

J. K. WIPFF, III

#13
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International Organization of Plant Biosystematists

Newsletter

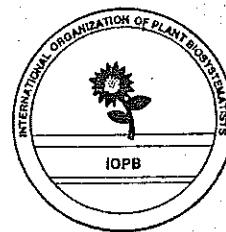
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BOTANICAL GARDEN



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Zürich 1989

SHURKAL A., 1989: Allozyme polymorphism of larch (*Larix sibirica*). (In Russian). *Genetica* 25(10) (in press).

WANG Fengehun, Vice-professor, Head of Botanical Research and Teaching Section, Department of Biology, Harbin Teachers University, Harbin, Heilongjiang Province 150080, P.R. China.

Projects completed: Taxonomical study on Chinese *Trifolium*.

Projects started: *Medicago* in biosystematics. Recent publications:

WANG F., 1989: Biosystematics on *Trifolium pratense* L. in the East Mountains in Heilongjiang Province, China. *Wuhan Bot.Res.* 1(4) (in press).

WANG F., 1989: The ontogeny of plant and the evolution of characteristics. *Nat.Sci.J.* (Harbin Normal Univ.) 5(2) (in press).

WEBER A., Institute of Botany, University of Vienna, Rennweg 14, A-1030 Vienna.

Recent publication with order No. to be sent to Exchange of Publications

WE 66: WEBER A., 1988: Contributions to the morphology and systematics of *Klugieae-Loxoneiae* (*Gesneriaceae*). X. Development and interpretation of the inflorescence of *Epithema*. *Beitr.Biol.Pflanzen* 63, 431-451.

WEBER M., Institute of Botany, University of Vienna, Rennweg 14, A-1030 Vienna.

Recent publication with order No. to be sent to Exchange of Publications

WM 3: WEBER M., 1988: Unusual sperm cells in *Apiaceae*. *Pl.Syst.Evol.* 159, 273-276.

WM 4: WEBER M., 1988: Formation of sperm cells in *Galium mollugo* (*Rubiaceae*), *Trichodiadema setuliferum* (*Aizoaceae*), and *Avena sativa* (*Poaceae*). *Pl.Syst.Evol.* 161, 53-64.

5. IOPB Chromosome Data 1

edited by Clive A. Stace, Professor, Department of Botany, University of Leicester, Leicester LE1 7RH, England.

This series is intended to fill the gap left by discontinued Chromosome Number Reports published in TAXON, and to provide the opportunity to publish other kinds of chromosome data as well, e.g. banding patterns, RFLPs and DNA measurements, so long as the information can be kept brief.

For chromosome counts, the format below should be closely followed. Items acceptable are first counts for a species, first counts for a new number for a species, or counts from a significantly new area of a species. Counts should be stated sporophytic (2n) or gametophytic (n); the latter should not be converted to the former by doubling. Citation of a locality and a voucher is essential.

Please send contributions to Professor Clive A. Stace, Department of Botany, University of Leicester, Leicester LE1 7RH, England, stating whether you are a member of IOPB. Neither proofs nor reprints will be made available, but the editor will acknowledge receipt of contributions and raise queries with authors if necessary.

Reports by J.P. BAILEY and C.A. STACE, Department of Botany, University of Leicester, Leicester LE1 7RH, England. Vouchers in LTR unless otherwise stated.

POACEAE

- Brachypodium distachyon* (L.) Beauv. 2n=30. Spain: Malaga: near Gaucin. Stace B360.
Catapodium rigidum (L.) var. *majus* (C. Presl) M. Lainz. 2n=14+1-2B. Spain: Malaga: near Gaucin. Stace C90.
Cutandia maritima (L.) W. Barbey. 2n=14. Portugal: Beira Litoral. Hort. Bot. Coimbra CUT 2.
Eremopoa songorica (Schrenk) Roshev. 2n=28. Turkey: B5 Kayseri: Erciyasdag, 2350 m. F. Sorger 77-38-13.
Festuca boissieri Janka. 2n=14. Spain: Cadiz: south slopes of Sierra del Nino, Los Barrios. Stace s.n. 2n=14. Spain: Malaga: 400 m on Sierra Bermeja. Stace s.n.
Micropyrum tenellum (L.) Link. 2n=14. France: Gard: By Gardon d'Anduze, Anduze. Stace N16. 2n=14. France: Puy de Dome: on lava of Tartaret, Murol. Stace N17. 2n=14. France: Var: Maquis at Ramatuelle, near St Tropez. Stace N23. 2n=14. Portugal: Beira Alta: Sao Pedro do Sul. D.H. Valentine N19. 2n=14. Spain: Cuidad Real: Despenaperros. D.H. Valentine s.n. 2n=14. Spain: Orense: N.N.E. slopes of Pena Trevinca at 4000 ft. Stace 52.
Narduroides salzmannii (Boiss.) Rouy. 2n=14. Spain: Malaga: 3800 ft on Sierra Bermeja. Stace N32.
Sphenopus divaricatus (Gouan) Reichb. 2n=28. Turkey: Corum: 24 km S.W. of Sungurlu, 670 m. Sorger 77-63-7.
Vulpia alopecuros (Schousboe) Dumort. 2n=14. Spain: Cadiz: dunes at Palmones. (Both var. *alopecuros* and var. *lanata* Boiss.). Stace V467.
V. australis (Nees) Blom. 2n=14. Uruguay: Lavalleja: Aguas Blancas. Rosengurtt s.n. 2n=14. Argentina: San Luis: 8 km W. of Buena Esperanza. Anderson 3746.
V. bromoides (L.), S.F. Gray. 2n=14. Brazil: Rio Grande do Sul: Santana do Livramento, Cerro Munhoz. Longi 756 (BLA 12483). 2n=14. Brazil: Rio Grande do Sul: Uruguaiana, Barra do Quarai. Longhi 620 (BLA 12629). 2n=14. Brazil: Rio Grande do Sul: Santana do Livramento, km 91 para Rosario. Longhi 744 (BLA 12478). 2n=14. Peru: Junin: 35 km N. of Huancayo at 3320 m. Blair 601 (K). 2n=14. South Africa: S.W. Cape: west of Tulbagh. Smook 3675.
V. ciliata Dumort. subsp. *ciliata*. 2n=28. Spain: Malaga: Sierra do Alcoparin, near Carratraca. Stace s.n.
V. ciliata Dumort. subsp. *ambigua* (Le Gall) Stace & Auquier. 2n=28. Belgium: Flandre Occidentale: Adinkerke. Auquier 3143.
V. fasciculata (Forsskal) Samp. 2n=28. Jugoslavia: Budva. T.C.G. Rich s.n.
V. muralis (Kunth) Nees. 2n=14. Colombia: Cundinamarca: Sabana de Bogota. Hawkes & Lopez 6749. 2n=14. South Africa: S.W. Cape: S. of Heidelberg. Smook 3737. 2n=14+2B. South Africa: Cape: Clanwilliam Dam. Smook 3577. 2n=14. Spain: Cadiz: hill behind Los Barrios. Stace s.n. 2n=14. Spain: Malaga: dunes at Chullera beach, Estepona. Stace s.n.
V. myuros (L.) C.C. Gmelin f. *myuros*. 2n=42. South Africa: Natal: Cobham Forest Reserve, Underberg. Hilliard 8181.
V. myuros (L.) C.C. Gmelin f. *megalura* (Nutt.) Stace & Cotton. 2n=42. Peru: Cuzco: S. of Cuzco. Knize s.n. 2n=42. South Africa: S.W. Cape: Piketburg to Porterville. Smook 3654.
V. unilateralis (L.) Stace. 2n=14. Spain: Malaga: Sierra de Alcoparin, near Carratraca. Stace N33.

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Reports by Lynn Bohs, Pringle Herbarium, Marsh Life Science Building, University of Vermont, Burlington, VT 05405, U.S.A. Vouchers in GH.

SOLANACEAE

- Cyphomandra acuminata* Rusby. 2n=24. Bolivia: Dept. La Paz, Prov. Nor Yungas, below Chusipata on road to Yolosa. Bohs 2338.
C. cajanumensis (Kunth) Sendtn. ex Walp. 2n=24. Ecuador: Prov. Loja, near Loja. Bohs 2281.
C. corymbiflora Sendtn. 2n=24. Southeastern Brazil. Bohs 2343.
C. diploconos (Mart.) Sendtn. n=12. Brazil: Prov. Parana, Curritiba. Bohs 2335.
C. diversifolia (H. & B. ex Dunal) Bitter. n=12. Venezuela: Aragua, Parque Nacional Henri Pittier. Bohs 2341.
C. hartwegii (Miers) Sendtn. ex Walp. subsp. *ramosa* Bohs. 2n=24. Colombia: Dept. Huila, Fundacion Merenberg. Bohs 1644.
C. uniloba Rusby. 2n=24. Bolivia: Malaga: Prov. La Paz, Dept. Larecaja, between Consata and Mapiri. Bohs 2284.
Solanum allophyllum (Miers.) Standley. n=12. Panama: Prov. San Blas, in front of Ustupo. Bohs 2339.

*

Reports by E.R. FORNI-MARTINS, C.A.F. PINTO-MAGLIO & N.D. da CRUZ, Secao de Citologia, Instituto Agronomico, Caixa Postal 28, 13020-Campinas, SP, Brazil. Localities in Brazil. Vouchers in UEC.

ERYTHROXYLACEAE

- Erythroxylum campestre* St. Hill. 2n=24. Sao Carlos - Sp, Represa do Broa. UEC 25473.

FABACEAE

- Acosmum subelegans* (Vog.) Yak. 2n=18. Moji-Guacu - SP, Fazenda Campininha. UEC 7421.

MALPIGHIACEAE

- Banisteriopsis* sp. 2n=40. Moji-Guacu - SP, Fazenda Campininha. UEC 9627.

- Byrsinina coccobifolia* (Spr.) Kunth. 2n=24. Moji-Guacu - SP, Fazenda Campininha. UEC 9686.

- B. intermedia* A. Juss. 2n=24. Sao Carlos - SP. UEC 25.451.

- B. verbascifolia* (L.) Rich. ex Juss. 2n=24. Moji-Guacu - SP, Fazenda Campininha. UEC 9771.

- Peixotoa* sp. 2n=30. Moji-Guacu - SP, Fazenda Campininha. UEC 32733.

MYRTACEAE

- Campomanesia cambesseseana* Berg. 2n=22. Moji-Guacu - SP, Fazenda Campininha. UEC 11665.

RUBIACEAE

- Alibertia sessilis* (Vell.) Schum. 2n=22. Moji-Guacu - SP, Fazenda Campininha. UEC 13.399.

*

Reports by L.M. HILL, Department of Biology, Bridgewater College, Bridgewater, Virginia 22812, U.S.A. All localities in Virginia, U.S.A. Vouchers in VPI.

ACERACEAE

- Acer negundo* L. 2n=26. Hill 7211.

- A. platanoides* L. n=13. Hill 8327.
A. nigrum Michaux f. 2n=26. Hill 3341.
A. rubrum L. n=13. Hill 3726.
A. saccharinum L. n=26. Hill 7221.
- AMARYLLIDACEAE**
Hypoxis hirsuta (L.) Coville. 2n=28. Hill 6651.
- APIACEAE**
Osmorhiza claytonii (Michaux) Clarke. 2n=22. Hill 3232.
Zizia aurea (L.) Koch. 2n=22. Hill 7514.
- APOCYNACEAE**
Apocynum cannabinum L. n=11. Hill 1241.
Vinca minor L. 2n=46. Hill 4912.
- ASTERACEAE**
Anthemis arvensis L. 2n=18. Hill 1762.
Erigeron canadensis L. 2n=18. Hill 7264.
E. philadelphicus L. 2n=18. Hill 9666.
E. pulchellus Michaux. 2n=18. Hill 3167.
Galinsoga quadriradiata Ruiz Lopez & Pavon. 2n=16. Hill 8813.
Hieracium pilosella L. 2n=36. Hill 2971.
H. venosum L. n=9. Hill 8271.
Senecio aureus L. 2n=44. Hill 2612.
S. obovatus Willd. n=22. Hill 6327.
Tussilago farfara L. 2n=60. Hill 5627.
- BERBERIDACEAE**
Podophyllum peltatum L. n=12. Hill. s.n.
- BORAGINACEAE**
Mertensia virginica (L.) Persoon. n=12. Hill. s.n.
- BRASSICACEAE**
Alliaria officinalis Andrz. ex D.C. 2n=42. Hill 7962.
Arabis laevigata (Willd.) Poiret. n=7. Hill 5128.
Barbarea vulgaris R. Br. 2n=16. Hill 4692.
Cardamine hirsuta L. n=7. Hill 4582.
Hesperis matronalis L. n=14. Hill 3152.
- CAPRIFOLIACEAE**
Lonicera morrowii A. Gray. n=9. Hill 9162.
- CARYOPHYLLACEAE**
Lychnis alba Miller. 2n=24. Hill 7615.
L. coronaria (L.) Desr. 2n=24. Hill s.n.
Saponaria officinalis L. 2n=28. Hill 3276.
Silene vulgaris (Moench) Garcke. 2n=24. Hill 5312.
Stellaria media (L.) Villars. n=22. Hill 6927.
- CHENOPODIACEAE**
Chenopodium album L. 2n=54. Hill 5612.
- FABACEAE**
Cercis canadensis L. n=7. Hill 1786.
Lespedeza cuneata (Dumont) G. Don. 2n=20. Hill 3959.
Lotus corniculatus L. 2n=12. Hill 2712.
Lupinus perennis L. n=24. Hill 4521.
- GERANIACEAE**
Erodium cicutarium (L.) Aiton. n=20. Hill 2221. n=40. Hill 2222.
Geranium molle L. 2n=26. Hill 7932.

HYPERICACEAE

Hypericum perforatum L. 2n=32. Hill 7814.

HYDROPHYLACEAE

Hydrophyllum virginianum L. n=9. Hill 4152.

LAMIACEAE

Glechoma hederacea L. 2n=36. Hill 4326.

Leonurus cardiaca L. n=9. Hill 7555.

Lamium purpureum L. 2n=18. Hill 2863.

LILIACEAE

Smilacina racemosa (L.) Desf. n=36. Hill 5199.

MAGNOLIACEAE

Liriodendron tulipifera L. 2n=38. Hill 2899.

PAPAVERACEAE

Chelidonium majus L. n=6; 2n=12. Hill 2922.

Papaver dubium L. n=14. Hill 8732.

Sanguinaria canadensis L. n=9; 2n=18. Hill 6231.

PORTULACACEAE

Claytonia virginica L. n=11. Hill 1968.

RANUNCULACEAE

Aquilegia canadensis L. n=7. Hill 7126.

Hepatica americana (D.C.) Ker. 2n=14. Hill 7199.

Ranunculus bulbosus L. n=8. Hill 2233.

Thalictrum dioicum L. 2n=14. Hill 1291.

ROSACEAE

Duchesnea indica (Andrews) Focke. 2n=84. Hill 9427.

Potentilla canadensis L. 2n=28. Hill 4327.

P. norvegica L. 2n=56. Hill 8237.

P. recta L. 2n=28. Hill 8236.

RUBIACEAE

Houstonia caerulea L. 2n=16. Hill 2998.

SAXIFRAGACEAE

Saxifraga virginiana Michaux. 2n=20. Hill 8312.

SCROPHULARICAEAE

Verbascum blattaria L. n=15. Hill 5127.

V. thapsus L. 2n=36. Hill 3784.

Veronica officinalis L. n=18. Hill 3627.

V. persica Poiret. n=14. Hill 9738.

SOLANACEAE

Physalis virginiana var. *subglabrata* (M. & B.) Walter. n=12. Hill 6542.

Solanum carolinense L. 2n=24. Hill 4562.

S. dulcamara L. n=12. Hill 8221.

VIOLACEAE

Viola rostrata Pursh. 2n=20. Hill 6578.

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Reports by W. HUBER and M. BALTISBERGER, Geobotanisches Institut, Universitätstr. 2,
CH-8092 Zürich, Switzerland. Vouchers in ZT.

Polygonaceae

Oxyria digyna (L.) Hill. 2n=14. CH: ct. of Wallis, N.W of the station of Sorebois, N.W.
of Zinal, 2550 m a.s.l. (No. 11802, cult. 11666).

- Rumex acetosa* L. 2n=14,15. CH: ct. of Wallis, between Alesse and Combe, 6 km N.N.W of Martigny, 1000 m a.s.l. (No. 32951). 2n=15. CH: ct. of Zürich, Robenhausen at the lake of Pfäffikon, 540 m a.s.l.
- R. acetosella* L. 2n=14. CH: ct. of Tessin, N.E. bank of the river of Maggia, S. of Locarno, 200 m a.s.l. (No. 23871).
- R. alpinus* L. 2n=20. CH: ct. of Freiburg, N. of Le Sori, 3.5 km N.E. of Mount Vanil Noir, 1450 m a.s.l. (No. 10100). 2n=20. CH: ct. of Wallis, Sommet de Proz, 4 km N.E. of the pass of Gr. St. Bernhard, 1940 m a.s.l. 2n=20. CH: ct. of Wallis, Bifigjini, 1 km N.W. of Zwischbergen, 1830 m a.s.l. 2n=20. CH: ct. of Graubünden, Sur, 9 km N.W. of the pass of Julier, 1600 m a.s.l. (No. 84013).
- R. angiocarpus* Murb. 2n=42. CH: ct. of Aargau, Birrhard at Brugg, 370 m a.s.l. (No. 11751).
- R. arifolius* All. 2n=15. CH: ct. of Solothurn, Bettlachberg, 3 km N. of Grenchen, 1150 m a.s.l. 2n=14, 15. CH: ct. of Wallis, S of Zinal in the Val d'Anniviers, 1820 m a.s.l. (No. 27718a, cult. 12020). 2n=14, 15. CH: ct. of Graubünden, Pisciadel, 5 km S.E. of the pass of Bernina, 1430 m a.s.l.
- R. conglomeratus* Murray. 2n=20. CH: ct. of Tessin, 1 km S.E. of Tenero at Locarno, 200 m a.s.l. (No. 23881).
- R. maritimus* L. 2n=40. CH: ct. of Jura, E of Neuf Etang, 1 km S.E. of Bonfol, 440 m a.s.l. (No. 23896).
- R. obtusifolius* L. 2n=40. CH: ct. of Schaffhausen, Grafenwiesen at the river of Wutach, 1 km N.E. of Wunderklingen, 420 m a.s.l.
- R. pulcher* L. 2n=20. CH: ct. of Tessin, S. of Locarno, 200 m a.s.l. (No. 23875). 2n=20. I: Sassella, 2 km W. of Sondrio in the valley of Veltlin, 350 m a.s.l.
- R. sanguineus* L. 2n=20. CH: ct. of Aargau, between Gupf and Binzen S. of Scherz at Brugg, 430 m a.s.l. (No. 10050). 2n=20. CH: ct. of Schaffhausen, Grafenwiesen at the river of Wutach, 1 km N.E. of Wunderklingen, 420 m a.s.l. (No. 10335).
- R. scutatus* L. 2n=20. CH: ct. of Wallis, S.E. of the lake of Emosson, W. of Martigny, 1980 m a.s.l. (No. 11889, cult. 11667). 2n=20. CH: ct. of Wallis, Baltschiedertal, N. of Eggerberg, 900-950 m a.s.l. (No. cult. 12021).

*

Reports by Kevin B. JENSEN, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, U.S.A., and K. HIGHNIGHT & K.J. WIPFF, Soil and Crop Science Department and Department of Range Science, Texas A & M University, College Station, Texas 77843, U.S.A. Vouchers in TAES and UTC.

POACEAE

- Anthaeatia villosa* (Michx.) Beauv. 2n=20. Texas, Trinity County. Northrup 041.
- Elymus agropyroides* K. Presl. 2n=28. Argentina. PI-204186.
- E. atratus* (Nevski) Hand.-Mazz. 2n=42. China: "Northwestern". Dewey 2785.
- E. breviristatus* (Hitchc.) A. Love. 2n=42. China: "Northwestern". Dewey 2786.
- E. donianus* (T.B. White) A. Love & D. Love. 2n=28. Scotland. Schaeffer. s.n.
- E. jacquemontii* (Hook. f.) Tzvelev. 2n=42. India: Kashmir. Kerguelen. s.n.
- E. longearistatus* (Boiss.) Tzvelev. 2n=28. Iran. PI-401276.
- E. pendulinus* (Nevski) Tzvelev. 2n=42. USSR: Altai. Dewey 2736.
- Erianthus contortus* Baldw. 2n=30. Texas, Rusk County. Wipff 682.
- E. giganteus* (Walt.) Muhl. 2n=60. Texas, Orange County. Wipff 633.
- E. strictus* Baldw. 2n=18. Texas, Newton County. Wipff 642.
- Glyceria septentrionalis* Hitchc. 2n=20. Texas, Brazos County. Wipff 072.
- Pennisetum ciliare* (L.) Link. 2n=45. South Africa. PI-409704.

P. ciliare (L.) Link. 2n=63. South Africa. PI-409704 O.T.
P. ciliare (L.) Link. 2n=90. South Africa. PI-409704 O.T.P.

P. meianum Leekc. 2n=32. India. PI-214061.

P. sphacelatum (Nees) Th. Dur. & Schinz. 2n=18. South Africa. PI-410316.

Psathyrostachys huashanica Keng. 2n=14. China: Shaanxi Province. Dewey 3377, and Dewey 3430.

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Reports by Neiva I. PIEROZZI & Neusa D. da CRUZ, Secao de Citologia, Instituto Agro-nomico, Campinas, SP, Brazil 13020. Vouchers in UEC.

LYTHRACEAE

Lafoensia densiflora Pohl. 2n=16+1 or 2B chromosomes. Campinas, Sao Paulo State, Brazil. UEC 20981.

RUBIACEAE

Genipa americana L. 2n=20. Campinas, Sao Paulo State, Brazil. UEC 20983.

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Reports by WANG Guangxi & WANG Huiquin, Department of Biology, Wuhan University, Wuchang 430072, Hubei, P.R. China. Vouchers in WH.

PONTEDERIACEAE

Eichhornia crassipes (Mart.) Solms. 2n=32. Hubei. G.X. Wang 1032.

Monochoria hastata (L.) Solms. 2n=28. Hubei. G.X. Wang 1045.

M. korsakowii Regel et Maack. 2n=52. Liaoning. G.X. Wang 1042.

M. vaginalis (Burm. f.) Presl ex Kunth. 2n=52. Hubei. G.X. Wang 1012.

*

Reports by YOU JUN, Department of Biology, Wuhan University, Wuchang 430072, Hubei, P.R. China. Vouchers in WH.

NAJADACEAE

Najas ancistrocarpa A.Br. ex Magnus. 2n=12. Hubei. You Jun 8701.

N. browniana Rendle. 2n=12. Guangxi. You Jun 8706.

N. foveolata A.Br. ex Magnus. 2n=12. Yunnan. You Jun 8802.

N. gracillima (A.Br.) Magnus. 2n=12. Yunnan. You Jun 8809.

N. graminea Del. 2n=12. Yunnan. You Jun 8804.

N. graminea Del. 2n=36. Hubei. You Jun 40.

N. marina L. 2n=12. Hubei. You Jun 19.

N. minor All. 2n=24. Hubei. You Jun 18.

N. marina Miki. 2n=60. Hubei. You Jun 41.

*

Reports by ZHANG Shouzhou & MA Yuchuan, Department of Biology, Inner Mongolia University, Huhhot, P.R. China. All localities in Inner Mongolia, China except the one from Xinjiang. Vouchers in HIMC.

FABACEAE

Astragalus discolor Bge. 2n=16. Helan Shan. S.Z. Zhang 8857.

- A. hoanthy* Franch. 2n=16. Helan Shan. Y. Tian. 8840.
A. grubovii Sancz. 2n=32. Sinid Zuoqi. Y.C. Ma 9.
A. junatovii Sancz. 2n=16. Urad Houqi. S.P. Yong 119.
A. kurtschamensis Bge. 2n=16. Helan Shan. Y.C. Ma 88.
A. mahoschanicus Hand.-Mazz. 2n=16. Helan Shan. S.Z. Zhang 8856.
A. melilotoides Pall. var. *tenuis* Turcz. 2n=32. Daqing Shan. S.Z. Zhang 8888.
A. monophyllus Bge. 2n=16. Yabrai Shan. Alxa. Z.Y. Guo 0127.
A. lioui Tsai et Yu. 2n=16. Ejin Qi. Z.Y. Zhu 139.
A. scaberimus Bge. 2n=16. Horqin Youyi Qianqi. Y.C. Ma 2036.
A. tataricus Franch. 2n=16. Helan Shan. S.Z. Zhang 8844.
A. variabilis Bge. 2n=16. Inggen, Alxa. S.R. Liu 221.
Caragana erinaceae Kom. 2n=32. Cultivated in Huhhot. S.Z. Zhang 8709.
C. camilli-schneideri Kom. 2n=32. Yili, Xinjiang. B.R. Pan 84014.
Halimodendron halodendron (Pall.) Voss. 2n=16. Tengger desert. Y.C. Ma s.n.
Oxytropis aciphylla Ledeb. 2n=16. Urad Houqi. Y.Z. Zhao 1079.
O. deflexa (Pall.) D.C. 2n=16. Helan Shan. S.Z. Zhang 8854.
O. diversifolia Pet. Stib. 2n=16. Urad Houqi. Y.Z. Zhao 10135.
O. filiformis D.C. 2n=32. Xi Ujimqin Qi. B.S. Ruo 125.
O. glabra D.C. 2n=16. Bayan Hot, Alxa Zuoqi. S.Z. Zhang 8843.
O. gracilima Bge. 2n=16. Tumd Zuoqi. S.Z. Zhang 88119.
O. grandiflora (Pall.) D.C. 2n=32. Horqin Youyi Qianqi. J.R. Wu 1326.
O. hirta Bge. 2n=16. Tumd Zuoqi. S.Z. Zhang 8860.
O. latibracteata Jurtz. 2n=16. Helan Shan. Y. Tian. 8822.
O. leptophylla (Pall.) D.C. 2n=16. Wolong Shan Jining. E.R. Shen 77.
O. mandshurica Bge. 2n=16. Daqing Shan. S.Z. Zhang 8817.
O. squammulosa D.C. 2n=16. Darhan Muminggan Lianheqi. Y.C. Ma 158.
O. tragacanthoides Fisch. 2n=32. Langshan, Urad Houqi. S.Z. Zhang 8859.
ORCHIDACEAE
Cypripedium shanxiense S.C. Chen. 2n=20. Daqing Shan. Y. Tian. 88601.
PINACEAE
Picea crassifolia Kom. 2n=24. Helan Shan. S.Z. Zhang 8855.
PLUMBAGINACEAE
Plumbagella micrantha (Ledeb.) Spach. 2n=12. Helan Shan. S.Z. Zhang 8858.
THYMELAEACEAE
Stellera chamaejasme L. 2n=18. Zhuozi County. Y.C. Ma 45.

6. IOPB Symposium 1989, Kyoto: Highlights

by William F. Grant, Department of Plant Science, P.O. Box 4000, Macdonald College of McGill University, Ste. Anne de Bellevue, Quebec, Canada H9X 1CO.

Participants from 23 different countries attended the five day IOPB symposium "Biological Approaches and Evolutionary Trends in Plants", July 10 to 14, 1989, organized under the Chairmanship of Shoichi Kawano, Kyoto University, and held at the Kyoto Municipal Hall, Kyoto, Kyoto. Highlights of the Symposium included 22 papers by invited speakers: three