ , CHN. Russia, West Siberia, Novosibirskaya Oblast', Novosibirsk city, Akademgorodok, territory of Central Siberian Botanical Garden, edge of the mixed forest, 1 Aug 2001, *T.V. Elisafenko 22909* (IRK).

$2n = 20$ , CHN. Russia, East Siberia, Republic of Buryatiya, Pribaikal'skii Raion, 2 km S of Turka village, edge of forest near the road, on sand, 25 Jul 2011, *D.A. Krivenko 20667* (IRK).

*Viola odorata* L.

$2n = 20$ , CHN. Armenia, Gegarkunik Oblast', northern coast of Sevan Lake, gorge, small-leaf forest overgrown with shrubs, 20 Apr 1985, *A.V. Karakulov 22508* (IRK).

*Viola rupestris* F.W. Schmidt

$\blacksquare 2n = 20$ , CHN. Russia, West Siberia, Republic of Altai, Chemal'skii Raion, Edigan River, degraded meadow, 25 Jun 2001, *T.V. Elisafenko 22501* (IRK); Russia, West Siberia, Novosibirskaya Oblast', Toguchinskii Raion, Bugotakskie hills, steppe with slope southern exposure, 10 Jul 2002, *T.V. Elisafenko 22502* (IRK); Russia, West Siberia, Krasnoyarskii Krai, Kuraginskii Raion, 5–10 km S of Oikha village, edge of birch forest, 19 Jun 2003, *T.V. Elisafenko 22511* (IRK).

*Viola sacchalinsensis* H. Boissieu

$\blacksquare 2n = 20$ , CHN. Russia, West Siberia, Republic of Altai, Ust'-Kanskii Raion, vicinity of Kaisyn village, woody slope, 27 Jun 2010, *T.V. Elisafenko 22706* (IRK); Russia, East Siberia, Republic of Buryatiya, Pribaikal'skii Raion, east coast of Baikal Lake, vicinity of Goryachinsk village, fir forest, 10 Sep 2004, *T.V. Elisafenko 22513* (IRK); Russia, East Siberia, Republic of Buryatiya, Pribaikal'skii Raion, 2 km S of Turka village, edge of forest near the road, on sand, 25 Jul 2011, *D.A. Krivenko 20665* (IRK).

*Viola selkirkii* Pursh ex Goldie

$\blacksquare 2n = 24$ , CHN. Russia, West Siberia, Republic of Khakasiya, Tashtypinskii Raion, descent from the Sayan passage, the valley of Bol'shoi On River, mixed forest, 26 Jun 2003, *T.V. Elisafenko 22515* (IRK); Russia, East Siberia, Republic of Buryatiya, Pribaikal'skii

Raion, east coast of Baikal Lake, vicinity of Goryachinsk village, fir forest, 10 Sep 2004, *T.V. Elisafenko 22514* (IRK).

*Viola uniflora* L.

$2n = 24$ , CHN. Russia, West Siberia, Novosibirskaya Oblast', Novosibirsk city, Akademgorodok, territory of Central Siberian Botanical Garden, edge of the mixed forest, 2 Jul 1999, *T.V. Elisafenko 22499* (IRK); Russia, West Siberia, Novosibirskaya Oblast', Maslayanskii Raion, vicinity of Aleksandrovk village, mixed forest, 7 Jun 2008, *T.V. Elisafenko 22498* (IRK).

*Viola variegata* Fisch. ex Link

▼  $2n = 24$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Baleiskii Raion, Kunikan village, the valley of Unda River, steppe stony-carbonate slope, 5 Jul 1981, *G.P. Semenova & M.M. Ivanova 22504* (IRK).

*Viola verecunda* A. Gray

$2n = 24$ , CHN. Russia, Far East, Sakhalinskaya Oblast', Sakhalin Island, Nevel'skii Raion, near Nevel'sk town, coastal hills near the Tar Strait, with bamboo, 15 Aug 2002, *Yu.V. Ovchinnikov 22500* (IRK).

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Chromosome numbers, DNA ploidy level (Suda & al. 2006) and genome sizes (C-values sensu Greilhuber & al., 2005) were counted and estimated by JK = J. Kučera and MS = M. Slovák; vouchers are deposited in SAV.

FCM: propidium iodide (PI). Internal standard: *Glycine max* cv. Polanka (2C DNA = 2.50 pg, Doležel & al. 1994). Samples of analysed species were prepared from fresh intact leaves of individuals cultivated at the Institute of Botany, Slovak Academy of Sciences, Bratislava. Plants with known chromosome numbers were analysed simultaneously with an internal standard, and the ratio of their peak positions was calculated. The absolute DNA content of individuals with unknown chromosome numbers was estimated by relation of their peak position to peak positions of the reference standard. For each individual, three independent measurements on different days were carried out. Between-day variation caused by random instrument drift and/or non-identical sample preparation was low as the maximum/minimum values of three repetitions of the same sample did not exceed a two-percent threshold.

**COMPOSITAE**

*Picris pauciflora* Willd.

Coefficients of variation of  $G_1$  peaks of *P. strigosa* samples and internal standard ranged between 2.03%–3.93% (mean 3.05%) and 2.02%–3.98% (mean 3.21%), respectively. The mean 2C-values for analysed individuals ranged from 1.51 to 1.65 pg. We detected small genome size variation in *P. pauciflora* as the maximum between plant divergences in 2C values reached 8.5%.

$2n \sim 2x \sim 10$ , 2C = 1.51–1.54 pg, FCM. Greece, Crete, near Theodoros settlement, 35°16'59"N, 23°37'06"E, 503 m, 28 May 2009, *D. Zelený, J. Danihelka & CH. F. Li PAUC1-CRETE2*, *D. Zelený, J. Danihelka & CH. F. Li PAUC2-CRETE2*, *D. Zelený, J. Danihelka & CH. F. Li PAUC3-CRETE2* (BRNU, SAV).

$2n = 2x = 10$ , CHN. Greece, Central Macedonia, near Alistrati village, 41°01'27"N, 24°00'20"E, 128 m, 20 Jun 2010, *M. Slovák, J. Kučera & A. Guttová GRE1*.

$2n \sim 2x \sim 10$ , 2C = 1.51–1.53 pg, FCM. Macedonia (F.Y.R.O.M.), Ohrid distr., Ohrid town, near ruins of Studenchischta basilica, 41°06'24"N, 20°48'57"E, 703 m, 22 Jun 2010, *M. Slovák, J. Kučera & A. Guttová MDD1*, *M. Slovák, J. Kučera & A. Guttová MDD2*, *M. Slovák, J. Kučera & A. Guttová MDD3* (SAV).

$2n \sim 2x \sim 10$ , 2C = 1.56–1.57 pg, FCM. Turkey, Bursa distr., near Geynik village, 39°41'56"N, 28°48'15"E, 802 m, 15 Jun 2010, *M. Slovák, J. Kučera & A. Guttová ULU1*, *M. Slovák, J. Kučera & A. Guttová ULU2*, *M. Slovák, J. Kučera & A. Guttová ULU3* (SAV).

$2n \sim 2x \sim 10$ , 2C = 1.58–1.60 pg, FCM. Turkey, Manisa distr., Çaybaşı canyon, 38°34'57"N, 27°25'38"E, 119 m, 16 Jun 2010, *M. Slovák, J. Kučera & A. Guttová TUR2\_1*, *M. Slovák, J. Kučera & A. Guttová TUR2\_2*, *M. Slovák, J. Kučera & A. Guttová TUR2\_3* (SAV).

$2n \sim 2x \sim 10$ , 2C = 1.60–1.65 pg, FCM. Turkey, Denizli distr., near Babadağ village, 37°45'52"N, 28°51'33"E, 1412 m, 17 Jun 2010, *M. Slovák, J. Kučera & A. Guttová TRC1*, *M. Slovák, J. Kučera & A. Guttová TRC2*, *M. Slovák, J. Kučera & A. Guttová TRC3* (SAV).

Our results confirmed previously published chromosome number and diploid ploidy level recorded for this species (Van Loon, 1980; Strid & Franzén, 1981; Nazarova 1984; Kuzmanov & al., 1986; Vogt & Aparicio, 1999; Nazarova & Gukasyan, 2004).

*Picris rhagadioloides* Willk.

Coefficients of variation of  $G_1$  peaks of *P. rhagadioloides* samples and internal standard ranged between 2.12%–3.56% (mean 3.42%) and 2.27%–4.08% (mean 3.29%), respectively. The mean 2C-values for analysed individuals ranged from 2.00 to 2.13 pg. We detected slight genome size variation in *P. rhagadioloides* as the maximum between plant divergences in 2C values reached 6.1%.

$2n \sim 2x \sim 10$ , 2C = 2.06–2.10 pg, FCM. Greece, Crete, near Kokkino Chorio settlement, 35°28'07"N, 24°14'15"E, 60 m, 29 May 2009, *D. Zelený, J. Danihelka & CH. F. Li RHAG1-CRETE3*, *D. Zelený, J. Danihelka & CH. F. Li RHAG2-CRETE3*, *D. Zelený, J. Danihelka & CH. F. Li RHAG3-CRETE3* (BRNU, SAV).

$2n \sim 2x \sim 10$ , 2C = 2.10–2.11 pg, FCM. Greece, Central Macedonia, near Alistrati village, 41°01'27"N, 24°00'20"E, 128 m, 20 Jun 2010, *M. Slovák, J. Kučera & A. Guttová GRD1*, *M. Slovák, J. Kučera & A. Guttová GRD2*, *M. Slovák, J. Kučera & A. Guttová GRD3* (SAV).

$2n = 10$ , CHN. Greece, Central Macedonia, near Alistrati village, 41°01'27"N, 24°00'20"E, 128 m, 20 Jun 2010, *M. Slovák, J. Kučera & A. Guttová GRD1*.

$2n = 2x = 10$ , CHN. Turkey, Kirkağaç distr., near Bostanci village, 39°07'14"N, 27°50'23"E, 213 m, 18 Jun 2010, *M. Slovák, J. Kučera & A. Guttová TRD1*.

$2n \sim 2x \sim 10$ , 2C = 2.00–2.06 pg, FCM. Turkey, Edirne distr., near Kösençiftliği village, 41°39'21"N, 26°42'55"E, 125 m, 13 Jun 2010, *M. Slovák, J. Kučera & A. Guttová EDIR1*, *M. Slovák, J. Kučera & A. Guttová EDIR2*, *M. Slovák, J. Kučera & A. Guttová EDIR3* (SAV).

$2n \sim 2x \sim 10$ , 2C = 2.06–2.13 pg, FCM. Turkey, Kirkağaç distr., near Bostanci village, 39°07'14"N, 27°50'23"E, 213 m, 18 Jun 2010, *M. Slovák, J. Kučera & A. Guttová TRD1*, *M. Slovák, J. Kučera & A. Guttová TRD2*, *M. Slovák, J. Kučera & A. Guttová TRD3* (SAV).

$2n \sim 2x \sim 10$ , 2C = 2.08–2.13 pg, FCM. Greece, Eastern Macedonia and Thrace, near Makri village, 40°51'17"N, 25°46'27"E, 36 m, 19 Jun 2010, *M. Slovák, J. Kučera & A. Guttová GRA1*, *M. Slovák, J. Kučera & A. Guttová GRA2*, *M. Slovák, J. Kučera & A. Guttová GRA3* (SAV).

Detected chromosome number and diploid ploidy level are in agreement with previously published records for this species (Kuzmanov & al., 1986; Gemeinholzer & Faustmann, 2005).

*Picris strigosa* M. Bieb.

Coefficients of variation of  $G_1$  peaks of *P. strigosa* samples and internal standard ranged between 2.94%–3.85% (mean value 3.49%)

and 3.81%–4.02% (mean value 3.94%), respectively. The mean 2C-values for analysed individuals ranged from 3.88 to 3.91 pg. We detected no genome size variation in *P. strigosa* individuals as the maximum between plant divergences in 2C values was less than 1%.

$2n = 2x = 10$ , CHN. Turkey, Denizli distr., Cankurtaran village, Honaz Dağ Mili Park, 37°39'32"N, 29°15'33"E, 1449 m, 18 Jul 2011, J. Kučera & M. Slovák TRD1 (SAV).

$2n \sim 2x \sim 10$ , FCM. Turkey, Denizli distr., Cankurtaran village, Honaz Dağ Mili Park, 37°39'32"N, 29°15'33"E, 1449 m, 18 Jul 2011, M. Slovák & J. Kučera TRD1, M. Slovák & J. Kučera TRD2 (SAV).

Our results confirmed previously published chromosome number and diploid ploidy level recorded for this species (Nazarova 1984; Nazarova & Gukasyan, 1984).

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Chromosome numbers were counted in root tips from seedlings (Smirnov, 1968). Chromosome numbers in literature were checked using IPCN (Goldblatt & Johnson, 1979+).

- \* First chromosome number for the species.
- \*\* First chromosome count for the country.
- \*\*\* First chromosome count for the area.

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#### CHENOPODIACEAE

*Atriplex fera* (L.) Bunge

$2n = 18$ , CHN. Russia, Buryatia Republic, Gusinoozersk distr., Sulfatnoe Lake, solonchak, 3 Sep 2003, *Lomonosova 431a* (NS).

This Asiatic species occurs in South Siberia, North China and Mongolia and is constantly represented by this cytotype known from some localities in Siberia from Novosibirsk to Zabaikalsk regions (Goldblatt & Johnson, 1979+; Lomonosova & Krasnikov, 2006).

*Atriplex patens* (Litv.) Iljin

$2n = 18$ , CHN. Russia, \*\*\*Kurgan Oblast', vicinity of Kurgan, Tobol flood plain, wet salted meadow, 21 Sep 2005, *Lomonosova 733* (NS); Russia, \*\*\*Buryatia Republic, Gusinoozersk distr., Sulfatnoe Lake, solonchak, 3 Sep 2003, *Lomonosova 431b* (NS).

*Atriplex patens* (Litv.) Iljin

$2n = 36$ , CHN. Kazakhstan, East Kazakhstan Oblast', Kurchum distr., 20 km SSE of Darstvennoe, on the edge of solonchak with *Salicornia*, 11 Sep 2001, *Lomonosova 123* (NS); Kazakhstan, East Kazakhstan Oblast', Kurchum distr., Ust'-Kaldzhir, solonchak with *Tamarix*, 17 Sep 2001, *Lomonosova 160* (NS); Russia, Kurgan Oblast', vicinity of Kurgan, Tobol flood plain, 21 Sep 2005, in a ditch, *Lomonosova 733a* (NS); Russia, \*\*\*Altai Republic, Kosh-Agach distr., 5 km SW of Tebeler, 1800 m, wet solonchak, 30 Aug 2002, *Lomonosova 239* (NS); Russia, \*\*\*Buryatia Republic, Gusinoozersk distr., Sulfatnoe Lake coast, 3 Sep 2003, *Lomonosova 431* (NS).

Two ploidy levels are reported in literature for this Eurasian species, rarely diploid cytotype with  $2n = 18$ , and tetraploid one with  $2n = 36$  known from many localities (Goldblatt & Johnson, 1979+; Lomonosova & al., 2005; Lomonosova & Krasnikov, 2006).

*Atriplex patula* L.

$2n = 36$ , CHN. Russia, \*\*\*Karelia Republic, Sortavala distr., Valaam island, on a heap of building waste, 29 Sep 2008, *Lomonosova 769* (NS).

This species is distributed in Eurasia and N America. Tetraploid is a common ploidy level within *A. patula* (Goldblatt & Johnson, 1979+).

*Atriplex sagittata* L.

$2n = 18$ , CHN. Russia, \*\*\*Khakassia Republic, Shira distr., Belé Lake, in wasteland, 16 Sep 2004, *Lomonosova 598* (NS).

This species occurs in the steppe and semi-desert zones of Eurasia and  $2n = 18$  is the only cytotype reported for it (Goldblatt & Johnson, 1979+; Lomonosova & Krasnikov, 2006; Lomonosova & Shaulo, 2010).

*Atriplex sibirica* L.

$2n = 18$ , CHN. Russia, \*\*\*Buryatia Republic, Gusinoozersk distr., Sulfatnoe Lake, solonchak, 3 Sep 2003, *Lomonosova 431* (NS).

This species is native to Central Asia from where the same chromosome number was reported (Goldblatt & Johnson 1979+; Lomonosova & al., 2005; Lomonosova & Krasnikov, 2006; Lomonosova & Shaulo, 2010).

*Chenopodium album* L.

$2n = 54$ , CHN. Germany, Berlin, by the roadside, 10 Sep 2000, *Lomonosova s.n.* (NS); Kazakhstan, Almaty Oblast', Karatal distr., Ush-Tobe, by the roadside, 29 Sep 2000, *Lomonosova & Sukhorukov 68* (NS); Kazakhstan, East Kazakhstan Oblast', Zharma distr., Zharma, on the railway embankment, 24 Sep 2000, *Lomonosova & Sukhorukov 71* (NS); Russia, Novosibirsk Oblast', Novosibirsk, Akademgorodok, 7 Sep 2002, *Lomonosova 266* (NS); Russia, \*\*\*Buryatia Republic, Bargusin distr., Uro, by the roadside, 6 Sep 2002, *Lomonosova 450* (NS); Russia, \*\*\*Irkutsk Oblast', Irkutsk, 25 Sep 2002, *Zarubin s.n.* (IRKU); Russia, Leningrad Oblast', Beloozersk, on the bank, 29 Sep 2008, *Lomonosova 768* (NS).

A widespread almost cosmopolitan and variable species *Chenopodium album* L. s.l. is the most often karyologically studied taxon in Chenopodiaceae (Goldblatt & Johnson, 1979+). Hexaploid is a

common ploidy level confirmed in this report. Diploid and tetraploid plants of this species are also known in cited literature.

*Chenopodium atripliciforme* Murr

\* $2n = 54$ , CHN. Russia, Altai Krai, Tabun distr., Altaiskoe, Chainaya hill, 7 Aug 2001, *Aebel s.n.* (TK).

The species is distributed in Asia from N Pakistan to Altai Mts.

*Chenopodium novopokrovskianum* (Aellen) Uotila

$2n = 36$ , CHN. Kazakhstan, Almaty Oblast', Aksu distr., Matai, salted sand, 27 Sep 2000, *Lomonosova 52* (NS); Russia, \*\*\*Chita Oblast', Onon distr., Tsagan-Nur Lake, steppe, 10 Sep 2003, *Lomonosova 480* (NS).

This species inhabits W and C Asia and extends to S Siberia constantly represented by this cytotype (Goldblatt & Johnson, 1979+; Uotila, 1993; Krasnikov & al., 2007; Lomonosova & Shaulo, 2010).

*Chenopodium strictum* Roth

$2n = 36$ , CHN. Kazakhstan, East Kazakhstan Oblast', Zharmu distr., Charsk, on the railway embankment, 24 Sep 2000, *Lomonosova & Sukhorukov 72* (NS); Kazakhstan, East Kazakhstan Oblast', Kurchum distr., Kuigan, on a dump, 9 Sep 2001, *Lomonosova 107* (NS); Russia, Altai Krai, Rubtsovsk, on the railway embankment, 5 Sep 2001, *Lomonosova 86* (NS).

This species is widely distributed in Eurasia and this is the only cytotype reported for it (Uotila, 1973; Goldblatt & Johnson, 1979+; Lomonosova & al., 2005; Lomonosova & Krasnikov, 2006; Krasnikov & al., 2007).

*Chenopodium suecicum* Murr

$2n = 18$ , CHN. Russia, \*\*\*Karelia Republic, Petrozavodsk, on waste ground, 23 Sep 2008, *Lomonosova 764a* (NS); Russia, Karelia Republic, 30 km along the road from Petrozavodsk to Sortavala, 29 Sep 2008, *Lomonosova 766* (NS); Russia, Karelia Republic, Sortavala distr., Valaam island, on a heap of building waste, 29 Sep 2008, *Lomonosova 769* (NS).

This is the only cytotype reported for this widely distributed Eurasian species closely related to *C. album* (Uotila, 1972; Belyaeva & Siplivinskyi, 1977, under *C. viride* L.; Goldblatt & Johnson, 1979+; Lomonosova & Shaulo, 2010).

*Corispermum chinganicum* Iljin

\* $2n = 18$ , CHN. Kazakhstan, East Kazakhstan Oblast', Samara distr., Kyzil-Kum Sand, Kaznakovka, sands, 7 Sep 2001, *Lomonosova 91* (NS).

This species is native to E Kazakhstan, Mongolia and S Siberia.

*Corispermum macrocarpum* Bunge

\* $2n = 18$ , CHN. Russia, Buryatia Republic, Bichura distr., 8.2 km SW Verkh. Topka, Main Sands hole, 6 Sep 2011, *Korolyuk 254* (NS).

This is an Asiatic species distributed in East Siberia and Russian Far East.

*Corispermum sibiricum* Iljin

$2n = 18$ , CHN. Russia, \*\*\*Chita Oblast', Borzya distr., 30 km E Chindant, Borzya riverside, 14 Sep 2003, *Lomonosova 520* (NS); Russia, \*\*\*Buryatia Republic, 51°43'15"N, 102°53'37"E Tunka distr., Zun-Murino, Khyr-Gorkhon River, sandy slope, 1 Sep 2010, *Kazanovskiy 14976* (IRK).

This Asiatic taxon occurs in N Mongolia and S Siberia. It is always represented by this cytotype (Belyaeva & Siplivinskyi, 1977; Lomonosova & al., 2005).

*Kochia scoparia* (L.) Schrad.

$2n = 18$ , CHN. Russia, \*\*\*Irkutsk Oblast', Usol'e-Sibirskoe, 19 Sep 2002, *Lomonosova 277* (NS).

This Eurasian species constantly possesses this cytotype (Semiotrocheva, 1971; Goldblatt & Johnson, 1979+; Lomonosova & Krasnikov, 2006).

*Suaeda acuminata* (C.A. Mey.) Moq.

$2n = 18$ , CHN. \*\*Belarus, Minsk Oblast', Chizevsk distr., 1.5 km NE of Teslino, 52°49'57.4"N, 27°34'41.6"E, 160 m, 30 Sep 2009, *Dzus 1556* (NS).

This is an Eurasian species native to the steppe and semi-desert zones from SE Europe to W Siberia and Mongolia. It is adventive to Belarus. Only this cytotype was reported for *S. acuminata* in literature (see Goldblatt & Johnson, 1979+; Ebrahimzadeh & al., 1994; Lomonosova & al., 2005, 2007; Lomonosova & Krasnikov, 2006).

*Suaeda arcuata* Bunge

$2n = 18$ , CHN. \*\*Kazakhstan, Kyzylorda Oblast', Priaral'e, 2003, *Mamutov 2* (NS).

This is an Asiatic species distributed in the desert zone from Iran to W China, constantly possessing this cytotype (Zakhar'eva, 1990; Ebrahimzadeh & al., 1994; Lomonosova & al., 2007).

*Suaeda corniculata* (C.A. Mey.) Bunge subsp. *corniculata*

$2n = 54$ , CHN. \*\*Mongolia, Bayan-Olgii aymaq, Sagsai village, 25 Jul 2001, *Krasnoborov & al. s.n.* (NS); Russia, Altai Republic, Kosh-Agach distr., near Kosh-Agach, Aug 2001, *Krasnoborov 97* (NS); Russia, \*\*\*Bashkortostan Republic, vicinity of Salavat, on deposit tips, 15 Aug 2009, *Abramova s.n.* (NS); Russia, Sakha (Yakutia) Republic, Yakutsk, solonchak 23 Aug 2004, *Zakharova s.n.* (NS).

This subspecies is distributed from European Russia and S. Siberia to Kazakhstan, Mongolia and N China. Our counts are first for Mongolia and confirm many previous reports from Russia and Kazakhstan. The survey of known karyological data for *S. corniculata* has been done by Lomonosova (2011).

*Suaeda microsperma* (C.A. Mey.) Fenzl

$2n = 18$ , CHN. Kazakhstan, East Kazakhstan Oblast', Zaisan distr., Shiliktinskaya valley, semi-desert with *Atriplex cana* and *Artemisia* spp., 19 Sep 2001, *Lomonosova 179* (NS); Kazakhstan, East Kazakhstan Oblast', Zaissan distr., Zaissan village, 19 Sep 2001, *Lomonosova, s.n.* (NS); Kazakhstan, East Kazakhstan Oblast', Zharmu distr., Aktogai village, wet solonchak in semi-desert, 25 Sep 2000, *Lomonosova & Sukhorukov, 45a* (NS).

The basic area of this species is Soviet Middle Asia and northern part of W Asia. This record confirms the counts reported in literature from Iran (Ebrahimzadeh & al., 1994), Kazakhstan and Uzbekistan (Lomonosova & al., 2005, 2007).

*Suaeda salsa* (L.) Pall.

$2n = 36$ , CHN. Russia, Saratov Oblast', Novouzensk distr., Novouzensk, 27 Aug 2008, *Fedorova s.n.* (NS).

This species inhabits steppe and semidesert zones in SE Europe, Kazakhstan and SW Siberia of Russia. This record confirms the numerous reports in literature for Romania, Ukraine, Russia, Azerbaijan and Kazakhstan. The survey of known karyological data for *S. salsa* has been done by Lomonosova (2011). The diploid number  $2n = 18$  based on plants from Iran (Hekmat-Shoar & Manafi, 1982) most likely refers to another species.

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\* First chromosome count for the species marked.

\*\* New chromosome number (cytotype) for the species.

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#### ALISMATACEAE

*Alisma lanceolatum* With.

$2n = 28$ , CHN. Ukraine, 12 km of Kiev city, the mouth of the Desna River, in depression filled with water, 14 Aug 1978, *Probatova 5190* (VLA).

#### ALLIACEAE

*Allium microdictyon* Prokh.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, Baikal'skii nature reserve, the Vydrinaya River, right riverside, 566 m, valley forest with tall herbs, 10 Aug 2011, *Kazanovsky 11991* (VLA, IRK).

*Allium schoenoprasum* L.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, the Irkut River, right riverside, near Zhemchug village, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 12025* (VLA).

*Allium splendens* Willd. ex Schult. f.

$2n = 32$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, 50 km SE of Arkhara town, 10 km of the railway station Uryl, near the border of the Khinganskii nature reserve, S slope, light steepified oak forest, 17 Sep 2004, *Probatova & Seledets 9449* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, near Novo-georgievka settlement, the valley of Razdol'naya River, on pebbles, 8 Jul 2009, *Nechaev 11407* (VLA).

\*\* $2n = 64$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, 50 km SE of Arkhara railway station, steepified slope, dry meadow, 14 Aug 2001, *Kapustina 8538* (VLA).

#### AMARANTHACEAE

*Amaranthus blitoides* S. Watson

$2n = 32$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Novorossiyskii Raion, Guelendzhik town, seaside park, as a weed in the flower-bed, 3 Sep 2009, *Probatova & Seledets 11754* (VLA).

#### ARISTOLOCHIACEAE

*Aristolochia contorta* Bunge

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, in vicinity of Bol'shoi Kamen' town, bottom of the steep wooded slope, 16 Aug 2008, *Nechaev 11133* (VLA).

#### ASPARAGACEAE

*Asparagus brachyphyllus* Turcz.

\* $2n = 20$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Ononskii Raion, Zun-Torey Lake, north lakeside, 630 m, stony shore, 18 Jul 2010, *Kazanovsky 11933* (VLA, IRK).

*Asparagus burjaticus* Peschkova

\* $2n = 40$ , CHN. Russia, East Siberia, Republic of Buryatia, Tarbagataiskii Raion, right riverside of the Selenga River, north outskirts of Saratovka village, 505 m, steepified meadow, among grasses and various herbs, 27 Jul 2011, *Krivenko 11995* (VLA, IRK).

*Asparagus davuricus* Fisch. ex Link

$2n = 20$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Borzinskii Raion, mountain-steppe massif Adun-Chelon, near Arkhar (Argali) Mt., 981 m, stony steppe with *Spiraea aquilegifolia*, *Sorbaria sorbifolia* and *Ulmus pumila*, 17 Jul 2010, *Kazanovsky 11856* (VLA, IRK).

*Asparagus gibbus* Bunge

$2n = 40$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Ononskii Raion, Zun-Torey Lake, north lakeside, 630 m, stony shore, 18 Jul 2010, *Kazanovsky 11854* (VLA, IRK).

#### ASTERACEAE

*Achillea asiatica* Serg.

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, a weed on the lawn near the market-place, 16 Sep 2011, *Kazanovsky 11936* (VLA, IRK).



*Arctium tomentosum* Mill.

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, a weed in the shrubbery near the market-place, 16 Sep 2011, *Kazanovsky 11948* (VLA, IRK).

*Centaurea scabiosa* L.

$2n = 20$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golubye Eli, 462 m, grass meadow with various herbs at the road-bed, 17 Sep 2011, *Kazanovsky 11941* (VLA, IRK).

*Chondrilla brevirostris* Fisch. & C.A. Mey.

$2n = 15$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Narimanovskii Raion, right riverside of the Volga River, near Volzhskii settlement, grassed barchan sands, 27 Aug 2009, *Probatova & Seledets 11577* (VLA).

*Cirsium serratuloides* Hill

$2n = 34$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, lower course of the Belyi Irkut River, left riverside, 1552 m, *Larix* forest with *Betula* and *Populus tremula*, 30 Aug 2010, *Kazanovsky 11745* (VLA, IRK).

*Conyza canadensis* (L.) Cronquist

$2n = 18$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, as a weed in a vegetable garden, 6 Sep 2009, *Probatova & Seledets 11594* (VLA); Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, 465 m, a weed on the experimental plot near the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, 18 Aug 2011, *Kazanovsky 11965* (VLA, IRK).

*Crepidiastrum denticulatum* (Houtt.) Pak & Kawano

$2n = 10$ , CHN. Russia, Far East, Primorskii Krai, in vicinity of Nakhodka city, Brat Mt., 14 Oct 2011, *Nechaev 11958* (VLA).

*Crepis rhoeadifolia* M. Bieb.

$2n = 10$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, roadside, 6 Sep 2009, *Probatova & Seledets 11550* (VLA).

*Crepis tectorum* L.

$2n = 8$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, Mogocha settlement, Amazar River, 610 m, as a weed in the dacha area, 6 Jul 2011, *Kazanovsky 12002* (VLA, IRK).

*Erigeron flaccidus* (Bunge) Botsch.

\*\* $2n = 36$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, East Sayan Mts., Kitoiskii mountain ridge, in vicinity of Samarta settlement, the upper course of the Kitoi River, Vassil'evskaya Mt., 2027 m, sparse *Larix* forest with various herbs and green mosses, 28 Aug 2010, *Kazanovsky 11753* (VLA, IRK).

*Galinsoga parviflora* Cav.

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, market place, a weed on flower-beds, 11 Sep 2011, *Kazanovsky 11977* (VLA, IRK).

*Helianthus lenticularis* Douglas

$2n = 34$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Kamyzyakskii Raion, 40 km S of Astrakhan' city, in vicinity of Samosdelka village, riverbank of the Old Volga, recreation centre "The Old Volga", as a weed, 28 Aug 2009, *Probatova & Seledets 11628* (VLA).

*Hieracium umbellatum* L.

$2n = 27$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golubye Eli, 462 m, grass meadow with various herbs at the railway road-bed, 17 Sep 2011, *Kazanovsky 11938* (VLA, IRK).

*Ixeris chinensis* (Thunb.) Kitag.

$2n = 16$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, Mogocha settlement, 762 m, grass meadow with various herbs, by the road, 6 Jul 2011, *Kazanovsky 11993* (VLA, IRK).

*Lactuca serriola* L.

$2n = 18$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Kamyzyakskii Raion, 40 km south from Astrakhan' city, in vicinity of Samosdelka village, high riverbank of the Old Volga, recreation centre "The Old Volga", as a weed, 28 Aug 2009, *Probatova & Seledets 11635* (VLA).

*Leontodon autumnalis* L.

$2n = 12$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, the territory of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, 10 Oct 2011, *Kazanovsky 11988* (VLA, IRK).

*Nabalis ochroleuca* Maxim.

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, in vicinity of the railway station Nadezhdinskaya, 8 Oct 2011, *Nechaev 11955* (VLA).

*Phalacrologa septentrionale* (Fernald & Wiegand) Tzvelev

$2n = 18$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, clearing, 5 Sep 2009, *Probatova & Seledets 11651* (VLA); Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near the railway platform "232 km", as a weed in a country place, 9 Sep 2010, *Probatova & Seledets 11767* (VLA).

*Pterocypsela indica* (L.) C. Shih

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, Fadeevka village, sand barrage along the Razdol'naya River, 12 Sep 1997, *Barkalov 7532* (VLA).

*Saussurea amara* (L.) DC.

$2n = 26$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ussol'e-Sibirskoe town, 445 m, west of the railway station, along the railway road, 16 Oct 2011, *Verkhovina 11984* (VLA, IRK).

*Saussurea parviflora* DC.

\*\* $2n = 26+0-7B$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, East Sayan Mts., Kitoiskii mountain ridge, in vicinity of Samarta settlement, the upper course of Kitoi River, Vassil'evskaya Mt., 2027 m, the edge of sparse *Larix* forest with various herbs and green mosses, 28 Aug 2010, *Kazanovsky 11918* (VLA, IRK).

*Senecio vulgaris* L.

$2n = 40$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, Lermontova Street, at the house 281, as a weed on the lawn, 16 Sep 2011, *Kazanovsky 12004* (VLA, IRK); Russia, Far East, Primorskii Krai, Murav'ev-Amurskii Peninsula (Vladivostok), Ussuriiskii Gulf, Schitovaya Bay, at the roadside, 13 Sep 2011, *Semeykin 11905* (VLA).

*Serratula coronata* L.

$2n = 22$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golubye Eli, 462 m, grass meadow

with various herbs at the road-bed, 19 Sep 2011, *Kazanovsky 11947* (VLA, IRK).

*Sonchus arvensis* L.

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the bookshop "Akademkniga", as a weed on the lawn, 8 Sep 2011, *Kazanovsky 11966* (VLA, IRK).

*Sonchus asper* (L.) Hill

$2n = 18$ , CHN. U.S.A., Texas, Addison town (near Dallas), as a weed, 3 Apr 2005, *Rudyka 11548* (VLA).

*Tanacetum vulgare* L.

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Bol'shoi Lug settlement, 489 m, *Pinus* forest with *Rhododendron*, *Calamagrostis* and various herbs, 5 Sep 2011, *Kazanovsky 11959* (VLA, IRK).

*Taraxacum* cf. *bessarabicum* Hand.-Mazz.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Selen-guinskii Raion, between Gussinozersk town and Takhoi village, the Sul'fatnoe Lake, saline lakeside, 11 Sep 2004, *Probatova & Seledets 10488* (VLA).

*Tripleurospermum inodorum* (L.) Sch. Bip.

$2n = 36$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, as a weed on the lawn, 15 Sep 2011, *Kazanovsky 11927* (VLA, IRK); Russia, East Siberia, Chitinskaya Oblast' (now Zabaikal'skii Krai), railway station Chernyshevsk-Zabaikal'skii, as a weed on the flower-bed, 20 Sep 2007, *Probatova & Seledets 11108* (VLA).

*Trommsdorffia maculata* (L.) Bernh.

$2n = 10$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, near Kossaya Step' village, 700 m, steppe on the SE slope, 31 Jul 2010, *Kazanovsky 11697* (VLA, IRK).

#### BORAGINACEAE

*Lappula consanguinea* Gürke

$2n = 24$ , CHN. Russia, Far East, Magadanskaya Oblast', Ten'kinskii Raion, Matrossova settlement, on waste ground, 14 Aug 2008, *Lyssenko 11790* (VLA).

*Lappula redowskii* (Hornem.) Greene

$2n = 24$ , CHN. Russia, Far East, Magadanskaya Oblast', Sussumanskii Raion, Sussuman town, on waste ground, 18 Jul 2009, *Lyssenko 11792* (VLA).

*Lithospermum officinale* L.

$2n = 28$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, 18 km south of Abinsk town, near Shapsugskaya village, riverside of the Abin River, a clearing in the valley forest, 5 Sep 2009, *Probatova & Seledets 11622* (VLA).

#### BRASSICACEAE

*Brassica campestris* L.

$2n = 20$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the building of Presidium of the Irkutskii Scientific Center, Siberian Branch of the Russian Academy of Sciences, as a weed on the lawn, 2 Sep 2011, *Kazanovsky 11954* (VLA).

*Cardamine macrophylla* Willd.

$2n = 64$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, near Sliudyanka town, the valley of Sliudyanka River, left riverside, 568 m, *Padus* and shrubs community on the riverbank, 30 Jul 2011, *Kazanovsky 12020* (VLA, IRK); Russia, East

Siberia, Republic of Buryatia, Kabanskii Raion, Baikal'skii nature reserve, the Vydrinaya River, right riverside, 552 m, moist meadow with *Calamagrostis* and various herbs along the stream, 9 Aug 2011, *Kazanovsky 11932* (VLA, IRK).

*Dontostemon integrifolius* (L.) Ledeb.

\* $2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, Baikal Lake, 17 km NE of Listvyanka settlement, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10766* (VLA).

*Lepidium densiflorum* Schrad.

$2n = 32$ , CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Kolymskoe settlement, along the road, 31 Jul 2005, *Lyssenko 10584* (VLA).

*Raphanus raphanistrum* L.

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, as a weed on the lawn near the building of Presidium of the Irkutskii Scientific Center, Siberian Branch of the Russian Academy of Sciences, 2 Sep 2011, *Kazanovsky 11922* (VLA, IRK).

*Rorippa palustris* (L.) Besser

$2n = 32$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, the Amur River, 309 m, gravelly bank, 9 Jul 2011, *Kazanovsky 12008* (VLA, IRK).

#### CAMPANULACEAE

*Campanula patula* L.

$2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near the railway station Rechka Vydrinaya, right riverside of the Vydrinaya River, in its lower course, 503 m, meadow, 8 Aug 2011, *Kazanovsky 11963* (VLA).

*Campanula rapunculoides* L.

$2n = 68$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, in the shrubs near the Institute of Power Engineering Systems, Siberian Branch of RAS, 16 Sep 2011, *Kazanovsky 11967* (VLA, IRK).

#### CARYOPHYLLACEAE

*Dianthus superbus* L.

$2n = 30$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, in vicinity of Bol'shoi Lug settlement, 606 m, *Pinus* and *Betula* forest with *Calamagrostis* and various herbs, 5 Sep 2011, *Kazanovsky 11968* (VLA, IRK).

*Herniaria glabra* L.

$2n = 18$ , CHN. Russia, European part, Volga region, Astrakhan-skaya Oblast', Enotaevskii Raion, Volgo-Akhtubinskaya flood-plain, near Zamiany village, the island on Volga River, sandy beach, 27 Aug 2009, *Probatova & Seledets 12016* (VLA).

*Minuartia verna* (L.) Hiern

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Baikal Lake, Malomorskoe coast, Mukhor Bay, Ulan-Khada Peninsula, 569 m, stony steppe, 30 Jul 2010, *Kazanovsky 11913* (VLA, IRK).

*Neoussuria aprica* (Turcz. ex Fisch. & C.A. Mey.) Tzvelev

(= *Elisanthe aprica* (Turcz. ex Fisch. & C.A. Mey.) Peschkova)

$2n = 48$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Baikal Lake, Malomorskoe coast, Mukhor Bay, Ulan-Khada Peninsula, 569 m, stony steppe, 30 Jul 2010, *Kazanovsky 11987* (VLA, IRK); Russia, East Siberia, Irkutskaya Oblast',

Ol'khonskii Raion, Baikal Lake, Ol'khon Island, near Sagan-Khushun Cape, 575 m, *Agropyron cristatum* steppe with various herbs, 28 Jul 2010, *Krivenko 12014* (VLA, IRK).

*Oberna behen* (L.) Ikonn.

$2n = 24$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, on the waste ground, 15 Sep 2011, *Kazanovsky 11935* (VLA, IRK); Russia, Far East, Primorskii Krai, Partizanskii Raion, near Monakino village, left riverbank of the Sergeevka River, meadow on the terrace, 13 Sep 2011, *Volynets 11907* (VLA).

*Silene chamarensis* Turcz.

$2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, East Sayan Mts., Kitoiskii mountain ridge, in vicinity of Samarta settlement, the upper course of the Kitoi River, Vassil'evskaya Mt., 2195 m, alpine belt, stony placer, covered with mosses and lichens, 28 Aug 2010, *Kazanovsky 12001* (VLA, IRK).

*Silene jenienseis* Willd.

$2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, near Zun-Murino village, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, the Khyr-Gorkhon River, 704 m, sandy slope, 1 Sep 2010, *Kazanovsky 12030* (VLA, IRK).

*Silene repens* Patrín

$2n = 48$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskaya Valley, the mouth of the Belyi Irkut River, left riverside, 1550 m, sparse *Larix*, *Betula*, and *Populus tremula* forest with grasses and various herbs, 30 Aug 2010, *Kazanovsky 12003* (VLA, IRK).

*Silene turczaninovii* Lazkov

\* $2n = 24$ , CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, near Klochnevo village, 524 m, S slope, *Pinus* forest with grasses, sedges and various herbs, 10 Jul 2009, *Kazanovsky 11911* (VLA, IRK).

*Spergula arvensis* L.

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, moist bank of the Ptich'e (Tal'my) Lake, sandy-rubbly ground in 2 m of the brackish water of the lake, 13 Jun 2010, *Nechaev 11601* (VLA).

*Stellaria media* (L.) Vill.

$2n = 44$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the bookshop "Akademkniga", as a weed on the lawn, 8 Sep 2011, *Kazanovsky 11923* (VLA, IRK).

#### CHENOPODIACEAE

*Atriplex laevis* C.A. Mey.

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, the bus stop "Yuzhnaya", on the waste ground, 6 Sep 2011, *Kazanovsky 11945* (VLA, IRK).

#### CRASSULACEAE

*Aizopsis aizoon* (L.) Grulich

$2n = 32$ , CHN. Russia, Far East, Khabarovskii Krai, the Bol'shekhokhtskii nature reserve, near cordon "Chirki", Bashmachkovaya Hill, in forest, 31 Aug 1993, *Probatova & Seledets 7200* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, SW outskirts of Novoshakhtinskii settlement, the slope of railway embankment, 6 Jul 2008, *Lapenko 11049* (VLA).

\*\* $2n = 64$ , CHN. Russia, Far East, Amurskaya Oblast', 40 km N of Blagoveshchensk city, nature forest park "Mukhinka", near the

tourist' centre "Mukhinskaya", *Pinus* and *Quercus* forest on the slope, 30 Sep 2007, *Probatova & Seledets 10930* (VLA); Russia, Far East, Primorskii Krai, Khassanskii Raion, in vicinity of Barabash settlement, Jun 2009, *Volynets 11368* (VLA).

*Aizopsis litoralis* (Kom.) S. Gontch.

$2n = 32$ , CHN. Russia, Far East, Primorskii Krai, near Wrangel settlement (in vicinity of Nakhodka city), oak forest, 16 Jun 2009, *Kazanovsky 11379* (VLA).

*Aizopsis selskiana* (Regel & Maack) Grulich

$2n = 32$ , CHN. Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, in vicinity of Novogeorgievka village, the valley of the Razdol'naya (Suifun) River, on pebbles, 8 Jul 2009, *Nechaev 11412* (VLA); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Gvozdevo settlement, maritime slope, 25 Jul 2008, *Nechaev 11080* (VLA).

#### FABACEAE

*Lotus caucasicus* Kuprian.

$2n = 16$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, clearing, 5 Sep 2009, *Manilo 11587* (VLA). The voucher specimen was misidentified as "*Trigonella monspeliaca* L.", by Probatova & al. in Taxon 59: 1936, E9 (2010).

*Vicia baicalensis* (Turcz.) B. Fedtsch.

$2n = 12$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, near Zun-Murino village, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, the Khyr-Gorkhon River, 704 m, *Larix* and *Pinus* forest with various herbs, 3 Sep 2010, *Kazanovsky 11691* (VLA, IRK).

*Vicia sepium* L.

$2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near railway station Rechka Vydrinaya, *Picea*, *Betula* and *Pinus* forest with *Calamagrostis*, *Vaccinium myrtillus* and green mosses, at the forest road, 27 Jul 2009, *Kazanovsky 11696* (VLA, IRK).

*Vicia unijuga* A. Braun

$2n = 12$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, near Zun-Murino village, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, the Khyr-Gorkhon River, 704 m, *Larix* and *Pinus* forest with various herbs, 1 Sep 2010, *Kazanovsky 11813* (VLA, IRK).

#### FUMARIACEAE

*Corydalis ochotensis* Turcz.

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near railway station Nadezhdinskaya, Shmidtovka River, valley forest, 1 Oct 2011, *Nechaev 11925* (VLA).

#### GENTIANACEAE

*Gentianopsis barbata* (Froel.) Ma

$2n = 78$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, the upper course of the Kitoi River, left riverside, 1942 m, the edge of sparse *Larix* forest with various herbs and green mosses, 28 Aug 2010, *Kazanovsky 11899* (VLA, IRK).

#### GROSSULARIACEAE

*Ribes triste* Pall.

$2n = 16$ , CHN. Russia, Far East, Primorskii Krai, Ussuriiskii Raion, Borissovskoe Plateau, Malaya Borissovka River, near its confluence to Borissovka (Shufan) River, deciduous forest on the slope of a hill, 10 Jul 2005, *Barkalov 9841* (VLA).

**LAMIACEAE***Elsholtzia ciliata* (Thunb.) Hylander

$2n = 16$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golubye Eli, 497 m, as a weed in a garden-plot, 17 Sep 2011, *Kazanovsky 11937* (VLA, IRK).

*Galeopsis bifida* Boenn.

$2n = 32$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Baikalsk Lake, 17 km NE of Listvyanka, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10879* (VLA).

*Leonurus quinquelobatus* Gilib. (= *L. villosus* Desf.)

$2n = 18$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, as a weed on the lawn, near the house, 26 Jul 2011, *Kazanovsky 11926* (VLA, IRK).

*Nepeta* cf. *pannonica* L.

$2n = 18$ , CHN. Russia, Primorskii Krai, Vladivostok city, Ovchinnikova Street, as a weed on the flower-bed at the schoolhouse Nr. 52, 4 Aug 2008, *Probatova & Seledets 11014* (VLA).

**MALVACEAE***Abutilon theophrasti* Medik.

$2n = 42$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, 465 m, as a weed on experimental plot, 18 Aug 2011, *Kazanovsky & Gamburg 12005* (VLA, IRK).

*Malva mohileviensis* Down.

$2n = 42$ , CHN. Russia, East Siberia, Chitinskaya Oblast', the railway station Chernyshevsk-Zabaikal'skii, as a weed on the flower-bed, 20 Sep 2007, *Probatova & Seledets 11107* (VLA); Russia, Far East, Amurskaya Oblast', Blagoveshchensk city, as a weed on the lawn in Chaikovskogo Street, 5 Oct 2007, *Probatova & Seledets 11624* (VLA).

*Malva pusilla* Sm.

$2n = 42$ , CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchensk city, as a weed on waste ground opposite the temple, 3 Oct 2007, *Probatova & Seledets 11626* (VLA).

**PAPAVERACEAE***Papaver nudicaule* L.

$2n = 28$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, customs post, 316 m, meadow with many ruderal species, 7 Jul 2011, *Kazanovsky & Bondarevich 12044* (VLA, IRK); Russia, East Siberia, Zabaikal'skii Krai, Nerchinskii Raion, near Znamenka village, the Nercha River, 531 m, riverside, in bush, 14 Jul 2011, *Kazanovsky 12059* (VLA, IRK).

$2n = 42$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, Tserkovnoe Lake, 314 m, meadow, 10 Jul 2011, *Kazanovsky & Chernova 12022* (VLA, IRK).

**PLANTAGINACEAE***Plantago lanceolata* L.

$2n = 12$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, the Abin River, on pebbles, 5 Sep 2009, *Probatova & Seledets 11638* (VLA).

**POACEAE***Agropyron desertorum* Schult.

$2n = 28$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Ikryaninskii Raion, near Il'yinka village, Berovskie hills

(argillaceous), *Artemisia* desert, 27 Aug 2009, *Probatova & Seledets 11611* (VLA).

*Agrostis syreistschikowii* P.A. Smirn.

\* $2n = 28$ , CHN. Ukraine, 30 km SW of Kiev city, near the railway station Boyarka, *Agrostis* meadow, 11 Aug 1978, *Probatova 5182* (VLA).

*Anisantha sterilis* (L.) Nevski var. *velutina* (Volkart ex Hegi)

Tzvel.

$2n = 14$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Novorossiisk city, rubbly mountainside to Tsemesskaya Bay (the Black Sea), shrubs communities (sibljak) with sumach and *Paliurus spina-christi*, 3 Sep 2009, *Probatova & Seledets 11636* (VLA).

*Anisantha tectorum* var. *hirsuta* (Regel) Tzvel.

$2n = 14$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Kamyzyakskii Raion, near Khmel'ovka village, the bank of Ivanchug River, 30 Aug 2009, *Probatova & Seledets 12000* (VLA).

*Brachypodium pinnatum* (L.) P. Beauv.

$2n = 14$ , CHN. Kazakhstan, Almaatinskaya Oblast', in vicinity of Alma-Ata city, Bol'shoe Almaatinskoe canyon, the valley of Bol'shaya Almaatinka River, left riverside, behind the dam, 1350 m, 2 Sep 1988, *Probatova & Seledets 6848* (VLA).

$2n = 18$ , CHN. Kazakhstan, Almaatinskaya Oblast', in vicinity of Alma-Ata city, the locality Medeo, 1770 m, dark coniferous forest belt, the edge of the spruce forest on the slope, 15 Jul 1978, *Probatova & Seledets 5123* (VLA); Russia, West Siberia, Novosibirskaya Oblast', Toguchinskii Raion, near Kotorovo village, Salairskii mountain-ridge, taiga, 29 Sep 1977, *Seledets 4830* (VLA).

*Brachypodium spryginii* (Tzvelev) Tzvelev

\* $2n = 18$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Abinsk town, the valley of Abin River (the Kuban' River basin), 15 Oct 2008, *Manilo 11278* (VLA).

*Briza elatior* Sibth. & Sm.

$2n = 14$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, forest edge on the slope, 5 Sep 2009, *Manilo 11644* (VLA).

*Bromus squarrosus* L.

$2n = 14$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Novorossiisk city, rubbly mountainside to Tsemesskaya Bay (the Black Sea), shrubs communities (sibljak) with sumach and *Paliurus spina-christi*, 3 Sep 2009, *Probatova & Seledets 11604* (VLA); Russia, North Caucasus, Krasnodarskii Krai, Novorossiyskii Raion, in vicinity of Raevskaya settlement, Volchii Vorota Pass, rubbly deposits of marl, 3 Sep 2009, *Probatova & Seledets 12035* (VLA).

*Bromus volgensis* Fisch. ex Jacq.

$2n = 14$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Novorossiyskii Raion, in vicinity of Raevskaya settlement, Volchii Vorota Pass, rubbly deposits of marl, 3 Sep 2009, *Probatova & Seledets 12028* (VLA).

*Calamagrostis caucasica* Trin.

$2n = 28$ , CHN. Russia, North Caucasus, Republic of Daghestan, Gunibskii Raion, near Verkhni Gunib village, ca. 1800 m, on the rocks along the Gunibka River, 26 Jun 1979, *Probatova 5421* (VLA).

*Calamagrostis hakonensis* Franch. & Sav.

$2n = 56$ , CHN. Japan, Hokkaido, Shiretoko Peninsula, the riverside of a mountain river, mixed forest, 20 Sep 1997, *Nechaev 7528* (VLA).

*Cinna latifolia* (Trevir. ex Göpp.) Griseb.

2n = 28, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, Baikal'skii nature reserve, right riverside of the Vydrinaya River, 487 m, *Picea* and *Betula* valley forest with *Matteuccia struthiopteris*, *Waldsteinia ternata* and various herbs, 11 Aug 2011, *Kazanovsky 11950* (VLA, IRK).

*Dactylis glomerata* L.

2n = 28, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, the grass-plot, 30 Sep 2011, *Kazanovsky 12018* (VLA, IRK).

*Echinochloa spiralis* Vasinger

2n = 36, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Razdol'noe settlement, the valley of the Razdol'naya River, on the bank of a pond, 7 Oct 2006, *Nechaev 10439* (VLA).

× *Elyhordeum arcuatum* W.W. Mitch. & Hodgs.

2n = 28, CHN. Russia, Far East, Khabarovskii Krai, outskirts of Khabarovsk city, waste ground, 20 Jul 1999, *Probatova & Seledets 8355* (VLA).

*Elymus dahuricus* Turcz.

2n = 42, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, in vicinity of Zhemchug village, right riverside of the Irkut River, locality Vyshka, 693 m, in dumetum, 11 Oct 2011, *Kazanovsky 12013* (VLA, IRK).

*Elymus glabriflorus* Scribn. & C.R. Ball

2n = 28, CHN. U.S.A., Texas, Addison town (near Dallas), 6 Apr 2009, *Rudyka 11425* (VLA).

*Elymus scandicus* var. *borealis* (Turcz.) Tzvelev

(= *E. neoborealis* Khokhr.)

2n = 28, CHN. Russia, Republic of Sakha-Yakutia, 10 km SW of Yakutsk city, near Chuchur-Muran Mt., the valley *Larix* forest, 27 Jul 1973, *Probatova & Seledets 3827* (VLA); Russia, Far East, Magadanskaya Oblast', Khassynskii Raion, the upper course of the Yama River, pebbles at the mouth of Maymandzha River, 2 Aug 1996, *Mochalova 7745* (VLA).

*Elytrigia pseudocaesia* (Pacz.) Prokudin

2n = 40, CHN. Russia, European part, Volga region, Saratovskaya Oblast', outskirts of Saratov city, Oktyabr'skoe canyon, W slope, steppe, 5 Oct 2008, *Probatova & Seledets 11311* (VLA). The voucher specimen was misidentified as "*Elytrigia repens* (L.) Nevski", by *Probatova & al.* in *Taxon* 58: 1287, E16 (2009).

*Eragrostis minor* Host

2n = 40, CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Novorossiisk city, rubbly mountainside to Tsemesskaya Bay (the Black Sea), shrubs communities (sibljak) with sumach and *Paliurus spina-christi*, roadside, 3 Sep 2009, *Probatova & Seledets 11874* (VLA).

*Festuca baicalensis* V.I. Krecz. & Bobr.

2n = 42, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, Baikal Lake, 161 km of the route of Ulan-Ude, near Turka village, sand dunes, 11 Sep 2004, *Chepinoga 9690* (VLA).

*Festuca ovina* L.

2n = 14, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, Turka village, lakeside of Baikal Lake, 11 Sep 2004, *Chepinoga 10524* (VLA).

*Festuca sibirica* var. *karoii* St.-Yves (= *F. kreczetoviczii* K. Sobol.)

2n = 28, CHN. Russia, East Siberia, Chitinskaya Oblast' (now Zabaikal'skii Krai), the Nercha River, 10 km above the mouth, on the top of the ridge, feather grass steppe, 16 Jul 2004, *Belikovich 9836* (VLA).

*Hierochloë glabra* Trin.

2n = 28, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, the valley of Ushakovka River, flood-plain, slightly saline grass and sedge meadow, 3 Jun 1978, *Loshakova 5016* (VLA); Russia, East Siberia, Chitinskaya Oblast', Uletovskii Raion, right riverside of the Ingoda River, 1 Aug 1978, *Lesnikov 5234* (VLA); Russia, East Siberia, Chitinskaya Oblast', near the airport of Chita, a fragment of *Leymus* steppe, 7 May 1981, *Probatova 5889* (VLA).

*Lolium perenne* L.

2n = 14, CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, a clearing, 5 Sep 2009, *Probatova & Seledets 11646* (VLA).

*Milium effusum* L.

2n = 28, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the Baikal'skii nature reserve, right riverside of the Vydrinaya River, 487 m, 11 Aug 2011, *Kazanovsky 11974/368* (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the Baikal'skii nature reserve, right riverside of the Vydrinaya River, 7 km from the mouth, 577 m, the valley mixed forest (of *Picea*, *Abies*, *Betula*, and *Populus*) with ferns and various herbs, 22 Jul–9 Aug 2011, *Kazanovsky 11979/370* (VLA, IRK).

*Molinia caerulea* (L.) Moench

2n = 36, CHN. Russia, European part, Leningradskaya Oblast', Oredezskii Raion, 10 km of Oredez settlement, near Beloe village, lakeside of the Beloe Lake, 11 Jul 1976, *Probatova 4368* (VLA).

*Panicum bisulcatum* Thunb.

2n = 36, CHN. Russia, Primorskii Krai, Kirovskii Raion, near Podgornoe village, temporary ponds along the route of the gas pipe line, in 100 m from the Ussuri River, 10 Sep 2011, *Chubarj 11973* (VLA).

*Poa bulbosa* L.

2n = 42, CHN. Russia, European part, Volga region, Astrakhan-skaya Oblast', Ikryaninskii Raion, near Il'yinka village, Berovskie hills (argillaceous), *Artemisia* desert, 27 Aug 2009, *Probatova & Seledets 11629* (VLA).

*Poa kolymensis* Tzvelev

2n = 14, CHN. Russia, Far East, Magadanskaya Oblast', Khassynskii Raion, Yablonovyi Pass, rubbly mountain tundra, 25 Aug 2011, *Lyssenko 11886/11887* (VLA).

*Poa lipskyi* Roshev.

\*\*2n = 42, CHN. Kazakhstan, outskirts of Alma-Ata city, Bol'shoe Almaatinskoe canyon, the upper course of the Malaya Almaatinka River, ca. 2000 m, 2 Sep 1988, *Tsvelyov 6920* (VLA).

*Poa nemoralis* L.

2n = 42, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, in vicinity of Fokino town, the Bol'shoi Iossif Mt., 530 m, stony deposits on the slope, 7 Aug 2010, *Nechaev 11640* (VLA).

*Poa remota* Forselles

2n = 14, CHN. Russia, Urals Region, Komi Republic, the upper course of the Pechora River, at the watershed of Pechora and Bol'shaya Porozhnaya Rivers, 28 Aug 1979, *Lavrenko 6343* (VLA).

*Poa sibirica* Roshev.

$2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, near Sarma village, right riverside of the first right tributary of the Sarma River, 857 m, *Populus tremula* forest with *Pinus sibirica*, *Salix* spp. and various herbs, 30 Jul 2004, *Kazanovsky 11789* (VLA, IRK).

*Poa transbaicalica* Roshev. (= *P. versicolor* subsp. *stepposa* (Kryl.) Tzvelev)

$2n = 28$ , CHN. Russia, Far East, Amurskaya Oblast', Mazanovskii Raion, right riverside of Selemdzha River, near Mayskii settlement, the edge of *Larix-Betula* forest, by the road, 30 Aug 1976, *Probatova & Seledets 4653* (VLA).

*Poa vorobievii* Probat.

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, the coast of Amurskii Bay (the Sea of Japan), near Tavrichanka settlement, coastal rocks, 6 Jun 2009, *Nechaev 11366* (VLA).

*Schedonorus pratensis* (Huds.) P. Beauv.

$2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Tankhoi settlement, 500 m, meadow, 15 Aug 2011, *Kazanovsky 11940* (VLA, IRK).

*Secale sylvestre* Host

$2n = 14$ , CHN. Ukraine, SE outskirts of Kiev city, near Korchevatoe, on poorly matted sandy plots, 23 Jul 1976, *Probatova 4540* (VLA).

*Setaria viridis* (L.) P. Beauv.

$2n = 18$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Novorossiisk city, rubbly mountainside to Tsemesskaya Bay (the Black Sea), shrubs communities (sibljak) with sumach and *Paliurus spina-christi*, 3 Sep 2009, *Probatova & Seledets 11641* (VLA); Russia, European part, Volga Region, Astrakhanskaya Oblast', Povolzhskii Raion, near Nachalovo village, at the branch Cherepakha, by the path, 25 Aug 2009, *Probatova & Seledets 11621* (VLA); Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, at the building on Lermontova Street 281, as a weed on the lawn, 6 Oct 2011, *Kazanovsky 12015* (VLA, IRK).

*Trisetum turcicum* Chrtek

$2n = 14$ , CHN. Russia, North Caucasus, Republic of Severnaya Osetia-Alania, Tseisskii nature reserve, E slope, the canyon of the Baddon River (the tributary of Alagir River), 1700 m, meadow, 13 Aug 1976, *Polyvtsev 5266* (VLA).

**POLYGONACEAE***Oxyria digyna* Hill

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Sliud'anskii Raion, the lower course of the Solzan River, left riverside, on pebbles, 29 Aug 2009, *Kazanovsky, Pochinchik 11823* (VLA, IRK).

*Persicaria lapathifolia* (L.) Gray

$2n = 22$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Enotaevskii Raion, Volgo-Akhtubinskaya flood-plain, near Zamiany village, the island on Volga River, sandy beach, 27 Aug 2009, *Probatova & Seledets 11619* (VLA); Russia, Far East, Amurskaya Oblast', Blagoveshchensk city, archaeological nature monument "Dinosaur burial place", as a weed on the waste ground, 3 Oct 2007, *Probatova & Seledets 11122* (VLA).

*Rumex ucranicus* Fisch.

$2n = 40$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Enotaevskii Raion, Volgo-Akhtubinskaya flood-plain, near Zamiany village, the island on Volga River, sandy beach, 27 Aug 2009, *Probatova & Seledets 11631* (VLA).

**PORTULACACEAE***Portulaca oleracea* L.

$2n = 36$ , CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, Turii Rog settlement, as a weed in a vegetable garden, 12 Jul 2010, *Nechaev 11625* (VLA).

**PRIMULACEAE***Primula xanthobasis* Fed.

\* $2n = 18$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, East Sayan Mts., Kitoiskii mountain ridge, in vicinity of Samarta settlement, the upper course of the Kitoi River, Vasil'evskaya Mt., 2067 m, the sparse *Larix* forest, at the stream, 28 Aug 2010, *Kazanovsky 11821* (VLA, IRK).

**RANUNCULACEAE***Aquilegia turczaninovi* Kamelin & Gubanov (= *A. leptoceras* Fisch. & C.A. Mey., non Nutt.)

\* $2n = 16$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Aginskii Buryatskii Okrug, Mogoituyskii Raion, near the cave Kheyetei, 875 m, in *Ulmus macrocarpa* and *U. pumila* community on the slope, at the entry in the cave, 17 Jul 2010, *Kazanovsky 11681* (VLA, IRK).

*Ranunculus natans* C.A. Mey.

$2n = 16$ , CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, the upper course of the Oka River, right riverside, 1631 m, sandy-pebble bank, in puddle, 29 Aug 2010, *Kazanovsky 11994* (VLA, IRK).

*Ranunculus sceleratus* L.

$2n = 64$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Tunguro-Olekminskii Raion, 69-th km of the route Mogocho-Tupik, the geologists' settlement, Bukhta River, 736 m, roadside, at the watered ditch, 12 Jul 2011, *Kazanovsky 11999* (VLA, IRK).

**RESEDACEAE***Reseda lutea* L.

$2n = 48$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Novorossiiskii Raion, in vicinity of Rayevskaya settlement, Volchii Vorota Pass, marly gravel deposits, 3 Sep 2009, *Probatova & Seledets 11877* (VLA).

**ROSACEAE***Agrimonia pilosa* Ledeb.

$2n = 56$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, Bol'shoi Lug settlement, 477 m, roadside, 5 Sep 2011, *Kazanovsky 11972* (VLA, IRK); Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 15 Sep 2011, *Kazanovsky 11960* (VLA, IRK).

*Chamaerhodos erecta* (L.) Bunge

$2n = 14$ , CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, near Zun-Murino village, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, the Khyr-Gorkhon River, 704 m, steppified slope, 31 Jul 2011, *Kazanovsky 11992* (VLA, IRK).

*Fragaria orientalis* Losinsk.

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Razdol'noe settlement, stony slope of a hill, oak forest, 3 Jun 2006, *Nechaev 10199* (VLA).

*Geum aleppicum* Jacq.

$2n = 42$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 15 Sep 2011, *Kazanovsky 11946* (VLA, IRK).

*Potentilla acervata* Soják

$2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 9 Sep 2011, *Kazanovsky 11934* (VLA, IRK); Russia, Far East, Amurskaya Oblast', in vicinity of Blagoveshchensk city, Belogorye settlement, roadside, 1 Oct 2007, *Probatova & Seledets 10899* (VLA).

*Potentilla approximata* Bunge

\* $2n = 28$ , CHN. Russia, Far East, Khabarovskii Krai, 50 km from Khabarovsk city, near Bychikha settlement, 4-th km of Bychikha–Kazakevichevo route, roadside, 30 Aug 1993, *Probatova & Seledets 7298* (VLA).

*Potentilla arenosa* (Turcz.) Juz.

$2n = 28$ , CHN. Russia, Far East, Kamchatka Peninsula, Bystrinskii Raion, in vicinity of Esso settlement, dry S slope, 10 Aug 2004, *Yakubov 9704* (VLA).

*Potentilla argentea* L.

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 9 Sep 2011, *Kazanovsky 11928* (VLA, IRK); Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, Bol'shoi Lug settlement, 477 m, roadside, 5 Sep 2011, *Kazanovsky 12006* (VLA, IRK); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, Arkhara town, 17 Aug 2001, *Kapustina 8961* (VLA); Russia, Far East, Khabarovskii Krai, outskirts of Khabarovsk city, Severnyi district, on waste ground, 20 Jul 1999, *Probatova & Seledets 7885* (VLA).

*Potentilla canescens* Besser

$2n = 42$ , CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km W of Gornyi settlement, along the country road, 27 Jun 1999, *Lapenko 8144* (VLA).

*Potentilla centigrana* Maxim.

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Vladivostok, Akademgorodok, as a weed on the flower-bed near the building of the Institute of Biology & Soil Science, Far East Branch of RAS, 14 Nov 2007, *Probatova & Seledets 10774* (VLA).

*Potentilla chinensis* Ser.

$2n = 14$ , CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, 11 km S of the railway station Arkhara, riverside of the Arkhara River, dry meadow on sandy soil, 1998, *Kudrin 8937* (VLA).

*Potentilla flagellaris* Willd. ex Schldt.

$2n = 14$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, Tserkovnoe Lake, 314 m, meadow, 10 Jul 2011, *Kazanovsky 12017* (VLA, IRK).

*Potentilla fragarioides* L.

$2n = 14$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Maksimovshchina village, forest edge, Jun 2004, *Kalyuzhnyi 9406* (VLA); Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 140 km of Vladivostok, the road fork to Ossinovka village, meadow, 20 Aug 1996, *Rudyka 7448* (VLA).

*Potentilla inquinans* Turcz.

$2n = 14$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Tunguiro-Olëkminskii Raion, 68-th km of the route Mogochoa–Tupik (1 km S of the geologists' settlement), 795 m, *Larix* forest with *Vaccinium vitis-idaea*, *Ledum palustre* and mosses, on the placer, 12 Jul 2011, *Kazanovsky 11930* (VLA, IRK); Russia, East Siberia, Zabaikal'skii

Krai, Mogo-chinskii Raion, the route Amazar–Pokrovka, 512 m, *Pinus*, *Larix* and *Betula* forest with shrubs, stony placer, 6 Jul 2011, *Chernova & Kazanovsky 12007* (VLA, IRK).

*Potentilla nivea* L.

$2n = 56$ , CHN. Russia, Far East, Kamchatka Peninsula, central part, S foothills of the Ostryi Tolbachik Volcano, *Larix* forest belt, in a small crater, on the clinker, 25 Aug 2000, *Yakubov 8419* (VLA).

*Potentilla norvegica* L.

$2n = 56$ , CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near the railway station Rechka Vydrinaya, right riverside of the Vydrinaya River, in its lower course, near the bridge, roadside, 22 Jul 2011, *Kazanovsky 11981* (VLA, IRK); Russia, Far East, Magadanskaya Oblast', Ten'kinskii Raion, 340-th km of the Ten'kinskaya route, biological station "Kontakt" of the Institute of Biological Problems of the Nord, Far East Branch of RAS, 21 Aug 1993, *Probatova & Seledets 7201* (VLA).

*Potentilla omissa* Soják

$2n = 14$ , CHN. Russia, Far East, Primorskii Krai, Vladivostok, Akademgorodok, as a weed near the building of the Institute of Biology & Soil Science, Far East Branch of RAS, 16 Nov 2004, *Probatova 9622* (VLA).

*Potentilla paradoxa* Nutt. ex Torr. & A. Gray

$2n = 28$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, Mogochoa settlement, Amazar River, 610 m, as a weed in a garden-plot, 6 Jul 2011, *Kazanovsky 11976* (VLA, IRK); Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, Pokrovka village, 334 m, sandy-pebbly bank of the Amur River, 7 Jul 2011, *Prelovskaya & Kazanovsky 11996* (VLA, IRK); Russia, East Siberia, Zabaikal'skii Krai, Tunguiro-Olëkminskii Raion, 69-th km of the route Mogochoa–Tupik, near the geologists' settlement, the Bukhta River, 736 m, roadside, 12 Jul 2011, *Kazanovsky 12021* (VLA, IRK).

*Potentilla sericea* L.

\*\* $2n = 14$ . CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, lakeside of the Baikal Lake, 17 km NE of Listvyanka settlement, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10740* (VLA).

*Potentilla supina* L.

$2n = 28$ , CHN. Russia, European part, Volga region, Astrakhanskaya Oblast', Enotaevskii Raion, Volgo-Akhtubinskaya flood-plain, near Zamiany village, the island on Volga River, sandy beach, 27 Aug 2009, *Probatova & Seledets 11615* (VLA).

*Sanguisorba officinalis* L.

$2n = 28$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golube Eli, 462 m, the edge of *Pinus* and *Betula* forest, 17 Sep 2011, *Kazanovsky 11943* (VLA, IRK).

*Sanguisorba tenuifolia* Fisch. ex Link

$2n = 28$ , CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 140 km of Vladivostok, the road fork to Ossinovka village, meadow, 20 Aug 1996, *Rudyka 7505* (VLA).

**SCROPHULARIACEAE***Linaria acutiloba* Fisch. ex Rehb.

\* $2n = 12+0-4B$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 15 Sep 2011, *Kazanovsky 11953* (VLA, IRK).

*Linaria genistifolia* (L.) Mill.

$2n = 12$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Novorossiisk city, rubbly mountainside to Tsemesskaya Bay (the Black Sea), shrubs communities (sibljak) with sumach and *Paliurus spina-christi*, 3 Sep 2009, *Probatova & Seledets 11876* (VLA).

*Linaria vulgaris* Mill.

$2n = 12$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Bol'shoi Lug settlement, 477 m, roadside, 5 Sep 2011, *Kazanovsky 11939* (VLA, IRK).

*Veronica anagalloides* Guss.

$2n = 18$ , CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, near Shkotovo settlement, in the drain at the roadside, 23 Jul 2011, *Nechaev 11863* (VLA).

*Veronica longifolia* L.

$2n = 34$ , CHN. Russia, East Siberia, Irkutskaya Oblast', Zhigalovskii Raion, near Tutura village, left riverside of the Lena River, meadow at the bank, 7 Aug 2008, *Prelovskaya 11845* (VLA, IRK).

*Veronica officinalis* L.

$2n = 36$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya village, in forest, 5 Sep 2009, *Probatova & Seledets 11474* (VLA).

**SOLANACEAE***Physalis alkekengi* L.

$2n = 24$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, 18 km south of Abinsk town, near Shapsugskaya village, high riverside of the Abin River, 1 Sep 2009, *Probatova & Seledets 11879* (VLA).

**VALERIANACEAE***Patrinia rupestris* (Pall.) DuRoi.

$2n = 22$ , CHN. Russia, Far East, Primorskii Krai, in vicinity of Nakhodka city, Brat Mt., 14 Oct 2011, *Nechaev 11971* (VLA).

*Valeriana alternifolia* Ledeb.

$2n = 56$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, opposite Ust'-Strelka, the bank of a lake, 313 m, tall herbage with shrubs, 9 Jul 2011, *Kazanovsky & Chernova 12011* (VLA, IRK).

*Valeriana transjensseensis* Kreyer

$2n = 56$ , CHN. Russia, East Siberia, Zabaikal'skii Krai, Tunguro-Olekminskii Raion, 69-th km of the route Mogoča–Tupik, near the geologists' settlement, the Bukhta River, 736 m, shrubs community on the riverbank, 12 Jul 2011, *Kazanovsky 12019* (VLA, IRK).

**VERBENACEAE***Verbena officinalis* L.

$2n = 14$ , CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, the valley of the Abin River, on pebbles, 5 Sep 2009, *Probatova & Seledets 11589* (VLA). The voucher specimen was misidentified as "*V. hastata* L.", by Probatova & al. in *Taxon* 59: 1937, E10 (2010).

**VIOLACEAE***Viola prionantha* Bunge

$2n = 48$ , CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, near Tsentral'noe settlement, Zubatyi brook, on the slope near the bridge (the main route), 8 Jun 2006, *Barkalov 10499* (VLA).

*Viola sacchalinenensis* H. Boissieu

$2n = 20$ , CHN. Russia, East Siberia, Irkutskaya Oblast', lakeside

of Baikal Lake, 17 km NE of Listvyanka settlement, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10768* (VLA).

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\* First chromosome count for the subspecies.

\*\* First chromosome count from Italy.

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The chromosome number was established by squash technique by using root tips taken from germinating seeds (five for each subspecies): seeds were disinfected by immersion in a 1% sodium hypochlorite solution for 3 minutes, followed by 10 minutes of thorough wash with flowing distillate water, following the protocol suggested by Kery & al. (2000). Root tips were pretreated with a 0.3% colchicine water solution for 2–3 hours, then fixed with Farmer's solution (3 parts ethanol, 1 part glacial acetic acid) for 12–18 hours at 5°C. Fixed material was stored in 70% ethanol at –20°C before hydrolyzation with 1 N HCl at 60 °C for 9 minutes and then colored with leucobasic fuchsine, according to classical Feulgen protocol.

**GENTIANACEAE****\*\**Gentiana lutea* L. subsp. *lutea***

$2n = 40$ , CHN. Italy, Marche, Ascoli Piceno Province, Monte Vetore, 1880 m, 42°48'18"N, 13°15'46"E, 14 Jul 2010, *Rossi & Fisogni 504368* (BOLO).

This count confirms previous results on plants collected in Spain (Küpfer, 1974; Löve & Löve, 1975, 1986; Lainz, 1982), extra-Italian Alps (Favarger, 1949, 1952, 1997; Küpfer, 1974) and Greece (Strid & Andersson, 1985). Possibly, the latter count could be referred to *G. lutea* subsp. *symphyandra*.

**\*\**Gentiana lutea* subsp. *symphyandra* (Murb.) Hayek**

$2n = 40$ , CHN. Italy, Emilia-Romagna, Bologna Province, Monte Grande, 1400 m, 44°08'57"N, 10°52'10"E, 4 Aug 2009, *Rossi & Lucchetta 502428, 502430* (BOLO).

This is the only documented population occurring disjoint from the main distribution range of *G. lutea* subsp. *symphyandra*. This count confirms previous results on plants collected in Bulgaria (Andreev, 1982), Slovenia (Löve & Löve, 1986) and Ukraine (Twardovska & al., 2008).

**\**Gentiana lutea* subsp. *vardjanii* T. Wraber**

$2n = 40$ , CHN. Italy, Trentino-Alto Adige, Trento Province, Passo Lusina, 1880 m, 46°20'15"N, 11°41'55"E, 30 Jul 2009, *Rossi, Cristofolini & Lucchetta 504364* (BOLO).

**\**Gentiana lutea* subsp. *montserratii* (Vivant ex Greuter) Romo**

$2n = 40$ , CHN. Spain, Huesca, Peña d'Oroel, 1200 m, 42°31'43"N, 0°31'51"E, 20 Jul 2010, *Rossi & Fisogni 504366* (BOLO).



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