

IOPB COLUMN

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IAPT/IOPB chromosome data 22

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DOI <http://dx.doi.org/10.12705/655.40>Tatyana V. An'kova,^{1*} Maria N. Lomonosova¹ & Victor V. Chepinoga^{2,3}1 *Central Siberian Botanical Garden SB RAS, Zolotodolinskaya Str. 101, 630090 Novosibirsk, Russia*2 *The V.B. Sochava Institute of Geography SB RAS, Ulan-Batorskaya Str. 1, 664033 Irkutsk, Russia*3 *Irkutsk State University, Karl Marx Str. 1, 664003 Irkutsk, Russia** Author for correspondence: ankova_tv@mail.ru

All materials CHN; collectors: EN = E.G. Nikolin, ML = M.N. Lomonosova.

The reported study was partially supported by Russian Foundation for Basic Research (RFBR), project no. 16-05-00783.

ALLIACEAE*Allium ramosum* L., $2n = 32$; Russia, Sakha (Yakutia) Republic, *ML & EN 831a* (NS).*Allium splendens* Willd. ex Schult. & Schult.f., $2n = 16$; Russia, Sakha (Yakutia) Republic, *ML & EN 798* (NS).**APIACEAE***Peucedanum puberulum* Schischk., $2n = 24$; Russia, Sakha (Yakutia) Republic, *ML & EN 898* (NS).*Seseli condensatum* (L.) Rchb.f., $2n = 22$; Russia, Sakha (Yakutia) Republic, *ML & EN 852* (NS).*Sium suave* Walter, $2n = 12$; Russia, Sakha (Yakutia) Republic, *ML & EN 875* (NS).**ASPARAGACEAE***Maianthemum bifolium* (L.) F.W.Schmidt, $2n = 36, 54$; Russia, Republic of Buryatia, *E. Zolotovskaya, E. Gladkikh C1569* (IRKU).**ASTERACEAE***Artemisia jacutica* Drobow, $2n = 18$; Russia, Sakha (Yakutia) Republic, *ML & EN 871* (NS).*Artemisia obtusiloba* subsp. *martjanovii* (Krasch. ex Poljakov) Krasnob., $2n = 42$; Russia, Sakha (Yakutia) Republic, *ML & EN 849a* (NS).**BORAGINACEAE***Lappula anisacantha* (Turcz. ex Bunge) Gürke, $2n = 12$; Russia, Sakha (Yakutia) Republic, *ML & EN 879* (NS).**CAPRIFOLIACEAE***Patrinia rupestris* (Pall.) Dufur., $2n = 22$; Russia, Sakha (Yakutia) Republic, *ML & EN 849b* (NS).**GENTIANACEAE***Halenia corniculata* (L.) Cornaz, $2n = 22$; Russia, Republic of Buryatia, *E. Zolotovskaya & E. Gladkikh C168* (IRKU).**GERANIACEAE***Geranium sibiricum* L., $2n = 28$; Russia, Sakha (Yakutia) Republic, *ML & EN 858* (NS).**PLANTAGINACEAE***Linaria acutiloba* Fisch. ex Rchb., $2n = 12$; Russia, Krasnoyarskii Krai, *ML 1141h* (NS).*Linaria genistifolia* (L.) Mill., $2n = 12$; Russia, Samarskaya Oblast', *ML 1068* (NS).*Plantago canescens* Adams, $2n = 12$; Russia, Sakha (Yakutia) Republic, *ML & EN 798* (NS).*Veronica longifolia* L., $2n = 34$; Russia, Krasnoyarskii Krai, *ML 1144* (NS).**POACEAE***Glyceria lithuanica* (Gorski) Gorski, $2n = 20$; Russia, Republic of Buryatia, *A. Konovalov & E. Gladkikh C1570* (IRKU).**RANUNCULACEAE***Leptopyrum fumarioides* (L.) Rchb., $2n = 14$; Russia, Sakha (Yakutia) Republic, *ML & EN 790a* (NS).**VIOLACEAE***Viola epipsiloides* Á.Löve & D.Löve, $2n = 24$; Russia, Republic of Buryatia, *V. Chepinoga, A. Konovalov & E. Zolotovskaya C1583* (IRKU).

All materials for the chromosome column should be submitted electronically to: Karol Marhold, 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.

Maria A. Farinaccio,¹ Andressa Pirolla-Souza,² João P. Sardin Nasário³ & Eliana R. Forni-Martins^{3*}

- 1 *Universidade Federal de Mato Grosso do Sul (UFMS), Campus Pantanal, Corumbá, MS, Brasil/Programa de Pós-Graduação em Biologia Vegetal, CCBS, UFMS, Campo Grande, MS, Brasil*
 - 2 *Programa de Pós-Graduação em Biologia Vegetal, CCBS, Universidade Federal de Mato Grosso do Sul, CP 549, CEP 79070-900, Campo Grande, MS, Brasil*
 - 3 *Instituto de Biologia, Universidade Estadual de Campinas (UNICAMP)/Programa de Pós-Graduação em Biologia Vegetal, IB, UNICAMP, CP 6109, CEP 13083-970, Campinas, Brasil*
- * Author for correspondence: elianafm@unicamp.br

All materials CNH; collectors: MAF = Maria Ana Farinaccio, MFF = Mariana Ferrari Felismino; vouchers in CGMS.

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APOCYNACEAE

- Araujia odorata* (Hook. & Arn.) Fontella & Goyder, $2n = 20$; Brazil, Mato Grosso do Sul, MAF & al. 1000.
Araujia stormiana Morong, $2n = 20$; Brazil, Mato Grosso do Sul, MAF & MFF 917.
Araujia stuckertiana (Kurtz ex Heger) Fontella & Goyder, $2n = 20$; Brazil, Mato Grosso do Sul, Corumbá, MAF & al. 935.
Araujia variegata (Griseb.) Fontella & Goyder, $2n = 20$; Brazil, Mato Grosso do Sul, MAF & MFF 910.

Aïda Gasmi,¹ Laurent Hardion^{2*} & Régine Verlaque³

- 1 *Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Université, Avenue Escadrille Normandie Niemen, Case 461, 13013 Marseille, France*
 - 2 *Laboratoire Image, Ville, Environnement (LIVE), UMR CNRS, ENGEES, Université de Strasbourg, Institut de Botanique, 28 rue Goethe, 67083 Strasbourg, France*
 - 3 *Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Université, Case 4, 3 Place Victor Hugo, 13331 Marseille Cedex 3, France*
- * Author for correspondence: hardion@unistra.fr

All materials CHN, gathered in situ in SE France, fixed on flowers (*F*) or seedlings (*S*) produced from seeds collected by us or by the Conservatoire Botanique National de Corse (CBNC), identified and counted by A. Gasmi, L. Hardion, and R. Verlaque. The present study extends and revises the previous and unpublished results of M. Seidenbinder. Collectors: AG = A. Gasmi, MS = M. Seidenbinder, RV = R. Verlaque, SY = S. Youssef. Vouchers are deposited in MARS.

We would like to thank our botanist colleagues P. Donadille, A. Lavagne, P. Moutte and B. Girerd, for their help during field research.

FABACEAE

- Genista corsica* (Loisel.) DC., $2n = 42$; France, Corsica, RV F95-124.
Genista lobelii DC., $n = 9$, $2n = 18$; France, RV F88-01. $2n = 18$; France, AG & SY S14, AG & SY S16.
Genista pulchella Vis., $n = 9$, $2n = 18$; France, AG F12-01, MS & RV F84-433, MS & RV F84-436, MS & RV F84-438, MS & RV F84-440, MS F87-107, MS F84-429. $2n = 18$; France, AG & SY S09-05, MS F84-366, AG & SY S09-04, MS F84-397, MS S86-515, MS F87-122, MS

- F87-123. $n = (11), 12, 2n = 22-24$; France, MS F83-186, MS F83-187, MS & RV F84-432, MS & RV F84-434, MS & RV F84-437, MS & RV F84-439, MS F87-108, AG S12-02. $n = (10), 13, (15), 2n = 27$; France, MS F84-371, MS F84-379. $n = 18, 2n = 36$; France, MS F84-518, MS F84-519, MS S84-548, MS S85-169, MS F87-124, MS F87-125, MS F87-126, AG & SY F09-02, AG & RV F12-102, AG & RV F12-104, AG & RV F12-105, AG & RV F12-109, AG & RV F12-111, AG & RV F12-113.
Genista salzmannii DC. var. *salzmannii*, $2n = 18$; France, Corsica, CBNC-Piazza SII-117, RV F95-104.
Genista salzmannii var. *lobelioides* (Gamisans) Gamisans & Jeanm., $2n = 36$; France, Corsica, CBNC-Piazza SII-145.
Genista scorpius (L.) DC., $n = 20, 2n = ca. 40$; France, MS & RV F84-444, MS & RV F84-425, MS F84-266. $2n = ca. 80$; France, RV F84-444, MS & RV F84-425, MS F84-266. $2n = ca. 80$; France, RV F09-115, RV F09-116, RV F09-124.

Aleksandr A. Gnutikov,^{1*} Marina V. Protopopova,² Vasilii V. Pavlichenko² & Victor V. Chepinoga^{3,4}

- 1 *The N.I. Vavilov Institute of Plant Genetic Resources (VIR), Bolshaya Morskaya Str. 44, 190000 St.-Petersburg, Russia*
 - 2 *Siberian Institute of Plant Physiology and Biochemistry SB RAS, Lermontov Str. 132, 664033 Irkutsk, Russia*
 - 3 *The V.B. Sochava Institute of Geography SB RAS, Ulan-Batorskaya Str. 1, 664033 Irkutsk, Russia*
 - 4 *Irkutsk State University, Karl Marx Str. 1, 664003 Irkutsk, Russia*
- * Author for correspondence: alexandr2911@yandex.ru

All materials CHN; collectors: MP = M.V. Protopopova, VCH = V.V. Chepinoga, VP = V.V. Pavlichenko; vouchers deposited in IRKU.

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APIACEAE

- Angelica decurrens* (Ledeb.) B.Fedtsch., $2n = 22$; Russia, Republic of Buryatia, MP & VP C1525.

GENTIANACEAE

- Swertia baicalensis* Popov ex Pissjauk., $2n = 26$; Russia, Republic of Buryatia, MP & VP C1527.

ONAGRACEAE

- Epilobium montanum* L., $2n = 36$; Russia, Republic of Buryatia, MP & VP C1516.

PRIMULACEAE

- Primula pallasii* Lehm., $2n = 22$; Russia, Irkutskaya Oblast', MP, VP & VCH C1542.

RANUNCULACEAE

- Anemone altaica* Fisch. ex C.A.Mey., $2n = 32$; Russia, Republic of Buryatia, MP & VP C1535, MP, VP & VCH C1536; Russia, Irkutskaya Oblast', MP, VP & VCH C1539, MP, VP & VCH C1543.
Anemone baicalensis Turcz. ex Ledeb., $2n = 28$; Russia, Republic of Buryatia, MP & VP C1501, MP & VP C1504, MP & VP C1506, MP & VP C1507, MP & VP C1508, MP & VP C1509, MP & VP C1513, MP & VP C1515, MP & VP C1519, MP, VP & VCH C1534; Russia, Irkutskaya Oblast', MP & VP C1522, MP & VP C1532, MP, VP & VCH C1541, MP, VP & VCH C1548.
Caltha palustris L., $2n = 32$; Russia, Republic of Buryatia, MP & VP C1503, MP & VP C1505, MP & VP C1520, MP & VP C1523.
Eranthis sibirica DC., $2n = 16$; Russia, Republic of Buryatia, MP & VP C1511, MP & VP C1517.

Denis A. Krivenko^{1,2*} & Marina O. Burlyaeva³

- 1 *Siberian Institute of Plant Physiology & Biochemistry of the Siberian Branch of the Russian Academy of Sciences, 132 Lermontov Str., 664033 Irkutsk, Russia*
 - 2 *Irkutsk Scientific Center of the Siberian Branch of the Russian Academy of Sciences, 134 Lermontov Str., 664033 Irkutsk, Russia*
 - 3 *Federal Research Center the N.I. Vavilov All-Russian Institute of Plant Genetic Resources, 42–44 Bol'shaya Morskaya Str., 190000 St. Petersburg, Russia*
- * Author for correspondence: krivenko.irk@gmail.com

All materials CHN; collectors: MOB = Marina O. Burlyaeva; vouchers in IRK (*Nelumbo nucifera* Gaertn.) and WIR (*Vicia* L.).

The study was supported by the Russian Foundation for Basic Research (research grant no. 15-04-05372a).

FABACEAE

- Vicia ohwiana* Hosok., $2n = 12$; Russia, Primorskii Krai, MOB 10671, MOB 10672, 14 Oct 2013, MOB s.n. $2n = 24$; Russia, Primorskii Krai, MOB 10674.
- Vicia unijuga* A. Braun, $2n = 12$; Russia, Irkutskaya Oblast', MOB 10661. $2n = 24$; Russia, Primorskii Krai, MOB 10662, 27 Sep 2011, MOB s.n., A. Sh. Sabitov 10663.
- Vicia unijuga* var. *apoda* Maxim., $2n = 12$; Russia, Primorskii Krai, MOB 10670. $2n = 24$; Russia, Primorskii Krai, MOB 10664, MOB 10665, MOB 10666, MOB 10667, MOB 10668, MOB 10669, 9 Oct 2013, MOB s.n., MOB 10673.

NELUMBONACEAE

- Nelumbo nucifera* Gaertn. s.l., $2n = 16$; Russia, Primorskii Krai, MOB 39873.

Tatiana Miháliková,^{1*} Lenka Mártonfiová² & Iva Hodálová¹

- 1 *Institute of Botany, Slovak Academy of Sciences, Dúbravská cesta 9, 845 23 Bratislava, Slovak Republic*
 - 2 *Pavol Jozef Šafárik University, Botanical Garden, Mánesova 23, 04352 Košice, Slovak Republic*
- * Author for correspondence: tatiana.mihalikova@savba.sk

Chromosome numbers counted by L. Mártonfiová; DNA ploidy level ascertained by T. Miháliková; collectors: DRL = D.R. Letz, IH = I. Hodálová, PM = P. Mereda, TM = T. Miháliková; vouchers are deposited in SAV.

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POLYGONACEAE

- Rumex maritimus* L.
 $2n = 4x = 40$, CHN. Slovakia, TM SK45/I.
 $2n \sim 4x \sim 40$, $2C = 2.09\text{--}2.22$ pg, FCM. Austria, TM AT42/1, TM AT42/2, TM AT42/3, TM AT42/4, TM AT42/5, TM AT42/6, TM AT42/7, TM AT42/8, TM AT42/9, TM AT42/10; Czech Republic, TM CZ35/1, TM CZ35/2, TM CZ35/3, TM CZ35/4, TM CZ35/5, TM CZ35/6, TM CZ35/7, TM CZ35/8, TM CZ37/1, TM CZ37/2, TM CZ37/3, TM CZ37/4, TM CZ37/5, TM CZ37/6, TM CZ37/7, TM CZ37/8, TM CZ37/9, TM CZ37/10; Hungary, TM HU29/1, TM HU29/2, TM HU29/3, TM HU29/4, TM HU29/5, TM HU29/6, TM HU33/1, TM HU33/2, TM HU33/3, TM HU33/4, TM HU33/5, TM HU33/6, TM HU33/7, TM HU33/8, TM HU33/9, TM HU33/10, TM HU33/11, TM HU33/12, TM HU40/1, TM HU40/2, TM HU44/1; Slovakia, TM SK2/1, TM SK2/2, TM SK2/3, TM SK2/4, TM SK2/5, TM SK2/6, TM SK2/7, TM SK2/8, TM SK2/9,

TM SK2/10, TM SK12/1, TM SK12/2, TM SK12/3, TM SK12/4, TM SK12/5, TM SK14/1, TM SK14/2, TM SK14/3, TM SK14/4, TM SK14/5, TM SK14/6, TM SK14/7, TM SK14/8, TM SK14/9, TM SK14/10, TM SK15/1, TM SK15/2, TM SK15/3, TM SK15/4, TM SK15/5, TM SK15/6, TM SK15/7, TM SK15/8, TM SK15/9, TM SK15/10, TM SK17/1, TM SK17/2, TM SK17/3, TM SK17/4, TM SK17/5, TM SK17/6, TM SK17/7, TM SK17/8, TM SK17/9, TM SK17/10, TM SK19/1, TM SK19/2, TM SK19/3, TM SK19/4, TM SK19/5, TM SK19/6, TM SK19/7, TM SK19/8, TM SK19/9, TM SK19/10, TM SK20/1, TM SK20/2, TM SK20/3, TM SK20/4, TM SK20/5, TM SK20/6, TM SK20/7, TM SK20/8, TM SK20/9, TM SK20/10, TM SK22/1, TM SK22/2, TM SK22/3, TM SK22/4, TM SK22/5, TM SK22/6, TM SK22/7, TM SK22/8, TM SK22/9, TM SK23/1, TM SK23/2, TM SK23/3, TM SK23/4, TM SK23/5, TM SK23/6, TM SK23/7, TM SK23/8, TM SK23/9, TM SK23/10, TM SK34/1, TM SK34/2, TM SK34/3, TM SK34/4, TM SK34/5, TM SK34/6, TM SK34/7, TM SK34/8, TM SK34/9; Sweden, IH, PM & DRL SE24/2, IH, PM & DRL SE24/3, IH, PM & DRL SE24/4, IH, PM & DRL SE24/5, IH, PM & DRL SE24/6, IH, PM & DRL SE24/7.

Rumex palustris Sm.

$2n = 6x = 60$, CHN. Slovakia, TM SK46/I.

$2n \sim 6x \sim 60$, $2C = 3.45\text{--}3.65$ pg, FCM. Austria, TM AT36/1, TM AT36/2, TM AT36/3, TM AT36/4, TM AT36/5, TM AT36/6, TM AT36/7, TM AT36/8, TM AT36/9, TM AT36/10, TM AT41/1, TM AT41/2, TM AT41/3, TM AT41/4, TM AT41/5, TM AT41/6, TM AT41/7, TM AT41/8, TM AT41/9, TM AT41/10; Czech Republic, TM CZ43/1; Hungary, TM HU26/1, TM HU26/2, TM HU26/3, TM HU26/4, TM HU26/5, TM HU26/6, TM HU26/7, TM HU26/8, TM HU26/9, TM HU26/10, TM HU27/1, TM HU27/2, TM HU27/3, TM HU27/4, TM HU27/5, TM HU27/6, TM HU27/7, TM HU27/8, TM HU27/9, TM HU28/1, TM HU28/2, TM HU28/3, TM HU28/4, TM HU28/5, TM HU28/6, TM HU28/7, TM HU28/8, TM HU28/9, TM HU28/10, TM HU30/1, TM HU30/2, TM HU30/3, TM HU30/4, TM HU30/5, TM HU30/6, TM HU30/7, TM HU30/8, TM HU30/9, TM HU30/10, TM HU31/1, TM HU31/2, TM HU31/3, TM HU31/4, TM HU31/5, TM HU31/6, TM HU31/7, TM HU31/8, TM HU31/9, TM HU32/1, TM HU32/2, TM HU32/3, TM HU32/4, TM HU32/5, TM HU32/6, TM HU32/7, TM HU32/8, TM HU32/9, TM HU32/10, TM HU38/1, TM HU38/2, TM HU38/3, TM HU38/4, TM HU39/1, TM HU39/2, TM HU39/3, TM HU39/4, TM HU39/5, TM HU39/6, TM HU39/7, TM HU39/8, TM HU39/9, TM HU39/10; Slovakia, TM & IH SK1/1, TM & IH SK1/2, TM & IH SK1/3, TM & IH SK1/4, TM & IH SK1/5, TM & IH SK1/6, TM & IH SK1/7, TM & IH SK1/8, TM SK3/1, TM SK3/2, TM SK3/3, TM SK3/4, TM SK3/5, TM SK3/6, TM SK3/7, TM SK3/8, TM SK3/9, TM SK3/10, TM SK4/1, TM SK4/2, TM SK4/3, TM SK4/4, TM SK4/5, TM SK4/6, TM SK4/7, TM SK4/8, TM SK4/9, TM SK4/10, TM SK5/1, TM SK5/2, TM SK5/3, TM SK5/4, TM SK5/5, TM SK5/6, TM SK5/7, TM SK5/8, TM SK5/9, TM SK5/10, TM SK6/1, TM SK6/2, TM SK6/3, TM SK6/4, TM SK6/5, TM SK6/6, TM SK6/7, TM SK6/8, TM SK6/9, TM SK6/10, TM SK7/1, TM SK7/2, TM SK7/3, TM SK7/4, TM SK7/5, TM SK7/6, TM SK7/7, TM SK7/8, TM SK7/9, TM SK7/10, TM & PM SK8/1, TM & PM SK8/2, TM & PM SK8/3, TM & PM SK8/4, TM & PM SK8/5, TM & PM SK8/6, TM & PM SK8/7, TM & PM SK8/8, TM & PM SK8/9, TM & PM SK8/10, TM SK9/1, TM SK9/2, TM SK9/3, TM SK9/4, TM SK9/5, TM SK9/6, TM SK9/7, TM SK9/8, TM SK9/9, TM SK9/10, TM SK10/1, TM SK10/2, TM SK10/3, TM SK10/4, TM SK10/5, TM SK10/6, TM SK10/7, TM SK10/8, TM SK10/9, TM SK10/10, TM SK11/1, TM SK11/2, TM SK11/3, TM SK11/4, TM SK11/5, TM SK11/6, TM SK11/7, TM SK11/8, TM SK11/9, TM SK11/10, TM SK13/1, TM SK13/2, TM SK13/3, TM SK13/4, TM SK13/5, TM SK13/6, TM SK13/7, TM SK13/8, TM SK13/9, TM SK13/10, TM SK16/1, TM SK16/2, TM SK16/3, TM SK16/4, TM SK16/5, TM SK16/6, TM SK16/7, TM SK16/8, TM SK16/9, TM SK16/10, TM SK18/1, TM SK18/2, TM SK18/3, TM SK18/4, TM SK18/5, TM SK18/6, TM SK18/7, TM SK18/8, TM SK18/9, TM SK18/10, TM SK21/1, TM SK21/2, TM SK21/3, TM SK21/4, TM SK21/5, TM SK21/6, TM SK21/7, TM SK21/8, TM SK21/9, TM SK21/10.

Nina S. Probatova,^{1*} Sergey G. Kazanovsky,²
Vyacheslav Yu. Barkalov¹ & Vitaly A. Nechaev¹

1 *Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletiya Ave., 690022 Vladivostok, Russia*

2 *Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of the Russian Academy of Sciences, 132 Lermontova Str., 664033 Irkutsk, Russia*

* Author for correspondence: *probatova@ibss.dvo.ru*

All materials CHN; collectors: *SGK* = S.G. Kazanovsky, *VAN* = V.A. Nechaev, *VYB* = V.Yu. Barkalov.

ALLIACEAE

Allium condensatum Turcz., $2n = 16$; Russia, Primorskii Krai, *VYB* 12617 (VLA).

AMARANTHACEAE

Amaranthus caudatus L., $2n = 32$; Russia, Primorskii Krai, *VAN* 12887 (VLA).

ASPARAGACEAE

Polygonatum humile Fisch. ex Maxim., $2n = 20$; Russia, Primorskii Krai, *VYB* 12642 (VLA).

ASTERACEAE

Ambrosia artemisiifolia L., $2n = 36$; Russia, Primorskii Krai, *VAN* 12949 (VLA).

Cirsium vlassovianum Fisch. ex DC., $2n = 28$; Russia, Zabaikal'skii Krai, *SGK* 12524 (IRK, VLA).

Grindelia squarrosa (Pursh) Dunal, $2n = 12$; Russia, Primorskii Krai, *VAN* 12885 (VLA).

Hieracium korshinskiyi Zahn, $2n = 36$; Russia, Republic of Buryatia, *SGK* 12950 (IRK, VLA).

Ixeridium gramineum (Fisch.) Tzvelev, $2n = 14$; Russia, Republic of Buryatia, *SGK* 12897 (IRK, VLA).

Kalimeris incisa (Fisch.) DC., $2n = 18$; Russia, Primorskii Krai, *VYB* 12633 (VLA).

Senecio viscosus L., $2n = 40$; Russia, Republic of Buryatia, *M.M. Ivanova* 12927 (IRK, VLA).

Tephrosia kirilowii (Turcz. ex DC.) Holub, $2n = 48$; Russia, Primorskii Krai, *VAN* 12764 (VLA).

BRASSICACEAE

Brassica elongata subsp. *integrifolia* (Boiss.) Breistr., $2n = 30$; Russia, Irkutskaya Oblast', A.V. Verkhozina, *SGK* & O.A. Chernyshova 12898 (IRK, VLA).

Camelina microcarpa Andr. ex DC., $2n = 16$; Russia, Republic of Buryatia, *SGK* 12934 (IRK, VLA).

Lepidium apetalum Willd., $2n = 16$; Russia, Republic of Buryatia, *SGK* 12930 (IRK, VLA).

CAMPANULACEAE

Campanula patula L., $2n = 20$; Russia, Republic of Buryatia, *SGK* 12914 (IRK, VLA).

CAPRIFOLIACEAE

Patrinia rupestris (Pall.) Dufur., $2n = 22$; Russia, Primorskii Krai, *VAN* 12891 (VLA).

CARYOPHYLLACEAE

Dianthus versicolor Fisch. ex Link, $2n = 30$; Russia, Primorskii Krai, *VYB* 12618 (VLA).

Lychnis flos-cuculi L., $2n = 24$; Russia, Irkutskaya Oblast', *M.M. Ivanova* 12932 (IRK, VLA).

Spergularia rubra (L.) J.Presl & C.Presl, $2n = 18$; Russia, Republic of Buryatia, *M.M. Ivanova* 12908 (IRK, VLA).

CHENOPODIACEAE

Teloxys aristata (L.) Moq., $2n = 18$; Russia, Irkutskaya Oblast', *M.M. Ivanova* 12928 (IRK, VLA).

ELAEAGNACEAE

Hippophae rhamnoides L., $2n = 24$; Russia, Republic of Buryatia, *SGK* 12910 (IRK, VLA).

ERICACEAE

Rhododendron aureum Georgi, $2n = 52$; Russia, Irkutskaya Oblast', *SGK* 12915 (IRK, VLA).

Vaccinium myrtillus L., $2n = 24$; Russia, Republic of Buryatia, *SGK* 12920 (IRK, VLA).

EUPHORBIACEAE

Euphorbia lucorum Rupr., $2n = 28$; Russia, Primorskii Krai, *VYB* 12620 (VLA).

Euphorbia pseudo-chamaesyce Fisch. & C.A.Mey., $2n = 22$; Russia, Republic of Buryatia, *SGK* 12933 (IRK, VLA), *SGK* 12931 (IRK, VLA).

FABACEAE

Glycyrrhiza pallidiflora Maxim., $2n = 16$; Russia, Primorskii Krai, *VAN* 12924 (VLA).

Gueldenstaedtia verna (Georgi) Boriss., $2n = 16$; Russia, Primorskii Krai, *VAN* 12869 (VLA).

Podocarpium mandshuricum (Maxim.) Czerep., $2n = 22$; Russia, Primorskii Krai, *VAN* 12810 (VLA).

GENTIANACEAE

Swertia baicalensis Popov ex Pissjauk., $2n = 32$; Russia, Irkutskaya Oblast', *SGK* 12916 (IRK, VLA).

LAMIACEAE

Dracocephalum ruyschiana L., $2n = 14$; Russia, Irkutskaya Oblast', *SGK* 12911 (IRK, VLA).

Leonurus macranthus Maxim., $2n = 20$; Russia, Primorskii Krai, *VAN* 12892 (VLA).

LILIACEAE

Lilium buschianum Lodd., $2n = 24$; Russia, Primorskii Krai, *VYB* 12625 (VLA).

PLANTAGINACEAE

Veronica krylovii Schischk., $2n = 18$; Russia, Irkutskaya Oblast', *SGK* 12905 (IRK, VLA).

POACEAE

Achnatherum sibiricum (L.) Keng ex Tzvelev, $2n = 24$; Russia, Republic of Altai, *SGK* 12561 (IRK, VLA).

Agrostis clavata Trin., $2n = 42$; Russia, Primorskii Krai, *VYB* 12648 (VLA).

Calamagrostis angustifolia Kom., $2n = 28$; Russia, Primorskii Krai, *VAN* 12695 (VLA).

Poa angustifolia L., $2n = 56$; Russia, Primorskii Krai, *VAN* 12781 (VLA).

Spodiopogon sibiricus Trin., $2n = 40$; Russia, Primorskii Krai, *VYB* 12652 (VLA).

POLYGONACEAE

Rheum rhabarbarum L., $2n = 44$; Russia, Irkutskaya Oblast', *SGK* 12907 (IRK, VLA).

RANUNCULACEAE

Aquilegia sibirica Lam., $2n = 16$; Russia, Irkutskaya Oblast', *SGK & M.M. Ivanova 12917* (IRK, VLA).

ROSACEAE

Fragaria viridis Weston, $2n = 14$; Russia, Republic of Buryatia, *SGK 12938* (IRK, VLA).

Spiraea alpina Pall., $2n = 18$; Russia, Irkutskaya Oblast', *SGK 12900* (IRK, VLA).

RUBIACEAE

Galium vaillantii DC., $2n = 22$; Russia, Irkutskaya Oblast', *M.M. Ivanova 12929* (IRK, VLA).

SOLANACEAE

Hyoscyamus niger L., $2n = 34$; Russia, Zabaikal'skii Krai, *SGK & E.A. Bondarevich 12906* (IRK, VLA); Russia, Primorskii Krai, *VAN 12586* (VLA).

VIOLACEAE

Viola brachysepalata Maxim., $2n = 20$; Russia, Primorskii Krai, *VYB 12645* (VLA).

Viola collina Besser, $2n = 20$; Russia, Primorskii Krai, *VYB 12583* (VLA).

Viola extremorientalis Vorosch. & N.S.Pavlova, $2n = 24$; Russia, Primorskii Krai, *VYB 12587* (VLA).

Viola muehldorfii Kiss, $2n = 24$; Russia, Primorskii Krai, *VYB 12588* (VLA).

Viola primorskajensis (W.Becker) Vorosch., $2n = 24$; Russia, Primorskii Krai, *VYB 12590* (VLA).

Viola woroschilovii Bezd., $2n = 24$; Russia, Primorskii Krai, *T.A. Bezdeleva 12904* (VLA).

Nina S. Probatova,^{1*} Denis A. Krivenko² & Alexandr L. Ebel³

1 *Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletya Ave., 690022 Vladivostok, Russia*

2 *Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of the Russian Academy of Sciences, 132 Lermontova Str., 664033 Irkutsk, Russia*

3 *National Research Tomsk State University, 36 Lenina Ave., 634050 Tomsk, Russia*

* Author for correspondence: *probatova@ibss.dvo.ru*

All materials CHN; collectors: *ALE* = A.L. Ebel, *DAK* = D.A. Krivenko.

ALLIACEAE

Allium vodopjanovae N.Friesen, $2n = 16$; Russia, Republic of Khakassia, *ALE 12750* (TK).

AMARANTHACEAE

Amaranthus retroflexus L., $2n = 32$; Russia, Irkutskaya Oblast', *DAK 12601* (IRK, VLA).

Atriplex hortensis L., $2n = 18$; Russia, Irkutskaya Oblast', *DAK 12848* (IRK, VLA).

Corispermum ulopterum Fenzl ex Ledeb., $2n = 18$; Russia, Republic of Buryatia, *DAK 12865* (IRK, VLA).

ASPARGACEAE

Asparagus schoberioides Kunth, $2n = 20$; Russia, Primorskii Krai, *DAK 12605* (IRK, VLA).

ASTERACEAE

Gnaphalium sylvaticum L., $2n = 56$; Russia, Republic of Buryatia, *DAK 12857* (IRK, VLA).

Hieracium umbellatum agg., $2n = 27$; Russia, Irkutskaya Oblast', *DAK 12867* (IRK, VLA).

Jacobaea erucifolia (L.) G.Gaertn., B.Mey. & Scherb., $2n = 40$; Russia, Republic of Sakha-Yakutia, *A.V. Verkhovina & DAK 12566* (IRK, VLA).

Saussurea salicifolia (L.) DC., $2n = 26$; Russia, Irkutskaya Oblast', *DAK 12834* (IRK, VLA).

BORAGINACEAE

Hackelia deflexa Opiz, $2n = 24$; Russia, Republic of Khakassia, *ALE 12736* (TK).

BRASSICACEAE

Capsella bursa-pastoris (L.) Medik., $2n = 16$; Kazakhstan, Yuzhno-Kazakhstanskaya Oblast', *A.N. Kupriyanov & ALE 12724* (TK).

Erucastrum armoracioides Litv., $2n = 30$; Kazakhstan, Karagandinskaya Oblast', *ALE 12609* (TK).

EUPHORBIACEAE

Euphorbia virgata Waldst. & Kit., $2n = 60$; Russia, Republic of Buryatia, *DAK 12849* (IRK, VLA).

FABACEAE

Hedysarum turczaninovi Peschkova, $2n = 14$; Russia, Republic of Khakassia, *ALE 12775* (TK).

Oxytropis nuda Basil., $2n = 16+0-4B$; Russia, Republic of Khakassia, *ALE 12752* (TK).

Trifolium lupinaster L., $2n = 32$; Russia, Republic of Khakassia, *ALE 12774* (TK).

HYPERICACEAE

Hypericum maculatum Crantz, $2n = 16$; Russia, Tomskaya Oblast', *ALE 12753* (TK).

IRIDACEAE

Iris ensata Thunb., $2n = 24+0-1B$; Russia, Primorskii Krai, *DAK 12945* (IRK, VLA).

LAMIACEAE

Galeopsis bifida Boenn., $2n = 32$; Russia, Irkutskaya Oblast', *E.D. Krivenko & DAK 12854* (IRK, VLA).

MALVACEAE

Hibiscus trionum L., $2n = 56$; Russia, Primorskii Krai, *E.G. Rudyka 12921* (VLA).

ONAGRACEAE

Epilobium pseudorubescens A.K.Skvortsov, $2n = 36$; Russia, Tomskaya Oblast', *ALE 12734* (TK).

PAPAVERACEAE

Papaver nudicaule L., $2n = 42$; Russia, Irkutskaya Oblast', *DAK 12853* (IRK, VLA).

PLANTAGINACEAE

Cymbalaria muralis G.Gaertn., B.Mey. & Scherb., $2n = 14$; Russia, Primorskii Krai, *T.A. Bezdeleva 12902* (VLA).

Plantago asiatica L., $2n = 24$; Russia, Primorskii Krai, *V.P. Verkhohat & al. 9047* (VLA).

POACEAE

Echinochloa colona (L.) Link, $2n = 54$; China, Henan Province, *DAK 12833* (IRK, VLA).

Melica turczaninowiana Ohwi, $2n = 18$; Russia, Irkutskaya Oblast', DAK 12835 (IRK, VLA).
Panicum miliaceum L., $2n = 36$; Russia, Irkutskaya Oblast', A.V. Verkhovina 12039 (IRK, VLA).
Stipa krylovii Roshev., $2n = 44$; Russia, Irkutskaya Oblast', DAK 12840 (IRK, VLA).

POLYGONACEAE

Aconogonon ochreatum Nakai, $2n = 20$; Russia, Republic of Buryatia, DAK 12851 (IRK, VLA).
Rumex gmelinii Turcz., $2n = 40$; Russia, Irkutskaya Oblast', DAK 12839 (IRK, VLA).

PRIMULACEAE

Androsace filiformis Retz., $2n = 20$; Russia, Primorskii Krai, V.T. Lapenko 12925 (VLA).

RANUNCULACEAE

Ranunculus sceleratus L., $2n = 32$; Russia, Irkutskaya Oblast', E.V. Pradedova 12863 (IRK, VLA).

SCROPHULARIACEAE

Scrophularia incisa Weinm., $2n = 48$; Russia, Irkutskaya Oblast', DAK 12852 (IRK, VLA).
Scrophularia multicaulis Turcz., $2n = 24$; Russia, Republic of Khakassia, ALE 12738 (TK).

VIOLACEAE

Viola hirta L., $2n = 20$; Russia, Irkutskaya Oblast', DAK 12860 (IRK, VLA).
Viola philippica Cav., $2n = 48$; China, Girin Province, DAK 12936 (IRK, VLA).
Viola ruppilii All., $2n = 24$; Russia, Irkutskaya Oblast', DAK 12866 (IRK, VLA). $2n = 48$; Russia, Irkutskaya Oblast', DAK 12862 (IRK, VLA).
Viola sachalinensis H.Boissieu, $2n = 20$; Russia, Republic of Buryatia, DAK 12858 (IRK, VLA).

Nina S. Probatova,^{1*} Vitaly P. Seledets² & Elvira G. Rudyka¹

- 1 Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletya Prospect, 690022 Vladivostok, Russia
- 2 Pacific Institute of Geography, Far East Branch of the Russian Academy of Sciences, 7 Radio Street, 690041 Vladivostok, Russia

* Author for correspondence: probatova@ibss.dvo.ru

All materials CHN; vouchers in VLA.

ACORACEAE

Acorus calamus L., $2n = 24$; Russia, Primorskii Krai, V.P. Verkholat & al. 9046.

ADOXACEAE

Adoxa moschatellina L., $2n = 36$; Russia, Primorskii Krai, A.E. Kozhevnikov & Z.V. Kozhevnikova 10161.

APIACEAE

Cnidium dahuricum Fisch. & C.A.Mey., $2n = 20$; Russia, Primorskii Krai, Ya.I. Lelikov 7242.

ARACEAE

Arisaema peninsulae Nakai, $2n = 28$; Russia, Primorskii Krai, N.S. Pavlova 10201.

ASTERACEAE

Bidens tripartita L., $2n = 48$; Russia, Primorskii Krai, V.A. Nechaev 10783.
Brachyactis angusta (Lindl.) Britton, $2n = 14$; Russia, Primorskii Krai, V.T. Lapenko 11969.
Ixeridium gramineum (Fisch.) Tzvelev, $2n = 14$; China, Heilongjiang Province, N.S. Probatova & V.P. Seledets 8950.
Leontodon autumnalis L., $2n = 12+0-2-3B$; Russia, Primorskii Krai, V.T. Lapenko 12846.
Phalacrocoma strigosum (Muhl. ex Willd.) Tzvelev, $2n = 27$; Russia, Primorskii Krai, V.T. Lapenko 11126.
Pulicaria vulgaris Gaertn., $2n = 18$; Russia, Krasnodarskii Krai, N.S. Probatova & V.P. Seledets 11602.

BRASSICACEAE

Rorippa palustris (L.) Besser, $2n = \text{ca. } 32$; China, Heilongjiang Province, N.S. Probatova & V.P. Seledets 8153.

CARYOPHYLLACEAE

Minuartia larinica (L.) Mattf., $2n = 26$; Russia, Amurskaya Oblast', V.P. Verkholat 10386.

LILIACEAE

Lloydia serotina (L.) Salisb. ex Rchb., $2n = 24$; Russia, Kamchatskii Krai, V.P. Verkholat 10224.

POACEAE

Anisantha tectorum (L.) Nevski, $2n = 14$; Russia, Astrakhanskaya Oblast', N.S. Probatova & V.P. Seledets 11606.
Briža media L., $2n = 14$; Russia, Leningradskaya Oblast', N.S. Probatova 4345, N.S. Probatova 4369. $2n = 28$; Russia, Leningradskaya Oblast', N.S. Probatova 4358.
Bromopsis australis (Zherebina) Tzvelev & Prob., $2n = 28$; Kazakhstan, N.S. Probatova & V.P. Seledets 5133; Kyrgyzstan, N.S. Probatova & V.P. Seledets 5175.
Digitaria ciliaris (Retz.) Koeler, $2n = 36$; Russia, Krasnodarskii Krai, N.S. Probatova & V.P. Seledets 12343.
Elymus woroschilowii Prob., $2n = 42$; Russia, Primorskii Krai, E.A. Chubar' 12427.
Elytrigia villosa (Drobow) Tzvelev, $2n = 28$; Russia, Republic of Sakha-Yakutia, I.A. Galanina 12872.
Eremopyrum triticeum (Gaertn.) Nevski, $2n = 14$; Russia, Republic of Daghestan, N.S. Probatova & V.P. Seledets 5560.
Leymus interior (Hultén) Tzvelev, $2n = 28$; Russia, Republic of Sakha-Yakutia, N.S. Probatova & V.P. Seledets 3773.
Phalaroides arundinacea (L.) Rauschert, $2n = 28$; Russia, Kamchatskii Krai, N.S. Probatova & E.G. Rudyka 1940.
Poa angustifolia L., $2n = \text{ca. } 70$; Russia, Leningradskaya Oblast', A.P. Sokolovskaya 38.
Poa lapponica Prokudin, $2n = 28$; Russia, Republic of Karelia, N.S. Probatova & V.P. Seledets 11264.
Poa skvortzovii Prob., $2n = 42$; Russia, Primorskii Krai, N.S. Probatova 5567.
Setaria maximowiczii Tzvelev & Prob., $2n = 18$; Russia, Primorskii Krai, V.A. Nechaev 8959.

POLYGONACEAE

Persicaria amphibia (L.) Delarbre, $2n = 66$; Russia, Primorskii Krai, V.P. Verkholat & al. 9051.
Rumex acetosa L., $2n = 14$; Russia, Primorskii Krai, V.P. Verkholat & al. 9053.

RANUNCULACEAE

Aconitum woroschilowii Lufarov (A. maximum auct.: Sokolovskaya, 1963), $2n = 32$; Russia, Kamchatskii Krai, A.P. Sokolovskaya 201.

Caltha silvestris Vorosch., $2n = 64$; Russia, Primorskii Krai, V.T. Lapenko 12845.

ROSACEAE

Potentilla paradoxa Nutt., $2n = 28$; Russia, Primorskii Krai, N.S. Probatova & V.P. Seledets 8754; China, Heilongjiang Province, N.S. Probatova & V.P. Seledets 8966.

Julia V. Shner,¹ Tatiana V. Alexeeva,¹ Abdullo Kurbonov² & Michael G. Pimenov^{1*}

- 1 Botanical Garden, Moscow State University, 119234 Moscow, Russia
 - 2 Botany Department, Tajik State Pedagogical University, Rudaki Av. 121, 733740 Dushanbe, Republic of Tajikistan
- * Author for correspondence: mgpimenov@mail.ru

All material CHN, collected in Tajikistan, Sughd province; collectors: AK = A. Kurbonov, MP = M.G. Pimenov; vouchers in MW.

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APIACEAE

- Aegopodium tadshikorum* Schischk., $n = 11$; MP & AK 13.
Aphanopleura capillifolia (Regel & Schmalh.) Lipsky, $2n = 22$; AK 349.
Berula erecta (Huds.) Coville, $n = 10$; MP & AK 48.
Carum carvi L., $2n = 20$; AK 178, AK 246.
Elaeosticta hirtula (Regel & Schmalh.) Kljuykov, Pimenov & V.N. Tikhom., $n = 10$; MP & AK 36.
Eremodaucus lehmannii Bunge, $n = 9$; MP & AK 49.
Ferula karatavica Regel & Schmalh., $2n = 22$; AK 375.
Ferula karelinii Bunge, $n = 11$; MP & AK 52.
Ferula lithophila Pimenov, $n = 11$; MP & AK 40.
Ferula mogoltavica Lipsky ex Korovin, $2n = 22$; AK 296.
Ferula penninervis Regel & Schmalh., $n = 11$; MP & AK 22; $2n = 22$; AK 186.
Ferula samarkandica Korovin, $n = 11$; MP & AK 9.
Galagania tenuisecta (Regel & Schmalh.) M.G.Vassiljeva & Pimenov, $2n = 22$; AK 365.
Heracleum lehmannianum Bunge, $2n = 22$; AK 171.
Oedibasis apiculata (Kar. & Kir.) Koso-Pol., $n = 10$; MP & AK 62.
Pimpinella puberula (DC.) Boiss., $n = 10$; MP & AK 70.
Prangos fedtschenkoi (Regel & Schmalh.) Korovin, $n = 11$; MP & AK 53.
Prangos pabularia Lindl., $n = 11$; MP & AK 5.
Scandix stellata Banks & Sol., $2n = 20$; AK 187; AK 120.
Schrenkia golickeana (Regel & Schmalh.) B.Fedtsch., $n = 11$; MP & AK 8, MP & AK 10.
Schrenkia vaginata (Ledeb.) Fisch. & C.A.Mey., $n = 11$; MP & AK 35.
Sium medium Fisch. & C.A.Mey., $2n = 12$; AK 397.
Torilis arvensis (Huds.) Link, $n = 6$, MP & AK 69; $2n = 12$; AK 334.
Torilis leptophylla (L.) Rchb.f., $2n = 12$; AK 341.
Turgenia latifolia (L.) Hoffm., $2n = 18$; AK 267.

Régine Verlaque,^{1*} Annie Aboucaya,² Virgile Noble,^{3,4} Laurent Hardion⁵ & Bruno Vila¹

- 1 Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Univ., 3 Place V. Hugo, Case 4, 13331 Marseille Cedex 3, France
 - 2 Parc National de Port-Cros, Allée du Castel Sainte-Claire, BP 70220, 83406 Hyères Cedex, France
 - 3 Conservatoire Botanique National Méditerranéen de Porquerolles, 34 Avenue Gambetta, 83400 Hyères, France
 - 4 Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Univ., Europôle Méditerranéen de l'Arbois, 13100 Aix-en-Provence, France
 - 5 Université de Strasbourg, Laboratoire Image, Ville, Environnement (LIVE, UMR 7362 CNRS), Institut de Botanique, 28 rue Goethe, 67083 Strasbourg Cedex, France
- * Author for correspondence: regine.verlaque@imbe.fr

All materials CHN; fixed on flowers (F) or seedlings (S) produced from seeds collected by us or by the Conservatoire Botanique National Méditerranéen (CBNMED), and counted by R. Verlaque and B. Vila; vouchers in MARS.

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AMARANTHACEAE

Corispermum gallicum Iljin, $2n = 18$; SE France, CBNMED-Noble S13-04.

APIACEAE

- Bupleurum praealtum* L., $2n = 16$; SE France, Verlaque & Vila F09-146.
Heracleum pumilum Vill., $2n = 22$, $n = 11$; SE France, Verlaque F79-739.

APOCYNACEAE

Nerium oleander L., $2n = 22$; SE France, Hardion S11-140; Greece, Hardion S11-139.

ASTERACEAE

Hyoseris taurina (Pamp.) Martinoli, $2n = 16$; SE France, CBNMED-Noble S11-118.

BORAGINACEAE

Buglossoides arvensis subsp. *permixta* (Jord.) R.Fern., $2n = 28$; SE France, CBNMED-Noble S14-03.

CAMPANULACEAE

- Solenopsis corsica* (Meikle) M.B.Crespo, Serra & Juan, $2n = 28$; France, Corsica, Contandriopoulos F66-8.
Solenopsis laurentia (L.) C.Presl, $2n = 14$; SE France, Aboucaya F13-11, Aboucaya F13-12, Aboucaya F13-13; France, Port-Cros Island, Aboucaya F13-10.

CARYOPHYLLACEAE

Bufonia perennis Pourr., $2n = 16$; SE France, Aboucaya F08-12; $2n = 16+2B$; SE France, Aboucaya F08-11.

CAPRIFOLIACEAE

Nautia collina (Guérin) Jord., $2n = 20$; SE France, Verlaque F09-130.

EUPHORBIACEAE

Euphorbia davidii Subils, $2n = 56$; SE France, Verlaque S10-04.

FABACEAE

- Vicia dalmatica* A.Kern., $2n = 12$; SE France, *Verlaque F09-127*,
Verlaque F90-17.
Vicia tenuifolia Roth, $2n = 24$; SE France, *Verlaque F09-128*.

LILIACEAE

- Fritillaria involucrata* All., $2n = 24$; SE France, *Noble F11-114*.
Lilium martagon L., $2n = 24$; SE France, *Verlaque F09-136*.
Tulipa agenensis DC., $2n = 24$; SE France, *Filosa F95-03*.

ORCHIDACEAE

- Anacamptis coriophora* subsp. *fragrans* (Pollini) R.M.Bateman,
Pridgeon & M.W.Chase, $2n = 38$; SE France, *Verlaque F09-120*.
Serapias olbia Verg., $2n = 72$; SE France, *Aboucaya F11-13*.
Serapias parviflora Parl., $2n = 36$, $n = 18$; SE France, *Aboucaya F11-211*,
Aboucaya F11-212.
Serapias strictiflora Welw. ex Veiga, $2n = 72$; SE France, *Aboucaya F10-25*,
Aboucaya F10-26, *Aboucaya F10-27*.

POACEAE

- Narduroides salzmanii* (Boiss.) Rouy, $2n = 14$; SE France, *Verlaque F09-118*
and *F09-123*.

POLYGALACEAE

- Polygala nicaeensis* Risso ex W.D.J.Koch subsp. *nicaeensis*, $2n = 34$;
SE France, *Aboucaya F08-13*.

SCROPHULARIACEAE

- Scrophularia canina* subsp. *pinnatifida* var. *deschatresii* Gamisans,
 $2n = 24$, $n = 12$; France, N Corsica, *Verlaque F95-136*.
Scrophularia canina subsp. *ramosissima* (Loisel.) P. Fourn., $2n = 24$,
 $n = 12$; France, S Corsica, *Verlaque S95-103*; SE France, *Aboucaya F94-27*.
Scrophularia provincialis Rouy, $2n = 24$; SE France, *Verlaque & Vila F09-147*,
CBNMED-Noble F11-115, *Verlaque F12-114*.
Verbascum boerhavii L., $2n = 44-45$; SE France, *Verlaque & Vila F09-106*.
Verbascum sinuatum L., $2n = 30$; SE France, *Aboucaya F09-138*.

IOPB COLUMN

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Tatyana V. An'kova,^{1*} Maria N. Lomonosova¹ & Victor V. Chepinoga^{2,3}

1 Central Siberian Botanical Garden SB RAS, Zolotodolinskaya Str. 101, 630090 Novosibirsk, Russia

2 The V.B. Sochava Institute of Geography SB RAS, Ulan-Batorskaya Str. 1, 664033 Irkutsk, Russia

3 Irkutsk State University, Karl Marx Str. 1, 664003 Irkutsk, Russia

* Author for correspondence: *ankova_tv@mail.ru*

* First chromosome count from the given region.

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ALLIACEAE*Allium ramosum* L.* $2n = 32$, CHN. Russia, Sakha (Yakutia) Republic, Khangalasskii ulus, 37 km of Pokrovskii tract, Kuldaty river valley, steppe meadow, 61°44'N, 129°32'E, 23 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 831a* (NS) [Fig. 1A].*Allium splendens* Willd. ex Schult. & Schult.f. $2n = 16$, CHN. Russia, Sakha (Yakutia) Republic, Namskii ulus, northern vicinities of Maimaga village, edge of open birch-spruce woodlands, 63°02'N, 129°31'E, 21 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 798* (NS) [Fig. 1B].**APIACEAE***Peucedanum puberulum* Schischk.* $2n = 24$, CHN. Russia, Sakha (Yakutia) Republic, between Tulagino and Kapitonovka villages, on way to the Cape Khangalasskii, grass meadow, 61°17'N, 128°24'E, 30 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 898* (NS) [Fig. 1E].*Seseli condensatum* (L.) Rchb.f.* $2n = 22$, CHN. Russia, East Siberia, Sakha (Yakutia) Republic, Khangalasskii ulus, vicinities of Ulakhaan-An village, Lena River valley, steppe on the southern slope, 61°17'N, 128°24'E, 24 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 852* (NS) [Fig. 1D].*Sium suave* Walter* $2n = 12$, CHN. Russia, Sakha (Yakutia) Republic, Megino-Kangalasskii ulus, Kolymskii tract, river bank near the bridge across Suola River, 62°10'N, 130°38'E, 28 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 875* (NS) [Fig. 1C].**ASPARAGACEAE***Maianthemum bifolium* (L.) F.W.Schmidt $2n = 36, 54$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Ridge, near mouth of Vydrynaya River, on road side, 469 m alt., 51.48311°N, 104.84990°E, 7 Jul 2015, *E. Zolotovskaya & E. Gladkikh C1569* (IRKU).**ASTERACEAE***Artemisia jacutica* Drobow $2n = 18$, CHN. Russia, Sakha (Yakutia) Republic, Megino-Kangalasskii ulus, Kolymskii tract, Bestyakh village, sand dunes, 62°10'N, 130°38'E, 28 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 871* (NS) [Fig. 1F].*Artemisia obtusiloba* subsp. *martjanovii* (Krasch. ex

Poljakov) Krasnob.

 $2n = 42$, CHN. Russia, Sakha (Yakutia) Republic, Khangalasskii ulus, vicinities of Elanka village, rocky shore of the Lena River, 61°17'N, 128°24'E, 24 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 849a* (NS) [Fig. 1G].**BORAGINACEAE***Lappula anisacantha* (Turcz. ex Bunge) Gürke* $2n = 12$, CHN. Russia, Sakha (Yakutia) Republic, Megino-Kangalasskii ulus, 94th km of Kolymskii tract, road-side, 62°10'N, 130°38'E, 21 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 879* (NS).**CAPRIFOLIACEAE***Patrinia rupestris* (Pall.) Dufur.* $2n = 22$, CHN. Russia, Sakha (Yakutia) Republic, Khangalasskii ulus, vicinities of Elanka village, rocky shore of the Lena River, 61°17'N, 128°24'E, 24 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 849b* (NS) [Fig. 1H].**GENTIANACEAE***Halenia corniculata* (L.) Cornaz $2n = 22$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Ridge, near mouth of Vydryanaya River, on the forest edge, 464 m alt., 51.48387°N, 104.84861°E, 7 Jul 2015, *E. Zolotovskaya & E. Gladkikh C168* (IRKU).**GERANIACEAE***Geranium sibiricum* L.* $2n = 28$, CHN. Russia, Sakha (Yakutia) Republic, Khangalasskii ulus, vicinities of Ulakhaan-An village, near the corral, 61°17'N, 128°24'E, 24 Aug 2012, *M.N. Lomonosova & E.G. Nikolin 858* (NS).**PLANTAGINACEAE***Linaria acutiloba* Fisch. ex Rchb.* $2n = 12$, CHN. Russia, Krasnoyarskii Krai, Turukhansk Raion, Turukhansk town, pebble bank of the Yenisei River. 65°47'23.32"N, 87°58'34.39"E, 7 Aug 2014, *M.N. Lomonosova 1141h* (NS).*Linaria genistifolia* (L.) Mill.* $2n = 12$, CHN. Russia, Samarskaya Oblast', Toglyatti city, territory of the Institute of Ecology of Volga basin RAS, sandy cliff to the Volga River, 23 Sep 2013, *M.N. Lomonosova 1068* (NS).

Plantago canescens Adams

$2n = 12$, CHN. Russia, Sakha (Yakutia) Republic, Namskii Raion, northern vicinities of Maimaga village, edge of open birch-spruce woodlands, 63°02'N, 129°31'E, 31 Aug 2012, M.N. Lomonosova & E.G. Nikolin 798 (NS).

Veronica longifolia L.

$2n = 34$, CHN. Russia, Krasnoyarskii Krai, Turukhanskii Raion, Igarka town, wet meadow along the bank of the Yenisei River, 67°27'00.28"N 86°31'54.25"E, 8 Aug 2014, M.N. Lomonosova 1144 (NS).

POACEAE*Glyceria lithuanica* (Gorski) Gorski

$2n = 20$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Ridge, between Bolshoi Mamai and Malyy Mamai rivers, bank of the Mamaiskii brook,

507 m alt., 51.44063°N, 104.82035°E, 9 Jul 2015, A. Konovalov & E. Gladkikh C1570 (IRKU).

RANUNCULACEAE*Leptopyrum fumarioides* (L.) Rchb.

$2n = 14$, CHN. Russia, Sakha (Yakutia) Republic, Namskii ulus, Namskii tract, vicinities of Khamagatta village, abandoned field, 62°40'N, 129°41'E, 21 Aug 2012, M.N. Lomonosova & E.G. Nikolin 790a (NS).

VIOLACEAE*Viola epipsiloides* Á.Löve & D.Löve

$2n = 24$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, foothills of Khamar-Daban Ridge, 2.3 km to the south of Lake Baikal, lower course of Malyy Mamai River, floodplain forest, 504 m alt., 51.44966°N, 104.81711°E, 10 Jul 2015, V. Chepinoga, A. Konovalov & E. Zolotovskaya C1583 (IRKU).

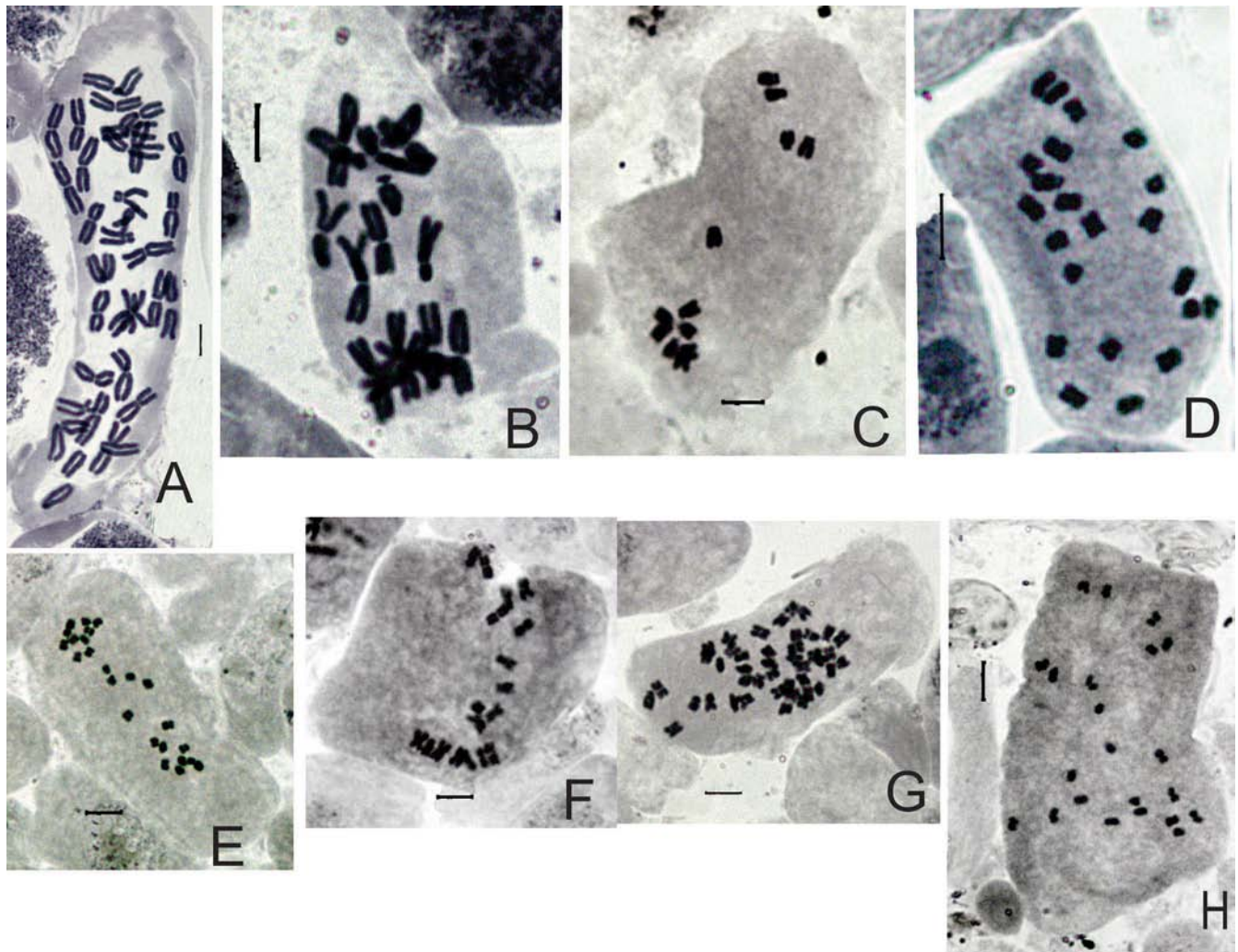


Fig. 1. Mitotic metaphase: **A**, *Allium ramosum*, $2n = 32$; **B**, *Allium splendens*, $2n = 16$; **C**, *Sium suave*, $2n = 12$; **D**, *Seseli condensatum*, $2n = 22$; **E**, *Peucedanum puberulum*, $2n = 24$; **F**, *Artemisia jacutica*, $2n = 18$; **G**, *Artemisia obtusiloba* subsp. *martjanovii*, $2n = 42$; **H**, *Patrinia rupestris*, $2n = 22$. — Scale bars = 5 μ m.

María A. Farinaccio,¹ Andressa Pirolla-Souza,² João P. Sardin Nasário³ & Eliana R. Forni-Martins^{3*}

¹ Universidade Federal de Mato Grosso do Sul (UFMS), Campus Pantanal, Corumbá, MS, Brasil/Programa de Pós-Graduação em Biologia Vegetal, CCBS, UFMS, Campo Grande, MS, Brasil

² Programa de Pós-Graduação em Biologia Vegetal, CCBS, Universidade Federal de Mato Grosso do Sul, CP 549, CEP 79070-900, Campo Grande, MS, Brasil

³ Instituto de Biologia, Universidade Estadual de Campinas (UNICAMP)/Programa de Pós-Graduação em Biologia Vegetal, IB, UNICAMP, CP 6109, CEP 13083-970, Campinas, Brasil

* Author for correspondence: elianafm@unicamp.br

Methods for chromosome counts follow Guerra (1983).

* First chromosome count for the species.

§ The chromosome number here obtained is different from the one reported by other authors (Albers & Meve, 2001).

+ Endemic to Chaco vegetation.

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APOCYNACEAE

Araujia odorata (Hook. & Arn.) Fontella & Goyder

*+2n = 20, CHN. Brazil, Mato Grosso do Sul, Porto Murтинho,

along roadside, chaco vegetation, 21°42'37.51" S, 57°53'55.83" W, 80 m, 2 Jun 2014, *M.A. Farinaccio & al.* 1000 (CGMS); [Fig. 2A, B].

Araujia stormiana Morong

*+2n = 20, CHN. Brazil, Mato Grosso do Sul, Porto Murтинho, along pathway at Fazenda das Flores, chaco vegetation, clay, damp soil, 21°43'06.3" S, 57°53'53.6" W, 80 m, 24 Apr 2012, *M.A. Farinaccio & M.F. Felismino* 917 (CGMS); [Fig. 2C, D].

Araujia stuckertiana (Kurtz ex Heger) Fontella & Goyder

*+2n = 20, CHN. Brazil, Mato Grosso do Sul, Corumbá, Passo do Lontra, MS-325, along "carandazal" roadside, transition vegetation Chaco-Pantanal, 26 Jun 2012, *M.A. Farinaccio & al.* 935 (CGMS); [Fig. 3A, B].

Araujia variegata (Griseb.) Fontella & Goyder

*+2n = 20, CHN. Brazil, Mato Grosso do Sul, Porto Murтинho, BR-267, km 267, along roadside, chaco vegetation, clay soil, 21°44'42.8" S, 57°29'54.0" W, 145 m, 23 Apr 2012, *M.A. Farinaccio & M.F. Felismino* 910 (CGMS); [Fig. 3C, D].

Apocynaceae is an angiosperm family, which occurs in tropical and subtropical regions, and it is less represented in temperate regions (Endress & Bruyns, 2000). This family has 366 genera (Endress & al., 2014), and around 5000 species (Endress, 2004). Many of these species are poisonous and have economic importance, such as wood supply, ornamental and medicinal purposes (Metcalf & Chalk, 1950; Rizzini & Mors, 1976; Di Stasi & Hiruma-Lima, 2002).

Among Asclepiadoideae, one of the biggest subfamilies of Apocynaceae, subordinated to tribe Asclepiadeae and subtribe

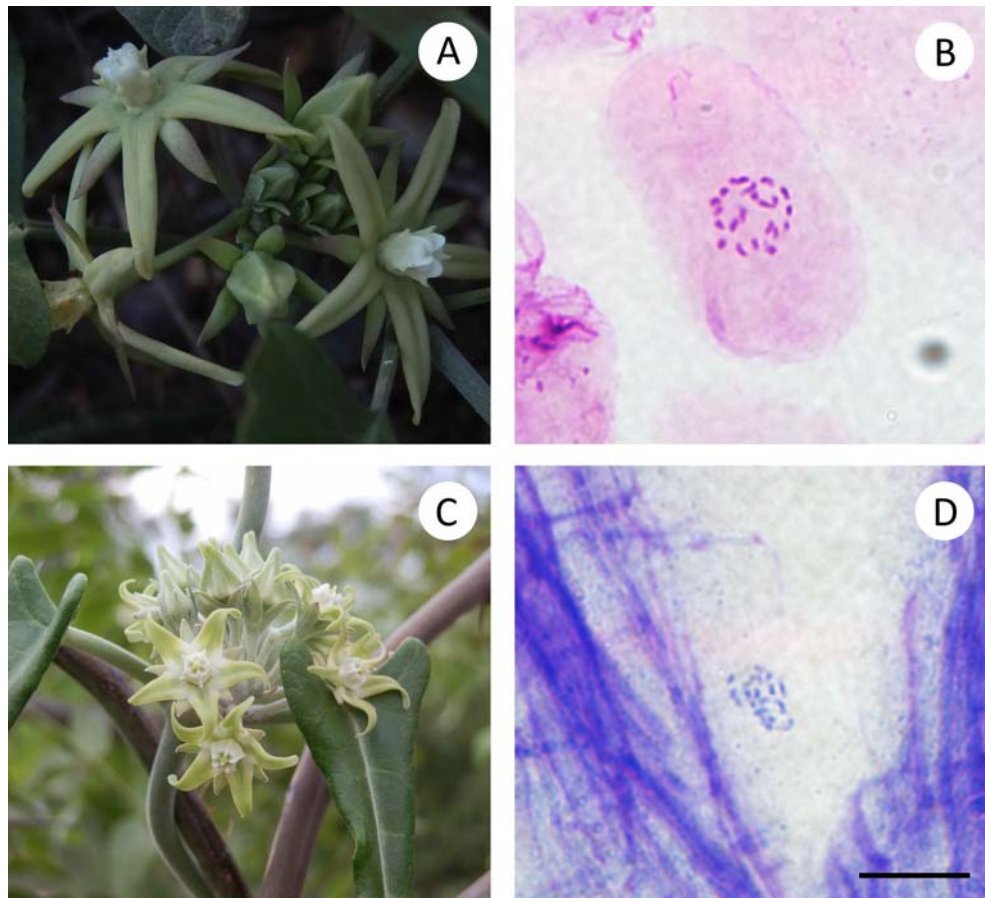
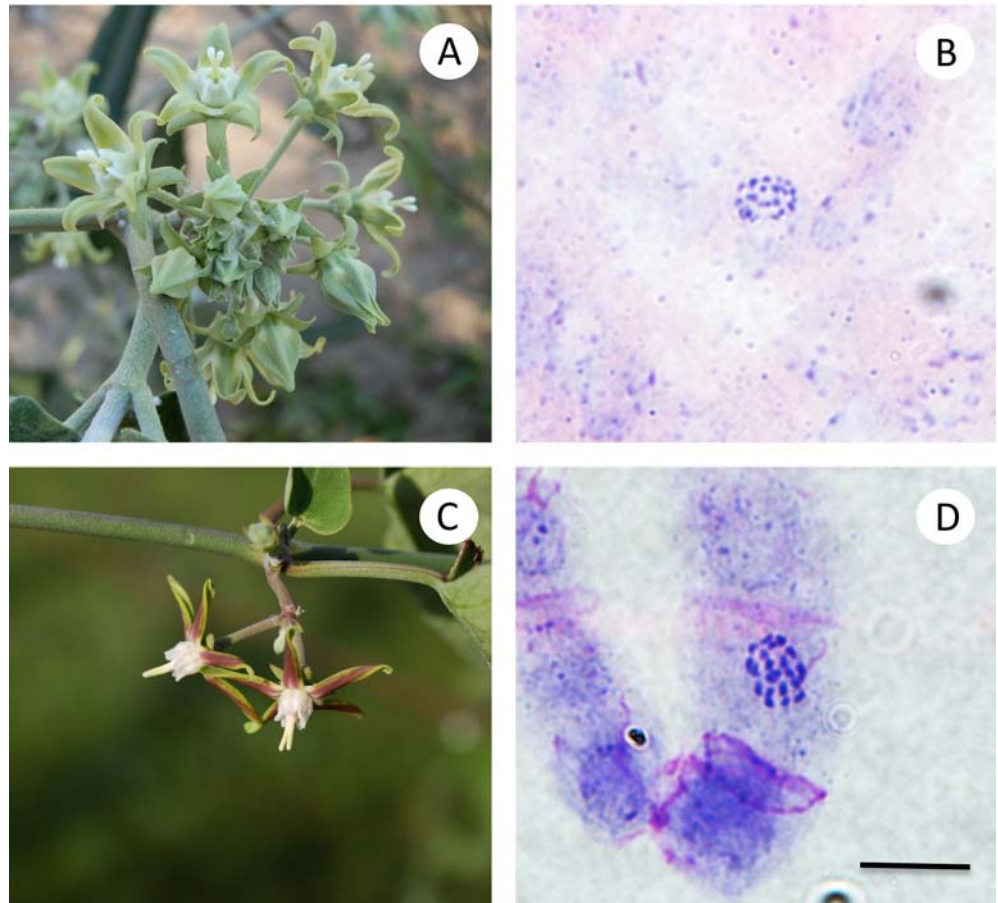


Fig. 2. Flowers and mitotic chromosomes ($2n = 20$) of *Araujia* species: **A & B**, *A. odorata*; **C & D**, *A. stormiana*. — Scale bar = 10 μ m (for B & D).

Fig. 3. Flowers and mitotic chromosomes ($2n = 20$) of *Araujia* species: **A & B**, *A. stuckertiana*, **C & D**, *A. variegata*. — Scale bar = 10 μm (for B & D).



Oxypetalinae, is the genus *Araujia* with 12 species, of which the diversity center is in the Chaco region (Rapini & al., 2011). The genus includes only tendrill species with semi-succulent leaves, ovoid fruits and comose seeds.

In Asclepiadoideae, the basic chromosome number $x = 11$ is by far the most predominant number. Among the other base numbers $x = 10$ is the most frequent, followed by $x = 9$, and the sporadic $x = 12$, 13 and 14. A reduction of the karyotype into $x = 10$ is known only in the advanced tribe Asclepiadeae, where it is important in the Old World subtribe Astephaninae, as well as in the New World subtribes Metastelmatinae and Oxypetalinae (Albers & Meve, 2001).

Our counts revealed $2n = 20$ for the four species studied. Albers & Meve (2001) also presented $2n = 20$ for *A. angustifolia* (Hook. & Arn.) Steud., but $2n = 22$ for *A. odorata* and *A. hortorum* E.Fourn. (synonym of *Araujia sericifera* Brot., type of *Araujia*). However, two distinct chromosome numbers were previously presented for *A. sericifera*, $2n = 20$ (Schnack & Covas, 1947 sec. Bolkhovskikh & al., 1969; Gadella & al., 1969) and $2n = 22$ (Pardi, 1933 sec. Bolkhovskikh & al., 1969).

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Aïda Gasmi,¹ Laurent Hardion^{2*} & Régine Verlaque³

1 Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Université, Avenue Escadrille Normandie Niemen, Case 461, 13013 Marseille, France

2 Laboratoire Image, Ville, Environnement (LIVE), UMR CNRS, ENGEES, Université de Strasbourg, Institut de Botanique, 28 rue Goethe, 67083 Strasbourg, France

3 Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Université, Case 4, 3 Place Victor Hugo, 13331 Marseille Cedex 3, France

* Author for correspondence: hardion@unistra.fr

Materials fixed on flowers (*F*) or seedlings (*S*) produced from seeds collected by us or by the Conservatoire Botanique National de Corse (CBNC), identified and counted by A. Gasmi, L. Hardion, and R. Verlaque. The present study completes extends and revises the previous and unpublished results of *M. Seidenbinder-Rondon* (1989). We would like to thank our botanist colleagues P. Donadille, A. Lavagne, P. Moutte and B. Girerd, for their help during field research.

* First chromosome count for the taxon.

** New chromosome number (cytotype) for the taxon.

FABACEAE

** *Genista corsica* (Loisel.) DC.

$2n = 42$, CHN. France, S Corsica, near Lighthouse Pertusato, *Asphodelus* shrubland, 60 m, 41°22'03"N, 09°11'06"E, 11 May 1995, R. Verlaque F95-124 (MARS 09352); [Fig. 4J].

Genista lobelii DC.

$n = 9$, $2n = 18$, CHN. France, Var, Ste Baume Massif, above La Coutronne, rocky ridge, 550 m, 43°20'17"N, 05°38'42"E, 20 Jun 1988, R. Verlaque F88-01 (MARS 06731); [Fig. 4A].

$2n = 18$, CHN. France, Bouches-du-Rhône, Ste Victoire Massif, rocky ridge, 939 m, 43°32'08"N, 05°35'02"E, 29 May 2009, A. Gasmi & S. Youssef S14 (MARS 09168); France, Var, Ste Baume Massif, Le Jouc de l'Aigle, rocky ridge, 1070 m, 43°19'51"N, 05°46'40"E, 29 Jun 2009, A. Gasmi & S. Youssef S16 (MARS 03821).

Genista pulchella Vis.

$n = 9$, $2n = 18$, CHN. France, Var, Rians, pinewood, calcareous soil, 360 m, 43°36'41.8"N, 05°42'7.9"E, 2 Jun 2012, A. Gasmi F12-01 (MARS); France, Vaucluse, Mt Ventoux, calcareous rocky slope, 900 m, 44°09'37"N, 05°11'17"E, 15 Jun 1984, M. Seidenbinder & R. Verlaque F84-433 (MARS 06720), M. Seidenbinder & R. Verlaque F84-436 (MARS 06719), M. Seidenbinder & R. Verlaque F84-438 (MARS 06724), M. Seidenbinder & R. Verlaque F84-440 (MARS 06723); France, Vaucluse, Mt. Ventoux, Mt. Serein belvedere, calcareous rocky site, 1400 m, 44°11'45"N, 05°15'31"E, 5 Jun 1987, M. Seidenbinder F87-107 (MARS 06722); France, Alpes-de-Haute-Provence, Forcalquier, Rocher des Mourres, lavender shrubland, calcareous soil, 715 m, 43°58'43"N, 05°46'25"E, 12 Jun 1984, M. Seidenbinder F84-429 (MARS 06721).

$2n = 18$, CHN. France, Var, near Comps-sur-Artuby, pinewood understory, calcareous soil, 900 m, 43°42'57"N, 06°34'19"E, 12 Jun 2009, A. Gasmi & S. Youssef S09-05 (MARS 03825); France, Vaucluse, Luberon Massif, Gros Collet, 900 m, 43°48'89"N, 05°31'76"E, 1 Jun 1984, M. Seidenbinder F84-366 (MARS 03826); France, Vaucluse, Luberon Massif, 700 m, 43°49'03.7"N, 05°32'10.9"E, 7 Jul 2009, A. Gasmi & S. Youssef S09-04 (MARS); France, Alpes-de-Haute-Provence, Verdon Gorge, Point-Sublime, cracked rock slab, 800 m, 21 Jun 1987, 43°47'42"N, 06°23'93"E, M. Seidenbinder F87-122 (MARS), M. Seidenbinder F87-123 (MARS), 13 Nov 1986, M. Seidenbinder S86-515 (MARS 03591); France, Alpes-de-Haute-Provence, Aubignosc, Gravas, boxwood-lavender shrubland, 564 m, 44°07'13"N,

05°57'54"E, 12 Jun 1984, M. Seidenbinder F84-397 (MARS 06725); [Fig. 4B].

** $n = (11), 12, 2n = 22-24$, CHN. France, Vaucluse, Mt. Ventoux, between Bédoin and Ramayettes, 1000 m, 44°10'15"N, 05°12'16"E, 5 Jun 1983, M. Seidenbinder F83-186 (MARS), M. Seidenbinder F83-187 (MARS); France, Vaucluse, Mt. Ventoux, above Bédouin, calcareous rocky slope, 900 m, 44°09'37"N, 05°11'17"E, 15 Jun 1984, M. Seidenbinder & R. Verlaque F84-432 (MARS 06728), M. Seidenbinder & R. Verlaque F84-434 (MARS 06728), M. Seidenbinder & R. Verlaque F84-437 (MARS 06717), M. Seidenbinder & R. Verlaque F84-439 (MARS 06727); France, Vaucluse, Mt. Ventoux, Mt. Serein belvedere, calcareous crest, 1400 m, 44°11'45"N, 05°15'31"E, 11 Jun 1987, M. Seidenbinder F87-108 (MARS 06726); France, NW Var, Rians, pinewood, calcareous soil, 360 m, 43°36'41.8"N, 05°42'07.9"E, 2 Jun 2012, A. Gasmi S12-02 (MARS); [Fig. 4C].

** $n = (10), 13, (15), 2n = 27$, CHN. France, Vaucluse, Luberon Massif, Mourre Nègre, calcareous ridge, 1010 m, 43°49'06"N, 05°32'05"E, 1 Jun 1984, M. Seidenbinder F84-371 (MARS 06732); France, Vaucluse, Luberon, Mourre Nègre, calcareous moorland, 850 m, 43°48'45"N, 05°28'05"E, 1 Jun 1984, M. Seidenbinder F84-379 (MARS 06733); [Fig. 4D].

** $n = 18, 2n = 36$, CHN. France, Alpes-de-Hte-Provence, Verdon Gorge, Moustiers-Ste-Marie, Naverre, calcareous rocky ridge, 1000 m, 43°51'63"N, 06°15'85"E, 21 Jun 1987, M. Seidenbinder F87-125 (MARS 06729).

$2n = 36$, France, Alpes-de-Hte-Provence, Verdon Gorge, between La Palud-sur-Verdon and Châteauneuf-les-Moustiers, calcareous ridge, 1000 m, 43°47'36"N, 06°20'25"E, 21 Jun 1987, M. Seidenbinder F87-124 (MARS 09186); France, Alpes-de-Hte-Provence, Verdon Gorge, N Mayreste, calcareous ridge, 1200 m, 43°47'62"N, 06°16'90"E, 24 Jun 1984, M. Seidenbinder F84-518 (MARS 06730), M. Seidenbinder F84-519 (MARS 06718); France, Alpes-de-Hte-Provence, Verdon Gorge, pass Plein Voir, calcareous rocky summit, 1050 m, 43°49'73"N, 06°15'24"E, 10 Jul 1985, M. Seidenbinder S85-169 (MARS); France, NW Var, near Quinson, dry marly hillock, 370 m, 43°41'44"N, 06°02'07"E, 21 Jun 1987, M. Seidenbinder F87-126 (MARS); France, Var, near Aiguines' old bridge, dry marly hillock, 500 m, 43°48'04"N, 06°14'53"E, 28 Jun 1984, M. Seidenbinder S84-548 (MARS); France, NW Var, La Verdrière, Mourrotte, 480 m, 43°38'49"N, 05°56'44"E, 31 May 2009, A. Gasmi & S. Youssef F09-02 (MARS); France, NW Var, between Barjols and Montmeyan, Beau Rivet, open habitat on dense marlyplots, 400 m, 43°41'15"N, 06°02'47"E, 5 Jun 2012, A. Gasmi & R. Verlaque F12-102 (MARS 09145); France, Var, NW Aups, Moissac, Pélenq, open calcareous habitat, 450 m, 43°37'25"N, 06°09'27"E, 5 Jun 2012, A. Gasmi & R. Verlaque F12-104 (MARS 09144), A. Gasmi & R. Verlaque F12-105 (MARS 09143); France, Var, S-W Aups, Collet des Lentilles, red marly, pinewood understory, 693 m, 43°37'10"N, 06°09'56"E, 5 Jun 2012, A. Gasmi & R. Verlaque F12-109 (MARS); France, Var, N-E Salernes, near Tourtour, Clappes forest, pinewood understory, 708 m, 43°36'06"N, 06°20'18"E, 5 Jun 2012, A. Gasmi & R. Verlaque F12-111 (MARS 09141), A. Gasmi & R. Verlaque F12-113 (MARS 09139); [Fig. 4E].

Genista salzmannii DC. var. *salzmannii*

$2n = 18$, CHN. France, N Corsica, Asco, near Bocca Culaghia, siliceous rocky habitats, 1000 m, 42°25'11"N, 08°57'30.3"E, Jul 2010, seeds from CBNC-Piazza S11-117 (MARS); France, Corsica, near Ajaccio, Campo dell'Oro, maquis beyond the sand beach, 41°55'31"N, 08°46'49"E, 9 May 1995, R. Verlaque F95-104 (MARS 09166); [Fig. 4F].

Genista salzmannii var. *lobelioides* (Gamisans)

Gamisans & Jeanm.

* $2n = 36$, CHN. France, S Corsica, L'Osedale, forest, siliceous rocky site, 1000 m, 41°39'46"N, 09°12'14"E, seeds from CBNC-Piazza S11-145 (MARS); [Fig. 4G].

Genista scorpius (L.) DC.

$n = 20$, $2n = \text{ca. } 40$, CHN. France, Vaucluse, Mt. Ventoux Massif, *Quercus pubescens* shrubland, on calcareous soil, 880 m, 44°10'58" N, 05°11'26" E, 15 Jun 1984, M. Seidenbinder & R. Verlaque F84-444 (MARS 03596); France, Alpes-de-Hte-Provence, Lure Mountain, near St-Etienne-les-Orgues, edge of *Q. pubescens* wood, on calcareous soil, 700 m, 44°02'34" N, 05°48'21" E, 12 Jun 1984, M. Seidenbinder & R. Verlaque F84-425 (MARS 03598); France, Hérault, near Bel-Air, open forest of evergreen oak, calcareous soil, 150 m, 43°33'41" N, 03°11'73" E, 7 May 1984, M. Seidenbinder F84-266 (MARS 03595); [Fig. 4H].

** $2n = \text{ca. } 80$, CHN. France, Var, Gapeau Valley, between Signes and Méounes, *Rosmarinus* shrubland, siliceous rocky site, 500 m, 43°17'92" N, 05°53'96" E, 20 May 2009, R. Verlaque F09-115 (MARS 09164), R. Verlaque F09-116 (MARS 09165), R. Verlaque F09-124 (MARS 09167); [Fig. 4I].

The genus *Genista* sensu Gibbs (1966) contains around a hundred shrub taxa centred in the Mediterranean basin, particularly in Spain (Talavera, 1999). Among the spiny species of *Genista* subg. *Genista*, some of French taxa cause taxonomic problems.

On windy littoral ridges of SE France (300–1100 m), the endemic *G. lobelii* forms thorny cushions (10–40 cm). We confirm its stable $2n = 18$ (Verlaque, 1992), while closely related taxa are di- and tetraploid in Spain. In *G. lobelii*, we also found the meiotic anomalies described in Spanish diploids by Sañudo (1979) that “reveal a disequilibrium of genotypes”.

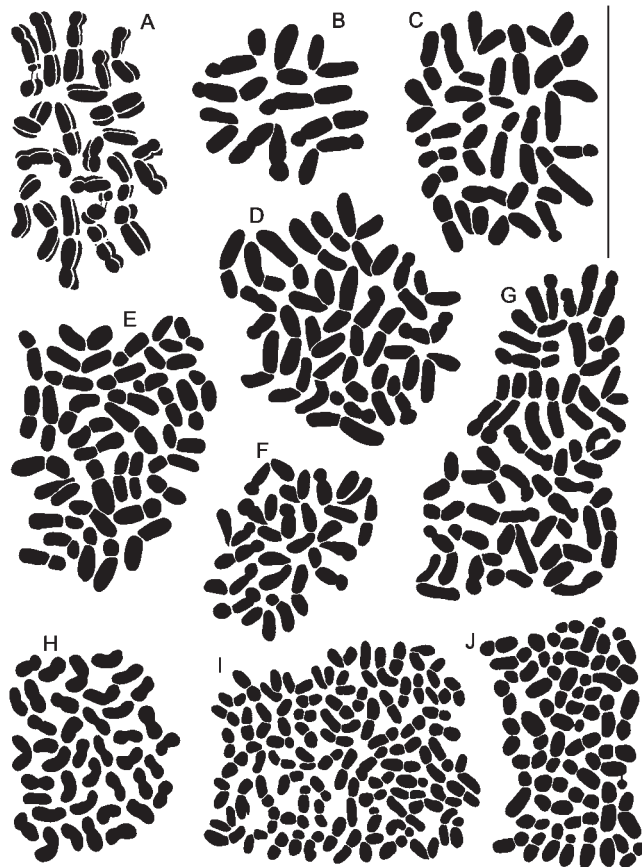


Fig. 4. Somatic metaphases ($2n$) and pollen mitosis (n): **A**, *Genista lobelii*, $2n = 18$; **B–E**, *G. pulchella*: **B**, $n = 9$; **C**, $2n = 23$; **D**, $2n = 27$; **E**, $2n = 36$; **F**, *G. salzmannii* var. *salzmannii*, $2n = 18$; **G**, *G. salzmannii* var. *lobelioides*, $2n = 36$; **H–I**, *G. scorpius*: **H**, $2n = \text{ca. } 40$; **I**, $2n = \text{ca. } 80$; **J**, *G. corsica*, $2n = 42$. — Scale bar = 10 μm .

In N-C Mediterranean Massifs (S France, C Italia, Dalmatia: 360–1600 m), *G. pulchella* shows a high polymorphism linked to its chromosomal variations: $2n = 18, 24, 27, 36$ in France. All these cytotypes share specific characters, distinct from those of *G. lobelii*: branches nearly divaricate (vs. fastigiate), calyx with appressed and patent hairs (vs. short appressed hairs) (Tison & Foucault, 2014).

(1) The widespread diploids have a prostrate habit (<10 cm), woody stems with barely spiny apex, and small hairy leaves with smooth pulvini. Compared to *G. lobelii*, diploid *G. pulchella* produces fewer seeds and seedlings (germination <60%), despite a higher rate of normal pollen (95% vs. <70%), and a more symmetrical and constant karyotype, with sometimes small satellites (vs. always one or two pairs with large satellites).

(2) Few plants with $2n = 22–24$ are scattered in Provence and located around prostrate diploid patches. Their main traits are: erect shrub floriferous, spiny pulvini, and strong sterility (80% of abnormal pollen). Given the chromosome numbers of putative progenitors, this form does not match with the hybrid *G. ×martinii* Verg. & Soulié (*G. pulchella* $2n = 18 \times G. scorpius$ $2n = 40$). This cytotype has been found in Italy (Conti, 2007) without *G. scorpius*, and the same spiny pulvini also appear in Spanish erect tetraploids of the *G. lobelii* group. In fact, these odd plants could result either from unequal divisions of small pairs of chromosomes, or chromosomal breaks.

(3) The few individuals of Mt. Luberon with $2n = 27$ are characterized by: long leaves with villous upper surface, elongated pulvini, and high sterility (50%) linked to its triploid level. The latter two cytotypes correspond to abnormal events or accidents, probably without future.

(4) In contrast, the $2n = 36$ cytotype forms many populations distributed between the Verdon Gorge area and Argens River (300–1200 m). It differs from the others by: leaves with very short hairs and sericeous young stems, however, its pulvini are similar to those of diploids. These fertile plants (normal pollen >70%) seem to be autotetraploids rather than allopolyploids between diploids *G. lobelii* and *G. pulchella* as suggested by Tison & Foucault (2014), because of their location in CE of the *G. pulchella* range, far from *G. lobelii* area.

Compared to diploids, all other cytotypes share a rather erect habit (up to 30 cm) and quite spiny stem apex, but have a more limited distribution and higher polymorphism. The proposed intraspecific treatments seem premature or wrong: on account of nomenclatural problems for the erect *G. pulchella* subsp. *pulchella* and the prostrate *G. pulchella* subsp. *villarsii* (Clementi) Kerguelen in France (Kerguelen, 1993), or because the polymorphism of French plants includes the three taxa described by Conti (2007): *G. pulchella* subsp. *pulchella* (Croatia: low shrub <12 cm), *G. pulchella* subsp. *villarsiana* (Jord.) F.Conti (S France: prostrate <4 cm, $2n = 24$), and *G. pulchella* subsp. *aquilana* F.Conti & Manzi (C Italy, Abruzzo: erect shrub up to 27 cm, $2n = 18, 24$). In fact, *G. pulchella* is a polyploid complex in ongoing evolution.

Formerly included in *G. lobelii* (Coste, 1901), the Tyrrhenian endemic *G. salzmannii* shows high ecological plasticity and polymorphism, linked to its two ploidy levels found in Sardinia (Vila, 1988), and here for the first time in Corsica. The diploid *G. salzmannii* var. *salzmannii* differs from the autotetraploid Corsican endemic, *G. salzmannii* var. *lobelioides*, by its higher shrubs (0.4–1 m vs. thorny cushions <0.6 m), living at a lower altitude (0–1200 vs. 1000–2200 m), its flowers mostly born in pairs (vs. single) with shorter pedicels (1–3 vs. 2–5 mm: Jeanmonod & Gamisans, 2007).

The aneuploid cytotype of *G. scorpius* ($2n = \text{c. } 40$), widespread in W Mediterranean (0–1600 m), is a fertile shrub (0.3–2 m), with stout axillary spines. In contrast, the higher ploidy level ($2n = \text{ca. } 80$), its individuals are smaller, little floriferous, slightly spiny and sterile. In *G. corsica* (Corsica-Sardinian endemic up to 1 m, 0–1200 m), we have found a chromosome number $2n = 42$ that differs from the previous count $2n = 48$ (Contandriopoulos, 1962). This new number is more congruent with those of the closely related *G. scorpius*.

Phylogenetic study shows that *G. scorpius* and *G. corsica* (*G.* sect. *Scorpioides* Spach), as *G. salzmännii* (*G.* sect. *Erinacoides* Spach) are well differentiated. In contrast, *G. lobelii* (sect. *Erinacoides*) and *G. pulchella* (*G.* sect. *Spartiooides* Spach) form an unresolved polytomy (A. Gasmí, unpub.), and seem only separated by chromosomal restructuring. So we confirm the invalidity of sections, while subgenera are supported by molecular data (Pardo & al., 2004). The studied taxa give interesting examples of *Genista* diversification, in which polyploidy, aneuploidy (followed by basic chromosome number change), but also karyotypic changes have played a major role. While polyploidy always has a high morphological impact (habit, spinescence, size, etc.), it also creates numerous restricted endemic taxa, sometimes sterile.

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Aleksandr A. Gnutikov,^{1*} Marina V. Protopopova,² Vasilij V. Pavlichenko² & Victor V. Chepinoga^{3,4}

- ¹ *The N.I. Vavilov Institute of Plant Genetic Resources (VIR), Bolshaya Morskaya Str. 44, 190000 St.-Petersburg, Russia*
 - ² *Siberian Institute of Plant Physiology and Biochemistry SB RAS, Lermontov Str. 132, 664033 Irkutsk, Russia*
 - ³ *The V.B. Sochava Institute of Geography SB RAS, Ulan-Batorskaya Str. 1, 664033 Irkutsk, Russia*
 - ⁴ *Irkutsk State University, Karl Marx Str.1, 664003Irkutsk, Russia*
- * Author for correspondence: alexandr2911@yandex.ru

* First chromosome count for the species.

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

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APIACEAE

Angelica decurrens (Ledeb.) B.Fedtsch.

$2n = 22$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the upper course of the Bolshoi Mamai River, sub-alpine meadow, near the creek, 1196 m, 51.37783° N, 104.86790° E, 22 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko* C1525 (IRKU).

GENTIANACEAE

Swertia baicalensis Popov ex Pissjauk.

* $2n = 26$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the upper course of the Bolshoi Mamai River, sub-alpine meadow, near the creek, 1196 m, 51.37783° N, 104.86790° E, 22 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko* C1527 (IRKU).

ONAGRACEAE

Epilobium montanum L.

$2n = 36$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left riverside of the Dulikha River, 0.6 km to the south of Lake Baikal and 0.1 km of the highway M-55, along the cart-road, 460 m, 51.53426° N, 105.02763° E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko* C1516 (IRKU).

PRIMULACEAE

Primula pallasii Lehm.

$2n = 22$, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the lower course of the Khara-Murin River, the right riverside, 4 km to the south of Lake Baikal, 0.45 km of the highway M-55, on the sand, 468 m, 51.45202° N, 104.41242° E, 4 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga* C1542 (IRKU).

RANUNCULACEAE

Anemone altaica Fisch. ex C.A.Mey.

$2n = 32$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the lower course of the Bolshaya Rechka River, the left riverside, 14 km to the east of Lake Baikal, 0.2 km of the highway M-55, floodplain birch forest, 475 m, 51.95793° N, 106.35224° E, 3 Jun 2015, *M.V. Protopopova & V.V. Pavlichenko* C1535 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the lower course of the Mysovka River, the right riverside, 2 km to the south of Lake Baikal, close to the Babushkin town, aspen and birch forest, 515 m, 51.69365° N, 105.88617° E, 3 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga* C1536 (IRKU); Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the lower course of the Khara-Murin River, the right riverside, 4 km to the south of Lake Baikal, 0.45 km of the highway M-55, thickets of alder, 468 m, 51.45202° N, 104.41242° E, 4 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga* C1539 (IRKU); Russia, East Siberia, Irkutskaya Oblast', the lower course of the Snezhnaya River, 6.5 km to the south of Lake Baikal, the left riverside, thickets of bird-cherry, 478 m, 51.41756° N, 104.63049° E, 4 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga* C1543 (IRKU).

Anemone baicalensis Turcz. ex Ledeb.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the lower course of the Malyy Mamai River, the left riverside, near the water, 1.5 km to the south of Lake Baikal, 476 m, 51.45226° N, 104.80655° E, 16 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko* C1501 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right riverside of the Mysovka River, 1.5 km to the south of Lake Baikal, close to the Babushkintown (Mysovaya railway station), near the water, 476 m, 51.70383° N, 105.86507° E, 17 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko* C1504 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left tributary of the Manturikha River, the left riverside, 0.8 km to the south of Lake Baikal, close to the highway M-55, near the water, 462 m, 51.77146° N, 105.98466° E, 17 Jul 2014, *M.V. Protopopova &*

V.V. Pavlichenko CI506 (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left riverside of the Bolshaya Telnaya River, 0.3 km to the south of Lake Baikal, close to the highway M-55, near the water, 460 m, 51.72883°N, 105.94135°E, 17 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI507* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left riverside of the Mishikha River, 1.5 km to the south of Lake Baikal, 0.3 km from the highway M-55, near the water, 459 m, 51.63656°N, 105.54156°E, 17 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI508* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left riverside of the Vydrinaya River close to the Stantsia Vydrinaya settlement, 1.5 km to the south of Lake Baikal, 0.9 km of the highway M-55, near the water, 457 m, 51.48181°N, 104.85162°E, 18 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI509* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right tributary of the Bolshoi Mamai River, the right riverside, 3 km to the south of Lake Baikal, 2.5 km of the highway M-55, close to the cart-road, near the water, 520 m, 51.43363°N, 104.79829°E, 19 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI513* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, floodplain of the Dulikha River, the left riverside, 0.7 km to the south of Lake Baikal, 0.2 km of the highway M-55, near the water, 474 m, 51.53376°N, 105.02878°E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI515* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right riverside of the Bolshoi Mamai River, on the wetland along the stream, 0.3 km to the south of Lake Baikal, 456 m, 51.45546°N, 104.78033°E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI519* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the lower course of the Bolshaya Rechka River, the left riverside, 14 km to the east of Lake Baikal, 0.2 km of the highway M-55, floodplain birch forest, 475 m, 51.95793°N, 106.35224°E, 3 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga CI534* (IRKU); Russia, East Siberia, Irkutskaya Oblast', the left riverside of the Snezhnaya River, close to the highway M-55, 5 km to the south of Lake Baikal, near the water, 474 m, 51.43906°N, 104.63385°E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI522* (IRKU); Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the lower course of the Bezimyanaya River, floodplain on the right riverside, 1.4 km to the south of Lake Baikal, birch forest, 461 m, 51.59373°N, 103.90829°E, 30 May 2015, *M.V. Protopopova & V.V. Pavlichenko CI532* (IRKU); Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the lower course of the Khara-Murin River, the right riverside, aspen and birch forest, 4 km to the south of Lake Baikal, 0.45 km of the highway M-55, 468 m, 51.45202°N, 104.41242°E, 4 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga CI541* (IRKU); Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the lower course of the Utulik River, the floodplain poplar forest on the left riverside, 1 km to the south of Lake Baikal, 453 m, 51.54594°N, 104.04675°E, 5 Jun 2015, *M.V. Protopopova, V.V. Pavlichenko & V.V. Chepinoga CI548* (IRKU).

Caltha palustris L.

$2n = 32$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the lower course of the Malyi Mamai River, the left riverside, near the water, 1.5 km to the south of Lake Baikal, 476 m, 51.45226°N, 104.80655°E, 16 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI503* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right riverside of the Mysovka River, 1.5 km to the south of Lake Baikal, close to the Babushkin town (Mysovaya railway station), near the water, 476 m, 51.70383°N, 105.86507°E, 17 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI505* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right riverside of the Bolshoi Mamai River, on the wetland along the stream, 0.3 km to the south of Lake Baikal, 456 m, 51.45546°N, 104.78033°E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI520* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the upper course of the Bolshoi Mamai River, wet subalpine meadow,

1196 m, 51.37783°N, 104.86790°E, 22 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI523* (IRKU).

Eranthis sibirica DC.

$**2n = 16$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the right riverside of the Bolshoi Mamai River, 2 km to the south of Lake Baikal, 1 km of the highway M-55, along the cart-road, 491 m, 51.44234°N, 104.78565°E, 19 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI511* (IRKU); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the left riverside of the Dulikha River, 0.5 km of Lake Baikal, close to the highway M-55, near the stream, 455 m, 51.53479°N, 105.02837°E, 20 Jul 2014, *M.V. Protopopova & V.V. Pavlichenko CI517* (IRKU).

Denis A. Krivenko^{1,2*} & Marina O. Burlyaeva³

- 1 *Siberian Institute of Plant Physiology & Biochemistry of the Siberian Branch of the Russian Academy of Sciences, 132 Lermontov Str., 664033 Irkutsk, Russia*
- 2 *Irkutsk Scientific Center of the Siberian Branch of the Russian Academy of Sciences, 134 Lermontov Str., 664033 Irkutsk, Russia*
- 3 *Federal Research Center the N.I. Vavilov All-Russian Institute of Plant Genetic Resources, 42–44 Bol'shaya Morskaya Str., 190000 St. Petersburg, Russia*

* Author for correspondence: krivenko.irk@gmail.com

* New chromosome number (cytotype) for a given taxon.

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FABACEAE

Vicia ohwiana Hosok.

$2n = 12$, CHN. Russia, Primorskii Krai, Vladivostok urban district, Empress Eugenia Archipelago, Peter Great Bay, Russkii Island, Vyatlin Cape, Chernyshev Cove, 0 m, 42°57'52.9"N, 131°53'58.0"E, roadside near mixed forest, 17 Oct 2013, *M.O. Burlyaeva 10671* (WIR) [Fig. 5a]; Russia, Primorskii Krai, Vladivostok urban district, Empress Eugenia Archipelago, Peter Great Bay, Russkii Island, top of hill, near the fort number 11 Grand Prince Svyatoslav Igorevich Vladivostok Fortress, 79 m, 42°58'29.6"N, 131°52'52.2"E, deciduous forest, 17 Oct 2013, *M.O. Burlyaeva 10672* (WIR) [Fig. 5b]; Russia, Primorskii Krai, Vladivostok urban district, Empress Eugenia Archipelago, Peter Great Bay, Popov Island, 35 m, 42°57'40.6"N, 131°45'36.5"E, hornbeam forest, 14 Oct 2013, *M.O. Burlyaeva s.n.* (WIR) [Fig. 5c].

$*2n = 24$, CHN. Russia, Primorskii Krai, Vladivostok urban district, Empress Eugenia Archipelago, Peter Great Bay, Popov Island, 35 m, 42°57'40.6"N, 131°45'36.5"E, hornbeam forest, 14 Oct 2013, *M.O. Burlyaeva 10674* (WIR) [Fig. 5d].

Vicia unijuga A. Braun

$2n = 12$, CHN. Russia, Irkutskaya Oblast', Ust'-Ordynskii Bur'yatskii Okrug, Bayandaevskii Raion, vicinity of Khandagai village, 677 m, 53°11'N, 105°48'E, birch forest, near the road, 5 Aug 2014, *M.O. Burlyaeva 10661* (WIR) [Fig. 5e].

$2n = 24$, CHN. Russia, Primorskii Krai, Terneiskii Raion, K.G. Abramov Sikhote-Alin State Nature Biosphere Reserve, on the banks of Sukhoi Klyuch River, 95 m, 44°58'16.1"N, 136°32'03.1"E, mixed forest (oak, birch, maple, linden, fir, spruce, pine), 9 Oct 2013, *M.O. Burlyaeva 10662* (WIR) [Fig. 5f]; Russia, Primorskii Krai, Vladivostok city, vicinity of Far East Experiment Station Federal Research Center the N.I. Vavilov All-Russian Institute of Plant Genetic Resources, 100 m, 43°14'45.1"N, 132°03'48.4"E, on the hill in the poplar-oak forest, 27 Sep 2011, *M.O. Burlyaeva s.n.* (WIR) [Fig. 5g]; Russia, Primorskii Krai, Vladivostok city, vicinity of Far East

Experiment Station Federal Research Center the N. I. Vavilov All-Russian Institute of Plant Genetic Resources, 100 m, 43°14'45.1" N, 132°03'48.4" E, on the hill in the poplar-oak forest, Sep 2012, *A.Sh. Sabitov 10663* (WIR) [Fig. 5h].

Vicia unijuga var. *apoda* Maxim.

* $2n = 12$, CHN. Russia, Primorskii Krai, Khasanskii Raion, East Manchurian Highland, Gamov Peninsula, road from Vityaz' village to Astafiev Cove of Peter Great Bay, 104 m, 42°36'52.4" N, 131°11'68.2" E, deciduous forest (oak, maples, hazel, kalopanax), 2 Oct 2013, *M.O. Burlyayeva 10670* (WIR) [Fig. 5i].

$2n = 24$, CHN. Russia, Primorskii Krai, Vladivostok city, vicinity of Far East Experiment Station Federal Research Center the N.I. Vavilov All-Russian Institute of Plant Genetic Resources and vicinity of causeway Bogatooe reservoir, 22 m, 43°14'06.4" N, 132°04'27.5" E, slope hill overgrown mixed forest, 25 Sep 2013, *M.O. Burlyayeva 10664* (WIR) [Fig. 5j]; Russia, Primorskii Krai, Vladivostok city, vicinity of "Ocean" sanatorium, Pionerskaya Cove of Amur Bay, 2 m, 43°15'51.9" N, 132°01'13.1" E, in the larch forest, 28 Sep 2011, *M.O. Burlyayeva 10665* (WIR) [Fig. 5k]; Russia, Primorskii Krai, Khasanskii Raion, East Manchurian Highland, Gamov Peninsula, vicinity of Vityaz' village, 37 m, 42°35'38.3" N, 131°10'36.4" E, stony shore sea, 1 Oct 2013, *M.O. Burlyayeva 10666* (WIR) [Fig. 5l]; Russia,

Primorskii Krai, Khasanskii Raion, East Manchurian Highland, Gamov Peninsula, vicinity of Troitsa Cove of Peter Great, Shul'ts Cape, 26 m, 42°34'48.3" N, 131°09'54.0" E, on the path roadside, 1 Oct 2013, *M.O. Burlyayeva 10667* (WIR) [Fig. 5m]; Russia, Primorskii Krai, Khasanskii Raion, East Manchurian Highland, Gamov Peninsula, on the hill at rise of Telyakovskii Cove of Peter Great, 44 m, 42°35'02.1" N, 131°12'31.9" E, in the deciduous forest with grapes Amur, 1 Oct 2013, *M.O. Burlyayeva 10668* (WIR) [Fig. 5n], *M.O. Burlyayeva 10669* (WIR) [Fig. 5o]; Russia, Primorskii Krai, Terneiskii Raion, K.G. Abramov Sikhote-Alin State Nature Biosphere Reserve, on the banks of Sukhoi Klyuch River, 95 m, 44°58'16.1" N, 136°32'03.1" E, mixed forest (oak, birch, maple, linden, fir, spruce, pine), 9 Oct 2013, *M.O. Burlyayeva s.n.* (WIR) [Fig. 5p]; Russia, Primorskii Krai, Vladivostok urban district, Empress Eugenia Archipelago, Peter Great Bay, Popov Island, 35 m, 42°57'40.6" N, 131°45'36.5" E, undergrowth hornbeam forest, 14 Oct 2013, *M.O. Burlyayeva 10673* (WIR) [Fig. 5q].

NELUMBONACEAE

Nelumbo nucifera Gaertn. s.l.

$2n = 16$, CHN. Russia, Primorskii Krai, Chuguevskii Raion, on the way to Dal'negorsk town, between Varfolomeevka village and Varpakhovka village, pool Ussuri River, 44°22'40.29" N, 134°00'05.82" E, in water, 26 Aug 2010, *M.O. Burlyayeva 39873* (IRK).

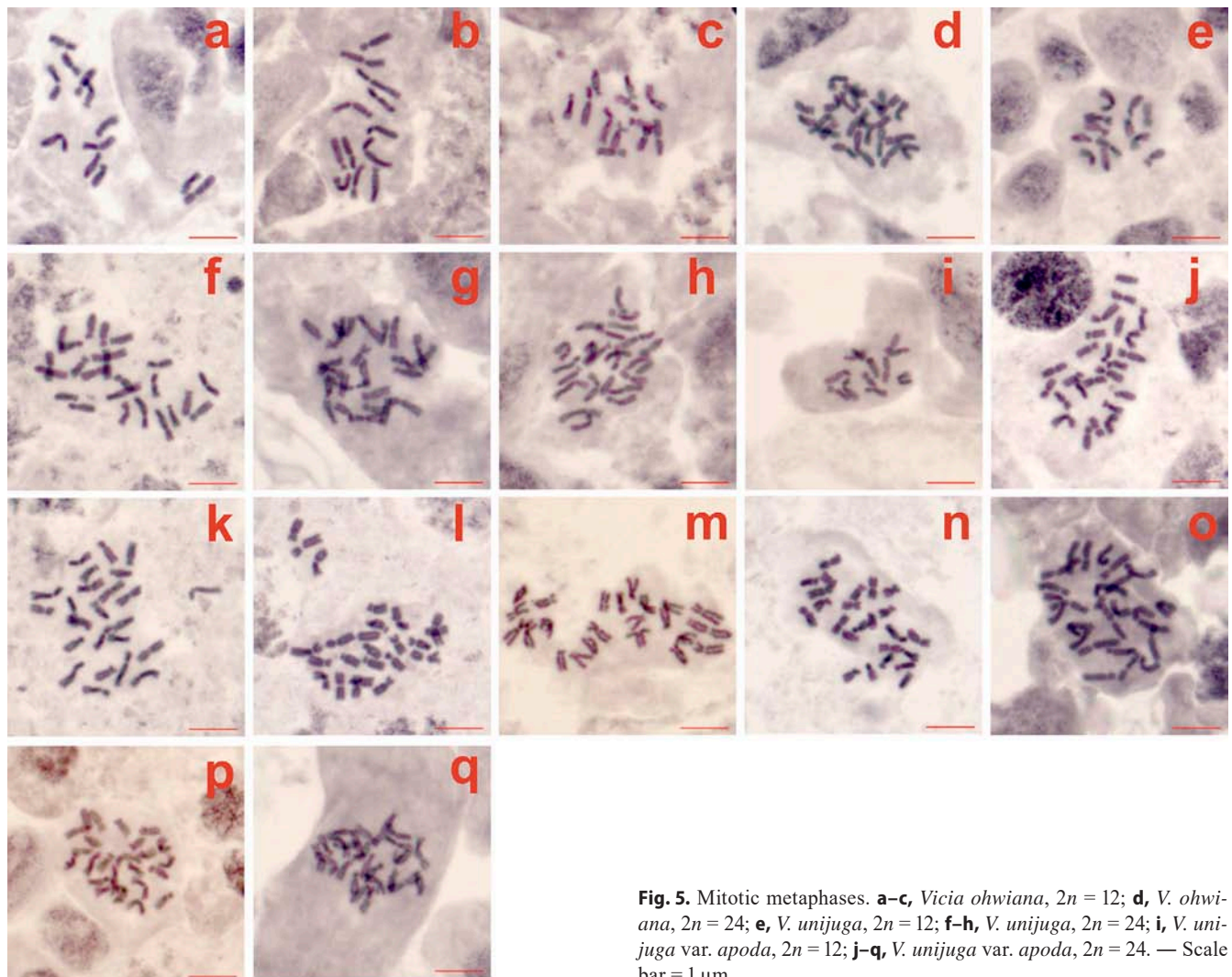


Fig. 5. Mitotic metaphases. **a–c**, *Vicia ohwiana*, $2n = 12$; **d**, *V. ohwiana*, $2n = 24$; **e**, *V. unijuga*, $2n = 12$; **f–h**, *V. unijuga*, $2n = 24$; **i**, *V. unijuga* var. *apoda*, $2n = 12$; **j–q**, *V. unijuga* var. *apoda*, $2n = 24$. — Scale bar = 1 μ m.

Tatiana Miháliková,^{1*} Lenka Mártonfiová² & Iva Hodálová¹

1 *Institute of Botany, Slovak Academy of Sciences, Dúbravská cesta 9, 845 23 Bratislava, Slovak Republic*

2 *Pavol Jozef Šafárik University, Botanical Garden, Mánesova 23, 04352 Košice, Slovak Republic*

* Author for correspondence: *tatiana.mihalikova@savba.sk*

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Chromosome numbers counted by L. Mártonfiová; DNA ploidy level ascertained by T. Miháliková.

FCM

DAPI (4',6-diamidino-2-phenylindole). The relative DNA genome sizes were estimated using silica-gel dried leaf tissue. Samples of reference plants with known chromosome numbers ($2n = 40$ and 60) were analysed simultaneously with the internal DNA reference standard (*Glycine max* (L.) Merr. 'Polanka', $2C\ DNA = 2.50\ pg$; Doležel & al. 1994), and the ratio of their G_0/G_1 peak positions was recorded. Then, the DNA ploidy levels of plants of unknown chromosome number were analysed and their peak positions relative to that of the DNA reference standard were assessed. For each measurement, the coefficients of variation (CV) of the standard and the analysed sample were calculated. If the CV of the G_0/G_1 peak of the sample exceeded the 5% threshold, the analysis was discarded and the sample reanalysed. The sample preparation and FCM procedure followed that of Hodálová & al. (2010). Genome size data were obtained using a CyFlow SL cytometer (Partec, Münster, Germany) equipped with a green solid-state laser (Cobolt Samba 532 nm, 100 mW; Cobolt, Stockholm, Sweden) as the excitation source in the laboratory of flow cytometry at the Institute of Botany, Slovak Academy of Sciences, Bratislava, Slovakia.

Direct chromosome counting

For karyological analyses, root tip meristems from cuttings or from potted plants were employed. The root tips were pre-treated in a 0.002 M water solution of 8-hydroxyquinoline at 4°C for about 16 h (overnight), fixed in a 1:3 mixture of 98% acetic acid and 96% ethanol for 1–24 h, washed in distilled water, macerated in 1N HCl at the temperature of 60°C for 5 min and washed in distilled water. Squashes were made using the cellophane square technique (Murín, 1960). The slides were stained by a 7% solution of Giemsa Stain, Modified Solution, Fluka Analytical, in Sørensen phosphate buffer, dried and observed in a drop of immersion oil using a Leica DM 2500 microscope equipped with camera DFC 290 HD and software Leica application suite v.3.5.0, Switzerland.

POLYGONACEAE*Rumex maritimus* L.

The coefficients of variation of G_1 peak of *R. maritimus* samples and the internal standard ranged from 1.02% to 3.63% (average 2.16%) and from 1.2% to 2.46% (average 1.67%), respectively. All analysed samples were DNA tetraploids with $2n \sim 4x \sim 40$. The $2C$ -values for analysed samples were from 2.09 to 2.22 pg, with highest divergence between two samples 6.22%.

$2n = 40$, CHN. Slovakia, Záhorská nížina Lowland, Bratislava, WNW of municipal part of Záhorská Bystrica, vicinity of Poľný mlyn Riding Club, field depression, 48°14'45"N, 17°00'11"E, 152 m, 6 Jul 2015, *T. Miháliková SK45/1* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.09$ – 2.12 pg, FCM. Austria, Lower Austria, S of village of Baumgarten an der March, Mühlbach Stream, rivulet crossing the road Nr. 49, wet muddy bank and shallow water, 140 m, 48°17'55"N, 16°52'29"E, 14 Aug 2013, *T. Miháliková AT42/1*,

T. Miháliková AT42/2, *T. Miháliková AT42/3*, *T. Miháliková AT42/4*, *T. Miháliková AT42/5*, *T. Miháliková AT42/6*, *T. Miháliková AT42/7*, *T. Miháliková AT42/8*, *T. Miháliková AT42/9*, *T. Miháliková AT42/10* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.13$ – 2.15 pg, FCM. Czech Republic, Milovicko-valtická pahorkatina Hills, WNW of village of Sedlec, Nový rybník Pond, wet field depression, 185 m, 48°46'56"N, 16°40'35"E, 24 Jul 2013, *T. Miháliková CZ35/1*, *T. Miháliková CZ35/2*, *T. Miháliková CZ35/3*, *T. Miháliková CZ35/4*, *T. Miháliková CZ35/5*, *T. Miháliková CZ35/6*, *T. Miháliková CZ35/7*, *T. Miháliková CZ35/8* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.12$ – 2.15 pg, FCM. Czech Republic, Dyjsko-svratecký úval Valley, SE of village of Kostice, between Morava River and Kyjovka Stream, field depression, 152 m, 48°44'31"N, 16°59'26"E, 8 Aug 2013, *T. Miháliková CZ37/1*, *T. Miháliková CZ37/2*, *T. Miháliková CZ37/3*, *T. Miháliková CZ37/4*, *T. Miháliková CZ37/5*, *T. Miháliková CZ37/6*, *T. Miháliková CZ37/7*, *T. Miháliková CZ37/8*, *T. Miháliková CZ37/9*, *T. Miháliková CZ37/10* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.11$ – 2.13 pg, FCM. Hungary, Csongrád County, NNE of village of Ferencszállás, Maros River, alluvium, muddy bank, 83 m, 46°13'20"N, 20°21'35"E, 20 Jul 2013, *T. Miháliková HU29/1*, *T. Miháliková HU29/2*, *T. Miháliková HU29/3*, *T. Miháliková HU29/4*, *T. Miháliková HU29/5*, *T. Miháliková HU29/6* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.10$ – 2.15 pg, FCM. Hungary, Borsod-Abaúj-Zemplén County, E of village of Tiszalúc, Tisza River, Takta Channel, wet bank, 91 m, 48°02'18"N, 21°04'44"E, 21 Jul 2013, *T. Miháliková HU33/1*, *T. Miháliková HU33/2*, *T. Miháliková HU33/3*, *T. Miháliková HU33/4*, *T. Miháliková HU33/5*, *T. Miháliková HU33/6*, *T. Miháliková HU33/7*, *T. Miháliková HU33/8*, *T. Miháliková HU33/9*, *T. Miháliková HU33/10*, *T. Miháliková HU33/11*, *T. Miháliková HU33/12* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.15$ – 2.16 pg, FCM. Hungary, Zala County, WSW of village of Zalavár, Kis Balaton Lake, wet bank, 104 m, 46°39'36"N, 17°07'43"E, 11 Aug 2013, *T. Miháliková HU40/1*, *T. Miháliková HU40/2* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.12$ pg, FCM. Hungary, Győr-Moson-Sopron County, E of village of Dunaszég, Danube River, bigger lake nearby dead-arm, wet gravelly bank, 110 m, 47°46'09"N, 17°33'06"E, 10 Aug 2013, *T. Miháliková HU44/1* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.11$ – 2.16 pg, FCM. Slovakia, Záhorská nížina Lowland, W of village of Zohor, Lósy, wet field depression, 145 m, 48°19'09"N, 16°57'26"E, 19 Jul 2011, *T. Miháliková SK2/1*, *T. Miháliková SK2/2*, *T. Miháliková SK2/3*, *T. Miháliková SK2/4*, *T. Miháliková SK2/5*, *T. Miháliková SK2/6*, *T. Miháliková SK2/7*, *T. Miháliková SK2/8*, *T. Miháliková SK2/9*, *T. Miháliková SK2/10* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.12$ – 2.15 pg, FCM. Slovakia, Záhorská nížina Lowland, SE of village of Lozorno, Lozorno Water Reservoir, NE part, denuded muddy bottom, 214 m, 48°19'32"N, 17°03'56"E, 27 Jun 2012, *T. Miháliková SK12/1*, *T. Miháliková SK12/2*, *T. Miháliková SK12/3*, *T. Miháliková SK12/4*, *T. Miháliková SK12/5* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.12$ – 2.15 pg, FCM. Slovakia, Ipel'sko-Rimavská brázda Hills, SE of village of Divín, Ružiná Water Reservoir, NW part, wet ground depression, 252 m, 48°26'33"N, 19°32'40"E, 28 Jun 2012, *T. Miháliková SK14/1*, *T. Miháliková SK14/2*, *T. Miháliková SK14/3*, *T. Miháliková SK14/4*, *T. Miháliková SK14/5*, *T. Miháliková SK14/6*, *T. Miháliková SK14/7*, *T. Miháliková SK14/8*, *T. Miháliková SK14/9*, *T. Miháliková SK14/10* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.13$ – 2.16 pg, FCM. Slovakia, Ipel'sko-Rimavská brázda Hills, E of village of Budíkovany, Teplý vrch Water Reservoir, N part, denuded wet bank, 215 m, 48°29'00"N, 20°05'40"E, 12 Jul 2012, *T. Miháliková SK15/1*, *T. Miháliková SK15/2*, *T. Miháliková SK15/3*, *T. Miháliková SK15/4*, *T. Miháliková SK15/5*, *T. Miháliková SK15/6*, *T. Miháliková SK15/7*, *T. Miháliková SK15/8*, *T. Miháliková SK15/9*, *T. Miháliková SK15/10* (SAV).

$2n \sim 4x \sim 40$, $2C = 2.11$ – 2.14 pg, FCM. Slovakia, Podunajská nížina Lowland, NNW of village of Boleráz, Boleráz Water Reservoir, S part, denuded wet bank, 184 m, 48°28'56"N, 17°28'44"E, 3 Jul 2012,

T. Miháliková SK17/1, T. Miháliková SK17/2, T. Miháliková SK17/3, T. Miháliková SK17/4, T. Miháliková SK17/5, T. Miháliková SK17/6, T. Miháliková SK17/7, T. Miháliková SK17/8, T. Miháliková SK17/9, T. Miháliková SK17/10 (SAV).

$2n \sim 4x \sim 40$, $2C = 2.12\text{--}2.18$ pg, FCM. Slovakia, Košická kotlina Basin, WNW of village of Turňa nad Bodvou, Turniansky rybník Pond, SE part, muddy bank, 184 m, $48^{\circ}36'04''\text{N}$, $20^{\circ}52'03''\text{E}$, 13 Jul 2012, *T. Miháliková SK19/1, T. Miháliková SK19/2, T. Miháliková SK19/3, T. Miháliková SK19/4, T. Miháliková SK19/5, T. Miháliková SK19/6, T. Miháliková SK19/7, T. Miháliková SK19/8, T. Miháliková SK19/9, T. Miháliková SK19/10 (SAV).*

$2n \sim 4x \sim 40$, $2C = 2.10\text{--}2.17$ pg, FCM. Slovakia, Potiská nížina Lowland, NNW of village of Brehov, Ondava River, alluvium, muddy ground depression alongside the embankment, 99 m, $48^{\circ}30'35''\text{N}$, $21^{\circ}48'44''\text{E}$, 13 Jul 2012, *T. Miháliková SK20/1, T. Miháliková SK20/2, T. Miháliková SK20/3, T. Miháliková SK20/4, T. Miháliková SK20/5, T. Miháliková SK20/6, T. Miháliková SK20/7, T. Miháliková SK20/8, T. Miháliková SK20/9, T. Miháliková SK20/10 (SAV).*

$2n \sim 4x \sim 40$, $2C = 2.11\text{--}2.22$ pg, FCM. Slovakia, Potiská nížina Lowland, NE of village of Malý Horeš, Horné Záhumienky, Tica ox-bow lake, wet muddy bank, 97 m, $48^{\circ}24'14''\text{N}$, $21^{\circ}57'16''\text{E}$, 14 Jul 2012, *T. Miháliková SK22/1, T. Miháliková SK22/2, T. Miháliková SK22/3, T. Miháliková SK22/4, T. Miháliková SK22/5, T. Miháliková SK22/6, T. Miháliková SK22/7, T. Miháliková SK22/8, T. Miháliková SK22/9 (SAV).*

$2n \sim 4x \sim 40$, $2C = 2.10\text{--}2.19$ pg, FCM. Slovakia, Potiská nížina Lowland, W of village of Leles, vicinity of the Most Sv. Gottharda Bridge, Tica ox-bow lake, denuded muddy bottom, 98 m, $48^{\circ}28'03''\text{N}$, $22^{\circ}01'03''\text{E}$, 14 Jul 2012, *T. Miháliková SK23/1, T. Miháliková SK23/2, T. Miháliková SK23/3, T. Miháliková SK23/4, T. Miháliková SK23/5, T. Miháliková SK23/6, T. Miháliková SK23/7, T. Miháliková SK23/8, T. Miháliková SK23/9, T. Miháliková SK23/10 (SAV).*

$2n \sim 4x \sim 40$, $2C = 2.09\text{--}2.11$ pg, FCM. Slovakia, Záhorská nížina Lowland, WNW of village of Gbely, Adamovské jazero Lake, S part, shallow water and muddy bank, 153 m, $48^{\circ}43'38''\text{N}$, $17^{\circ}02'11''\text{E}$, 24 Jul 2013, *T. Miháliková SK34/1, T. Miháliková SK34/2, T. Miháliková SK34/3, T. Miháliková SK34/4, T. Miháliková SK34/5, T. Miháliková SK34/6, T. Miháliková SK34/7, T. Miháliková SK34/8, T. Miháliková SK34/9 (SAV).*

$2n \sim 4x \sim 40$, $2C = 2.14\text{--}2.16$ pg, FCM. Sweden, Gotland County, NW of village of Klintehamn, Björkhagastrandby, seashore, 0 m, $57^{\circ}24'16''\text{N}$, $18^{\circ}10'10''\text{E}$, 3 Aug 2012, *I. Hodálová, P. Mereda & D.R. Letz SE24/2, I. Hodálová, P. Mereda & D.R. Letz SE24/3, I. Hodálová, P. Mereda & D.R. Letz SE24/4, I. Hodálová, P. Mereda & D.R. Letz SE24/5, I. Hodálová, P. Mereda & D.R. Letz SE24/6, I. Hodálová, P. Mereda & D.R. Letz SE24/7 (SAV).*

Rumex maritimus has been reported to be predominantly tetraploid with $2n = 4x = 40$ (e.g., Kihara & Ono, 1926; Chepinoga & al., 2012; Probatova & al., 2012); only one different count ($n = 10$) originates from south Ural (Russia; Menshikova, 1964). Our reports are the first for the territory of Austria and Hungary. Our reports for populations from Slovakia and Sweden are in agreement with the previous ones published from these countries (cf. Feráková, 1974; Löve, 1942; Lövkvist & Hultgård, 1999).

Rumex palustris Sm.

The coefficients of variation of G_1 peak of *R. palustris* samples and the internal standard ranged from 1.36% to 3.33% (average 2.06%) and from 1.26% to 2.71% (average 1.74%), respectively. All analysed samples were DNA hexaploids with $2n \sim 6x \sim 60$. The $2C$ -values for analysed samples were from 3.45 to 3.65 pg, with highest divergence between two samples 5.8%.

$2n = 60$, CHN. Slovakia, Potiská nížina Lowland, E of village of Kaluža, Zemplínska Širava Water Reservoir, N part, vicinity of Lodenica-boathouse, wet bank, 111 m, $48^{\circ}48'22''\text{N}$, $22^{\circ}00'41''\text{E}$, 3 Jun 2014, *T. Miháliková SK46/1 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.45\text{--}3.54$ pg, FCM. Austria, Burgenland, SW of village of Sankt Andrä am Zicksee, Baderlacke Lake, SW part, wet bank, 119 m, $47^{\circ}46'40''\text{N}$, $16^{\circ}56'02''\text{E}$, 26 Jul 2013, *T. Miháliková AT36/1, T. Miháliková AT36/2, T. Miháliková AT36/3, T. Miháliková AT36/4, T. Miháliková AT36/5, T. Miháliková AT36/6, T. Miháliková AT36/7, T. Miháliková AT36/8, T. Miháliková AT36/9, T. Miháliková AT36/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.50\text{--}3.59$ pg, FCM. Austria, Burgenland, SW of village of Schützen am Gebirge, pond between Wulka River and Eisbach Rivulet, S part of pond, wet denuded muddy bottom, 127 m, $47^{\circ}50'24''\text{N}$, $16^{\circ}37'11''\text{E}$, 13 Aug 2013, *T. Miháliková AT41/1, T. Miháliková AT41/2, T. Miháliková AT41/3, T. Miháliková AT41/4, T. Miháliková AT41/5, T. Miháliková AT41/6, T. Miháliková AT41/7, T. Miháliková AT41/8, T. Miháliková AT41/9, T. Miháliková AT41/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.56$ pg, FCM. Czech Republic, Milovicko-valtická pahorkatina Hills, WNW of village of Sedlec, Nový rybník Pond, wet field depression, 185 m, $48^{\circ}46'56''\text{N}$, $16^{\circ}40'35''\text{E}$, 24 Jul 2013, *T. Miháliková CZ43/1 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.49\text{--}3.54$ pg, FCM. Hungary, Veszprém County, SSE of village of Sóly, vicinity of Séd River, wet field margin, 153 m, $47^{\circ}07'12''\text{N}$, $18^{\circ}02'09''\text{E}$, 17 Jul 2013, *T. Miháliková HU26/1, T. Miháliková HU26/2, T. Miháliková HU26/3, T. Miháliková HU26/4, T. Miháliková HU26/5, T. Miháliková HU26/6, T. Miháliková HU26/7, T. Miháliková HU26/8, T. Miháliková HU26/9, T. Miháliková HU26/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.48\text{--}3.56$ pg, FCM. Hungary, Tolna County, town of Dunaföldvár, drainage channel alongside the motorway Nr. 6, wet bank, 105 m, $46^{\circ}48'34''\text{N}$, $18^{\circ}54'42''\text{E}$, 18 Jul 2013, *T. Miháliková HU27/1, T. Miháliková HU27/2, T. Miháliková HU27/3, T. Miháliková HU27/4, T. Miháliková HU27/5, T. Miháliková HU27/6, T. Miháliková HU27/7, T. Miháliková HU27/8, T. Miháliková HU27/9 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.45\text{--}3.53$ pg, FCM. Hungary, Csongrád County, NNE of village of Ferencszállás, Maros River, alluvium, muddy bank and river terrace, 83 m, $46^{\circ}13'20''\text{N}$, $20^{\circ}21'35''\text{E}$, 20 Jul 2013, *T. Miháliková HU28/1, T. Miháliková HU28/2, T. Miháliková HU28/3, T. Miháliková HU28/4, T. Miháliková HU28/5, T. Miháliková HU28/6, T. Miháliková HU28/7, T. Miháliková HU28/8, T. Miháliková HU28/9, T. Miháliková HU28/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.48\text{--}3.53$ pg, FCM. Hungary, Békés County, village of Doboz, Varga-hosszai-főcsatorna Channel, wet bank, 84 m, $46^{\circ}44'13''\text{N}$, $21^{\circ}14'57''\text{E}$, 20 Jul 2013, *T. Miháliková HU30/1, T. Miháliková HU30/2, T. Miháliková HU30/3, T. Miháliková HU30/4, T. Miháliková HU30/5, T. Miháliková HU30/6, T. Miháliková HU30/7, T. Miháliková HU30/8, T. Miháliková HU30/9, T. Miháliková HU30/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.47\text{--}3.53$ pg, FCM. Hungary, Hajdú-Bihar County, village of Pocsaj, Berettyó River, Ér-főcsatorna Channel, wet bank, 96 m, $47^{\circ}16'47''\text{N}$, $21^{\circ}48'34''\text{E}$, 21 Jul 2013, *T. Miháliková HU31/1, T. Miháliková HU31/2, T. Miháliková HU31/3, T. Miháliková HU31/4, T. Miháliková HU31/5, T. Miháliková HU31/6, T. Miháliková HU31/7, T. Miháliková HU31/8, T. Miháliková HU31/9 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.49\text{--}3.53$ pg, FCM. Hungary, Borsod-Abaúj-Zemplén County, village of Sajóörös, Sajóörösi-tó Lake, S part, wet bank, 92 m, $47^{\circ}56'55''\text{N}$, $21^{\circ}00'28''\text{E}$, 21 Jul 2013, *T. Miháliková HU32/1, T. Miháliková HU32/2, T. Miháliková HU32/3, T. Miháliková HU32/4, T. Miháliková HU32/5, T. Miháliková HU32/6, T. Miháliková HU32/7, T. Miháliková HU32/8, T. Miháliková HU32/9, T. Miháliková HU32/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.50\text{--}3.57$ pg, FCM. Hungary, Győr-Ménfőcsanak County, E of village of Dunaszég, Danube River, bigger lake nearby dead-arm, wet gravelly bank, 110 m, $47^{\circ}46'09''\text{N}$, $17^{\circ}33'06''\text{E}$, 10 Aug 2013, *T. Miháliková HU38/1, T. Miháliková HU38/2, T. Miháliková HU38/3, T. Miháliková HU38/4 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.51\text{--}3.65$ pg, FCM. Hungary, Komárom-Esztergom County, NE of village of Nagyigmánd, Kocs-Kisigmándi-ér Rivulet, alluvium, wet denuded soil, 121 m, $47^{\circ}38'56''\text{N}$, $18^{\circ}05'21''\text{E}$, 11 Aug 2013, *T. Miháliková HU39/1, T. Miháliková HU39/2,*

T. Miháliková HU39/3, T. Miháliková HU39/4, T. Miháliková HU39/5, T. Miháliková HU39/6, T. Miháliková HU39/7, T. Miháliková HU39/8, T. Miháliková HU39/9, T. Miháliková HU39/10 (SAV).

$2n \sim 6x \sim 60$, $2C = 3.57\text{--}3.61$ pg, FCM. Slovakia, Podunajská nížina Lowland, Bratislava, W of municipal part of Devínska Nová Ves, Morava River, alluvium, wet soil, 155 m, $48^{\circ}12'40''\text{N}$, $16^{\circ}58'04''\text{E}$, 8 Jul 2011, *T. Miháliková & I. Hodálová SK1/1, T. Miháliková & I. Hodálová SK1/2, T. Miháliková & I. Hodálová SK1/3, T. Miháliková & I. Hodálová SK1/4, T. Miháliková & I. Hodálová SK1/5, T. Miháliková & I. Hodálová SK1/6, T. Miháliková & I. Hodálová SK1/7, T. Miháliková & I. Hodálová SK1/8 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.53\text{--}3.62$ pg, FCM. Slovakia, Podunajská nížina Lowland, SW of village of Búč, Vojnický potok Stream, wet bank, 116 m, $47^{\circ}48'05''\text{N}$, $18^{\circ}26'29''\text{E}$, 22 Jul 2011, *T. Miháliková SK3/1, T. Miháliková SK3/2, T. Miháliková SK3/3, T. Miháliková SK3/4, T. Miháliková SK3/5, T. Miháliková SK3/6, T. Miháliková SK3/7, T. Miháliková SK3/8, T. Miháliková SK3/9, T. Miháliková SK3/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.59\text{--}3.64$ pg, FCM. Slovakia, Podunajská nížina Lowland, village of Tvrdošovce, small periodical lake nearby the railway station, denuded wet bank, 118 m, $48^{\circ}05'34''\text{N}$, $18^{\circ}02'31''\text{E}$, 22 Jul 2011, *T. Miháliková SK4/1, T. Miháliková SK4/2, T. Miháliková SK4/3, T. Miháliková SK4/4, T. Miháliková SK4/5, T. Miháliková SK4/6, T. Miháliková SK4/7, T. Miháliková SK4/8, T. Miháliková SK4/9, T. Miháliková SK4/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.56\text{--}3.60$ pg, FCM. Slovakia, Podunajská nížina Lowland, E of village of Okánikovo, Poľný kanál Channel, wet bank, 106 m, $47^{\circ}46'58''\text{N}$, $17^{\circ}53'02''\text{E}$, 26 Jul 2011, *T. Miháliková SK5/1, T. Miháliková SK5/2, T. Miháliková SK5/3, T. Miháliková SK5/4, T. Miháliková SK5/5, T. Miháliková SK5/6, T. Miháliková SK5/7, T. Miháliková SK5/8, T. Miháliková SK5/9, T. Miháliková SK5/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.54\text{--}3.59$ pg, FCM. Slovakia, Záhorská nížina Lowland, SE of village of Borský Svätý Jur, Horná studená voda Water Reservoir, W part, wet bank alongside the embankment, 171 m, $48^{\circ}35'09''\text{N}$, $17^{\circ}04'44''\text{E}$, 12 Aug 2011, *T. Miháliková SK6/1, T. Miháliková SK6/2, T. Miháliková SK6/3, T. Miháliková SK6/4, T. Miháliková SK6/5, T. Miháliková SK6/6, T. Miháliková SK6/7, T. Miháliková SK6/8, T. Miháliková SK6/9, T. Miháliková SK6/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.51\text{--}3.64$ pg, FCM. Slovakia, Podunajská nížina Lowland, Bratislava, NE of municipal part of Vajnory, Struha Stream, wet denuded bank, 130 m, $48^{\circ}12'52''\text{N}$, $17^{\circ}12'53''\text{E}$, 22 Aug 2011, *T. Miháliková SK7/1, T. Miháliková SK7/2, T. Miháliková SK7/3, T. Miháliková SK7/4, T. Miháliková SK7/5, T. Miháliková SK7/6, T. Miháliková SK7/7, T. Miháliková SK7/8, T. Miháliková SK7/9, T. Miháliková SK7/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.55\text{--}3.63$ pg, FCM. Slovakia, Podunajská nížina Lowland, ENE of town of Galanta, Kráľová Water Reservoir, W part nearby Kaskády Event Hotel, denuded wet bank, 119 m, $48^{\circ}12'27''\text{N}$, $17^{\circ}48'04''\text{E}$, 19 Jun 2012, *T. Miháliková & P. Mered'a SK8/1, T. Miháliková & P. Mered'a SK8/2, T. Miháliková & P. Mered'a SK8/3, T. Miháliková & P. Mered'a SK8/4, T. Miháliková & P. Mered'a SK8/5, T. Miháliková & P. Mered'a SK8/6, T. Miháliková & P. Mered'a SK8/7, T. Miháliková & P. Mered'a SK8/8, T. Miháliková & P. Mered'a SK8/9, T. Miháliková & P. Mered'a SK8/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.52\text{--}3.62$ pg, FCM. Slovakia, Podunajská nížina Lowland, E of town of Komárno, Váh River, water channel alongside the embankment, shallow water, 106 m, $47^{\circ}46'04''\text{N}$, $18^{\circ}08'21''\text{E}$, 22 Jun 2012, *T. Miháliková SK9/1, T. Miháliková SK9/2, T. Miháliková SK9/3, T. Miháliková SK9/4, T. Miháliková SK9/5, T. Miháliková SK9/6, T. Miháliková SK9/7, T. Miháliková SK9/8, T. Miháliková SK9/9, T. Miháliková SK9/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.49\text{--}3.60$ pg, FCM. Slovakia, Podunajská nížina Lowland, village of Komjatice, Nitra River, alluvium, denuded muddy soil, 126 m, $48^{\circ}09'06''\text{N}$, $18^{\circ}10'37''\text{E}$, 26 Jun 2012, *T. Miháliková SK10/1, T. Miháliková SK10/2, T. Miháliková SK10/3, T. Miháliková SK10/4, T. Miháliková SK10/5, T. Miháliková SK10/6,*

T. Miháliková SK10/7, T. Miháliková SK10/8, T. Miháliková SK10/9, T. Miháliková SK10/10 (SAV).

$2n \sim 6x \sim 60$, $2C = 3.55\text{--}3.60$ pg, FCM. Slovakia, Podunajská nížina Lowland, NW of town of Vráble, Vráble Water Reservoir, S part, wet bank, 147 m, $48^{\circ}15'23''\text{N}$, $18^{\circ}17'45''\text{E}$, 26 Jun 2012, *T. Miháliková SK11/1, T. Miháliková SK11/2, T. Miháliková SK11/3, T. Miháliková SK11/4, T. Miháliková SK11/5, T. Miháliková SK11/6, T. Miháliková SK11/7, T. Miháliková SK11/8, T. Miháliková SK11/9, T. Miháliková SK11/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.52\text{--}3.59$ pg, FCM. Slovakia, Ipeľskorimavská brázda Hills, E of village of Ipeľské Predmostie, Ipeľské hony Nature Reserve, Ipeľ River, alluvium, wet denuded soil, 128 m, $48^{\circ}03'52''\text{N}$, $19^{\circ}03'43''\text{E}$, 28 Jun 2012, *T. Miháliková SK13/1, T. Miháliková SK13/2, T. Miháliková SK13/3, T. Miháliková SK13/4, T. Miháliková SK13/5, T. Miháliková SK13/6, T. Miháliková SK13/7, T. Miháliková SK13/8, T. Miháliková SK13/9, T. Miháliková SK13/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.49\text{--}3.53$ pg, FCM. Slovakia, Podunajská nížina Lowland, NE of town of Nové Mesto nad Váhom, Zelená voda Lake, wet muddy bank, 178 m, $48^{\circ}46'08''\text{N}$, $17^{\circ}51'48''\text{E}$, 3 Jul 2012, *T. Miháliková SK16/1, T. Miháliková SK16/2, T. Miháliková SK16/3, T. Miháliková SK16/4, T. Miháliková SK16/5, T. Miháliková SK16/6, T. Miháliková SK16/7, T. Miháliková SK16/8, T. Miháliková SK16/9, T. Miháliková SK16/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.53\text{--}3.58$ pg, FCM. Slovakia, Ipeľsko rimavská brázda Hills, SE of village of Hubovo, Hubovo Water Reservoir, S part, wet muddy bank, 220 m, $48^{\circ}23'22''\text{N}$, $20^{\circ}22'48''\text{E}$, 12 Jul 2012, *T. Miháliková SK18/1, T. Miháliková SK18/2, T. Miháliková SK18/3, T. Miháliková SK18/4, T. Miháliková SK18/5, T. Miháliková SK18/6, T. Miháliková SK18/7, T. Miháliková SK18/8, T. Miháliková SK18/9, T. Miháliková SK18/10 (SAV).*

$2n \sim 6x \sim 60$, $2C = 3.52\text{--}3.61$ pg, FCM. Slovakia, Potiská nížina Lowland, NNW of village of Brehov, Ondava River, alluvium, muddy ground depression alongside the embankment, 99 m, $48^{\circ}30'35''\text{N}$, $21^{\circ}48'44''\text{E}$, 13 Jul 2012, *T. Miháliková SK21/1, T. Miháliková SK21/2, T. Miháliková SK21/3, T. Miháliková SK21/4, T. Miháliková SK21/5, T. Miháliková SK21/6, T. Miháliková SK21/7, T. Miháliková SK21/8, T. Miháliková SK21/9, T. Miháliková SK21/10 (SAV).*

The previous chromosome reports gave two ploidy levels for *R. palustris*: $2n = 4x = 40$ from different botanical gardens (material of unknown origin, e.g., Jaretsky, 1928; Degraeve, 1975) and from Scandinavia and Bulgaria (e.g., Löve, 1942; Raycheva, 2005) and $2n = 6x = 60$ from Denmark, Greece, Spain and United Kingdom (e.g., Ichikawa & al., 1971; Strid & Andersson, 1985; García & al., 1989; Montgomery & al., 1997). Our data are the first ones given for *R. palustris* from the Czech Republic and Slovakia; those from Austria and Hungary corroborate the earlier ones given for his country (Degraeve, 1975; Dobeš & al., 1996).

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Nina S. Probatova,^{1*} Sergey G. Kazanovsky,²
Vyacheslav Yu. Barkalov¹ & Vitaly A. Nechaev¹

1 Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletya Ave., 690022 Vladivostok, Russia

2 Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of the Russian Academy of Sciences, 132 Lermontova Str., 664033 Irkutsk, Russia

* Author for correspondence: probatova@ibss.dvo.ru

* First chromosome count for the species.

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

ALLIACEAE

Allium condensatum Turcz.

$2n = 16$, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, Mramornaya Mt., on the rocks, 16 Jun 2014, V.Yu. Barkalov 12617 (VLA).

AMARANTHACEAE

Amaranthus caudatus L.

$2n = 32$, CHN. Russia, Far East, Primorskii Krai, Vladivostok city, Kirova Str., grassy slope, 19 Sep 2015, V.A. Nechaev 12887 (VLA).

ASPARAGACEAE

Polygonatum humile Fisch. ex Maxim.

$2n = 20$, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, Reid Pallady, Mramornaya Bay, marine terrace, 17 Jun 2014, V.Yu. Barkalov 12642 (VLA).

ASTERACEAE

Ambrosia artemisiifolia L.

$2n = 36$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, Platono-Aleksandrovskoe village, 23 Sep 2015, V.A. Nechaev 12949 (VLA).

Cirsium vlassovianum Fisch. ex DC.

$2n = 28$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Nerchinsko-Zavodskii Raion, near Ivanovka village, 665 m, forb meadow, 28 Aug 2013, S.G. Kazanovsky 12524 (IRK, VLA).

Grindelia squarrosa (Pursh) Dunal

$2n = 12$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, Platono-Aleksandrovskoe village, V.A. Nechaev 12885 (VLA).

**Hieracium korshinskyi* Zahn

$2n = 36$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, Khamar-Daban mountain ridge, the Vydrinaya River, near the mouth, 492 m, the edge of the birch grassy-forb forest, 17 Jul 2015, S.G. Kazanovsky 12950 (IRK, VLA).

Ixeridium gramineum (Fisch.) Tzvelev

$2n = 14$, CHN. Russia, East Siberia, Republic of Buryatia, outskirts of Ulan-Ude city, Yuzhnyi settlement, 544 m, in the light pine forest with steppe vegetation, 16 Jul 2015, S.G. Kazanovsky 12897 (IRK, VLA).

Kalimeris incisa (Fisch.) DC.

$2n = 18$, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, near Mramornyi Cape, sandy coast, at the edge of the grass bog, 7 Jun 2014, V.Yu. Barkalov 12633 (VLA).

Senecio viscosus L.

$2n = 40$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the Baikal Lake, SE lakeside, the railway station Mishikha, along the forest road close to the railroad embankment, 4 Oct 2009, M.M. Ivanova 12927 (IRK, VLA).

Tephrosia kirilowii (Turcz. ex DC.) Holub

$2n = 48$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, 5 km of Platonovka village, moist meadow, 21 May 2015, V.A. Nechaev 12764 (VLA).

BRASSICACEAE

Brassica elongata subsp. *integrifolia* (Boiss.) Breistr.

$2n = 30$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ust'-Udinskii Raion, in vicinity of Igzhay village, fallow land, 28 Aug 2008, A.V. Verkhozina, S.G. Kazanovsky & O.A. Chernyshova 12898 (IRK, VLA).

Camelina microcarpa Andr. ex DC.

$2n = 16$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Nyuki village, the Selenga River, left riverside, 467 m, grassy-forb steppe, 17 Jul 2015, S.G. Kazanovsky 12934 (IRK, VLA).

Lepidium apetalum Willd.

$2n = 16$, CHN. Russia, East Siberia, Republic of Buryatia, outskirts of Ulan-Ude city, Yuzhnyi settlement, 544 m, in the light pine forest with steppe vegetation, 18 Jul 2015, S.G. Kazanovsky 12930 (IRK, VLA).

CAMPANULACEAE*Campanula patula* L.

2n = 20, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near the railway station Vydrino, 557 m, roadside of the highway, 14 Jul 2014, S.G. Kazanovsky 12914 (IRK, VLA).

CAPRIFOLIACEAE*Patrinia rupestris* (Pall.) Dufur.

2n = 22, CHN. Russia, Far East, Primorskii Krai, Ussuriyskii Raion, near Aleksei-Nikol'skoe village, V.A. Nechaev 12891 (VLA).

CARYOPHYLLACEAE*Dianthus versicolor* Fisch. ex Link

2n = 30, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, Mramornaya Mt., meadow on the slope, 16 Jun 2014, V.Yu. Barkalov 12618 (VLA).

Lychnis flos-cuculi L.

2n = 24, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the Baikal Lake, SE lakeside, between Bol'shie Mangyly and Malye Mangyly rivers, 5377-th km, picket 5 of the East Siberian railroad, meadow close to the railway embankment, 9 Aug 2013, M.M. Ivanova 12932 (IRK, VLA).

***Spergularia rubra* (L.) J.Presl & C.Presl

2n = 18, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, between the railway station Vydrino and Tolbazikha village, fine rubbly slope along the highway, 4 Jul 2014, M.M. Ivanova 12908 (IRK, VLA).

CHENOPODIACEAE*Teloxys aristata* (L.) Moq.

2n = 18, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, near the railway station Kultuk, 155-th km, picket 2 of the Krugobaikal'skaya railroad, on steppe slope, 4 Sep 2014, M.M. Ivanova 12928 (IRK, VLA).

ELAEOAGNACEAE*Hippophae rhamnoides* L.

2n = 24, CHN. Russia, East Siberia, Republic of Buryatia, Kyakhtinskii Raion, near Ust'-Kyakhta settlement, 632 m, sandy grassy-forb steppe, 29 Jul 2014, S.G. Kazanovsky 12910 (IRK, VLA).

ERICACEAE*Rhododendron aureum* Georgi

2n = 52, CHN. Russia, East Siberia, Irkutskaya Oblast', Kazachinsko-Lenskii Raion, the Baikal'skii mountain ridge, 5 km E of the railway station Kunerma, 527 m, the Siberian pine and fir forest with green mosses and *Pinus pumila*, 10 Aug 2014, S.G. Kazanovsky 12915 (IRK, VLA).

Vaccinium myrtillus L.

2n = 24, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Tolbazikha village, the Tolbazikha River, left riverside, 566 m, the Siberian pine, fir and birch forest with spruce, bilberries and forb, 15 Jul 2014, S.G. Kazanovsky 12920 (IRK, VLA).

EUPHORBIACEAE*Euphorbia lucorum* Rupr.

2n = 28, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, Mramornaya Mt., forb meadow on the slope, 16 Jun 2014, V.Yu. Barkalov 12620 (VLA).

Euphorbia pseudochamaesyce Fisch. & C.A.Mey.

2n = 22, CHN. Russia, East Siberia, Republic of Buryatia, Kyakhtinskii Raion, near Ust'-Kyran settlement, the Chikoi River,

left riverside, 587 m, sandy slope, forb steppe, 16 Aug 2015, S.G. Kazanovsky 12933 (IRK, VLA); Russia, East Siberia, Republic of Buryatia, Selenginskii Raion, 8 km S of the Selenga River, right riverside, 541 m, rocks at the road, on rubbly soil among stones, 17 Aug 2015, S.G. Kazanovsky 12931 (IRK, VLA).

FABACEAE*Glycyrrhiza pallidiflora* Maxim.

2n = 16, CHN. Russia, Far East, Primorskii Krai, Khorol'skii Raion, near Sivakovka village, W lakeside of the Khanka Lake, 11 Mar 2016, V.A. Nechaev 12924 (VLA).

Gueldenstaedtia verna (Georgi) Boriss.

2n = 16, CHN. Russia, Far East, Primorskii Krai, Ussuriyskii Raion, near Aleksey-Nikol'skoe, V.A. Nechaev 12869 (VLA).

Podocarpium mandshuricum (Maxim.) Czerep.

2n = 22, CHN. Russia, Far East, Primorskii Krai, Muravev-Amurskii Peninsula, Vladivostok, oak forest near Akademgorodok, 5 Aug 2015, V.A. Nechaev 12810 (VLA).

GENTIANACEAE**Swertia baicalensis* Popov ex Pissjauk.

2n = 32, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the Snezhnaya River basin, in vicinity of the Pik Tal'tinskii Mt., the upper course of the Tal'tsy River, 1093 m, subalpine forb meadow, 10 Aug 2015, S.G. Kazanovsky 12916 (IRK, VLA).

LAMIACEAE*Dracocephalum ruyschiana* L.

2n = 14, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, in vicinity of Bol'shoe Goloustnoe settlement, Zavirukha River - left tributary of the Goloustnaya River, 492 m, the pine and birch grassy-forb forest, 21 Jul 2014, S.G. Kazanovsky 12911 (IRK, VLA).

Leonurus macranthus Maxim.

2n = 20, CHN. Russia, Far East, Primorskii Krai, Ussuriyskii Raion, near Nikolo-L'vovskoe settlement, 2015, V.A. Nechaev 12892 (VLA).

LILIACEAE*Lilium buschianum* Lodd.

2n = 24, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, Mramornaya Mt., meadow on the slope, 16 Jun 2014, V.Yu. Barkalov 12625 (VLA).

PLANTAGINACEAE***Veronica krylovii* Schischk.

2n = 18, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, in vicinity of Bol'shoe Goloustnoe settlement, Zavirukha River - left tributary of the Goloustnaya River, 486 m, grassy-forb meadow, 22 Jul 2014, S.G. Kazanovsky 12905 (IRK, VLA).

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

2n = 24, CHN. Russia, West Siberia, Republic of Altai, Ongudaiskii Raion, near Ongudai settlement, 958 m, stony S slope with steppe vegetation, 30 Aug 2012, S.G. Kazanovsky 12561 (IRK, VLA).

Agrostis clavata Trin.

2n = 42, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, near Mramornyi Cape, sandy shore, 17 Jun 2014, V.Yu. Barkalov 12648 (VLA).

Calamagrostis angustifolia Kom.

2n = 28, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, in vicinity of Komissarovo settlement, the valley of Komissarovka River, moist depression, 26 Sep 2014, *V.A. Nechaev 12695* (VLA).

Poa angustifolia L.

2n = 56, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near Tavrichanka settlement, the shore of Amurskii Bay, meadow, 5 Jun 2015, *V.A. Nechaev 12781* (VLA).

Spodiopogon sibiricus Trin.

2n = 40, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, near the lake Ptichye, Priozernaya Mt., stony slope with shrubs, 17 Jun 2014, *V.Yu. Barkalov 12652* (VLA).

POLYGONACEAE*Rheum rhabarbarum* L.

2n = 44, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the Baikal Lake, Aya Bay, 483 m, N slope, sandy steppe with *Koeleria* and *Poa*, 16 Aug 2014, *S.G. Kazanovsky 12907* (IRK, VLA).

RANUNCULACEAE*Aquilegia sibirica* Lam.

2n = 16, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, left riverside of the Snezhnaya River, 563 m, the Siberian pine and fir forest, on the butt of reversed Siberian pine, 13 Jul 2014, *S.G. Kazanovsky & M.M. Ivanova 12917* (IRK, VLA).

ROSACEAE*Fragaria viridis* Weston

2n = 14, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Nyuki village, the Selenga River, left riverside, 467 m, the pine forest with shrubs and forb, 17 Jul 2015, *S.G. Kazanovsky 12938* (IRK, VLA).

Spiraea alpina Pall.

2n = 18, CHN. Russia, East Siberia, Irkutskaya Oblast', Kazachinsko-Lenskii Raion, the Kharakhikta River, 631 m, riverside shrubs, 11 Aug 2014, *S.G. Kazanovsky 12900* (IRK, VLA).

RUBIACEAE*Galium vaillantii* DC.

2n = 22, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudyanskii Raion, the Baikal Lake, SW lakeside, the Krugobaikal'skaya railroad, 102-d km, the Shumikha River, at the steps to the river, 11 Aug 2014, *M.M. Ivanova 12929* (IRK, VLA).

SOLANACEAE*Hyoscyamus niger* L.

2n = 34, CHN. Russia, East Siberia, Zabaikal'skii Krai, Aginskii Raion, 10 km NW of Yuzhnyi Argaley village, the Argaley River, 896 m, at the road, 28 Aug 2013, *S.G. Kazanovsky & E.A. Bondarevich 12906* (IRK, VLA); Russia, Far East, Primorskii Krai, Khassanskii Raion, near Andreevka settlement, coastal sands, among *Leymus mollis*, 15 Jun 2014, *V.A. Nechaev 12586* (VLA).

VIOLACEAE*Viola brachysepala* Maxim.

2n = 20, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the Reid Pallady Bay, Mramornaya Mt., stony slope, 16 Jun 2014, *V.Yu. Barkalov 12645* (VLA).

Viola collina Besser

2n = 20, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, upper course of the Nezhinka River, near the mouth of its confluent Razdol'nensky Spring, 24 May 2014, *V.Yu. Barkalov 12583* (VLA).

Viola extremiorientalis Vorosch. & N.S.Pavlova

2n = 24, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, upper course of the Nezhinka River, Ploskii Ridge, at the rocks of the watershed, 23 May 2014, *V.Yu. Barkalov 12587* (VLA).

Viola muehldorfii Kiss

2n = 24, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, the Razdol'naya River basin, the watershed of the Vtoraya Rechka River and Razdol'nenskii Spring (the confluent of Nezhinka River), mixed forest, 21 May 2014, *V.Yu. Barkalov 12588* (VLA).

Viola primorskajensis (W.Becker) Vorosch.

2n = 24, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, upper course of the Nezhinka River, near the mouth of its confluent Razdol'nensky Spring, at the riverside rocks, on the melkozem, 22 May 2014, *V.Yu. Barkalov 12590* (VLA).

* *Viola woroschilovii* Bezd.

2n = 24, CHN. Russia, Far East, Primorskii Krai, Vladivostok city, near Medical Institute, on the W slope to Ostryakova Ave., 15 Jun 2015, *T.A. Bezdeleva 12904* (VLA).

Nina S. Probatova,^{1*} Denis A. Krivenko² & Alexandr L. Ebel³

1 *Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletya Ave., 690022 Vladivostok, Russia*

2 *Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of the Russian Academy of Sciences, 132 Lermontova Str., 664033 Irkutsk, Russia*

3 *National Research Tomsk State University, 36 Lenina Ave., 634050 Tomsk, Russia*

* Author for correspondence: probatova@ibss.dvo.ru

* First chromosome count for the species.

** New chromosome number (cytotypic) for the species.

ALLIACEAE*Allium vodopjanovae* N.Friesen

2n = 16, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, near Efremkino settlement, right riverside of the Belyi Iyus River, rocky massif Togyz-Az, on rocks, 15 Aug 2013, *A.L. Ebel 12750* (TK).

AMARANTHACEAE*Amaranthus retroflexus* L.

2n = 32, CHN. Russia, East Siberia, Irkutskaya Oblast', Ust'-Ordynskii Buryatskii natsional'nyi okrug, Ekhirit-Bulagatskii Rayon, 51 km of Kachug tract, 9 km SE from the Zady village, forbs-grass steppe meadow, 16 Aug 2011, *D.A. Krivenko 12601* (IRK, VLA).

Atriplex hortensis L.

2n = 18, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, the territory of the health resort "Angara", 458 m, ruderal community at the roadside, 27 Jul 2014, *D.A. Krivenko 12848* (IRK, VLA).

Corispermum ulopterum Fenzl ex Ledeb.

2n = 18, CHN. Russia, East Siberia, Republic of Buryatia, Severo-Baikal'skii Raion, near Nizhneangarsk town, the Baikal Lake, Yarki Island, 521 m, on shore sands, 8 Aug 2014, *D.A. Krivenko 12865* (IRK, VLA).

ASPARAGACEAE*Asparagus schoberioides* Kunth

2n = 20, CHN. Russia, Far East, Primorskii Krai, Khassanskii

Raion, Gamova Cape, on the road from the Vityaz' Bay to the Astafieva Bay, 37 m, oak tall grasses forest, 19 Oct 2013, *D.A. Krivenko 12605* (IRK, VLA).

ASTERACEAE

Gnaphalium sylvaticum L.

$2n = 56$, CHN. Russia, East Siberia, Republic of Buryatia, Severo-Baikal'skii Raion, near the railway station Davan, 955 m, on pebbles of the riverside, 9 Aug 2015, *D.A. Krivenko 12857* (IRK, VLA).

Hieracium umbellatum agg.

$2n = 27$, CHN. Russia, East Siberia, Irkutskaya Oblast', Kazachinskii Raion, 15 km of Okunaiskii settlement, the Kholodnoe Lake, 425 m, on the site of dry saline pond, in small pool, 11 Aug 2014, *D.A. Krivenko 12867* (IRK, VLA).

Jacobaea erucifolia (L.) G.Gaertn., B.Mey. & Scherb.

$2n = 40$, CHN. Russia, East Siberia, Republic of Sakha-Yakutia, Mirninskii Rayon, right bank of the Ulakhan-Botuobuya River, about 4.7 km NNE of the mouth Mata-Ulegir River, 300 m, riverside, 2 Sep 2012, *A.V. Verkhozina & D.A. Krivenko 12566* (IRK, VLA).

Saussurea salicifolia DC.

$2n = 26$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the lakeside of the Baikal Lake, Aya Bay, 455 m, stony steppe, 16 Aug 2014, *D.A. Krivenko 12834* (IRK, VLA).

BORAGINACEAE

Hackelia deflexa Opiz

$2n = 24$, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, in vicinity of Efremkino settlement, lower part of the slope to the valley of Belyi Iyus River, among shrubs, 17 Aug 2013, *A.L. Ebel 12736* (TK).

BRASSICACEAE

Capsella bursa-pastoris (L.) Medik.

$2n = 16$, CHN. Kazakhstan, Yuzhno-Kazakhstanskaya Oblast', Kentau city, waste ground, 24 Apr 2013, *A.N. Kupriyanov & A.L. Ebel 12724* (TK).

Erucastrum armoracioides Litv.

$2n = 30$, CHN. Kazakhstan, Karagandinskaya Oblast', Ossakarovskii Raion, 50 km northwards of Karaganda city, near Mirnoe settlement, by the roadside, 22 Apr 2013, *A.L. Ebel 12609* (TK).

EUPHORBIACEAE

Euphorbia virgata Waldst. & Kit.

$2n = 60$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, near Turuntaevo village, left riverside of the Itantsa River, the grass community with ruderal weeds at the roadside, 6 Jul 2015, *D.A. Krivenko 12849* (IRK, VLA).

FABACEAE

Hedysarum turczaninovi Peschkova

$2n = 14$, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, near Efremkino, right riverside of the Belyi Iyus River, rocky massif Togyz-Az, stony steppe, 9 Aug 2013, *A.L. Ebel 12775* (TK).

** *Oxytropis nuda* Basil.

$2n = 16+0-4B$, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, near Efremkino, right riverside of the Belyi Iyus River, rocky massif Togyz-Az, stony steppe, 9 Aug 2013, *A.L. Ebel 12752* (TK).

Trifolium lupinaster L.

$2n = 32$, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, near Efremkino, light *Larix* forest, 16 Aug 2013, *A.L. Ebel 12774* (TK).

HYPERICACEAE

Hypericum maculatum Crantz

$2n = 16$, CHN. Russia, West Siberia, Tomskaya Oblast', in vicinity of Tomsk city, dry meadow near the ash dump of the electric power station - 2, 23 Aug 2013, *A.L. Ebel 12753* (TK).

IRIDACEAE

** *Iris ensata* Thunb.

$2n = 24+0-1B$, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, in vicinity of the railway station Razdol'noe, *D.A. Krivenko 12945* (IRK, VLA).

LAMIACEAE

Galeopsis bifida Boenn.

$2n = 32$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, the locality Mel'nichnaya Pad', country place "Kedr", way-side stop, 535 m, ruderal community, 23 Aug 2014, *E.D. Krivenko & D.A. Krivenko 12854* (IRK, VLA).

MALVACEAE

Hibiscus trionum L.

$2n = 56$, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, in vicinity of Tazhnoe settlement (far from Kiparissovo railway station), as a weed on the garden-plot, 2015, *E.G. Rudyka 12921* (VLA).

ONAGRACEAE

* *Epilobium pseudorubescens* A.K.Skvortsov

$2n = 36$, CHN. Russia, West Siberia, Tomskaya Oblast', Tomsk city, on the city dump, 23 Aug 2013, *A.L. Ebel 12734* (TK).

PAPAVERACEAE

Papaver nudicaule L.

$2n = 42$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the Baikal Lake, Ol'khon Island, Khuzhirsii Bay, 767 m, overdeveloped sandy-stony steppe, 15 Aug 2014, *D.A. Krivenko 12853* (IRK, VLA).

PLANTAGINACEAE

Cymbalaria muralis G.Gaertn., B.Mey. & Scherb.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, suburbs of Vladivostok city, the Botanical Garden-Institute FEB RAS, as a weed on garden-beds, 2015, *T.A. Bezdeleva 12902* (VLA).

Plantago asiatica L.

$2n = 24$, CHN. Russia, Far East, Primorskii Krai, W lakeside of the Khanka Lake in vicinity of Turii Rog settlement, a lakelet in 300 m of the Khanka Lake, 26 Jul 2003, *V.P. Verkholat & al. 9047* (VLA).

POACEAE

Echinochloa colona (L.) Link

$2n = 54$, CHN. China, Henan Province, Loyan city, near Mag-nolia Hotel, ruderal community, 10 Dec 2014, *D.A. Krivenko 12833* (IRK, VLA).

Melica turczaninowiana Ohwi

$2n = 18$, CHN. Russia, East Siberia, Irkutskaya Oblast', Nizh-neudinskii Raion, Ukovskii waterfall, near Vodopadnyi settlement, the Bol'shoi Uk River (left tributary of the Uda River), rocky slope, 28 Jul 2015, *D.A. Krivenko 12835* (IRK, VLA).

Panicum miliaceum L.

2n = 36, CHN. Russia, East Siberia, Irkutskaya Oblast', Ussol'skii Raion, Ussol'e-Sibirskoe town, park near the Culture Center "Khimik", 442 m, the overgrown flower-bed, 23 Aug 2008, A.V. Verkhovina 12039 (IRK, VLA).

Stipa krylovii Roshev.

2n = 44, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the lakeside of the Baikal Lake, Aya Bay, 455 m, stony steppe, 16 Aug 2014, D.A. Krivenko 12840 (IRK, VLA).

POLYGONACEAE*Aconogonon ochreatum* Nakai

2n = 20, CHN. Russia, East Siberia, Republic of Buryatia, Severo-Baikal'skii Raion, near Nizhneangarsk town, the Baikal Lake, Yarki Island, 521 m, on shore sands, 8 Aug 2014, D.A. Krivenko 12851 (IRK, VLA).

Rumex gmelinii Turcz.

2n = 40, CHN. Russia, East Siberia, Irkutskaya Oblast', Slyudanskii Raion, right riverside of the Kultuchnaya River, near the wayside stop Verbyni, steppe meadow, 7 Jul 2015, D.A. Krivenko 12839 (IRK, VLA).

PRIMULACEAE*Androsace filiformis* Retz.

2n = 20, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, near Novoshakhtinskii settlement, 2015, V.T. Lapenko 12925 (VLA).

RANUNCULACEAE*Ranunculus sceleratus* L.

2n = 32, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, 4 km of the road to Mel'nichnaya Pad', country place "Stroitel", a weed on the dacha plot, 29 Jun 2015, E.V. Pradedova 12863 (IRK, VLA).

SCROPHULARIACEAE*Scrophularia incisa* Weinm.

2n = 48, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, the lakeside of the Baikal Lake, Aya Bay, 455 m, sandy beach, 16 Aug 2014, D.A. Krivenko 12852 (IRK, VLA).

**Scrophularia multicaulis* Turcz.

2n = 24, CHN. Russia, East Siberia, Republic of Khakassia, Shirinskii Raion, near Efremkino, right riverside of the Belyi Iyus River, rocky massif Togyz-Az, stony slope, 17 Aug 2013, A.L. Ebel 12738 (TK).

VIOLACEAE*Viola hirta* L.

2n = 20, CHN. Russia, East Siberia, Irkutskaya Oblast', Taishetskii Raion, close to Shelaevo settlement, the Solonechnoe Lake, left riverside of the Biryussa River, birch forest with tall herbs, 26 Jul 2015, D.A. Krivenko 12860 (IRK, VLA).

Viola philippica Cav.

2n = 48, CHN. China, Girin Province, Yan'byan'-Koreiskii Avtonomnyi Okrug, Khunchun' city, in the city park, on the lawn, 10 Sep 2015, D.A. Krivenko 12936 (IRK, VLA).

***Viola ruppilii* All.

2n = 24, CHN. Russia, East Siberia, Irkutskaya Oblast', Taishetskii Raion, close to Shelaevo settlement, the Solonechnoe Lake, left riverside of the Biryussa River, birch forest with tall herbs, 26 Jul 2015, D.A. Krivenko 12866 (IRK, VLA).

2n = 48, CHN. Russia, East Siberia, Irkutskaya Oblast', Taishetskii Raion, near Shelaevo settlement, the Solonechnoe Lake, left riverside of the Biryussa River, birch forest with tall herbs, 26 Jul 2015, D.A. Krivenko 12862 (IRK, VLA).

Viola sacchalinenensis H.Boissieu

2n = 20, CHN. Russia, East Siberia, Republic of Buryatia, Selinginskii Raion, near Yagodnoe village, 711 m, along the riverside, 30 Jun 2015, D.A. Krivenko 12858 (IRK, VLA).

Nina S. Probatova,^{1*} Vitaly P. Seledets² & Elvira G. Rudyka¹

1 *Institute of Biology & Soil Science, Far East Branch of the Russian Academy of Sciences, 159 Stoletya Prospekt, 690022 Vladivostok, Russia*

2 *Pacific Institute of Geography, Far East Branch of the Russian Academy of Sciences, 7 Radio Street, 690041 Vladivostok, Russia*

* Author for correspondence: probatova@ibss.dvo.ru

* First chromosome count for the species.

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

▲ CN counts were made by A.P. Sokolovskaya (unpub.).

ACORACEAE*Acorus calamus* L.

2n = 24, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, W lakeside of the Khanka Lake, in vicinity of Il'inka settlement, 26 Jul 2003, V.P. Verkholat & al. 9046 (VLA).

ADOXACEAE*Adoxa moschatellina* L.

2n = 36, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, near Shtykovo settlement, W slope of a hill, oak forest, 24 May 2006, A.E. Kozhevnikov & Z.V. Kozhevnikova 10161 (VLA).

APIACEAE

***Cnidium dahuricum* Fisch & C.A.Mey.

2n = 20, CHN. Russia, Far East, Primorskii Krai, Chernigovskii Raion, near Gornyi Khutor village, disturbed meadow, Jul 1995, Ya.I. Lelikov 7242 (VLA).

ARACEAE*Arisaema peninsulae* Nakai

2n = 28, CHN. Russia, Far East, Primorskii Krai, Peschanyi Peninsula opposite Vladivostok city, valley forest, 3 Jun 2006, N.S. Pavlova 10201 (VLA).

ASTERACEAE*Bidens tripartita* L.

2n = 48, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near the railway station Sovkhoznaya, coastal plain, 22 Sep 2007, V.A. Nechaev 10783 (VLA).

Brachyactis angusta (Lindl.) Britt.

2n = 14, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, the railway station Kamen'-Rybolov, on the railroad embankment, 21 Sep 2011, V.T. Lapenko 11969 (VLA).

Ixeridium gramineum (Fisch.) Tzvelev

2n = 14, CHN. China, Heilongjiang Province, Harbin city, as a weed in the park, 2 Jul 2000, N.S. Probatova & V.P. Seledets 8950 (VLA).

** *Leontodon autumnalis* L.

$2n = 12+0-2-3B$, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 2 km SW of Novoshakhtinskii settlement, along the forest road, 15 Oct 2015, *V.T. Lapenko 12846* (VLA).

Phalacrolooma strigosum (Muhl. ex Willd.) Tzvelev

$2n = 27$, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, SW outskirts of Novoshakhtinskii settlement, at the railway embankment, 6 Jul 2008, *V.T. Lapenko 11126* (VLA).

Pulicaria vulgaris Gaertn.

$2n = 18$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, in vicinity of Erivanskaya settlement, forest edge, 5 Sep 2009, *N.S. Probatova & V.P. Seledets 11602* (VLA).

BRASSICACEAE*Rorippa palustris* (L.) Besser

$2n = ca. 32$, CHN. China, Heilongjiang Province, outskirts of Harbin city, sandy bank of the Sungari River, 2 Jul 2000, *N.S. Probatova & V.P. Seledets 8153* (VLA).

CARYOPHYLLACEAE*Minuartia larinica* Mattf.

$2n = 26$, CHN. Russia, Far East, Amurskaya Oblast', 6 km NW of Belogorsk, the Tom' River, high fluvial terrace near the mouth of the former river-bed, SW of Tomskoe settlement, dry grassy steppe meadow, 24 Aug 2006, *V.P. Verkhohat 10386* (VLA).

LILIACEAE*Lloydia serotina* (L.) Salisb. ex Rchb.

$2n = 24$, CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Kl'uchevskaya sopka Volcano, near Podkova, about 1080 m, heathy-great bilberry plots of tundra on the scoria fields, 22 Aug 2005, *V.P. Verkhohat 10224* (VLA).

POACEAE*Anisantha tectorum* (L.) Nevski

$2n = 14$, CHN. Russia, Volga Region, Astrakhanskaya Oblast', Narimanovskii Raion, right riverside of the Volga River, near Volzhskii settlement, overgrowing sand-dunes, 27 Aug 2009, *N.S. Probatova & V.P. Seledets 11606* (VLA).

Briza media L.

▲ $2n = 14$, CHN. Russia, Leningradskaya Oblast', Oranienbaumskii Raion, near Glyadino village, the former overgrown sand-pit, 26 Jun 1976, *N.S. Probatova 4345* (VLA); Russia, Leningradskaya Oblast', Oredezskii Raion, 10 km of Oredezh settlement, near Beloe village, meadow on the lakeside of the Beloe Lake, 11 Jul 1976, *N.S. Probatova 4369* (VLA).

▲ $2n = 28$, CHN. Russia, Leningradskaya Oblast', Gatchinskii Raion, near Vyra settlement, the riverside of the Oredezh River, meadow in depression, 8 Jul 1976, *N.S. Probatova 4358* (VLA).

Bromopsis australis (Zherebina) Tzvelev & Prob.

▲ $2n = 28$, CHN. Kazakhstan, 20 km E of Kegen' settlement, the Ili River basin, 2200 m, the slope to Karkara River, mountain steppe, 22 Jul 1978, *N.S. Probatova & V.P. Seledets 5133* (VLA); Kyrgyzstan, N lakeside of the Issyk-Kul' Lake, 20 km N of Semenovka settlement, the canyon Semenovskoe, ca. 2000 m, mountain slope, 30 Jul 1978, *N.S. Probatova & V.P. Seledets 5175* (VLA).

Digitaria ciliaris (Retz.) Koeler

$2n = 36$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, as a weed in vegetable garden, 3 Sep 2009, *N.S. Probatova & V.P. Seledets 12343* (VLA).

Elymus woroschilovii Prob.

$2n = 42$, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, in vicinity of Zarubino settlement, Troitza Bay, coastal steep, 15 Sep 2013, *E.A. Chubar' 12427* (VLA).

Elytrigia villosa (Drobow) Tzvelev (= *Agropyron karawaewii* P.A.Smirn.)

$2n = 28$, CHN. Russia, East Siberia, Republic of Sakha-Yakutia, central part, 30 km of Kyssyl-Syr village, Staryi Tukulan sands, 25 Jul 2015, *I.A. Galanina 12872* (VLA).

Eremopyrum triticeum (Gaertn.) Nevski

▲ $2n = 14$, CHN. Russia, North Caucasus, Republic of Dagestan, 20 km W of Makhachkala city, near the former station Kumtor-Kala, opposite the Sary-Kum sands, the *Artemisia* semi-desert with *Zygophyllum*, 13 Jul 1979, *N.S. Probatova & V.P. Seledets 5560* (VLA).

Leymus interior (Hultén) Tzvelev

▲ $2n = 28$, CHN. Russia, East Siberia, Republic of Sakha-Yakutia, Bulunskii Raion, right riverside of the Lena River, near Kjussjur settlement, on the slope of ravine to the brook, abundant, 3 Aug 1973, *N.S. Probatova & V.P. Seledets 3773* (VLA).

Phalaroides arundinacea (L.) Rauschert

▲ $2n = 28$, CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Ust'-Bol'sheretskii Raion, near Pauzhetka settlement, the valley of Pauzhetka River (the Ozernaya River basin), silt bank of warm rivulet, 16 Jul 1969, *N.S. Probatova & E.G. Rudyka 1940* (VLA).

Poa angustifolia L.

▲ $2n = ca. 70$, CHN. Russia, Leningradskaya Oblast', Gatchinskii Raion, outskirts of Vyra settlement, the riverside of the Oredezh River, meadow, 30 Jun 1974, *A.P. Sokolovskaya 38* (VLA).

Poa lapponica Prokudin

$2n = 28$, CHN. Russia, Republic of Karelia, Pitkyarantskii Raion, 20 km E of Sortavala town, the Ladozhskoe Lake, Kyryavalakhty Bay, *Picea* forest on the peninsula, 29 Sep 2008, *N.S. Probatova & V.P. Seledets 11264* (VLA).

Poa skvortzovii Prob.

▲ $2n = 42$, CHN. Russia, Far East, Primorskii Krai, Terneiskii Raion, Sikhote-Alin'skii biosphere reserve, 18 km S of Ternei settlement, near Blagodatnoe Lake, forest brook, 10 Aug 1979, *N.S. Probatova 5567* (VLA).

Setaria maximowiczii Tzvelev & Prob.

$2n = 18$, CHN. Russia, Far East, Primorskii Krai, Partizanskii Raion, Vostok Bay, seacoast, 25 Sep 2002, *V.A. Nechaev 8959* (VLA).

POLYGONACEAE*Persicaria amphibia* (L.) S.F.Gray (terrestrial form)

$2n = 66$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, W lakeside of the Khanka Lake, in vicinity of Turyi Rog settlement, 300 m of the lakeside of the Khanka Lake, 26 Jul 2003, *V.P. Verkhohat & al. 9051* (VLA).

Rumex acetosa L.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, W lakeside of the Khanka Lake, in vicinity of Turyi Rog settlement, 26 Jul 2003, *V.P. Verkhohat & al. 9053* (VLA).

RANUNCULACEAE

* *Aconitum woroschilovii* Luferov (*A. maximum* auct.: Sokolovskaya, 1963)

▲ $2n = 32$, CHN. Russia, Far East, Kamchatskii Krai, Kamchatka Peninsula, Bystrinskii Raion, near Esso settlement, right riverside of the Uksichan River, forb-sedge meadow, 30 Jul 1959, *A.P. Sokolovskaya 201* (VLA).

** *Caltha silvestris* Worosch.

$2n = 64$, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 1.5 km SW of Novoshakhtinskii town, at the rivulet, 13 Oct 2015, *V.T. Lapenko 12845* (VLA).

ROSACEAE

Potentilla paradoxa Nutt. ex Torr. & A.Gray

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula, Ussuriyskii Gulf, Emar Bay, marine terrace at the recreation centre “Yunga”, as a weed near the building, 27 Aug 2000, *N.S. Probatova & V.P. Seledets 8754* (VLA); China, Heilongjiang Province, Suifen’khe city, as a weed in the street, 2 Jul 2000, *N.S. Probatova & V.P. Seledets 8966* (VLA).

Julia V. Shner,¹ Tatiana V. Alexeeva,¹ Abdullo Kurbonov² & Michael G. Pimenov^{1*}

¹ Botanical Garden, Moscow State University, 119234 Moscow, Russia

² Botany Department, Tajik State Pedagogical University, Rudaki Av. 121, 733740 Dushanbe, Republic of Tajikistan

* Author for correspondence: *mgpimenov@mail.ru*

* First chromosome count for the species.

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APIACEAE

Aegopodium tadshikorum Schischk.

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, Pangaz-Bolo, 40°49.779’N, 70°16.220’E, 1810 m, 20 May 2015, *M.G. Pimenov & A. Kurbonov 13* (MW) [Fig. 6A].

Chromosome numbers $n = 11$ or $2n = 22$ were reported from Kazakhstan, Kyrgyzstan and Uzbekistan (Retina & Pimenov, 1977; Rostovtzeva, 1982; Vasil’eva & al., 1994; Shner & al., 2014). Material from Tajikistan was investigated here for the first time.

Aphanopleura capillifolia (Regel & Schmalh.) Lipsky

$2n = 22$, CHN. Tajikistan, Sughd prov., Mogoltau ridge, vicinity of Uchbog and Aktash villages, 40°14.704’N, 69°25.920’E, 392 m, 29 May 2014, *A. Kurbonov 349* (MW) [Fig. 7A].

Our chromosome number report is the fifth for the species (the fourth for native plants and the second for Tajik material) (Pimenov & al., 2002); all determinations show the species is diploid with $x = 11$.

Berula erecta (Huds.) Coville

$n = 10$, CHN. Tajikistan, Sughd prov., village of Sultanabad, 40°18.697’N, 69°49.869’E, 380 m, 28 May 2015, *M.G. Pimenov & A. Kurbonov 48* (MW) [Fig. 6B].

More than 20 determinations of chromosome numbers for the species have been published, based on materials collected in Europe, Asia and North America (Pimenov & al., 2002). The cytotype with $2n = 18$ is the most usual; B-chromosomes were reported once (Lövkvist & Hultgård, 1999). Other counts are rare: $n = 6$ was reported one time from the U.S.A. (Bell & Constance, 1957), $2n = 24$ also one time from Slovakia (Kochjarová, 1992) whereas the cytotype

with $2n = 20$ was found in Sweden (Lövkvist, 1963) and Kazakhstan (Retina & Pimenov, 1977). Material from Tajikistan is investigated here for the first time; it corresponds to our previous report from Kazakhstan.

Carum carvi L.

$2n = 20$, CHN. Tajikistan, Sughd prov., Kurama ridge, left bank of Pangaz river, environs of village of Khoito, marsh, 40°44.229’N, 70°15.461’E, 1292 m, 3 Jul 2013, *A. Kurbonov 178* (MW); Tajikistan, Sughd prov., Kurama ridge, eastern slope of Bobosetan Mts, low mountains of Sheramardi, left bank of Pangaz river, 40°49.176’N, 70°16.098’E, 1888 m, 16 Jul 2013, *A. Kurbonov 246* (MW) [Fig. 7F].

There are more than 50 chromosome number reports for *C. carvi* from Europe, Asia and North America. The cytotype $2n = 20$ is the most widely distributed, whereas the cytotype $2n = 22$ was found in Europe as well as in Asia (Pimenov & al., 2002). Material from Tajikistan is investigated here for the first time.

Elaeosticta hirtula (Regel & Schmalh.) Kljuykov, Pimenov & V.N.Tikhom.

$n = 10$, CHN. Tajikistan, Sughd prov., Kurama ridge, valley of Ashtcai river, above Obi-Asht, 40°52.167’N, 70°26.860’E, 23 May 2015, *M.G. Pimenov & A. Kurbonov 36* (MW) [Fig. 6K].

The studied gathering belongs to the diploid cytotype, widely distributed in Middle Asia. Tetraploid cytotype ($2n = 40$) is more rare, being found in Tajikistan and Kyrgyzstan (Kljuykov, 1978).

Eremodaucus lehmannii Bunge

$n = 9$, CHN. Tajikistan, Sughd prov., valley of Sirdarya river, southern slope of Akchop low ridge, fixed sands, vegetation with dominance of *Haloxylon*, 40°18.976’N, 69°55.347’E, 424 m, 28 May 2015, *M.G. Pimenov & A. Kurbonov 49* (MW) [Fig. 6D].

Material from Tajikistan is investigated here for the first time. Previously the counts of $n = 9$ and $2n = 18$ for *E. lehmannii* were determined for plants from Uzbekistan and Turkmenistan (Vasil’eva & al., 1991; Alexeeva & al., 1994).

Ferula karatavica Regel & Schmalh.

$2n = 22$, CHN. Tajikistan, Sughd prov., Mogoltau ridge, Spa Mt., Kaltasai gorge, 40°16.172’N, 69°27.691’E, 520 m, 30 May 2014, *A. Kurbonov 375* (MW) [Fig. 7D].

Material from Tajikistan is investigated here for the first time. Chromosome count of $2n = 22$ was previously determined from Kyrgyzstan (Retina & Pimenov, 1977; Solov’eva & al., 1982).

* *Ferula karelinii* Bunge

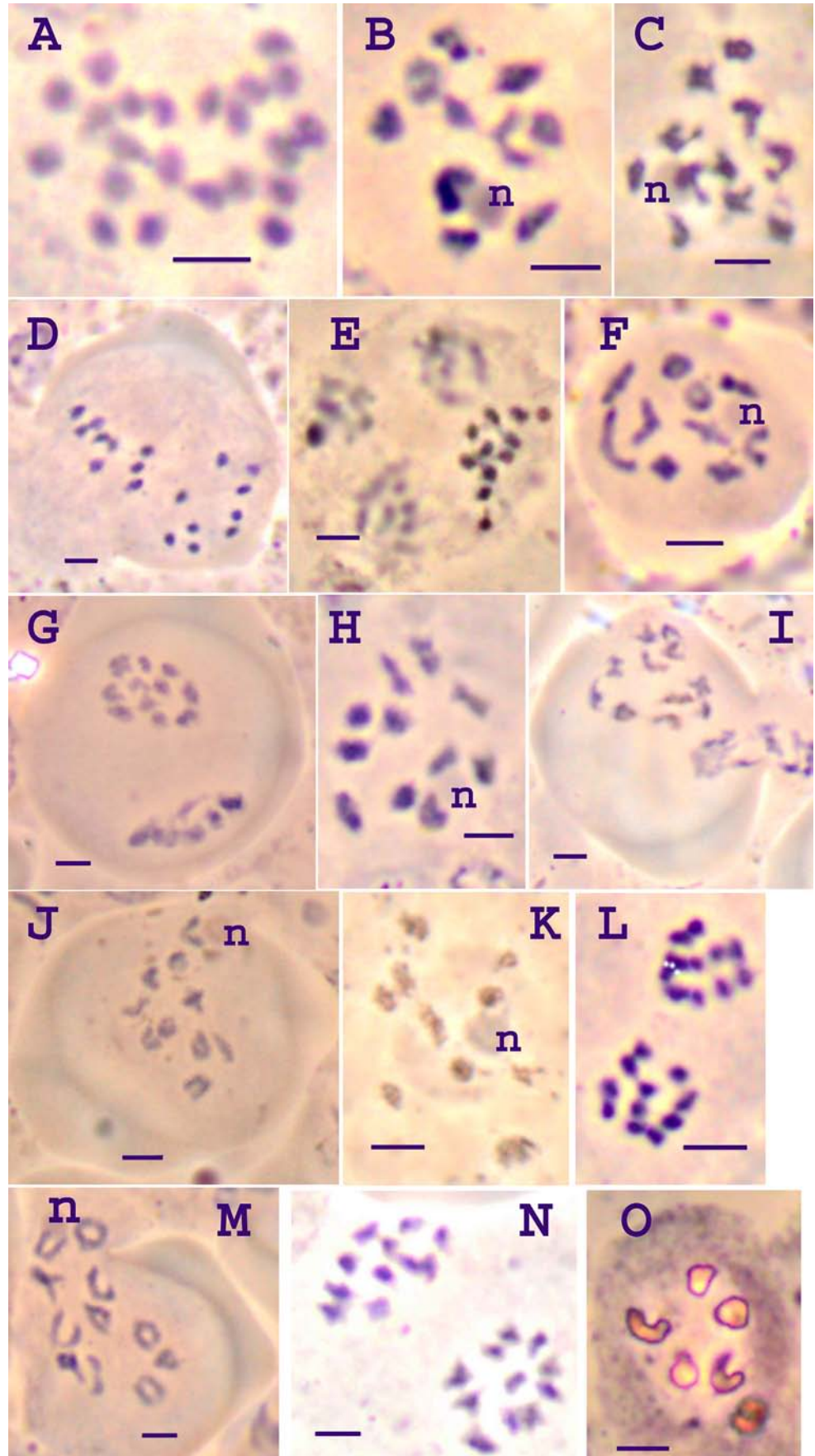
$n = 11$, CHN. Tajikistan, Sughd prov., valley of Sirdarya river, southern slope of Akchop low ridge, fixed sands, desert vegetation with dominance of *Haloxylon*, 40°18.976’N, 69°55.347’E, 420 m, 28 May 2015, *M.G. Pimenov & A. Kurbonov 52* (MW) [Fig. 6G].

This is the first chromosome number report for the species, which sometimes is regarded as a member of an independent monotypic genus *Schumannia* Kuntze (*S. turkomanica* Kuntze = *S. karelinii* (Bunge) Korovin). The fruit structure of *F. karelinii* is, however, very similar to that of some species of true *Ferula*, belonging to Korovin’s subg. *Merwia*, especially to *F. litwinowiana* Koso-Pol. (Pimenov & Kirillina, 1980). Unfortunately, the chromosome number determination of *F. karelinii* is of low informative value, as, on one hand, $n = 11$ was found in all up to now studied species of *Ferula* (without any exception), but, on the other, this is the number, known for more than a half of karyologically investigated Umbelliferae species of different taxonomical position within the family.

Ferula lithophila Pimenov

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, valley of fl. Dakhana sai, Dzhangalak gorge, near village of Dakhana,

Fig. 6. Meiotic chromosomes.
A, *Aegopodium tadshikorum*, $n = 11$;
B, *Berula erecta*, $n = 10$;
C, *Prangos fedtschenkoi*, $n = 11$;
D, *Eremodaucus lehmannii*, $n = 9$;
E, *Ferula lithophila*, $n = 11$;
F, *Oedibasis apiculata*, $n = 10$;
G, *Ferula karelinii*, $n = 11$;
H, *Schrenkia vaginata*, $n = 11$;
I, *Prangos pabularia*, $n = 11$;
J, *Pimpinella puberula*, $n = 10$;
K, *Elaeosticta hirtula*, $n = 10$;
L, *Ferula samarkandica*, $n = 11$;
M, *Schrenkia golickeana*, $n = 11$;
N, *Ferula penninervis*, $n = 11$;
O, *Torilis arvensis*, $n = 6$. —
 Scale bars = 5 μm ; n – nucleolus.



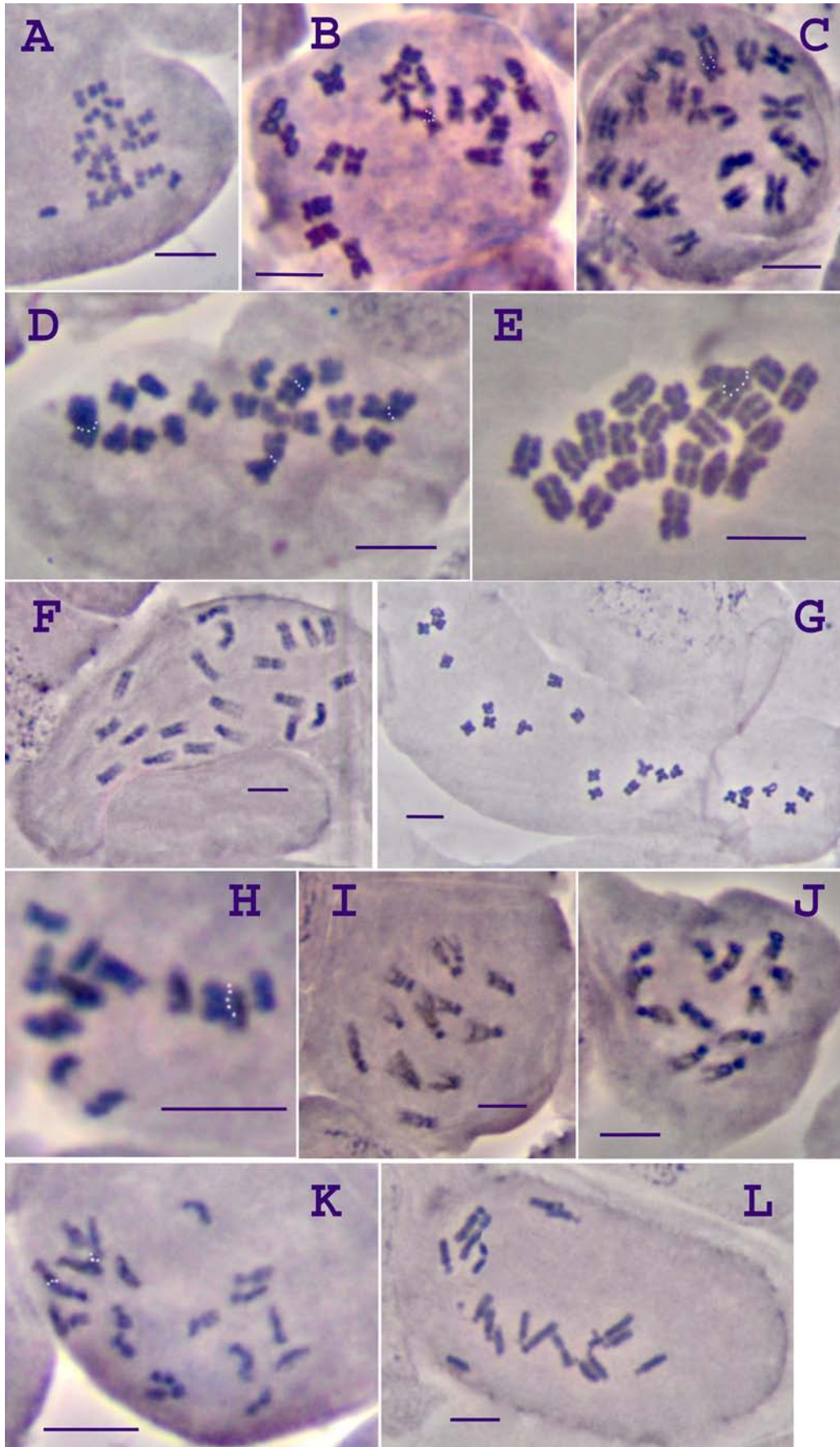


Fig. 7. Mitotic chromosomes. **A**, *Aphanopleura capillifolia*, 2n = 22; **B**, *Galagania tenuisecta*, 2n = 22; **C**, *Ferula penninervis*, 2n = 22; **D**, *Ferula karatavica*, 2n = 22; **E**, *Ferula mogoltavica*, 2n = 22; **F**, *Carum carvi*, 2n = 20; **G**, *Heracleum lehmannianum*, 2n = 22; **H**, *Sium medium*, 2n = 12; **I**, *Torilis leptophylla*, 2n = 12; **J**, *Torilis arvensis*, 2n = 12; **K**, *Scandix stellata*, 2n = 20; **L**, *Turgenia latifolia*, 2n = 18. — Scale bars = 5 μm.

granit deluvium, 40°42.770'N, 70°10.278'E, 1446 m, 24 May 2015, *M.G. Pimenov & A. Kurbonov 40* (MW) [Fig. 6E].

Material from Tajikistan is investigated here for the first time. Chromosome count of $2n = 22$ was previously determined from Uzbekistan (Vasilieva & al., 1991).

Ferula mogoltavica Lipsky ex Korovin

$2n = 22$, CHN. Tajikistan, Sughd prov., Mogoltau ridge, environs of Khudzhand, 40°19.093'N, 69°36.341'E, 707 m, 19 May 2014, *A. Kurbonov 296* (MW) [Fig. 7E].

This is the second chromosome number report for this endemic species. Material for previous report (Retina & Pimenov, 1977) was collected approximately near the present locality.

Ferula penninervis Regel & Schmalh.

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, village of Pangaz-bolo, 40°47.645'N, 70°14.660'E, 1450 m, 20 May 2015, *M.G. Pimenov & A. Kurbonov 22* (MW) [Fig. 6N].

$2n = 22$, CHN. Tajikistan, Sughd prov., Kurama ridge, right bank of Pangaz river, environs of Susor gorge, stony slope, 40°46.305'N, 70°15.037'E, 1500 m, 7 Jul 2013, *A. Kurbonov 186* (MW) [Fig. 7C].

Material from Tajikistan is investigated here for the first time. Chromosome number of $2n = 22$ was determined previously for the plants from Kazakhstan and Kyrgyzstan (Retina & Pimenov, 1977; Solov'eva & al., 1982).

Ferula samarkandica Korovin

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, above of Pangaz-bolo, 40°49.000'N, 70°15.683'E, 1700 m, 20 May 2015, *M.G. Pimenov & A. Kurbonov 9* (MW) [Fig. 6L].

This is the second chromosome number report for this species and the first one from Tajikistan; it corresponds to the previous one from Uzbekistan (Vasil'eva & Pimenov, 1985).

Galagania tenuisecta (Regel & Schmalh.) M.G.Vassiljeva & Pimenov

$2n = 22$, CHN. Tajikistan, Sughd prov., Mogoltau ridge, southern slope, between villages of Uchbog and Aktash, 40°16.172'N, 69°27.691'E, 520 m, 29 May 2014, *A. Kurbonov 365* (MW) [Fig. 7B].

This is the fourth chromosome number report for this species, confirming three previous ones (Vasilieva & al., 1981; Vasilieva & al., 1991; Pimenov & Vasil'eva, 1983) for the plants from Kazakhstan and Tajikistan.

Heracleum lehmannianum Bunge

$2n = 22$, CHN. Tajikistan, Sughd prov., Kurama ridge, left bank of Pangaz river, Gaznoi gorge, 40°44.280'N, 70°15.483'E, 1300 m, 26 Jun 2013, *A. Kurbonov 171* (MW) [Fig. 7G].

We confirm here previous chromosome number reports for *H. lehmannianum* ($2n = 22$), made for plants from Tajikistan (Retina & Pimenov, 1977; Agapova, 1990), Uzbekistan (Shner & al., 2012), Afghanistan (Shner & al., 2015) and for cultivated material (Rostovtzeva, 1979).

Oedibasis apiculata (Kar. & Kir.) Koso-Pol.

$n = 10$, CHN. Tajikistan, Sughd prov., Mogoltau ridge, gorge of Devona-bolo, 40°19.362'N, 69°36.195'E, 619 m, 29 May 2015, *M.G. Pimenov & A. Kurbonov 62* (MW) [Fig. 6F].

This is the second chromosome number report for this species and the first one from Tajikistan; the previous one ($2n = 20$) was published from Kyrgyzstan (Vasil'eva & al., 1981).

Pimpinella puberula (DC.) Boiss.

$n = 10$, CHN. Tajikistan, Sughd prov., between Uchbog and Aktash, 40°14.704'N, 69°25.919'E, 392 m, 31 May 2015, *M.G. Pimenov & A. Kurbonov 70* (MW) [Fig. 6J].

This species, as some other *Pimpinella* species, has two cytotypes – $2n = 18$ (Turkmenistan) and $2n = 20$ (Turkmenistan, Iran) (Vasil'eva & al., 1981; Yurtzeva, 1988; Shner & al., 2004). Material from Tajikistan is investigated here for the first time.

Prangos fedtschenkoi (Regel & Schmalh.) Korovin

$n = 11$, CHN. Tajikistan, Sughd prov., valley of Sirdarya River, low mountains of Ak-bel', 40°25.204'N, 70°08.867'E, 638 m, 28 May 2015, *M.G. Pimenov & A. Kurbonov 53* (MW) [Fig. 6C].

This is the second report of chromosome number for this species, confirming the first one ($2n = 22$) for the plants, collected also in Tajikistan (Pimenov & Vasil'eva, 1983).

Prangos pabularia Lindl.

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, near Pangaz-bolo, 40°47.645'N, 70°14.660'E, 1530 m, 20 May 2015, *M.G. Pimenov & A. Kurbonov 5* (MW) [Fig. 6I].

There is some incongruence in cytological data concerning *P. pabularia*. The first report ($2n = 36$) for plants from Afghanistan (Podlech & Dieterle, 1969) was not confirmed in following investigations of plants from adjacent regions (Kyrgyzstan, Tajikistan), which showed $2n = 22$ (Vasil'eva & al., 1981, 1993; Pimenov & al. 1998; Shner & al., 2015), typical for the most species of the genus. Report of $2n = 22$ from Turkey (Herrnstadt & Heyn, 1977), where *P. pabularia* s.str. does not occur, should be referred to *P. lophoptera* Boiss.

Scandix stellata Banks & Sol.

$2n = 20$, CHN. Tajikistan, Sughd prov., Kurama ridge, upper reaches of the Pangaz river, Sheramardi Mts., breakstone slope, 40°47.071'N, 70°14.800'E, 1562 m, 8 Jul 2013, *A. Kurbonov 187* (MW); Tajikistan, Sughd prov., Kurama ridge, the right bank of Obi-Asht, environs of village of Asht-bolo, Khayatabad gorge, 40°50.660'N, 70°32.109'E, 1200 m, 14 May 2013, *A. Kurbonov 120* (MW) [Fig. 7K].

The chromosome numbers for this species were repeatedly reported for the plants from Southern Europe and various regions of Asia (Pimenov & al., 2002; Shner & al., 2014). Material from Tajikistan is investigated here for the first time, the number of $2n = 20$ corresponds to the most of previous reports. Earlier the number of $2n = 22$ was been determined by our team from Kazakhstan (Vasil'eva & al., 1991), $2n = 16$, reported for plants under cultivation (Garde & Malheiros-Garde, 1949) refers, probably, to another species.

Schrenkia golickeana (Regel & Schmalh.) B.Fedtsch.

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, near village of Pangaz-bolo, 40°48.776'N, 70°15.281'E, 1650–1710 m, 20 May 2015, *M.G. Pimenov & A. Kurbonov 8, 10* (MW) [Fig. 6M].

This is the second chromosome number report for this species and the first one from Tajikistan; the previous one ($2n = 22$) was published from Kazakhstan (Vasil'eva & al., 1991).

Schrenkia vaginata (Ledeb.) Fisch. & C.A.Mey.

$n = 11$, CHN. Tajikistan, Sughd prov., Kurama ridge, valley of Ashtai river, above Obi-Asht, 40°52.167'N, 70°26.860'E, 23 May 2015, *M.G. Pimenov & A. Kurbonov 35* (MW) [Fig. 6H].

This is the fourth report on chromosome number of *S. vaginata*. The previous determinations were made for plants from Kyrgyzstan and Tajikistan (Vasil'eva & al., 1984, 1991); karyotype morphometric analysis showed karyotype being rather symmetrical ($6m+16sm$).

Sium medium Fisch. & C.A.Mey.

$2n = 12$, CHN. Tajikistan, Sughd prov., Kurama ridge, left bank of the Pangaz river, near gorges Gaznoi and Imodi, 40°44.280'N, 70°15.483'E, 1302 m, 16 Aug 2014, *A. Kurbonov 397* (MW) [Fig. 7H].

Material from Tajikistan is investigated here for the first time. Earlier the same chromosome number was reported for the plants

from India, Pakistan and Kyrgyzstan (Pimenov & al., 2002; Shner & al., 2012).

Torilis arvensis (Huds.) Link

$n = 6$, CHN. Tajikistan, Sughd prov., Mogoltau Mts., western part, southern slope near Uchteppa, 40°14.117'N, 69°27.266'E, 31 May 2015, M.G. Pimenov & A. Kurbonov 69 (MW) [Fig. 60].

$2n = 12$, CHN. Tajikistan, Sughd prov., Mogoltau Mts., Karatoi Mt., Karatau gorge, 40°15.750'N, 69°21.481'E, 462 m, 29 May 2014, A. Kurbonov 334 (MW) [Fig. 7J].

The numerous (at least 30) reports on chromosome numbers of this species are invariant – the results were always $n = 6$ or $2n = 12$ (Pimenov & al., 2002; Shner & al., 2004).

Torilis leptophylla (L.) Rchb.f.

$2n = 12$, CHN. Tajikistan, Sughd prov., Mogoltau Mts., western part, southern slope, between villages of Uch-bog and Aktash, 40°14.704'N, 69°25.919'E, 392 m, 29 May 2014, A. Kurbonov 341 (MW) [Fig. 7I].

Chromosome numbers of *T. leptophylla* were reported for the plants from Greece, Spain, Morocco, various countries of Asia (Pimenov & al., 2002; Shner & al., 2004). The majority of determinations gave $2n = 12$ ($n = 6$). In Spain the cytotype with $n = 12$ was also found (Silvestre, 1978, 1986). Material from Tajikistan is investigated here for the first time.

Turgenia latifolia (L.) Hoffm.

$2n = 18$, CHN. Tajikistan, Sughd prov., Kurama ridge, Boboi-Ob Mts., Kukhsarsai, environs of village of Pangaz, 40°48.534'N, 70°14.268'E, 1800 m, 13 Aug 2013, A. Kurbonov 267 (MW) [Fig. 7L].

Chromosome numbers of *T. latifolia* were determined more than 10 times for the plants from Europe and Asia; these reports demonstrate moderate variability ($2n = 18, 24, 32$), with prevalence of the last of these numbers in recent reports (Pimenov & al., 2002). Tajik plants, studied previously, also have $2n = 32$ (Vasil'eva & al., 1991). The cytotype with $n = 9$ ($2n = 18$) known from Iraq, Israel, Jordan and Pakistan (Constance & al., 1976; Cauwet-Marc & Jury, 1978; Al-Eisawi, 1989; Khatoun & Ali, 1993), is now found in Tajikistan.

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Régine Verlaque,^{1*} Annie Aboucaya,² Virgile Noble,^{3,4} Laurent Hardion⁵ & Bruno Vila¹

1 *Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Univ., 3 Place V. Hugo, Case 4, 13331 Marseille Cedex 3, France*

2 *Parc National de Port-Cros, Allée du Castel Sainte-Claire, BP 70220, 83406 Hyères Cedex, France*

3 *Conservatoire Botanique National Méditerranéen de Porquerolles, 34 Avenue Gambetta, 83400 Hyères, France*

4 *Institut Méditerranéen de Biodiversité et d'Ecologie (IMBE, UMR CNRS 7263), Aix-Marseille Univ., Europôle Méditerranéen de l'Arbois, 13100 Aix-en-Provence, France*

5 *Université de Strasbourg, Laboratoire Image, Ville, Environnement (LIVE, UMR 7362 CNRS), Institut de Botanique, 28 rue Goethe, 67083 Strasbourg Cedex, France*

* Author for correspondence: regine.verlaque@imbe.fr

* First chromosome count for the taxon.

▼ First chromosome count from French populations.

All materials fixed on flowers (*F*) or seedlings (*S*) produced from seeds collected by us or by the Conservatoire Botanique National Méditerranéen (CBNMED), and counted by R. Verlaque and B. Vila; vouchers in MARS. This study was supported by the Parc National de Port-Cros and the CBNMED. The nomenclature follows recent French flora treatments (Tison & Foucault, 2014; Tison & al., 2014); only new counts are drawn. The authors are grateful to colleagues who helped us with plant location and sampling.

AMARANTHACEAE

* *Corispermum gallicum* Iljin

$2n = 18$, CHN. France, Var, Vinon-sur-Verdon, sandy banks, 28 Oct 2003, CBNMED-Noble S13-04 (MARS) [Fig. 8A].

This is the first count for this annual endemic species of SE France (0–400 m). The same diploid number has been found in all other *Corispermum* species studied.

APIACEAE

Bupleurum praealtum L.

$2n = 16$, CHN. France, Alpes-Maritimes, Vesubie Valley, Levens, cliff, 450 m, 17 Jun 2009, Verlaque & Vila F09-146 (MARS 10319).

* *Heracleum pumilum* Vill.

$2n = 22$, $n = 11$, CHN. France, Vaucluse, Mt. Ventoux, Combe de Fonfiolle, scree at ca. 1900 m, 6 Jul 1979, Verlaque F79-739 (MARS 14001) [Fig. 8B].

This is the first count for this endemic species of SW Alps (1400–2600 m). Despite its atypical morphology, this slender species possesses the same diploid number as most of *Heracleum* species studied.

APOCYNACEAE

▼ *Nerium oleander* L.

$2n = 22$, CHN. France, Var, Fréjus, Estérel Massif, wadi with *Nerium oleander*, *Myrtus* and *Arundo donaciformis*, 7 May 2011, Hardion S11-140 (MARS); Greece, near Missolonghi, alluvial deposits of Evinos River, reed-bed, 10 Apr 2011, Hardion S11-139 (MARS).

Owing to its ornamental use, this monotypic shrubby genus has been poorly studied. These first counts in situ from France and Greece agree with the only previous report from Sicilian natural populations (Larsen & Lagaard, 1971).

ASTERACEAE

▼ *Hyoseris taurina* (Pamp.) Martinoli

$2n = 16$, CHN. France, Var, Hyères, Giens, siliceous littoral, rock crevices, 19 Mar 2011, CBNMED-Noble S11-118 (MARS).

This first count from France confirms previous reports (Martinoli, 1953; Peruzzi & Vangelisti, 2010) for this endemic taxon of SW Sardinia, recently found in France. Other Mediterranean related taxa possess the same chromosome number.

BORAGINACEAE

▼ *Buglossoides incrassata* subsp. *permixta* (Jord.) R.Fern.

$2n = 28$, CHN. France, Var, Ampus, Barjaude Mountain, 30 May 2010, CBNMED-Noble S14-03 (MARS).

New for France, our count of this SW European taxon confirms previous reports from Spain (Luque & Diaz Lifante, 1991). Therefore, this is the lowest ploidy level in the poorly known *B. incrassata* clade (Cecchi & al., 2014) since the related *B. incrassata* (Guss.) I.M. Johnst. subsp. *incrassata* possesses $2n = 42$ (Luque & Valdés, 1984, under the name *B. arvensis* subsp. *gasparrinii* (Heldr.) R.Fernandes). The second widespread *B. arvensis* clade is characterized by the series: $2n = 28, 36, 42, 56$ (e.g., Strid & Franzen, 1981).

CAMPANULACEAE

* *Solenopsis corsica* (Meikle) M.B.Crespo, Serra & Juan

$2n = 28$, CHN. France, C Corsica, Bocagnano, Cascade du Voile de la Mariée, pond, 800 m, 6 Jul 1966, Contandriopoulos F66-8 (MARS 10332) [Fig. 8C].

This is the first count for this perennial endemic species located in Corsican and N Sardinian wetlands (100–1400 m). The same tetraploid number characterizes two other perennial Mediterranean endemic taxa: *S. bivonae* (Tineo) Crespo & al. from S Sardinia and Sicilia (Romano & al., 1986; Peruzzi & Gargano, 2003, as *S. minuta* subsp. *nobilis* (Winner) Meikle) and *S. minima* (Sims) Crespo & al. from Mallorca (Castro & Rossello, 2005, as *S. minuta* subsp. *balearica* (Winner) Meikle).

* *Solenopsis laurentia* (L.) C.Presl

$2n = 14$, CHN. France, Var, Massif des Maures, Vallée de la Molle, Val d'Enfer, wetland, 5 Jun 2013, Aboucaya F13-11 (MARS), Aboucaya F13-12 (MARS), Aboucaya F13-13 (MARS 10317); France, Var, Port-Cros Island, Vallon de la Solitude, temporary pond, 5 Jun 2013, Aboucaya F13-10 (MARS 10316) [Fig. 8D].

Our counts are the first for this protected species scattered in Mediterranean wetlands. This diploid number is very important to understand the differentiation of this difficult genus (Crespo & al., 1998). The diploid annual species differ from other tetraploid perennial and insular endemic taxa by their erect stem with cauline leaves (vs. leaves in basal rosette, without stem) and their greater corolla (5–7 vs. 3–5 mm). With $2n = 22$ (Aldridge & Ortega, 1976), only the annual endemic *S. canariensis* C.Presl from Tenerife is an exception.

CARYOPHYLLACEAE

* *Bufonia perennis* Pourr. (s.str.)

$2n = 16$, CHN. France, Var, Estérel, rocky dry meadow, 18 Jun 2008, Aboucaya F08-12 (MARS 14002).

$2n = 16+2B$, CHN. France, Var, Estérel, dry rocky meadow, 18 Jun 2008, Aboucaya F08-11 (MARS 08094) [Fig. 8E].

Our counts for this perennial endemic species from S France highlight the first W Mediterranean diploid of this poorly studied genus. The same number has been only found in *B. parviflora* Gris. from Crimea and Armenia (Nussbaumer, 1964). The presence of B-chromosomes in our plants could be related to the counts $2n = 18$ in Greek endemics: *B. stricta* (Sm.) Gurke (Montmollin, 1984) and *B. euboica* Phitos & Kamari (1992). In the Mediterranean area, all other perennial (*B. macropetala* Willk., *B. mauritanica* Murb.: $2n = 34$) and annual taxa (*B. tenuifolia* L. $2n = 34$, *B. paniculata* Delarbre $2n = 32$) are tetraploid. The chromosome number of the closely related *B. tuberculata* Loscos (E Spain) is unknown.

CAPRIFOLIACEAE

▼ *Knautia collina* (Guérin) Jord.

$2n = 20$, CHN. France, Var, Vallon de la Foux, between Méounes and Belgentier, along a forest path, 20 May 2009, *Verlaque F09-130* (MARS 10315).

EUPHORBIACEAE

▼ *Euphorbia davidii* Subils.

$2n = 56$, CHN. France, Bouches-du-Rhône, Carry-le-Rouet, rocky place along the railway, 11 Jun 2010, *Verlaque S10-04* (MARS 10331).

Belonging to the N. American *E. dentata* complex, this high polyploid and annual taxon is now naturalized in France.

FABACEAE

▼ *Vicia dalmatica* A.Kern.

$2n = 12$, CHN. France, Var, after Tourves, meadow near the roadside, 1 Jun 1990, *Verlaque F90-17*; France, Var, between Roquebrus-sanne and Tourves, clearing in a pine forest, 20 May 2009, *Verlaque F09-127* (MARS 10318).

This ruderal NE Mediterranean species is now naturalized in SE France. With the SW European *V. incana* Gouan, they seem to be the progenitors of the paleo-temperate allotetraploid *V. tenuifolia*.

Vicia tenuifolia Roth

$2n = 24$, CHN. France, Var, between Roquebrus-sanne and Tourves, clearing in a pine forest, 20 May 2009, *Verlaque F09-128* (MARS 10324).

LILIACEAE

▼ *Fritillaria involucrata* All.

$2n = 24$, CHN. France, Var, Maures Massif, La Molle, clearing, 30 m, 21 Apr 2011, *Noble F11-114* (MARS 10323).

This species has been poorly studied and generally from botanical garden plants (Darlington & La Cour, 1941; La Cour, 1951). From a southern isolated location, we confirm previous reports for this French endemic taxon of SW Alps.

Lilium martagon L.

$2n = 24$, CHN. France, Bouches-du-Rhône, Ste-Baume Massif, forest, near 900 m, 20 May 2009, *Verlaque F09-136* (MARS 14005).

▼ *Tulipa agenensis* DC.

$2n = 24$, CHN. France, Bouches-du-Rhône, Venelles, cereal field, 23 Mar 1995, *Filosa F95-03* (MARS 14006).

Early counts mainly concern botanical garden plants (Hall, 1937; Woods & Banford, 1937, under the name *T. oculus-solis* St-Amans). Like many ornamental *Tulipa*, this taxon is considered as introduced in Europe from C Asia. Curiously in France this species is only diploid, while in the E Mediterranean, in Greece (Athanasiou, 1988) and Israel (Horovitz & Galil, 1972), it is di- and triploid.

ORCHIDACEAE

▼ *Anacamptis coriophora* subsp. *fragrans* (Pollini)

R.M.Bateman, Pridgeon & M.W.Chase

$2n = 38$, CHN. France, Var, Gapeau Valley, between Signes and Méounes, *Rosmarinus* shrubland, siliceous rocky site, 500 m, 20 May 2009, *Verlaque F09-120* (MARS 10312)

For this Mediterranean species, protected in France, our count confirms the only previous report from Sardinian plants (Scrugli & al., 1976).

**Serapias olbia* Verg.

$2n = 72$, CHN. France, Var, Giens, Darboussière, backshore, maritime sand, 18 May 2011, *Aboucaya F11-13* (MARS 10329) [Fig. 8F].

▼ *Serapias parviflora* Parl.

$2n = 36$, $n = 18$, CHN. France, Var, Hyères, Tombolo of Giens, Les Pesquiers, meadows behind the salt marsh, 18 May 2011, *Aboucaya F11-211* (MARS), *Aboucaya F11-212* (MARS 10333)

For this Mediterranean-Atlantic species protected in France, our counts agree with previous reports from Italy (e.g., Mazzola & al., 1981) and Portugal (Queiros, 1983).

**Serapias strictiflora* Welw. ex Veiga

$2n = 72$, CHN. France, Var, Le Cannet-des-Maures, Escarcets Lake, siliceous wet meadow, 8 May 2010, *Aboucaya F10-27* (MARS 08104), *Aboucaya F10-26* (MARS 08103), *Aboucaya F10-25* (MARS 08105) [Fig. 8G].

These are the first counts for the two latter taxa recently rehabilitated with a specific status. Compared to the closely related widespread *S. lingua* L. (Mediterranean-Atlantic, 0–1100 m), these rare taxa occur at low altitudes (0–200 m), on siliceous substrate, in a smaller area: SE France (Provence, Corsica) and W Mediterranean, respectively. *Serapias lingua*, *S. olbia*, *S. strictiflora* share the same polyploid level, dense clonal populations, and labellum morphology (with solitary black ridge at base vs. two divergent ridges at base in taxa with $2n = 36$). Giving their chromosome numbers, hybrid origin

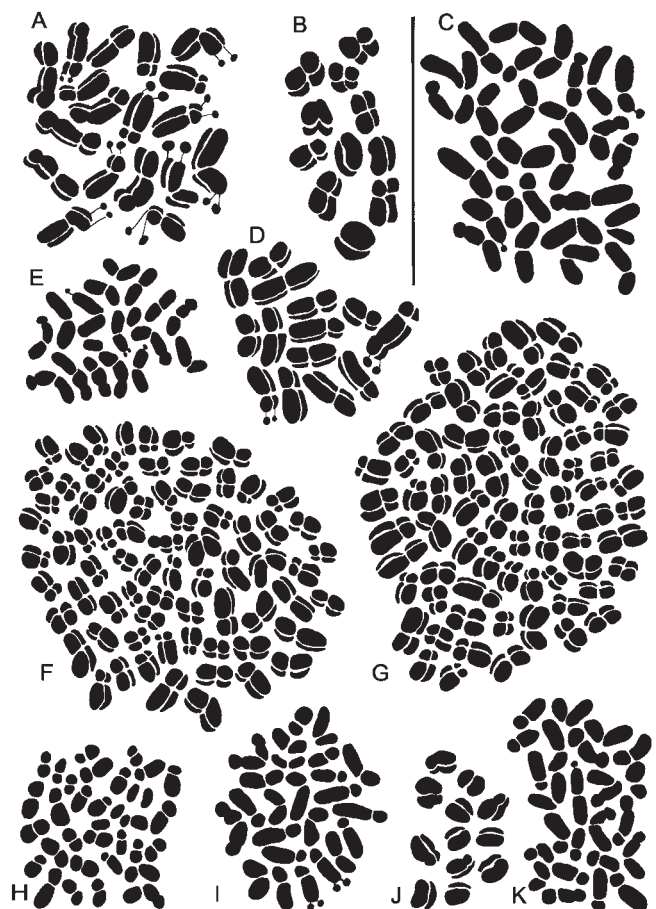


Fig. 8. A, *Corispermum gallicum*, $2n = 18$; B, *Heracleum pumilum*, $n = 11$; C, *Solenopsis corsica*, $2n = 28$; D, *S. laurentia*, $2n = 14$; E, *Buфонia perennis*, $2n = 16+2B$; F, *Serapias olbia*, $2n = 72$; G, *S. strictiflora*, $2n = 72$; H, *Polygala nicaensis* subsp. *nicaensis*, $2n = 34$; I, *Scrophularia canina* subsp. *pinnatifida* var. *deschatresii*, $2n = 24$; J, *S. canina* subsp. *ramosissima*, $n = 12$; K, *S. provincialis*, $2n = 24$. — Scale bar = 10 μm .

hypotheses of *S. strictiflora* or *S. olbia* (*S. lingua* × *S. parviflora*: Moore, in Tutin & al., 1980) must be rejected.

POACEAE

▼ *Narduroides salzmanii* (Boiss.) Rouy

$2n = 14$, CHN. France, Var, Signes, Gapeau Valley, maquis, sandy place, 20 May 2009, *Verlaque F09-118* (MARS 10313) and *Verlaque F09-123* (MARS 10314).

This W Mediterranean rare and small species forms a monotypic annual genus. At its N limit, our new count from France agrees with the previous report from S Spain (Bailey & Stace, 1989).

POLYGALACEAE

**Polygala nicaeensis* Risso ex W.D.J.Koch subsp. *nicaeensis*

$2n = 34$, CHN. France, Var, Estérel Massif, maquis, 18 Jun 2008, *Aboucaya F08-13* (MARS 08093) [Fig. 8H].

Our first count of this Ligurian endemic taxon is in agreement with those found in the Corsican vicariant endemic *P. nicaeensis* subsp. *corsica* (Boreau) Graeb. (Contandriopoulos, 1962). This aneuploid number ($2n = 34$) is the more common within this difficult genus.

SCROPHULARIACEAE

**Scrophularia canina* subsp. *pinnatifida* var. *deschatresii*

Gamisans

$2n = 24$, $n = 12$; France, N Corsica, near Ponte Leccia, scree, 250 m, 12 May 1995, *Verlaque F95-136* (MARS 10321) [Fig. 8I].

**Scrophularia canina* subsp. *ramosissima* (Loisel.) P.Fourn.

$2n = 24$, $n = 12$, CHN. France, Var, Ramatuelle, beach of Pampebonne, 12 May 1994, *Aboucaya F94-27* (MARS 14003); France, Corsica, Ajaccio, Campo del Oro, sand on the backshore, 9 May 1995, *Verlaque S95-103* (MARS 10322) [Fig. 8J].

**Scrophularia provincialis* Rouy

$2n = 24$, CHN. France, Alpes-Maritimes, Bréas Road, the slope of Mt-Vial, rocky site, 450 m, 17 Jun 2009, *Verlaque & Vila F09-147* (MARS 08097); France, Alpes-Maritimes, near Bourdon, 750 m, 19 Apr 2011, *CBNMED-Noble F11-115* (MARS 10330); France, Var, Bois de Clappes, clearing, 700 m, 5 Jun 2012, *Verlaque F12-114* (MARS 10320) [Fig. 8K].

Our counts are the first for these three endemic taxa of SE France (Corsica, Tyrrhenian area, and Provence, respectively). In this genus, many high polyploid and aneuploid species ($2n > 36$) have been found, but the numbers $2n = 24$, 26 mainly occur in the perennial *S. sect. Canina* Don, mostly distributed in the Middle-East (Ortega Olivencia & Devesa Alcaraz, 1990). In Europe, the very rare euploid number $2n = 24$ characterizes some Mediterranean suffruticose endemics, such as *S. crithmifolia* Boiss. (S & E Spain) and the three studied taxa. In contrast, the rest of the *S. canina* group – more continental widespread, polymorphous and less robust – possesses $2n = 26$ (30), with sometimes B chromosomes (e.g., Vaarama & Leikas, 1970; Ortega Olivencia & Devesa Alcaraz, 1990). These results confirm Richardson's proposal (in Tutin & al., 1972) regarding *S. canina* var. *minoricensis* P. Monts. $2n = 26$ (Cardona, 1977): “plants from Islas Balearic referred to *S. canina* subsp. *ramosissima* are in many features transitional to subsp. *canina*”.

Verbascum boerhavia L.

$2n = 44–45$, CHN. France, Alpes-Maritimes, La trinité, Plateau Tercier, rocky site, 800 m, 11 May 2009, *Verlaque & Vila F09-106* (MARS 10325).

Like Natarajan (1977), we found the same odd chromosome number for this W Mediterranean species, while its closely related species *V. thapsus* L. (W & C Europe) possesses $2n = 36$.

Verbascum sinuatum L.

$2n = 30$, CHN. France, Var, Les Pesquiers, pine-forest, 13 May 2009, *Aboucaya F09-138* (MARS 10326).

We confirm several previous reports, but not $2n = 18$ found in S-C France by Labadie (1974).

If SE France is a noteworthy pole of plant biodiversity, karyological research on many poorly known taxa is still needed. Of the 27 studied taxa, including a dozen French endemic taxa, we have found 11 new chromosome numbers and 10 first counts for France. Karyological traits exhibit biogeographical particularities in this flora: the 21 diploid taxa (or with a lower ploidy level) show its major role for conservation, while the 5 higher ploidy levels testify to its active differentiation.

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