

IOPB COLUMN

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IAPT/IOPB chromosome data 14

Edited by Karol Marhold

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MYRTACEAE

Calyptanthes dardanoi Mattos, $2n = 22$; Brazil, Pernambuco, *J.D. Garcia 1173 & al.**Calyptanthes grandifolia* O. Berg, $2n = 22$; Brazil, São Paulo, *B.S. Amorim 671 & al.**Campomanesia dichotoma* (O. Berg) Mattos, $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 406 & al.**Eugenia hirta* O. Berg, $2n = 44$; Brazil, Pernambuco, *B.S. Amorim 529 & al.**Eugenia puniceifolia* (Kunth) DC., $2n = 44$; Brazil, Pernambuco, *B.S. Amorim 528 & al.**Eugenia tumescens* B.S. Amorim & M. Alves, $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 691 & al.**Eugenia umbrosa* O. Berg, $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 424 & al.**Eugenia uniflora* L., $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 320 & al.**Myrcia densa* (DC.) Sobral, $2n = 22$; Brazil, Bahia, *B.S. Amorim 709 & al.**Myrcia guianensis* (Aubl.) DC., $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 646 & al.**Myrcia splendens* (Sw.) DC., $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 634 & al.**Myrciaria ferruginea* O. Berg, $2n = 22$; Brazil, Pernambuco, *B.S. Amorim 649 & al.**Myrciaria floribunda* (H. West ex Willd.) O. Berg, $2n = 22$; Brazil, Bahia, *B.S. Amorim 732 & al.*

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All materials CHN; collectors: *AE* = A. Erst, *DSh* = D. Shaulo, *TA* = T. An'kova; vouchers in NS.

BRASSICACEAE

Microstigma sajanense Kuvajev & Sonnikova, $2n = 12$; Russia, Krasnoyarskii Krai, *A. Sonnikova A11.*

FABACEAE

Astragalus adsurgens Pall., $2n = 32$; Russia, Krasnoyarsk Krai, *DSh, TA & AE A28.**Astragalus danicus* Retz., $2n = 16$; Kazakhstan, E. Kazakhstan District, *TA A8.**Astragalus depauperatus* Ledeb., $2n = 48$; Russia, Altai Krai, *TA A37.**Astragalus follicularis* Pall., $2n = 16, 32$; Russia, Altai Republic, *TA A81.**Astragalus schanginianus* Pall., $2n = 64$; Kazakhstan, E. Kazakhstan District, *TA A49.**Astragalus tephrolobus* Bunge, $2n = 64$; Russia, Altai Republic, *TA A70.**Astragalus tibetanus* Bunge, $2n = 16$; Kazakhstan, E. Kazakhstan District, *TA A2.**Oxytropis eriocarpa* Bunge, $2n = 24 + 2 - 3B$; Russia, Altai Republic, *TA A85.**Oxytropis floribunda* (Pall.) DC., $2n = 16$; Russia, Altai Republic, *TA A72.**Oxytropis mongolica* Kom., $2n = 16$; Russia, Tuva Republic, *DSh & TA A21.**Oxytropis pilosa* (L.) DC., $2n = 16$; Kazakhstan, E. Kazakhstan District, *TA A42.**Oxytropis songorica* (Pall.) DC., $2n = 16$; Kazakhstan, E. Kazakhstan District, *TA A3.**Oxytropis squamulosa* DC., $2n = 16$; Russia, Tuva Republic, *DSh & TA A14.**Oxytropis strobilacea* Bunge, $2n = 16$ Russia, Tuva Republic, *Dsh & TA A17.**Vicia multicaulis* Ledeb., $2n = 12$; Russia, Krasnoyarsk Krai, *DSh, TA & AE A86.*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.

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All materials CHN, collected from district Kangra of Himachal Pradesh in India; Collector: SB = Santosh Bala; vouchers in PUN.

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ACANTHACEAE

Eranthemum nervosum (Vahl) R. Br. ex Roem. & Schult., *n* = 22; SB 26189.

Justicia simplex D. Don, *n* = 18; SB 28088.

Strobilanthes dalhousieanus (Nees) C.B. Clarke, *n* = 16; SB 28066.

ASTERACEAE

Anaphalis adnata DC., *n* = 14, SB 26159.

Anaphalis busua (Buch.-Ham.) DC., *n* = 21, SB 26156.

Anaphalis contorta (D. Don) Hook. f., *n* = 14, SB 28094.

Anaphalis margaritacea (L.) Benth. & Hook. f., *n* = 14+2B, SB 26158.

Anaphalis royleana DC., *n* = 14+2B, SB 26162.

Artemisia annua L., *n* = 9; SB 26178.

Aster lanceolatus Willd., *n* = 24, SB 28096.

Bidens bipinnata L., *n* = 36; SB 28090.

Erigeron acer L., *n* = 9; SB 26157.

Stevia rebaudiana (Bertoni) Bertoni, *n* = 11; SB 26163.

Veronica anthelmintica Willd., *n* = 10; SB 28086.

GENTIANACEAE

Swertia ciliata (D. Don ex G. Don) B.L. Burtt, *n* = 9; SB 28081.

Swertia paniculata Wall., *n* = 8; SB 28080.

LAMIACEAE

Anisomeles indica (L.) Kuntze, *n* = 12; SB 28087.

Mentha longifolia (L.) Huds., *n* = 9; SB 26199.

Ocimum sanctum L., *n* = 32; SB 28079.

LINDERNIACEAE

Lindernia ciliata (Colsm.) Pennell, *n* = 7; SB 28084.

Lindernia crustacea (L.) F. Muell., *n* = 21; SB 28085.

OLEACEAE

Jasminum officinale L., *n* = 13; SB 26193.

Nyctanthes arbor-tristis L., *n* = 18; SB 28082.

OROBANCHACEAE

Lindenbergia macrostachya Benth., *n* = 16; SB 26192.

PEDALIACEAE

Sesamum indicum L., *n* = 13; SB 28089.

PLANTAGINACEAE

Veronica beccabunga L., *n* = 18; SB 26186.

Veronica polita Fr., *n* = 14; SB 26191.

PLUMBAGINACEAE

Plumbago zeylanica L., *n* = 14; SB 28066.

SOLANACEAE

Cestrum elegans (Brongn.) Schltldl., *n* = 8; SB 26179.

Cestrum nocturnum L., *n* = 8; SB 28072.

Datura stramonium L., *n* = 12; SB 21889.

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All materials CHN.

SALICACEAE

Salix bicolor subsp. *basaltica* (Coste) I. Belyaeva (collected as *S. cantabrica* Rech. f.), *2n* = ca. 114; Spain, *H. Oberli & A. Neumann s.n.* (Z 000054347).

Salix myrtilloides L., *n* = 19; Switzerland, *H. Oberli s.n.* (Z 000048947).

Salix pyrenaica Gouan, *n* = 19; France, *H. Oberli s.n.* (Z 000059027).

Salix rotundifolia Trautv., *2n* = 38; U.S.A., Alaska, *George W. Argus 14000* (CAN 584689), *Walter K. Buechler 1* (CAN 597939), *Walter K. Buechler 2* (CAN 597940).

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RANUNCULACEAE

Anemonastrum crinitum (Juz.) Holub, *2n* = 16; Russia, Tuva Republic, *DSh & AE E28*.

Aquilegia atrovinosa Popov ex Gamajun., *2n* = 16; Kazakhstan, Almaty Region, *AE E16*.

Ranunculus acris L., *2n* = 14; Russia, Zabaikalskii Krai, *AK D281*.

Ranunculus longicaulis C.A. Mey., *2n* = 32; Russia, Zabaikalskii Krai, *AK D276*.

Ranunculus pedatifidus Sm., *2n* = 16; Russia, Zabaikalskii Krai, *AK D280*.

Ranunculus radicans C.A. Mey., *2n* = 32; Russia, Tuva Republic, *DSh & AE E20*.

Thalictrum acutilobum DC., *2n* = 14; Russia, Khakasiya Republic, *DSh & AE A13, DSh & AE E24*.

Thalictrum petaloideum L., *2n* = 14; Russia, Khakasiya Republic, *DSh, AE & TM E25*.

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APIACEAE

Heracleum grande (Dalzell & A. Gibson) Mukhop., $n = 22$; India, Maharashtra, *K.V.C. Gosavi 1701*.

Pimpinella adscendens Dalzell, $n = 11$; India, Maharashtra, *K.V.C. Gosavi 1712*.

Trachyspermum roxburghianum (DC.) H. Wolff, $n = 11$; India, Maharashtra, *K.V.C. Gosavi 2996*.

APOCYNACEAE

Brachystelma bourneae Gamble, $2n = 22$; India, Karnataka, *S.S. Kambale 5280*.

Brachystelma malwanense S.R. Yadav & N.P. Singh, $2n = 22$; India, Maharashtra, *S.S. Kambale 5281*.

Ceropegia anantii S.R. Yadav, Sardesai & S.P. Gaikwad, $2n = 22$; India, Maharashtra, *S.S. Kambale 2562*.

Ceropegia anjanerica Malpure, M.Y. Kamble & S.R. Yadav, $2n = 22$; India, Maharashtra, *S.S. Kambale 2564*.

Ceropegia elegans Wall., $2n = 22$; India, Tamil Nadu, *S.S. Kambale 2549*.

Ceropegia evansii McCann, $2n = 22$; India, Maharashtra, *S.S. Kambale 2983*.

Ceropegia jainii Ansari & B.G. Kulk., $2n = 22$; India, Maharashtra, *S.S. Kambale 2984*.

Ceropegia mohanramii S.R. Yadav, M.N. Gavade & Sardesai, $2n = 22$; India, Maharashtra, *S.S. Kambale 2559*.

Ceropegia noorjahaniae M.A. Ansari, $2n = 22$; India, Maharashtra, *S.S. Kambale 2592*.

Ceropegia sahyadrica Ansari & B.G. Kulk., $2n = 22$; India, Maharashtra, *S.S. Kambale 2590*.

Ceropegia spiralis Wight, $2n = 22$; India, Karnataka, *S.S. Kambale 2988*.

Heterostemma dalzellii Hook. f., $2n = 22$; India, Maharashtra, *S.S. Kambale 5283*.

Seshagiria sahyadrica Ansari & Hemadri, $2n = 22$; India, Maharashtra, *S.S. Kambale 5282*.

ASTERACEAE

Cyathocline purpurea var. *bicolor* Sant., $n = 9$; India, Maharashtra, *K.V.C. Gosavi 1704*.

Gnaphalium luteoalbum L., $n = 7$; India, Maharashtra, *K.V.C. Gosavi 1716*.

Lamprachaenium microcephalum Benth., $n = 8$; India, Maharashtra, *M.D. Nandikar 1711*.

Phyllocephalum ritchiei (Hook. f.) Narayana, $n = 9$; India, Maharashtra, *K.V.C. Gosavi 1706*.

Phyllocephalum scabridum (DC.) K. Kirkman, $n = 9$; India, Maharashtra, *K.V.C. Gosavi 1705*.

Phyllocephalum tenue (C.B. Clarke) Narayana, $n = 9$; India, Maharashtra, *K.V.C. Gosavi 1710*.

Vernonia divergens (DC.) Edgew., $n = 20$; India, Maharashtra, *K.V.C. Gosavi 1713*.

CAPPARACEAE

Maerua oblongifolia (Forssk.) A. Rich., $n = 10$; India, Maharashtra, *K.V.C. Gosavi 1719*.

FABACEAE

Crotalaria berteriana DC., $2n = 18$; India, Maharashtra, *A.D. Nalawade 1718*.

Moullava spicata (Dalzell) Nicolson, $n = 12$; India, Maharashtra, *K.V.C. Gosavi 1709*.

Vigna marina (Burm.) Merr., $n = 11$; India, Andaman, *S.R. Yadav 733*.

LYTHRACEAE

Rotala belgaumensis S.R. Yadav, Malpure & Chandore, $n = 8$; India, Karnataka, *K.V.C. Gosavi 3890*.

Rotala rotundifolia (Buch.-Ham. ex Roxb.) Koehne, $n = 18$; India, Maharashtra, *K.V.C. Gosavi 1717*.

MALVACEAE

Abutilon hirtum (Lam.) Sweet, $n = 18$; India, Karnataka, *K.V.C. Gosavi 2999*.

MORINGACEAE

Moringa concanensis Nimmo, $2n = 26$; India, Maharashtra, *K.V.C. Gosavi 1708*.

POACEAE

Arundinella metzii Hochst. ex Miq., $n = 10$; India, Maharashtra, *K.V.C. Gosavi 1714*.

Dichanthium woodrowii (Hook. f.) S.K. Jain & Deshp., $n = 10$; India, Maharashtra, *K.V.C. Gosavi 2995*.

Dimeria connivens Hack., $n = 7$; India, Maharashtra, *K.V.C. Gosavi 1702*.

Hubbardia heptaneuron Bor, $n = 10$; India, Karnataka, *A.N. Chandore 1296*.

Isachne veldkampii K.G. Bhat & Nagendran, $n = 6$; India, Kerala, *K.V.C. Gosavi 735*.

Ischaemum indicum (Houtt.) Merr., $n = 10$; India, Maharashtra, *K.V.C. Gosavi 1703*.

Limnopoia meeboldii (C.E.C. Fisch.) C.E. Hubb., $n = 11$; India, Kerala, *S.R. Yadav 3892*.

Themeda pseudotremula Potdar, Salunkhe & S.R. Yadav, $n = 10$; India, Maharashtra, *K.V.C. Gosavi 1707*.

Tricholaena teneriffae (L. f.) Link, $n = 18$; India, Karnataka, *K.V.C. Gosavi 1720*.

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FABACEAE

Astragalus chorinensis Bunge, $2n = 16$; Russia, Irkutskaya Oblast',
IS 1207.

Astragalus sericeocanus Gontsch., $2n = 16 + 1B$; Russia, Republic
of Buryatia, *IS 4009*.

Astragalus trigonocarpus (Turcz.) Bunge, $2n = 36 + 1B$; Russia, Republic of Buryatia, *IS 9109*.
Oxytropis glandulosa Turcz., $2n = 16$; Russia, Republic of Buryatia, *IS 5209*.
Oxytropis interposita Sipl., $2n = 24$; Russia, Republic of Buryatia, *IS 7109*.
Oxytropis popoviana Peshkova, $2n = 32$; Russia, Irkutskaya Oblast', *IS 1007*.
Oxytropis stukovii Palib., $2n = 16$; Russia, Zabaikalskii Krai, *IS 6107*.
Oxytropis sulphurea (Fisch. ex DC.) Ledeb., $2n = 32$; Kazakhstan, Eastern-Kazakhstan Oblast', *IS 2308*.
Oxytropis triphylla (Pall.) Pers., $2n = 16$; Russia, Irkutskaya Oblast', *IS 1405*.
Oxytropis varlakovii Serg., $2n = 24 + 1B$; Russia, Zabaikalskii Krai, *IS 7307*.

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ASTERACEAE

Achillea asiatica Serg., $2n = 36$; Russia, Komi Republic, *Sokolovskaya 23*; Russia, Irkutskaya oblast, *NP & VS 10677*, *NP & VS 10678*; Russia, Kamchatka Peninsula, *Verkholat 10043*.
Achillea micrantha M. Bieb., $2n = 18$; Russia, Astrakhanskaya Oblast', *NP & VS 11736*.
Achillea millefolium L., $2n = 36$; Russia, Krasnodarskii Krai, *NP & VS 11176*; Russia, Saratovskaya Oblast', *NP & VS 11200*; Russia, Irkutskaya Oblast', *NP & VS 11093*; Russia, Amurskaya Oblast', *NP & VS 10756*; Russia, Primorskii Krai, *Nesterova 9647*; *NP & VS 7014*, *NP & VS 8930*, *NP & VS 9537*. $2n = 54$; Russia, Republic of Karelia, *NP & VS 11202*.
Achillea nigrescens (E. Mey.) Rydb., $2n = 36$; Russia, Kamchatka Peninsula, *Verkholat 10044*. $2n = 54$; Russia, Kamchatka Peninsula, *Verkholat 10041*.
Ajania pallasiana (Fisch. ex Besser) Poljakov, $2n = 18$; Russia, Amurskaya Oblast', *AK 07-189*. $2n = 36$; Russia, Khabarovskii Krai, *Burlyaeva 2012-72*.
Artemisia absinthium L., $2n = 18$; Russia, Republic of Daghestan, *Gnutikov & Ufimov 2012-69*, *Gnutikov & Ufimov 2012-70*; Armenia, *Kotseruba 10-54*.
Artemisia bargusinensis Spreng., $2n = 36$; Russia, Khabarovskii Krai, *Burlyaeva 2012-77*, *Burlyaeva 2012-78*, *Burlyaeva 2012-79*.
Artemisia caucasica Willd., $2n = 16$; Russia, Krasnodarskii Krai, *Ukrainskaya 10-48*.
Artemisia chamaemelifolia Vill., $2n = 18$; Russia, Republic of Daghestan, *Kotseruba 10-46*, *Kotseruba 11-07*.
Artemisia commutata Besser, $2n = 36$; Mongolia, *AK & Dorofeev 09-08*.

Artemisia daghestanica Krasch. & Poretzky, $2n = 18$; Russia, Republic of Daghestan, *Kotseruba & Letifova 10-45*.
Artemisia desertorum subsp. *pseudojaponica* Darijma & Kamelin, $2n = 18$; Mongolia, *AK & Dorofeev 09-04*, *AK & Dorofeev 09-05*, *AK & Dorofeev 09-06*, *AK & Dorofeev 09-07*.
Artemisia giraldii Pamp., $2n = 36$; India, Himachal-Pradesh State, *Gannibal 2012-62*.
Artemisia halodendron Turcz., $2n = 18$; Mongolia, *AK & Dorofeev 09-09*, *AK & Dorofeev 09-10*, *AK & Dorofeev 09-11*.
Artemisia integrifolia L., $2n = 18$; Russia, Khabarovskii Krai, *Burlyaeva 2012-82*.
Artemisia koidzumii Nakai, $2n = 36$; Russia, Khabarovskii Krai, *Burlyaeva 2012-85*, *Burlyaeva 2012-88*, *Burlyaeva 2012-89*.
Artemisia laciniata Willd., $2n = 18$; Mongolia, *AK & Dorofeev 09-03*.
Artemisia lercheana Weber ex Stechm., $2n = 18$; Kazakhstan, Aktiubinskaya Oblast', *Sytin 98-01*; Kazakhstan, Atyrauskaya Oblast', *Safronova 02-28*.
Artemisia littorcola Kitam., $2n = 36$; Russia, Khabarovskii Krai, *Burlyaeva 2012-76*.
Artemisia macilenta (Maxim.) Krasch., $2n = 36$; Mongolia, *AK & Dorofeev 09-12*, *AK & Dorofeev 09-13*.
Artemisia macrocephala Jacquem. ex Besser, $2n = 18$; Mongolia, *AK & Dorofeev 09-56*.
Artemisia mongolica Fisch. ex Besser, $2n = 16$; Mongolia, *AK & Dorofeev 09-01*, *AK & Dorofeev 09-02*.
Artemisia monostachya Bunge ex Maxim., $2n = 18$; Mongolia, *Galanin & Belikovitch 07-106*, *Galanin & Belikovitch 07-165*, *Galanin & Belikovitch 07-166*.
Artemisia moorcroftiana Wall. ex DC., $2n = 18$; India, Himachal-Pradesh State, *Gannibal 2012-66*.
Artemisia santolinifolia Turcz. ex Besser, $2n = 18$; India, Himachal-Pradesh State, *Gannibal 2012-60*.
Artemisia scoparia Waldst. & Kit., $2n = 16$; Russia, Khabarovskii Krai, *Burlyaeva 2012-75*; Mongolia, *AK 2012-34*.
Artemisia sieversiana Ehrh. ex Willd., $2n = 18$; Russia, Republic of Daghestan, *Kotseruba & Letifova 10-44*.
Artemisia stolonifera (Maxim.) Kom., $2n = 36$; China, Heilongjiang Province, *Burlyaeva 2012-81*.
Artemisia subdigitata Mattf., $2n = 36$; India, Himachal-Pradesh State, *Gannibal 2012-63*, *Gannibal 2012-64*.
Artemisia tournefortiana Rchb., $2n = 18$; India, Himachal-Pradesh State, *Gannibal 2012-61*.
Artemisia vulgaris L., $2n = 16$; Russia, Republic of Daghestan, *Kotseruba & Letifova 10-43*, *Gnutikov & Ufimov 2012-90*, *Gnutikov & Ufimov 2012-91*.
Artemisia wellbyi Hemsl. & H. Pearson, $2n = 54$; India, Himachal-Pradesh State, *Gannibal 2012-65*.
Parmica alpina DC., $2n = 36$; Russia, Magadanskaya Oblast', *NP & VS 7060*; Russia, Amurskaya Oblast', *NP & VS 11537*; Russia, Khabarovskii Krai, *NP & VS 7095*; Russia, Primorskii Krai, *Nechaev 10474*, *Kapustina 8661*.
Parmica kamtschatica Rupr. ex Kom., $2n = 36$; Russia, Kamchatka Peninsula, *Verkholat 10042*, *Verkholat 10045*, *Verkholat 10065*.
Parmica salicifolia (Besser) Myrz., $2n = 36$; Russia, Khabarovskii Krai, *Burlyaeva 2012-73*.
Parmica speciosa DC., $2n = 18$; Russia, Kamchatka Peninsula, *Sokolovskaya 82*, *Sokolovskaya 165*.
Pyrethrum glanduliferum Sommier & Levier, $2n = 18$; Russia, Republic of Daghestan, *Gnutikov & Ufimov 2012-71*.
Tanacetum boreale DC., $2n = 18$; Russia, Khabarovskii Krai, *Burlyaeva 2012-74*.

POACEAE

Deschampsia cespitosa (L.) P. Beauv., $2n = 26$; Russia, Republic of Tyva, *Yakubov 11214*.

Echinochloa spiralis Vasinger, $2n = 36$; Russia, Krasnodarskii Krai, Manilo 11168.

Milium effusum L., $2n = 28$; Germany, Kotseruba 2012-01.

Poa argunensis Roshev. ex Kom., $2n = 42$; Russia, Zabaikal'skii Krai, Liubogoshchinskii C 659.

Setaria verticillata (L.) P. Beauv., $2n = 36$; Russia, Krasnodarskii Krai, NP & VS 11178.

POLYGONACEAE

Rumex patientia L., $2n = 40$; Russia, Primorskii Krai, VS 10651.

ROSACEAE

Potentilla semiglabra Juz., $2n = 28$; Russia, Amurskaya Oblast', NP & VS 10725, NP & VS 10737.

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All materials CHN; collected in India; collector: SK = Sanjeev Kumar; vouchers in PUN.

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APIACEAE

Bupleurum lanceolatum Wall. ex DC., $n = 16$; SK 27326.

CARYOPHYLLACEAE

Silene falconeriana Benth., $n = 10$; SK 27345.

FABACEAE

Alysicarpus glumaceus (Vahl) DC., $n = 16$; SK 27349.

Cassia mimosoides var. *demidiata* Roxb., $n = 16$; SK 25069.

Cassia mimosoides var. *wallichiana* Baker, $n = 16$; SK 27330.

GERANIACEAE

Geranium collinum Stephan ex Willd., $n = 14$; SK 27351.

MALVACEAE

Abutilon indicum (L.) Sweet, $n = 7$; SK 27355.

Triumfetta pilosa Roth, $n = 8$; SK 27370.

RANUNCULACEAE

Anemone obtusiloba D. Don, $n = 7 + (0-1B)$; SK 26986

Ranunculus muricatus L., $n = 16$; SK 27475

ROSACEAE

Geum elatum Wall. ex G. Don, $n = 14$; SK 27346

Geum roylei Wall., $n = 14$; SK 27301; $n = 28$; SK 27302

RUTACEAE

Boeninghausenia albiflora (Hook.) Rchb. ex Meisn., $n = 10$; SK 27366.

SAXIFRAGACEAE

Saxifraga brunonis Wall. ex. Ser., $n = 8$; SK 28952.

Saxifraga pallida Wall. ex Ser., $n = 8$; SK 27371.

Saxifraga parnassifolia D. Don, $n = 8 + (0-1B)$; SK 28707.

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

ACORACEAE

Acorus calamus L., $2n = 36$; Russia, Primorskii Krai, AK & ZK 013.

ALLIACEAE

Allium odorum L., $2n = 32$; Russia, Primorskii Krai, AK & ZK 035.

APIACEAE

Oenanthe javanica DC., $2n = 22$; Russia, Primorskii Krai, AK & ZK 034.

ASTERACEAE

Centaurea scabiosa L., $2n = 20$; Russia, Primorskii Krai, AK & ZK 004.

Erigeron oharae (Nakai) Botsch., $2n = 18$; Russia, Primorskii Krai, AK & ZK 009.

Heteropappus meendorffii (Regel & Maack) Kom. & Aliss., $2n = 18$; Russia, Primorskii Krai, AK & ZK 005.

Tephrosia subdentata (Bunge) Holub, $2n = 48$; Russia, Primorskii Krai, AK & ZK 032.

BERBERIDACEAE

Epimedium macrosepalum Stearn, $2n = 12$; Russia, Primorskii Krai, AK & ZK 025, AK & ZK 026.

BRASSICACEAE

Armoracia rusticana G. Gaertn., B. Mey. & Scherb., $2n = 32$; Russia, Primorskii Krai, AK & ZK 031.

Cardamine trifida (Lam. ex Poir.) B.M.G. Jones, $2n = 32$; Russia, Primorskii Krai, AK & ZK 011.

CONVALLARIACEAE

Polygonatum humile Fisch. ex Maxim., $2n = 20$; Russia, Primorskii Krai, AK & ZK 008.

CRASSULACEAE

Sedum ussuriense Kom., $2n = 48$; Russia, Primorskii Krai, AK & ZK 022.

DIPSACACEAE

Scabiosa lachnophylla Kitag., $2n = 16$; Russia, Primorskii Krai, AK & ZK 029.

EPHEDRACEAE

Ephedra monosperma J.G. Gmel. ex C.A. Mey., $2n = 14$; Russia, Primorskii Krai, AK & ZK 012.

Ephedra sinica Stapf, $2n = 28$; Russia, Far East, Primorskii Krai, AK & ZK 003.

FABACEAE

Astragalus marinus Boriss., $2n = 16$; Russia, Primorskii Krai, AK & ZK 027.

IRIDACEAE

Iris ivanovae Doronkin, $2n = 20$; Russia, Chitinskaya Oblast', AK & ZK 028.

Iris laevigata Fisch., $2n = 32$; Russia, Primorskii Krai, AK & ZK 023.

Iris oxypetala Bunge, $2n = 40$; Russia, Primorskii Krai, AK & ZK 018.

Iris sanguinea Hornem., $2n = 28$; Russia, Primorskii Krai, AK & ZK 014.

Iris setosa Pall. ex Link., $2n = 38$; Russia, Primorskii Krai, AK & ZK 015, AK & ZK 016, AK & ZK 017.

Iris ventricosa Pall., $2n = 28$; Russia, Primorskii Krai, AK & ZK 006, AK & ZK 007.

OXALIDACEAE

Oxalis acetosella L., $2n = 22$; Russia, Primorskii Krai, AK & ZK 020, AK & ZK 021.

PAEONIACEAE

Paeonia lactiflora Pall., $2n = 10$; Russia, Primorskii Krai, AK & ZK 019.

POLYGONACEAE

Acetosa pratensis Mill., $2n = 14$; Russia, Primorskii Krai, AK & ZK 030.

ROSACEAE

Duchesnea indica (Andrews) Focke, $2n = 42$; Russia, Primorskii Krai, AK & ZK 002.

Potentilla tergemina Soják, $2n = 28$; Russia, Primorskii Krai, AK & ZK 024.

SAXIFRAGACEAE

Bergenia crassifolia (L.) Fritsch, $2n = 34$; CHN. Russia, Chitinskaya Oblast', AK & ZK 010.

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All materials CHN; collectors: DT = D.Yu. Tzyrenova, NP = N.S. Probatova, VB = V.Yu. Barkalov, VS = V.P. Seledets; vouchers in VLA.

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ALLIACEAE

Allium strictum Schrad., $2n = 32$; Russia, Magadanskaya Oblast', VB 12054.

ASTERACEAE

Achillea asiatica Serg., $2n = 36$; Russia, Amurskaya Oblast', DT 9935; Russia, Evreiskaya Avtonomnaya Oblast', DT 10608.

Aster maackii Regel, $2n = 18$; Russia, Primorskii Krai, Nechaev 12085.

Aster tataricus L. f., $2n = 54$; Russia, Khabarovskii Krai, Rudyka 12157.

Carpesium macrocephalum Franch. & Sav., $2n = 40$; Russia, Primorskii Krai, Lapenko 11747.

Crepis nana Richardson, $2n = 14$; Russia, Magadanskaya Oblast', VB 12033.

Erigeron koraginenis (Kom.) Botsch., $2n = 18$; Russia, Magadanskaya Oblast', VB 12080.

Erigeron politus Fr., $2n = 18$; Russia, Magadanskaya Oblast', VB 12078.

Eupatorium lindleyanum DC., $2n = 20$; Russia, Khabarovskii Krai, Rudyka 12154.

BORAGINACEAE

Lappula consanguinea Gürke, $2n = 24$; Russia, Magadanskaya Oblast', VB 12077.

BRASSICACEAE

Arabis turczaninowii Ledeb., $2n = 14$; Russia, Magadanskaya Oblast', VB 12071.

Braya siliquosa Bunge, $2n = 42$; Russia, Magadanskaya Oblast', VB 12056.

Cardaminopsis petraea (L.) Hiitonen, $2n = 16$; Russia, Magadanskaya Oblast', VB 12053.

Eutrema edwardsii R. Br., $2n = 28$; Russia, Magadanskaya Oblast', VB 12069.

Isatis oblongata DC., $2n = 28$; Russia, Republic of Buryatia, DT 11890.

Rorippa barbareaifolia (DC.) Kitag., $2n = 16$; Russia, Magadanskaya Oblast', VB 12065.

CARYOPHYLLACEAE

Gastrolychnis pauciflora (Ledeb.) Tzvelev, $2n = 48$; Russia, Magadanskaya Oblast', VB 12036.

Minuartia stricta (Sw.) Hiern, $2n = 22$; Russia, Magadanskaya Oblast', VB 12069.

Stellaria fischeriana Ser., $2n = 26$; Russia, Magadanskaya Oblast', VB 12052.

FABACEAE

Medicago lupulina L., $2n = 16$; Russia, Primorskii Krai, Lapenko 11962.

Oxytropis mertensiana Turcz., $2n = 16$; Russia, Magadanskaya Oblast', VB 12050.

Vicia tetrasperma (L.) Schreb., $2n = 14$; Russia, Primorskii Krai, VB 11920.

GERANIACEAE

Geranium dahuricum DC., $2n = 28$; Russia, Amurskaya Oblast', DT 9967.

Geranium eriostemon Fisch. ex DC., $2n = 28$; Russia, Khabarovskii Krai, DT 9860; Russia, Primorskii Krai, DT 9872.

Geranium maximowiczii Regel & Maack, $2n = 28$; Russia, Khabarovskii Krai, DT 9857.

Geranium sibiricum L., $2n = 28$; Russia, Khabarovskii Krai, DT 9858; Russia, Evreiskaya Avtonomnaya Oblast', DT 10615; Russia, Primorskii Krai, DT 9862.

Geranium sieboldii Maxim., $2n = 28$; Russia, Evreiskaya Avtonomnaya Oblast', DT 10069.

Geranium soboliferum Kom., $2n = 28$; Russia, Primorskii Krai, DT 9870.

Geranium wilfordii Maxim., $2n = 28$; Russia, Primorskii Krai, DT 9861, DT 9874.

IRIDACEAE

Iris uniflora Pall. ex Link., $2n = 48$; Russia, Primorskii Krai, Nechaev 12090.

LAMIACEAE

Dracocephalum palmatum Stephan ex Willd., $2n = 12$; Russia, Magadanskaya Oblast', VB 12051.

Perilla frutescens (L.) Britton, $2n = 40$; Russia, Primorskii Krai, NP & VS 12158.

ONAGRACEAE

Epilobium palustre L., $2n = 36$; Russia, Magadanskaya Oblast', VB 12057.

POACEAE

Agrostis angrenica (Butkov) Tzvelev, $2n = 42$; Kirghizia, NP & VS 5142.

Alopecurus arundinaceus Poir., $2n = 28$; Russia, Primorskii Krai, Nechaev 12098.

Festuca brachyphylla Schult. & Schult. f., $2n = 42$; Russia, Magadanskaya Oblast', VB 12079, VB 12081.

Glyceria fluitans (L.) R. Br., $2n = 40$; Russia, Leningradskaya Oblast', Sokolovskaya 7; Russia, Novgorodskaya Oblast', NP 4352; Russia, Moskovskaya Oblast', NP 4071.

Glyceria maxima (Hartm.) Holmb., $2n = 60$; Ukraine, NP 4387.

Glyceria notata Chevall., $2n = 40$; Russia, Leningradskaya Oblast', Sokolovskaya 18.

Hierochloë praetermissa (G. Weim.) Prob. & Tzvelev, $2n = 42$; Kirghizia, NP & VS 5164.

Hierochloë repens P. Beauv., $2n = 28$; Ukraine, NP 5191.

Koeleria cristata Pers., $2n = 28$; Russia, Krasnodarskii Krai, NP & VS 11909.

Ochlopa annua (L.) H. Scholz, $2n = 28$; Russia, Amurskaya Oblast', Veklich 12099.

Poa humilis Ehrh., $2n = 70$; Russia, Leningradskaya Oblast', NP 4361.

Poa pseudoabbreviata Roshev., $2n = 14$; Russia, Kamchatskaya Oblast', Kharkevich 3988.

Poa sibirica Roshev., $2n = 14$; Russia, Kamchatskaya Oblast', NP & VS 3285.

Poa sichotensis Prob., $2n = 42$; Russia, Primorskii Krai, VB 11427.

Poa tatewakiana Ohwi, $2n = 42$; Russia, Komandorskie Islands, Zelenskaya 8021.

Poa trivialis L., $2n = 14$; Russia, Primorskii Krai, Volynets 12123.

Setaria viridis (L.) P. Beauv., $2n = 18$; Russia, Krasnodarskii Krai, NP & VS 11279.

Trisetum seravschanicum Roshev., $2n = 28$; Kazakhstan, Almaatinskaya Oblast', NP & VS 5125.

PORTULACACEAE

Claytoniella vassilievii (Kuzen.) Jurtzev, $2n = 60$; Russia, Magadanskaya Oblast', VB 12070.

PRIMULACEAE

Androsace septentrionalis L., $2n = 20$; Russia, Magadanskaya Oblast', VB 12068.

RANUNCULACEAE

Ranunculus eschscholtzii Schldtl., $2n = 16$; Russia, Magadanskaya Oblast', VB 12041.

Ranunculus grandis Honda, $2n = 28$; Russia, Primorskii Krai, Rudyka 4677. Earlier, this specimen was misidentified as "*R. japonicus* Thunb." in Bot. Zhurn. (Moscow & Leningrad) 12: 1700. 1984.

Ranunculus pedatifidus Sm., $2n = 32$; Russia, Magadanskaya Oblast', VB 12083.

ROSACEAE

Potentilla argentea L., $2n = 28$; Russia, Evreiskaya Avtonomnaya Oblast', DT 10630.

Potentilla chinensis Ser., $2n = 14$; Russia, Primorskii Krai, Lapenko 11982.

Potentilla gelida C.A. Mey., $2n = 28$; Russia, Magadanskaya Oblast', VB 12063.

Potentilla intermedia L., $2n = 28$; Russia, Primorskii Krai, Volynets 11919.

Potentilla stipularis L., $2n = 28$; Russia, Magadanskaya Oblast', VB 12055.

Potentilla tergemina Soják, $2n = 28$; Russia, Magadanskaya Oblast', VB 12034.

SALICACEAE

Salix taraiakensis Kimura, $2n = 38$; Russia, Primorskii Krai, VB 11803.

SAXIFRAGACEAE

Chrysosplenium flagelliferum F. Schmidt, $2n = 24$; Russia, Primorskii Krai, NP & VS 6394.

SCROPHULARIACEAE

Castilleja rubra (Drobow) Rebrist., $2n = 24$; Russia, Magadanskaya Oblast', VB 12058.

Pedicularis rubens Stephan ex Willd., $2n = 16$; Russia, Zabaikal'skii Krai, DT 11888.

VIOLACEAE

Viola amurica W. Becker, $2n = 24$; Russia, Primorskii Krai, Volynets 12096.

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All materials CHN; collectors: AV = A.V. Verkhozina, DK = D.A. Krivenko, SK = S.G. Kazanovsky; vouchers in VLA and IRK, unless otherwise stated.

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ALLIACEAE

Allium prostratum Maxim., $2n = 16$; Russia, Zabaikal'skii Krai, SK & Prelovskaya 12038.

APIACEAE

Heracleum dissectum Ledeb., $2n = 22$; Russia, Republic of Buryatia, SK 186.

ASTERACEAE

Artemisia tanacetifolia L., $2n = 18$; Russia, Republic of Buryatia, SK 12132.

Cirsium helenioides (L.) Hill, $2n = 34$; Russia, Republic of Buryatia, DK 12161.

Crepis bungei Ledeb. ex DC., $2n = 8$; Russia, Republic of Buryatia, SK 12128.

Leontodon autumnalis L., $2n = 12$; Russia, Republic of Buryatia, AV 207.

Leucanthemum vulgare Lam., $2n = 36$; Russia, Irkutskaya Oblast', SK & Pochinchik 12136.

Saussurea denticulata Ledeb., $2n = 26$; Russia, Republic of Buryatia, AV 12164.

Saussurea parviflora (Poir.) DC., $2n = 26$; Russia, Irkutskaya Oblast', SK 189.

Senecio vulgaris L., $2n = 40$; Russia, Irkutskaya Oblast', SK 12045.

Taraxacum printzii Dahlst. ex Printz, $2n = 24$; Russia, Republic of Buryatia, SK & Stepantsova 12131.

BALSAMINACEAE

Impatiens glandulifera Royle, $2n = 18$; Russia, Irkutskaya Oblast', AV & Prelovskaya 19858.

BORAGINACEAE

Lappula anisacantha (Turcz. ex Bunge) Gürke, $2n = 24$; Russia, Republic of Buryatia, AV & Anossova 12160.

BRASSICACEAE

Alyssum lenense Adams, $2n = 16$; Russia, Irkutskaya Oblast', SK 12120; Russia, Republic of Buryatia, AV & Anossova 12172.

CAPRIFOLIACEAE

Lonicera altaica Pall., $2n = 36$; Russia, Republic of Buryatia, SK 12137.

CARYOPHYLLACEAE

Cerastium holosteoides Fr., $2n = 108$; Russia, Irkutskaya Oblast', AV 215; Russia, Republic of Buryatia, SK & Pochinchik 217.

Minuartia laricina (L.) Mattf., $2n = 26$; Russia, Zabaikal'skii Krai, Chernova & SK 219.

Stellaria dichotoma L., $2n = 26$; Russia, Republic of Buryatia, Zhmudj 12162.

CHENOPODIACEAE

Chenopodium novopokrovskyanum (Aellen) Uotila, $2n = 36$; Russia, Irkutskaya Oblast', SK 213.

EUPHORBIACEAE

Euphorbia virgata Waldst. & Kit., $2n = 60$; Russia, Republic of Buryatia, DK 12168.

FABACEAE

Astragalus propinquus Schischk., $2n = 16$; Russia, Zabaikal'skii Krai, Bondarevich 22405.

Medicago lupulina L., $2n = 16$; Russia, Irkutskaya Oblast', AV 24629.

Melilotus officinalis (L.) Lam., $2n = 16$; Russia, Irkutskaya Oblast', SK 19193.

Trifolium hybridum L., $2n = 16$; Russia, Irkutskaya Oblast', SK 19176.

Vicia hirsuta (L.) Gray, $2n = 14$; Russia, Irkutskaya Oblast', SK 23673.

GENTIANACEAE

Gentiana macrophylla Pall., $2n = 26$; Russia, Republic of Buryatia, SK 224.

Gentianella acuta (Michx.) Hiitonon, $2n = 36$; Russia, Republic of Buryatia, SK 226.

Halenia corniculata (L.) Cornaz, $2n = 22$; Russia, Republic of Buryatia, SK 12026.

GERANIACEAE

Erodium cicutarium (L.) L'Hér. ex Aiton, $2n = 18$; Russia, Irkutskaya Oblast', DK 206.

GROSSULARIACEAE

Ribes diacantha Pall., $2n = 16$; Russia, Zabaikal'skii Krai, SK 12061.

LAMIACEAE

Prunella vulgaris L., $2n = 28$; Russia, Irkutskaya Oblast', SK & Pochinchik 12135.

MELANTHIACEAE

Zigadenus sibiricus (L.) A. Gray, $2n = 32$; Russia, Irkutskaya Oblast', SK & Pochinchik 12138.

POACEAE

Achnatherum sibiricum (L.) Keng ex Tzvelev, $2n = 24$; Russia, Irkutskaya Oblast', AV 12103.

Agrostis capillaris L., $2n = 28$; Russia, Republic of Buryatia, SK 12066.

Agrostis clavata Trin., $2n = 42$; Russia, Republic of Buryatia, Chepinoga 9424.

Agrostis divaricatissima Mez, $2n = 28$; Russia, Irkutskaya Oblast', AV 12106.

Avena sativa L., $2n = 48$; Russia, Irkutskaya Oblast', AV 12163.

Beckmannia syzigachne (Steud.) Fernald, $2n = 14$; Russia, Zabaikal'skii Krai, SK 223.

Calamagrostis obtusata Trin., $2n = 28$; Russia, Irkutskaya Oblast', SK 12073.

Dactylis glomerata L., $2n = 28$; Russia, Republic of Buryatia, SK 184.

Elymus mutabilis (Drobow) Tzvelev, $2n = 28$; Russia, Republic of Buryatia, AV & Anossova 12177.

Festuca baicalensis V.I. Krecz. & Bobr., $2n = 42$; Russia, Republic of Buryatia, DK 12126, AV 12134.

Festuca ovina L., $2n = 28$; Russia, Republic of Buryatia, AV & Anossova 12115, AV 12121, SK 12122.

Festuca rubra L., $2n = 42$; Russia, Irkutskaya Oblast', SK 203.

Hordeum jubatum L., $2n = 28$; Russia, Irkutskaya Oblast', SK 185.

Melica nutans L., $2n = 18$; Russia, Republic of Buryatia, SK 182.

Ochlopa supina (Schrad.) H. Scholz & Valdés, $2n = 14$; Russia, Republic of Buryatia, SK & Pochinchik 216; Russia, Irkutskaya Oblast', AV 12169.

Panicum ruderales (Kitag.) Chang, $2n = 36$; Russia, Republic of Buryatia, AV & DK 12167.

Phleum phleoides (L.) H. Karst., $2n = 14$; Russia, Republic of Buryatia, DK 12101.

Phleum pratense L., $2n = 42$; Russia, Irkutskaya Oblast', SK 183.

Poa almasovii Golub, $2n = 56$; Russia, Magadanskaya Oblast', NP & VS 3616/6.

Poa alpigena Lindm., $2n = ca. 70$; Russia, Kamchatka, Pet'ko 5384.

Poa alpina L., $2n = 28$; Russia, Republic of Buryatia, SK 11692.

$2n = 35$; Russia, Arkhangel'skaya Oblast', Nenetskii Natsional'nyi Okrug, Lavrenko 6345.

Poa angustifolia L., $2n = 56$; Russia, Primorskii Krai, Volynets 12124.

Poa arctica R. Br., $2n = ca. 70$; Russia, Arkhangel'skaya Oblast', Nenetskii Natsional'nyi Okrug, Lavrenko 6344.

Poa attenuata Trin., $2n = 28$; Russia, Irkutskaya Oblast', NP & VS 10689; Russia, Republic of Buryatia, NP & VS 9383; Russia, Chitinskaya Oblast' (now: Zabaikal'skii Krai), NP & VS 4701.

Poa botryoides (Trin. ex Griseb.) Kom., $2n = 28$; Russia, Republic of Bashkortostan, Muldashev & al. 6155; Russia, Amurskaya Oblast', NP & Rudyka 4020, NP & VS 4424, NP & VS 4425, NP & VS 4539; Russia, Khabarovskii Krai, NP & Rudyka 5054.

$2n = 42$; Russia, Kamchatka, Smirnov 5323; Russia, Magadanskaya Oblast', Khokhrjakov & Mazurenko 4162; Russia, Amurskaya Oblast', NP & VS 4465.

Poa compressa L., $2n = 42$; Russia, Primorskii Krai, Nechaev 11441.

Poa glauca Vahl, $2n = 42$; Russia, Komi Republic, Tzvelev 117

- (LE); Russia, Republic of Sakha-Yakutia, *NP & VS 3774*; Russia, Magadanskaya Oblast', *VB 12076*. $2n = \text{ca. } 56$; Russia, Khabarovskii Krai, *Shapoval, Boyko & al. 3982*.
- Poa litvinoviana* Ovcz., $2n = 42$; Tadzhikistan, *Sokolovskaya & Strelkova 57*.
- Poa macrocalyx* Trautv. & C.A. Mey., $2n = 42$; Russia, Khabarovskii Krai, *Kriukova 10426*.
- Poa palustris* L., $2n = 28$; Russia, Komi Republic, *Sokolovskaya 25*; Russia, Leningradskaya Oblast', *NP 4362*; Russia, Primorskii Krai, *Krivenko 5457*.
- Poa paucispicula* Scribn. & Merr., $2n = 42$; Russia, Koryakskii Natsional'nyi Okrug, *Kharkevich & al. 3989*, *Kharkevich 3991*, *Kharkevich 3993*, *Kharkevich & Buch 3994*.
- Poa pratensis* L., $2n = 56$; Russia, Republic of Buryatia, *SK 187*, *SK 214*.
- Poa transbaicalica* Roshev., $2n = 28$; Russia, Republic of Buryatia, *AV 12104*.
- Schedonorus pratensis* (Huds.) P. Beauv., $2n = 14$; Russia, Republic of Buryatia, *Chepinoga 9411*.
- Schizachne callosa* (Turcz. ex Griseb.) Ohwi, $2n = 20$; Russia, Zabaikal'skii Krai, *SK 12109*.
- Setaria verticillata* (L.) P. Beauv., $2n = 18$; Russia, Volgogradskaya Oblast', *Yurtseva 10502*.

POLYGONACEAE

- Acetosella vulgaris* (W.D.J. Koch) Fourr., $2n = 42$; Russia, Republic of Buryatia, *SK & Pochinchik 208*.
- Rumex maritimus* L., $2n = 40$; Russia, Irkutskaya Oblast', *AV 12105*.
- Rumex patientia* L., $2n = 40$; Russia, Irkutskaya Oblast', *AV 12159*.
- Rumex pseudonatronatus* (Borbás) Murb., $2n = 40$; Russia, Irkutskaya Oblast', *Matyashenko 12129*.

PORTULACACEAE

- Montia fontana* L., $2n = 20$; Russia, Irkutskaya Oblast', *AV 12043*.

PRIMULACEAE

- Androsace amurensis* Probr., $2n = 20$; Russia, Republic of Buryatia, *AV & Anossova 12165*.

RANUNCULACEAE

- Aconitum baicalense* Turcz. ex Rapaics, $2n = 32$; Russia, Irkutskaya Oblast', *SK & Pochinchik 221*.
- Aconitum barbatum* Patr. ex Pers., $2n = 16$; Russia, Irkutskaya Oblast', *SK 188*.
- Aquilegia oxysepala* Trautv. & C.A. Mey., $2n = 14$; Russia, Zabaikal'skii Krai, *SK 12064*.
- Aquilegia parviflora* Ledeb., $2n = 14$; Russia, Zabaikal'skii Krai, *SK 12060*.
- Delphinium elatum* L., $2n = 32$; Russia, Irkutskaya Oblast', *SK & Pochinchik 222*.
- Pulsatilla tenuiloba* (Hayek) Juz., $2n = 16$; Russia, Irkutskaya Oblast', *AV, DK & Pochinchik 218*.

ROSACEAE

- Potentilla bifurca* L., $2n = 56$; Russia, Republic of Buryatia, *Anossova & Zhmudj 211*.
- Potentilla canescens* Besser, $2n = 42$; Russia, Republic of Buryatia, *AV & Anossova 12107*.
- Potentilla conferta* Bunge, $2n = 56$; Russia, Republic of Buryatia, *DK 12108*.
- Potentilla norvegica* L., $2n = 56$; Russia, Republic of Buryatia, *SK & Pochinchik 204*; Russia, Zabaikal'skii Krai, *SK 12031*.
- Potentilla tergemina* Soják, $2n = 28$; Russia, Republic of Buryatia, *SK 12125*.

SCROPHULARIACEAE

- Odontites vulgaris* Moench, $2n = 20$; Russia, Republic of Buryatia, *SK 12023*.
- Rhinanthus serotinus* Oborny, $2n = 22$; Russia, Republic of Buryatia, *Anossova & Zhmudj 228*.
- Veronica chamaedrys* L., $2n = 32$; Russia, Irkutskaya Oblast', *SK & Pochinchik 210*.

SOLANACEAE

- Solanum kitagawae* Schönbr.-Tem., $2n = 24$; Russia, Irkutskaya Oblast', *DK 12173*.

VALERIANACEAE

- Valeriana transjenisensis* Kreyer, $2n = 42$; Russia, Irkutskaya Oblast', *SK 212*.

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PLUMBAGINACEAE

- Limonium artruchium* Erben, $2n = 27$; Spain, Balearic Islands, 8 Nov 2008, *PF & JAR s.n.*
- Limonium bellidifolium* (Gouan) Dumort, $2n = 18$; Spain, *PFE A33A*.
- Limonium biflorum* (Pignatti) Pignatti, $2n = 25$; Spain, Balearic Islands, 14 Nov 2005, *MAC & JAR s.n.*
- Limonium boirae* L. Llorens & Tébar, $2n = 35$; Spain, Balearic Islands, 23 Sep 2006, *JAR s.n.*
- Limonium bolosii* Gil & L. Llorens, $2n = 36$; Spain, Balearic Islands, 15 Nov 2010, *JAR s.n.*
- Limonium caesium* (Girard) Kuntze, $2n = 18$; Spain, *PFE A3C*.
- Limonium cofrentanum* Erben, $2n = 18$; Spain, *PFE V97B*.
- Limonium echioides* (L.) Mill., $2n = 18$; Spain, Balearic Islands, 8 Nov 2008, *PF & JAR s.n.*; Spain, *PFE A25A*.
- Limonium fontqueri* (Pau) L. Llorens, $2n = 27$; Spain, Balearic Islands, 8 Nov 2008, *PF & JAR s.n.*
- Limonium formenterae* L. Llorens, $2n = 25$; Spain, Balearic Islands, 7 Dec 2006, *JAR s.n.*
- Limonium grosii* L. Llorens, $2n = 36$; Spain, Balearic Islands, 7 Dec 2006, *JAR s.n.*
- Limonium gymnesicum* Erben, $2n = 27$; Spain, Balearic Islands, 18 Oct 2005, *JAR s.n.*
- Limonium mansanetianum* M.B. Crespo & Lledó, $2n = 26$; Spain, *PFE V320*.
- Limonium minoricense* Erben, $2n = 27$; Spain, Balearic Islands, 7 Nov 2008, *PF & JAR s.n.*; Spain, Balearic Islands, 7 Nov 2008, *PF & JAR s.n.*
- Limonium perplexum* L. Sáez & Rosselló, $2n = 27$; Spain, *PFE C24E*.

Limonium santapolense Erben, $2n = 26$; Spain, *PFE A194B*.
Limonium saxicolum Erben, $2n = 27$; Spain, Balearic Islands, 7 Nov 2008, *PF & JAR s.n.*
Limonium sucronicum Erben, $2n = 18$; Spain, *PFR V159B*.
Limonium tamarindanum Erben, $2n = 36$; Spain, Balearic Islands, 8 Nov 2008, *PF & JAR s.n.*
Myriolimon ferulaceum (L.) Lledó & al., $2n = 16$; Spain, Balearic Islands, 8 Nov 2008, *PF & JAR s.n.*

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UMBELLIFERAE/APIACEAE

Angelica brevicaulis (Rupr.) B. Fedtsch., $2n = 22$; Kyrgyzstan, *UU & EZ 22*.
Angelica decurrens (Ledeb.) B. Fedtsch., $2n = 22$; Kyrgyzstan, 12 Aug 2010, *UU & EZ s.n.*
Angelica multicaulis Pimenov, $2n = 22$; Kyrgyzstan, *UU & EZ 20*.
Aulacospermum simplex Rupr., $n = 9$; Kyrgyzstan, *UU & EZ 6*.
Bunium chaerophylloides (Regel & Schmalh.) Drude, $2n = 12$; Uzbekistan, 21 Jul 2010, *MP & EK, s.n.*
Bupleurum exaltatum M. Bieb., $n = 6$; Uzbekistan, *MP & EK 5*.
Bupleurum thianschanicum Freyn, $n = 7$; Kyrgyzstan, *UU & EZ 15*.
Echinophora sibthorpiana Guss., $n = 11$; Uzbekistan, *MP & EK 17*.
Elaeosticta hirtula (Regel & Schmalh.) Kljuykov & al., $2n = 20$; Uzbekistan, 17 Jul 2010, *MP & EK s.n.*
Elaeosticta paniculata (Korovin) Kljuykov & Pimenov, $n = 11$; Uzbekistan, *MP & EK 14*
Eryngium octophyllum Korovin, $n = 8$; Uzbekistan, *MP & EK 1*.
Ferula transiliensis (Herder) Pimenov, $2n = 22$; Kyrgyzstan, 14 Aug 2010, *UU & EZ s.n.*
Galagania neglecta M.G. Vassilieva & Kljuykov, $2n = 22$; Uzbekistan, *MP & EK 20*
Heraclium lehmannianum Bunge, $2n = 22$; Uzbekistan, 19 Jul 2010, *MP & EK s.n.*
Kozlovia paleacea (Regel & Schmalh.) Lipsky, $2n = 22$; Uzbekistan, 20 Jul 2010, *MP & EK s.n.*
Myrrhoides nodosa (L.) Cannon, $2n = 22$; Uzbekistan, 19 Jul 2010, *MP & EK s.n.*
Oedibasis tamerlanii (Lipsky) Korovin ex Nevski, $2n = 20$; Uzbekistan, 24 Sep 2009, *MP & EK, s.n.*; 19 Jul 2010, *MP & EK, s.n.*
Prangos fedtschenkoi (Regel & Schmalh.) Korovin, $2n = 22$; Uzbekistan, 15 Jul 2010, *MP & EK s.n.*
Schtschurowskia meifolia Regel & Schmalh., $n = 11$; Uzbekistan, *MP & EK 10*
Semenovia transiliensis Regel & Herder, $2n = 22$; Kyrgyzstan, *UU & EZ 8*; $n = 11$, $2n = 22$, Kyrgyzstan, *Lazkov, UU & EZ 27*.

Seseli lehmannianum (Bunge) Boiss., $n = 10$; Uzbekistan, *MP & EK 4*; *MP & EK 21*
Seseli valentinae Popov, $n = 11$; Kyrgyzstan, *UU & EZ 24*; $2n = 22$; Kyrgyzstan, *UU & EZ 18*.
Sium medium Fisch. & C.A. Mey., $2n = 12$; Kyrgyzstan, *UU & EZ 30*.
Torilis leptophylla (L.) Rchb.f., $2n = 12$; Uzbekistan, 13 Jul 2010, *MP & EK s.n.*
Vicatia atrosanguinea (Kar. & Kir.) P.K. Mukh. & Pimenov, $2n = 22$; Kyrgyzstan, *UU & EZ 3*.

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RUBIACEAE

Borreria eryngioides var. *affinis* (DC.) K. Schum., $2n = 28$; Argentina, Salta, *RMS & ACF 470* (CTES); $2n = 28$; Bolivia, Dep. Santa Cruz, Prov. Cordillera, *MSF, MD, GP & JU 2668* (CTES).
Borreria latifolia (Aubl.) K. Schum., $2n = 28$; Brasil, Bahia, Andaraí, *LPQ, EC, CD, RES & SF 13694* (HUEFS, CTES); Brasil, Goiás, Nova Roma, *LPQ, EC, CD, RMS & ACF 14182* (HUEFS, CTES); Argentina, Misiones, *HK & MF 5256* (CTES); $2n = 28$.
Borreria martirovettiana E.L. Cabral, $2n = 28$; Argentina, Misiones, *SS, ACF, RMS & WM 100* (CTES).
Borreria ocymoides (Burm.f.) DC., $2n = 26$; Brasil, Goiás, *LPQ, EC, DC, RMS & ACF 14075* (HUEFS, CTES).
Borreria spinosa (L.) Cham. & Schltdl., $2n = 84$; Argentina, Misiones, *SS, RMS & ACF 95* (CTES); Argentina, Jujuy, *EC, LPQ, RMS & EBS 848* (CTES).
Borreria tenella (Kunth) Cham. & Schltdl., $2n = 28$; Argentina, Misiones, *SS, ACF, RMS & WM 101* (CTES).
Spermacoce tenuior L., $2n = 28$; Bolivia, Dep. Santa Cruz, Prov. Cordillera, *MSF, MD, GP & JU 2276* (CTES).

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PHRYMACEAE (SCROPHULARIACEAE)

Mimulus guttatus Fisch. ex DC., $n = 14$; Mexico, *Vickery 12,180*, *Vickery 12,184*, *Vickery 12,190*, *Vickery 12,223*.

IOPB COLUMN

Edited by Karol Marhold & Ilse Breitwieser

IAPT/IOPB chromosome data 14

Edited by Karol Marhold

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Methods for chromosome counts follow Guerra & Souza (2002).

- * First chromosome count for the genus.
- ** First chromosome count for the species.
- *** New chromosome number for the species.
- + Endemic of Atlantic Forest (Sobral & al., 2009).

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MYRTACEAE

Calyptanthes dardanoi Mattos

+* $2n = 22$, CHN. Brazil, Pernambuco, Igarassu, Usina São José, 7°50'18" S, 34°59'57" W, 15 Sep 2009, *J.D. Garcia 1173 & al.* (UFP). [Fig. 1A]

Calyptanthes grandifolia O. Berg

+* $2n = 22$, CHN. Brazil, São Paulo, São Paulo, Parque Estadual Fontes do Ipiranga, 23°38'30" S, 46°37'38" W, 22 Aug 2010, *B.S. Amorim 671 & al.* (UFP). [Fig. 1B]

Campomanesia dichotoma (O. Berg) Mattos

+** $2n = 22$, CHN. Brazil, Pernambuco, Igarassu, Usina São José, 7°50'18" S, 34°59'57" W, 8 Mar 2009, *B.S. Amorim 406 & al.* (UFP). [Fig. 1C]

Eugenia hirta O. Berg

+** $2n = 44$, CHN. Brazil, Pernambuco, Goiana, RPPN Fazenda Tabatinga, 7°36'17" S, 34°49'04" W, 27 Jan 2010, *B.S. Amorim 529 & al.* (UFP).

Eugenia puniceifolia (Kunth) DC.

*** $2n = 44$, CHN. Brazil, Pernambuco, Goiana, RPPN Fazenda Tabatinga, 7°36'17" S, 34°49'04" W, 27 Jan 2010, *B.S. Amorim 528 & al.* (UFP). [Fig. 1D]

Eugenia tumescens B.S. Amorim & M. Alves

** $2n = 22$, CHN. Brazil, Pernambuco, Igarassu, Usina São José, 7°50'18" S, 34°59'57" W, 2 Dec 2010, *B.S. Amorim 691 & al.* (UFP). [Fig. 1E]

Eugenia umbrosa O. Berg

+** $2n = 22$, CHN. Brazil, Pernambuco, Igarassu, Usina São José, 7°50'18" S, 34°59'57" W, 12 Mar 2009, *B.S. Amorim 424 & al.* (UFP). [Fig. 1F]

Eugenia uniflora L.

$2n = 22$, CHN. Brazil, Pernambuco, Igarassu, Usina São José, 7°50'18" S, 34°59'57" W, 26 Dec 2008, *B.S. Amorim 320 & al.* (UFP). [Fig. 1G]

Myrcia densa (DC.) Sobral

** $2n = 22$, CHN. Brazil, Bahia, Morro do Chapéu, Morrão, 11°35'24" S, 41°12'26" W, 3 Feb 2011, *B.S. Amorim 709 & al.* (UFP). [Fig. 1H]

Myrcia guianensis (Aubl.) DC.

** $2n = 22$, CHN. Brazil, Pernambuco, Recife, Parque Ecológico de Dois Irmãos, 8°00'46" S, 34°56'38" W, 3 May 2010, *B.S. Amorim 646 & al.* (UFP). [Fig. 1I]

Myrcia splendens (Sw.) DC.

$2n = 22$, CHN. Brazil, Pernambuco, Recife, Parque Ecológico de Dois Irmãos, 8°00'46" S, 34°56'38" W, 13 May 2010, *B.S. Amorim 634 & al.* (UFP). [Fig. 1J]

Myrciaria ferruginea O. Berg

+** $2n = 22$, CHN. Brazil, Pernambuco, Recife, Jardim Botânico do Recife, 8°04'40" S, 34°58'00" W, 19 Apr 2010, *B.S. Amorim 649 & al.* (UFP). [Fig. 1K]

Myrciaria floribunda (H. West ex Willd.) O. Berg

** $2n = 22$, CHN. Brazil, Bahia, Morro do Chapéu, Fazenda Guaribas, 11°26'31" S, 41°11'53" W, 4 Feb 2011, *B.S. Amorim 732 & al.* (UFP). [Fig. 1L]

Myrtaceae are characterized by the very similar karyotype, having small chromosomes with gradual variation of size, and predominance of metacentric chromosomes (Costa & Forni-Martins, 2007). The basic chromosome number is $x = 11$ (Atchison, 1947), and most of the species have $2n = 22$, with the occurrence of intra- and inter-specific polyploidy (Costa & Forni-Martins, 2007). Costa (2004) indicated that chromosome numbers are known for less than 5% of the fleshy-fruited species of the tribe Myrteae from Neotropics. The

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.

studies are restricted to some species of the genera *Acca*, *Campomanesia*, *Eugenia*, *Gomidesia*, *Luma*, *Marlierea*, *Myrceugenia*, *Myrcia*, *Myrcianthes*, *Myrciaria*, *Pimenta*, *Plinia*, and *Psidium* (Costa & Forni-Martins, 2006a, b; Landrum, 1981).

The family Myrtaceae has a pan-tropical distribution with centers of diversity in Australia, southeastern Asia and tropical America (Wilson & al., 2001). The family comprises 3800 to 5800 species and 133 genera (Wilson & al., 2001; WCSP, 2012). The Atlantic Forest,

from where material for this study was collected, is considered a biodiversity hotspot with high level of endemism (Myers & al., 2000). It is one of the diversity centers for Myrtaceae. The family is the sixth-most representative in species in the Atlantic Forest, with a high number of endemics (Stehmann & al., 2009). The present chromosome number analysis was done as a complementary information to the systematic of the family in northeastern Brazil (Amorim & Alves, 2011, 2012a, b).

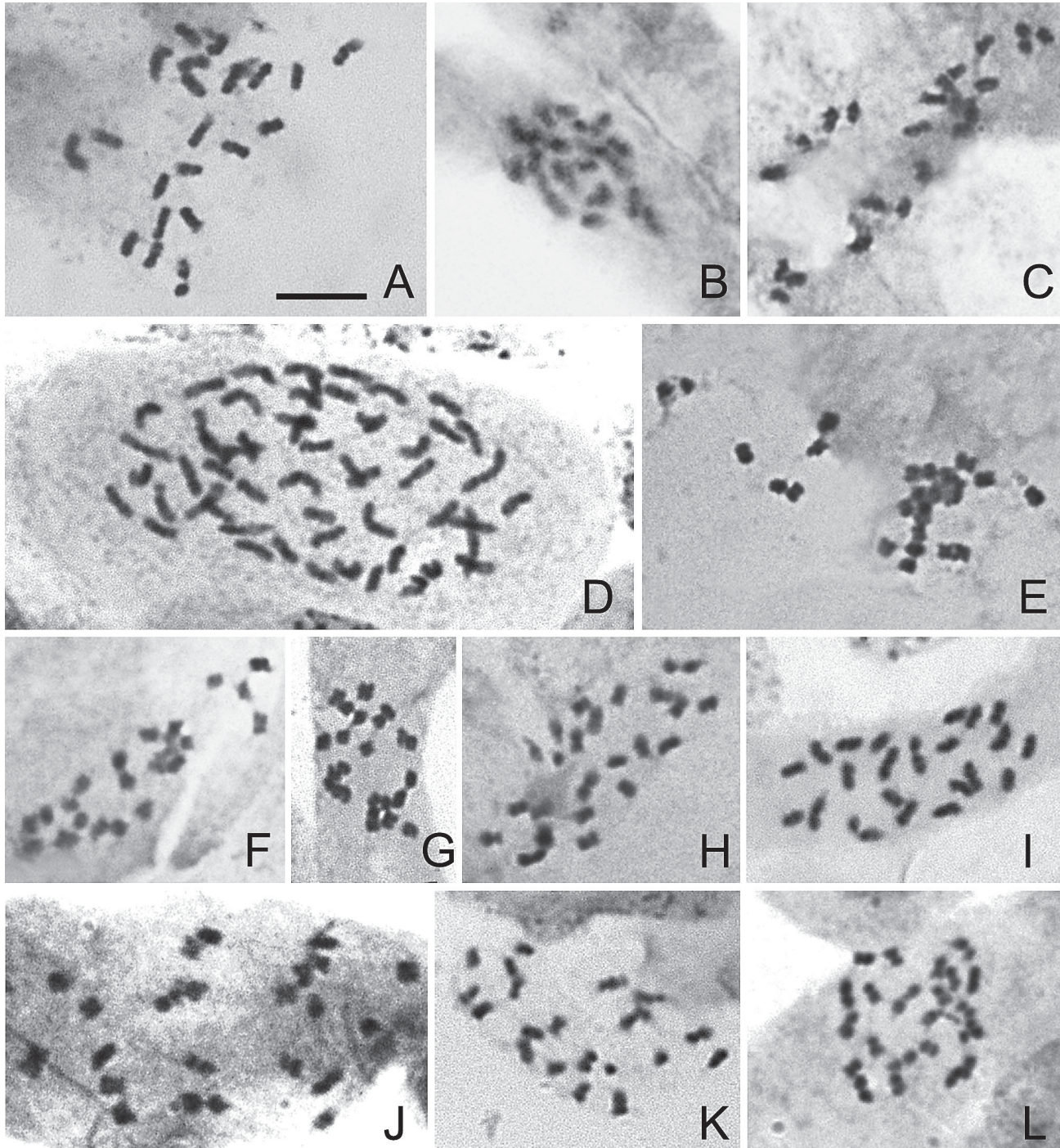


Fig. 1. **A**, *Calyptanthes dardanoi*, $2n = 22$; **B**, *C. grandifolia*, $2n = 22$; **C**, *C. dichotoma*, $2n = 22$; **D**, *Eugenia puniceifolia*, $2n = 44$; **E**, *E. tumescens*, $2n = 22$; **F**, *E. umbrosa*, $2n = 22$; **G**, *E. uniflora*, $2n = 22$; **H**, *Myrcia densa*, $2n = 22$; **I**, *M. guianensis*, $2n = 22$; **J**, *M. splendens*, $2n = 22$; **K**, *Myrciaria ferruginea*, $2n = 22$; **L**, *M. floribunda*, $2n = 22$. — Scale bar in A corresponds to 5 μm .

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* First chromosome count for the species.

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

▼ First chromosome count from Kazakhstan, Altai Republic, Tuva Republic, Krasnoyarsk Krai, Altai Krai accessions.

BRASSICACEAE

Microstigma sajanense Kuvajev & Sonnikova

* $2n = 12$, CHN. Russia, Krasnoyarsk Krai, Ermakovskii raion, W Sayan, Idzhir Ridge, valley of Yenisei River, estuary of Us River, steppe, 15 Jul 2011, *A. Sonnikova A11* (NS).

FABACEAE

Astragalus adsurgens Pall.

$2n = 32$, CHN. Russia, Krasnoyarsk Krai, Shushenskii raion,

right riverside of Yenisei River, Mainskaya HPS, N spurs of the Borus Ridge, 52°57'N, 91°30'E, scree, 11 Jul 2011, *Shaulo, An'kova & A. Erst A28* (NS).

Astragalus danicus Retz.

▼ $2n = 16$, CHN. Kazakhstan, E. Kazakhstan District, Ulanskii raion, Targyn village vicinities, W Kalba Range, 49°30'N, 82°48'E, 800 m, steppe, 3 Aug 2007, *An'kova A8* (NS); Kazakhstan, E. Kazakhstan District, Zyryanovskii raion, Ulbinskii Ridge, 4 km N of Zyryanovsk, 49°54'N, 84°05'E, 450 m, thickets of xero-mesophytic shrubs, 13 Jul 2004, *An'kova A46* (NS).

Astragalus depauperatus Ledeb.

▼ ** $2n = 48$, CHN. Russia, Altai Krai, Shipunovskii raion, 7 km S of Estonia village, valley of Charysh River, Predaltayskoye Plateau, 51°49'20.0"N, 82°29'39.1"E, 323 m, rocky outcrops on the hill, 22 Jun 2011, *An'kova A37* (NS).

Astragalus follicularis Pall.

$2n = 16, 32$, CHN. Russia, Altai Republic, Kosh-Agachskii raion, valley of Chuya River, S-W spurs of the Kuraiskii Range, 50°17'01.1"N, 87°53'57.7"E, 1875 m, rocky steppe, 8 Jul 2009, *An'kova A81* (NS).

Astragalus schanginianus Pall.

▼ $2n = 64$ CHN. Kazakhstan, E. Kazakhstan District, Zyryanovskii raion, Ulbinskii Ridge, 4 km N Dorodnitsa village, Studenukha mountain, 49°50'N, 83°51'E, 1200 m, stony feather-fescue steppe, 8 Jul 2004, *An'kova A49* (NS).

Astragalus tephrolobus Bunge

* $2n = 64$ CHN. Russia, Altai Republic, Ongudaiskii raion, 4 km E of Inya village, valley of Verchniy Karasu River, 50°23'40.1"N, 86°40'43.3"E, 800 m, desert steppe slope, 1 Jul 2010, *An'kova A70* (NS).

Astragalus tibetanus Bunge

▼ $2n = 16$, CHN. Kazakhstan, E. Kazakhstan District, Ulanskii raion, W Kalba Range, Sibinskiye Lakes, Shalkar Lake vicinities, 49°26'N, 82°38'E, 826 m, grass steppe, 2 Aug 2007, *An'kova A2* (NS).

Oxytropis eriocarpa Bunge

▼ ** $2n = 24 + 2 - 3B$, CHN. Russia, Altai Republic, Kosh-Agachskii raion, valley of Akturu River, Kuray Steppe, 50°11'01.5"N, 87°49'21.3"E, 1540 m, rocky steppe, 9 Jul 2009, *An'kova A85* (NS).

Oxytropis floribunda (Pall.) DC.

▼ $2n = 16$, CHN. Russia, Altai Republic, Ongudaiskii raion, 8 km S-E of Kupchegen village, valley of Katun River, 50°35'28.1"N, 86°30'56.1"E, 1000 m, desert-steppe slope, 2 Jul 2010, *An'kova A72* (NS).

Oxytropis mongolica Kom.

* $2n = 16$, CHN. Russia, Tuva Republic, Tandinskii raion, Dush-Khol' Lake vicinities, 51°22'N, 94°27'E, 714 m, sand dunes, 8 Jul 2008, *Shaulo & An'kova A21* (NS).

Oxytropis pilosa (L.) DC.

▼ $2n = 16$, CHN. Kazakhstan, E. Kazakhstan District, Zyryanovskii raion, Ulbinskii Ridge, 3 km W Novaya Bukhtarma village, 49°37'N, 83°27'E, 450 m, meadow steppe, 12 Sep 2004, *An'kova A42* (NS).

Oxytropis songorica (Pall.) DC.

* $2n = 16$, CHN. Kazakhstan, E. Kazakhstan District, Ulanskii raion, W Kalba Range, Sibinskiye Lakes, Shalkar lake vicinities, 49°26'N, 82°38'E, 826 m, steppe, 2 Aug 2007, *An'kova A3* (NS).

Oxytropis squamulosa DC.

▼ $2n = 16$, CHN. Russia, Tuva Republic, Pii-Khemsii raion, valley of Bolshoi Yenisei River (Bii-Khem), Uyukskii Ridge, 51°54'N, 94°25'E, 900 m, scree, 21 Jul 2008, *Shaulo & An'kova, A14* (NS).

Oxytropis strobilacea Bunge

$2n = 16$, CHN. Russia, Tuva Republic, Tes-Khemsii raion, E Tannu-Ola Ridge, 50°31'N, 95°17'E, 2000 m, dryad-lichen tundra, 14 Jul 2008, *An'kova A17* (NS).

Vicia multicaulis Ledeb.

$2n = 12$, CHN. Russia, Krasnoyarsk Krai, Shushenskii raion, right riverside of Yenisei river, Mainskaya HPS, 5 km N of Sizaya village, the Borus Ridge, 52°57'N, 91°30'E, scree, 11 Jul 2011, *Shaulo, An'kova & A. Erst A86* (NS).

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

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ACANTHACEAE*Eranthemum nervosum* (Vahl) R. Br. ex Roem. & Schult.

$n = 22$, CHN. India, Himachal Pradesh, Kangra, Palampur, 32°05'N, 76°32'E, 1219 m, moist shady places, 26 Mar 2011, *Santosh Bala SB 26189* (PUN 56040) [Fig. 2A].

Justicia simplex D. Don

$n = 18$, CHN. India, Himachal Pradesh, Kangra, Bhagsunaag, 32°15'N, 76°20'E, 1800 m, open waste places, 2 Sep 2011, *Santosh Bala SB 28088* (PUN 57790) [Fig. 2B].

**Strobilanthes dalhousieanus* (Nees) C.B. Clarke

$n = 16$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, grows as an forest undergrowth, 10 Aug 2010, *Santosh Bala SB 28066* (PUN 57793) [Fig. 2C].

The present chromosome count of $n = 16$ differs from the earlier report of $2n = 18$ by Vasudevan (1976).

ASTERACEAE*Anaphalis adnata* DC.

$n = 14$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, along roadsides, 9 Aug 2010, *Santosh Bala SB 26159* (PUN 56410) [Fig. 2D].

Anaphalis busua (Buch.-Ham.) DC.

$n = 21$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, waste places, 9 Aug 2010, *Santosh Bala SB 26156* (PUN 56407) [Fig. 2E].

Anaphalis contorta (D. Don) Hook. f.

$n = 14$, CHN. India, Himachal Pradesh, Kangra, Badagaon; Chhota Banghal, 32°05'N, 76°46'E, 3300 m, along roadsides, 10 Aug 2010, *Santosh Bala SB 28094* (PUN 57895) [Fig. 2F].

Anaphalis margaritacea (L.) Benth. & Hook. f.

$n = 14 + 2B$, CHN. India, Himachal Pradesh, Kangra, Loharadi;

Chhota Banghal, 32°04'N, 76°51'E, 2200 m, gregarious along borders of fields, 9 Aug 2010, *Santosh Bala SB 26158* (PUN 56409) [Fig. 2G].

Anaphalis royleana DC.

$n = 14 + 2B$, CHN. India, Himachal Pradesh, Kangra, Badagaon; Chhota Banghal, 32°05'N, 76°46'E, 3300 m, waste places, 10 Aug 2010, *Santosh Bala SB 26162* (PUN 56413) [Fig. 2H].

Artemisia annua L.

$n = 9$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, roadside vegetation, 12 Aug 2010, *Santosh Bala SB 26178* (PUN 56426) [Fig. 2I].

**Aster lanceolatus* Willd.

$n = 24$, CHN. India, Himachal Pradesh, Kangra, Multhan; Chhota Banghal, 32°01'N, 76°50'E, 2000 m, deodar forest, 12 Aug 2010, *Santosh Bala SB 28096* (PUN 57795) [Fig. 2J].

The present chromosome count differs from the earlier report of $2n = 18$ for this species from India by Rashid (1986).

Bidens bipinnata L.

$n = 36$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°13'N, 76°18'E, 1500 m, open waste places, 2 Sep 2011, *Santosh Bala SB 28090* (PUN 57792) [Fig. 2K].

▼*Erigeron acer* L.

$n = 9$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, open slopes, 9 Aug 2010, *Santosh Bala SB 26157* (PUN 56415) [Fig. 2L].

Current report agrees with the earlier report given by Nishikawa (1982).

▼*Stevia rebaudiana* (Bertoni) Bertoni

$n = 11$, CHN. India, Himachal Pradesh, Kangra, Palampur, 32°05'N, 76°32'E, 1219 m, semiarid locations, 1 Oct 2010, *Santosh Bala SB 26163* (PUN 56414) [Fig. 2M].

Current report agrees with the earlier report given by Oliveira & al. (2004).

Vernonia anthelmintica Willd.

$n = 10$, CHN. India, Himachal Pradesh, Kangra, Nurpur, 32°18'N, 76°56'E, 780 m, near cultivated sites, 2 Sep 2011, *Santosh Bala SB 28086* (PUN 57788) [Fig. 2N].

GENTIANACEAE**Swertia ciliata* (D. Don ex G. Don) B.L. Burt

$n = 9$, CHN. India, Himachal Pradesh, Kangra, Badagaon; Chhota Banghal, 32°05'N, 76°46'E, 3300 m, along roadsides, 12 Aug 2010, *Santosh Bala SB 28081* (PUN 57788) [Fig. 2O].

The present chromosome count differs from the earlier report of $2n = 24$ by Mehra & Gill (1968).

Swertia paniculata Wall.

$n = 8$, CHN. India, Himachal Pradesh, Kangra, Badagaon; Chhota Banghal, 32°05'N, 76°46'E, 3300 m, open places, 8 Aug 2010, *Santosh Bala SB 28080* (PUN 57788) [Fig. 2P].

LAMIACEAE**Anisomeles indica* (L.) Kuntze

$n = 12$, CHN. India, Himachal Pradesh, Kangra, Dharamshala, 32°13'N, 76°18'E, 1500 m, along roadsides, 2 Sep 2011, *Santosh Bala SB 28087* (PUN 57788) [Fig. 2Q].

The present chromosome count differs from the earlier report of $2n = 40$ (Bir & Sidhu, 1980).

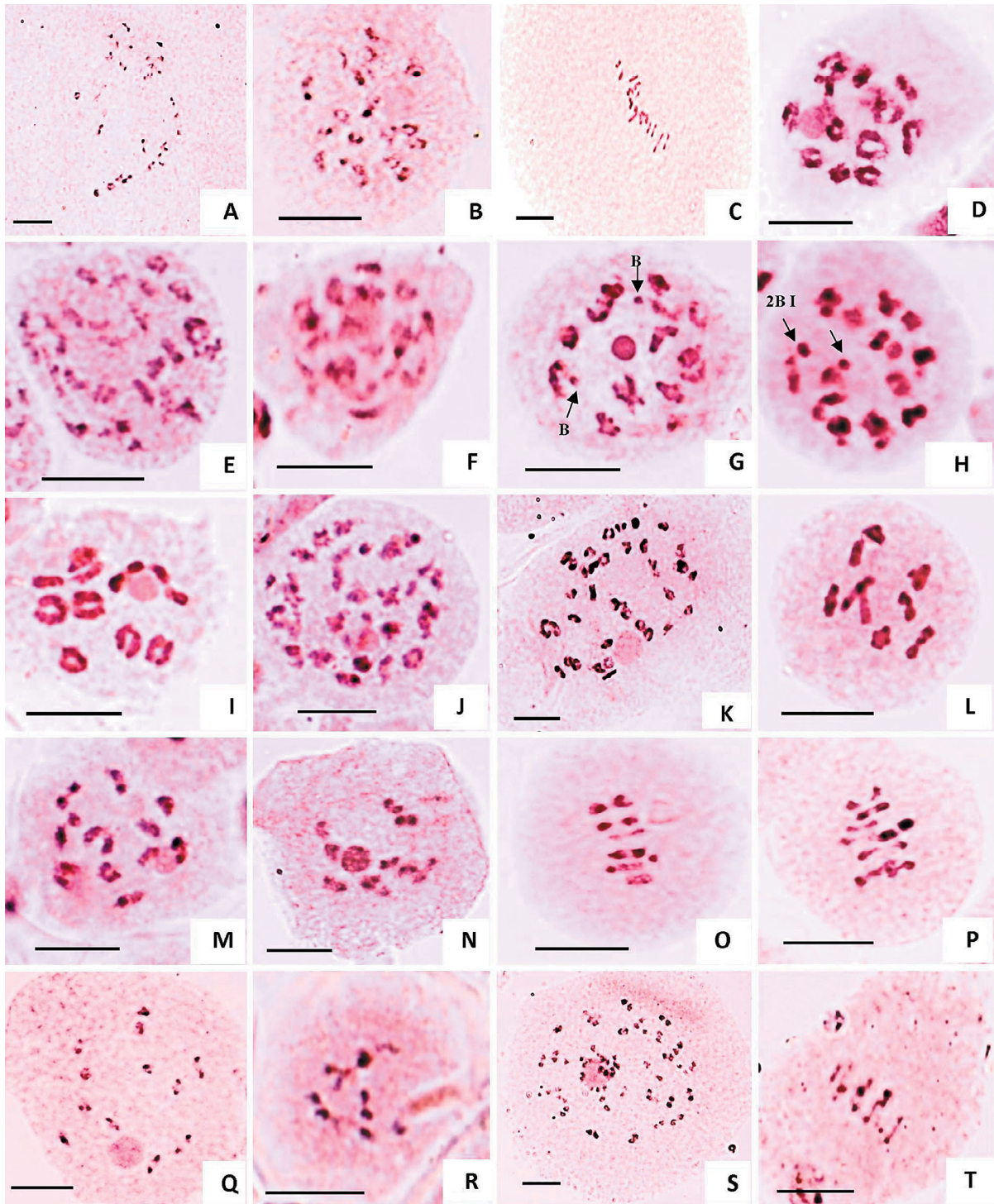


Fig. 2. **A**, *Eranthemum nervosum*, meiotic metaphase I, $n = 22$ (PUN 56040); **B**, *Justicia simplex*, meiotic diakinesis, $n = 18$ (PUN 53034); **C**, *Strobilanthes dalhousieanus*, meiotic anaphase I, $n = 16$ (PUN 53214); **D**, *Anaphalis adnata*, meiotic diakinesis, $n = 14$ (PUN 53042); **E**, *A. busua*, meiotic metaphase I, $n = 21$ (PUN 53049); **F**, *A. contorta*, meiotic diakinesis, $n = 14$ (PUN 53046); **G**, *A. margaritacea*, meiotic diakinesis, $n = 14 + 2B$ (PUN 53041); **H**, *A. royleana*, meiotic diakinesis, $n = 14 + 2B$ (PUN 53043); **I**, *Artemisia annua*, meiotic diakinesis, $n = 9$ (PUN 53048); **J**, *Aster lanceolatus*, meiotic diakinesis, $n = 24$ (PUN 53037); **K**, *Bidens bipinnata*, meiotic diakinesis, $n = 36$ (PUN 53331); **L**, *Erigeron acer*, meiotic metaphase I, $n = 9$ (PUN 53365); **M**, *Stevia rebaudiana*, meiotic diakinesis, $n = 11$ (PUN 49261); **N**, *Vernonia anthelmintica*, meiotic diakinesis, $n = 10$ (PUN 53352); **O**, *Swertia ciliata*, meiotic metaphase I, $n = 9$ (PUN 53384); **P**, *S. paniculata*, meiotic metaphase I, $n = 8$ (PUN 53458); **Q**, *Anisomeles indica*, meiotic diakinesis, $n = 12$ (PUN 53416); **R**, *Mentha longifolia*, meiotic anaphase I, $n = 9$ (PUN 53418); **S**, *Ocimum sanctum*, meiotic diakinesis, $n = 32$ (PUN 56040); **T**, *Lindernia ciliata*, meiotic metaphase I, $n = 7$ (PUN 53041). — Scale bar = 10 μ m.

Mentha longifolia (L.) Huds.

$n = 9$, CHN. India, Himachal Pradesh, Kangra, Shahpur, 32°13'N, 76°10'E, 780 m, wet places, 25 Mar 2011, *Santosh Bala SB 26199* (PUN 57788) [Fig. 2R].

Ocimum sanctum L.

$n = 32$, CHN. India, Himachal Pradesh, Kangra, Shahpur, 32°13'N, 76°10'E, 780 m, escaped from culture, 25 May 2011, *Santosh Bala SB 28079* (PUN 57788) [Fig. 2S].

LINDERNIACEAE**Lindernia ciliata* (Colsm.) Pennell

$n = 7$, CHN. India, Himachal Pradesh, Kangra, Nagrota Surian, 32°03'N, 76°05'E, 530 m, open grassland, 5 Sep 2011, *Santosh Bala SB 28084* (PUN 57788) [Fig. 2T].

The present chromosome count differs from the earlier report of $2n = 18$ (Bhattacharyya, 1967) and $2n = 24$ (Chandran & Bhanandan, 1983).

Lindernia crustacea (L.) F. Muell.

$n = 21$, CHN. India, Himachal Pradesh, Kangra, Nagrota Surian, 32°03'N, 76°05'E, 530 m, open grassland, 5 Sep 2011, *Santosh Bala SB 28085* (PUN 57788) [Fig. 3A].

OLEACEAE*Jasminum officinale* L.

$n = 13$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, near cultivated areas, 25 Mar 2011, *Santosh Bala SB 26193* (PUN 57788) [Fig. 3B].

Nyctanthes arbor-tristis L.

$n = 18$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, open waste places, 31 Aug 2011, *Santosh Bala SB 28082* (PUN 57788) [Fig. 3C].

OROBANCHACEAE*Lindenbergia macrostachya* Benth.

$n = 16$, CHN. India, Himachal Pradesh, Kangra, Shahpur, 32°13'N, 76°10'E, 780 m, open slopes & wall services, 24 Mar 2011, *Santosh Bala SB 26192* (PUN 57788) [Fig. 3D].

PEDALIACEAE*Sesamum indicum* L.

$n = 13$, CHN. India, Himachal Pradesh, Kangra, Loharadi; Chhota Banghal, 32°04'N, 76°51'E, 2200 m, open waste places, 21 Aug 2011, *Santosh Bala SB 28089* (PUN 57788) [Fig. 3E].

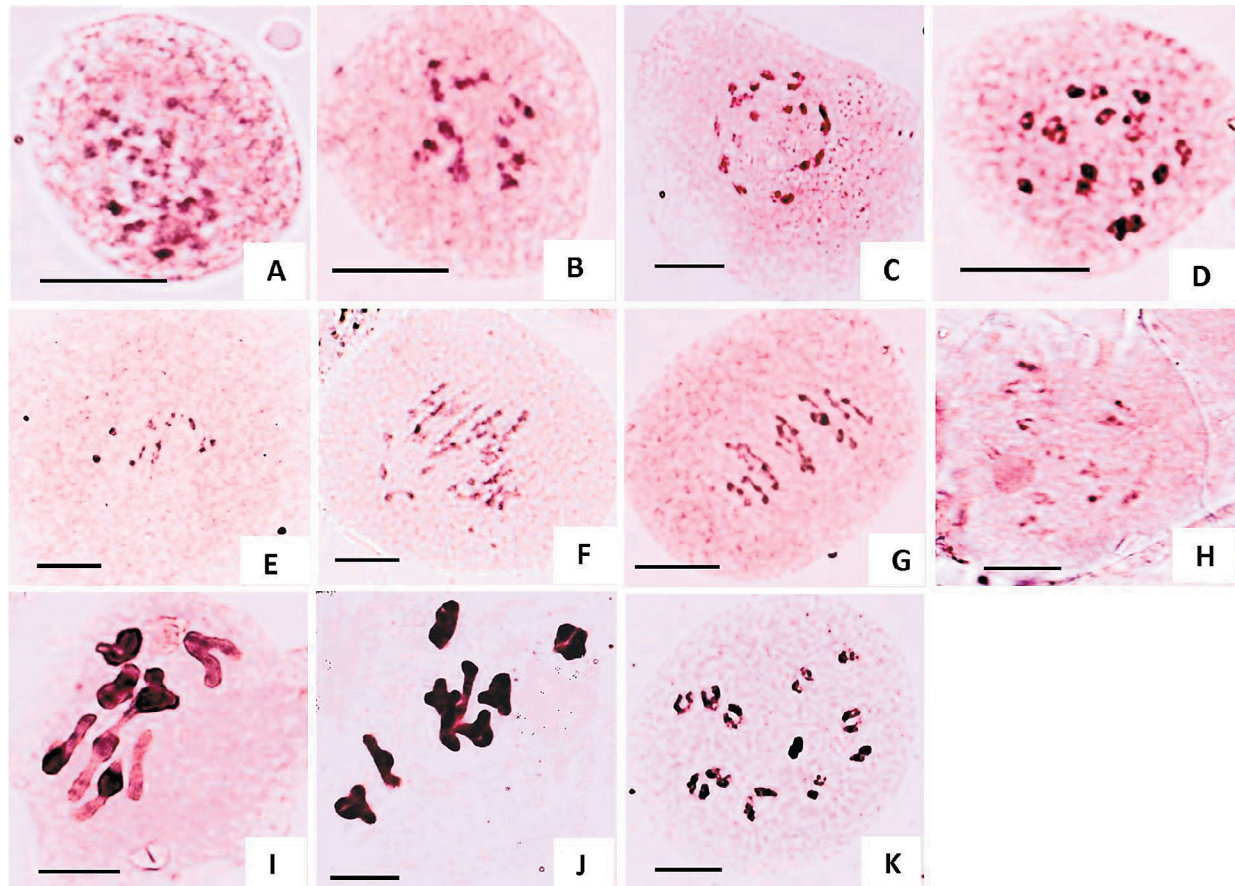


Fig. 3. **A**, *Lindernia crustacea*, meiotic diakinesis, $n = 21$ (PUN 53043); **B**, *Jasminum officinale*, meiotic metaphase I, $n = 13$ (PUN 53034); **C**, *Nyctanthes arbor-tristis*, meiotic metaphase I, $n = 18$ (PUN 53214); **D**, *Lindenbergia macrostachya*, meiotic metaphase I, $n = 16$ (PUN 53046); **E**, *Sesamum indicum*, meiotic metaphase I, $n = 13$ (PUN 53042); **F**, *Veronica beccabunga*, meiotic metaphase I, $n = 18$ (PUN 53048); **G**, *V. polita*, meiotic metaphase I, $n = 14$ (PUN 53037); **H**, *Plumbago zeylanica*, meiotic diakinesis, $n = 14$ (PUN 53049); **I**, *Cestrum elegans*, meiotic metaphase I, $n = 8$ (PUN 53331); **J**, *C. nocturnum*, meiotic metaphase I, $n = 8$ (PUN 53457); **K**, *Datura stramonium*, meiotic metaphase I, $n = 12$ (PUN 53365). — Scale bar = 10 μ m.

PLANTAGINACEAE**Veronica beccabunga* L.

$n = 18$, CHN. India, Himachal Pradesh, Kangra, Dharamshala, 32°13'N, 76°18'E, 1500 m, along water channels, 25 Mar 2011, *Santosh Bala SB 26186* (PUN 57788) [Fig. 3F].

The present chromosome count differs from the earlier report of $2n = 18$ by Malik & al. (2011) from India.

**Veronica polita* Fr.

$n = 14$, CHN. India, Himachal Pradesh, Kangra, Dharamshala, 32°13'N, 76°18'E, 1500 m, grassy fields, 24 Mar 2011, *Santosh Bala SB 26191* (PUN 57788) [Fig. 3G].

The present chromosome count differs from the earlier report of $2n = 40$ (Bir & Sidhu, 1980).

PLUMBAGINACEAE*Plumbago zeylanica* L.

$n = 14$, CHN. India, Himachal Pradesh, Kangra, Gaggal, 32°11'N, 76°16'E, 770 m, waste places, 15 Jul 2011, *Santosh Bala SB 28066* (PUN 57788) [Fig. 3H].

SOLANACEAE*Cestrum elegans* (Brongn.) Schlttdl.

$n = 8$, CHN. India, Himachal Pradesh, Kangra, Dharamshala, 32°13'N, 76°18'E, 1500 m, near cultivated areas, 10 Nov 2010, *Santosh Bala SB 26179* (PUN 57788) [Fig. 3I].

Cestrum nocturnum L.

$n = 8$, CHN. India, Himachal Pradesh, Kangra, Dharamshala, 32°13'N, 76°18'E, 1500 m, open slopes, 12 Oct 2010, *Santosh Bala SB 28072* (PUN 57788) [Fig. 3J].

Datura stramonium L.

$n = 12$, CHN. India, Himachal Pradesh, Kangra, Dehra, 31°52'N, 76°12'E, 490 m, moist places, 12 Sep 2009, *Santosh Bala SB 21889* (PUN 53200) [Fig. 3K].

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SALICACEAE*Salix bicolor* subsp. *basaltica* (Coste) I. Belyaeva

$2n = \text{ca. } 114$ (hexaploid); CHN. Spain, Cordilleran Mountains, Cantabria, Sia Pass south side, 1050 m, 15 Aug 1971, *H. Oberli & A. Neumann s.n.* (Z 000054347, collected as *S. cantabrica* Rech. f.)

Salix myrtilloides L.

$n = 19$ (male meiosis); CHN. Switzerland, Grabs, Gamperfin, peat bog, 1325 m, 20 Jun 1979, *H. Oberli s.n.* (Z 000048947).

Salix pyrenaica Gouan

$n = 19$ (male meiosis); CHN. France, Central Pyrenees, Cirque de Troumouse, 1750 m, 26 Jul 1962, *H. Oberli s.n.* (Z 000059027).

Salix rotundifolia Trautv.

$2n = 2x = 38$; CHN. U.S.A., Alaska, Anchorage Quadrangle, Nike Summit, approx. 91°15'N, 149°33'W, just below summit and above concrete missile bunkers, 9 Jul 2001, *G.W. Argus 14000* (CAN 584689); U.S.A., Alaska, Anchorage Quadrangle, Nike Summit, approx. 91°15'N, 149°33'W, 930 m, in snow bed area below road, 7 Sep 2005, *W. Buechler 1* (female plant, CAN 597939, Fig. 4); U.S.A., Alaska, Anchorage Quadrangle, Nike Summit, approx. 91°15'N, 149°33'W, 930 m, in snow bed area below road, 7 Sep 2005, *W. Buechler 2* (male plant, CAN 597940).

Salix rotundifolia Trautv. is a dwarf arctic willow growing in eastern Siberia, Alaska, Canada, Montana, and Wyoming. It includes two varieties, the diploid *S. rotundifolia* var. *dodgeana* (Rydb.) A.E. Murray and the hexaploid *S. rotundifolia* var. *rotundifolia* (Argus, 2010). While the two varieties differ statistically in leaf size and some floral characteristics, they cannot always be clearly separated on a morphological basis (G.W. Argus, pers. comm.). An attempt to separate the two polyploidy levels using epidermal and stomatal cell sizes of herbarium material as proxies yielded unsatisfying results,

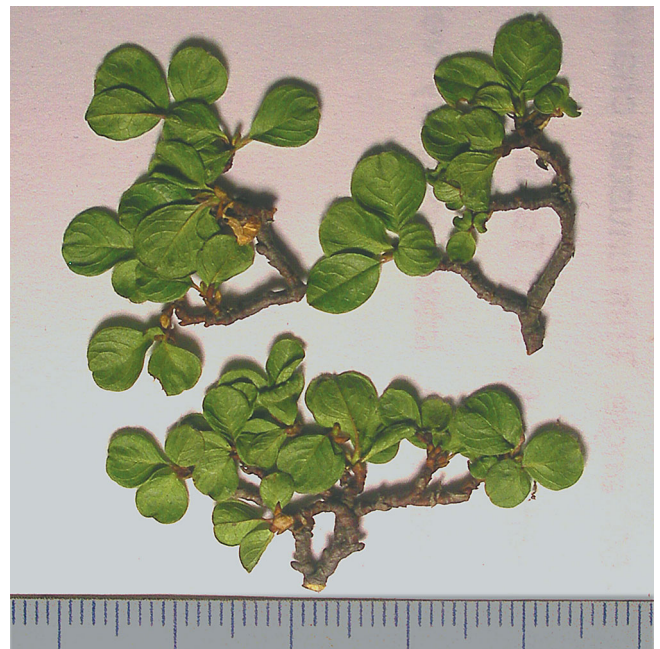


Fig. 4. *Salix rotundifolia* from Nike Summit, Alaska (CAN 597939). — Scale in cm, subdivided into mm.

in part because very few specimens with confirmed diploid chromosome counts have been available (Buechler, 2010). The diploid counts published here are the first for North America.

Whole plants were excavated with roots at natural growing sites and then cultivated in Boise, Idaho. Squash preparation: (1) root tips immersed in ice water for 6 to 8 minutes; (2) fixation in isopropyl alcohol (91%): acetic acid = 3:1 for 4 to 6 hours; (3) maceration in 1N HCl at 60°C for 6 to 8 minutes; (4) staining in aceto-orcein for about 1 minute at 90°.

Cuttings of *Salix pyrenaica*, *S. myrtilloides*, and *S. bicolor* subsp. *basaltica* were taken from natural habitats and grown at the willow plantation of H. Oberli in Wattwil, Switzerland. The chromosome number published here for *S. pyrenaica* is the first count for that species. The *S. myrtilloides* plant was taken from the westernmost location of this species in Europe (Oberli, 1981). All other counts of that species are from Scandinavia and Siberia. *Salix bicolor* subsp. *basaltica* had previously been known as being tetraploid ($2n = 76$, Neumann & Polatschek, 1972). The chromosome number published here is the first hexaploid count of this species.

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* First chromosome count for the species.

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

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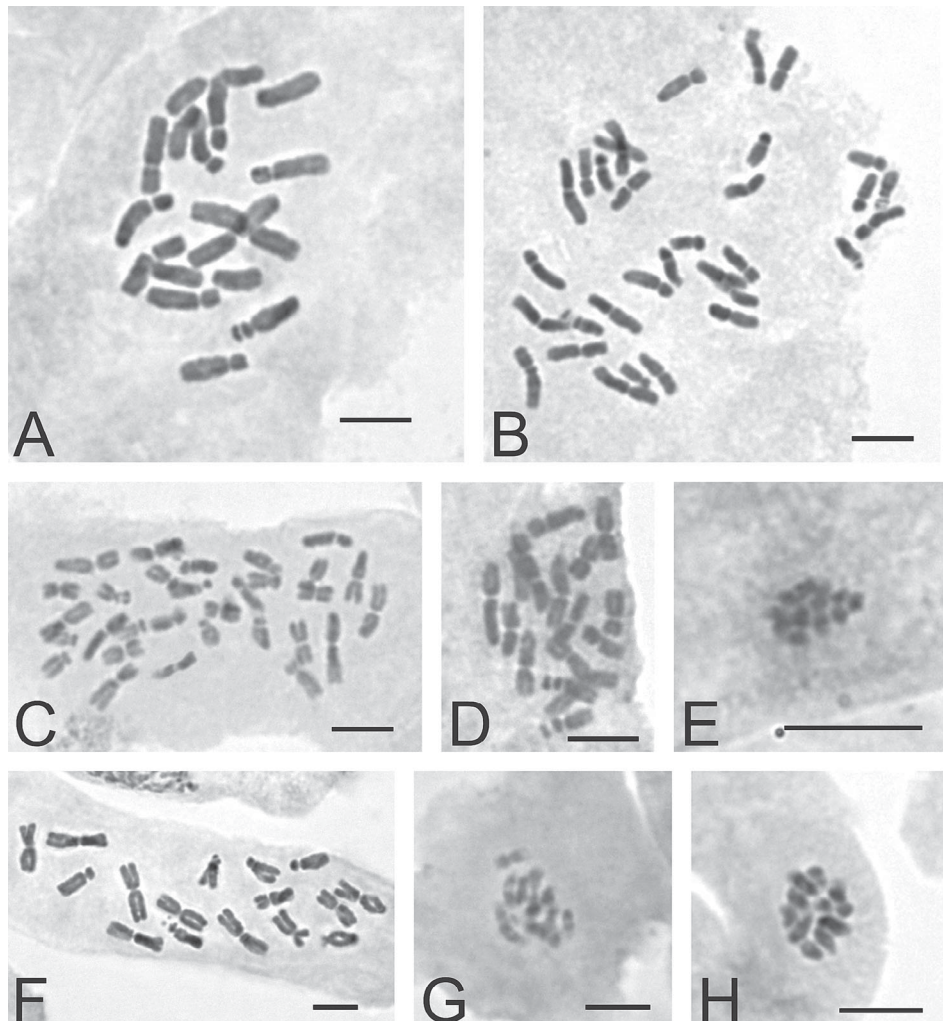
RANUNCULACEAE

** *Anemonastrum crinitum* (Juz.) Holub

$2n = 16$, CHN. Russia, East Siberia, Tuva Republic, Todzhinskii

Fig. 5. Mitotic metaphase:

- A, *Ranunculus acris*, $2n = 14$;
 B, *R. longicaulis*, $2n = 32$;
 C, *R. radicans*, $2n = 32$;
 D, *R. pedatifidus*, $2n = 16$;
 E, *Aquilegia atravinosa*, $2n = 16$;
 F, *Anemonastrum crinitum*, $2n = 16$;
 G, *Thalictrum petaloideum*, $2n = 14$;
 H, *Th. acutilobum*, $2n = 14$. —
 Scale bar = 5 μ m.



Raion, West Sayan, Tumat-Taiga Ridge, upstream of Synak River, 2070 m, 52°00'N, 95°32'E, 14 Jul 2010, *D. Shaulo & A. Erst E28* (NS) [Fig. 5F].

**Aquilegia atrovinosa* Popov ex Gamajun.

2n = 16, CHN. Kazakhstan, Almaty Region, Zailiysky Alatau, Chimbulak, 2215 m, 43°07'N, 77°05'E, 3 Jun 2011, *A. Erst E16* (NS) [Fig. 5E].

Ranunculus acris L.

2n = 14, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, Silytriannoe (Doroginskoe) Lake, concave slope of the lake basin, birch-wood, 17 Jul 2009, *A. Koroluk D281* (NS) [Fig. 5A].

Ranunculus longicaulis C.A. Mey.

2n = 32, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, Silytriannoe (Doroginskoe) Lake, concave slope of the lake basin, birch-wood, 16 Jul 2009, *A. Koroluk D276* (NS) [Fig. 5B].

***Ranunculus pedatifidus* Sm.

2n = 16, CHN. Russia, East Siberia, Zabaikalskii Krai, Uletovskii Raion, Silytriannoe (Doroginskoe) Lake, concave slope of the lake basin, birch-wood, 17 Jul 2009, *A. Koroluk D280* (NS) [Fig. 5D].

***Ranunculus radicans* C.A. Mey.

2n = 32, CHN. Russia, East Siberia, Tuva Republic, Barun-Khemchikskii Raion, the valley of Edigey River, in the river, wet meadow, 1157 m, 50°09'N, 95°11'E, 9 Jun 2010, *D. Shaulo & A. Erst E20* (NS) [Fig. 5C].

**Thalictrum acutilobum* DC.

2n = 14, CHN. Russia, East Siberia, Khakasiya Republic, Bogradskii Raion, Krasnoyarsk water storage basin, bay of Chernaya rechka, spur of Varcha, steppe, 275 m, 54°47'N, 90°49'E, 21 Jun 2010, *D. Shaulo & A. Erst A13* (NS); Russia, East Siberia, Khakasiya Republic, Bogradskii Raion, Abakano-Perevoz, steppe, 275 m, 54°47'N, 90°49'E, 21 Jun 2010, *D. Shaulo & A. Erst E24* (NS) [Fig. 5H].

Thalictrum petaloideum L.

2n = 14, CHN. Russia, East Siberia, Krasnoyarsk Krai, Erma-kovskii Raion, West Sayan, Kurtushibinsky Ridge, the valley of Omul River. 280 m, 54°16'N, 91°21'E, 29 Jun 2010, *D. Shaulo, A. Erst & T. Myakshina E25* (NS) [Fig. 5G].

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* First chromosome count for the species.

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

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APIACEAE

Heracleum grande (Dalzell & A. Gibson) Mukhop.

n = 22, CHN. India, Maharashtra, Pune District, Khandala, St. Mary's Villa, 505 m, 27 Jun 2011, *K.V.C. Gosavi 1701* (SUK) [Fig. 6A].

Pimpinella adscendens Dalzell

n = 11, CHN. India, Maharashtra, Kolhapur district, Gagan-

bawada, Borbet, 772 m, 18 Dec 2011, *K.V.C. Gosavi 1712* (SUK) [Fig. 6B].

Trachyspermum roxburghianum (DC.) H. Wolff

n = 11, CHN. India, Maharashtra, Nasik district, Trimbakeshwar, Anjaneri hills, 694 m, 9 Oct. 2010, *K.V.C. Gosavi 2996* (SUK) [Fig. 6C].

APOCYNACEAE

**Brachystelma bourneae* Gamble.

2n = 22, CHN. India, Karnataka, Shimoga district, Malebennur Ghat, 646 m, 8 Oct 2011, *S.S. Kambale 5280* (SUK) [Fig. 6D].

**Brachystelma malwanense* S.R. Yadav & N.P. Singh

2n = 22, CHN. India, Maharashtra, Sindhudurg district, Malwan, Katta, 27 m, 11 July 2010, *S.S. Kambale 528* (SUK) [Fig. 6E].

**Ceropegia anantii* S.R. Yadav, Sardesai & S.P. Gaikwad

2n = 22, CHN. India, Maharashtra, Sindhudurg district, Phonda, 141 m, 20 Aug 2010, *S.S. Kambale 2562* (SUK) [Fig. 6F].

**Ceropegia anjanerica* Malpure, M.Y. Kamble & S.R. Yadav

2n = 22, CHN. India, Maharashtra, Nasik district, Anjaneri hills, 1253 m, 31 Nov 2010, *S.S. Kambale 2564* (SUK) [Fig. 6G].

***Ceropegia elegans* Wall.

2n = 22, CHN. India, Tamil Nadu, Coimbatore district, Kovai, Koutrallum, 533 m, 8 March 2010, *S.S. Kambale 2549* (SUK) [Fig. 6H].

**Ceropegia evansii* McCann

2n = 22, CHN. India, Maharashtra, Ratnagiri district, Gothane plateau, 473 m, 4 July 2011, *S.S. Kambale 2983* (SUK) [Fig. 6I].

**Ceropegia jainii* Ansari & B.G. Kulk.

2n = 22, CHN. India, Maharashtra, Satara district, Kas Plateau, 1141 m, 31 July 2011, *S.S. Kambale 2984* (SUK) [Fig. 6J].

**Ceropegia mohanramii* S.R. Yadav, M.N. Gavade & Sardesai

2n = 22, CHN. India, Maharashtra, Sindhudurg district, Kudal, Kochara, 20 m, 11 July 2010, *S.S. Kambale 2559* (SUK) [Fig. 6K].

**Ceropegia noorjahaniae* M.A. Ansari

2n = 22, CHN. India, Maharashtra, Satara district, Kartikswami, 835 m, 16 Aug 2011, *S.S. Kambale 2592* (SUK) [Fig. 6L].

Ceropegia sahyadrica Ansari & B.G. Kulk.

2n = 22, CHN. India, Maharashtra, Ratnagiri district, Gothane, 881 m, 6 Aug 2011, *S.S. Kambale 2590* (SUK) [Fig. 6M].

**Ceropegia spiralis* Wight

2n = 22, CHN. India, Karnataka, Bagalkot district, Badami, 610 m, 31 Aug 2011, *S.S. Kamble 2988* (SUK) [Fig. 6N].

**Heterostemma dalzellii* Hook. f.

2n = 22, CHN. India, Maharashtra, Sindhudurg district, Kudal, Kochara, 20 m, 11 July, 2010, *S.S. Kambale 5283* (SUK) [Fig. 6O].

**Seshagiria sahyadrica* Ansari & Hemadri

2n = 22, CHN. India, Maharashtra, Pune district, Rajgad, 27 Jun 2010, *S.S. Kambale 5282* (SUK) [Fig. 6P].

ASTERACEAE

**Cyathocline purpurea* var. *bicolor* Sant.

n = 9, CHN. India, Maharashtra, Kolhapur district, Karveer, Shivaji University campus, 568 m, 23 Sep 2011, *K.V.C. Gosavi 1704* (SUK) [Fig. 6Q].

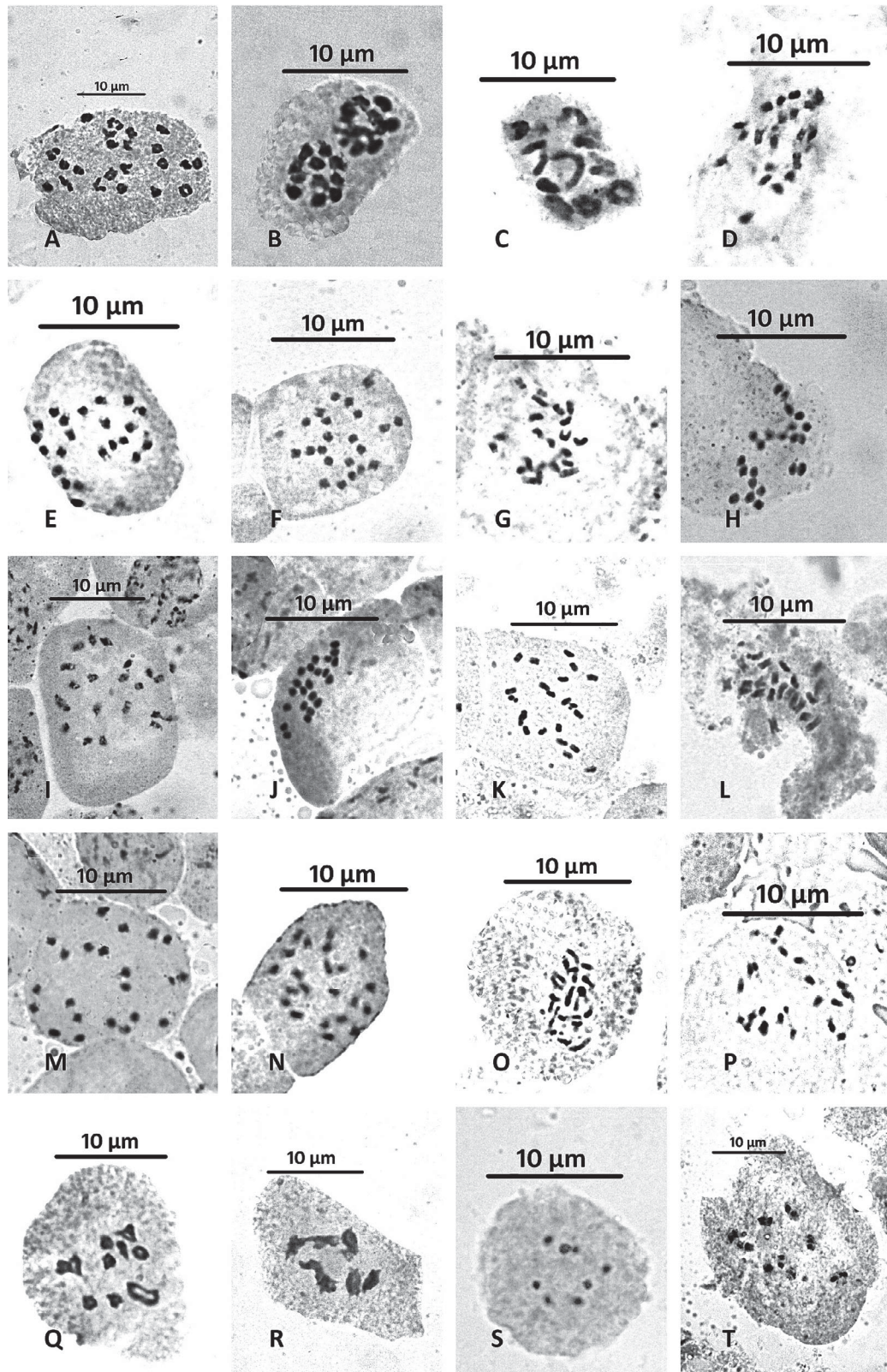


Fig. 6. **A**, *Heracleum grande*, $n = 22$; **B**, *Pimpinella adscendens*, $n = 11$; **C**, *Trachyspermum roxburghianum*, $n = 11$; **D**, *Brachystelma bourneae*, $2n = 22$; **E**, *B. malwanense*, $2n = 22$; **F**, *Ceropegia anantii*, $2n = 22$; **G**, *C. anjanerica*, $2n = 22$; **H**, *C. elegans*, $2n = 22$; **I**, *C. evansii*, $2n = 22$; **J**, *C. jainii*, $2n = 22$; **K**, *C. mohanramii*, $2n = 22$; **L**, *C. noorjahaniae*, $2n = 22$; **M**, *C. sahyadrica*, $2n = 22$; **N**, *C. spiralis*, $2n = 22$; **O**, *Heterostemma dalzellii*, $2n = 22$; **P**, *Seshagiria sahyadrica*, $2n = 22$; **Q**, *Cyathocline purpurea* var. *bicolor*, $n = 9$; **R**, *Gnaphalium luteoalbum*, $n = 7$; **S**, *Lamprachaenium microcephalum*, $n = 8$; **T**, *Phyllocephalum ritchiei*, $n = 9$.

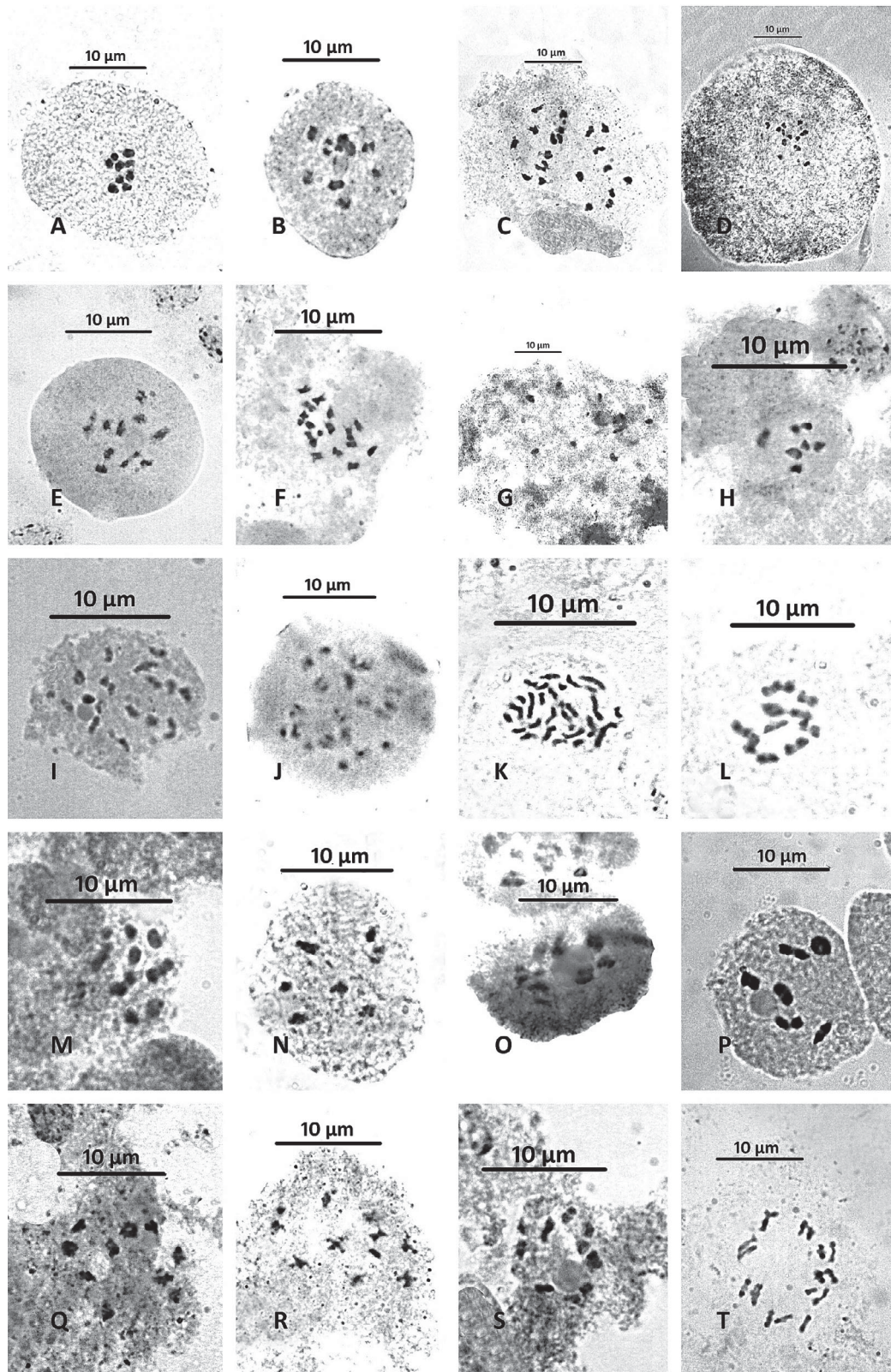


Fig. 7. **A**, *Phyllocephalum scabridum*, $n = 9$; **B**, *Ph. tenue*, $n = 9$; **C**, *Vernonia divergens*, $n = 20$; **D**, *Moullava spicata*, $n = 12$; **E**, *Maerua oblongifolia*, $n = 10$; **F**, *Crotalaria berteriana*, $2n = 18$; **G**, *Vigna marina*, $n = 11$; **H**, *Rotala belgaumensis*, $n = 8$; **I**, *R. rotundifolia*, $n = 18$; **J**, *Abutilon hirtum*, $n = 18$; **K**, *Moringa concanensis*, $2n = 26$; **L**, *Arundinella metzii*, $n = 10$; **M**, *Dichanthium woodrowii*, $n = 10$; **N**, *Dimeria connivens*, $n = 7$; **O**, *Hubbardia heptaneuron*, $n = 10$; **P**, *Isachne veldkampii*, $n = 6$; **Q**, *Ischaemum indicum*, $n = 10$; **R**, *Limnopoa meeboldii*, $n = 11$; **S**, *Themeda pseudotremula*, $n = 10$; **T**, *Tricholaena teneriffae*, $n = 18$.

Gnaphalium luteoalbum L.

n = 7, CHN. Maharashtra, Kolhapur district, Gaganbawada, Borbet, 772 m, 12 Feb 2012, *K.V.C. Gosavi 1716* (SUK) [Fig. 6R].

***Lamprachaenium microcephalum* Benth.

n = 8, CHN. India, Maharashtra, Pune district, Junnar, Durgawadi, 1129 m, 10 Nov. 2011, *M.D. Nandikar 1711* (SUK) [Fig. 6S].

Phyllocephalum ritchiei (Hook. f.) Narayana

n = 9, CHN. India, Maharashtra, Kolhapur district, Chandwad, Tillari Ghat, 762 m, 23 Oct 2011, *K.V.C. Gosavi 1706* (SUK) [Fig. 6T].

Phyllocephalum scabridum (DC.) K. Kirkman

n = 9, CHN. India, Maharashtra, Sindhudurg district, Amboli, Mahadevgad point, 724 m, 22 Oct 2011, *K.V.C. Gosavi 1705* (SUK) [Fig. 7A].

**Phyllocephalum tenue* (C.B. Clarke) Narayana,

n = 9, CHN. India, Maharashtra, Kolhapur district, Panhala, Rede Ghat, 858 m, 3 Nov 2011, *K.V.C. Gosavi 1710* (SUK) [Fig. 7B].

***Vernonia divergens* (DC.) Edgew.

n = 20, CHN. India, Maharashtra, Kolhapur district, Gaganbawada, Borbet, Morjai plateau, 879 m, 18 Dec. 2011, *K.V.C. Gosavi 1713* (SUK) [Fig. 7C].

CAPPARACEAE**Maerua oblongifolia* (Forssk.) A. Rich.

n = 10, CHN. India, Maharashtra, Pune district, Khambatki Ghat, 772 m, 26 Feb 2012, *K.V.C. Gosavi 1719* (SUK) [Fig. 7E].

FABACEAE***Crotalaria berteriana* DC.

2n = 18, CHN. India, Maharashtra, Kolhapur district, Radhanagari, near Dajipur, 809 m, 22 Feb 2012, *A.D. Nalawade 1718* (SUK) [Fig. 7F].

**Moullava spicata* (Dalzell) Nicolson

n = 12, CHN. India, Maharashtra, Kolhapur district, Malkapur, Manoli, 706 m, 3 Nov 2011, *K.V.C. Gosavi 1709* (SUK) [Fig. 7D].

Vigna marina (Burm.) Merr.

n = 11, CHN. India, Andaman, Port Blair, Wandur, 7 m, 7 Feb 2011, *S.R. Yadav 733* (SUK) [Fig. 7G].

LYTHRACEAE**Rotala belgaumensis* S.R. Yadav, Malpure & Chandore

n = 8, CHN. Karnataka, Belgam district, Khanpur, Kankumbhi plateau, 795 m, 7 Aug 2010, *K.V.C. Gosavi 3890* (SUK) [Fig. 7H].

***Rotala rotundifolia* (Buch.-Ham. ex Roxb.) Koehne.

n = 18, CHN. India, Maharashtra, Kolhapur district, Gaganbawada, Borbet, 12 Feb 2012, *K.V.C. Gosavi 1717* (SUK) [Fig. 7I].

MALVACEAE***Abutilon hirtum* (Lam.) Sweet

n = 18, CHN. India, Karnataka, Bagalkot district, Badami, 584 m, 18 Nov 2010, *K.V.C. Gosavi 2999* (SUK) [Fig. 7J].

MORINGACEAE**Moringa concanensis* Nimmo

2n = 26, CHN. India, Maharashtra, Dhule district, Laling Ghat, 359 m, 27 Oct 2011, *K.V.C. Gosavi 1708* (SUK) [Fig. 7K].

POACEAE*Arundinella metzii* Hochst. ex Miq.

n = 10, CHN. India, Maharashtra, Sindhudurg district, Amboli, Mahadevgad point, 724 m, 20 Dec 2011, *K.V.C. Gosavi 1714* (SUK) [Fig. 7L].

***Dichanthium woodrowii* (Hook. f.) S.K. Jain & Deshp.

n = 10, CHN. India, Maharashtra, Sangali district, Jat, Ambai tekadi, 719 m, 4 Sep 2010, *K.V.C. Gosavi 2995* (SUK) [Fig. 7M].

**Dimeria connivens* Hack.

n = 7, CHN. India, Maharashtra, Sindhudurg district, Vaibhavwadi, 68 m, 25 Aug 2011, *K.V.C. Gosavi 1702* (SUK) [Fig. 7N].

**Hubbardia heptaneuron* Bor

n = 10, CHN. India, Karnataka, North Canara District, Jog fall, 176 m, 13 Sep. 2010, *A.N. Chandore 1296* (SUK) [Fig. 7O].

**Isachne veldkampii* K.G. Bhat & Nagendran

n = 6, CHN. India, Kerala, Kasargod district, Periya, 102 m, 9 Sep 2011, *K.V.C. Gosavi 735* (SUK) [Fig. 7P].

***Ischaemum indicum* (Houtt.) Merr.

n = 10, CHN. India, Maharashtra, Kolhapur district, Karveer, Shivaji University campus, Botany Department, 568 m, 23 Sep 2011, *K.V.C. Gosavi 1703* (SUK) [Fig. 7Q].

**Limnopoa meeboldii* (C.E.C. Fisch.) C.E. Hubb.

n = 11, CHN. India, Kerala, Malappuram district, Parangadi, Koottumoochi, 16 m, 9 Aug 2010, *S.R. Yadav 3892* (SUK) [Fig. 7R].

**Themeda pseudotremula* Potdar, Salunkhe & S.R. Yadav

n = 10, CHN. India, Maharashtra, Kolhapur district, Chandgad, Tillari Ghat, 762 m, 23 Oct 2011, *K.V.C. Gosavi 1707* (SUK) [Fig. 7S].

Tricholaena teneriffae (L. f.) Link

n = 18, CHN. India, Maharashtra, Pune district, Khambatki Ghat, 771 m, 26 Feb 2012, *K.V.C. Gosavi 1720* (SUK) [Fig. 7T].

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FABACEAE*Astragalus chorinensis* Bunge

2n = 16, CHN. Russia, Irkutskaya Oblast', Olkhonskii Raion, cape Zunduk, gravel, 53°23'34.30"N, 107°25'01.91"E, 456 m, 11 Jul 2007, *I. Selyutina 1207* (NS).

Astragalus sericeocanus Gontsch.

2n = 16+1B, CHN. Russia, Republic of Buryatia, Pribaikal'skii Raion, 4 km S of Turka village, sand dunes, 52°54'26.62"N, 108°09'55.16"E, 459 m, 5 Aug 2009, *I. Selyutina 4009* (NS).

Astragalus trigonocarpus (Turcz.) Bunge

2n = 36+1B, CHN. Russia, Republic of Buryatia, Barguzinskii

Raion, 5 km SEE of village Uljun, pine forest, 53°51'07.09"N, 109°51'28.75"E, 636 m, 12 Aug 2009, *I. Selyutina 9109* (NS).

Oxytropis glandulosa Turcz.

2n = 16, CHN. Russia, Republic of Buryatia, Kurumkanskiy Raion, 5 km S of Sahuli village, the side of the road, 54°25'36.05"N, 110°25'31.56"E, 514 m, 6 Aug 2009, *I. Selyutina 5209* (NS).

Oxytropis interposita Sipliv.

2n = 24, CHN. Russia, Republic of Buryatia, Kurumkanskiy Raion, 4 km W from resort Alla, right riverside of Alla river, gravel, 54°43'16.29"N, 110°38'42.24"E, 841 m, 9 Aug 2009, *I. Selyutina 7109* (NS).

Oxytropis popoviana Peshkova

2n = 32, CHN. Russia, Irkutskaya Oblast', Olkhonskiy Raion, cape Zunduk, 53°24'41.2"N, 107°26'33.4"E, 498 m, 28 Jul 2007, *I. Selyutina 1007* (NS).

Oxytropis stukovii Palib.

2n = 16, CHN. Russia, Zabayskiy Krai, Aginskiy Raion, Nogii lake, 50°48'00.7"N, 114°46'35.7"E, 657 m, 27 Jul 2007, *I. Selyutina 6107* (NS).

Oxytropis sulphurea (Fisch. ex DC.) Ledeb.

2n = 32, Kazakhstan, Eastern-Kazakhstan Oblast', Ridderskiy Raion, Prokhnodnoi mountain ridge, alpine meadow, 50°11'52.9"N, 83°30'47.2"E, 1889 m, 24 Jul 2008, *I. Selyutina 2308* (NS).

Oxytropis triphylla (Pall.) Pers.

2n = 16, Russia. CHN. Irkutskaya Oblast', Ol'khonskiy Raion, island Ol'khon, cape Hoboi, petrophytic steppe, 53°24'17.9"N, 107°46'75.5"E, 612 m, 22 Jul 2005, *I. Selyutina 1405* (NS).

Oxytropis varlakovii Serg

2n = 24+1B, CHN. Russia, Zabaikalskiy Krai, Aginskiy Raion, Kunkur lake, cereal-sedge steppe, 50°43'30.1"N, 114°53'28.1"E, 655 m, 27 Jul 2007, *I. Selyutina 7307* (NS).

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* First chromosome count for the species.

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

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ASTERACEAE

Achillea asiatica Serg.

2n = 36, CHN. Russia, European part, Komi Republic, Intinskiy Raion, state farm "Gornyak", the farm Yun'-Yaga, the valley of the Yun'-Yaga River, meadow, 9 Jul 1967, *Sokolovskaya 23* (VLA); Russia, East Siberia, Irkutskaya Oblast', Irkutskii Raion, 17 km NE of Listvyanka settlement, gravelly shore of Baikal Lake near

the Bol'shie Koty village, 15 Sep 2007, *Probatova & Seledets 10677* (VLA); Russia, East Siberia, Irkutskaya oblast, Irkutsk city, on the lawn near Znamenskii cloister, 18 Sep 2007, *Probatova & Seledets 10678* (VLA); Russia, Far East, Kamchatka Peninsula, S outskirts of Kozhyrevsk settlement, meadow by the road, 17 Aug 2005, *Verkhohat 10043* (VLA).

Achillea micrantha M. Bieb.

2n = 18, CHN. Russia, Volga Region, Astrakhanskaya Oblast', Narimanovskii Raion, right riverside of the Volga River, near Volzhskii settlement, grassy sands, 27 Aug 2009, *Probatova & Seledets 11736* (VLA).

Achillea millefolium L.

2n = 36, CHN. Russia, North Caucasus, Krasnodarskiy Krai, Abinskiy Raion, outskirts of Abinsk town, the riverside of the Abin River, 11 Oct 2008, *Probatova & Seledets 11176* (VLA); Russia, Volga Region, Saratovskaya Oblast', outskirts of Saratov city, Oktyabr'skoe canyon, W slope, steppe, 5 Oct 2008, *Probatova & Seledets 11200* (VLA); Russia, East Siberia, Irkutskaya Oblast', the lakeside of Baikal, 17 km NE of Listvyanka settlement, the Bol'shie Koty village, near biological station, meadow on the slope, 15 Sep 2007, *Probatova & Seledets 11093* (VLA); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, 52 km E of Blagoveshchensk city, Muravëvskii nature park, foot worn meadows near the centre, 4 Oct 2007, *Probatova & Seledets 10756* (VLA); Russia, Far East, Primorskiy Krai, Terneiskii Raion, near Ternei settlement, the roadside of the route Ternei–Plastun, on the wayside embankment, *Nesterova 9647* (VLA); Russia, Far East, Primorskiy Krai, Partizanskiy Raion, the nature monument "Volchanets Lake", the lakeside, short grass weedy meadow (pasture), 12 Aug 1991, *Probatova & Seledets 7014* (VLA); Russia, Far East, Primorskiy Krai, the Muravëv-Amurskiy Peninsula (Vladivostok), near Akademgorodok, the roadside of the route Vladivostok–Khabarovsk, in the ditch, 4 Oct 2002, *Probatova & Seledets 8930* (VLA); Russia, Far East, Primorskiy Krai, the Muravëv-Amurskiy Peninsula, Okeanskiy mountain ridge, 5 km NW of Lazurnyi settlement, 312 m, on the road, 21 Oct 2004, *Probatova & Seledets 9537* (VLA).

2n = 54, CHN. Russia, Republic of Karelia, the Ladozhskoe Lake, Valaam Island, Mt. Favor, roadside on the slope, 28 Sep 2008, *Probatova & Seledets 11202* (VLA).

Achillea nigrescens (E. Mey.) Rydb.

2n = 36, CHN. Russia, Far East, Kamchatka Peninsula, the route to Petropavlovsk-Kamchatskiy, near Sokochi settlement, a grass-plot, 26 Aug 2005, *Verkhohat 10044* (VLA).

2n = 54, CHN. Russia, Far East, Kamchatka Peninsula, Petropavlovsk-Kamchatskiy city, slope of the hill, the edge of *Betula ermanii* forest, 28 Aug 2005, *Verkhohat 10041* (VLA).

Ajania pallasiana (Fisch. ex Besser) Poljakov

2n = 18, CHN. Russia, Far East, Amurskaya Oblast', Arkharinskiy Raion, E part of the Khinganskiy nature reserve, watershed of the Uril River, rocky S slope of a hill, meadow with shrubs, 5 Oct 2006, *Korobkov 07-189* (LE).

2n = 36, CHN. Russia, Far East, Khabarovskii Krai, Komso-mol'skiy Raion, the pass to the valley of the Gur River, rocky slope, 24 Sep 2011, *Burlyayeva 2012-72* (LE).

Artemisia absinthium L.

2n = 18, CHN. Russia, North Caucasus, Republic of Dagestan, Khivskii Raion, the route Tiv–Tpig, 1274 m, along the road, 23 Sep 2011, *Gnutikov & Ufimov 2012-69* (LE); Russia, North Caucasus, Republic of Dagestan, Magaramkentskiy Raion, Garakh village, 790 m, the stream, 18 Sep 2011, *Gnutikov & Ufimov 2012-70* (LE); Armenia, in vicinity of Arailer village, N slope of Mt. Arailer, 1900 m, 30 May 2009, *Kotseruba 10-54* (LE).

Artemisia bargusinensis Spreng.

$2n = 36$, CHN. Russia, Far East, Khabarovskii Krai, Nikolaevskii Raion, the Sea of Okhotsk coast, near Lazarev settlement, the hill with *Pinus pumila*, 232 m, 18 Sep 2011, *Burlyaeva 2012-77, Burlyaeva 2012-78, Burlyaeva 2012-79* (LE).

Artemisia caucasica Willd.

$2n = 16$, CHN. Russia, North Caucasus, Krasnodarskii Krai, outskirts of Gelendzhik town, S slope of the Markhotskii mountain ridge, *Juniperus* forest, 27 Oct 2009, *Ukrainskaya 10-48* (LE).

Artemisia chamaemelifolia Vill.

$2n = 18$, CHN. Russia, North Caucasus, Republic of Dagestan, Agul'skii Raion, in vicinity of Chirag village, 2250 m, 19 Sep 2009, *Kotseruba 10-46* (LE); Russia, North Caucasus, Republic of Dagestan, Gunibskii Raion, in vicinity of Verkhni Gunib village, rocks at the road to the tunnel, 21 May 2009, *Kotseruba 11-07* (LE).

Artemisia commutata Besser

$2n = 36$, CHN. Mongolia, Khalkhyn-Gol somon (raion), the left riverside of Bichigt-Gol River, rocky S slope of a hill, forb steppe, 18 Aug 2008, *Korobkov & Dorofeev 09-08* (LE).

Artemisia daghestanica Krasch. & Poretzky

$2n = 18$, CHN. Russia, North Caucasus, Republic of Dagestan, Agul'skii Raion, in vicinity of Tpig village, 2130 m, at the road, 19 Sep 2009, *Kotseruba & Letifova 10-45* (LE).

Artemisia desertorum subsp. *pseudojaponica* Darijma & Kamelin

* $2n = 18$, CHN. Mongolia, Khalkhyn-Gol somon, left riverside of the Bichigt-Gol River, mountain steppe on the top of a hill, 1058 m, 18 Aug 2008, *Korobkov & Dorofeev 09-04* (LE); Mongolia, Khalkhyn-Gol somon, right riverside of the Bichigt-Gol River, the top of the mountain, 890 m, stony steppe, 17 Aug 2008, *Korobkov & Dorofeev 09-05, Korobkov & Dorofeev 09-06* (LE); Mongolia, Khalkhyn-Gol somon, flat slope of a hill, 900 m, steppe, 15 Aug 2008, *Korobkov & Dorofeev 09-07* (LE).

Artemisia giraldii Pamp.

$2n = 36$, CHN. India, West Himalayas, Himachal-Pradesh State, Lakhul and Spiti District, left riverside of Spiti River, Tavo settlement, 3300 m, S dry slope, slide-rocks, open sub-shrub community, 6 Oct 2011, *Gannibal 2012-62* (LE).

Artemisia halodendron Turcz.

$2n = 18$, CHN. Mongolia, Khalkhyn-Gol somon, hilly area, 920 m, steppe, deep depression on the slope of a hill, on free sands, 15 Aug 2008, *Korobkov & Dorofeev 09-09, Korobkov & Dorofeev 09-10, Korobkov & Dorofeev 09-11* (LE).

Artemisia integrifolia L.

$2n = 18$, CHN. Russia, Far East, Khabarovskii Krai, Komso-mol'skii Raion, N spur of the Sikhote-Alin' Mts., Khummi mountain ridge, near Yagodnyi village, undergrowth in the *Quercus mongolica* forest, 11 Sep 2011, *Burlyaeva 2012-82* (LE).

Artemisia koidzumii Nakai

$2n = 36$, CHN. Russia, Far East, Khabarovskii Krai, Ul'chskii Raion, the Sea of Okhotsk coast, Tabo Bay, stony seacoast, the *Picea ajanensis* and shrubs community, 16 Sep 2011, *Burlyaeva 2012-85* (LE); Russia, Far East, Khabarovskii Krai, Vaninskii Raion, on the way from Siziman Bay to Vyssokogornyi settlement, near Tumnin River, stony slope with *Galium verum*, 23 Sep 2011, *Burlyaeva 2012-88, Burlyaeva 2012-89* (LE).

Artemisia laciniata Willd.

$2n = 18$, CHN. Mongolia, Khalkhyn-Gol somon, 1000 m, forb steppe on the slope, 19 Aug 2008, *Korobkov & Dorofeev 09-03* (LE).

Artemisia lercheana Weber ex Stechm.

$2n = 18$, CHN. Kazakhstan, Aktiubinskaya Oblast', 40 km N of the Uhil settlement, bottom of the valley, *Artemisia* semi-desert, 4 Jul 1998, *Sytin 98-01* (LE); Kazakhstan, Atyrauskaya Oblast', the *Artemisia lerchiana* community with *Poa*, 2 Oct 2002, *Safronova 02-28* (LE).

Artemisia littoricola Kitam.

$2n = 36$, CHN. Russia, Far East, Khabarovskii Krai, Vaninskii Raion, the Sea of Okhotsk coast, Siziman Bay, sandy spit, 22 Sep 2011, *Burlyaeva 2012-76* (LE).

Artemisia macilenta (Maxim.) Krasch.

$2n = 36$, CHN. Mongolia, Sukhe-Batorskii aimak (oblast'), Munkh-Khan somon, Mt. Munkh-Khan, locality Sharkhad, steppe on the slope, 26 Aug 2008, *Korobkov & Dorofeev 09-12, Korobkov & Dorofeev 09-13* (LE).

Artemisia macrocephala Jacquem. ex Besser

$2n = 18$, CHN. Mongolia, Tsentral'nyi aimak, the motorway from Kerulen River to Ulan-Bator city, 40 km of the city, gravelly roadside, 28 Aug 2008, *Korobkov & Dorofeev 09-56* (LE).

Artemisia mongolica Fisch. ex Besser

$2n = 16$, CHN. Mongolia, Sukhe-Batorskii aimak, Munkh-Khan somon, Mt. Munkh-Khan, 1596 m, locality Sharkhad, gravelly bank of the rivulet, 26 Sep 2008, *Korobkov & Dorofeev 09-01, Korobkov & Dorofeev 09-02* (LE).

Artemisia monostachya Bunge ex Maxim.

$2n = 18$, CHN. Mongolia, 15 km E of datsan [Buddhist's temple], steppe-prairie on the flat slope, in the narrow canyon, 10 Aug 2005, *Galanin & Belikovich 07-106* (LE); Mongolia, 200 km N of Ulan-Bator city, on the rocks, 13 Aug 2005, *Galanin & Belikovich 07-165* (LE); Mongolia, 60 km of Ulan-Bator city, Gorkhi-Tarbal'dzh park, sandy-stony top of the hill, granitic fissure, 12 Aug 2005, *Galanin & Belikovich 07-166* (LE).

Artemisia moorcroftiana Wall. ex DC.

$2n = 18$, CHN. India, West Himalayas, Himachal-Pradesh State, the valley of the Baspa River, Kinnor District, near Chitkul village, S slope, 12 Oct 2011, *Gannibal 2012-66* (LE).

Artemisia santolinifolia Turcz. ex Besser

$2n = 18$, CHN. India, West Himalayas, Himachal-Pradesh State, Kinor District, right riverside of the Baspa River, near Chitkul village, S slope with shrubs, 3450 m, 2 Oct 2011, *Gannibal 2012-60* (LE).

Artemisia scoparia Waldst. & Kit.

$2n = 16$, CHN. Russia, Far East, Khabarovskii Krai, Amurskii Raion, the riverside of the Amur River, near Voznessenskoe village, *Betula* and *Malus* forest on the slope, 25 Sep 2011, *Burlyaeva 2012-75* (LE); Mongolia, E part, right riverside of the Onon River, 25 km S of Tatal village, slope of the hill, burnt *Pinus* forest, on sands, 19 Jul 2011, *Korobkov 2012-34* (LE).

Artemisia sieversiana Ehrh. ex Willd.

$2n = 18$, CHN. Russia, North Caucasus, Republic of Dagestan, Agul'skii Raion, near Tpig village, 2130 m, roadside, 19 Sep 2009, *Kotseruba & Letifova 10-44* (LE).

Artemisia stolonifera (Maxim.) Kom.

$2n = 36$, CHN. China, Heilongjiang Province, on the way to Yichun town, Mt. Tsiamusu, *Alnus* forest with underbrush, roadside, 5 Sep 2011, *Burlyaeva 2012-81* (LE).

Artemisia subdigitata Mattf.

$2n = 36$, CHN. India, West Himalayas, Himachal-Pradesh State, Lachul and Spiti District, the Chandra River basin, near Keylong village, 3020 m, SW slope, *Juniperus* community with *Thymus*, 10 Oct 2011, *Gannibal 2012-63* (LE); India, West Himalayas, Himachal-Pradesh State, Kinnor District, the right riverside of Satledzh River, near Kalpad village, 2900 m, open coniferous forest, 4 Oct 2011, *Gannibal 2012-64* (LE).

Artemisia tournefortiana Rechb.

$2n = 18$, CHN. India, West Himalayas, Himachal-Pradesh State, Kinnor District, Nako village, along the road, 3640 m, open coniferous forest, 5 Oct 2011, *Gannibal 2012-61* (LE).

Artemisia vulgaris L.

$2n = 16$, CHN. Russia, North Caucasus, Republic of Daghestan, Agul'skii Raion, near Tpig village, 2250 m, roadside, 19 Sep 2009, *Kotseruba & Letifova 10-43* (LE); Russia, North Caucasus, Republic of Daghestan, Agul'skii Raion, on the way to Amukh village, 2094 m, 24 Sep 2011, *Gnutikov & Ufimov 2012-90* (LE); Russia, North Caucasus, Republic of Daghestan, Agul'skii Raion, near Tsirkhe village, 2044 m, in the valley, by the stream, 23 Sep 2009, *Gnutikov & Ufimov 2012-91* (LE);

Artemisia wellbyi Hemsl. & H. Pearson

$2n = 54$, CHN. India, West Himalayas, Himachal-Pradesh State, Lakhul and Spiti District, Komic, near the monastery, 4470 m, flat slopes of the hills, open dwarf semi-shrub community, 8 Oct 2011, *Gannibal 2012-65* (LE).

Ptarmica alpina DC.

$2n = 36$, CHN. Russia, Far East, Magadanskaya Oblast', Ten'kinskii Raion, 332 km of the Ten'kinskaya route, biological station "Kontakt" of the Institute of Biological Problems of the Nord, the bank of the stream Kontaktovyi, on pebbles, 20 Aug 1993, *Probatova & Seledets 7060* (VLA); Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, Khinganskii nature reserve, 10 km S of Kundur settlement, the valley of the Mutnaya River, *Populus tremula* community, 17 Sep 2004, *Probatova & Seledets 11537* (VLA); Russia, Far East, Khabarovskii Krai, in vicinity of the Bol'shekhkhtsyrskii nature reserve, 4 km of the route Bychikha–Kazakevichevo, forest edge, 30 Aug 1993, *Probatova & Seledets 7095* (VLA); Russia, Far East, Primorskii Krai, Shkotovskii Raion, near Shkotovo settlement, 2005, *Nechaev 10474* (VLA); Russia, Far East, Primorskii Krai, Khassanskii Raion, "Kedrovaya Pad'" nature reserve, the valley of Kedrovaya River, mixed forest, 6–7 Oct 2001, *Kapustina 8661* (VLA).

Ptarmica kamtschatica Rupr. ex Kom.

$2n = 36$, CHN. Russia, Far East, Kamchatka Peninsula, in vicinity of Kozyrevsk settlement, ascent to the Tolbachik Volcano, the road through the *Populus* forest, clearing, 10 Aug 2005, *Verkholat 10042* (VLA); Russia, Far East, Kamchatka Peninsula, Petropavlovsk-Kamchatskii city, slope of the hill above Leningradskaya Street, a clearing, 26 Aug 2005, *Verkholat 10045* (VLA); Russia, Far East, Kamchatka Peninsula, the way to Sheveluch Volcano, through the *Betula ermanii* forest, lower part of the slope, roadside, 19 Aug 2005, *Verkholat 10065* (VLA).

Ptarmica salicifolia (Besser) Myrz.

* $2n = 36$, CHN. Russia, Far East, Khabarovskii Krai, Amurskii Raion, the slope of a hill, *Betula* forest, 25 Sep 2011, *Burlyaeva 2012-73* (LE).

Ptarmica speciosa DC.

$2n = 18$, CHN. Russia, Far East, Kamchatka Peninsula, Elizovskii Raion, Nachiki settlement, along the bank of the river, flowing out the hot springs, 26 Jun 1959, *Sokolovskaya 82* (VLA); Russia, Far East, Kamchatka Peninsula, Kozyrevskii Raion, in vicinity of Kozyrevsk settlement, the bank of the Kamchatka River, 22 Jul 1959, *Sokolovskaya 165* (VLA).

Pyrethrum glanduliferum Sommier & Levier

$2n = 18$, CHN. Russia, North Caucasus, Republic of Daghestan, Agul'skii Raion, vicinity of the Tsirkhe village, 2044 m, in the valley, along the stream, 23 Sep 2011, *Gnutikov & Ufimov 2012-71* (LE).

Tanacetum boreale DC.

$2n = 18$, CHN. Russia, Far East, Khabarovskii Krai, Nanaiskii Raion, on the way from Khabarovsk to Komsomol'sk-na-Amure city, on the roadside, 10 Sep 2011, *Burlyaeva 2012-74* (LE).

POACEAE

Deschampsia cespitosa (L.) P. Beauv.

$2n = 26$, CHN. Russia, East Siberia, Republic of Tyva, the riverside of the Yenisei River, at the mouth of Seserlik River, 10 Aug 2007, *Yakubov 11214* (VLA).

Echinochloa spiralis Vasinger

$2n = 36$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, the valley of Abin River, at the riverbank, 15 Oct 2008, *Manilo 11168* (VLA).

Milium effusum L.

$2n = 28$, CHN. Germany, Potsdam, Sanssouci Park, 11 May 2012, *Kotseruba 2012-01* (LE).

Poa argunensis Roshev. ex Kom.

$2n = 42$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Uletovskii Raion, 2 km SW of Tataurovo village, Sestrinitsa River (left tributary of the Ingoda River), near the bridge on the route Irkutsk–Chita, 707 m, along the riverbank, 25 Jun 2008, *Liubogoshchinskii C 659* (VLA).

Setaria verticillata (L.) P. Beauv.

$2n = 36$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Abinskii Raion, outskirts of Abinsk town, as a weed in the garden, 5 Sep 2009, *Probatova & Seledets 11178* (VLA).

POLYGONACEAE

Rumex patientia L.

$2n = 40$, CHN. Russia, Far East, Primorskii Krai, Peter the Great Bay, Klykova Island, sandy-pebble supralittoral zone, 3 Jul 2007, *Seledets 10651* (VLA).

ROSACEAE

Potentilla semiglabra Juz.

$2n = 28$, CHN. Russia, Far East, Amurskaya Oblast', Blagoveshchensk city, near agrobiological station, on the weedy lawn, 3 Oct 2007, *Probatova & Seledets 10725* (VLA); Russia, Far East, Amurskaya Oblast', Tambovskii Raion, 52 km E of Blagoveshchensk city, Muravëvskii nature park, foot worn plots near the centre, 4 Oct 2007, *Probatova & Seledets 10737* (VLA).

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

▼ First chromosome count from an Indian accession.

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APIACEAE

Bupleurum lanceolatum Wall. ex DC.

** $n = 16$, CHN. India, Himachal Pradesh, Sirmaur, Jamnala, 30°49'N, 77°36'E, 2600 m, grassy areas, 5 Sep 2011, *Sanjeev Kumar SK 27326* (PUN 56165) [Fig. 8A].

The species was previously reported to have $2n = 16$ (Mehra & Dhawan, 1971) from the Uttarakhand in the Western Himalayas of India.

CARYOPHYLLACEAE

Silene falconeriana Benth.

** $n = 10$, CHN. India, Himachal Pradesh, Sirmaur, Tillordhar, 30°43'N, 77°29'E, 1800 m, grassy hill slopes, 7 Sep 2011, *Sanjeev Kumar SK 27345* (PUN 57347) [Fig. 8B].

The species was previously reported to have $2n = 24$ (Khatoon, 1991) from Pakistan.

FABACEAE

Alysicarpus glumaceus (Vahl) DC.

** $n = 16$, CHN. India, Himachal Pradesh, Sirmaur, Kamrau, 30°42'N, 77°26'E, 1600 m, moist and shady places, 5 Sep 2011, *Sanjeev Kumar SK 27349* (PUN 57338) [Fig. 8C].

The species was previously reported to have $2n = 16$ (Sanjappa & Bhatt, 1976) and $2n = 20$ (Miege 1960) from and outside of India.

Cassia mimosoides var. *demidiata* Roxb.

** $n = 16$, CHN. India, Himachal Pradesh, Sirmaur, Tillordhar, 30°43'N, 77°29'E, 1800 m, dense grassy fields, 7 Aug 2011, *Sanjeev Kumar SK 25069* (PUN 55659) [Fig. 8D].

The species was previously reported to have $2n = 16$ (Bir & Kumari, 1977) from and outside of India.

Cassia mimosoides var. *wallichiana* Baker

** $n = 16$, CHN. India, Himachal Pradesh, Sirmaur, Tillordhar, 30°43'N, 77°29'E, 1800 m, dense grassy fields, 8 Aug 2011, *Sanjeev Kumar SK 27330* (PUN 56187) [Fig. 8E].

The species was previously reported to have $2n = 16$ (Bir & al., 1980; Bir & Kumari, 1982) from Pachmari hills (M.P.) of central India.

GERANIACEAE

Geranium collinum Stephan ex Willd.

▼ $n = 14$, CHN. India, Himachal Pradesh, Sirmaur, Churdhar, 30°52'N, 77°24'E, 3630 m, dense grassy parts of hill, 12 Aug 2011, *Sanjeev Kumar SK 27351* (PUN 57364) [Fig. 8F].

The current report is in agreement with the previous one that gave $2n = 28$ (Warburg, 1938) from outside of India.

MALVACEAE

Abutilon indicum (L.) Sweet

▼ $n = 7$, CHN. India, Himachal Pradesh, Sirmaur, Patlian, 30°28'N, 77°40'E, 400 m, in waste places, 12 Sep 2011, *Sanjeev Kumar SK 27355* (PUN 56033) [Fig. 8G].

The current report is in agreement with the previous one that gave $2n = 14$ (Fryxell & Stelly, 1993) from outside of India.

Triumfetta pilosa Roth

** $n = 8$, CHN. India, Himachal Pradesh, Sirmaur, Poanta-Sahib, 30°26'N, 77°37'E, 400 m, open fields, 4 Jun 2011, *Sanjeev Kumar SK 27370* (PUN 56691) [Fig. 8H].

The species was previously reported to have $2n = 64$ (Krishnappa & Munirajappa, 1980) from India.

RANUNCULACEAE

Anemone obtusiloba D. Don

** $n = 7 + (0-1B)$, CHN. India, Himachal Pradesh, Sirmaur, Churdhar, 30°52'N, 77°24'E, 3630 m, hill slopes, 18 Jun 2011, *Sanjeev Kumar SK 26986* (PUN 54525) [Fig. 8I].

The species was previously reported to have $2n = 14$ (Mehra & Kaur, 1963; Vaidya & Joshi, 2003) from and outside of India.

Ranunculus muricatus L.

▼ $n = 16$, CHN. India, Himachal Pradesh, Sirmaur, Shillai, 30°40'N, 77°42'E, 2000 m, moist slopes and grasslands, 18 Mar 2011, *Sanjeev Kumar SK 27475* (PUN 55249) [Fig. 8J].

The current report is in agreement with the previous one that gave $2n = 32$ (Runemark, 2000) from outside India.

ROSACEAE

Geum elatum Wall. ex G. Don

** $n = 14$, CHN. India, Himachal Pradesh, Sirmaur, Churdhar, 30°52'N, 77°24'E, 3630 m, moist hill slopes, 22 Jul 2011, *Sanjeev Kumar SK 27346* (PUN 55664) [Fig. 8K].

The species was previously reported to have $2n = 42$ (Sharma & Sarkar, 1967–1968) and $2n = 56$ (Kumar & Singhal, 2011).

Geum roylei Wall.

** $n = 14$ CHN. India, Himachal Pradesh, Sirmaur, Bhangyanimata, 30°46'N, 77°33'E, 2800 m, near water streams, 23 Jul 2011, *Sanjeev Kumar SK 27301* (PUN 55633) [Fig. 8L].

** $n = 28$, CHN. India, Himachal Pradesh, Sirmaur, Tisri, 30°52'N, 77°10'E, 3000 m near water channel, 23 Jul 2011, *Sanjeev Kumar SK 27302* (PUN 55632) [Fig. 8M].

For this species $2n = 21$ (Dmitrieva, 2000) and $2n = 42$ (Kumar & Singhal, 2011) were previously reported.

RUTACEAE

Boenninghausenia albiflora (Hook.) Rchb. ex Meisn.

▼ $n = 10$, CHN. India, Himachal Pradesh, Sirmaur, Nauradhar, 30°46'N, 77°31'E, 1800 m, damp waste places, 10 Aug 2011, *Sanjeev Kumar SK 27366* (PUN 55669) [Fig. 8N].

The species was previously reported to have $2n = 20$ (Khatoon & Ali, 1993) from Pakistan.

SAXIFRAGACEAE

Saxifraga brunonis Wall. ex. Ser.

▼ $n = 8$, CHN. India, Himachal Pradesh, Sirmaur, Churdhar, 30°52'N, 77°24'E, 3630 m, moist rock crevices, 14 Aug 2011, *Sanjeev Kumar SK 28952* (PUN 56796) [Fig. 8O].

The current report is in agreement with the previous one that gave $2n = 16$ from Japan (Wakabayashi & Ohba, 1988).

Saxifraga pallida Wall. ex Ser.

** $n = 8$, CHN. India, Himachal Pradesh, Sirmaur, Tisri, 30°52'N, 77°10'E, 3000 m, open rocky slopes, 14 Aug 2011, *Sanjeev Kumar SK 27371* (PUN 57337) [Fig. 8P].

The species was previously reported to have $2n = 22$ and 44 (Wakabayashi, 1992).

Saxifraga parnassifolia D. Don

** $n = 8 + (0-1B)$; CHN. India, Himachal Pradesh, Sirmaur, Haripurdhar, 30°46'N, 77°32'E, 2600 m, grassy rocks, 18 Aug 2011, *Sanjeev Kumar SK 28707* (PUN 56717) [Fig. 8Q].

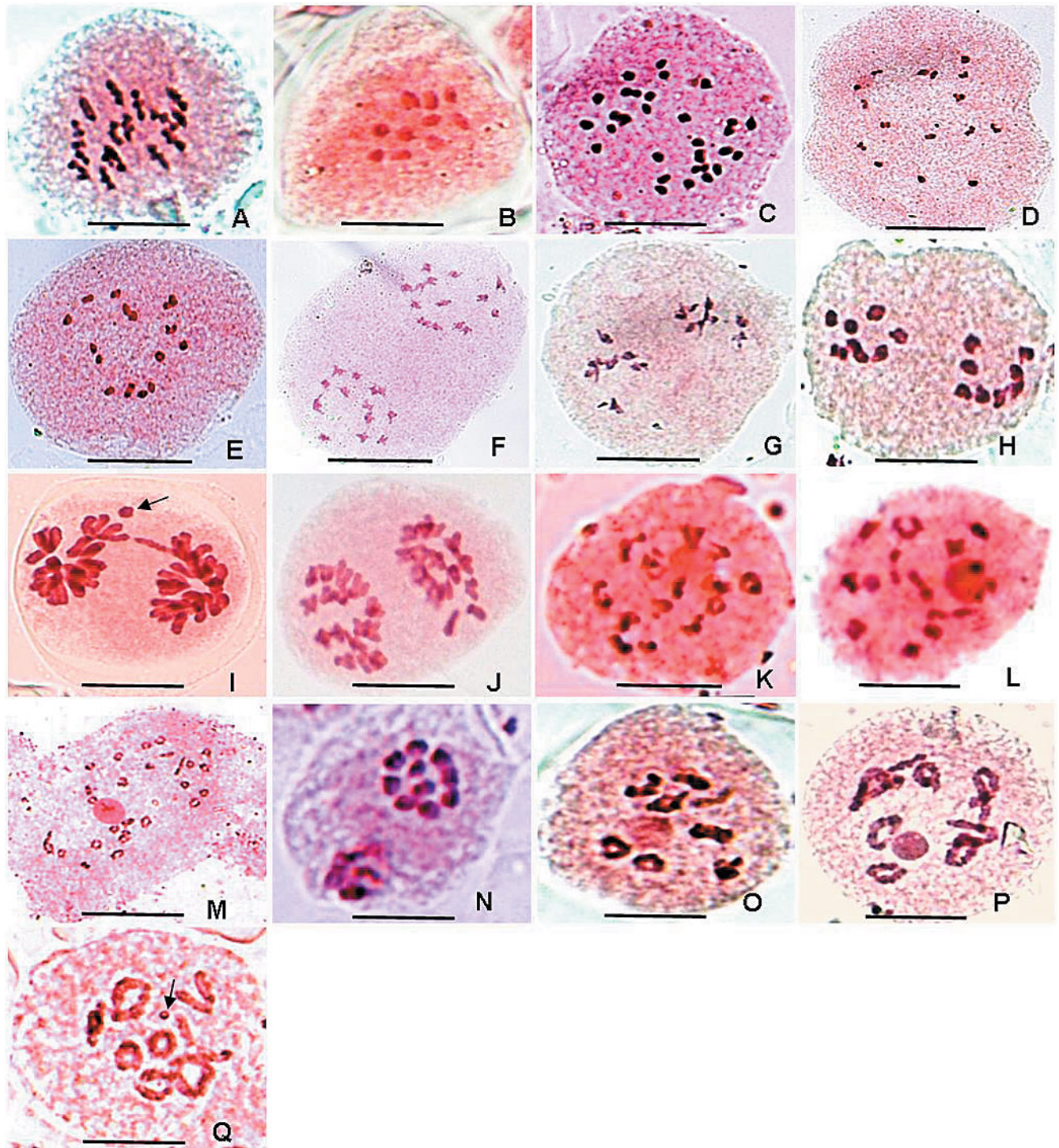


Fig. 8. **A**, *Bupleurum lanceolatum* M-I, 16_{II} , $n = 16$ (PUN 56165); **B**, *Silene falconeriana*, M-I, 10_{II} , $n = 10$ (PUN 57347); **C**, *Alysicarpus glumaceus*, A-I, $n = 16$ (PUN 57338); **D**, *Cassia mimosoides* var. *demidiata*, diakinesis, 16_{II} , $n = 16$ (PUN 55659); **E**, *C. mimosoides* var. *wallichiana* M-I, 16_{II} , $n = 16$ (PUN 56187); **F**, *Geranium collinum*, M-II, $n = 14$ (PUN 57364); **G**, *Abutilon indicum*, M-II, $n = 7$ (PUN 56033); **H**, *Triumfetta pilosa* A-I, $n = 8$ (PUN 56691). **I**, *Anemone obtusiloba*, A-I, $n = 7+0-1B$ (PUN 54525); **J**, *Ranunculus muricatus*, A-I, $n = 16$ (PUN 55249); **K**, *Geum elatum*, M-I, 14_{II} , $n = 14$ (PUN 55664); **L**, *G. roylei*, diakinesis, 14_{II} , $n = 14$ (PUN 55633); **M**, *G. roylei*, diakinesis, 28_{II} , $n = 28$ (PUN 55632); **N**, *Boeninghausenia albiflora*, A-I, $n = 10$ (PUN 55669); **O**, *Saxifraga brunonis*, diakinesis, 8_{II} , $n = 8$ (PUN 56796); **P**, *S. pallida*, diakinesis, 8_{II} , $n = 8$ (PUN 57337); **Q**, *S. parnassifolia*, M-I, $n = 8+0-1B$ (PUN 56717). — Scale = 10 μ m.

The species was previously reported to have $2n = 16$ (Kumar & Singhal, 2011) from Manimahesh hills of Himachal Pradesh and $2n = 20$ (Mehra & Dhawan, 1971) from northwest Himalayas in India.

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ACORACEAE

Acorus calamus L.

$2n = 36$, CHN, Russia, Far East, Primorskii Krai, the neighborhood of Ussuriisk city, wetlands at the base of causeway to Borissovka village, 31 Jul 2011, *Kozhevnikov & Kozhevnikova 013* (VLA).

ALLIACEAE

Allium odorum L.

$2n = 32$, CHN, Russia, Far East, Primorskii Krai, Shkotovskii

Raion, 1–1.5 km S of the Shkotovo settlement, at the roadside, 14 Aug 2012, *Kozhevnikov & Kozhevnikova 035* (VLA).

APIACEAE

Oenanthe javanica DC.

$2n = 22$, CHN, Russia, Far East, Primorskii Krai, Vladivostok city, park “Minnyi Gorodok”, wet place near the road, on the dam, between the second and third lakes, 9 Sep 2012, *Kozhevnikov & Kozhevnikova 034* (VLA).

ASTERACEAE

Centaurea scabiosa L.

$2n = 20$, CHN, Russia, Far East, Primorskii Krai, Lazovskii Raion, ca. 4 km NNW of the Lazo settlement, overgrowing wasteland near the main road, 31 Jul 2012, *Kozhevnikov & Kozhevnikova 004* (VLA).

Erigeron oharae (Nakai) Botsch.

$2n = 18$, CHN, Russia, Far East, Primorskii Krai, Khassanskii Raion, ca. 7 km SE of Gvozdevo settlement, coastal rocks near Cape Molot, 7 Sep 2008, *Kozhevnikov & Kozhevnikova 009* (VLA).

Heteropappus meendorffii (Regel & Maack) Kom. & Aliss.

$2n = 18$, CHN, Russia, Far East, Primorskii Krai, Lazovskii Raion, 3–4 km NW of Zapovednoe settlement, near the mouth of the Kievka River, sandy coastal terrace, 27 Oct 2011, *Kozhevnikov & Kozhevnikova 005* (VLA).

Tephrosia subdentata (Bunge) Holub

$2n = 48$, CHN, Russia, Far East, Primorskii Krai, Shkotovskii Raion, ca. 2 km E of Steklyanukha settlement, wet grass-shrub communities near the road, 7 Jun 2012, *Kozhevnikov & Kozhevnikova 032* (VLA).

BERBERIDACEAE

Epimedium macrosepalum Stearn

$2n = 12$, CHN, Russia, Far East, Primorskii Krai, Shkotovskii Raion, the basin of Tigrovaya River, 4–5 km E of the railway station Anissimovka, deciduous valley forest, 23 May 2006, *Kozhevnikov & Kozhevnikova 025* (VLA); Russia, Far East, Primorskii Krai, Ol'ginskii Raion, Krasnaya Skala Bay, oak forest, 12 Aug 2003, *Kozhevnikov & Kozhevnikova 026* (VLA).

BRASSICACEAE

Armoracia rusticana G. Gaertn., B. Mey. & Scherb.

$2n = 32$, CHN, Russia, Far East, Primorskii Krai, Artëmovskii urban district, E edge of the Artëmovskii settlement, fallow meadow at the foot of a steep slope covered by oak-birch forest, 8 Jun 2012, *Kozhevnikov & Kozhevnikova 031* (VLA).

Cardamine trifida (Lam. ex Poir.) B.M.G. Jones

$2n = 32$, CHN, Russia, Far East, Primorskii Krai, neighborhood of the Utësnoe village near Ussuriisk city, oak forest on the upper edge of the high bank of the Razdolnaya River, 20 May 2012, *Kozhevnikov & Kozhevnikova 011* (VLA).

CONVALLARIACEAE

Polygonatum humile Fisch. ex Maxim.

$2n = 20$, CHN, Russia, Far East, Primorskii Krai, Ol'ginskii Raion, ca. 6 km SE of Milogradovo settlement, coastal sandy spit at the mouth of the Milogradovka river, 14 Jun 2006, *Kozhevnikov & Kozhevnikov 008* (VLA).

CRASSULACEAE

Hylotelephium ussuriense (Kom.) H. Ohba

$2n = 48$, CHN, Russia, Far East, Primorskii Krai, Khassanskii

Raion, ca. 2 km NE of Khassan settlement, at the bottom of the wooded hills between the lakes Ptichye and Lotos, 19 May 2009, *Kozhevnikov & Kozhevnikova 022* (VLA).

DIPSACACEAE

Scabiosa lachnophylla Kitag.

$2n = 16$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 2–3 km NW of Zapovednoe settlement, near the mouth of the Kievka River, coastal sandy terrace, 26 Oct 2011, *Kozhevnikova & Kozhevnikov 029* (VLA).

EPHEDRACEAE

Ephedra monosperma J.G. Gmel. ex C.A. Mey.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 0.5 km N of Zapovednoe settlement, on the left bank, of Kievka River, near the mouth, the coastal sandy terrace, 5 Jul 2012, *Kozhevnikova & Kozhevnikov 012* (VLA).

Ephedra sinica Stapf

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 2–3 km NW of Zapovednoe settlement, near the mouth of Kievka River, coastal sandy terrace, 26 Oct 2011, *Kozhevnikova & Kozhevnikov 003* (VLA).

FABACEAE

Astragalus marinus Boriss.

$2n = 16$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, near the mouth of Kievka River, on the left bank, on sandy dunes of the seacoast, 5 Jul 2012, *Kozhevnikova & Kozhevnikov 027* (VLA).

IRIDACEAE

Iris ivanovae Doronkin

$2n = 20$, CHN. Russia, East Siberia, Chitinskaya Oblast', Borzinskii Raion, Daurskii nature reserve, ca. 1 km SE of Mt. Tsagan-Obo, low-grass steppe with groups of rocks, 18 Jun 2004, *Kozhevnikov & Kozhevnikova 028* (VLA).

Iris laevigata Fisch.

$2n = 32$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, 2–3 km NW of Zapovednoe settlement, near the mouth of Kievka River, coastal sandy terrace, small pond along the coastline with *Typha* and *Comarum palustre*, 27 Oct 2011, *Kozhevnikova & Kozhevnikova 023* (VLA).

Iris oxypetala Bunge

$2n = 40$, CHN. Russia, Far East, Primorskii Krai, Ussurijskii Raion, on the edge of Putsilovka village, grazing plots, 15 Jun 2006, *Kozhevnikov & Kozhevnikova 018* (VLA).

Iris sanguinea Hornem.

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, in vicinity of Nakhodka city, Mt. Sestra, oak forest in the middle part of a gentle slope, 5 Jun 2008, *Kozhevnikov & Kozhevnikova 014* (VLA).

Iris setosa Pall. ex Link

$2n = 38$, CHN. Russia, Far East, Primorskii Krai, Ol'ginskii Raion, sandy-gravel bank of Milogradovka River, 2 km of its mouth, 14 Jun 2006, *Kozhevnikova & Kozhevnikov 015* (VLA); Russia,

Far East, Primorskii Krai, Partizanskii Raion, on the edge of Volchanets village, the bank of a rivulet near the seacoast, 8 Jun 2012, *Kozhevnikov & Kozhevnikova 016* (VLA); Russia, Far East, Primorskii Krai, Lazovskii Raion, 3–4 km NW of Zapovednoe settlement, near the mouth of the Kievka River, coastal sandy terrace, deep cavity with water, surrounded by *Lespedeza* and oak trees, 27 Oct 2011, *Kozhevnikov & Kozhevnikova 017* (VLA).

Iris ventricosa Pall.

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Ussurijskii Raion, 2 km NNE of Korfovka village, hills near the dry stream valley, steppified meadow with shrubs on the slope, 16 Jun 2005, *Kozhevnikov & Kozhevnikova 006* (VLA); Russia, Far East, Primorskii Krai, Oktyabr'skii Raion, ca. 3 km W of Sinel'nikovo-1 village, SE slope of Mt. Sinelovka, tall grassy meadow, 15 May 2007, *Kozhevnikov & Kozhevnikova 007* (VLA).

OXALIDACEAE

Oxalis acetosella L.

$2n = 22$, CHN. Russia, Far East, Primorskii Krai, in vicinity of Vladivostok city, the middle course of the Shamorka river, lowland coniferous-broadleaf forest, 13 Jul 2012, *Kozhevnikova & Kozhevnikov 020* (VLA); Russia, Far East, Primorskii Krai, Shkotovskii Raion, the watershed of Shkotovka and Serebrianka Rivers, Serebrianyi Pass, coniferous-broadleaf forest with *Pinus koraiensis*, *Abies nephrolepis* and *Picea koraiensis*, 30 May 2007, *Kozhevnikov & Kozhevnikova 021* (VLA).

PAEONIACEAE

Paeonia lactiflora Pall.

$2n = 10$, CHN. Russia, Far East, Primorskii Krai, Ussurijskii Raion, 2–3 km E of Korfovka village, on the edge of the sparse oak forest, 4 Jun 2010, *Kozhevnikova & Kozhevnikov 019* (VLA).

POLYGONACEAE

Acetosa pratensis Mill.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Lazovskii Raion, ca. 1 km N of Zapovednoe settlement, near the mouth of Kievka River, on the left bank, at the edge of the sparse oak forest, grass-shrub community, 5 Jul 2012, *Kozhevnikova & Kozhevnikov 030* (VLA).

ROSACEAE

Duchesnea indica (Andrews) Focke

$2n = 42$, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, ca. 1 km N of Olenevod settlement, oak forest with *Betula* and *Fraxinus*, 5 Aug 2011, *Kozhevnikov & Kozhevnikova 002* (VLA).

Potentilla tergemina Soják

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Partizanskii Raion, the edge of Volchanets village, on the bank of a rivulet near the seacoast, 8 Jun 2012, *Kozhevnikov & Kozhevnikova 024* (VLA).

SAXIFRAGACEAE

Bergenia crassifolia (L.) Fritsch

$2n = 34$, CHN. Russia, East Siberia, Chitinskaya Oblast', Sokhondinskii nature reserve, Sokhondo massif, in vicinity of the cordon Bukukun, *Larix* forest with *Pinus sibirica* and *P. pumila*, 18 Jul 2004, *Kozhevnikov & Kozhevnikova 010* (VLA).

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* First chromosome count for the species marked.

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

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ALLIACEAE

Allium strictum Schrad.

2n = 32, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., in vicinity of the abandoned meteorological station "Kanyon", left riverside of the Verina River, below the mouth of Tuonnakh River, on the screes at the rocks, 28 Jul 2011, *Barkalov 12054* (VLA).

ASTERACEAE

Achillea asiatica Serg.

2n = 36, CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, Arkhara town, near the office building of the Khinganskii nature reserve, among shrubs, 12 Aug 2005, *Tzyrenova 9935* (VLA); Russia, Far East, Evreiskaya Avtonomnaya Oblast', the railway station Obluch'e, along the railroad embankment, 18 Jun 2007, *Tzyrenova 10608* (VLA).

Aster maackii Regel

2n = 18, CHN. Russia, Far East, Primorskii Krai, Nadezhdinskii Raion, near the railway station Baranovskii, on the rocks, 30 Sep 2010, *Nechaev 12085* (VLA).

Aster tataricus L. f.

2n = 54, CHN. Russia, Far East, Khabarovskii Krai, left riverside of the Amur River, opposite Khabarovsk city, country place, meadow, 3 Aug 2012, *Rudyka 12157* (VLA).

Carpesium macrocephalum Franch. & Sav.

2n = 40, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, 7 km E of Otradnoe village, broad-leaved forest, roadside, 17 Oct 2010, *Lapenko 11747* (VLA).

Crepis nana Richardson

2n = 14, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, the area of abrupt slopes of the "elevation 1530 m", rubbly-melkozem slide-rocks in the upper course of a mountain stream, 7 Aug 2011, *Barkalov 12033* (VLA).

Erigeron koraginensis (Kom.) Botsch.

2n = 18, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, the area of abrupt slopes of the "elevation 1530 m", melkozem slope in the upper course of a mountain stream, at the snowfield, 7 Aug 2011, *Barkalov 12080* (VLA).

Erigeron politus Fr.

2n = 18, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, on pebbles of a stream, 11 Aug 2011, *Barkalov 12078* (VLA).

Eupatorium lindleyanum DC.

2n = 20, CHN. Russia, Far East, Khabarovskii Krai, left riverside of the Amur River, opposite Khabarovsk city, country place, meadow, 3 Aug 2012, *Rudyka 12154* (VLA).

Ptarmica alpina (L.) DC.

2n = 36, CHN. Russia, Far East, Khabarovskii Krai, in vicinity of Khabarovsk city, near the village Voronezh-1, the shrubs community, 23 Aug 2005, *Tzyrenova 9933* (VLA).

BORAGINACEAE

Lappula consanguinea Gürke

2n = 24, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Seymchan settlement, the valley of Seymchan River, meadow at the road, 30 Jul 2011, *Barkalov 12077* (VLA).

BRASSICACEAE

Arabis turczaninowii Ledeb.

2n = 14, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., in vicinity of the abandoned meteorological station "Kanyon", right riverside of the Verina River, below the mouth of Tuonnakh River, on the screes at the rocks, 28 Jul 2011, *Barkalov 12071* (VLA).

Braya siliquosa Bunge

2n = 42, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., at the base of Mt. Ezop (2042 m), near Staryi Kanyon, rubbly plots on the slope, with limestone shows, 25 Jul 2011, *Barkalov 12056* (VLA).

Cardaminopsis petraea (L.) Hiitonen

2n = 16, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., in vicinity of the abandoned meteorological station "Kanyon", left riverside of the Verina River, below the mouth of Tuonnakh River, on the screes at the rocks, 28 Jul 2011, *Barkalov 12053* (VLA).

Eutrema edwardsii R. Br.

2n = 28, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the watershed of the rivers Ola and Khurendja, upper course of the Ola River, the grassy-moss small bog in the upper part of a ravine, 12 Aug 2011, *Barkalov 12069* (VLA).

Isatis oblongata DC.

2n = 28, CHN. Russia, East Siberia, Republic of Buryatia, Barguzinskii Raion, near Maksimikha village, Baikal Lake, the lakeside of the Barguzinskii Bay, sandy beach, 24 Jul 2009, *Tzyrenova 11890* (VLA).

Rorippa barbareaifolia (DC.) Kitag.

2n = 16, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Seymchan settlement, the valley of Seymchan River, at the channel, silt bank, 31 Jul 2011, *Barkalov 12065* (VLA).

CARYOPHYLLACEAE

Gastrolychnis pauciflora (Ledeb.) Tzvelev

2n = 48, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Seymchan settlement, the valley of Seymchan River, on pebbles covered with grass, 30 Jul 2011, *Barkalov 12036* (VLA).

Minuartia stricta (Sw.) Hiern

** $2n = 22$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the watershed of the rivers Ola and Khurendja, upper course of the Ola River, the rubbly-melkozem slope, near the mountain stream, 12 Aug 2011, *Barkalov 12069* (VLA).

Stellaria fischeriana Ser.

$2n = 26$, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., in vicinity of the abandoned meteorological station "Kanyon", left riverside of the Verina River, below the mouth of Tuonnakh River, on pebbles, 28 Jul 2011, *Barkalov 12052* (VLA).

FABACEAE*Medicago lupulina* L.

$2n = 16$, CHN. Russia, Far East, Primorskii Krai, Mikhailovskii Raion, W outskirts of Novoshakhtinskii settlement, as a weed in vegetable garden, 26 Jul 2011, *Lapenko 11962* (VLA).

Oxytropis mertensiana Turcz.

$2n = 16$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, in vicinity of Skif Mt. (1662 m), the watershed of rivers Ola and Maltan, the flat slope in the upper course of a stream, the dwarf shrubby swamp with *Carex* and mosses, 8 Aug 2011, *Barkalov 12050* (VLA).

Vicia tetrasperma (L.) Schreb.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, microdistrict "Voskhod", at the edge of abandoned vegetable garden, 17 Sep 2011, *Barkalov 11920* (VLA).

GERANIACEAE*Geranium dahuricum* DC.

$2n = 28$, CHN. Russia, Far East, Amurskaya Oblast', Arkharinskii Raion, 10 km NE of Arkhara town, locality Shaman-Derevo, E slope, the oak forest with *Lespedeza bicolor*, 12 Aug 2005, *Tzyrenova 9967* (VLA).

Geranium eriostemon Fisch. ex DC.

$2n = 28$, CHN. Russia, Far East, Khabarovskii Krai, N of Khabarovsk city, the Voronezhskie hills, near the village Voronezh-1, broadleaved forest, 10 Jul 2005, *Tzyrenova 9860* (VLA); Russia, Far East, Primorskii Krai, Khasanskii Raion, the nature reserve "Kedrovaya Pad'", the valley broadleaved forest along the Kedrovaya River, 24 Jul 2005, *Tzyrenova 9872* (VLA).

Geranium maximowiczii Regel & Maack

* $2n = 28$, CHN. Russia, Far East, Khabarovskii Krai, in vicinity of Khabarovsk city, 19-th km of the highway Khabarovsk–Vladivostok, near the railway station Khekhtsir, at the road, in the shadow of *Betula* and *Alnus* trees, 12 Jul 2005, *Tzyrenova 9857* (VLA).

Geranium sibiricum L.

$2n = 28$, CHN. Russia, Far East, Khabarovskii Krai, in vicinity of Khabarovsk city, 19th km of the highway Khabarovsk–Vladivostok, near the railway station Khekhtsir, at the road uphill, in the shadow of trees, 12 Jul 2005, *Tzyrenova 9858* (VLA); Russia, Far East, Evreiskaya Avtonomnaya Oblast', the railway station Obluch'e, along the railroad embankment, 18 Jun 2007, *Tzyrenova 10615* (VLA); Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula (Vladivostok), near the railway platform Chaika, on the slope of a hill, at the road, waste place, 20 Jul 2005, *Tzyrenova 9862* (VLA).

Geranium sieboldii Maxim.

* $2n = 28$, CHN. Russia, Far East, Evreiskaya Avtonomnaya Oblast', Leninskii Raion, 7 km S of Lazarevo settlement, oak forest on the slope, 5 Sep 2005, *Tzyrenova 10069* (VLA).

Geranium soboliferum Kom.

* $2n = 28$, CHN. Russia, Far East, Primorskii Krai, Khasanskii Raion, the railway station Primorskaya, swampy meadow near the station-house, 23 Jul 2005, *Tzyrenova 9870* (VLA).

Geranium wilfordii Maxim.

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula (Vladivostok), near the railway platform Chaika, on the slope of a hill, at the road, waste place, 20 Jul 2005, *Tzyrenova 9861* (VLA); Russia, Far East, Primorskii Krai, Khasanskii Raion, the nature reserve "Kedrovaya Pad'", central office, along the road, in shadow of the trees, 25 May 2005, *Tzyrenova 9874* (VLA).

IRIDACEAE*Iris uniflora* Pall. ex Link

$2n = 48$, CHN. Russia, Far East, Primorskii Krai, near Nakhodka city, Mt. Brat, limestone rocks on the top of the mountain, 20 May 2012, *Nechaev 12090* (VLA).

LAMIACEAE*Dracocephalum palmatum* Stephan ex Willd.

$2n = 12$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, in vicinity of Mt. Skif (1662 m), the watershed of rivers Ola and Maltan, screes at the rocks, 9 Aug 2011, *Barkalov 12051* (VLA).

Perilla frutescens (L.) Britton

$2n = 40$, CHN. Russia, Far East, Primorskii Krai, Vladivostok city, the Morskoi Gorodok district, as a weed on waste ground near the building, 3 Sep 2012, *Probatova & Seledets 12158* (VLA).

ONAGRACEAE*Epilobium palustre* L.

$2n = 36$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, the area of abrupt slopes of the „elevation 1530 m”, dampish spots of melkozem, 7 Aug 2011, *Barkalov 12057* (VLA).

POACEAE*Agrostis angrenica* (Butkov) Tzvelev

* $2n = 42$, CHN. Kirghizia, 15 km N of Anan'ëvo town, the Kungei-Alatoo mountain ridge, Chet-Baishohorun canyon, ca. 2200 m, dark coniferous forest belt, meadow at a small river, 25 Jul 1978, *Probatova & Seledets 5142* (VLA).

Alopecurus arundinaceus Poir.

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, near Shkotovo settlement, sea shore, 2 Jun 2012, *Nechaev 12098* (VLA).

Festuca brachyphylla Schult. & Schult. f.

$2n = 42$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, the area of abrupt slopes of the "elevation 1530 m", wet meadow in the upper course of a mountain stream, 7 Aug 2011, *Barkalov 12079* (VLA); Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., a foot of Mt. Ezop (2042.6 m), near the former settlement Staryi Kanyon, wet meadow on the slope with limestone shows, 23 Jul 2011, *Barkalov 12081* (VLA).

Glyceria fluitans (L.) R. Br.

$2n = 40$, CHN. Russia, European part, Leningradskaya Oblast', Gatchinskii Raion, Vyra settlement, the riverside of the Oredez River, meadow in depression, 29 Jun 1974, *Sokolovskaya 7* (VLA); Russia, European part, Novgorodskaya Oblast', right riverside of

the Volkhov River, between railway stations Chudovo and Malaya Vyshera, near Dubtsy station, in depression, 3 Jul 1976, *Probatova* 4352 (VLA); Russia, European part, Moskovskaya Oblast', Voskresenskii Raion, outskirts of Voskresensk city, the valley of the Moskva River, at the small lake overgrown with grasses, 27 Jul 1975, *Probatova* 4071 (VLA).

Glyceria maxima (Hartm.) Holmb.

$2n = 60$, CHN. Ukraine, left riverside of the Dnepr River, 12 km above Kiev city, at the mouth of Desna River, the edge of a stagnant basin, 21 Jul 1976, *Probatova* 4387 (VLA).

Glyceria notata Chevall.

$2n = 40$, CHN. Russia, European part, Leningradskaya Oblast', Gatchinskii Raion, Vyra settlement, moist place, 29 Jun 1974, *Sokolovskaya* 18 (VLA).

Hierochloë praetermissa (G. Weim.) Prob. & Tzvelev

$2n = 42$, CHN. Kirghizia, north lakeside of the Issyk-Kul' Lake, 20 km N of Semënovka settlement, the Semënovskoe canyon, ca. 2000 m, the slope to the river – the confluence of Aksuu River, 30 Jul 1978, *Probatova & Seledets* 5164 (VLA).

Hierochloë repens P. Beauv.

$2n = 28$, CHN. Ukraine, 50 km N of Kiev city, near Litvinovka village, 10 km of Dymer, the forest edge, on the border of a field, 16 Aug 1978, *Probatova* 5191 (VLA).

Koeleria cristata Pers.

$2n = 28$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Novorossiiskii Raion, in vicinity of Raevskaya village, the Volch'i Vorota Pass, rubbly place of marl, 3 Sep 2009, *Probatova & Seledets* 11909 (VLA).

Ochlopoa annua (L.) H. Scholz

$2n = 28$, CHN. Russia, Far East, Amurskaya Oblast', Zeyskii nature reserve, 63 km of Zolotogorskoe route, near cordon, 21 Jun 2010, *Veklich* 12099 (VLA).

Poa humilis Ehrh.

$2n = 70$, CHN. Russia, European part, Leningradskaya Oblast', Gatchinskii Raion, near Vyra settlement, high sandy riverside of the Oredezh River, at the output of the sand, 8 Jul 1976, *Probatova* 4361 (VLA).

Poa pseudoabbreviata Roshev.

$2n = 14$, CHN. Russia, Far East, Kamchatskaya Oblast', Koryakskii natsional'nyi okrug, Penzhinskii Raion, near Manily settlement, Mt. Kamennaya, 828 m, 27 Jul 1974, *Kharkevich* 3988 (VLA).

Poa sibirica Roshev.

$2n = 14$, CHN. Russia, Far East, Kamchatskaya Oblast', Koryakskii natsional'nyi okrug, Penzhinskii Raion, near Ayanka settlement, the riverside of Penzhina River, among the flood-plain shrubs, 19 Jul 1971, *Probatova & Seledets* 3285 (VLA).

Poa sichotensis Prob.

$2n = 42$, CHN. Russia, Far East, Primorskii Krai, Ussuriiskii Raion, near the former settlement Pushkino, the Borissovka River, on pebbles, 11 Jul 2005, *Barkalov* 11427 (VLA).

Poa tatewakiana Ohwi

$2n = 42$, CHN. Russia, Far East, Komandorskie Islands, Toporkov Isl., on the plateau at the top, 18 Aug 1998, *Zelenskaya* 8021 (VLA).

Poa trivialis L.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, S outskirts of Shkotovo settlement, a terrace above the flood-plain, wet meadow, 2 Jul 2012, *Volynets* 12123 (VLA).

Setaria viridis (L.) P. Beauv.

$2n = 18$, CHN. Russia, North Caucasus, Krasnodarskii Krai, Krasnodar city, Severnaya Str., as a weed by the house, 14 Oct 2008, *Probatova & Seledets* 11279 (VLA).

Trisetum seravschanicum Roshev.

* $2n = 28$, CHN. Kazakhstan, Almaatinskaya Oblast', outskirts of Alma-Ata city, the locality Medeo, ca. 2200 m, the slope of Mt. Mokhnataya, the dark-coniferous forest belt, 19 Jul 1978, *Probatova & Seledets* 5125 (VLA).

PORTULACACEAE

Claytoniella vassilievii (Kuzen.) Jurtzev

$2n = 60$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, upper course of the Ola River, the area of abrupt slopes of the "elevation 1530 m", the spring grassy-moss small bog in depression on the slope, 7 Aug 2011, *Barkalov* 12070 (VLA).

PRIMULACEAE

Androsace septentrionalis L.

$2n = 20$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, the area of abrupt slopes of the "elevation 1530 m", dampish spots of melkozem, 7 Aug 2011, *Barkalov* 12068 (VLA).

RANUNCULACEAE

Halerpestes sarmentosa (Adams) Kom.

$2n = 16$, CHN. Russia, Far East, Primorskii Krai, Amurskii Gulf, Uglovaya Bay, near Prokhladnoe village, silted saline beach, in 30 m of shoreline, 13 Sep 2005, *Voronkova* 9968 (VLA).

Ranunculus eschscholtzii Schldl.

$2n = 16$, CHN. Russia, Far East, Magadanskaya Oblast', Khasynskii Raion, Ol'skoe Plateau, the upper course of the Ola River, mossy bank of a stream, near waterfall, 11 Aug 2011, *Barkalov* 12041 (VLA).

Ranunculus grandis Honda

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, the 26th km of the route Artëm–Nakhodka, in forest, 18 Jun 1977, *Rudyka* 4677 (VLA). Earlier, this specimen was misidentified as "*R. japonicus* Thunb." in Bot. Zhurn. (Moscow & Leningrad) 12: 1700 (1984).

Ranunculus pedatifidus Sm.

$2n = 32$, CHN. Russia, Far East, Magadanskaya Oblast', Srednekanskii Raion, Bol'shoi Tuonnakh Mts., Mt. Ezop (2042.6 m), upper course of the Tur brook, the abandoned settlement Staryi Canyon, the grass-plot, 24 Jul 2011, *Barkalov* 12083 (VLA).

ROSACEAE

Potentilla argentea L.

$2n = 28$, CHN. Russia, Far East, Evreiskaya Avtonomnaya Oblast', the railway station Obluch'e, along the railroad bed, 18 Jun 2007, *Tzyrenova* 10630 (VLA).

Potentilla chinensis Ser.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Khankaiskii Raion, the railway station Kamen'-Rybolov, on the railroad embankment, 21 Sep 2011, *Lapenko* 11982 (VLA).

Potentilla cryptotaeniae Maxim.

$2n = 14$, CHN. Russia, Far East, Primorskii Krai, Khassanskii Raion, the nature reserve “Kedrovaya Pad’”, central office, along the road, 24 Jul 2005, *Tzyrenova 9873* (VLA).

Potentilla gelida C.A. Mey.

$2n = 28$, CHN. Russia, Far East, Magadanskaya Oblast’, Khasynskii Raion, Ol’skoe Plateau, Mt. Skif (1662 m), the watershed of the rivers Ola and Maltan, the rubbly-melkozem screes on the slope, 8 Aug 2011, *Barkalov 12063* (VLA).

Potentilla intermedia L.

$2n = 28$, CHN. Russia, Far East, Primorskii Krai, Partizanskii Raion, near Monakino village, left riverside of Sergeevka River, meadow on the terrace, 9 Sep 2011, *Volynets 11919* (VLA).

Potentilla sericea L.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Barguzinskii Raion, near Maksimikha village, Baikal Lake, the lakeside of the Barguzinskii Bay, sandy beach, 24 Jul 2009, *Tzyrenova 11892* (VLA).

Potentilla stipularis L.

$2n = 28$, CHN. Russia, Far East, Magadanskaya Oblast’, Khasynskii Raion, Ol’skoe Plateau, the watershed of the rivers Ola and Khurendya, upper course of the Ola River, the rubbly-melkozem slope, in the upper part of a ravine, 12 Aug 2011, *Barkalov 12055* (VLA).

Potentilla supina L.

$2n = 28$, CHN. Russia, Far East, Evreiskaya Avtonomnaya Oblast’, the railway station Obluch’e, as a weed along the railroad bed, 18 Jun 2007, *Tzyrenova 10989* (VLA).

Potentilla tergemina Soják

$2n = 28$, CHN. Russia, Far East, Magadanskaya Oblast’, Srednekanskii Raion, near Seimchan settlement, disturbed meadow, at the road, 31 Jul 2011, *Barkalov 12034* (VLA).

SALICACEAE*Salix taraikensis* Kimura

$2n = 38$, CHN. Russia, Far East, Primorskii Krai, Ussuriiskii Raion, outskirts of Ussuriisk city, microdistrict “Voskhod”, on the slope of a ravine, 13 Mar 2011, *Barkalov 11803* (VLA).

SAXIFRAGACEAE*Chrysosplenium flagelliferum* F. Schmidt

$2n = 24$, CHN. Russia, Far East, Primorskii Krai, Dal’negorskii Raion, in vicinity of Krasnorechensk settlement, the upper course of the Belyi Kluch, mixed forest, along the spring, 19 Jul 1984, *Probatova & Seledets 6394* (VLA).

SCROPHULARIACEAE*Castilleja rubra* (Drobow) Rebrist.

$2n = 24$, CHN. Russia, Far East, Magadanskaya Oblast’, Srednekanskii Raion, near Seimchan settlement, the valley of Seimchan River, *Salix* forest, 30 Jul 2011, *Barkalov 12058* (VLA).

Pedicularis rubens Stephan ex Willd.

$2n = 16$, CHN. Russia, East Siberia, Zabaikal’skii Krai, Aginskii Buryatskii Avtonomnyi Okrug, Aginskii Raion, Khangilaiskii Ridge, the Aginskii Daban Pass, on the way from Aginskoe village to Nizhnii Tsassuchei village, light *Betula* forest, 10 Jul 2011, *Tzyrenova 11888* (VLA).

VIOLACEAE*Viola amurica* W. Becker

$2n = 24$, CHN. Russia, Far East, Primorskii Krai, Muravëv-Amurskii Peninsula (Vladivostok), near Chaika railway platform, left side of the ravine to Akademicheskii brook, on the slope, 20 May 2012, *Volynets 12096* (VLA).

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* First chromosome count for the species

** New chromosome number (cytotype) for the species

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ALLIACEAE*Allium prostratum* Maxim.

$2n = 16$, CHN. Russia, East Siberia, Zabaikal’skii Krai, Mogochinskii Raion, Pokrovka village, the Amur River, 334 m, sandy-pebbles riverbank, 7 Jul 2011, *Kazanovsky & Prelovskaya 12038* (VLA, IRK).

APIACEAE*Heraclium dissectum* Ledeb.

$2n = 22$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the Baikal’skii nature reserve, Vydrinaya River, right riverside, 552 m, moist meadow with *Calamagrostis* and various herbs, along the rivulet, 9 Aug 2011, *Kazanovsky 186* (VLA, IRK).

ASTERACEAE*Artemisia tanacetifolia* L.

$2n = 18$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, in vicinity of Zhemchug village, right riverside of the Irkut River, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 12132* (VLA, IRK).

Cirsium helenioides (L.) Hill

$2n = 34$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the railway station Rechka Vydrinaya, left riverside of the Vydrinaya River, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, meadow, 21 Jul 2011, *Krivenko 12161* (VLA, IRK).

Crepis bungei Ledeb. ex DC.

$2n = 8$, CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, in vicinity of Samarta settlement, East Sayan Mts., Kitoiskii mountain ridge, the upper course of the Kitoi River, 1889 m, in dumetum (*Caragana jubata*, *Rhododendron*, *Salix* spp.), 29 Aug 2010, *Kazanovsky 12128* (VLA, IRK).

Leontodon autumnalis L.

$2n = 12$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the railway station Rechka Vydrinaya, left riverside of the Vydrinaya River, 451 m, meadow on the roadside, 22 Jul 2011, *Verkhovina* 207 (VLA, IRK).

Leucanthemum vulgare Lam.

$2n = 36$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, the lower course of the Solzan River, left riverside, on pebbles, 29 Aug 2009, *Kazanovsky & Pochinchik* 12136 (VLA, IRK).

Saussurea denticulata Ledeb.

* $2n = 26$, CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, in vicinity of Samarta settlement, East Sayan Mts., Kitoiskii mountain ridge, the upper course of the Kitoi River, 2084 m, stony slope, 30 Jul 2011, *Verkhovina* 12164 (VLA, IRK).

Saussurea parviflora (Poir.) DC.

$2n = 26$, CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Bol'shoi Lug settlement, 606 m, the *Betula* and *Pinus* forest with *Calamagrostis* and various herbs, 5 Sep 2011, *Kazanovsky* 189 (VLA, IRK).

Senecio vulgaris L.

$2n = 40$, CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, wayside stop Golubye Eli, 497 m, as a weed on the garden-plot, 17 Sep 2011, *Kazanovsky* 12045 (VLA, IRK).

Taraxacum printzii Dahlst. ex Printz

** $2n = 24$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, Moigoty village, right riverside of the Irkut River, 1006 m, sandy-pebble river bank, 13 Jun 2011, *Kazanovsky & Stepansova* 12131 (VLA, IRK).

BALSAMINACEAE*Impatiens glandulifera* Royle

$2n = 18$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Zvezdinskogo Str., near railway road, 442 m, the grove Zvezdochka, at the fence, 22 Sep 2011, *Verkhovina & Prelovskaya* 19858 (IRK).

BORAGINACEAE*Lappula anisacantha* (Turcz. ex Bunge) Gürke

$2n = 24$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.6 km SW of Turka village, 455 m, roadside, 23 Jul 2011, *Verkhovina & Anossova* 12160 (VLA, IRK).

BRASSICACEAE*Alyssum lenense* Adams

$2n = 16$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Baikal Lake, Malomorskoe lakeside, Mukhor Bay, the bottom of the Ulan-Khada Peninsula, 569 m, stony steppe, 30 Jul 2010, *Kazanovsky* 12120 (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.3 km SW of Turka village, 471 m, sand dunes, 23 Jul 2011, *Verkhovina & Anossova* 12172 (VLA, IRK).

CAPRIFOLIACEAE*Lonicera altaica* Pall.

$2n = 36$, CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, in vicinity of Samarta settlement, East Sayan Mts., Kitoiskii mountain ridge, the upper course of the Kitoi River, Vassil'evskaya Mt., 2027 m, the light *Larix* forest with green mosses and various herbs, along the rivulet, 28 Aug 2010, *Kazanovsky* 12137 (VLA, IRK).

CARYOPHYLLACEAE*Cerastium holosteoides* Fr.

** $2n = 108$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, the left riverside of the Solzan River, opposite the Baikal pulp and paper mill, 550 m, the edge of the *Pinus* and *Betula* forest with various herbs, 14 Jun 2011, *Verkhovina* 215 (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the railway station Rechka Vydrinaya, left riverside of the Vydrinaya River, meadow, 27 Aug 2010, *Kazanovsky & Pochinchik* 217 (VLA, IRK).

Minuartia loricata (L.) Mattf.

$2n = 26$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, 410 m, dry rocky slope, 9 Jul 2011, *Chernova & Kazanovsky* 219 (VLA, IRK).

Stellaria dichotoma L.

* $2n = 26$, CHN. Russia, East Siberia, Republic of Buryatia, Ivolginskii Raion, right riverside of the Selenga River, near Nizhny Sayantui village, 503 m, 27 Jul 2011, *Zhmuđ* 12162 (VLA, IRK).

CHENOPODIACEAE*Chenopodium novopokrovskyanum* (Aellen) Uotila

$2n = 36$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Ol'khon Island, near the Cape Sagan-Khushun, 575 m, *Agropyron* steppe with various herbs, 28 Jul 2010, *Kazanovsky* 213 (VLA, IRK).

EUPHORBIACEAE*Euphorbia virgata* Waldst. & Kit.

** $2n = 60$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 4 km SW of Turuntaevo village, 480 m, roadside, 22 Jul 2011, *Krivenko* 12168 (VLA, IRK).

FABACEAE*Astragalus propinquus* Schischk.

$2n = 16$; Russia, East Siberia, Zabaikal'skii Krai, Nerchinsko-Zavodskii Raion, in vicinity of Ishaga village, the meadow steppe, at the road along the river, 3 Sep 2011, *Bondarevich* 22405 (IRK).

Medicago lupulina L.

$2n = 16$; Russia, East Siberia, Irkutskaya Oblast', Nukutskii Raion, in vicinity of Unkurlik village, right riverside of the Zalar River, 416 m, the inundated salted *Elytrigia* meadow with various herbs, 27 Aug 2008, *Verkhovina* 24629 (IRK).

Melilotus officinalis (L.) Lam.

$2n = 16$; Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, near the Institute of Power Engineering Systems, Siberian Branch of RAS, waste ground, 15 Sep 2011, *Kazanovsky* 19193 (IRK).

Trifolium hybridum L.

$2n = 16$; Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, near the railway station Akademicheskaya, as a weed on the lawn, 18 Sep 2011, *Kazanovsky* 19176 (IRK).

Vicia hirsuta (L.) Gray

$2n = 14$; Russia, East Siberia, Irkutskaya Oblast', Zalarinskii Raion, near Tyret' village, left riverside of the Unga River, 440 m, sedge-grass meadow with various herbs, 4 Sep 2009, *Kazanovsky* 23673 (IRK).

GENTIANACEAE*Gentiana macrophylla* Pall.

$2n = 26$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, in vicinity of Zhemchug village, right riverside

of the Irkut River, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 224* (VLA, IRK).

Gentianella acuta (Michx.) Hiitonen

$2n = 36$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, in vicinity of Zhemchug village, right riverside of the Irkut River, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 226* (VLA, IRK).

Halenia corniculata (L.) Cornaz

$2n = 22$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, the Irkut River, right riverside, near Zhemchug village, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 12026* (VLA, IRK).

GERANIACEAE

Erodium cicutarium (L.) L'Hér. ex Aiton

** $2n = 18$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, near Kossaya Step' settlement, 700 m, ruderal vegetation at the bottom of sandy slope and in the sandpit, 31 Jul 2010, *Krivenko 206* (VLA, IRK).

GROSSULARIACEAE

Ribes diacantha Pall.

$2n = 16$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Nerchinskii Raion, near Znamenka village, the Nercha River, 531 m, riverside, in dumetum, 14 Jul 2011, *Kazanovsky 12061* (VLA, IRK).

LAMIACEAE

Prunella vulgaris L.

$2n = 28$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, the lower course of the Solzan River, left riverside, on pebbles, 29 Aug 2009, *Kazanovsky & Pochinchik 12135* (VLA, IRK).

MELANTHIACEAE

Zigadenus sibiricus (L.) A. Gray

$2n = 32$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, the lower course of the Solzan River, left riverside, mixed forest, 29 Aug 2009, *Kazanovsky & Pochinchik 12138* (VLA, IRK).

POACEAE

Achnatherum sibiricum (L.) Keng ex Tzvelev

$2n = 24$, CHN. Russia, East Siberia, Irkutskaya Oblast', Chermkhovskii Raion, Uzkii Lug village, steppified slope, 26 Aug 2008, *Verkhovina 12103* (VLA, IRK).

Agrostis capillaris L.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Tankhoi settlement, 500 m, meadow, 15 Aug 2011, *Kazanovsky 12066* (VLA, IRK).

Agrostis clavata Trin.

$2n = 42$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, Turka village, the lakeside of Baikal Lake, *Pinus* forest with *Bergenia*, 11 Sep 2004, *Chepinoga 9424* (VLA).

Agrostis divaricatissima Mez

$2n = 28$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, 2 km SE of Zama village, the lakeside of Baikal Lake, Kodovyi Bay, 455 m, moist bank of Baikal, 24 Aug 2011, *Verkhovina 12106* (VLA, IRK).

Avena sativa L.

$2n = 48$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ussol'skii Raion, Ussolye-Sibirskoe town, SW outskirts of the town, near the

schoolhouse no. 14, 457 m, waste ground near the roadside, 28 Aug 2008, *Verkhovina 12163* (VLA, IRK).

Beckmannia syzigachne (Steud.) Fernald

$2n = 14$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, 316 m, boggy place by the rivulet, 7 Jul 2011, *Kazanovsky 223* (VLA, IRK).

Calamagrostis obtusata Trin.

$2n = 28$, CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Bol'shoi Lug settlement, 606 m, the *Betula* and *Pinus* forest with *Calamagrostis* and various herbs, 5 Sep 2011, *Kazanovsky 12073* (VLA, IRK).

Dactylis glomerata L.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Tankhoi settlement, 500 m, meadow, 15 Aug 2011, *Kazanovsky 184* (VLA, IRK).

Elymus mutabilis (Drobow) Tzvelev

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.6 km SW of Turka village, 455 m, roadside, at the edge of sand dunes, 23 Jul 2011, *Verkhovina & Anossova 12177* (VLA, IRK).

Festuca baicalensis V.I. Krecz. & Bobr.

$2n = 42$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, near Gremyachinsk settlement, 411 m, the sandy lakeside of Baikal Lake, 22 Jul 2011, *Krivenko 12126* (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Barguzinskii Raion, Svyatoi Nos Peninsula, the lakeside of Baikal Lake, 18 km NW of the mouth of Barguzin River, 446 m, sand dunes, 26 Jul 2011, *Verkhovina 12134* (VLA, IRK).

Festuca ovina L.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.6 km SW of Turka village, 455 m, at the edge of sand dunes, roadside, 23 Jul 2012, *Verkhovina & Anossova 12115* (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, near Turka village, 2.3 km SW of the mouth of Turka River, 455 m, dunes, 25 Jul 2011, *Verkhovina 12121* (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Okinskii Raion, in vicinity of Samarta settlement, East Sayan Mts., Kitoiskii mountain ridge, the upper course of the Kitoi River, Vassil'evskaya Mt., 2195 m, alpine belt, placer, covered with mosses and lichens, 29 Aug 2010, *Kazanovsky 12122* (VLA, IRK).

Festuca rubra L.

$2n = 42$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, near Kultuk settlement, the lakeside of Baikal Lake, 467 m, sandy beach, 1 Aug 2010, *Kazanovsky 203* (VLA, IRK).

Hordeum jubatum L.

$2n = 28$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, near station Akademicheskaya, as a weed on the lawn, 18 Sep 2011, *Kazanovsky 185* (VLA, IRK).

Melica nutans L.

$2n = 18$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the Baikal'skii nature reserve, Vydrinaya River, right riverside, 541 m, the valley *Picea* and *Populus* forest with various herbs, 10 Jul 2011, *Kazanovsky 182* (VLA, IRK).

Ochlopoa supina (Schrad.) H. Scholz & Valdés

$2n = 14$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the railway station Rechka Vydrinaya, left riverside

of the Vydrinaya River, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, sandy-pebble riverside, 27 Aug 2010, *Kazanovsky & Pochinchik 216* (VLA, IRK); Russia, East Siberia, Irkutskaya Oblast', Kazachinskoleninskii Raion, near Kumerma village, left riverside of the Kumerma River, 543 m, *Pinus sibirica* and *Larix* forest, along the stream, on riverside, 21 Jul 2010, *Verkhovina 12169* (VLA, IRK).

Panicum ruderales (Kitag.) Chang

$2n = 36$, CHN. Russia, East Siberia, Republic of Buryatia, Tarbagatayskii Raion, right riverside of the Selenga River, Nizhnii Sayantui (Vakhmistrovo) village, 519 m, steppe, 27 Jul 2011, *Verkhovina & Krivenko 12167* (VLA, IRK).

Phleum phleoides (L.) H. Karst.

$2n = 14$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, Selenga River, left riverside, near Tataurovo village, ferry quay, ruderal vegetation, 22 Jul 2011, *Krivenko 12101* (VLA, IRK).

Phleum pratense L.

$2n = 42$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, Akademgorodok, a weed on the lawn, 15 Sep 2011, *Kazanovsky 183* (VLA, IRK).

Poa almasovii Golub

$2n = 56$, CHN. Russia, Far East, Magadanskaya Oblast', 4 km of the Ola settlement to Magadan city, middle part of the slope of marine terrace, 18 Jul 1972, *Probatova & Seledets 3616/6* (VLA).

Poa alpigena Lindm.

$2n = ca. 70$, CHN. Russia, Far East, Kamchatka, Elizovskii Raion, the Kronotskii nature reserve, left riverside of the Listvennichnaya River, in 6 km of the cordon, the light *Larix* forest, 8 Aug 1978, *Pet'ko 5384* (VLA).

Poa alpina L.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, Arshan settlement, Kyngarga River, 833 m, stony riverside, near the bridge, 2 Aug 2010, *Kazanovsky 11692* (VLA, IRK).

$2n = 35$, CHN. Russia, European part, Arkhangel'skaya Oblast', Nenetskii Natsional'nyi Okrug, Yugorskii Peninsula, ca. 15 km SE of Amderma town, 1 Aug 1980, *Lavrenko 6345* (VLA).

Poa angustifolia L.

$2n = 56$, CHN. Russia, Far East, Primorskii Krai, Shkotovskii Raion, S outskirts of Shkotovo settlement, meadow on the terrace, 2 Jul 2012, *Volynets 12124* (VLA).

Poa arctica R. Br.

$2n = ca. 70$, CHN. Russia, European part, Arkhangel'skaya Oblast', Nenetskii Natsional'nyi Okrug, Yugorskii Peninsula, ca. 15 km SE of Amderma town, 1 Aug 1980, *Lavrenko 6344* (VLA).

Poa attenuata Trin.

$2n = 28$, CHN. Russia, East Siberia, Irkutskaya Oblast', lakeside of Baikal Lake, 17 km NE of Listvyanka settlement, near Bol'shie Koty village, the Bol'shaya Kotovka River, on pebbles, 12 Sep 2007, *Probatova & Seledets 10689* (VLA); Russia, East Siberia, Republic of Buryatia, Selenginskii Raion, 1 km S of Novo-Selenginsk settlement, stony mountain steppe with *Amygdalus*, 11 Sep 2004, *Probatova & Seledets 9383* (VLA); Russia, East Siberia, Chitinskaya Oblast' (now: Zabaikal'skii Krai), near Chita city, a fragment of the grass steppe, 5 Jul 1977, *Probatova & Seledets 4701* (VLA).

Poa botryoides (Trin. ex Griseb.) Kom.

$2n = 28$, CHN. Russia, Urals, Republic of Bashkortostan, Abzelilovskii Raion, 2 km below Kulkaevo village, mountain ridge in the left riverside of the Bol'shoi Kizich, *Stipa* and *Festuca* steppe on stony plots, 24 Jul 1983, *Muldashev & al. 6155* (VLA); Russia, Far East, Amurskaya Oblast', Dzheltulakskii Raion, 2 km of Tyndinskii settlement downstream the Tynda River, right riverside, sandy embankment, 8 Jun 1975, *Probatova & Rudyka 4020* (VLA); Russia, Far East, Amurskaya Oblast', right riverside of the Selezmdzha River, in 122 km up-stream of the mouth of the river, on riverside rocks near Dagmara village, 31 Aug 1976, *Probatova & Seledets 4539* (VLA); Russia, Far East, Amurskaya Oblast', 30 km S of Svobodnyi town, near Malaya Sazanka village, SE rubbly slope, steppified meadow, 15 Aug 1976, *Probatova & Seledets 4424*, *Probatova & Seledets 4425* (VLA); Russia, Far East, Khabarovskii Krai, Ul'chskii Raion, outskirts of Mariinskoe village, rubbly slope of Batareinaya Hill, steppified meadow, 21 Jun 1978, *Probatova & Rudyka 5054* (VLA).

$2n = 42$, CHN. Russia, Far East, Kamchatka, Ust'-Kamchatskii Raion, near Kozyrevsk settlement, 2 km N of the locality Polyana Dolgaya, abandoned road, 21 Jul 1978, *Smirnov 5323* (VLA); Russia, Far East, Magadanskaya Oblast', outskirts of Susuman town, the mine Frunze, steppified rubbly slope, 21 Jul 1971, *Khokhrjakov & Mazurenko 4162* (VLA); Russia, Far East, Amurskaya Oblast', 18 km E of Shimanovsk town, in vicinity of the railway station Seletkan, the *Pinus* forest edge, 5 Sep 1976, *Probatova & Seledets 4465* (VLA).

Poa compressa L.

$2n = 42$, CHN. Russia, Far East, Primorskii Krai, Okryabr'skii Raion, between Fadeevka and Novogeorgievka villages, meadow at the road, 27 Jul 2009, *Nechaev 11441* (VLA).

Poa glauca Vahl

$2n = 42$, CHN. Russia, European part, Komi Republic, near Vorkuta city, left riverside of the Vorkuta River, at the cement works, stony slope with outcrops of calcareous sandstones, 19 Jul 1967, *Tzvelev 117* (LE); Russia, East Siberia, Republic of Sakha-Yakutia, Bulunskii Raion, right riverside of the Lena River, near Kjusssur settlement, on pebbles, 3 Aug 1973, *Probatova & Seledets 3774* (VLA); Russia, Far East, Magadanskaya Oblast', Khassynskii Raion, Ol'skoe Plateau, the watershed of the rivers Ola and Khurendja, rubbly placer on the top of a hill near the lake, 12 Aug 2011, *Barkalov 12076* (VLA).

$2n = ca. 56$, CHN. Russia, Far East, Khabarovskii Krai, the Badzhal mountain ridge, upper course of the Gerbi River, 1900 m, 23 Jul 1973, *Shapoval, Boyko & al. 3982* (VLA).

Poa litvinoviana Ovcz.

$2n = 42$, CHN. Tadzhikistan, East Pamir, the valley of Alichura River, near Bulun-Kul' Lake, 17 Jul 1936, *Sokolovskaya & Strelkova 57* (VLA).

Poa macrocalyx Trautv. & C.A. Mey.

$2n = 42$, CHN. Russia, Far East, Khabarovskii Krai, Tuguro-Chumikanskii Raion, Shantarskye Islands, the Bol'shoi Shantar Island, S coast, near the mouth of the Yakshina River, 2 Sep 2006, *Kriukova 10426* (VLA).

Poa palustris L.

$2n = 28$, CHN. Russia, European part, Komi Republic, Intinskii Raion, state farm "Gorniyak", the farm Yun'-Yaga, the valley of Yun'-Yaga River, meadow, 10 Jul 1967, *Sokolovskaya 25* (VLA); Russia, Leningradskaya Oblast', Gatchinskii Raion, near Vyra settlement, half-way to Peschanka village, sandy slope of the road, 8 Jul 1976, *Probatova 4362*; Russia, Far East, Primorskii Krai, Spasskii Raion, in vicinity of Spassk-Dal'nii city, moist meadow, 17 Jul 1977, *Krivenko 5457* (VLA).

Poa paucispicula Scribn. & Merr.

$2n = 42$, CHN. Russia, Far East, Koryakskii Natsional'nyi Okrug, Oljutorskii Raion, the Natalii Bay, 25 Jul 1974, *Kharkevich & al.* 3989 (VLA); Russia, Far East, Koryakskii Natsional'nyi Okrug, Oljutorskii Raion, Govena Peninsula, the upper course of the Eivayam River, near Verkhneye Lake, 17 Aug 1974, *Kharkevich* 3991 (VLA); Russia, Far East, Koryakskii Natsional'nyi Okrug, Oljutorskii Raion, the plateau 463 m on the right riverside of the Apuka River, opposite the former settlement Tylmai, 1 Sep 1974, *Kharkevich* 3993 (VLA); Russia, Far East, Koryakskii Natsional'nyi Okrug, Oljutorskii Raion, the upper course of Komeutiuyam River, S of Shpil Mt., 600 m, 8 Sep 1974, *Kharkevich & Buch* 3994 (VLA).

Poa pratensis L.

$2n = 56$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, near Tankhoi settlement, 500 m, meadow, 15 Aug 2011, *Kazanovsky* 187 (VLA, IRK); Russia, East Siberia, Republic of Buryatia, Okinskii Raion, East Sayan Mts., the upper course of the Oka River, 1631 m, right riverside, meadow, 29 Aug 2010, *Kazanovsky* 214 (VLA, IRK).

Poa transbaicalica Roshev.

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Barguzinskii Raion, Baikal Lake, the Svyatoi Nos Peninsula, 16.5 km NW of the mouth of Barguzin River, 447 m, sand dunes along the lakeside, 26 Jul 2011, *Verkhovina* 12104 (VLA, IRK).

Schedonorus pratensis (Huds.) P. Beauv.

$2n = 14$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, NW lakeside of the Kotokel' Lake, on the territory of the health centre "Baikal'skii Bor", 12 Sep 2004, *Chepinoga* 9411 (VLA).

Schizachne callosa (Turcz. ex Griseb.) Ohwi

$2n = 20$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, 59-th km of the route Mogocha-Tupik, the right confluent of the Malaya Mogocha River, the *Betula* and *Larix* forest with grasses and various herbs, 13 Jul 2011, *Kazanovsky* 12109 (VLA, IRK).

Setaria verticillata (L.) P. Beauv.

$2n = 18$, CHN. Russia, Volga Region, Volgogradskaya Oblast', N outskirts of Volgograd city, the garden-plots near GRES settlement, as a weed, 1 Aug 2006, *Yurtseva* 10502 (VLA).

POLYGONACEAE*Acetosella vulgaris* (W.D.J. Koch) Fourr.

$2n = 42$, CHN. Russia, East Siberia, Republic of Buryatia, Kabanskii Raion, the railway station Rechka Vydrinaya, left riverside of the Vydrinaya River, experimental station of the Siberian Institute of Plant Physiology & Biochemistry, Siberian Branch of RAS, riverside, meadow, 27 Aug 2010, *Kazanovsky & Pochinchik* 208 (VLA, IRK).

Rumex maritimus L.

$2n = 40$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, the University microdistrict, near the building № 68, 486 m, a weed on the flower-bed, 21 Aug 2008, *Verkhovina* 12105 (VLA, IRK).

Rumex patientia L.

$2n = 40$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ussol'skii Raion, Ussolye-Sibirskoe town, Komsomol'skaya square, the park near "Khimik" culture and rest house, 441 m, footway in the park, 23 Aug 2008, *Verkhovina* 12159 (VLA, IRK).

Rumex pseudonatronatus (Borbás) Murb.

$2n = 40$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, left riverside of Angara River, meadow, 10 Sep 2011, *Matyashenko* 12129 (VLA, IRK).

PORTULACACEAE*Montia fontana* L.

$2n = 20$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, W lakeside of Baikal Lake, near Kultuk settlement, left riverside of the Kultuchnaya River, 1.5 km N of the mouth, 464 m, moist meadow, 5 Jul 2011, *Verkhovina* 12043 (VLA, IRK).

PRIMULACEAE*Androsace amurensis* Prob.

$2n = 20$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.3 km SW of Turka village, 471 m, sand dunes, 23 Jul 2011, *Verkhovina & Anossova* 12165 (VLA, IRK).

RANUNCULACEAE*Aconitum baicalense* Turcz. ex Rapaics

$2n = 32$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, left riverside of the Khara-Murin River, 1.5 km SW of Murino village, mixed forest, 29 Aug 2009, *Kazanovsky & Pochinchik* 221 (VLA, IRK).

Aconitum barbatum Patr. ex Pers.

$2n = 16$, CHN. Russia, East Siberia, Irkutskaya Oblast', Shelekhovskii Raion, near Bol'shoi Lug settlement, 606 m, the *Betula* and *Pinus* forest with *Calamagrostis* and various herbs, 5 Sep 2011, *Kazanovsky* 188 (VLA, IRK).

Aquilegia oxysepala Trautv. & C.A. Mey.

$2n = 14$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, the left riverside of the Amur River, 339 m, a ravine with rivulet, the *Betula* forest with shrubs, *Equisetum*, *Carex* and various herbs, 10 Jul 2011, *Kazanovsky* 12064 (VLA, IRK).

Aquilegia parviflora Ledeb.

$2n = 14$, CHN. Russia, East Siberia, Zabaikal'skii Krai, Mogo-chinskii Raion, near Pokrovka village, left riverside of the Amur River, 410 m, the *Betula*, *Larix* and *Pinus* forest with *Populus*, *Rhododendron* and *Vaccinium vitis-idaea*, 9 Jul 2011, *Kazanovsky* 12060 (VLA, IRK).

Delphinium elatum L.

$2n = 32$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, left riverside of the Khara-Murin River, 1.5 km SW of Murino village, mixed forest, 29 Aug 2009, *Kazanovsky & Pochinchik* 222 (VLA, IRK).

Pulsatilla tenuiloba (Hayek) Juz.

$2n = 16$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Ol'khon Island, the Cape Ulan-Khushin, 516 m, steppe, 12 Aug 2009, *Verkhovina*, *Pochinchik & Krivenko* 218 (VLA, IRK).

ROSACEAE*Potentilla bifurca* L.

$2n = 56$, CHN. Russia, East Siberia, Republic of Buryatia, Tarbagatayskii Raion, right riverside of the Selenga River, railway station Sayantui, 505 m, meadow, 27 Jul 2011, *Anossova & Zhmudj* 211 (VLA, IRK).

Potentilla canescens Besser

$2n = 42$, CHN. Russia, East Siberia, Republic of Buryatia, Pribaikal'skii Raion, 6.3 km SW of Turka settlement, 469 m, dune sands at the forest edge, 23 Jul 2011, *Verkhovina & Anossova 12107* (VLA, IRK).

Potentilla conferta Bunge

$2n = 56$, CHN. Russia, East Siberia, Republic of Buryatia, outskirts of Ulan-Ude city, along the route M-55 towards Irkutsk, on roadside, 28 Jul 2011, *Krivenko 12108* (VLA, IRK).

Potentilla norvegica L.

$2n = 56$, CHN. Russia, East Siberia, Republic of Buryatia, Kambanskii Raion, Khamar-Daban Mts., the Bol'shoi Mamai River in its middle course, the edge of *Pinus* and *Abies* forest, at the forest road, 26 Aug 2010, *Kazanovsky & Pochinchik 204* (VLA, IRK); Russia, East Siberia, Zabaikal'skii Krai, Tunguro-Olëkminskii Raion, 69th km of the route Mogocho-Tupik, the geologists' settlement, the Bukhta River, 736 m alt., roadside, 12 Jul 2011, *Kazanovsky 12031* (VLA, IRK).

Potentilla tergemina Soják

$2n = 28$, CHN. Russia, East Siberia, Republic of Buryatia, Okinskii Raion, in vicinity of Samarta settlement, East Sayan Mts., Kitoiskii mountain ridge, the upper course of the Kitoi River, 1889 m, in dumetum (*Caragana jubata*, *Rhododendron*, *Salix* spp.), 28 Aug 2010, *Kazanovsky 12125* (VLA, IRK).

SCROPHULARIACEAE*Odontites vulgaris* Moench

$2n = 20$, CHN. Russia, East Siberia, Republic of Buryatia, Tunkinskii Raion, the Irkut River, right riverside, near Zhemchug village, locality Vyshka, 693 m, meadow, 11 Oct 2011, *Kazanovsky 12023* (VLA, IRK).

Rhinanthus serotinus Oborny

$2n = 22$, CHN. Russia, East Siberia, Republic of Buryatia, Tarbagatayskii Raion, right riverside of the Selenga River, the railway station Sayantui, 505 m, meadow, 27 Jul 2011, *Anossova & Zhmudj 228* (VLA, IRK).

Veronica chamaedrys L.

$2n = 32$, CHN. Russia, East Siberia, Irkutskaya Oblast', Sliudyanskii Raion, left riverside of the Khara-Murin River, 1.5 km SW of Murino village, the mixed forest edge, 29 Aug 2009, *Kazanovsky & Pochinchik 210* (VLA, IRK).

SOLANACEAE*Solanum kitagawae* Schönb.-Tem.

$2n = 24$, CHN. Russia, East Siberia, Irkutskaya Oblast', Irkutsk city, abandoned building site, on ruinous bricks, 17 Aug 2011, *Krivenko 12173* (VLA, IRK).

VALERIANACEAE*Valeriana transjensis* Kreyer

$2n = 42$, CHN. Russia, East Siberia, Irkutskaya Oblast', Ol'khonskii Raion, Ol'khon Island, near the Cape Sagan-Khushun, 531 m, meadow between rocks, 28 Jul 2010, *Kazanovsky 212* (VLA, IRK).

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* First chromosome count for the species.

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

• First idiogram description for the species.

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Methods are described in Castro & Rosselló (2007). Abbreviations: Kf, karyotype formula; *m*, metacentric; *sm*, submetacentric; *st*, subtelocentric. Karyotype asymmetry indices: A_1 and A_2 (Romero Zarco, 1986); AI (Paszko, 2006); CI (Levan & al., 1964).

PLUMBAGINACEAE*Limonium artruchium* Erben

• $2n = 3x = 27$, CHN. Spain, Balearic Islands, Minorca, between Cala Blanca and cap d'Artrux, 31SEE7123, 10 m, littoral scrub on limestone, 8 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

This Minorcan species possesses a karyotype from the $x = 9$ genome, present in triplets ($Kf = 18m + 9sm$; $A_1 = 0.35$; $A_2 = 0.36$; $CI = 36.97 \pm 6.51$; $AI = 6.34$). Our observations agree with the chromosome number reported by Erben (1993) from an unspecified source and accession.

Limonium bellidifolium (Gouan) Dumort.

• $2n = 2x = 18$, CHN. Spain, Alicante, Santa Pola, 30SYH1230, 5 m, littoral saltmarshes, 26 Jul 2006, *P. Ferrer A33A* (VAL).

This widely distributed European and Asian species shows a symmetrical karyotype ($Kf = 16m + 2sm$; $A_1 = 0.31$; $A_2 = 0.32$; $CI = 40.32 \pm 5.40$; $AI = 4.29$) and a uniform diploid cytotype (Dolcher & Pignatti, 1967; Erben, 1978; Artelari, 1992).

Limonium biflorum (Pignatti) Pignatti

• $2n = 3x = 25$, CHN. Spain, Balearic Islands, Majorca, Illetes, 31SDD6476, 2 m, sandy soil on a rocky coast, 14 Nov 2005, *M.A. Conesa & J.A. Rosselló s.n.* (VAL).

This eastern Balearic species shows a karyotype with two sets of chromosomes. One, belonging to the $x = 8$ genome, with paired chromosomes ($Kf = 10m + 6sm$; $A_1 = 0.40$; $A_2 = 0.41$; $CI = 36.96 \pm 6.91$; $AI = 7.66$) and the other with a single chromosome set from the $x = 9$ genome ($Kf = 1m + 8sm$; $A_1 = 0.46$; $A_2 = 0.34$; $CI = 31.41 \pm 5.45$; $AI = 5.91$). The present chromosome count agrees with those previously reported by Erben (1988) and Castro & Rosselló (2007) from Majorcan accessions.

Limonium boirae L. Llorens & Tébar

• $2n = 4x = 35$, CHN. Spain, Balearic Islands, Majorca, Prat de Magalluf, 31SDD5973, 15 m, altered remains of saltmarshes, 23 Sep 2006, *J.A. Rosselló s.n.* (VAL).

This narrowly distributed Balearic endemic species shows an unpaired tetraploid karyotype. A single chromosome set is derived from the $x = 8$ genome ($Kf = 1m + 7sm$; $A_1 = 0.51$; $A_2 = 0.27$; $CI = 31.97 \pm 5.97$; $AI = 5.05$) whereas three haploid complements belong to the $x = 9$ genome ($Kf = 6m + 15sm + 6st$; $A_1 = 0.50$; $A_2 = 0.44$; $CI = 31.42$

± 8.51; AI = 11.92). Our chromosome number report is in agreement with the earlier record by Erben (1993) from an unspecified source and accession.

Limonium bolosii Gil & L. Llorens

* • $2n = 4x = 36$, CHN. Spain, Balearic Islands, Majorca, Capdepera, 31SED4096, 15 m, coastal slopes near the lighthouse, 15 Nov 2010, *J.A. Rosselló s.n.* (VAL).

This tetraploid species, so far known from a single Majorcan population, shows a karyotype constituted by four haploid chromosome sets belonging to the $x = 9$ genome ($Kf = 16m + 16sm + 4st$; $A_1 = 0.46$; $A_2 = 0.27$; $CI = 33.28 \pm 6.70$; $AI = 5.44$).

Limonium caesium (Girard) Kuntze

• $2n = 2x = 18$, CHN. Spain, Alicante, Santa Pola, 30SYH1130, 10 m, littoral saltmarshes, 4 Jul 2002, *P. Ferrer A3C* (VAL).

The karyotype features of this western Iberian endemic species ($Kf = 12m + 6sm$; $A_1 = 0.34$; $A_2 = 0.48$; $CI = 37.40 \pm 9.14$; $AI = 11.73$) are here provided for the first time. The chromosome number is in accordance with that previously reported by Erben (1978).

Limonium cofrentanum Erben

• $2n = 2x = 18$, CHN. Spain, Valencia, Cofrentes, 30SXJ6747, 650 m, gypsy soils on slopes, 4 Nov 2008, *P. Ferrer V97B* (VAL).

The karyotype features of this western Iberian endemic species ($Kf = 12m + 6sm$; $A_1 = 0.29$; $A_2 = 0.22$; $CI = 39.44 \pm 7.01$; $AI = 3.91$) are here provided for the first time. The reported chromosome count agrees with previous reports by Erben (1989).

Limonium echioides (L.) Mill.

• $2n = 2x = 18$, CHN. Spain, Balearic Islands, Minorca, Cap de Cavalleria, 31TEE9337, 25 m, limestone soils near the sea, 8 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL); Spain, Alicante, Santa Pola, 30SYH1733, 2 m, littoral saltmarshes, 28 Jul 2005, *P. Ferrer A25A* (VAL).

The karyotype features of this widespread Mediterranean species ($Kf = 14m + 4sm$; $A_1 = 0.40$; $A_2 = 0.21$; $CI = 36.70 \pm 7.08$; $AI = 4.05$) are here provided for the first time. The chromosome number agrees with previously reports by Erben (1978).

Limonium fontqueri (Pau) L. Llorens

• $2n = 3x = 27$, CHN. Spain, Balearic Islands, Minorca, Sa Mesquida, 31SFE1019, 1 m, schistous soils near the sea, 8 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

The karyotype from this western Balearic species is composed by chromosome triplets from the $x = 9$ genome ($Kf = 18m + 9sm$; $A_1 = 0.31$; $A_2 = 0.18$; $CI = 40.01 \pm 5.79$; $AI = 2.61$). The same chromosome number was indicated by Erben (1988) but the species growing at the locality to which his report refers to does not belong to *L. fontqueri* and it is likely that it should be ascribed to *L. tamarindanum* Erben.

Limonium formenterae L. Llorens

• $2n = 3x = 25$, CHN. Spain, Balearic Islands, Formentera, Salines Marroig, 31SCC6388, 5 m, sandy soils on saltmarshes, 7 Dec 2006, *J.A. Rosselló s.n.* (VAL).

This western Balearic species shows a karyotype with two sets of chromosomes from the $x = 8$ genome ($Kf = 12m + 4sm$; $A_1 = 0.35$; $A_2 = 0.41$; $CI = 38.80 \pm 4.21$; $AI = 4.45$) and a single chromosome set from the $x = 9$ genome ($Kf = 7m + 2sm$; $A_1 = 0.36$; $A_2 = 0.18$; $CI = 40.40 \pm 4.80$; $AI = 2.14$). The chromosome number report agrees with the earlier record by Erben (1988).

Limonium grosii L. Llorens

• $2n = 4x = 36$, CHN. Spain, Balearic Islands, Formentera, Ses Illetes, 31SCC6389, 5 m, sandy soils on saltmarshes, 7 Dec 2006, *J.A. Rosselló s.n.* (VAL).

This western Balearic species from Eivissa and Formentera islands shows a karyotype exclusively formed from chromosome quartets belonging to the $x = 9$ genome ($Kf = 24m + 8sm + 4st$; $A_1 = 0.39$; $A_2 = 0.30$; $CI = 37.02 \pm 6.9$; $AI = 5.59$). This tetraploid chromosome number agrees with previous reports from Erben (1988) and Castro & Rosselló (2007).

Limonium gymnesicum Erben

• $2n = 3x = 27$, CHN. Spain, Balearic Islands, Mallorca, Artà, Colònia de Sant Pere, S'Estanyol, 31SED2499, 10 m, on limestone soils near the sea, 18 Oct 2005, *J.A. Rosselló s.n.* (VAL).

This triploid species, endemic from the western Balearics, shows a karyotype composed of chromosome triplets belonging to the $x = 9$ genome ($Kf = 9m + 18sm$; $A_1 = 0.39$; $A_2 = 0.25$; $CI = 36.94 \pm 6.94$; $AI = 4.69$). The same chromosome number was indicated by Erben (1988), but *L. gymnesicum* is not present at the locality given by this author and the reported habitat does not fit its ecology.

Limonium mansanetianum M.B. Crespo & Lledó

* • $2n = 3x = 26$, CHN. Spain, Valencia, Las Salinas, 30SYJ1625, 250 m, on gypsy soils, 12 Sep 2008, *P. Ferrer V320* (VAL).

This is a critically endangered species so far known from a few sites in the east of the Iberian Peninsula. Its karyotype is formed by a single chromosome set from the $x = 8$ genome ($Kf = 2m + 5sm + 1st$; $A_1 = 0.47$; $A_2 = 0.33$; $CI = 33.82 \pm 11.36$; $AI = 11.09$) and two paired sets from the $x = 9$ genome ($Kf = 6m + 12sm$; $A_1 = 0.46$; $A_2 = 0.43$; $CI = 33.90 \pm 5.26$; $AI = 6.67$). The karyological observations suggest a recent or ancestral hybrid origin for this Iberian species.

Limonium minoricense Erben

** • $2n = 3x = 27$, CHN. Spain, Balearic Islands, Minorca, Binimel·là, towards Cala Mica, 31TEE9034, 1 m, sandy soils near the sea, 7 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL); Spain, Balearic Islands, Minorca, Cap de Cavalleria, 31TEE9337, 25 m, limestone soils near the sea, 7 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

This Minorcan species is triploid and possesses a karyotype formed exclusively from chromosome triplets from the $x = 9$ genome ($Kf = 18m + 9sm$; $A_1 = 0.37$; $A_2 = 0.33$; $CI = 37.78 \pm 3.79$; $AI = 3.26$). These results disagree with a previous triploid count ($2n = 25$) showing two chromosome sets of the $x = 8$ genome and a single set from the $x = 9$ genome (Castro & Rosselló, 2007). These latter observations require confirmation since the $2n = 27$ chromosome number has also been reported by Erben (1993) from an unspecified location and accession.

Limonium perplexum L. Sáez & Rosselló

* • $2n = 3x = 27$, CHN. Spain, Castelló, Peñíscola, 31TBE7566, 10 m, towards Torre Badún, claim soils on rocky coast, 5 Sep 2008, *P. Ferrer C24E* (VAL).

This narrowly distributed Iberian species possesses a karyotype entirely derived from the $x = 9$ genome, being the chromosomes present in triplets ($Kf = 12m + 15sm$).

Limonium santapolense Erben

* • $2n = 3x = 26$, CHN. Spain, Alicante, Santa Pola, 30SYH1535, 2 m, littoral saltmarshes, 3 Nov 2002, *P. Ferrer A194B* (VAL).

This triploid eastern Iberic species shows the idiogram constituted by a chromosome set from the $x = 8$ genome ($Kf = 3m + 3sm + 2st$; $A_1 = 0.47$; $A_2 = 0.36$; $CI = 30.95 \pm 8.75$; $AI = 10.18$) and two sets from the $x = 9$ genome ($Kf = 14m + 4sm$; $A_1 = 0.28$; $A_2 = 0.31$; $CI = 38.97 \pm 6.21$; $AI = 4.94$). These observations suggest a direct or ancestral hybrid origin for this narrowly distributed species.

Limonium saxicolum Erben

• $2n = 3x = 27$, CHN. Spain, Balearic Islands, Minorca, Cala Galdana, 31SEE8121, 1 m, limestone crevices near the sea, 7 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

This Minorcan species is triploid and possesses a karyotype formed exclusively from chromosome triplets from the $x = 9$ genome ($Kf = 12m + 15sm$; $A_1 = 0.43$; $A_2 = 0.58$; $CI = 34.00 \pm 5.72$; $AI = 9.77$). The same triploid chromosome number was reported by Erben (1993) from an unspecified location and accession.

Limonium sucronicum Erben

• $2n = 2x = 18$, CHN. Spain, Valencia, Cofrentes, 30SXJ6539, 745 m, gypsy soils on slopes, 26 Nov 2007, *P. Ferrer V159B* (VAL).

The karyotype features of this western Iberian endemic species ($Kf = 18m$; $A_1 = 0.26$; $A_2 = 0.42$; $CI = 42.25 \pm 2.62$; $AI = 2.61$) are here provided for the first time. The chromosome number agrees with that previously reported by Erben (1989).

Limonium tamarindanum Erben

** • $2n = 4x = 36$, CHN. Spain, Balearic Islands, Minorca, between Cala Blanca and cap d'Artrutx, 31SEE7123, 10 m, littoral scrub on limestone, 8 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

This Minorcan species shows a karyotype with quartets of chromosomes from the $x = 9$ genome ($Kf = 20m + 12sm + 4st$; $A_1 = 0.42$; $A_2 = 0.38$; $CI = 36.14 \pm 8.41$; $AI = 8.85$). This chromosome count differs from the $2n = 27$ cytotype (Erben, 1989) from an unspecified location and accession.

Myriolimon ferulaceum (L.) Lledó & al.

• $2n = 2x = 16$, CHN. Spain, Balearic Islands, Minorca, Addaia, 31TFE0329, 1 m, humid soils near the sea, 8 Nov 2008, *P. Fraga & J.A. Rosselló s.n.* (VAL).

The karyotype features of this western Mediterranean species ($Kf = 14m + 2sm$; $A_1 = 0.23$; $A_2 = 0.31$; $CI = 42.88 \pm 5.49$; $AI = 3.97$) are here provided for the first time. The chromosome number agrees with the earlier counts provided by Erben (1978).

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Vouchers for mitotic counts are deposited in carpological collection of the Botanical Garden of the Moscow State University.

* First chromosome number record for a given species.

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UMBELLIFERAE/APIACEAE

Angelica brevicaulis (Rupr.) B. Fedtsch.

$2n = 22$, CHN. Kyrgyzstan, Issyk Kul Province, Ton dist., N slope of Terskey Ala-Too Ridge, upper reach of Barskaun River, below of Sarymoinok pass, 41°54'N, 77°38'E, 3000 m, 16 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova* 22 (MW).

Angelica decurrens (Ledeb.) B. Fedtsch.

$2n = 22$, CHN. Kyrgyzstan, Chuja Province, Kemin District, S slope of Transili Ala-Too Ridge, upper reach of Kichi-Kemin River, below of Ak-Tyz village, 42°53'N, 76°10'E, 12 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova s.n.*

Angelica multicaulis Pimenov

$2n = 22$, CHN. Kyrgyzstan, Issyk Kul Province, Ton District, N slope of Terskey Ala-Too Ridge, middle reaches of Barskaun River, 41°54'N, 77°38'E, 16 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova* 20 (MW).

Aulacospermum simplex Rupr.

$n = 9$, CHN. Kyrgyzstan, Chuja Province, Kemin District, S slope of Transili Ala-Too Ridge, upper reach of Kichi-Kemin River, below of Ak-Tyz village, 42°53'N, 76°10'E, 2750 m, 13 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova* 6 (MW).

Bunium chaerophylloides (Regel & Schmalh.) Drude

$2n = 12$, CHN. Uzbekistan, Samarkand Province, Zeravschan Ridge, N slope, Aman-Kutan, 39°19'N, 66°59'E, 1450 m, 21 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Bupleurum exaltatum M. Bieb.

$n = 6$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Kyzyl-darja River, near village of Kal'takul, 38°50'N, 67°08'E, 1350 m, 13 Jul 2010, *M.G. Pimenov & E.V. Kljuykov* 5 (MW).

Bupleurum thianschanicum Freyn

$n = 7$, CHN. Kyrgyzstan, Issyk Kul Province, Ton District, N slope of Terskey Ala-Too Ridge, middle reaches of Kadzi-Saj River, below of Kadzi-Saj village, 42°07'N, 77°12'E, 2300–2400 m, 14 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova* 15 (MW).

Echinophora sibthorpiana Guss.

$n = 11$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Tanchyz-darja River, near village of Karatut, 38°57'N, 67°15'E, 1300 m, 18 Jul 2010, *M.G. Pimenov & E.V. Kljuykov* 17 (MW).

Elaeosticta hirtula (Regel & Schmalh.) Kljuykov & al.

$2n = 20$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Tanchyz-darja River, Hissar reserve, riv. Kara-Chaschma, 38°56'N, 67°18'E, 1400 m, 17 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Elaeosticta paniculata (Korovin) Kljuykov & Pimenov
 $n = 11$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Tanchyz-darja River, Hissar reserve, near Dzhana (Chapik), 38°56'N, 67°18'E, 16 Jul 2010, *M.G. Pimenov & E.V. Kljuykov 14* (MW).

* *Eryngium octophyllum* Korovin
 $n = 8$, CHN. Uzbekistan, Kashka-Darya Province, Zeravschan Ridge, Takhta-Karacha pass, 39°17'N, 66°54'E, 1720 m, 13 Jul 2010, *M.G. Pimenov & E.V. Kljuykov 1* (MW).

Ferula transiliensis (Herder) Pimenov
 $2n = 22$, CHN. Kyrgyzstan, Issyk Kul Province, Ton District, N slope of Terskey Ala-Too Ridge, middle reaches of Kadzi-Saj River, below of Kadzi-Saj village, 42°07'N, 77°12'E, 2300–2400 m, 14 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova s.n.*

Galagania neglecta M.G. Vassilieva & Kljuykov
 $2n = 22$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, riv. Chodzha-Kurgan, 39°11'N, 67°17'E, 19 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Heracleum lehmannianum Bunge
 $2n = 22$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, 39°11'N, 67°17'E, 1500 m, 19 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Kozlovia paleacea (Regel & Schmalh.) Lipsky
 $2n = 22$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, riv. Chodzha-Kurgan, 39°11'N, 67°17'E, 1450 m, 20 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Myrrhoides nodosa (L.) Cannon
 $2n = 22$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, riv. Chodzha-Kurgan, 39°11'N, 67°17'E, 1300 m, 19 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Oedibasis tamerlanii (Lipsky) Korovin ex Nevski
 $2n = 20$, CHN. Uzbekistan, Navoi Province, Karatau Mts, Karakarga pass, S slope, 40°22'N, 65°26'E, 24 Sep 2009, *M.G. Pimenov & E.V. Kljuykov s.n.* (MW); Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, riv. Chodzha-Kurgan, 39°11'N, 67°17'E, 1400 m, 19 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Prangos fedtschenkoi (Regel & Schmalh.) Korovin
 $2n = 22$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Kyzyl-darja River, below of Kal'takul village, 15 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Schtschurowskia meifolia Regel & Schmalh.
 $n = 11$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Kyzyl-darja River, near village of Kal'takul, loco Chekmen-kuidy, road to Vuary, 38°48'N, 67°07'E, 2750 m, 14 Jul 2010, *M.G. Pimenov & E.V. Kljuykov 10* (MW).

* *Semenovia transiliensis* Regel & Herder
 $2n = 22$, CHN. Kyrgyzstan, Chuja Province, Kemin District, S slope of Transili Ala-Too Ridge, upper reach of Kichi-Kemin River, below of Ak-Tyz village, 42°53'19"N, 76°10'27"E, 2574 m, 12 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova 8* (MW).
 $n = 11$, $2n = 22$, CHN. Kyrgyzstan, Chuja Province & District, S slope of Kirgiz Ridge, upper reach of Shamsi River, riv. Tuyk, 42°30'N, 75°13'E, 2463 m, 19 Aug 2010, *G.A. Lazkov, U.A. Ukrainskaya & E.A. Zakharova 27* (MW).

Seseli lehmannianum (Bunge) Boiss.

$n = 10$, CHN. Uzbekistan, Kashka-Darya Province, Zeravschan Ridge, Takhta-Karacha pass, 39°17'N, 66°54'E, 1720 m, 13 Jul 2010, *M.G. Pimenov & E.V. Kljuykov 4*; Uzbekistan, Kashka-Darja Province, upper reach of Dzhandy-darja River, Kitab geological reserve, riv. Chodzha-Kurgan, 39°11'N, 67°17'E, 1800 m, 19 Jul 2010, *M.G. Pimenov & E.V. Kljuykov 21* (MW).

Seseli valentinae Popov

$n = 11$, CHN. Kyrgyzstan, Issyk Kul Province, Ton District, N slope of Terskey Ala-Too Ridge, S shore of Issyk Kul, near of Keskebel' pass, 42°10'N, 76°45'E, 1900 m, 17 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova 24* (MW).

$2n = 22$, CHN. Kyrgyzstan, Issyk Kul Province, Ton District, N slope of Terskey Ala-Too Ridge, 2 km near of Kadzi-Saj village, 42°07'N, 77°12'E, 1950 m, 15 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova 18* (MW).

Sium medium Fisch. & C.A. Mey.

$2n = 12$, CHN. Kyrgyzstan, Chuja Province & District, S slope of Kirgiz Ridge, middle reaches of Issyk-Ata River, near village of Issyk-Ata, 42°36'N, 74°55'E, 1800 m, 20 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova 30* (MW).

Torilis leptophylla (L.) Rchb. f.

$2n = 12$, CHN. Uzbekistan, Kashka-Darja Province, upper reach of Kyzyl-darja River, near village of Kal'takul, 38°50'N, 67°08'E, 1300 m, 13 Jul 2010, *M.G. Pimenov & E.V. Kljuykov s.n.*

Vicatia atosanguinea (Kar. & Kir.) P.K. Mukh. & Pimenov

$2n = 22$, CHN. Kyrgyzstan, Chuja Province, Kemin District, S slope of Transili Ala-Too Ridge, upper reach of Kichi-Kemin River, below of Ak-Tyz village, 42°53'N, 76°10'E, 2700 m, 12 Aug 2010, *U.A. Ukrainskaya & E.A. Zakharova 3* (MW).

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* The first chromosome number count for the species.

▼ First chromosome count from a South American accession.

▼▼ First chromosome count from an Argentinian accession.

RUBIACEAE

Borreria eryngioides var. *affinis* (DC.) K. Schum.

* $2n = 28$, CHN. Argentina, Salta, Coronel Juan Sola, cercanía Matadero Municipal, 23°28'40"S, 62°53'52.06"W, 223 m, 9 Jan 2010, *R.M. Salas & A.A. Cabaña Fader 470* (CTES).

* $2n = 28$, CHN. Bolivia, Dep. Santa Cruz, Prov. Cordillera, 18°08'19"S, 64°16'39"W, 1585 m, 11 Apr 2006, *M.S. Ferrucci, M. Dematteis, G. Pieszko & J.D. Urdampilleta 2668* (CTES).

Borreria latifolia (Aubl.) K. Schum.

$2n = 28$, CHN. Brasil, Bahia, Andaraí, margen do Rio Paraguaçu, 12°82'25"S, 41°32'25"W, 16 Jun 2008, *L.P. Queiroz, E.L. Cabral, D. Cardoso, E.R. Souza & S. Ferreira 13694* (HUEFS, CTES).

$2n = 28$, CHN. Brasil, Goiás, Nova Roma, Estrada para Alto Paraíso de Goiás, ca. 7 km de Nova Roma, 13°47'30.1"S, 46°54'04.5"W, 813 m, 25 Apr 2009, *L.P. Queiroz, E.L. Cabral, D. Cardoso, R.M. Salas & A.A. Cabaña Fader 14182* (HUEFS, CTES).

▼▼ $2n = 28$, CHN. Argentina, Misiones, Gral. Manuel Belgrano, Campinas de América, 26°18'07.9" S, 53°42'24.9" W, 31 Mar 2008, H.F. Keller & M. Franco 5256 (CTES).

Borreria marticrovettiana E.L. Cabral

* $2n = 28$, CHN. Argentina, Misiones, Dep. San Ignacio, Parque Provincial Teyú Cuaré, 26°16' S, 55°33' W, 153 m, 12 Apr 2008, S.V. Sobrado, A.A. Cabaña Fader, R.M. Salas & W.A. Medina 100 (CTES).

Borreria ocymoides (Burm. f.) DC.

$2n = 26$, CHN. Brasil, Goiás, Nova Roma, Estrada para Ouro de Minas, 13°45'22.9" S, 46°54'00.5" W, 626 m, 22 Apr 2009, L.P. de Queiroz, E.L. Cabral, D. Cardoso, R.M. Salas & A.A. Cabaña 14075 (HUEFS, CTES).

Borreria spinosa (L.) Cham. & Schltdl.

* $2n = 84$, CHN. Argentina, Misiones, Loreto, 27°20'31.64" S, 55°31'39.33" W, 177 m, 11 Apr 2008, S.V. Sobrado, R.M. Salas & A.A. Cabaña Fader 95 (CTES); Argentina, Jujuy, entre San Pedro y El Quemado, 24°04'37" S, 64°48'45" W, 435 m, 9 Dec 2007, E.C. Cabral, L.P. Queiroz, R.M. Salas & E.B. Souza 848 (CTES).

Borreria tenella (Kunth) Cham. & Schltdl.

* $2n = 28$, CHN. Argentina, Misiones, Dep. San Ignacio, Parque Provincial Teyú Cuaré, 26°16' S, 55°33' W, 153 m, 12 Apr 2008, S.V. Sobrado, A.A. Cabaña Fader, R.M. Salas & W.A. Medina 101 (CTES).

Spermacoce tenuior L.

$2n = 28$, CHN. Bolivia, Dep. Santa Cruz, Prov. Cordillera, 18°13'51" S, 63°10'54" W, 486 m, 30 Mar 2006, M.S. Ferrucci, M. Dematteis, G. Pieszko & J.D. Urdampilleta 2276 (CTES).

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PHRYMACEAE (SCROPHULARIACEAE)

Mimulus guttatus Fisch. ex DC.,

$n = 14$, CHN. Mexico, Chihuahua, Janos, Vickery 12,180 (UT 85,357); Mexico, Chihuahua, Cuahetemoc, Vickery 12,184 (UT 85,355); Mexico, Chihuahua, Temosachic, Vickery 12,190 (UT 85,362); Mexico, Baja California del Sur, San Bartolo Oasis, Vickery 12,223 (UT 85,050).

These chromosome counts are for three populations Vickery collected in June 1976 from the state of Chihuahua, Mexico, which is the poorly known southern region of the distribution of *Mimulus guttatus*. (Grant, 1924, Shreve & Wiggins, 1964). All three populations were growing by small streams in the indicated localities. The fourth population Vickery collected in May 1976 comes from the San Bartolo Oasis, Baja California del Sur. This population extends the known range of *Mimulus guttatus* by some 600 km to the southwest. The population was growing in the spring of the Oasis.

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