

## IAPT CHROMOSOME DATA

## IAPT chromosome data 34

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**DOI** <https://doi.org/10.1002/tax.12570>

First published as part of this issue. See online for details.

## IAPT chromosome data 34/1

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All materials FCM; collectors: DCA = Dirk C. Albach, PM = Paulina Meller; vouchers Chrysobalanaceae in HBG, Fabaceae in OLD.

## CHRYSOBALANACEAE

*Parinari capensis* Harv.,  $2n \sim 2x \sim 22$ ,  $1C = 0.19$  (0.19–0.20) pg,  $CV = 6.57$ –7.64; Angola, Bié, *PM s.n.* (HBG-132664).

*Parinari curatellifolia* Planch. ex Benth.,  $2n \sim 4x \sim 44$ ,  $1C = 0.40$  (0.39–0.40) pg,  $CV = 6.81$ –7.76; Angola, Bié, *PM s.n.* (HBG-132444).

## FABACEAE

*Lathyrus setifolius* L.,  $2n \sim 2x \sim 14$ ,  $1C = 4.96$  (4.92–4.97) pg,  $CV = 4.53$ –4.76; Turkey, *DCA 1098*.

*Trifolium cherleri* L.,  $2n \sim 2x \sim 10$ ,  $1C = 0.60$  (0.59–0.60) pg,  $CV = 1.58$ –1.96; Cyprus, ex Bot. Gard. Mainz (CY-0-MJG-199717802), *DCA S351*.

*Trifolium medium* L. (*Trifolium sarosiense* Hazsl. ex Neilr.),  $2n \sim 10x \sim 80$ ,  $1C = 3.35$  (3.24–3.44) pg,  $CV = 4.73$ –6.25; Hungary, *DCA & Schmotzer 1537*.

All materials for the chromosome column should be submitted electronically to: Karol Marhold, [karol.marhold@savba.sk](mailto:karol.marhold@savba.sk). The full version of this contribution is available in the online edition of TAXON appended to this article. The following citation format is recommended: Korobkov, A.A., Kotseruba, V.V. & Krivenko, D.A. 2019. IAPT chromosome data 30/4. In: Marhold, K. & Kučera, J. (eds.) & al., IAPT chromosome data 30. *Taxon* 68: 882, E1–E2.

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*Trifolium physodes* Steven ex M.Bieb.,  $2n \sim 2x \sim 16$ ,  $1C = 0.76$  (0.73–0.79) pg, CV = 8.24–8.81; Turkey, *DCA 1109*.

## IAPT chromosome data 34/2

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This research was carried out within the framework of the topic “Theoretical and applied aspects of studying genofunds of natural plant populations and conservation of plant diversity ‘outside the typical environment’ (ex situ)” (AAAA-A21-121011290027-6).

All materials CHN; collectors: *DSh* = D.N. Shaulo, *EB* = E.V. Banaev, *MT* = M.A. Tomoshevich; vouchers in NSK.

### NITRARIACEAE

*Nitraria schoberi* L.,  $2n = 24, 36, 42, 48, 60, 66$ ; Crimea, *EB* & *MT 3000961*.  $2n = 24, 36, 42, 48, 68$ ; Kazakhstan, Almaty region, *EB* & *MT 3000958*.  $2n = 48$ ; Kazakhstan, Almaty region, *EB* & *MT 3000998*.  $2n = 48, 50, 64, 94$ ; Kazakhstan, Almaty region, *EB* & *MT 3000985*.  $2n = 48, 54, 56, 64$ ; Kazakhstan, Mangistauskaya Oblast’, *EB* & *MT 3000913*.  $2n = 24, 36, 48, 54, 56, 60$ ; Peoples Republic of China, Xinjiang Uygur Autonomous Region, *DSh 3000914*; Russian Federation, Altaiskii Krai, *EB* & *MT 3000975*.  $2n = 24, 42, 46, 48, 54, 70, 76, 82$ ; Russian Federation, Altaiskii Krai, *EB* & *MT 3000971*.  $2n = 34, 42, 48, 60, 64$ ; Russian Federation, Novosibirskaya Oblast’, *EB* & *MT 3000973*.  $2n = 42, 46, 50, 56, 64$ ; Russian Federation, Astrakhanskaya Oblast’, *EB* & *MT 3000937*.  $2n = 48, 54, 68, 72$ ; Russian Federation, Astrakhanskaya Oblast’, *EB* & *MT 3000930*.  $2n = 60, 66$ ; Russian Federation, Astrakhanskaya oblast’, *EB* & *MT 3000935*.  $2n = 24, 36, 42, 48, 54, 58, 62$ .

## IAPT chromosome data 34/3

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This work was performed within the framework of the State Assignment No. 0662-2019-0002 “Scientific support for the effective use of the global genepool of grain legumes and their wild relatives from the VIR collection”, the framework of the State Task No. AAAA-A18-118040290161-3 and the grant No. 60256916 of SPbSU.

All materials CHN; collectors: *ASh* = A.V. Shlyavas, *ES* = E.A. Sergeev, *GB* = G.V. Belskaya, *GP* = G.I. Proskuryakova, *LB* = L.V. Bagmet, *MG* = M.E. Gashimov, *TA* = T.G. Aleksandrova, *TD* = T.V. Dyubenko, *YuS* = Yu.A. Sapiev; seed vouchers in seed collection of the N.I. Vavilov All-Russian Institute of Plant Genetic Resources (VIR), herbarium vouchers in WIR.

### FABACEAE

*Vicia cassubica* L.,  $2n = 12$ ; Russian Federation, Krasnodarskii Krai, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161740; WIR 101391).  
*Vicia cracca* L. (*sensu lato*),  $2n = 12$ ; Russian Federation, Karachay-Cherkess Republic, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161736; WIR 101388).  $2n = 28$ ; Russian Federation, Karachay-Cherkess

Republic, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161729; WIR 101382), *LB, TA, ASh* & *YuS s.n.* (VIR i-o161731; WIR 101384), *LB, TA, ASh* & *YuS s.n.* (VIR i-o161735; WIR 101387).

*Vicia hirsuta* (L.) Gray,  $2n = 14$ ; Russian Federation, Chechen Republic, *LB, TA* & *MG s.n.* (VIR i-o160700; WIR 101380); Russian Federation, Lipetskaya Oblast’, *TA, GB, ES* & *GP s.n.* (VIR i-o160665; WIR 101376).

*Vicia sativa* subsp. *nigra* (L.) Ehrh.,  $2n = 12$ ; Russian Federation, Karachay-Cherkess Republic, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161730; WIR 101383); Russian Federation, Lipetskaya Oblast’, *TA, GB, ES* & *GP s.n.* (VIR i-o160664; WIR 101375); Russian Federation, Republic of Dagestan, *LB, TA* & *MG s.n.* (VIR i-o160703; WIR 101381).

*Vicia sepium* L.,  $2n = 14$ ; Russian Federation, Karachay-Cherkess Republic, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161734; WIR 101386), *LB, TA, ASh* & *YuS s.n.* (VIR i-o161733; WIR 101385); Russian Federation, Republic of Karelia, *TD s.n.* (VIR i-634836; WIR 101406); Russian Federation, Tambovskaya Oblast’, *TA, GB, ES* & *GP s.n.* (VIR i-o160661; WIR 101337).

*Vicia tetrasperma* (L.) Schreb.,  $2n = 14$ ; Russian Federation, Karachay-Cherkess Republic, *LB, TA, ASh* & *YuS s.n.* (VIR i-o161738; WIR 101390); Russian Federation, Tambovskaya Oblast’, *TA, GB, ES* & *GP s.n.* (VIR i-o160658; WIR 101325).

## IAPT chromosome data 34/4

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The study was partially supported by the Russian Foundation for Basic Research (project No. 20-516-10002 KO\_a), and conducted within the framework of State Task No. 0662-2019-0006.

All materials CHN; collectors: *AG* = A.A. Gnutikov, *RU* = R.A. Ufimov; vouchers in LE.

### POACEAE

*Agrostis gigantea* Roth,  $2n = 42$ ; Russian Federation, Republic of Dagestan, *AG* & *RU Dag11-20*.

*Agrostis karsensis* Litv.,  $2n = 28$ ; Georgia, Abkhazia, *AG* & *RU Ab11-6*.

*Agrostis stolonifera* L.,  $2n = 28$ ; Russian Federation, Republic of Dagestan, *AG* & *RU Dag11-25*.

*Brachypodium pubescens* (Peters.) Mussajev,  $2n = 18$ ; Georgia, Abkhazia, *AG* & *RU Ab11-5*; Russian Federation, Republic of Dagestan, *AG* & *RU Dag11-21*.

*Calamagrostis ×paradoxa* Lipsky,  $2n = 28$ ; Russian Federation, Republic of Dagestan, *AG* & *RU Dag11-26*.

*Cynodon dactylon* (L.) Pers.,  $2n = 36$ ; Georgia, Abkhazia, *AG* & *RU Ab11-7*.

*Echinochloa tzvelevii* Mosyakin ex Mavrodiev & H.Scholz,  $2n = 54$ ; Georgia, Abkhazia, *AG* & *RU Ab11-8*.

*Elytrigia elongatifformis* (Drobow) Nevski,  $2n = 42$ ; Georgia, Abkhazia, *AG* & *RU Ab11-9*.

*Elytrigia lolioides* (Kar. & Kir.) Nevski,  $2n = 28$ ; Georgia, Abkhazia, *AG* & *RU Ab11-10*.

*Hordeum violaceum* Boiss. & Hohen.,  $2n = 14$ ; Russian Federation, Republic of Dagestan, *AG* & *RU Dag11-23*.

*Melica chrysolepis* Klovov,  $2n = 18$ ; Georgia, Abkhazia, *AG* & *RU Ab11-11*.

*Melica nutans* L.,  $2n = 18$ ; Russian Federation, Republic of Dagestan, AG & RU Dag11-24.  
*Microstegium japonicum* (Miq.) Koidz.,  $2n = 20$ ; Georgia, Abkhazia, AG & RU Ab11-12.  
*Opismenus undulatifolius* (Ard.) P.Beauv.,  $2n = 54$ ; Georgia, Abkhazia, AG & RU Ab11-13.  
*Phleum paniculatum* var. *ciliatum* (Boiss.) Kitam.,  $2n = 28$ ; Russian Federation, Republic of Dagestan, AG & RU Dag11-19.  
*Poa nemoralis* L.,  $2n = 42$ ; Russian Federation, Republic of Dagestan, AG & RU Dag11-22.  
*Schedonorus giganteus* (L.) Holub,  $2n = 42$ ; Georgia, Abkhazia, AG & RU Ab11-14, Ab11-15, Ab11-16; Russian Federation, Republic of Dagestan, AG & RU Dag11-18.  
*Sesleria alba* Sm.,  $2n = 28$ ; Georgia, Abkhazia, AG & RU Ab11-17; Georgia, Abkhazia, AG & RU Ab11-18.  
*Setaria parviflora* (Poir.) Kerguelen,  $2n = 36$ ; Georgia, Abkhazia, AG & RU Ab11-19.  
*Trisetum transcaucasicum* Seregin,  $2n = 28$ ; Russian Federation, Republic of Dagestan, AG & RU Dag11-17.

## IAPT chromosome data 34/5

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This study was supported by the Russian Foundation for Basic Research (grant 19-04-00546) and by the scientific programs AAAA-A21-121011290024-5 of the Central Siberian Botanical Garden of the Siberian Branch of the Russian Academy of Sciences and 121031500336-9 of the Sukachev Institute of Forest of the Siberian Branch of the Russian Academy of Sciences.

All materials CHN; vouchers in NS.

### AMARANTHACEAE

*Atriplex crassifolia* C.A.Mey.,  $2n = 18$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 18a-20.  
*Atriplex patens* (Litv.) Iljin,  $2n = 36$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 11a-20, 18b-20.  
*Atriplex prostrata* Boucher ex DC.,  $2n = 18$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 18c-20, 12-20.  
*Atriplex sibirica* L.,  $2n = 18$ ; Russian Federation, Republic of Altai, V. Vlasenko 722.  
*Atriplex tatarica* L.,  $2n = 18$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 14b-20.  
*Camphorosma songorica* Bunge,  $2n = 12$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 15-20.  
*Chenopodium hybridum* (L.) S.Fuentes, Uotila & Borsch,  $2n = 18$ ; Czech Republic, E. Korolyuk 180.  
*Chenopodium murale* (L.) S.Fuentes, Uotila & Borsch,  $2n = 18$ ; Portugal, Madeira, 20 Mar 2019, E. Korolyuk & A. Korolyuk s.n.  
*Chenopodium acerifolium* Andrzej.,  $2n = 36$ ; Russian Federation, Altaiskii Krai, 27 Sep 2018, E. Korolyuk & A. Korolyuk s.n.; Russian Federation, Krasnoyarskii Krai, 27 Aug 2016, L. Krivobokov s.n.  
*Chenopodium album* L.,  $2n = 54$ ; Armenia, Aragatsoth Province, E. Korolyuk 3a-19.  
*Chenopodium karoi* (Murr) Aellen,  $2n = 36$ ; Mongolia, Bayan-Ulgii somon, 21 Jul 2017, A. Korolyuk & E. Korolyuk s.n.; Russian

Federation, Republic of Altai, 8 Sep 2018, E. Korolyuk s.n.; Russian Federation, Republic of Altai, A. Korolyuk & E. Korolyuk 13.  
*Chenopodium strictum* Roth,  $2n = 36$ ; Kazakhstan, Almaty Region, M. Lomonosova & M. Danilov 1391; Russian Federation, Primor'e Territory, M. Lomonosova 1399c, 1418.  
*Chenopodium suecicum* Murr,  $2n = 18$ ; Russian Federation, Krasnoyarskii Krai, 26 Aug 2016, L. Krivobokov s.n.; Russian Federation, Krasnoyarskii Krai, 6 Sep 2016, L. Krivobokov s.n.; Russian Federation, Primorskii Krai, M. Lomonosova 1409c.  
*Corispermum hyssopifolium* L.,  $2n = 18$ ; Kazakhstan, Almaty Region, T. An'kova 206.  
*Ofaiston monandrum* (Pall.) Moq.,  $2n = 18$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 18d-20.  
*Oxybasis glauca* (L.) S.Fuentes, Uotila & Borsch,  $2n = 18$ ; Russian Federation, Krasnoyarskii Krai, 21 Aug 2015, L. Krivobokov s.n.  
*Oxybasis rubra* (L.) S.Fuentes, Uotila & Borsch,  $2n = 36$ ; Russian Federation, Republic of Buryatia, B. Naidanov 30-17.  
*Salicornia perennans* Willd.,  $2n = 18$ ; Russian Federation, Orenburgskaya Oblast', T. An'kova 218; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 11b-20.  
*Sedobassia sedoides* (Pall.) Freitag & G.Kadereit,  $2n = 18$ ; Russian Federation, Novosibirskaya Oblast', E. Korolyuk & A. Korolyuk 14c-20.  
*Suaeda olufsenii* Pauls.,  $2n = 18$ ; Russian Federation, Republic of Altai, E. Korolyuk & A. Korolyuk 12.

## IAPT chromosome data 34/6

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The investigation was carried out being supported by scientific program AAAA-A21-121011290024-5 of the Central Siberian Botanical Garden of the Siberian Branch of the Russian Academy of Sciences.

All materials CHN; collectors: DSh = D. Shaulo, TA = T. An'kova, TM = T. Myakshina, VR = V. Romanyuk; vouchers in NS.

### ASTERACEAE

*Arctogeron gramineum* (L.) DC.,  $2n = 18$ ; Russian Federation, Republic of Khakasia, DSh, TA & TM A204.  
*Carduus crispus* L.,  $2n = 18$ ; Russian Federation, Krasnoyarskii Krai, DSh Z825.  
*Picris hieracioides* L.,  $2n = 10$ ; Russian Federation, Novosibirsk city, DSh & VR Z826.  
*Saussurea pricei* N.D.Simpson,  $2n = 28$ ; Russian Federation, Republic of Tuva, DSh & TA A188.

### CARYOPHYLLACEAE

*Dianthus chinensis* L.,  $2n = 30$ ; Russian Federation, Krasnoyarskii Krai, DSh ASH-17-18, ASH-18-18.  
*Dianthus mainensis* Shaulo & Erst,  $2n = 30$ ; Russian Federation, Krasnoyarskii Krai, DSh ASH-19-18.

### FABACEAE

*Astragalus depauperatus* Ledeb.,  $2n = 96 + 0-8B$ ; Russian Federation, Republic of Chakasia, DSh & TA A214.  
*Astragalus dilutus* Bunge,  $2n = 16$ ; Russian Federation, Republic of Tuva, DSh & TA A197.

*Oxytropis aciphylla* Ledeb. (= *O. borissovae* Polozhij),  $2n = 24 + 0-3B$ ; Russian Federation, Republic of Tuva, *DSh & TA A211*.

#### ONAGRACEAE

*Circaea lutetiana* subsp. *quadrisulcata* (Maxim.) Asch. & Magnus,  $2n = 22$ ; Russian Federation, Republic of Khakasia, *DSh GASH-2-2017*.

#### POLYGONACEAE

*Atraphaxis frutescens* (L.) K.Koch,  $2n = 16, 18$ ; Russian Federation, Republic of Tuva, *DSh & TA A190*.

#### RANUNCULACEAE

*Aquilegia glandulosa* Fisch. ex Link,  $2n = 16$ ; Russian Federation, Republic of Khakasia, *DSh GASH-601-2017*.

#### ROSACEAE

*Potentilla supina* subsp. *paradoxa* (Nutt.) Soják,  $2n = 28$ ; Russian Federation, Republic of Tuva, *DSh Z830*.

*Spiraea media* Schmidt (= *S. sericea* Turcz.),  $2n = 18$ ; Russian Federation, Krasnoyarskii Krai, *DSh ASH-31-2017*.

### IAPT chromosome data 34/7

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The authors are grateful to E.G. Rudyka for assistance in chromosome counting, to Dr.Sc. S.V. Ovchinnikova for identifying specimens of *Puccinellia* spp., and to Prof. V.I. Dorofeyev for identifying specimens of *Alyssum armenum* Boiss. The reported study was funded by Russian Foundation for Basic Research according to the research project No. 19-04-00658. The results based on material from Baikal, Siberia were obtained with the support of the Ministry of Science and Higher Education of the Russian Federation, project No. 075-15-2020-787.

All materials CHN.

#### AMARANTHACEAE

*Chenopodium suecicum* Murr,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13575* (IRK, VLA).

*Oxybasis glauca* (L.) S.Fuentes, Uotila & Borsch,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13579* (IRK, VLA).

#### ASTERACEAE (COMPOSITAE)

*Centaurea pseudomaculosa* Dobroc.,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13580* (IRK, VLA).

*Centaurea scabiosa* L.,  $2n = 20$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & M.A. Markaryan 13581* (IRK, VLA).

*Erigeron canadensis* L.,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13611* (IRK, VLA), *D.A. Krivenko & O.A. Chernysheva 13616* (IRK, VLA).

*Erigeron politus* Fr. (= *E. acris* subsp. *politus* (Fr.) H.Lindb.),  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *O.A. Chernysheva 13589* (IRK, VLA).

*Galinsoga quadriradiata* Ruiz & Pav.,  $2n = 32$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & M.A. Markaryan 13599* (IRK, VLA).

*Lactuca serriola* L.,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & M.A. Markaryan 13578* (IRK, LE, VLA).

#### BRASSICACEAE (CRUCIFERAE)

*Alyssum armenum* Boiss.,  $2n = 32$ ; Georgia, *D.A. Krivenko & al. 13502* (IRK, LE, VLA).

*Brassica rapa* L.,  $2n = 20$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13576* (IRK, VLA).

*Isatis oblongata* DC.,  $2n = 28$ ; Russian Federation, Republic of Buryatia, *O.Yu. Zavgorodnyaya 13513* (IRK, VLA).

*Raphanus raphanistrum* L.,  $2n = 18$ ; Russian Federation, Irkutskaya Oblast', *D.A. Krivenko & O.A. Chernysheva 13577* (IRK, VLA).

#### CARYOPHYLLACEAE

*Dianthus chinensis* L. (= *D. versicolor* Fisch. ex Link),  $2n = 30$ ; Russian Federation, Republic of Buryatia, *O.Yu. Zavgorodnyaya 13512* (IRK, VLA).

*Silene spergulfolia* (Willd.) M.Bieb.,  $2n = 24$ ; Armenia, *D.A. Krivenko & al. 13509* (IRK, VLA).

#### CONVOLVULACEAE

*Convolvulus cantabrica* L.,  $2n = 30$ ; Georgia, *D.A. Krivenko & al. 13499* (IRK, VLA).

#### EUPHORBIACEAE

*Acalypha indica* L.,  $2n = 20$ ; Thailand, *O.A. Chernysheva 13606* (IRK, VLA).

#### FABACEAE (LEGUMINOSAE)

*Alhagi pseudalhagi* (M.Bieb.) Desv. ex B.Keller & Shap.,  $2n = 16$ ; Russian Federation, Republic of Dagestan, *D.A. Krivenko 62752* (IRK).

*Anthyllis vulneraria* subsp. *boissieri* (Sagorski) Bornm. (= *A. lachnophora* Juz.),  $2n = 12$ ; Russian Federation, Republic of Dagestan, *D.A. Krivenko 62633*; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 62874* (IRK).

*Astragalus falcatus* Lam.,  $2n = 16$ ; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 59088* (IRK).

*Coronilla coronata* L.,  $2n = 24$ ; Georgia, *D.A. Krivenko & al. 62869* (IRK).

*Coronilla varia* L. (= *Securigera varia* (L.) Lassen),  $2n = 24$ ; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 62870* (IRK).

*Lotus corniculatus* L.,  $2n = 24$ ; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 62884* (IRK, LE, NSK).

*Medicago minima* (L.) Bartal.,  $2n = 16$ ; Georgia, *D.A. Krivenko & al. 62597* (IRK).

*Melilotus polonicus* Pall.,  $2n = 16$ ; Russian Federation, Republic of Dagestan, *D.A. Krivenko 61752* (IRK).

*Onobrychis petraea* Fisch.,  $2n = 14$ ; Russian Federation, Republic of Dagestan, *D.A. Krivenko 62733* (IRK).

*Trifolium repens* L.,  $2n = 32$ ; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 62754* (IRK).

*Vicia sosnowskyi* Ekutim.,  $2n = 10$ ; Russian Federation, Kabardino-Balkaria Republic, *D.A. Krivenko 62846* (IRK, LE, NSK).

#### IRIDACEAE

*Iris ruthenica* Ker Gawl.,  $2n = 70$ ; Russian Federation, Irkutskaya Oblast', *O.A. Chernysheva 13604* (IRK, VLA).

**LAMIACEAE (LABIATAE)**

- Elsholtzia ciliata* (Thunb.) Hyl.,  $2n = 16$ ; Russian Federation, Irkutskaya Oblast', D.A. Krivenko & M.A. Markaryan 13597 (IRK, VLA), D.A. Krivenko & M.A. Markaryan 13614 (IRK, VLA).  
*Galeopsis bifida* Boenn.,  $2n = 32$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13525 (IRK, VLA); Russian Federation, Irkutskaya Oblast', D.A. Krivenko & O.A. Chernysheva 13588 (IRK, VLA), D.A. Krivenko 13619 (IRK, LE, VLA).  
*Lamium album* L.,  $2n = 18$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13528 (IRK, VLA).  
*Lycopus europaeus* L.,  $2n = 22$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13534 (IRK, VLA).

**ONAGRACEAE**

- Epilobium colchicum* Albov,  $2n = 36$ ; Russian Federation, Kabardino-Balkaria Republic, D.A. Krivenko 13515 (IRK, VLA).  
*Epilobium montanum* L.,  $2n = 36$ ; Russian Federation, Kabardino-Balkaria Republic, D.A. Krivenko 13535 (IRK, VLA).

**OXALIDACEAE**

- Oxalis stricta* L.,  $2n = 24$ ; Russian Federation, Irkutskaya Oblast', D.A. Krivenko & M.A. Markaryan 13598 (IRK, VLA).

**PLANTAGINACEAE**

- Veronica anagallis-aquatica* L.,  $2n = 36$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13527 (IRK, VLA).

**POACEAE (GRAMINEAE)**

- Agrostis gigantea* Roth,  $2n = 42$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13544 (IRK, VLA), O.Yu. Zavgorodnyaya 13548 (IRK, VLA).  
*Beckmannia syzigachne* (Steud.) Fernald,  $2n = 14$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13523 (IRK, VLA).  
*Bromopsis inermis* (Leyss.) Holub,  $2n = 56$ ; Russian Federation, Irkutskaya Oblast', D.A. Krivenko 13587 (IRK, VLA).  
*Elymus sibiricus* L.,  $2n = 28$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13521 (IRK, VLA), O.Yu. Zavgorodnyaya 13530 (IRK, VLA).  
*Elytrigia repens* (L.) Nevski,  $2n = 42$ ; Russian Federation, Republic of Buryatia, O.Yu. Zavgorodnyaya 13518 (IRK, VLA).  
*Puccinellia gigantea* (Grossh.) Grossh.,  $2n = 14$ ; Russian Federation, Voronezhskaya Oblast', A.N. Gudina 13591 (VLA), A.N. Gudina 13595 (VLA).  
*Puccinellia tenuissima* (Litv. ex V.I.Krecz.) Pavlov,  $2n = 14$ ; Russian Federation, Saratovskaya Oblast', A.N. Gudina 13592 (VLA).

**VIOLACEAE**

- Viola arvensis* Murray,  $2n = 34$ ; Georgia, D.A. Krivenko & al. 13514 (IRK, VLA).  
*Viola rupestris* F.W.Schmidt,  $2n = 20$ ; Russian Federation, Republic of Dagestan, D.A. Krivenko 13537 (IRK, VLA).

## IAPT CHROMOSOME DATA

## IAPT chromosome data 34 – Extended version

Karol Marhold (ed.),<sup>1,2</sup> Jaromír Kučera (ed.),<sup>1</sup> Dirk C. Albach,<sup>3</sup> Tatiana G. Aleksandrova,<sup>4</sup> Evgeny V. Banaev,<sup>5</sup> Tatyana V. Dyubenko,<sup>4</sup> Alexander A. Gnufikov,<sup>4</sup> Elena A. Korolyuk,<sup>5</sup> Violetta V. Kotseruba,<sup>6</sup> Denis A. Krivenko,<sup>7</sup> Leonid V. Krivobokov,<sup>8</sup> Maria N. Lomonosova,<sup>5</sup> Eduard M. Machs,<sup>6</sup> Paulina Meller,<sup>9</sup> Yulia A. Myakoshina,<sup>6</sup> Nikolai N. Nosov,<sup>6</sup> Tatyana V. Pankova (née An'kova),<sup>5</sup> Nina S. Probatova,<sup>10</sup> Alexander V. Rodionov,<sup>6,11</sup> Dmitry N. Shaulo,<sup>5</sup> Mariya A. Tomoshevich<sup>5</sup> & Elena Yu. Zykova<sup>5</sup>

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## IAPT chromosome data 34/1

Dirk C. Albach\* & Paulina Meller

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**FCM.** — Plants were either analyzed fresh or collected on silica gel and analyzed dried together with *Raphanus sativus* (Rs; 1C = 0.555 pg; Doležel & al. 1992), *Solanum pseudocapsicum* (Sp; 1C = 1.2946 pg; Temsch, 2010) or *Hedychium gardnerianum* (Hg; 1C = 2.01 pg; Meudt & al., 2015) as an internal standard. The sample preparation followed Meudt & al. (2015). Genome size was estimated by flow cytometry using a CyFlow SL (Partec, Münster, Germany). All samples were measured three times on different days (range of all three measurements is given). The DNA ploidy level of the studied species was determined by comparing DNA content with chromosome counts of the same species available in the Chromosome Counts Data Base (Rice & al., 2015).

\* Genome size determined for the first time for the species.

## CHRYSOBALANACEAE

*Parinari capensis* Harv.

$2n \sim 2x \sim 22$ , 1C = 0.19 (0.19–0.20) pg, CV = 6.57–7.64, FCM (Rs). Angola, Bié, Chitembo municipality, Cussequ, 29 May 2011, Paulina Meller s.n. (HBG-132664).

Genome size measurements of Chrysobalanaceae are not included, yet, in the C-value database (Leitch & al., 2019) and have not been found in the literature. So, this seems to be the first published genome size measurement for the family.

*Parinari curatellifolia* Planch. ex Benth.

$2n \sim 4x \sim 44$ , 1C = 0.40 (0.39–0.40) pg, CV = 6.81–7.76, FCM (Rs). Angola, Bié, Chitembo municipality, Cussequ, 23 May 2011, Paulina Meller s.n. (HBG-132444).

The ploidy level has been inferred in comparison with *P. capensis*.

**FABACEAE***Lathyrus setifolius* L.

$2n \sim 2x \sim 14$ ,  $1C = 4.96$  (4.92–4.97) pg,  $CV = 4.53$ –4.76, FCM (Sp). Turkey, Antalya, Aspendos Akropolis, 27 Mar 2010, *Albach 1098* (OLD 6478).

A previous genome size estimate for the species by Bennett & Smith (1976) is somewhat larger ( $1C = 5.20$  pg). Overall, the genome of *L. setifolius* is among the smallest in the genus.

*Trifolium cherleri* L.

$2n \sim 2x \sim 10$ ,  $1C = 0.60$  (0.59–0.60) pg,  $CV = 1.58$ –1.96, FCM (Sp). Cyprus, Paphos, Inia, west of Mt. Lara, ex Bot. Gard. Mainz (CY-0-MJG-199717802), *Albach S351* (OLD).

*Trifolium medium* L. (*Trifolium sarosiense* Hazsl. ex Neilr.)

$2n \sim 10x \sim 80$ ,  $1C = 3.35$  (3.24–3.44) pg,  $CV = 4.73$ –6.25, FCM (Sp). Hungary, Heves, Bükk National Park, Zsido-Ret, 16 Jul 2017, *Albach & Schmotzer 1537* (OLD 5368).

The specimen was initially identified as *Trifolium sarosiense*, a Central European species closely related to *T. medium* and sometimes considered a subspecies of the latter. It is differentiated by the longer calyx teeth (compared to the calyx tube) clearly visible in our specimen. However, our specimen lacks the additional calyx nerves characteristic for the species. Thus, based on the key in Zohary & Heller (1984), our specimen would classify as *T. medium* var. *banaticum* Heuff., considered a subspecies of *T. sarosiense* by Holub (1983). Whereas *T. medium* is mostly an octo- to decaploid, *T. sarosiense* has always been counted to be hexaploid (Rice & al., 2015). Our genome size estimate fits perfectly to decaploid *T. medium*, which has been measured to have  $1C = 3.23$  pg (Vižintin & al., 2006). Thus, a narrow circumscription of *T. sarosiense* is likely a better taxonomic conclusion.

*Trifolium physodes* Steven ex M.Bieb.

$2n \sim 2x \sim 16$ ,  $1C = 0.76$  (0.73–0.79) pg,  $CV = 8.24$ –8.81, FCM (Sp). Turkey, C3, Antalya, near Karamanlar, roadside, 29 Mar 2010, *Albach 1109* (OLD 6452).

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This research was carried out within the framework of the topic “Theoretical and applied aspects of studying genofunds of natural plant populations and conservation of plant diversity ‘outside the typical environment’ (ex situ)” (AAAA-A21-121011290027-6).

\* First chromosome count from the given region.

**NITRARIACEAE***Nitraria schoberi* L.

\*  $2n = 24, 36, 42, 48, 60, 66$ , CHN. Crimea, on the sandy shore of the Black Sea in Lisy (Fox) Bay, 44°53'37.38"N, 35°09'25.68"E, 15 Sep 2013, *E.V. Banaev & M.A. Tomoshevich 3000961* (NSK).

\*  $2n = 24, 36, 42, 48, 54, 58, 62$ , CHN. Kazakhstan, Almaty Region, Zhambyl District, 17 km south of Aydarly village, 44°05'53.22"N, 75°58'41.34"E, 21 Aug 2017, *E.V. Banaev & M.A. Tomoshevich 3000958* (NSK).

$2n = 48$ , CHN. Kazakhstan, Almaty region, vicinity of Bashshi village, 44°07'58.74"N, 79°43'47.94"E, 30 Jul 2013, *E.V. Banaev & M.A. Tomoshevich 3000998* (NSK).

\*  $2n = 48, 50, 64, 94$ , CHN. Kazakhstan, Almaty Region, Uygur District, 3 km north of Bahar village, 43°36'32.28"N, 79°27'32.10"E, 1 Aug 2013, *E.V. Banaev & M.A. Tomoshevich 3000985* (NSK).

\*  $2n = 48, 54, 56, 64$ , CHN. Kazakhstan, Mangistauskaya Oblast', 6 km south of Tigen village, 44°25'40.62"N, 52°05'24.12"E, 10 Aug 2017, *E.V. Banaev & M.A. Tomoshevich 3000913* (NSK).

\*  $2n = 24, 36, 48, 54, 56, 60$ , CHN. Peoples Republic of China, Xinjiang Uygur Autonomous Region, vicinity of Altay city, saline land, 47°51'54.02"N, 88°12'59.92"E, 22 Sep 2012, *D.N. Shaulo 3000914* (NSK).

\*  $2n = 24, 36, 42, 48, 68$ , CHN. Russian Federation, Altaiskii Krai, Slavgorodskii Raion, on the shore of Lake Kulundinskoe 52°56'26.82"N, 79°42'54.90"E, 2 Jun 2011, *E.V. Banaev & M.A. Tomoshevich 3000975* (NSK).

\*  $2n = 24, 42, 46, 48, 54, 70, 76, 82$ , CHN. Russian Federation, Altaiskii Krai, Mikhailovskii Raion, on the shore of Lake Malinovie, 51°41'23.28"N, 79°45'19.50"E, 1 Jun 2011, *E.V. Banaev & M.A. Tomoshevich 3000971* (NSK).

\*  $2n = 34, 42, 48, 60, 64$ , CHN. Russian Federation, Novosibirskaya Oblast', southwest of Grushevka village, on the terrace of Lake Bol'shoi Bagan, 53°53'08.55"N, 77°08'09.34"E, 4 Jun 2011, *E.V. Banaev & M.A. Tomoshevich 3000973* (NSK).

\*  $2n = 42, 46, 50, 56, 64$ , CHN. Russian Federation, Astrakhanskaya Oblast', Kamyzyakskii Raion, vicinity of Karalat village,

45°59'02.28"N, 48°16'42.18"E, 26 Jul 2018, *E.V. Banaev & M.A. Tomoshevich 3000937* (NSK).

\*  $2n = 48, 54, 68, 72$ , CHN. Russian Federation, Astrakhanskaya Oblast', Limanskii Raion, vicinity of Lesnoe village, 45°46'58.98"N, 47°28'55.86"E, 25 Jul 2018, *E.V. Banaev & M.A. Tomoshevich 3000930* (NSK).

\*  $2n = 60, 66$ , CHN. Russian Federation, Astrakhanskaya Oblast', Limanskii Raion, vicinity of Vyshka village, 45°37'51.12"N, 47°36'57.30"E, 25 Jul 2018, *E.V. Banaev & M.A. Tomoshevich 3000935* (NSK).

## IAPT chromosome data 34/3

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This work was performed within the framework of the State Assignment No. 0662-2019-0002 "Scientific support for the effective use of the global genepool of grain legumes and their wild relatives from the VIR collection", the framework of the State Task No. AAAA-A18-118040290161-3 and the grant No. 60256916 of SPbSU.

Seed vouchers in seed collection of the N.I. Vavilov All-Russian Institute of Plant Genetic Resources (VIR), herbarium vouchers in WIR. All materials fixed on seedlings produced from seeds collected in VIR collecting missions.

### FABACEAE

*Vicia cassubica* L.

$2n = 12$ , CHN. Russian Federation, Krasnodarskii Krai, Mos-tovskoi Raion, steppe plots along the bank of the Laba River, 416 m, 44.36719°N, 40.84119°E, 25 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161740; WIR 101391) [Fig. 1A].

*Vicia cracca* L. (*sensu lato*)

$2n = 12$ , CHN. Russian Federation, Karachay-Cherkess Republic, Urupskii Raion, about 3 km N of Rozhkaov village, forest glades along the banks of the Rassypnaya River in the valley of the Bolshaya Laba River, 906 m, 43.84557°N, 40.93214°E, 23 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161736; WIR 101388).

$2n = 28$ , CHN. Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, steppe slopes of the spurs of the rocky ridge on the border with Khabezskii Raion, 912 m, 43.92907°N, 41.67307°E, 20 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161729; WIR 101382); Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, about 6 km S of Kardonikskaya village, leguminous herbs along the banks of the irrigation canal, 1004 m, 43.78560°N, 41.68756°E, 20 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161731; WIR 101384) [Fig. 1B]; Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, surroundings of Arkhyz village, clearing under the power line, 1475 m, 43.54922°N, 41.26290°E, 22 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161735; WIR 101387).

*Vicia hirsuta* (L.) Gray

$2n = 14$ , CHN. Russian Federation, Chechen Republic, Kurchaloyevskii Raion, about 2 km of Kurchaloy village towards Shali village, shrub woodland, 43.155038°N, 46.064564°E, 26 Jun 2018, *L.V. Bagmet, T.G. Aleksandrova & M.E. Gashimov s.n.* (VIR i-o160700; WIR 101380) [Fig. 1C]; Russian Federation, Lipetskaya Oblast', Gryazinskii Raion, right bank of the Matyra River, next to Gryazi village (the town of Gryazi is on the other side of the Matyra), 52°29'40.1"N, 40°00'57.8"E, 12 Jul 2017, *T.G. Aleksandrova, G.V. Belskaya, E.A. Sergeev & G.I. Proskuryakova s.n.* (VIR i-o160665; WIR 101376).

*Vicia sativa* subsp. *nigra* (L.) Ehrh.

$2n = 12$ , CHN. Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, about 6 km S of Kardonikskaya village, leguminous herbs along the banks of the irrigation canal, 1004 m, 43.78560°N, 41.68756°E, 20 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161730; WIR 101383) [Fig. 1D]; Russian Federation, Lipetskaya Oblast', Gryazinskii Raion, right bank of the Matyra River, next to Gryazi village (the town of Gryazi is on the other side of the Matyra), 52°29'40.1"N, 40°00'57.8"E, 12 Jul 2017, *T.G. Aleksandrova, G.V. Belskaya, E.A. Sergeev & G.I. Proskuryakova s.n.* (VIR i-o160664; WIR 101375) [Fig. 1E]; Russian Federation, Republic of Dagestan, Southern Dagestan, Tabasaranskii Raion, sparse forest on the slopes in the vicinity of Rushul village, slope 30° of NW exposure, 41.961963°N, 48.005199°E, 29 Jun 2018, *L.V. Bagmet, T.G. Aleksandrova & M.E. Gashimov* (VIR i-o160703; WIR 101381).

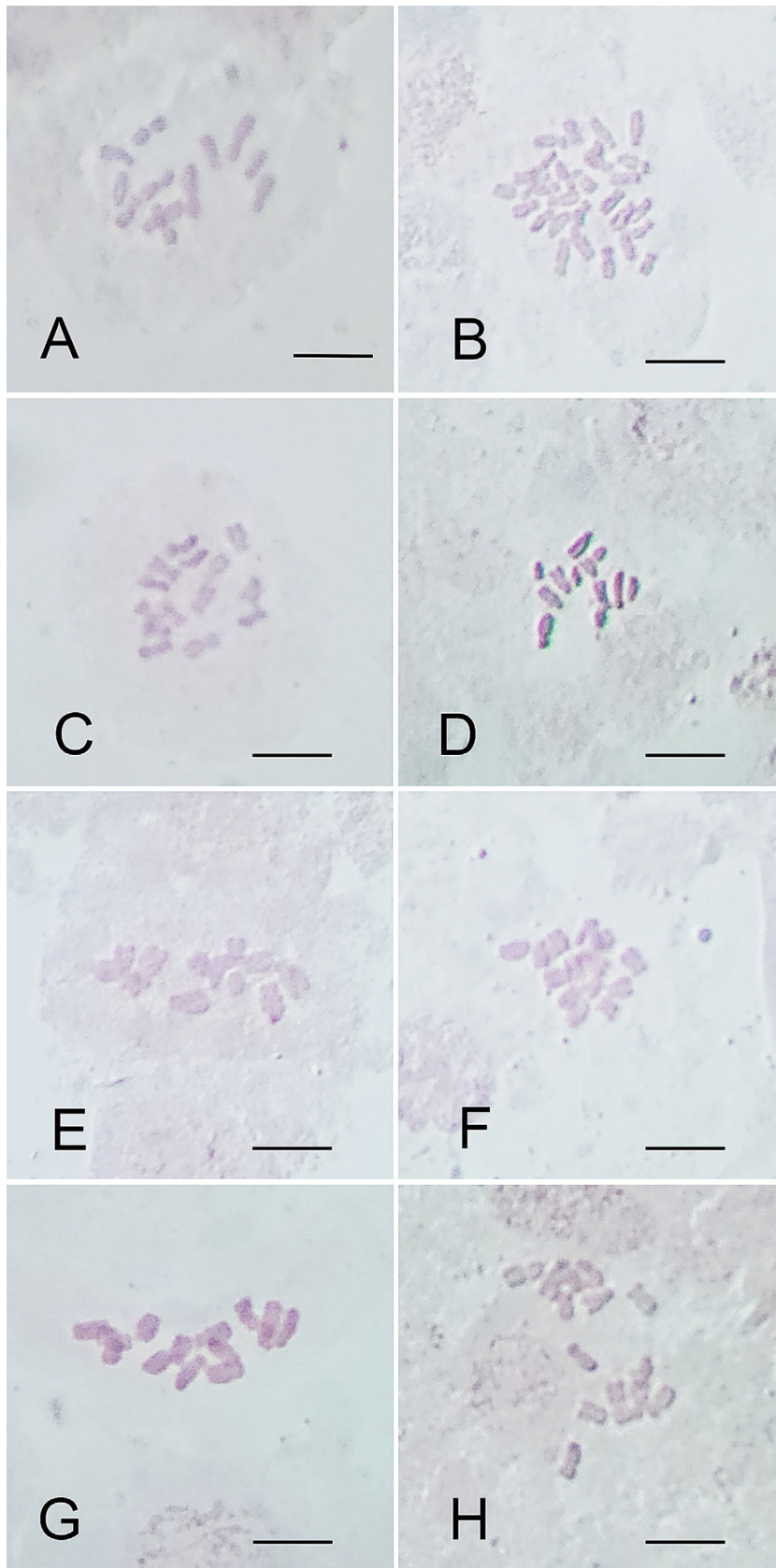
*Vicia sepium* L.

$2n = 14$ , CHN. Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, surroundings of Arkhyz village, clearing under the power line, 1475 m, 43.54922°N, 41.26290°E, 22 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161734; WIR 101386) [Fig. 1F]; Russian Federation, Karachay-Cherkess Republic, Zelenchukskii Raion, about 16 km up from Arkhyz village, surroundings of the astrophysical observatory, on the border of forest and subalpine meadows, 2000 m, 43.65027°N, 41.42990°E, 21 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161733; WIR 101385); Russian Federation, Republic of Karelia, Olonetskii Raion, Vilitsa village, bank of the Vilitsa River, 61.196739°N, 32.416317°E, 25 Jul 2018, *T.V. Dyubenko s.n.* (VIR i-634836; WIR 101406); Russian Federation, Tambovskaya Oblast', Michurinskii Raion, vicinity of the "Green Gai State Farm", floodplain of the Ilovai River, 52.951911°N, 40.384087°E, 11 Jul 2017, *T.G. Aleksandrova, G.V. Belskaya, E.A. Sergeev & G.I. Proskuryakova s.n.* (VIR i-o160661; WIR 101337) [Fig. 1G].

*Vicia tetrasperma* (L.) Schreb.

$2n = 14$ , CHN. Russian Federation, Karachay-Cherkess Republic, Urupskii Raion, about 3 km N of Rozhkaov village, forest glades along the banks of the Rassypnaya River in the valley of the Bolshaya Laba River, 906 m, 43.84557°N, 40.93214°E, 23 Aug 2019, *L.V. Bagmet, T.G. Aleksandrova, A.V. Shlyavas & Yu.A. Sapiev s.n.* (VIR i-o161738; WIR 101390); Russian Federation, Tambovskaya Oblast', Michurinskii Raion, vicinity of Turmasovo village, floodplain of the Lesnoi Voronezh River, 52°57'14.2"N, 40°33'34.6"E, 10 Jul 2017, *T.G. Aleksandrova, G.V. Belskaya, E.A. Sergeev & G.I. Proskuryakova s.n.* (VIR i-o160658; WIR 101325) [Fig. 1H].





**Fig. 1.** Mitotic chromosomes. **A**, *Vicia cassubica*,  $2n = 12$ ; **B**, *V. cracca*,  $2n = 28$ ; **C**, *V. hirsuta*,  $2n = 14$ ; **D** & **E**, *V. sativa* subsp. *nigra*,  $2n = 12$ ; **F** & **G**, *V. sepium*,  $2n = 14$ ; **H**, *V. tetrasperma*,  $2n = 14$ . — Scale bars = 10  $\mu\text{m}$ .

## IAPT chromosome data 34/4

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The study was partially supported by the Russian Foundation for Basic Research (project No. 20-516-10002 KO\_a), and conducted within the framework of State Task No. 0662-2019-0006.

## POACEAE

*Agrostis gigantea* Roth

2n = 42, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Agulskii Raion, surroundings of Chirag village, alpine meadow, 2113 m, 41.80906°N, 47.45306°E, 24 Sep 2011, A. Gnutikov & R. Ufimov Dag11-20 (LE).

*Agrostis karsensis* Litv.

2n = 28, CHN. Georgia, Abkhazia, Gudauta District, canyon Bzyb, 3 km N of Bzyb village, Maiden's tears waterfall, 1 Jul 2011, A. Gnutikov & R. Ufimov Ab11-6 (LE).

*Agrostis stolonifera* L.

2n = 28, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Magaramkentskii Raion, 2 km N of Samur settlement, oak-hornbeam forest, 10 m, 41.83406°N, 48.48489°E, 29 Sep 2011, A. Gnutikov & R. Ufimov Dag11-25 (LE).

*Brachypodium pubescens* (Peters.) Mussajev

2n = 18, CHN. Georgia, Abkhazia, Gagra District, along the road to the Gegsky waterfall, rocky slope, 500 m, 43.573333°N, 40.611389°E, 1 Jul 2011, A. Gnutikov & R. Ufimov Ab11-5 (LE); Russian Federation, North Caucasus, Republic of Dagestan, Derbentskii Raion, Derbent city, vicinity of the citadel of Naryn-Kala, oak forest, 151 m, 42.0518°N, 47.27483°E, 27 Sep 2011, A. Gnutikov & R. Ufimov Dag11-21 (LE).

*Calamagrostis ×paradoxa* Lipsky

2n = 28, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Agulskii Raion, on the way to Amukh village, alpine meadow, 41.91122°N, 47.54883°E, 23 Sep 2011, A. Gnutikov & R. Ufimov Dag11-26 (LE).

*Cynodon dactylon* (L.) Pers.

2n = 36, CHN. Georgia, Abkhazia, Gudauta District, surroundings of New Athos town, along the railway at "New Athos" railway station, 30 Jun 2011, A. Gnutikov & R. Ufimov Ab11-7 (LE).

*Echinochloa tzevelevii* Mosyakin ex Mavrodiev & H.Scholz

2n = 54, CHN. Georgia, Abkhazia, Gagra District, along the road to the Gegsky waterfall, rocky slope, 1 Jul 2011, A. Gnutikov & R. Ufimov Ab11-8 (LE).

*Elytrigia elongatiformis* (Drobow) Nevski

2n = 42, CHN. Georgia, Abkhazia, Gudauta District, New Athos town, along the trail to Iverian Mountain, 26 Jun 2011, A. Gnutikov & R. Ufimov Ab11-9 (LE).

*Elytrigia lolioides* (Kar. & Kir.) Nevski

2n = 28, CHN. Georgia, Abkhazia, Gudauta District, New Athos town, along the trail to Iverian Mountain, 26 Jun 2011, A. Gnutikov & R. Ufimov Ab11-10 (LE).

*Hordeum violaceum* Boiss. & Hohen.

2n = 14, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Agulskii Raion, surroundings of Chirag village, alpine meadow, 2113 m, 41.80906°N, 47.45306°E, 24 Sep 2011, A. Gnutikov & R. Ufimov Dag11-23 (LE).

*Melica chrysolepis* Klokov

2n = 18, CHN. Georgia, Abkhazia, Gagra District, along the road to the Gegsky waterfall, rocky slope, 500 m, 43.573333°N, 40.611389°E, 1 Jul 2011, A. Gnutikov & R. Ufimov Ab11-11 (LE).

*Melica nutans* L.

2n = 18, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Derbentskii Raion, Derbent city, vicinity of the citadel of Naryn-Kala, oak forest, 151 m, 42.0518°N, 47.27483°E, 27 Sep 2011, A. Gnutikov & R. Ufimov Dag11-24 (LE).

*Microstegium japonicum* (Miq.) Koidz.

2n = 20, CHN. Georgia, Abkhazia, Sukhumi District, 6 km N of Sukhumi city, left riverside of the Gumisty River, on rocks, near the water, 43.065878°N, 41.0023499°E, 10 Oct 2011, A. Gnutikov & R. Ufimov Ab11-12 (LE).

*Oplismenus undulatifolius* (Ard.) P.Beauv.

2n = 54, CHN. Georgia, Abkhazia, Sukhumi District, 6 km N of Sukhumi city, right riverside of the Gumisty River, in damp thickets of boxwood and pine, 43.0639341°N, 40.9996462°E, 10 Oct 2011, A. Gnutikov & R. Ufimov Ab11-13 (LE).

*Phleum paniculatum* var. *ciliatum* (Boiss.) Kitam.

2n = 28, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Magaramkentskii Raion, surroundings of Garah village, by the stream, 790 m, 41.4798°N, 48.04217°E, 18 Sep 2011, A. Gnutikov & R. Ufimov Dag11-19 (LE).

*Poa nemoralis* L.

2n = 42, CHN. Russian Federation, North Caucasus, Republic of Dagestan, Agulskii Raion, on the way to Amukh village, alpine meadow, 41.91122°N, 47.54883°E, 23 Sep 2011, A. Gnutikov & R. Ufimov Dag11-22 (LE).

*Schedonorus giganteus* (L.) Holub

2n = 42, CHN. Georgia, Abkhazia, Sukhumi District, 6 km N of Sukhumi city, left riverside of the Gumisty River, on rocks, near the water, 43.065878°N, 41.0023499°E, 10 Oct 2011, A. Gnutikov & R. Ufimov Ab11-14 (LE); Georgia, Abkhazia, Gudauta District, spruce-fir-beech forest, 842 m, 43.4379°N, 40.53947°E, 8 Oct 2011, A. Gnutikov & R. Ufimov Ab11-15 (LE); Georgia, Abkhazia, Gudauta District, New Athos town, along the trail to Iverian Mountain, 26 Jun 2011, A. Gnutikov & R. Ufimov Ab11-16 (LE); Russian Federation, North Caucasus, Republic of Dagestan, Derbentskii Raion, Derbent city, vicinity of the citadel of Naryn-Kala, oak forest, 151 m, 42.0518°N, 47.27483°E, 27 Sep 2011, A. Gnutikov & R. Ufimov Dag11-18 (LE).

*Sesleria alba* Sm.

$2n = 28$ , CHN. Georgia, Abkhazia, Gudauta District, canyon Jupshar, 380 m, 43.42268°N, 40.5118°E, 8 Oct 2011, *A. Gnutikov & R. Ufimov Ab11-17* (LE); Georgia, Abkhazia, Sukhumi District, 6 km N of Sukhumi city, left riverside of the Gumisty River, on rocks, near the water, 43.065878°N, 41.0023499°E, 10 Oct 2011, *A. Gnutikov & R. Ufimov Ab11-18* (LE).

*Setaria parviflora* (Poir.) Kerguelen

$2n = 36$ , CHN. Georgia, Abkhazia, Sukhumi District, surroundings of Sukhumi city, along the road, 11 Oct 2011, *A. Gnutikov & R. Ufimov Ab11-19* (LE).

*Trisetum transcaasicum* Seredin

$2n = 28$ , CHN. Russian Federation, North Caucasus, Republic of Dagestan, Dokuzparinskii Raion, Shalbudzag Mountain, rocky slope, sub-nival level, 3302 m, 41.34486°N, 47.80997°E, 17 Sep 2011, *A. Gnutikov & R. Ufimov Dag11-17* (LE).

## IAPT chromosome data 34/5

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This study was supported by the Russian Foundation for Basic Research (grant 19-04-00546) and by the scientific programs AAAA-A21-121011290024-5 of the Central Siberian Botanical Garden of the Siberian Branch of the Russian Academy of Sciences and 121031500336-9 of the Sukachev Institute of Forest of the Siberian Branch of the Russian Academy of Sciences.

The cytological studies have been carried out in root tips of seedlings. Chromosome numbers in literature were checked using IPCN (Goldblatt & Johnson, 1979–) and CCDB (Rice & al., 2015). Nomenclature corresponds to the World Checklist of Vascular Plants (<http://wcvp.science.kew.org/>), besides *Sedobassia sedoides* accepted according to Kadereit & Freitag (2011).

\* First chromosome count for the species

## AMARANTHACEAE

*Atriplex crassifolia* C.A.Mey.

$2n = 18$ , CHN. Russian Federation, Novosibirskaya Oblast', Baganskii Raion, 10 km NW of Savkino, shore of Lake Mochan, 53.98259°N, 77.81701°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 18a-20* (NS).

*Atriplex patens* (Litv.) Iljin

$2n = 36$ , CHN. Russian Federation, Novosibirskaya Oblast', 6 km SW of Kochki, 54.30946°N, 80.39945°E, 25 Sep 2020, *E. Korolyuk & A. Korolyuk 11a-20* (NS); Russian Federation, Novosibirskaya Oblast', Baganskii Raion, 10 km NW of Savkino, shore of Lake Mochan, 53.98259°N, 77.81701°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 18b-20* (NS).

*Atriplex prostrata* Boucher ex DC.

$2n = 18$ , CHN. Russian Federation, Novosibirskaya Oblast', Baganskii Raion, 10 km NW of Savkino, shore of Lake Mochan, 53.98259°N, 77.81701°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk*

*18c-20* (NS); Russian Federation, Novosibirskaya Oblast', 6 km SW of Kochki, steep bank of the Karasuk River, 54.30946°N, 80.39945°E, 25 Sep 2020, *E. Korolyuk & A. Korolyuk 12-20* (NS).

*Atriplex sibirica* L.

$2n = 18$ , CHN. Russian Federation, Republic of Altai, Kosh-Agachskii Raion, 1 km E of Kokorya, steppe, 49.9183°N, 90.665917°E, 14 Sep 2020, *V. Vlasenko 722* (NS).

*Atriplex tatarica* L.

$2n = 18$ , CHN. Russian Federation, Novosibirskaya Oblast', Karasukskii Raion, 2 km E of Kalachi, 53.58485°N, 77.91998°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 14b-20* (NS).

*\*Camphorosma songorica* Bunge

$2n = 12$ , CHN. Russian Federation, Novosibirskaya Oblast', Karasukskii Raion, 3 km S of Rasskazovo, shore of Lake Gorkoe, 53.62795°N, 77.93332°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 15-20* (NS).

*Chenopodiastrum hybridum* (L.) S.Fuentes, Uotila & Borsch

$2n = 18$ , CHN. Czech Republic, Brno, near the road, 49.995833°N, 17.906111°E, 3 Nov 2017, *E. Korolyuk 180* (NS).

*Chenopodiastrum murale* (L.) S.Fuentes, Uotila & Borsch

$2n = 18$ , CHN. Portugal, Madeira, vicinity of Caniçal, 32.759722°N, 18.132222°W, 20 Mar 2019, *E. Korolyuk & A. Korolyuk s.n.* (NS).

*Chenopodium acerifolium* Andr.

$2n = 36$ , CHN. Russian Federation, Altaiskii Krai, Tal'menskii Raion, vicinity of Zabrodino, Chumysh river bank, 53.8374°N, 83.7230°E, 27 Sep 2018, *E. Korolyuk & A. Korolyuk s.n.* (NS); Russian Federation, Krasnoyarskii Krai, Evenkiiskii Raion, Tura settlement, floodplain of Nizhnyaya Tunguska, 64.861667°N, 101.581944°E, 27 Aug 2016, *L. Krivobokov s.n.* (NS).

*Chenopodium album* L.

$2n = 54$ , CHN. Armenia, Aragatsoth Province, south slope of Aragats Mountain, surroundings of the Arabed Fortress, 40.374853°N, 44.262968°E, 1197 m, 18 Sep 2019, *E. Korolyuk 3a-19* (NS).

*Chenopodium karoii* (Murr) Aellen

$2n = 36$ , CHN. Mongolia, Bayan-Ulgii somon, 20–25 km NE of Tolbo, steppe, 49.381944°N, 90.922222°E, 2700 m, 21 Jul 2017, *A. Korolyuk & E. Korolyuk s.n.* (NS); Russian Federation, Republic of Altai, Kosh-Agachskii Raion, Tyduyaryk river mouth, 8 Sep 2018, *E. Korolyuk s.n.* (NS); Russian Federation, Republic of Altai, Kosh-Agachskii Raion, Chegan-Uzun village, along the road, 50.075°N, 88.4105°E, 1730 m, 9 Sep 2018, *A. Korolyuk & E. Korolyuk 13* (NS).

*Chenopodium strictum* Roth

$2n = 36$ , CHN. Kazakhstan, Almaty Region, vicinity of Kapshagai town, along the road, 44.155833°N, 78.211111°E, 21 Sep 2017, *M. Lomonosova & M. Danilov 1391* (NS); Russian Federation, Primorskii Krai, Vladivostok city, Russkii Island, 44.205278°N, 132.366667°E, 5 Oct 2017, *M. Lomonosova 1399c* (NS); Russian Federation, Primorskii Krai, Khasanskii Raion, Gamov Peninsula, Vityaz Bay, shingle beach, 43.081944°N, 132.523889°E, 9 Oct 2017, *M. Lomonosova 1418* (NS).

*Chenopodium suecicum* Murr

$2n = 18$ , CHN. Russian Federation, Krasnoyarskii Krai, Evenkiiskii Raion, Tura settlement, near buildings, 64.861667°N, 101.581944°E, 26 Aug 2016, *L. Krivobokov s.n.* (NS); Russian Federation, Krasnoyarskii Krai, Evenkiiskii Raion, Tunguska Nature Reserve, cordon “V’ezd”, near the winter quarters, 6 Sep 2016, *L. Krivobokov s.n.* (NS); Russian Federation, Primorskii Krai, Khasanskii Raion, Gamov Peninsula, Vityaz Bay, on fine grained deposits along the coast, 43.889444°N, 132.298611°E, 7 Oct 2017, *M. Lomonosova 1409c* (NS).

*Corispermum hyssopifolium* L.

$2n = 18$ , CHN. Kazakhstan, Almaty Region, Muyunkum Sands, Zarechnoe village, 43.718389°N, 77.037667°E, 2 Nov 2019, *T. An’kova 206* (NS).

*Ofaiston monandrum* (Pall.) Moq.

$2n = 18$ , CHN. Russian Federation, Novosibirskaya Oblast’, Baganskii Raion, 10 km NW of Savkino, shore of Lake Mochan, 53.98259°N, 77.81701°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 18d-20* (NS).

*Oxybasis glauca* (L.) S.Fuentes, Uotila & Borsch

$2n = 18$ , CHN. Russian Federation, Krasnoyarskii Krai, Evenkiiskii Raion, Baikit settlement, Podkamennaya Tunguska river valley, ruderal site, 61.816914°N, 97.913056°E, 21 Aug 2015, *L. Krivobokov s.n.* (NS).

*Oxybasis rubra* (L.) S.Fuentes, Uotila & Borsch

$2n = 36$ , CHN. Russian Federation, Republic of Buryatia, Ivolginskii Raion, vicinity of Orongoi village, shore of Lake Beloe, *Phragmites australis* community, 51.53913°N, 107.04089°E, 30 Aug 2017, *B. Naidanov 30-17* (NS).

*Salicornia perennans* Willd.

$2n = 18$ , CHN. Russian Federation, Orenburgskaya Oblast’, vicinity of Sol-Iletsk town, 51.251389°N, 55.063333°E, 5 Oct 2019, *T. An’kova 218* (NS); Russian Federation, Novosibirsk Region, 6 km SW of Kochki, 54.30946°N, 80.39945°E, 25 Sep 2020, *E. Korolyuk & A. Korolyuk 11b-20* (NS).

*Sedobassia sedoides* (Pall.) Freitag & G.Kadereit

$2n = 18$ , CHN. Russian Federation, Novosibirskaya Oblast’, Karasukskii Raion, 2 km E of Kalachi, 53.58485°N, 77.91998°E, 26 Sep 2020, *E. Korolyuk & A. Korolyuk 14c-20* (NS).

*Suaeda olufsenii* Pauls.

$2n = 18$ , CHN. Russian Federation, Republic of Altai, Kosh-Agachskii Raion, along the track Kosh-Agach–Chegan-Uzun, the foot of the Kurai Ridge, 350 m above the mineral spring, 1767 m, 50.0735°N, 88.4132°E, 9 Sep 2018, *E. Korolyuk & A. Korolyuk 12* (NS).

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## IAPT chromosome data 34/6

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The investigation was carried out being supported by scientific program AAAA-A21-121011290024-5 of the Central Siberian Botanical Garden of the Siberian Branch of the Russian Academy of Sciences.

- \* First chromosome count for the species.
- First chromosome count for a Russian accession.
- New cytotype for the species.

## ASTERACEAE

*Arctogeron gramineum* (L.) DC.

$2n = 2x = 18$ , CHN. Russian Federation, Republic of Khakasia, Ust’-Abakan Raion, vicinity of Prigorsk city, stony steppe, 53°55’N, 91°16’E, 346 m, 16 Jun 2013, *D. Shaulo, T. An’kova & T. Myakshina A204* (NS).

*Carduus crispus* L.

$2n = 2x = 18$ , CHN. Russian Federation, Krasnoyarskii Krai, Ermakovskii Raion, Western Sayan, Mirskoi Ridge, Khorza River, place of periodic flooding, 52°17’20.1’’N, 92°27’05.2’’E, 540 m, 12 Jul 2019, *D. Shaulo Z825* (NS).

*Picris hieracioides* L.

$2n = 2x = 10$ , CHN. Russian Federation, Novosibirsk city, road to “Akademgorodok-Kol’tsovo” roadside, El’tsovka River, 54°54’31’’N, 83°16’53’’E, 10 Aug 2019, *D. Shaulo & V. Romanyuk Z826* (NS).

*Saussurea pricei* N.D.Simpson

$2n = 2x = 28$ , CHN. Russian Federation, Republic of Tuva, Chaa-Khol’skii Raion, Sayano-Shushenskoe reservoir, Khemchikskii Ridge, stony mountain slope, 51°37’N, 92°25’E, 650 m, 12 Jul 2014, steppe, *D. Shaulo & T. An’kova A188* (NS).

## CARYOPHYLLACEAE

*Dianthus chinensis* L.

$2n = 2x = 30$ , CHN. Russian Federation, Krasnoyarskii Krai, Shushenskii Raion, Western Sayan, Borus Ridge, Malaya Govorikha River, rocks, 52°42’24.6’’N, 91°38’52.4’’E, 545 m, 12 Jul 2016, *D. Shaulo ASH-17-18* (NS); Russian Federation, Krasnoyarskii Krai, Ermakovskii Raion, Western Sayan, Aradanskii Ridge, Sayano-Shushenskoe reservoir, Karakhem River, stone steppe, 52°23’24.6’’N, 92°25’26.5’’E, 545 m, 14 Jul 2016, *D. Shaulo ASH-18-18* (NS).

\* *Dianthus mainensis* Shaulo & Erst.

$2n = 2x = 30$ , CHN. Russian Federation, Krasnoyarskii Krai, Shushenskii Raion, Western Sayan, Borus Ridge, Malaya Govorikha River, rocks, 52°42’24.6’’N, 91°38’52.4’’E, 545 m, 12 Jul 2016, *D. Shaulo ASH-19-18* (NS).

**FABACEAE**

• *Astragalus depauperatus* Ledeb.

$2n = 12x = 96 + 0-8B$ , CHN. Russian Federation, Republic of Chakasia, Ordzhonikidzevskii Raion, vicinity of Iyus village, Belyi Iyus River, mountain range Sunduki, gravelly steppe slopes, 54°47'N, 89°51'E, 446 m, 5 Jul 2014, *D. Shaulo & T. An'kova A214* (NS).

\* *Astragalus dilutus* Bunge

$2n = 2x = 16$ , CHN. Russian Federation, Republic of Tuva, 3 km west of Kyzyl city, Ulug-Khem River, desert steppe, 51°41'N, 94°16'E, 697 m, 10 Jul 2014, *D. Shaulo & T. An'kova A197* (NS).

•• *Oxytropis aciphylla* Ledeb. (= *O. borissovae* Polozhij)

$2n = 24 + 0-3B$ , CHN. Russian Federation, Republic of Tuva, Kyzyl city, Ulug-Khem River, desert sandy steppe, 51°39'N, 94°18'E, 629 m, 10 Jul 2014, *D. Shaulo & T. An'kova A211* (NS).

**ONAGRACEAE**

*Circaea luteitiana* subsp. *quadrisulcata* (Maxim.) Asch. & Magnus

$2n = 2x = 22$ , CHN. Russian Federation, Republic of Khakasia, Tashtypskii Raion, Western Sayan, Dzhebashsky Ridge, Ona River, down-river of Koshelyukha, 52°09'03.8"N, 89°48'55.9"E, 726 m, 10 Sep 2016, *D. Shaulo GASH-2-2017* (NS).

**POLYGONACEAE**

*Atraphaxis frutescens* (L.) K.Koch

$2n = 2x = 16, 18$ , CHN. Russian Federation, Republic of Tuva, 5 km west of Kyzyl city, nanophyton desert steppe, 51°41'N, 94°13'E, 774 m, 9 Jul 2014, *D. Shaulo & T. An'kova A190* (NS).

**RANUNCULACEAE**

*Aquilegia glandulosa* Fisch. ex Link

$2n = 2x = 16$ , CHN. Russian Federation, Republic of Khakasia, Tashtypskii Raion, Western Sayan, Sayanskii Ridge, Bol'shoi On River, 51°42'55.1"N, 89°53'07.1"E, 2080 m, 11 Sep 2016, *D. Shaulo GASH-601-2017* (NS).

**ROSACEAE**

*Potentilla supina* subsp. *paradoxa* (Nutt.) Soják

$2n = 2x = 28$ , CHN. Russian Federation, Republic of Tuva, Chaa-Khol'skii Raion, Sayano-Shushenskoe reservoir, Ulug-Khem River, place of periodic flooding, 51°30'45.0"N, 92°20'01.0"E, 536 m, 17 Jul 2019, *D. Shaulo Z830* (NS).

*Spiraea media* Schmidt (= *S. sericea* Turcz.)

$2n = 2x = 18$ , CHN. Russian Federation, Krasnoyarskii Krai, Ermakovskii Raion, Western Sayan, Sayanskii Ridge, Sarly River, pine mixed-grass-sedge forest, 52°10'47.8"N, 92°20'50.5"E, 545 m, 15 Jul 2016, *D. Shaulo ASH-31-2017* (NS).

**IAPT chromosome data 34/7**

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The authors are grateful to E.G. Rudyka for assistance in chromosome counting, to Dr.Sc. S.V. Ovchinnikova for identifying specimens of *Puccinellia* spp., and to Prof. V.I. Dorofeyev for identifying specimens of *Alyssum armenum* Boiss. The reported study was funded by Russian Foundation for Basic Research according to the

research project No. 19-04-00658. The results based on material from Baikal, Siberia were obtained with the support of the Ministry of Science and Higher Education of the Russian Federation, project No. 075-15-2020-787.

\* New cytotype for the species.

**AMARANTHACEAE**

*Chenopodium suecicum* Murr

$2n = 18$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside of the Irkut River, between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, moist ravine, 52°17'56.4"N, 104°07'12.0"E, 9 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13575* (IRK, VLA).

*Oxybasis glauca* (L.) S.Fuentes, Uotila & Borsch

$2n = 18$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside of the Irkut River, between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, moist ravine, 52°17'56.4"N, 104°07'12.0"E, 9 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13579* (IRK, VLA).

**ASTERACEAE (COMPOSITAE)**

*Centaurea pseudomaculosa* Dobroc.

$2n = 18$ , CHN. Russian Federation, Irkutskaya Oblast', Ussol'skii Raion, right riverside of the Belaya River, Belorechenskii settlement, blind street of the East Siberian railway road, along the railway track bed (rubble), 456 m, 52°48'46.0"N, 103°31'58.4"E, 18 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13580* (IRK, VLA).

*Centaurea scabiosa* L.

$2n = 20$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, near the railway station Akademicheskaya, forb weedy-ruderal plant community, 450 m, 52°15'23"N, 104°16'22"E, 29 Aug 2020, *D.A. Krivenko & M.A. Markaryan 13581* (IRK, VLA).

*Erigeron canadensis* L.

$2n = 18$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, 52°17'20.4"N, 104°08'02.4"E, 18 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13611* (IRK, VLA); Russian Federation, Irkutskaya Oblast', Chermkhovskii Raion, 2 km S of Verkhonii Bulai village, weedy-ruderal plant communities along the country road, 53°00'32.4"N, 103°02'34.8"E, 18 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13616* (IRK, VLA).

*Erigeron politus* Fr. (≡ *E. acris* subsp. *politus* (Fr.) H.Lindb.)

$2n = 18$ , CHN. Russian Federation, Irkutskaya Oblast', Bratskii Raion, 4 km SSE of the railway station Hydrostroitel', Rudnik Mt., forb *Pinus* forest, 583 m, 56°14'44.88"N, 101°56'07.86"E, 27 Jul 2020, *O.A. Chernysheva 13589* (IRK, VLA).

*Galinsoga quadriradiata* Ruiz & Pav.

$2n = 32$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, Akademgorodok, near the building of the L.A. Melentyev Energy Systems Institute of the Siberian Branch of the Russian Academy of Sciences, on the lawn, 470 m, 52°14'30"N, 104°16'21"E, 8 Sep 2020, *D.A. Krivenko & M.A. Markaryan 13599* (IRK, VLA).

*Lactuca serriola* L.

2n = 18, CHN. Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, Akademgorodok, Lermontov Str. 275/3, 52°15'07.22"N, 104°16'23.15"E, 4 Aug 2020, D.A. Krivenko & M.A. Markaryan 13578 (IRK, LE, VLA).

**BRASSICACEAE (CRUCIFERAE)***Alyssum armenum* Boiss.

2n = 32, CHN. Georgia, Samtskhe-Dzhavakheti Mkhare, Akhaltsikhe Municipality, right riverside of the Kura River, on the way from Greli village to Sapara monastery, graded steppe slope, 1290 m, 41°36'54"N, 43°00'27"E, 23 Jul 2019, D.A. Krivenko & al. 13502 (IRK, LE, VLA).

*Brassica rapa* L.

2n = 20, CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside of the Irkut River, between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, 52°17'56.4"N, 104°07'12.0"E, 9 Aug 2020, D.A. Krivenko & O.A. Chernysheva 13576 (IRK, VLA).

*Isatis oblongata* DC.

2n = 28, CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, O.Yu. Zavgorodnyaya 13513 (IRK, VLA).

*Raphanus raphanistrum* L.

2n = 18, CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside of the Irkut River, between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, 52°17'56.4"N, 104°07'12.0"E, 9 Aug 2020, D.A. Krivenko & O.A. Chernysheva 13577 (IRK, VLA).

**CARYOPHYLLACEAE***Dianthus chinensis* L. (= *D. versicolor* Fisch. ex Link)

2n = 30, CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, O.Yu. Zavgorodnyaya 13512 (IRK, VLA).

*Silene spergulifolia* (Willd.) M.Bieb.

2n = 24, CHN. Armenia, Vayots Dzor Mars, right riverside of the Arpa River, 9 km NE of Malishka village, crater of the Vayots Sar (Tapasi-Dalik) Volcano, stony forb steppe meadow, 2557 m, 39°47'42.6"N, 45°29'48.0"E, 21 Jul 2019, D.A. Krivenko & al. 13509 (IRK, VLA).

**CONVOLVULACEAE***Convolvulus cantabrica* L.

2n = 30, CHN. Georgia, Samtskhe-Dzhavakheti Mkhare, Akhaltsikhe Municipality, right riverside of the Kura River, on the way from Greli village to Sapara monastery, graded steppe slope, 1290 m, 41°36'54"N, 43°00'27"E, 23 Jul 2019, D.A. Krivenko & al. 13499 (IRK, VLA).

**EUPHORBIACEAE***Acalypha indica* L.

2n = 20, CHN. Thailand, Chonburi Changvat, Banlamung Amfo, east coast of Siamese Bay of the South China Sea, Pattaya city,

in the parkways Na Kluea 16 and 16/1, 12°57'43.4"N, 100°53'31.2"E, 17 Oct 2019, O.A. Chernysheva 13606 (IRK, VLA).

**FABACEAE (LEGUMINOSAE)***Alhagi pseudalhagi* (M.Bieb.) Desv. ex B.Keller & Shap.

2n = 16, CHN. Russian Federation, Republic of Dagestan, Kumtorkalinskii Raion, left riverside of the Shura-ozen' River, Sarykum barkhan, sandy escarpment of the railway track, 80 m, 43°00'00"N, 47°13'42"E, 10 Aug 2019, D.A. Krivenko 62752 (IRK).

*Anthyllis vulneraria* subsp. *boissieri* (Sagorski) Bornm.

(= *A. lachnophora* Juz.)

2n = 12, CHN. Russian Federation, Republic of Dagestan, Dokuzparinskii Raion, Great Caucasian Ridge, 3 km WSW of Kurush village, island between two horns of the Mullarchai River (Chekhychai river basin), opposite Mt. Nesindag, 2340 m, grassy (*Trisetum transcaasicum*) sandy-pebbly riverside, 2340 m, 41°15'53"N, 47°48'11"E, 16 Aug 2019, D.A. Krivenko 62633 (IRK); Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, foot of Mt. El'brus, Polyana Azau settlement, 2380 m, sandy-pebbly deposits, 43°16'10"N, 42°28'47"E, 7 Aug 2019, D.A. Krivenko 62874 (IRK).

*Astragalus falcatus* Lam.

2n = 16, CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, Baksanskoe gorge, left riverside of the Baksan River, Tegenekli village, mountain slope, 1830 m, 43°14'59"N, 42°37'06"E, 6 Aug 2019, D.A. Krivenko 59088 (IRK).

*Coronilla coronata* L.

2n = 24, CHN. Georgia, Shida Kartli Mkhare, Gori Municipality, near Didi Ateni village, left riverside of the Tana River, steep stony slope, 740 m, 41°54'38"N, 44°05'33"E, 24 Jul 2019, D.A. Krivenko & al. 62869 (IRK).

*Coronilla varia* L. (= *Securigera varia* (L.) Lassen)

2n = 24, CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, Baksanskoe gorge, left riverside of the Baksan River, near Tegenekli village, mountain stony slope, 1910 m, 43°15'07"N, 42°37'26"E, 6 Aug 2019, D.A. Krivenko 62870 (IRK).

*Lotus corniculatus* L.

2n = 24, CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, foot of Mt. El'brus, Polyana Azau settlement, 2380 m, sandy-pebbly deposits, 43°16'10"N, 42°28'47"E, 7 Aug 2019, D.A. Krivenko 62884 (IRK, LE, NSK).

*Medicago minima* (L.) Bartal.

2n = 16, CHN. Georgia, Samtskhe-Dzhavakheti Mkhare, Akhaltsikhe Municipality, right riverside of the Kura River, on the way from Greli village to Sapara monastery, graded steppe slope, roadside, 1310 m, 41°36'20"N, 43°01'49"E, 23 Jul 2019, D.A. Krivenko & al. 62597 (IRK).

*Melilotus polonicus* Pall.

2n = 16, CHN. Russian Federation, Republic of Dagestan, Kumtorkalinskii Raion, left riverside of the Shura-ozen' River, S part of

Sarykum barkhan, 120 m, sands, 130 m, 43°00'05"N, 47°13'36"E, 10 Aug 2019, *D.A. Krivenko 61752* (IRK).

*Onobrychis petraea* Fisch.

$2n = 14$ , CHN. Russian Federation, Republic of Dagestan, Dokuzparinskii Raion, 4 km NNE of Kurush village, Great Caucasian Ridge, left riverside of the Chekhychai River, dry stony slope, 2110 m, 41°19'03"N, 47°51'51"E, 14 Aug 2019, *D.A. Krivenko 62733* (IRK).

*Trifolium repens* L.

$2n = 32$ , CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, foot of Mt. El'brus, Polyana Azau settlement, 2380 m, sandy-pebbly deposits, 43°16'10"N, 42°28'47"E, 7 Aug 2019, *D.A. Krivenko 62754* (IRK).

*Vicia sosnowskiyi* Ekutim.

$2n = 10$ , CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, foot of Mt. El'brus, Polyana Azau settlement, 2380 m, sandy-pebbly deposits, 43°16'10"N, 42°28'47"E, 7 Aug 2019, *D.A. Krivenko 62846* (IRK, LE, NSK)

**IRIDACEAE**

*Iris ruthenica* Ker Gawl.

\*  $2n = 70$ , CHN. Russian Federation, Irkutskaya Oblast', Bratskii Raion, 11 km S of Kezhemskii settlement, *Pinus* forest with *Larix* and *Betula*, 483 m, 56°26'36.54"N, 102°28'54.66"E, 26 Jul 2020, *O.A. Chernysheva 13604* (IRK, VLA).

**LAMIACEAE (LABIATAE)**

*Elsholtzia ciliata* (Thunb.) Hyl.

$2n = 16$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, Akademgorodok, at the building of the Siberian Institute of Plant Physiology and Biochemistry of the Siberian Branch of the Russian Academy of Sciences, roadside, 52°14'21.39"N, 104°16'16.16"E, 8 Sep 2020, *D.A. Krivenko & M.A. Markaryan 13597* (IRK, LE, VLA); Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, Akademgorodok, roadside, 460 m, 52°14'44"N, 104°16'19"E, 8 Sep 2020, *D.A. Krivenko & M.A. Markaryan 13614* (IRK, VLA).

*Galeopsis bifida* Boenn.

$2n = 32$ , CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, *O.Yu. Zavgorodnyaya 13525* (IRK, VLA); Russian Federation, Irkutskaya Oblast', Irkutskii Raion, left riverside of the Irkut River, between Mamony and Maximovshchina villages, weedy-ruderal plant communities along the country road, 52°17'56.4"N, 104°07'12"E, 9 Aug 2020, *D.A. Krivenko & O.A. Chernysheva 13588* (IRK, VLA); Russian Federation, Irkutskaya Oblast', Irkutskii Raion, W lakeside of Lake Baikal, head water of Angara River, right riverside, Listvyanka settlement, near the building of Baikal Museum of the Irkutskii Scientific Center of the Siberian Branch of the Russian Academy of Sciences, in shrubbery, 470 m, 51°52'04"N, 104°49'58"E, 18 Sep 2020, *D.A. Krivenko 13619* (IRK, LE, VLA).

*Lamium album* L.

$2n = 18$ , CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National

Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, *O.Yu. Zavgorodnyaya 13528* (IRK, NSK, VLA).

*Lycopus europaeus* L.

$2n = 22$ , CHN. Russian Federation, Republic of Buryatia, Severo-Baikal'skii Raion, NE coast of Lake Baikal, Khakusy Bay, Frolikhinskii State wildlife preserve, Khakusskii thermal spring, 538 m, 55°21'34.2"N, 109°49'42.2"E, 31 Aug 2019, *O.Yu. Zavgorodnyaya 13534* (IRK, VLA).

**ONAGRACEAE**

*Epilobium colchicum* Albov

$2n = 36$ , CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, foot of Mt. El'brus, Polyana Azau settlement, 2380 m, sandy-pebbly deposits, 43°16'10"N, 42°28'47"E, 7 Aug. 2018, *D.A. Krivenko 13515* (IRK, VLA).

*Epilobium montanum* L.

$2n = 36$ , CHN. Russian Federation, Kabardino-Balkaria Republic, El'brusskii Raion, Bokovoi Ridge of the Great Caucasian Ridge, Baksanskoe gorge, left riverside of the Baksan River, 18 km E of Mt. El'brus, near El'brus village, mountain steppe slope, 1670 m, 43°16'02"N, 42°39'07"E, 7 Aug 2018, *D.A. Krivenko 13535* (IRK, VLA).

**OXALIDACEAE**

*Oxalis stricta* L.

$2n = 24$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutsk city, left riverside of the Angara River, Akademgorodok, roadside, 460 m, 52°14'44"N, 104°16'19"E, 8 Sep 2020, *D.A. Krivenko & M.A. Markaryan 13598* (IRK, VLA).

**PLANTAGINACEAE**

*Veronica anagallis-aquatica* L.

$2n = 36$ , CHN. Russian Federation, Republic of Buryatia, Pri-baikal'skii Raion, Goryachinsk village, Goryachinskii thermal spring, lower course, 455 m, 52°59'47.0"N, 108°16'54.5"E, 28 Aug 2019, *O.Yu. Zavgorodnyaya 13527* (IRK, VLA).

**POACEAE (GRAMINEAE)**

*Agrostis gigantea* Roth

$2n = 42$ , CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, E coast of Lake Baikal, Barguzinskii Bay, Maksimikha village, Maksimikha River, on tussock, 451 m, 53°15'52.7"N, 108°44'20.6"E, 29 Aug 2019, *O.Yu. Zavgorodnyaya 13544* (IRK, VLA); Russian Federation, Republic of Buryatia, Severo-Baikal'skii Raion, K.A. Zabelin State Barguzinskii Biosphere Nature Reserve, Davsha settlement, Bol'shaya River, Davshinskii thermal spring, 466 m, 54°21'22.5"N, 109°29'57.0"E, 3 Sep 2019, *O.Yu. Zavgorodnyaya 13548* (IRK, VLA).

*Beckmannia syzigachne* (Steud.) Fernald

$2n = 14$ , CHN. Russian Federation, Republic of Buryatia, Severo-Baikal'skii Raion, NW coast of Lake Baikal, Cape Kotel'nikovskii, Kotel'nikovskii thermal spring, 456 m, 55°03'57.6"N, 109°06'21.4"E, 1 Sep 2019, *O.Yu. Zavgorodnyaya 13523* (IRK, VLA).

*Bromopsis inermis* (Leyss.) Holub

$2n = 56$ , CHN. Russian Federation, Irkutskaya Oblast', Irkutskii Raion, W coast of Lake Baikal, head water of Angara River, right riverside, Listvyanka settlement, near the building of Baikal Museum of

the Irkutskii Scientific Center of the Siberian Branch of the Russian Academy of Sciences, in shrubbery, 470 m, 51°52'04"N, 104°49'58"E, 18 Sep 2020, *D.A. Krivenko 13587* (IRK, VLA).

*Elymus sibiricus* L.

$2n = 28$ , CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, *O.Yu. Zavgorodnyaya 13521* (IRK, VLA); Russian Federation, Republic of Buryatia, Severo-Baikal'skii Raion, NE coast of Lake Baikal, Senogda Bay, 507 m, 55°34'18"N, 109°12'18"E, 1 Sep 2019, *O.Yu. Zavgorodnyaya 13530* (IRK, VLA).

*Elytrigia repens* (L.) Nevski

$2n = 42$ , CHN. Russian Federation, Republic of Buryatia, Barguzinskii Raion, middle part of Lake Baikal, Zabaikal'skii National Park, Bol'shoi Ushkanii Island, 466 m, 53°51'15"N, 108°39'25"E, 3 Sep 2019, *O.Yu. Zavgorodnyaya 13518* (IRK, VLA).

*Puccinellia gigantea* (Grossh.) Grossh.

$2n = 14$ , CHN. Russian Federation, Voronezhskaya Oblast', Povorinskii Raion, SE of Kamenka village, alkaline soil, 10 Aug 2020, *A.N. Gudina 13591* (VLA); Russian Federation, Voronezhskaya

Oblast', Povorinskii Raion, SE of Mazurka village, alkaline soil, 7 Sep 2020, *A.N. Gudina 13595* (VLA).

*Puccinellia tenuissima* (Litv. ex V.I.Krecz.) Pavlov

$2n = 14$ , CHN. Russian Federation, Saratovskaya Oblast', Balashovskii Raion, 1.5 km NW of Danilkino village, alkaline soil, 25 Jul 2020, *A.N. Gudina 13592* (VLA).

**VIOLACEAE**

*Viola arvensis* Murray

$2n = 34$ , CHN. Georgia, Samtskhe-Dzhavakheti Mkhare, Akhaltsikhe Municipality, right riverside of the Kura River, at the Sapara monastery, grassy slope in the gorge, 1300 m, 41°36'07.39"N, 43°01'50.37"E, 23 Jul 2019, *D.A. Krivenko & al. 13514* (IRK, VLA).

*Viola rupestris* F.W.Schmidt

$2n = 20$ , CHN. Russian Federation, Republic of Dagestan, Dokuzparinskii Raion, 4 km SSW of Kurush village, Great Caucasian Ridge, slope of Nesindag Mt., right riverside of the Ragdanchai River – right tributary of Mullarchai River (Chekhychai river basin), abrupt stony slope, 2690 m, 41°14'52"N, 47°48'03"E, 15 Aug 2019, *D.A. Krivenko 13537* (IRK, VLA).