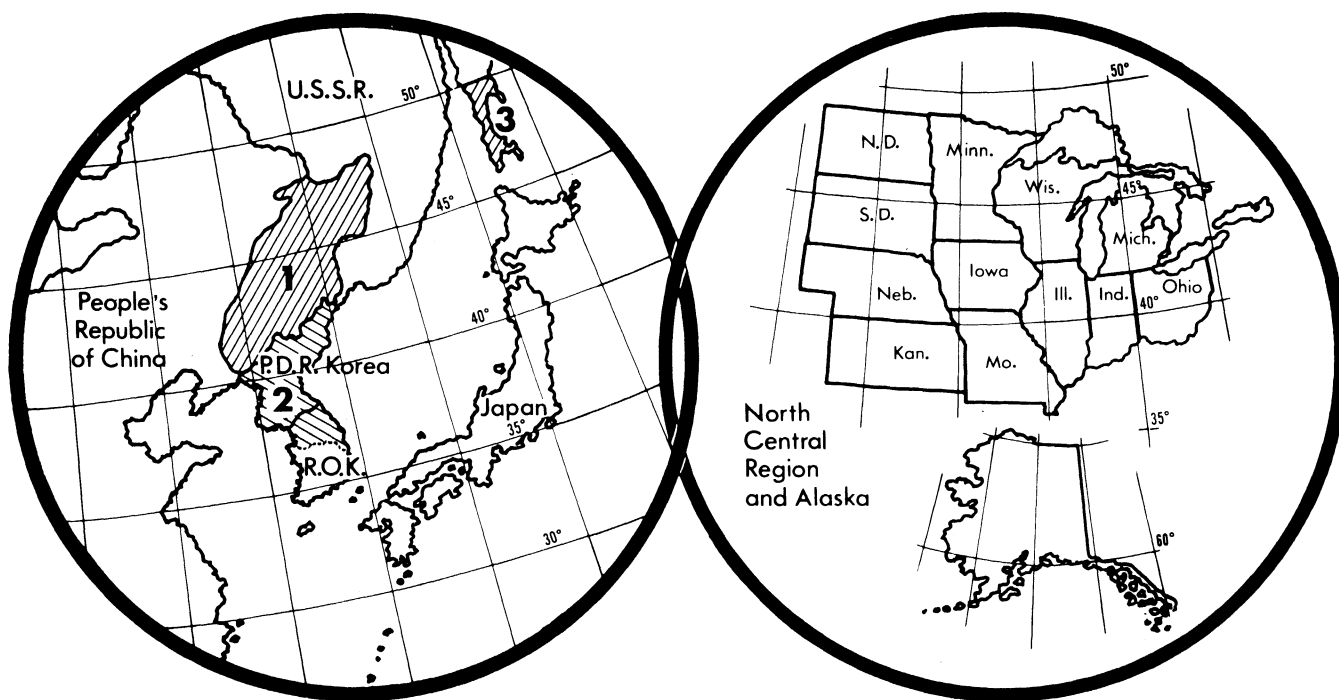


OCT 15 '74

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Woody Floras from Mid-Northern Korea, Southeastern Manchuria, and Southern Sakhalin Adaptable to the North Central United States

MAKOTO KAWASE



- 1. Southeastern Manchuria
- 2. Mid-Northern Korea
- 3. Southern Sakhalin

DEPARTMENT OF HORTICULTURE

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
WOOSTER, OHIO

Contents

Mid-northern Korean Woody Flora	1
Southeastern Manchurian Woody Flora	10
Woody Flora in Southern Sakhalin	20

Foreword

One of the most important requirements for woody plant materials in the North Central region of the United States is winter hardiness. Some hardy plant materials in the region are those introduced from high latitude areas of the U. S. A. or other countries. Some are also progenies of introduced hardy plant materials.

For instance, about 11% of the shrubs and 12% of the trees recommended in Zones I through V of the U. S. are native in northern Japan. Some of these species are undoubtedly native also in Korea, Manchuria, Sakhalin, and other areas of the world. It is possible that they include much hardier ecotypes than those introduced earlier in this country.

Mid-northern Korea (approximately between latitudes 37° North and 42.5° North); Southeastern Manchuria (approximately between latitudes 40° North and 48.5° North) including the basins of the rivers Ussuri, Sungari, and Amur; and Southern Sakhalin (approximately between latitudes 46° North and 50° North) are known to be rich sources of hardy woody plant materials. Introduction of woody plant materials from these areas would increase not only numbers of hardy plant species, but also the hardiness of the existing plant materials by hybridization.

As a member of the NC-7 Ornamental Subcommittee, the author compiled available woody species in Mid-northern Korea, Southeastern Manchuria, and Southern Sakhalin. It is anticipated that the compilation may be helpful to those interested in introducing hardy woody plant materials from these areas.

Plant names have been updated as much as possible to be consistent with present nomenclature. The author has checked all plant names by comparing them to the following authoritative sources: (a) Kelsey, Harlan P. and William A. Dayton, 1942, Standardized Plant Names, 2nd ed., J. Horace McFarland Co., Harrisburg, Pa.; (b) Rehder, Alfred, 1940, Manual of Cultivated Trees and Shrubs, 2nd ed., MacMillan Co., New York, New York; and (c) Makino, Tomitaro, 1962, Makino's New Illustrated Flora of Japan, Revised Edition, Hokuryukan, Tokyo, Japan.

Mid-northern Korean Woody Flora

Names of woody plants in Mid-northern Korea¹ were compiled from the 22-volume reference, *Flora Sylvatica Koreana*², except for Gymnospermae plants. *Flora Koreana*³ and *An Enumeration of Plants Hitherto Known From Korea*⁴ were used for listing Gymnospermae.

Some plants in this compilation have not been covered by the sources listed in the Foreword. These plants are denoted by asterisks following their names. When genus and species names of a plant are covered, but its variety name is not covered, only the variety name is underlined and denoted by an asterisk following the name.

¹ Mid-northern Korea includes, in this compilation, People's Democratic Republic of Korea and two northern provinces of the Republic of Korea, Gangweon Do and Gyeong-gi Do.

² Nakai, Takenoshin. 1915-1939. *Flora Sylvatica Koreana*. Forest Experimental Station, Government General of Korea, Seoul, Korea. The work, written in Japanese and Latin, is made up of 22 volumes. The work describes the history of taxonomic study of each family in Korea, taxonomic keys for genera, taxonomic keys for species, morphological description of each species, and distribution in Korea and throughout the world. Sometimes the author describes the specific geographic location where the sample for the study was collected. Illustrations of plants are excellent. The USDA National Agricultural Library call number for this work is 450.15 N 14.

³ Nakai, Takenoshin. 1911. *Flora Koreana*. J. College of Science, Imperial University, Tokyo, 31:379-384. Written in Latin without illustration. The USDA National Agricultural Library call number is 513 T57 Vol. 31.

⁴ Mori, Tamezo. 1922. *An Enumeration of Plants Hitherto Known From Korea*. Government of Korea. Written in Japanese without illustration. The USDA National Agricultural Library Call number is 460.15 M82.

Mid-northern Korean Woody Flora

Angiospermae

Aceraceae

Acer ukurunduense
A. ginnala
A. pseudo-sieboldianum
A. nudicarpum
A. ishidoyanum *
A. mandshuricum
A. triflorum
A. pictum
A. tegmentosum
A. tschonoskii
A. barbinerve

Betulaceae

Corylus heterophylla
C. mandshurica

Carpinus cordata

Betula mandshurica
B. davurica
B. fructicosa
B. ermani
B. costata
B. schmidtii
B. chinensis

Alnus fructicosa
A. sibirica

Fagaceae

Castanea mollissima

Quercus acutissima
Q. serrata
Q. mongolica
Q. major*
Q. dentata

Rosaceae

Sorbaria sorbifolia

Exochorda serratifolia

Spiraea salicifolia
S. microgyna*
S. silvestris
S. koreana

Spiraea cont.

S. ulmifolia
S. media
S. pubescens
S. trilobata
S. trichocarpa

Neillia uekii

Opulaster amurensis

Prunus maackii
P. padus
P. maximowiczii
P. triloba
P. nakaii
P. tomentosa
P. mandshurica
P. triflora

Prinsepia sinensis

Sorbus amurensis

S. alnifolia var. macrophylla*

Malus baccata
M. asiatica

Pyrus acidula*
P. ussuriensis
P. macrostipes*
P. calleryana
P. " var. fauriei
Crataegus pinnatifida var. typica*
C. " var. psilosa*
C. maximowiczii
C. komarovi*

Rosa maximowicziana
R. multiflora
R. rugosa
R. davurica
R. acicularis
R. rubro-stipullata*
R. koreana

Rosaceae cont.

Dryas octopetala

Rubus arcticus

R. crataegifolius

R. idaeus var. microphyllus

Potentilla fruticosa

Ericaceae

Ledum palustre

Phyllodoce caerulea

Rhododendron parvifolium

R. confertissimum

R. dauricum

R. redowskianum*

R. chrysanthum

R. schlippenbachii

Arctous alpinus

Oxycoccus pusillus*

Vaccinium vitis-idaea

V. uliginosum

V. buergeri

Rhamnaceae

Zizyphus sativa

Rhamnus schneideri

R. koraiensis

R. shozyoensis*

R. diamantiaca*

R. parvifolia

R. davurica

Oleaceae

Forsythia viridissima

F. ovata

Fraxinus rhynchophylla

F. mandshurica

Oleaceae cont.

Syringa amurensis
S. fauriei
S. dilatata
S. micrantha*
S. velutina
S. palibiniana
S. formosissima
S. robusta

Caprifoliaceae

Sambucus latipinna*

Viburnum burejaeticum
V. wrightii
V. koreanum*
V. pubinerve*

Abelia coreana*

Lonicera japonica
L. maackii
L. chrysantha
L. ruprechtiana
L. coerulea
L. coerulea var. venulosa*
L. vesicaria
L. praeflorens
L. monantha*
L. subhispida*
L. sachalinensis

Diervilla praecox
D. florida
D. subsessilis*

Vitaceae

Ampelopsis japonica
A. heterophylla
A. thunbergii*

Tiliaceae

Tilia amurensis
T. rufa*
T. koreana*
T. taquetii*
T. mandshurica
T. megaphylla*
T. ovalis*

Symplocaceae

Symplocos paniculata

Styracaceae

Styrax obassia

Labiatae

Thymus przewalski

Bignoniaceae

Catalpa ovata

Compositae

Artemisia besseriana*
A. gmelini*
A. messerschmidtiana*

Saxifragaceae

Ribes distans
R. ussuriense
R. procumbens
R. manshuricum
R. burejense
R. horridum*

Philadelphus mandshuricus
P. tenuifolius
P. schrenckii

Deutzia paniculata*
D. prunifolia*
D. glabrata
D. parviflora

Araliaceae

Acanthopanax sessiliflorus
A. rufinerve*
A. senticosus

Kalopanax pictus

Oplopanax elatus

Aralia elata

Cornaceae

Cornus alba
C. controversa
C. canadensis

Thymelaeaceae

Daphne kamtschatica

Theaceae

Stewartia koreana

Salicaceae

Chosenia bracteosa

Salix maximowiczii*
S. pentandra var. intermedia
S. triandra
S. rorida*
S. kangensis*
S. graciliglans
S. gracilistyla
S. gilgiana
S. integra
S. purpurea
S. floderusii*
S. hallaisanensis*
S. sericea-cinerea
S. bicarpa*
S. meta-formosa*
S. orthostemma*
S. rotundifolia
S. berberifolia*
S. myrtilloides
S. sibirica var. brachypoda*
S. pseudo-lasiogne*
S. dependens*
S. viminalis
S. stipularis
S. siuzevii*

Populus ezoensis*
P. davidiana
P. koreana
P. maximowiczii
P. simonii

Ulmaceae

Ulmus macrophylla*
U. laciniata
U. macrocarpa
U. manshurica
U. davidiana

Zelkova serrata

Hemiptelea davidii

Celtis cordifolia*
C. bungeana
C. jessoensis
C. koraiensis
C. aurantiaca*
C. edulis*

Moraceae

Morus mongolica

Juglandaceae

Juglans mandshurica

Magnoliaceae

Schizandra chinensis
Magnolia parviflora

Berberidaceae

Berberis poireti
B. amurensis

Gramineae

Sasa coreana*

Gymnospermae

Taxaceae

Taxus cuspidata

Pinaceae

Abies holophylla
A. nephrolepis

Juniperus chinensis
J. " var. sargentii
J. nana
J. rigida
J. conferta

Larix davurica*
L. " var. principis-ruprechtii*

Picea ajanensis
P. koraiensis
P. obovata

Pinus densiflora
P. koraiensis
P. pumila
P. funebris

Thuja orientalis
T. koraiensis
T. standisii

Southeastern Manchurian Woody Flora

Names of woody plants presently known to exist in Southeastern Manchuria¹ were compiled primarily from the work by Kitagawa². A few species reported by Inoue³ are also included.

There is uncertainty whether some plants in the list are woody or herbaceous plants. Those plants are denoted by asterisks preceding their names. In other cases, some plants in this compilation are not covered by the sources used. These plants are denoted by asterisks following their names.

¹ The geographical region called Southeastern Manchuria in this compilation consists of that part of the People's Republic of China bordered by the U.S.S.R. to the north and east, People's Democratic Republic of Korea to the south, and an imaginary line passing through the cities of Mukden and Harbin to the west (Fig. 1). This area is located roughly between latitudes 40° North and includes the basins of the Rivers Ussuri, Sungari, and Amur. In his book, Dr. Kitagawa refers to this area as the Manchurian Flora District.

² Kitagawa, Masao. 1939. *Lineamenta Florae Manshuricae*. Rept. of the Institute of Scientific Research, Manchukuo, Vol. 3, appendix 1, Hsinking, Manchuria. This is a one-volume work in Japanese which includes the study of 133 families, 720 genera, and 2109 species in Manchuria. For each species, the book identifies the following information without illustration: the Latin name, reference for identification, Latin synonyms, the Japanese name, its distribution in Manchuria and throughout the world, and some of its economical and medicinal uses. This book is available at the USDA National Agricultural Library under the call number, 460.14 K64.

³ Inoue, M. 1936. Notes on Some Plants from Manchuria and Korea. *Amatorea Herbarii* (Japan), 5:54-57. Its call number at the USDA National Agricultural Library is J 450 Am 12 Vol. 5.

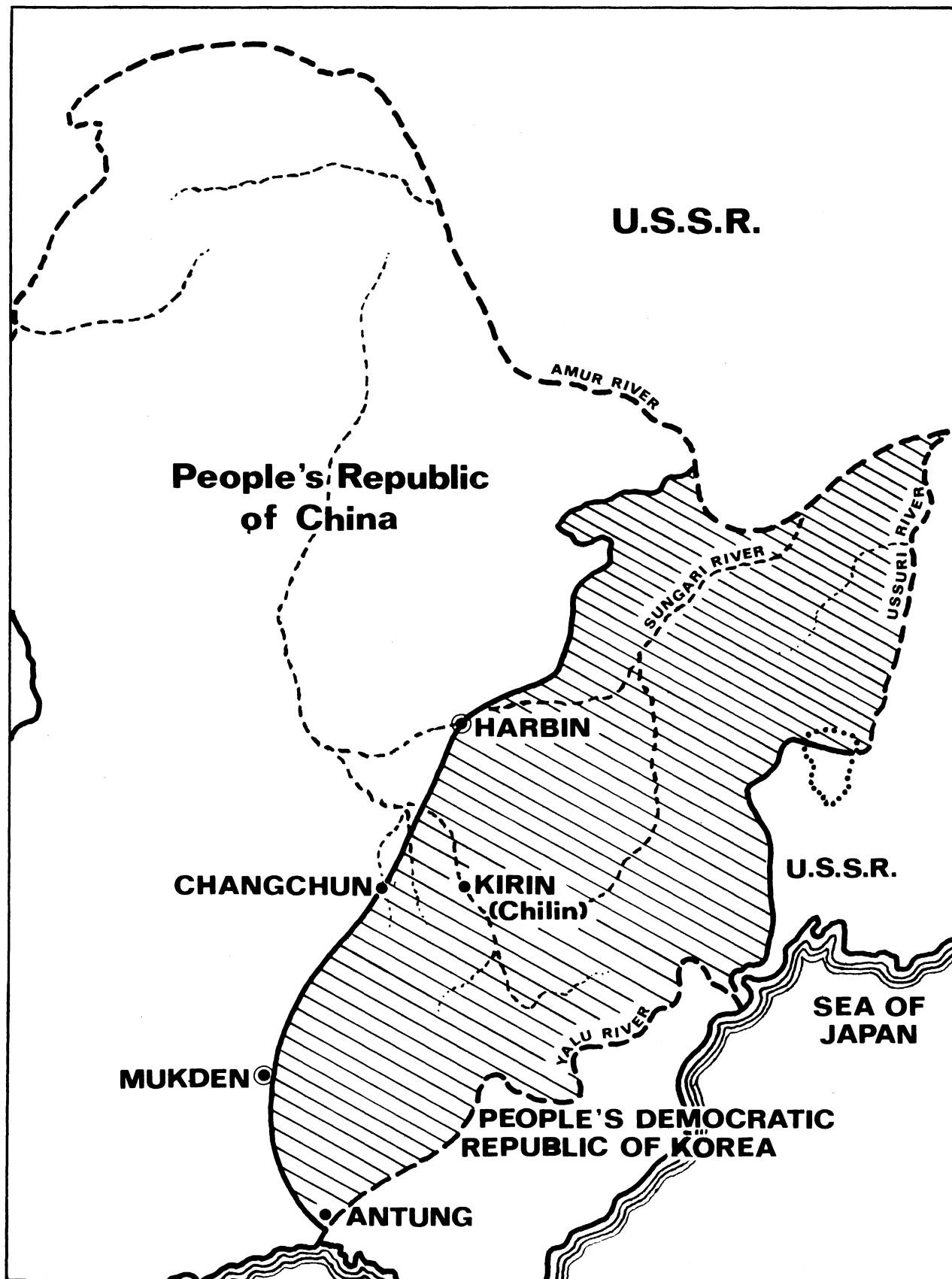


Figure 1.--Southeastern Manchuria.

Southeastern Manchurian Woody Flora

Gymnospermae

Taxaceae

Taxus cuspidata

Pinaceae

Abies holophylla

A. nephrolepsis

Larix olgensis

Picea jezoensis

P. koraiensis

Pinus densiflora

P. koraiensis

P. pumila

P. sylvestris

P. tabulaeformis

Juniperus rigida

J. sibirica

Thuja koraiensis

Angiospermae

Liliaceae

Smilax oldhami

Salicaceae

Chosenia macrolepis*

Populus davidiana

P. koreana

P. maximowiczii & P. maximowiczii var. barbinervis

P. simonii

Salix brachypoda*

S. caprea

S. gilgiana

S. gracilistyla

S. integra

S. kangensis

S. koreensis

Salix maximowiczii*
S. mongolica*
S. myrtilloides var. manchurica
S. nipponica
S. polyadenia*
S. pseudo-lasiogyne*
S. purpurea
S. raddeana*
S. rotundifolia (?)
S. siuzevii*
S. tenuifolia*
S. viminalis
S. xerophila*

Juglandaceae

Juglans mandchurica
Pterocarya stenoptera

Betulaceae

Alnus hirsuta
A. japonica
A. mandshurica

Betula chinensis
B. costata
B. davurica
B. ermani & B. ermani var. tomentosa
B. humilis var. ruprechtii
B. middendorffii
B. platyphylla var. mandshurica
B. schmidtii

Carpinus erosa*
Corylus heterophylla
C. mandshurica

Quercus acutidentata*
Q. acutissima
Q. dentata
Q. mongolica & Q. mongolica var. manshurica
Q. variabilis

Ulmaceae

Celtis aurantiaca*
C. bungeana
Hemiptelea davidii

Ulmus laciniata
U. macrocarpa
U. propinqua*
U. davidiana & U. davidiana var. japonica
U. pumila

(?): Name is uncertain to Dr. Kitagawa

Moraceae

Humulus japonicus
Morus alba var. romana
M. bombycis
M. mongolica

Loranthaceae

Viscum coloratum*

Aristolochiaceae

Aristolochia contorta
A. manshuriensis

Ranunculaceae

Paeonia albiflora & P. albiflora var. hirta
P. obovata

Clematis aethusifolia
C. brevicaudata
C. ianthina* & C. ianthina var. mandshurica*
C. fusca var. umbrosa
C. hexapetala*
C. koreana
C. mandshurica
C. ochotensis
C. patens
C. serratifolia
C. tubulosa

Berberidaceae

Berberis amurensis
B. poireti

Menispermaceae

Menispermum dauricum

Magnoliaceae

Magnolia parviflora

Schizandra chinensis

Saxifragaceae

Deutzia glabrata
D. parviflora
D. prunifolia*

Philadelphus schrenkii
P. mandshuricus
P. tenuifolius

Saxifragaceae cont.

- Ribes burejense
- R. diacanthum
- R. horridum (?)
- R. komarovi*
- R. mandshuricum var. subglabrum
- R. maximowiczii
- R. pallidiflorum*
- R. ussuriensis (?)

Rosaceae

- Crataegus maximowiczii
- C. pinnatifida & C. pinnatifida var. psilosa

Exochorda serratifolia

Malus baccata

Neillia uekii

Physocarpus amurensis

Potentilla anserina

- P. bifurca
- * P. centigrana
- * P. chinensis
- * P. cryptotaeniae & C. cryptotaeniae var. obtusata
- * P. discolor
- P. flagellaris*
- * P. fragarioides & P. fragarioides var. sprengeliana
- * P. freyniana
- P. fructicosa
- P. kleiniana
- * P. nivea var. camtschatica
- P. paradoxa*
- P. rugulosa*
- P. sericea var. multicaulis*
- P. sibirica*
- P. simulatrix var. grossidens*
- P. viscosa var. macrophylla*
- * P. yokusaiana

Prinsepia sinensis

Prunus ansu

- P. humilis
- P. leveilleana*
- P. maackii

Prunus cont.

- P. mandshurica
- P. maximowiczii
- P. nakaii
- P. padus & P. padus var. pubescens
- P. salicina
- P. sibirica
- P. tomentosa
- P. triloba var. truncata
- P. ussuriensis*

Rosa davurica

- R. koreana
- R. maximowicziana
- R. pimpinellifolia
- R. polyantha var. genuina*
- R. suavis*

Rubus crataegifolius

- R. idaeus & R. idaeus var. microphyllus
- R. parvifolius
- R. palmatoides
- R. triphyllos

Sorbaria sorbifolia var. stellipila

Sorbus alnifolia

- S. amurensis
- S. pohnashanensis

Spiraea chamedryfolia

- S. fritschiana
- S. media var. monbetsuensis*
- S. media var. sericea
- S. pubescens & S. pubescens var. glabrescens
- S. salicifolia
- S. trichocarpa
- S. trilobata

Leguminosae

- Caragana chamlagu
- C. manshurica*

Gleditsia horrida

Indigofera kirilowii

Lespedeza bicolor

- L. cyrtobotrya
- L. davurica*
- L. hedysaroides var. subsericea*
- L. hedysaroides var. umbrosa*

Maackia amurensis

Robinia pseudoacacia

Rutaceae

Evodia daniellii

Fagara mantchurica

Phellodendron amurense

P. japonicum

Simarubaceae

Picrasma ailanthoides

Euphorbiaceae

Andrachne chinensis

Celastraceae

Celastrus articulata

C. flagellaris

Euonymus alatus & E. alatus var. typicus

E. maackii

E. macropterus

E. pauciflorus

E. sachalinensis

Tripterygium regelii

Staphyleaceae

Staphylea bumalda

Aceraceae

Acer barbinerve

A. ginnala

A. mandshuricum

A. mono

A. pseudo-sieboldianum

A. tegmentosum

A. triflorum

A. tschonoskii

A. ukurunduense

Rhamnaceae

Rhamnus arguta

R. davurica

R. parviflorus

R. schneideri

Vitaceae

Ampelopsis brevipedunculata

A. humulifolia

A. japonica

Parthenocissus thunbergii*

Vitis amurensis

Tiliaceae

Tilia amurensis
T. mandshurica

Actinidiaceae

Actinidia arguta
A. kolomikta
A. polygama

Thymelaeaceae

Daphne koreana*

Alangiaceae

Marlea macrophylla

Araliaceae

Acanthopanax sessiliflorus

Aralia continentalis*
A. elata

Eleutherococcus senticosus

Kalopanax pictus

Cornaceae

Cornus alba
C. controversa

Ericaceae

Arctous ruber (?)

Ledum palustre & Ledum palustre var. maximum both(?)

Oxycoccus microcarpus*

Phyllodoce coerulea

Rhododendron chrysanthum

R. confertissimum

R. dauricum

R. micranthum

R. mucronulatum & R. mucronulatum var. ciliatum

R. parvifolium

R. redowskianum*

R. schleichenbachii

Symplocaceae

Palura chinensis

Styracaceae

Styrax obassia

Oleaceae

Fraxinus mandshurica
F. rhynchophylla

Forsythia mandshuricum*

Syringa amurensis
S. oblata
S. palibiniana
S. velutina
S. robusta
S. wolffi

Verbenaceae

Clerodendron trichotomum

Solanaceae

Lycium chinense

Caprifoliaceae

Abelia coreana*

Lonicera coerulea & L. coerulea var. glabrescens
L. chrysantha & L. chrysantha var. longipes
L. japonica
L. maackii
L. maximowiczii
L. praeflorens
L. ruprechtiana
L. tatarinovii
L. vesicaria

* Sambucus buergeriana*
S. williamsii

Viburnum burejaeticum
V. koreanum*
V. mongolicum
V. sargentii & V. sargentii var. puberulum

Weigela florida
W. praecox

Woody Flora in Southern Sakhalin

Names of woody plants known to exist in Southern Sakhalin¹ were compiled primarily from the sources listed in the foot note².

Some plants in this compilation have not been covered by the sources described in the Foreword. These plants are denoted by asterisks following their names. When genus and species names of a plant are covered, but its variety name is not covered by the sources, the variety name is underlined and an asterisk is placed at the end of the name.

¹ Southern Sakhalin represents, in this compilation, the southern half of the Sakhalin Island below the latitude 50° North.

² Miyabe, Kingo and Tsutomu Miyake. 1915. Flora of Saghalin. Government of Sakhalin, Buneido, Hokkaido, Japan. This one-volume work is written in Japanese and covers 92 families, 369 genera, and 774 species. It contains finding keys for all families in Southern Sakhalin, taxonomic keys for genera, and taxonomic keys for species. For each species, the work describes Japanese and Latin names, references for identification, morphological description, economical and medicinal uses, and distribution in Southern Sakhalin and throughout the world. Illustrations are limited to 13 plates. Its USDA National Agricultural Library call number is 460.15 M69F.

³ Sugawara, Shigezo. 1937-1940. Illustrated Flora of Saghalien with Descriptions and Figures of Phanerogams, and Higher Cryptogams Indigenous to Saghalien. Ganshodo, Tokyo. It is written in Japanese. The work contains beautiful drawings of all species, Latin names and synonyms, and Japanese names, morphological description, sampling dates and locations of the specimens studied, ecological behavior, and distribution in Southern Sakhalin and throughout the world. The only four volumes (1-4) are held by USDA National Agricultural Library with a call number of 460.15 Su3, although the author announced in 1940 the coming of a 5th volume covering general indices.

Woody Flora in Southern Sakhalin

Angiospermae

Ranunculaceae

- Clematis alpina var. ochotensis *
C. fusca var. yezoensis *

Magnoliaceae

- Schisandra chinensis
S. silene *
S. kawashimai *
S. keiskei var. procumbens *
S. repens var. latifolia *
S. venosa *

Actinidiaceae

- Actinidia arguta
A. kolomikta
A. polygama
A. repanda *
A. sugawarana *

Rutaceae

- Phellodendron sachalinense
P. amurense

Skimmia japonica
S. repens var. intermedia *

Aquifoliaceae

- Ilex crenata
I. rugosa
I. radicans *

Celastraceae

- Euonymus alata var. pubescens *
E. hamiltoniana
E. macroptera
E. sachalinensis
E. hians
E. tricarpa
E. yedoensis

Celastrus articulata
C. strigillosus *

Vitaceae

Vitis coignetiae
V. kaempferi

Aceraceae

Acer spicatum
A. pictum var. typicum subvar. eupictum *
A. " " " " mono
A. ukurunduense var. pilasum

Anacardiaceae

Rhus toxicodendron
R. " var. radicans

Rosaceae

Prunus sachalinensis
P. kurilensis
P. maximowiczii
P. padus var. typica *
P. " " pubescens
P. ssiori
P. nipponica
P. serrulata

Spiraea media var. sericea *
S. " " " lusus monstrosus
S. betulifolia
S. " var. aemiliana *
S. " var. mombetsunensis *
S. " var. sericea *
S. salicifolia var. lanceolata
S. " var. latifolia

Sorbaria sorbifolia var. glabra
S. " var. stellipila
S. alpina
S. stellipila var. incerta *

Rubus arcticus
R. melanolasius var. discolor *
R. chamaemorus
R. hisautsii var. subinermis *
R. idaeus var. aculeatissimus
R. " var. microphyllus
R. " var. concolor *
R. pedatus

- * Potentilla megalantha
- * P. anserina
- * P. monspeliensis
- P. fruticosa

- Rosa acicularis var. gmelini *
- R. davurica
- R. rugosa
- R. " var. kamtchatica
- R. marretii

Malus baccata var. mandshurica

- Sorbus japonica
- S. sambucifolia
- S. commixta var. takasuii *
- S. macrophylla *

- Crataegus maximowiczii
- C. sanguinea
- C. chlorosarca
- C. jezoana

Saxifragaceae

- Hydrangea paniculata
- H. " var. bracteata *
- H. " var. intermedia *
- H. petiolaris
- H. " var. ovalifolia *
- H. " var. cordifolia *
- H. " var. glabellum *

- Ribes triste
- R. latifolium
- R. rubrum var. pubescens
- R. laxiflorum
- R. lacustre
- R. grossularia
- R. nigrum
- R. horridum
- R. procumbens
- R. sachalinense
- R. ussuriense

Lythraceae

- * Lythrum salicaria var. vulgare *

Araliaceae

Aralia chinensis var. mandshurica *
A. cordata
A. " var. sachalinensis *
A. elata

Kalopanax ricinifolius
K. pictus var. typicum *

Eleutherococcus senticosus

Cornaceae

Cornus alba
Cornus alba subsp. tatarica *
C. " var. rutokensis *
C. canadensis
C. suecica *
C. subumbellata *

Caprifoliaceae

Sambucus racemosa var. pubescens
S. buergeriana var. lacera *
S. " var. miquelii *

Viburnum opulus var. sargentii
V. furcatum
V. wrightii
V. " var. typicum *
V. sargentii var. calvescens
V. " form. intermedium *

Lonicera glehni
L. maximowiczii var. sachalinensis
L. chamissoi
L. chrysantha
L. " var. crassipes *
L. coerulea var. edulis
L. " var. altaica *
L. " var. glabrescens

Diervilla middendorffiana
D. " var. angustifolia *

Ericaceae

Vaccinium oxycoccos
V. microcarpum *
V. vitis-idaea
V. " " var. merana *

V. vitis-idaea var. prcunosa *
 V. uliginosum
 V. " form. alpinum *
 V. praestans
 V. ovalifolium
 V. hirtum var. smallii
 V. axillare
 V. chamissonis *
 V. versicolor *
 V. yatabei *

Arctous alpinus
 A. japonicus *

Arctostaphylos uva-ursi

Cassiope lycopodioides
 C. redowskii *

Leucothoe grayana
 L. " var. intermedia

Chamaedaphne calyculata

Andromeda polifolia
 A. " var. grandiflora *
 A. " var. minima *

Loiseleuria procumbens

Phyllodoce caerulea
 P. aleutica

Ledum palustre var. vulgare *
 L. " var. dilatatum
 L. " var. angustum *
 L. " var. groenlandicum *
 L. " var. maximum *
 L. " var. minus *
 L. " var. nipponicum
 L. " var. procumbens *
 L. yezoense var. yezoense *
 L. glandulosum

Rhododendron parvifolium
 R. " var. albiflorum *
 R. chrysanthum
 R. kamschaticum
 R. adamsii
 R. redowskianum

Menziesia pentandra

Diapensiaceae

Diapensia lapponica
D. obovata *

Oleaceae

Fraxinus mandshurica

Ligustrum acuminatum
L. yezoense *

Thymaelaeaceae

Daphne kamtchatica
D. yezoensis *

Ulmaceae

Ulmus campestris var. japonica
U. " var. major
U. montana var. laciniata
U. propinqua *
U. " var. laevigata *
U. " var. suberosa *

Moraceae

Morus alba var. stylosa
M. bombycis

Juglandaceae

Juglans sieboldiana var. sachalinensis *

Myricaceae

Myrica gale var. tomentosa *

Betulaceae

Betula ermani var. genuina *
B. " var. acutifolia *
B. " var. incisa *
B. " var. corticosa *
B. " var. parvifolia *
B. " var. subcordata
B. glandulosa
B. middendorffii
B. japonica
B. " var. mandshurica

- B. exilis *
- B. tauschii
- B. " var. avatschensis *
- B. " var. kamtschatica *
- B. " form. laciniata *

Alnus maximowiczii

- A. fruticosa var. sachalinensis *
- A. hirsuta
- A. " var. sibirica

Fagaceae

Quercus mongolica

- Q. grosseserrata
- Q. crispula

Salicaceae

Salix urbaniana

- S. cardiophylla
- S. macrolepis *
- S. cayprea
- S. cinerea
- S. hastata
- S. daphnoides
- S. viminalis
- S. opaca
- S. sachalinensis
- S. cyclophylla *
- S. arbutifolia *
- S. " var. dasycarpa *
- S. " var. psilocarpa *
- S. berberifolia *
- S. buergeriana *
- S. " var. finalis *
- S. hultenii *
- S. " var. angustifolia *
- S. kimurana *
- S. koidzumii *
- S. kudoii *
- S. lackschewitziana *
- S. " var. typica *
- S. nyriwensis *
- S. orochonorum *
- S. pedionoma *
- S. poronaica *
- S. procumbens *
- S. sachalinensis
- S. stoloniferoides *
- S. sugawarana *

S. sugawarana var. ovalifolia *
S. rarissimus *
S. taraikensis *
S. " var. latifolia *
S. tatewakii *
S. tontomussirensis *
S. triandra
S. " var. nipponica *
S. yezoensis *
S. " var. angustifolia *

Populus suaveolens
P. sieboldii
P. davidiana
P. koreana
P. maximowiczii

Empetraceae

Empetrum nigrum
E. " var. japonicum *
E. " form. albicarphm *

Gymnospermae

Taxaceae

Taxus cuspidata

Pinaceae

Juniperus nana
J. chinensis var. procumbens
J. " var. sargentii
J. litoralis
J. communis var. montana
J. conferta

Pinus jezoensis
P. glehnii
P. pumila

Abies sachalinensis
A. nemorensis
A. mayriana
A. wilsonii

Larix dahurica

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